Enal Program

Global **Environmental** Change and Respiratory Health

> AAAAI/WAO **Joint Congress** 2-5 March 2018 ORLANDO, FLORIDA USA #AAAAIWAO18



American Academy of Allergy Asthma & Immunology



A World Federation of Allergy, Asthma & Clinical Immunology Societies

SAVE THE DATE



0

American Academy of Allergy Asthma & Immunology ANNUAL MEETING SAN FRANCISCO, CA · FEBRUARY 22-25, 2019

Food Allergy: Advances in Prevention and Treatment

Welcome

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Dear Colleagues,

Welcome to the 2018 AAAAI/WAO Joint Congress in Orlando, Florida. On behalf of the American Academy of Allergy, Asthma & Immunology (AAAAI) and World Allergy Organization (WAO), we are pleased our organizations could partner to produce the educational program you will experience over the next few days. It all starts with our theme, Global Environmental Change and Respiratory Health, which reflects the unique opportunity of having a Joint Congress.

Consider the following statistics:

- According to the World Health Organization, up to 44% of the asthma burden worldwide is attributable to environmental factors.
- Recent Environmental Protection Agency data reveals that in the United States, 119,401,000
 people live in areas out of attainment for 03, and 23,223,000 people live in areas that are out of
 attainment for PM2.5.
- More than 5.5 million people per year worldwide die prematurely as a result of air pollution.

These figures clearly illustrate a problem, especially when you consider that environmental factors have an impact on economic outcomes such as healthcare spending. Our vision for the Joint Congress is that it will enable us to come together and be objective conveyors of the science behind our theme.

While the theme covers about 20% of our sessions, the remaining 80% were developed through member submissions. Look for the labels and key inside this program to help you determine which relate to the theme or to our other various session tracks.

Add the Plenary and Keynote Sessions to Your Schedule

AAAAI's plenary session, Environmental Impacts on Asthma: Biology to Intervention, is Friday from 2:15 to 3:45 pm and WAO's session, Asthma and Allergic Disorders in an Environment of Continuous Climate Change, follows on Saturday morning from 8:15 to 9:45 am. The slate of plenary sessions continues Sunday morning with Environmental Influences on Innate Immunity-Insights and Mechanisms and wraps up Monday morning with Cutting Edge-Food Allergy Pathogenesis, Diagnosis and Therapy.

Another highlight is our Saturday Keynote presented by Linda Birnbaum, PhD, Director of the National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (NTP). This session will allow you to understand unique interactions between genes and environment that contribute to human health or disease, recognize the global increases in non-communicable diseases that are attributable to environmental conditions and identify opportunities to improve human health by modifying environmental exposures.

Download the Joint Congress App and Join the Conversation on Twitter

If you have your smartphone or tablet, remember to download the official 2018 Joint Congress app. Featuring a new design and navigation, it gives you the ability to: interact with other attendees, easily access session handouts, abstracts and evaluations, search by speakers and add their sessions to your schedule, learn about last minute program changes and navigate the Orange County Convention Center with interactive maps and exhibitor information. One important reason to use the app is to complete evaluations. It is the only way to evaluate faculty, which in turn allows us to make programming improvements. You can download the app from the App Store or Play Store on your device.

You are also encouraged to follow the 2018 Joint Congress on Twitter. Use #AAAAIWA018 when you tweet to participate in onsite conversations and share what you're learning.

We hope you enjoy your time in Orlando and return home inspired by the new knowledge and experiences gained here.

Sincerely,

David B. Peden, MD MS FAAAAI AAAAI President Mario Sánchez-Borges, MD FAAAAI WAC 2018 Congress President

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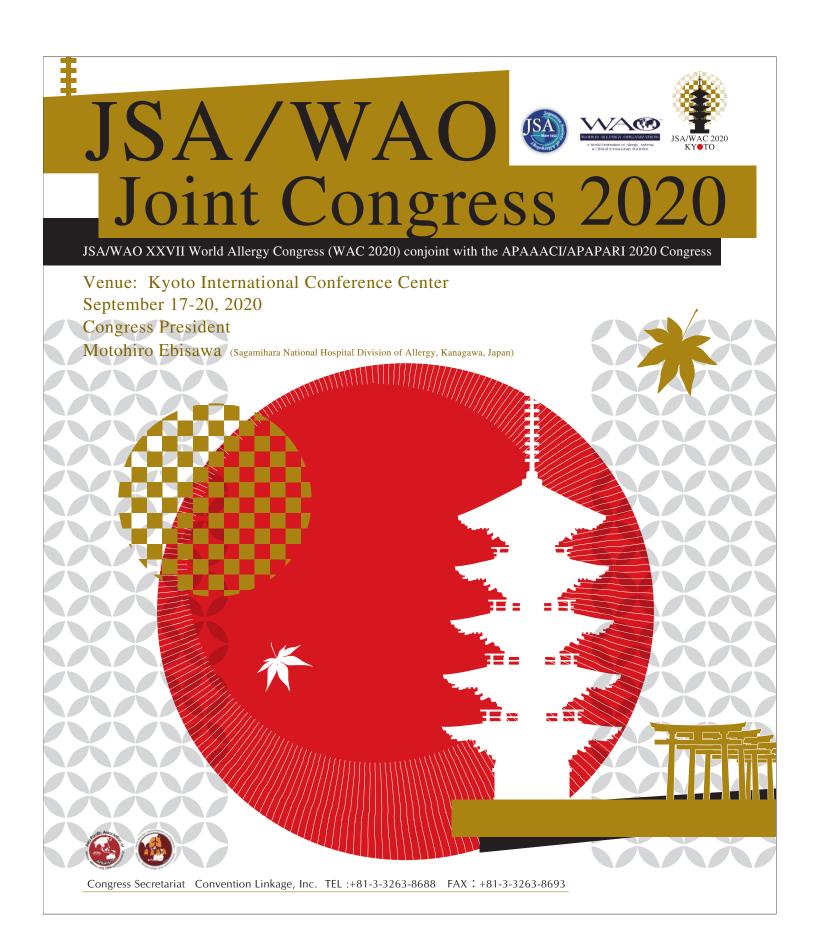
AAAAI-1017-418

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The AAAAI/WAO endorses only those activities described in this printed program. Any other events occurring in the city of Orlando, Florida during the AAAAI/WAO Joint Congress are not sanctioned by the AAAAI/WAO.







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AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA UŚA

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Copies of all Annual Meeting Program Committee and CME/MOC Committee disclosure information is available online at the Joint Congress website and in the Speaker Resource Room.



Joint Congress Programming

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Joint Congress Programming

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While you're in Orlando, use **#AAAAIWAO18** when you tweet to participate in onsite conversations and share what you're learning with your colleagues. Join us in the Social Media Lounge located in the Exhibit Hall.

> The Social Media Lounge is sponsored by Sanofi Genzyme and Regeneron Pharmaceuticals.

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American Academy





Fly Into Savings 2018 VIRTUAL JOINT CONGRESS

The Virtual Joint Congress includes plenaries, the keynote, and various sessions including workshops, symposia, pro/con debates, and courses. These recordings can serve as a resource for training students, residents, fellows, and office staff, and are an excellent tool for satisfying Maintenance of Certification requirements.

The Virtual Joint Congress is available in two options: as a set of courses that can be viewed online, or by downloading the files to your preferred electronic device to save for convenient later viewing. Purchasers will receive notification once the recordings are available online.

Purchase for \$175 at registration or add to existing registration online at https://www4.cmrreg.com/aaaai2018/ through March 5.

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Global Environmental Change and Respiratory Health







Abstracts

Abstracts programmed at the 2018 Joint Congress were published as an online supplement to *The Journal of Allergy and Clinical Immunology* (JACI) and can be accessed on the JACI website, jacionline.org.

American Academy of Allergy, Asthma & Immunology Foundation (AAAAI Foundation)

Convention Center, South Coucourse, Level 2, Across from S220

Visit the AAAAI Foundation desk to pick up your Benefit tickets and 5K Run/Walk race packet. You can also register onsite for both events. Stop by the Foundation desk any time to check out, DipJars, a fun new way to support research.

Admission to Sessions

Admission to Joint Congress educational sessions is reserved for meeting registrants and registered members of the press only. Guests and exhibitors will not be admitted to educational sessions. Ushers will monitor the name badges of all meeting attendees to control access to educational sessions.

Some sessions require tickets for entry, which are indicated in this program with a ticket icon. Ticketed sessions have limited attendance and have an additional fee associated with them. The listing of educational sessions by day includes additional fees. To register for ticketed sessions, please visit the registration desk. In consideration of state fire codes and as a courtesy to others, those without tickets will not be allowed access into ticketed sessions.

Associates to the AAAAI

See Hospitality Suite.

ATMs

ATMs can be found in the Convention Center, South Concourse, Level 2, near both escalators. The Hyatt has ATMs on the Lobby Level between the Market and the Gift Shop, and on the Convention Level adjacent to Regency Q and near Regency V.

Business Center

The onsite FedEx Business Center office is located in the Convention Center, South Concourse, Level 2, near S210A. The FedEx Business Center offers FedEx shipping services, as well as full-service digital printing and copying and is open during regular meeting hours. In partnership with 11th Hour Business Solutions, The Executive Business Center at the Hyatt is on the Convention Level across from Plaza G. The Executive Business Center offers shipping services as well as fullservice digital printing and copying, and is open seven days a week.

Career Fair

Saturday, March 3, 12:00 to 3:15 pm Convention Center, South Concourse, Level 1, South Hall A2

Delegates attending the Joint Congress will have the opportunity to make valuable connections at the Career Connections Job Fair. Employers will be available to meet potential candidates and share information about open positions. Job seekers, regardless of the stage in their career, will also benefit from attending to hand out copies of their resume, browse the onsite job board and set up potential interviews with companies; all at no cost. The AAAAI's recruitment resources open doors to a wealth of possibilities for both the employer and the job seeker. It only takes a moment to make the connection that could lead to the career of a lifetime.

Case Report Poster Session

Hyatt, Convention Level, Regency Foyer

The case report poster session, featuring presentations of case reports in thematic groupings, are open on Friday, March 2 from 12:00 to 2:00 pm. Please see page 59 for details.

Charging Lounges

Relax between sessions and recharge your electronic devices or connect with colleagues in these lounges. We are pleased to offer two locations this year:

Concourse

Sponsored by Sanofi Genzyme and Regeneron Pharmaceuticals. Convention Center, South Concourse, Level 2, near S220 Concourse

Exhibit Hall

Sponsored by Shire. Convention Center, South Concourse, Level 1, South Hall A2 - 2500 Aisle

Children and Guests

The AAAAI/WAO ask delegates to refrain from taking children, spouses or guests to any educational session offered at the 2018 Joint Congress. Registered guests are welcome to relax in the Hospitality Suite or visit the Exhibit Hall; however, an adult must accompany children under the age of 18 at all times. Most Orlando hotels can provide their guests with a list of independent babysitters and babysitting agencies frequently used by visitors. For more information, please contact the concierge at the appropriate hotel.

Education Station

Convention Center, South Concourse, Level 2, Near the Escalator to Level 1, South Hall A

Visit the AAAAI Education Station to:

- Get help logging in to the Continuing Education Center
- Explore our online course offerings
- Learn how to claim credit for live and online activities
- Meet AAAAI Education staff





Friday, March 2	7:30 am to 5:30 pm
Saturday, March 3	7:30 am to 5:30 pm
Sunday, March 4	7:30 am to 5:30 pm
Monday, March 5	7:30 am to 3:30 pm

Emergency

In the event of an emergency, please use one of the house telephones available in all Convention Center meeting rooms and dial 57119. At the Hyatt, dial 77 from any house phone. House phones are located in all foyers.

Evaluations

Delegates will be able to provide feedback on their experiences at the Joint Congress in two ways:

- Participants will be asked to provide input on the educational program of the 2018 Joint Congress through the online CME Claim System when claiming credit for participation.
- Delegates can provide feedback on Joint Congress faculty members and the sessions they attend by using the mobile app.

Exhibits

Convention Center, South Concourse, Level 1, South Hall A2

The exhibiting companies and organizations will provide you with the latest information on products and services available to physicians, researchers and allied health professionals in the field of allergy/ immunology. The directory on page 178 will provide you with the information you need to take full advantage of the opportunities offered by the exhibitors.

Please allow adequate time in your daily schedule to visit the exhibits located in the Exhibit Hall in the Convention Center. Take time to speak with representatives of companies that provide services or market products directly to your professional interest.

Exhibit Hours

Saturday, March 3	9:45 am to 3:15 pm
Sunday, March 4	9:45 am to 3:15 pm
Monday, March 5	9:45 am to 2:00 pm

First Aid

Convention Center, South Concourse, Level 1, Left of the Entrance to the Plenary Hall

Non-emergency medical services are available in the First Aid room.

Food Outlets

There are various coffee, food and beverage vendors located throughout the Convention Center including the Exhibit Hall. There are also multiple restaurants in the Hyatt.

Handouts

Handouts at the 2018 Joint Congress will be available in two formats:

• Online Handouts

The most up-to date versions of the 2018 Joint Congress handouts are available to meeting delegates online at annualmeeting.aaaai.org during and after the Joint Congress. Delegates are able to view, download and print available session handouts. Handouts can be searched by session number, session title or a speaker's last name. Login and password are case-sensitive.

AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Login: JC2018 Password: JC2018

Handout Stations

Convention Center, South Concourse, Level 2, S220 Concourse Sponsored by Optinose. Convention Center, South Concourse, Level 1, South Hall A2 Hyatt, Convention Level, Regency R Foyer

Hospitality Suite

Hyatt, Convention Level, Rainbow Spring I

Attendees with guest badges are welcome to relax in the Hospitality Suite. Stop in for information on local attractions and shopping, or just relax and enjoy some friendly conversation.

Hospitality Suite Hours

Friday, March 2	8:00 am to 12:00 pm
Saturday, March 3	8:00 am to 12:00 pm
Sunday, March 4	8:00 am to 12:00 pm
Monday, March 5	8:00 am to 12:00 pm

JACI Journals

Key representatives from *The Journal of Allergy and Clinical Immunology (JACI)*, the most-cited allergy/immunology journal, and sister journal *JACI: In Practice* will once again be on-hand within the Member Resource Center to answer your questions regarding your subscriptions and submissions.

Lost and Found

In the event that you have lost or found a personal belonging, please see the AAAAI/WAO registration desk in the Convention Center, South Concourse, Level 2, S210 Concourse to either turn in or report a lost item. Please be prepared to provide a detailed description of your missing article.

Luggage Storage

Convention Center, South Concourse, Level 2, Across from S210A

Complimentary storage for luggage and coats will be available on Monday, March 5 from 6:30 am to 5:00 pm.





Member Resource Center

Convention Center, South Concourse, Level 2, S210 Concourse Visit the AAAAI Member Resource Center to:

- Take advantage of Joint Congress discounts on all public education products.
- Pay your dues, update your membership information or learn how to become a member.
- Speak with representatives from *The Journal of Allergy and Clinical Immunology (JACI)* and *The Journal of Allergy and Clinical Immunology: In Practice* about your subscription or submissions.

Member Resource Center Hours

Thursday, March 1	6:00 am to 7:00 pm
Friday, March 2	6:30 am to 5:00 pm
Saturday, March 3	6:30 am to 5:00 pm
Sunday, March 4	6:30 am to 5:00 pm
Monday, March 5	6:30 am to 4:00 pm

Mobile Joint Congress App

Sponsored by Teva Respiratory.

The AAAAI and WAO have a mobile app dedicated to the 2018 Joint Congress. This app features tools to search by speaker or session type, organize your schedule, evaluate speakers and sessions, stay current with changes as they occur during the meeting and navigate the Convention Center with floor plans and exhibitor information. Download the 2018 Joint Congress app from the App Store or Play Store on your mobile device. The app is password protected. When you reach the login screen you can create your own username, but the password is JC2018.

Name Badges

All registered attendees at the 2018 Joint Congress will receive a name badge as part of their onsite registration package. These badges have a barcode on the back that is embedded with the attendee's name, mailing address, fax number and email address. Delegates may scan their badges in the Exhibit Hall and give their contact information to specific exhibitors.

Please note: When you allow an exhibitor to scan your badge, you are authorizing them to contact you and send you materials via postal mail, fax and/or email. The AAAAI/WAO cannot be responsible for the use of your contact information once you have given it to an exhibitor.

Nursing/Lactation Room

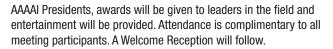
Convention Center, South Concourse, Level 2, Near the Escalator to Level 1, South Hall B

There are dedicated areas for nursing mothers in the Convention Center located across from the Destination Lounge, Room S222 on Level 2.

Opening Ceremony

Thursday, March 1, 4:30 to 5:30 pm Hyatt, Convention Level, Regency S

The Opening Ceremony welcomes delegates to the AAAAI/WAO Joint Congress. Presentations will be made by the WAO and



Photography

Due to the distraction to the speakers, personal photography is not permitted within any educational sessions or in the Poster Hall. Delegates are welcome to take photographs at all other AAAAI/ WAO functions and activities. A professional photographer will be onsite documenting the event, and by registering for, and taking part in the Joint Congress your photo may be taken and used in future promotional materials.

Plenary Q&A

Convention Center, South Concourse, Level 1, South Hall A2

The Plenary Q&A sessions allow attendees to ask questions directly to the plenary faculty and get responses directly from the presenters. Make note of your questions during the plenary sessions and bring them here to get answers from the speakers and moderators in a more casual, intimate setting.

Plenary speakers and moderators will be available to answer questions at the following times:

Saturday, March 3, 12:30 to 1:30 pm – Friday & Saturday Plenary Speakers

Sunday, March 4, 12:30 to 1:30 pm – Sunday Plenary Speakers

Monday, March 5, 10:00 to 10:30 am – Monday Plenary Speakers

Poster Hall

Convention Center, South Concourse, Level 1, South Hall A2

The poster sessions, featuring presentations of abstracts in thematic groupings, are open Saturday through Monday. Authors will be present with their posters from 9:45 to 10:45 am daily.

Poster Hall Hours

Saturday, March 3	7:00 am to 6:00 pm
Sunday, March 4	7:00 am to 6:00 pm
Monday, March 5	7:00 am to 2:00 pm

Practice Resources Corner

Convention Center, South Concourse, Level 2, Near the Escalator to Level 1, Hall A

Visit the Practice Resources Corner at the Convention Center, South Concourse, Level 2, Near the Escalator to Level 1.





Here you can:

- See a Demo of the AAAAI Registry by ArborMetrix
- Ask your medical coding questions
- Get the latest on in-office compounding rules
- Share your priorities for AAAAI Advocacy issues
- And More!

Check the daily schedule of Volunteer Leaders keeping "Office Hours."

Press Room

Convention Center, South Concourse, Level 2, S210D

Members of the press representing print, broadcast and electronic consumer media, as well as healthcare trade media, are invited to attend the 2018 Joint Congress if they have pre-registered at annualmeeting.aaaai.org. To claim a press pass onsite, journalists must provide media identification or a business card issued by their news organization. Freelance writers must provide a letter of assignment on a news organization letterhead or bylined articles from a recognized news organization. Press passes will only be issued to journalists representing the editorial staff of print, broadcast or Internet media. Journalists must display their press passes at all times while attending the meeting or covering meeting-sponsored events.

The AAAAI/WAO do not issue press passes to: a publication's advertising, marketing, public relations or sales representatives; publishers, editors or reporters from manufacturer's house organs or promotional publications, public relations staff of exhibitors or educational institutions; writers creating analyses or reports sold as a commodity to customers; or other individuals who are not actually reporting on the meeting or on behalf of a specific media outlet. Exhibitors may not register as press.

Quiet Reflection Room

Convention Center, South Concourse, Level 3, S329

This room has been designated for prayer and meditation and is available for use at the Joint Congress during regular hours of operation.

Registration Desk

Convention Center, South Concourse, Level 2, S210 Concourse

Visit the registration desk to pick up your name badge, tickets and registration bag. You can also purchase tickets, register onsite and receive your CME/CE or Attendance Certificates.

Registration Desk Hours

Thursday, March 1	6:00 am to 7:00 pm
Friday, March 2	6:30 am to 5:00 pm
Saturday, March 3	6:30 am to 5:00 pm
Sunday, March 4	6:30 am to 5:00 pm
Monday, March 5	6:30 am to 4:00 pm

Ribbons

Ribbons are available at a kiosk located near the registration desk.

Ticket Exchange

Tickets to available sessions will be sold at the onsite registration desk. Please check the Session Monitor for available sessions. To exchange or cancel a session ticket, please bring the ticket to the registration desk no less than 30 minutes prior to the start of the session. Refunds for returned tickets will be mailed from the AAAAI executive office after the meeting.

Smoking

Smoking is prohibited at all 2018 Joint Congress sessions and events.

Social Media Lounge

Sponsored by Sanofi Genzyme and Regeneron Pharmaceuticals. Convention Center, South Concourse, Level 1, South Hall A2 - 200 Aisle

This unique lounge offers an environment where attendees can meet, collaborate, network and have fun while engaging with AAAAI/WAO social media.

Speaker Disclosures

Copies of all speakers' disclosure information are available online at the Joint Congress website and in the Speaker Resource Room.

Speaker Resource Room

Convention Center, South Concourse, Level 2, S210A

All speakers are asked to report to the Speaker Resource Room immediately upon arrival in Orlando to deliver their presentation materials. Computers and technical support are available for speakers to use in this room. Individuals will receive their speaker ribbons in the Speaker Resource Room.

Speaker Resource Room Hours

Thursday, March 1	12:00 to 7:00 pm
Friday, March 2	6:30 am to 6:00 pm
Saturday, March 3	6:30 am to 6:00 pm
Sunday, March 4	6:30 am to 6:00 pm
Monday, March 5	6:30 am to 4:30 pm

Special Dietary Requirements

If items on the daily, pre-arranged menu do not meet your special dietary requirements (e.g., allergies, kosher), an alternative option can be made available. Please notify an AAAAI/WAO staff member at the registration desk to ensure arrangements are made. Special arrangements require at least 24 hours advance notice. Vegetarian





AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

options will be available at all functions with food. If you are a vegetarian, please inform the server assigned to the room at the beginning of the session that you would like a vegetarian selection.

Training Stations

Saturday, March 3 and Sunday, March 4, 12:00 to 2:00pm **Convention Center, South Concourse, Level 1, South Hall A2** Training Stations provide Joint Congress delegates the opportunity to get hands-on practice with allergy/immunology devices and procedures and receive personalized instruction from peers with appropriate expertise. Participation is on a first-come, first-served basis and is open to any registered delegate. Participants can earn continuing education credit. The 2018 stations feature two topics:

Saturday: 2401: Indoor Allergen Abatement: Strategies for Home and School-based Environmental Interventions

The Environmental Exposures and Respiratory Health Committee will discuss home and school assessments, including indications, appropriate tools, and patient education. See page 74 for details.

Sunday: 3401: Oral Food Challenges: Practical Tips for Preparation in the Office Setting

The Adverse Reactions to Foods Committee will demonstrate and discuss techniques necessary for safely preparing and administering oral food challenges in the allergy/immunology practice. See page 90 for details.

Transportation

See page 200 for I•RIDE Trolley map. I•RIDE Trolley stops are available near most Joint Congress hotels. For more information, please visit www.iridetrolley.com.

Tweet Up

Saturday, March 3, 2:00 to 3:00 pm Hyatt, Lobby Level, Bayhill 20

Are you interested in Twitter and social media? Do you use social media to promote your practice or other allergy/immunology topics? Join others who share your interest at the Tweet Up.

Virtual Joint Congress Recordings

Purchase the 2018 Virtual Joint Congress at any of the registration booths located in the Convention Center, South Concourse, Level 2, S210 Concourse. The Virtual Joint Congress will be available online via streaming and MP4 file downloads. MP4 downloads will allow you to download the content and access it without being connected to the internet. The recordings include presentation slides along with video and audio for the Plenary and Keynote sessions, and presentation slides synchronized with the audio recordings for selected courses, symposia, Interest Section Forums, workshops, pro/con debates and allied health sessions. Sessions included in the Virtual Joint Congress are indicated with a Ψ icon in this program.

Wi-Fi

Complimentary Wi-Fi access is available at the Convention Center and in all meeting spaces throughout the Hyatt.

Convention Center

Sponsored by Sanofi Genzyme and Regeneron Pharmaceuticals. Wireless Network: AAAAIWA02018

Username: TYPE2 Password: ASTHMA

Hyatt

Sponsored by Shire. Wireless Network: ComingSoon Password: Lanadelumab

All login information is case sensitive.

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Sign up today at the Foundation booth located located in the South Concourse, Level 2, across from S220A.



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Personalized Medicine in Allergy: Biologics & Immunotherapy



WAO International Scientific Conference

Florence, ITALY 6–9 December 2018

You are invited to attend the WAO INTERNATIONAL SCIENTIFIC CONFERENCE (WISC) 2018

Personalized Medicine in Allergy: Biologics & Immunotherapy



A meeting of WAO in partnership with SIAAIC

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Business and Committee Meetings



AAAAI Annual Business Meeting

Monday, March 5, 12:30 to 1:30 pm Convention Center, South Concourse, Level 3, S320CD

All AAAAI Fellows and members should attend the annual Business Meeting. Box lunches will be provided. No fee. No pre-registration required.

Allied Health Professionals Assembly Business Meeting and Oral Abstract Session

Saturday, March 3, 2018, 12:15 to 1:45 pm Hyatt, Convention Level, Plaza G

Interest Section Forums

Sunday, March 4, 3:30 to 4:30 pm

AAAAI Fellows and members, as well as other delegates, are invited to attend an Interest Section Forum. Each interest section of the AAAAI will host a separate forum. Continuing education credits are available for these activities. See page 95 for more information.

New Allergist/Immunologist Assembly Business Meeting and Reception

Saturday, March 3, 4:45 to 6:15 pm Hyatt, Convention Level, Regency O

Program Directors Assembly Business Meeting

Friday, March 2, 12:00 to 2:00 pm Hyatt, Convention Level, Plaza H

2018 RSLAAIS Assembly Forum and Business Meeting Friday, March 2, 4:45 to 6:15 pm

Hyatt, Convention Level, Regency O

WAO House of Delegates Meeting (Invitation Only)

Sunday, March 4, 1:30 to 3:30 pm Convention Center, South Concourse, Level 3, S331AB

AAAAI Assembly/Board/Division Committee Meetings

If you are a current member of an AAAAI assembly, Board or division committee, please plan to attend your committee meeting. Committee meetings are open to current AAAAI committee members only. All members of these committees must be named by the AAAAI President-Elect. If you are an AAAAI member and you are interested in becoming a member of any of these committees, please contact the AAAAI executive office at (414) 272-6071 or committees@aaaai.org.

AAAAI Foundation Council

Monday, March 5, 2018, 10:00 to 11:30 am Convention Center, South Concourse, Level 3, S312

A/I Division Directors Committee Saturday, March 3, 2018, 7:00 to 8:00 am Hyatt, Convention Level, Orlando L

Advocacy Committee Sunday, March 4, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 19

Allied Health Education Committee

Sunday, March 4, 2018, 2:00 to 3:00 pm Hyatt, Lobby Level, Bayhill 33

Allied Health Professionals Assembly Leadership Meeting Sunday, March 4, 2018, 3:00 to 4:00 pm Hyatt, Lobby Level, Bayhill 33

Annual Meeting Awards Committee Friday, March 2, 2018, 4:30 to 5:30 pm Hyatt, Convention Level, Celebration 2

Annual Meeting Program Committee Monday, March 5, 2018, 10:00 am to 12:00 pm Hyatt, Lobby Level, Manatee Spring I

Clinical Rotation Curriculum Committee Saturday, March 3, 2018, 9:45 to 10:45 am Hyatt, Lobby Level, Bayhill 21

CME/MOC Committee Saturday, March 3, 2018, 5:00 to 6:00 pm Hyatt, Lobby Level, Bayhill 20 *Core Curriculum, Education & Residency Review Subcommittee* Saturday, March 3, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 22

Credentials Committee Friday, March 2, 2018, 12:30 to 1:30 pm Convention Center, South Concourse, Level 3, S311

Federation of RSLAAIS Assembly Board of Governors Meeting Saturday, March 3, 2018, 2:00 to 3:15 pm Hyatt, Lobby Level, Bayhill 23

Fellows-In-Training Committee Saturday, March 3, 2018, 7:00 to 8:00 am Hyatt, Convention Level, Orlando N

Grant Review Committee Sunday, March 4, 2018, 8:00 to 9:00 am Hyatt, Lobby Level, Bayhill 32

Interest Section Coordinating Committee Saturday, March 3, 2018, 10:45 to 11:45 am Hyatt, Lobby Level, Bayhill 20

Leadership Institute Steering Committee Sunday, March 4, 2018, 10:45 to 11:45 am Hyatt, Lobby Level, Bayhill 31

Measures Stewardship Committee Saturday, March 3, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Bayhill 20

New Allergist/Immunologist Assembly Leadership Meeting Sunday, March 4, 2018, 12:30 to 1:30 pm Hyatt, Convention Level, Celebration 16

Office of Medical Education Committee Sunday, March 4, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Bayhill 19



Business and Committee Meetings

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Office of Practice Management Friday, March 2, 2018, 12:30 to 1:30 pm

Hyatt, Lobby Level, Bayhill 21

Office of School-based Management of Asthma Saturday, March 3, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Bayhill 19

Practice Management Committee Sunday, March 4, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Barrel Spring I

Program Directors Assembly Executive Committee Monday, March 5, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Bayhill 33

Veterans Health Administration Allergists Committee Sunday, March 4, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 20

AAAAI Interest Section Committee Meetings

Committee meetings are held during the Joint Congress for the purpose of conducting AAAAI related business. If you are a current member of an interest section committee, please plan to attend your committee meeting. If you are an AAAAI member and you are interested in joining an interest section committee, please attend the meeting and notify the chair that you are interested in joining. For more information on AAAAI committees, please contact the AAAAI executive office at (414) 272-6071 or info@aaaai.org.

Adverse Reactions to Drugs, Biologicals & Latex Committee Saturday, March 3, 2018, 12:30 to 1:30 pm Hyatt, Convention Level, Regency V

Adverse Reactions to Foods Committee Saturday, March 3, 2018, 6:00 to 7:30 am Hyatt, Convention Level, Regency V

Aerobiology Committee Sunday, March 4, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Bayhill 23

Allergic Fungal Respiratory Diseases Committee Sunday, March 4, 2018, 6:45 to 7:45 am Hyatt, Lobby Level, Bayhill 31

Allergic Skin Diseases Committee Saturday, March 3, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Bayhill 17 & 18

Altered Immune Response Committee Sunday, March 4, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 33

Anaphylaxis Committee Sunday, March 4, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Bayhill 17 & 18

Asthma & Allergic Diseases in the Elderly Committee Saturday, March 3, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 20

Asthma, Cough, Diagnosis and Treatment Committee Friday, March 2, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 17 & 18 *Cells and Mediators of Allergic Inflammation Committee* Sunday, March 4, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 21 & 22

Committee on the Underserved Saturday, March 3, 2018, 1:45 to 2:45 pm Hyatt, Convention Level, Orlando L

Complementary and Alternative Practices in Allergy Committee Saturday, March 3, 2018, 1:00 to 2:00 pm Hyatt, Lobby Level, Bayhill 17 & 18

Environmental Exposure and Respiratory Health Committee Saturday, March 3, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 19

Eosinophilic Gastrointestinal Disorders Committee Sunday, March 4, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 17 & 18

Genetics, Molecular Biology and Epidemiology Committee Saturday, March 3, 2018, 6:45 to 7:45 am Hyatt, Lobby Level, Bayhill 21

Health Informatics, Technology & Education Committee Saturday, March 3, 2018, 12:30 to 1:30 pm Hyatt, Convention Level, Orlando M

Immunotherapy, Allergen Standardization & Allergy Diagnostics Committee

Saturday, March 3, 2018, 6:00 to 7:30 am Hyatt, Convention Level, Regency 0

Mast Cells Disorders Committee Sunday, March 4, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Barrel Spring I

Microbes in Allergy & Asthma Committee Monday, March 5, 2018, 7:00 to 8:00am Hyatt, Lobby Level, Bayhill 31

Occupational Diseases Committee Saturday, March 3, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 21

Practice, Diagnostics and Therapeutics Committee Sunday, March 4, 2018, 7:00 to 8:00 am Hyatt, Lobby Level, Bayhill 20

Primary Immunodeficiency Disease Committee Saturday, March 3, 2018, 12:30 to 1:30 pm Hyatt, Convention Level, Regency 0

Quality, Adherence and Outcomes Committee Sunday, March 4, 2018, 12:30 to 1:30 pm Hyatt, Lobby Level, Bayhill 31

Rhinitis, Rhinosinusitis and Ocular Allergy Committee Monday, March 5, 2018, 6:45 to 7:45 am Hyatt, Convention Level, Celebration 15

Sports, Exercise and Fitness Committee Monday, March 5, 2018, 6:45 to 7:45 am Hyatt, Lobby Level, Manatee Spring I

Vaccines Committee Friday, March 2, 2018, 5:30 to 6:30 pm Hyatt, Lobby Level, Bayhill 33





Other AAAAI Meetings (Invitation Only)

2018 AAAAI Leadership Institute Course Friday, March 2, 2018, 8:00 am to 12:00 pm Hyatt, Convention Level, Orlando LM

2018 AAAAI Leadership Institute Mentorship Program Lunch Friday, March 2, 2018, 12:15 to 1:30 pm Hyatt, Convention Level, Orlando LM

Allied Health Wine and Cheese Reception Friday, March 2, 2018, 5:15 to 6:30 pm Hyatt, Convention Level, Plaza G

FIT Reception Friday, March 2, 2018, 5:00 to 6:00 pm Hyatt, Convention Level, Plaza H

JACI Associate Editors Meeting Monday, March 5, 2018, 6:45 to 8:00 am Hyatt, Convention Level, Celebration 14

JACI Editorial Board Meeting Friday, March 2, 2018, 12:30 to 1:45 pm Hyatt, Lobby Level, Bayhill 19 & 20

JACI International Advisory Board Sunday, March 4, 2018, 6:45 to 8:00 am Hyatt, Lobby Level, Bayhill 33

JACI Journals' Reviewers Forum and Reception Sunday, March 4, 2018, 4:45 to 6:30 pm Convention Center, South Concourse, Level 2, S210BC

JACI: In Practice Editorial Board Meeting Saturday, March 3, 2018, 7:00 to 8:00 am Hyatt, Convention Level, Orlando M

Lay Orgs Breakfast Monday, March 5, 2018, 7:00 to 8:30 am Hyatt, Lobby Level, Bayhill 19 & 20

National Allergy Bureau (NAB) Counters Meeting Friday, March 2, 2018, 5:30 to 6:30 pm Hyatt, Convention Level, Celebration 1

Other Meetings and Events

Allergists for Israel Board Meeting Friday, March 2, 2018, 3:00 to 4:30 pm Hyatt, Lobby Level, Bayhill 21

Allergists for Israel Religious Service Friday, March 2, 2018, 5:30 to 7:00 pm Hyatt, Lobby Level, Bayhill 19

Allergists for Israel Religious Service Saturday, March 3, 2018, 6:00 to 8:00 am Hyatt, Lobby Level, Coral Spring I

Allergists for Israel Religious Service Saturday, March 3, 2018, 5:00 to 8:00 pm Hyatt, Lobby Level, Coral Spring I

Allergists for Israel Religious Service Sunday, March 4, 2018, 6:00 to 8:00 am Hyatt, Lobby Level, Coral Spring I

Allergists for Israel Religious Service Monday, March 5, 2018, 6:00 to 8:00 am Hyatt, Lobby Level, Coral Spring I

Allergists for Israel Welcome Kiddush Reception Friday, March 2, 2018, 6:00 to 10:30 pm Hyatt, Lobby Level, Bayhill 21 & 22

Cleveland Clinic Alumni Reception 2018 Sunday, March 4, 2018, 9:30 to 11:00 pm Hyatt, Convention Level, Celebration 15

Food Allergy Support Team (FAST): Update on Food OIT Saturday, March 3, 2018, 2:00 to 3:00 pm Hyatt, Convention Level, Plaza D

Hispanic American Allergy Asthma & Immunology Association (HAAMA) Business Meeting & Social Sunday, March 4, 2018, 7:00 to 10:30 pm Hyatt, Convention Level, Regency 0

INDANA (International Network of Diet and Nutrition in Allergy) Executive Committee Meeting Saturday, March 3, 2018, 3:30 to 6:30 pm Hyatt, Convention Level, Celebration 1

National Jewish Health Faculty & Fellows Reception Sunday, March 4, 2018, 9:00 to 11:00 pm Hyatt, Lobby Level, Barrel Spring II

New York State Society of Allergy Asthma and Immunology Annual Meeting

Friday, March 2, 2018, 3:30 to 4:30 pm Hyatt, Convention Level, Celebration 3

Northwestern University Allergy-Immunology AAAAI Cocktail Reception Sunday, March 4, 2018, 6:00 to 8:00 pm

Tommy Bahama's Restaurant & Bar





Non-CME Educational Programs

Thursday

These programs are not sponsored or programmed by the AAAAI/WAO.

The Impact of Shared Decision-Making on Patients with PIDD

Thursday, March 1, 6:30 to 8:30 pm Hyatt, Convention Level, Regency PQ

This is a non-CME activity sponsored by Shire.

Join our expert Faculty for an interactive, patient-centric symposium on primary immunodeficiency disease (PIDD), with complimentary dinner. Dr Jordan Orange will start by discussing the importance of shared-decision making for patients with PIDD. With the help of our virtual patient, Dr Kenneth Paris will explore the clinical situations that may occur at various timepoints in the patient's life and evaluate different approaches with you. You will have the opportunity to discuss your perspectives on the data and the patient case with the experts, as together we explore ways to help improve outcomes in patients with PIDD.

Non-CME Educational Program

Thursday, March 1, 6:30 to 8:30 pm Hyatt, Convention Level, Regency TU

A Teva Respiratory Sponsored Dinner Presentation. Please check the Joint Congress Mobile App for program information.

Peanut Allergy: Mechanisms of Allergen-Specific Immunotherapy, the Atopic March Including Co-morbidities, and Therapeutic and Investigational Approaches

Thursday, March 1, 8:30 to 10:30 pm Hyatt, Convention Level, Regency V

Sponsored by Aimmune Therapeutics.

Aimmune Therapeutics will host 3 joint presentations on peanut allergy: mechanisms of allergen-specific immunotherapy, the atopic march including co-morbidities, and practical considerations for therapeutic and investigational approaches. Aimmune Therapeutics is raising funds for the AAAAI Research Foundation and will donate \$50 for each attendee who completes all 3 presentations.

Speakers include:

William Busse, MD Stephen Tilles, MD Antonella Muraro, MD, PhD Wayne Shreffler, MD William Berger, MD, MBA Ellen Sher, MD

Friday

These programs are not sponsored or programmed by the AAAAI/WAO.

Patient Perspectives on Hereditary Angioedema (HAE): Personalized Management Through Shared Decision-Making

Friday, March 2, 7:30 to 9:30 am Hyatt, Convention Level, Regency PQ Sponsored by Shire.

This complimentary breakfast program will combine physician and patient perspectives to discuss the real-world management of HAE. Led by Dr. Autumn Burnette, Howard University Hospital, Washington, DC, this symposium will discuss four key topics:

- Patient journey with HAE
- The role of shared decision-making in establishing a management strategy
- The clinical profiles of currently approved on-demand and prophylactic treatment options
- Patient experiences with approved on-demand and prophylactic treatment options

The pathophysiology of HAE will be discussed throughout to help bridge the biology of the disease to the real-world factors impacting patient care and decision-making.

Non-CME Educational Program

Friday, March 2, 7:30 to 9:30 am Hyatt, Convention Level, Regency TU

A Teva Respiratory Sponsored Breakfast Presentation. Please check the Joint Congress Mobile App for program information.

Are Eosinophils a Key Component to Personalized Treatment?

Friday, March 2, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere W Sponsored by GlaxoSmithKline.

GSK invites you to an interactive program about the role of eosinophils in disease pathogenesis. Join us at this dinner program to discuss the benefits of targeted treatment in patients with an eosinophilic disease.





Non-CME Educational Programs (continued)

Clinical Issues in Atopic Dermatitis: Debates and Discussions About Managing Moderate-to-Severe Disease

Friday, March 2, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere X

Supported by an independent educational grant from Sanofi Genzyme and Regeneron Pharmaceuticals.

Faculty: Lisa A. Beck, MD; Mark Boguniewicz, MD; Charles N. Ellis, MD Join us for an interactive educational program in which faculty with expertise in dermatology and clinical immunology will discuss and debate a series of topics related to the pathophysiologic underpinnings of atopic dermatitis, best practices for comprehensive patient evaluations and the clinical profiles of systemic treatment options, including biologic therapy, for patients with moderate-to-severe disease. During the symposium, a panel of recognized experts will translate the latest published evidence into actionable recommendations for individualized patient care. Attendees are sure to leave this lively and engaging program with new information and a fresh perspective on the evolving management strategies in atopic dermatitis.

Register Now: www.exchangecme.com/ADOrlando

Expert Perspectives on Evolving Approaches in HAE Patient Management

Friday, March 2, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere Y

Sponsored by Shire.

This complimentary dinner program will contain three areas of focus. The first presentation will discuss the differential diagnosis of angioedema, with a focus on hereditary angioedema (HAE), by Dr. Doug Johnston. Secondly, Dr. Allen Kaplan will provide an overview of the pathogenesis of HAE. Finally, an update on disease-related developments in HAE will be presented by Dr. Marc Riedl. After the presentations and panel discussion concludes, there will be a question and answer period.

Managing Hereditary Angioedema with C1 Esterase Inhibitors (C1-INH)

Friday, March 2, 8:30 to 10:30 pm Hyatt, Convention Level, Regency PQ

Sponsored by CSL Behring.

Interact with HAE thought leaders while they discuss where C1 Esterase Inhibitor (C1-INH) plays a role in the pathophysiology of Hereditary Angioedema (HAE), and how C1-INH naturally regulates bradykinin mediated angioedema. Attendees will move in small groups to explore:

- The role of C1-INH in HAE
- How C1-INH naturally regulates bradykinin
- Pharmacokinetics and Pharmacodynamics of C1-INH
- Considerations for prophylaxis therapy

Complimentary desserts and drinks will be served.

Saturday

These programs are not sponsored or programmed by the AAAAI/WAO.

Uncontrolled Asthma: The Role of Type 2 Inflammation

Saturday, March 3, 6:00 to 8:00 am Hyatt, Convention Level, Regency TU

Sponsored by Sanofi Genzyme and Regeneron Pharmaceuticals.

The primary objective of this session is to increase HCP understanding of Type 2 inflammation and how it contributes to continuing unmet asthma needs. We will discuss how increasing knowledge could support "shared decision-making" strategies that lead to improved physician-patient dialog. Another key objective is to discuss current thinking about the clinical features and biomarkers used to evaluate the broad spectrum of Type 2 inflammation in patients with asthma. Additionally, asthma heterogeneity and critical roles for Type 2 cytokines in disease pathophysiology will be discussed in the context of continuing challenges for patients with moderate-to-severe uncontrolled asthma.

New Perspectives in the Treatment of Uncontrolled Allergic Asthma: A Case-Based Discussion

Saturday, March 3, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere Z Sponsored by Genentech/Novartis.

The treatment of uncontrolled Allergic Asthma is evolving rapidly with new options coming to the market in recent years. This product theater will feature a panel of experts discussing a patient case. The panel will provide different perspectives regarding patient evaluation and appropriate treatment strategies. The interactive program will include opportunities for the audience to discuss the case and clinical perspectives with the expert panel.

Infant Anaphylaxis and a Newly FDA-Approved Treatment Option

Saturday, March 3, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere Y

Sponsored by kaléo.

Incidences of anaphylaxis in infants, toddlers, and children are on the rise. This program will cover recently published data, guidelines that recommend early introduction of peanut-containing foods in certain infants, infant anaphylaxis, and a newly FDA-approved treatment option.

Speakers:

Ruchi S. Gupta, MD, MPH, FAAP, FAAAAI, FACAAI Todd A. Mahr, MD, FAAP, FAAAAI, FACAAI

- Registration begins at 6:30 pm
- Food and beverages will be served







Non-CME Educational Programs (continued)

DUPIXENT® (dupilumab) FDA-Approved

Saturday, March 3, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere X

Sponsored by Sanofi Genzyme and Regeneron Pharmaceuticals. DUPIXENT is approved by the FDA. Come learn about clinical efficacy, safety information, MOA, and dosing and administration, and how DUPIXENT may help your patients.

Non-CME Educational Program

Saturday, March 3, 6:30 to 8:30 pm **Hyatt, Convention Level, Windermere W** *A Teva Respiratory Sponsored Dinner Presentation.*

Please check the Joint Congress Mobile App for program information.

Patient Perspectives on Primary Immunodeficiency (PI): Shared Decision-Making for Personalized PI Management

Saturday, March 3, 8:30 to 10:30 pm Hyatt, Convention Level, Regency PQ Sponsored by Shire. This program is non-CME.

What are among the most important factors guiding management decisions for patients with primary immunodeficiency? In this complimentary dessert program, Dr. Elena Perez and Dr. Jolan Walter will host a guided discussion using available management tools to walk the audience through the patient journey, from diagnosis to treatment. In combination with patient perspectives, this program will demonstrate the need to personalize the patient experience to help elevate the standard of care.

Faculty

Elena Perez, MD, PhD Allergy Associates of the Palm Beaches North Palm Beach, FL

Jolan Walter, MD, PhD

University of South Florida, Johns Hopkins All Children's Hospital St. Petersburg, FL

Sunday

These programs are not sponsored or programmed by the AAAAI/WAO.

Identifying Type 2 Inflammation in Asthma: Thinking Beyond Biomarkers

Sunday, March 4, 6:00 to 8:00 am Hyatt, Convention Level, Regency TU

Sponsored by Sanofi Genzyme and Regeneron Pharmaceuticals. The primary objective of this session will be to utilize patient case studies and an expert panel to analyze current thinking about the identification of Type 2 inflammation in patients with asthma. Our expert panel will lead discussions of specific case studies where attendees will help decide (using ARS response) how to evaluate the spectrum of Type 2 inflammation in patients with asthma.

Following the case study discussion, attendees will have the opportunity to ask the expert panel questions about <u>why, when, and how</u> patients with asthma should be evaluated for Type 2 inflammation.

A Fresh Perspective on Severe Uncontrolled Asthma – A New Approach to Eosinophils

Sunday, March 4, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere W

Sponsored by AstraZeneca.

Eosinophils have emerged as a potent contributor to exacerbations and lung function decline in patients with severe asthma. This complimentary symposium will highlight a growing body of literature on eosinophils and severe asthma, it will discuss an interactive patient case designed to help clinicians identify eosinophilic asthma in clinical practice, and it will introduce a new approach to the management of eosinophilic severe asthma in appropriate patients. This educational symposium focused on eosinophilic severe asthma will help clinicians translate the science of eosinophils into real-world applications for severe asthma patients in the clinic.

Uncontrolled Asthma—Expanding Your View of a Constricting Disease

Sunday, March 4, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere Z Sponsored by Boehringer Ingelheim.

Join us to explore the underlying causes of uncontrolled asthma and review different approaches to managing treatment.







Non-CME Educational Programs (continued)

Looking Ahead: Exploring Clinical Developments in Peanut Allergy

Sunday, March 4, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere Y

Sponsored by DBV Technologies.

DBV Technologies invites you to a non-CME dinner program to explore recent clinical developments in peanut allergy. Currently, there are no approved treatments for peanut allergy. The standard of care relies on avoidance. However, despite practicing strict avoidance, 10% to 15% of patients suffer reactions from accidental exposure every year. In peanut allergy, a high proportion of reactions are severe, and clinical history cannot reliably predict the severity of future reactions. Our panel of experts will discuss efforts to improve the utility of biomarkers in peanut allergy, and immunotherapeutic approaches under clinical investigation such as epicutaneous immunotherapy (EPIT).

Faculty:

Hugh A. Sampson, MD J. Andrew Bird, MD David M. Fleischer, MD Wayne G. Shreffler, MD

Clinical Issues in Severe Asthma: Debates and Discussions About Personalizing Patient Management

Sunday, March 4, 6:30 to 8:30 pm Hyatt, Convention Level, Windermere X

Supported by an independent educational grant from Sanofi Genzyme and Regeneron Pharmaceuticals.

Faculty: Jonathan Corren, MD; Reynold A. Panettieri, Jr., MD; Michael E. Wechsler, MD

Join us for an interactive educational program in which faculty with expertise in clinical immunology and pulmonology will discuss and debate a series of topics related to the identification and long-term management of patients with severe asthma. During this symposium, faculty will provide their interpretative insights into classification of severe asthma, use of biomarkers, comorbidity management, and benefits and limitations of targeted biologic therapies. Attendees will find this session informative and engaging, as it is designed to incorporate evidence-based management strategies and real-world experience into actionable recommendations.

Register Now: www.exchangecme.com/AsthmaOrlando

Defining Success for Patients: Individualizing Treatment for Primary Immunodeficiency

Sunday, March 4, 8:30 to 10:30 pm Hyatt, Convention Level, Regency PQ Sponsored by CSL Behring.

This unique 4-Corners[™] presentation uses an interactive format to take you through "4 corners" of Primary Immunodeficiency. Attendees follow the case study of a patient with PI as the physician works with her to personalize her immunoglobulin therapy. As attendees move in small groups through the 4 corners, they can discuss and explore opportunities to

- Understand the impact of PI and treatment beyond a clinical perspective
- Determine what treatment optimization means to individual patients
- Identify appropriate patients for subcutaneous immunoglobulin therapy
- Improve the experience of patients and caregivers when administering subcutaneous immunoglobulin

A \$50 donation will be made to the AAAAI Foundation for each attendee who participates in all 4 discussions. Complimentary desserts and drinks will be served.



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About This Show

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AAAAI/WAO

Joint Congress

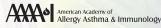
2-5 March 2018

ORLANDO, FLORIDA USA

Download the 2018 AAAAI/WAO Joint Congress app from the App Store or Play Store on your mobile device.

- Featuring a new design and navigation.
- Easily locate session handouts, abstracts and evaluations. (Note: This will be the ONLY place to access session evaluations.)
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Coding Questions?

Just ask us at: Coding@aaaai.org

Because Practice Matters to the AAAAI

More than 500 questions answered in 2017! Come See Us at the Practice Resources Corner.





Join us for an evening of fine food, music and the presentation of our 2018 Faculty Development Awards



Saturday, March 3, 2018 7:00pm - 10:00pm

To pick up or purchase tickets, please visit the AAAAI Foundation booth located in the South Concourse, Level 2, across from S220A.



Funding research that leads to the prevention and cure of asthma and allergic and immunologic disease

Only \$50 to register on onsite

visit the Foundation booth located in the South Concourse, Level 2, across from \$220A.

TH ANNUAL ON



Funding research that leads to the prevention and cure of asthma and allergic and immunologic disease

Benefiting Allergy & Asthma Research

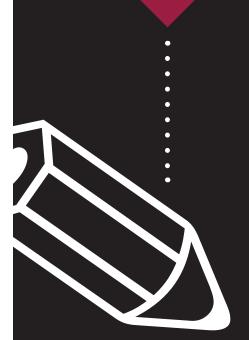
Sunday, March 4, 2018

Starting Line @ South Concourse Doors, **Orange County Convention Center** Orlando, Florida

Onsite Registration & Music: 4:30 pm Warm-Up: 5:15 pm Race Start: 5:30 pm



Don't miss special programming by the AAAAI Journals



1520: JACI: *In Practice* Year-in-Review Workshop

Friday, March 2 12:45pm to 2:00pm Convention Center, South Concourse, Level 3, S320CD

2803: Optimal Scientific Writing: From Manuscript Preparation to Publication

Allergy AND Clinical

The Journal of Allergy and Clinical Immunology:

In Practice

mmuno

Improve the clarity and accuracy of your scientific writing Saturday, March 3 4:45pm to 6:00pm

Convention Center, South Concourse, Level 3, S320E

3521: JACI Year-in-Review Workshop

Sunday, March 4 12:30pm to 1:45pm

Convention Center, South Concourse, Level 3, S320CD

Don't forget!

Come visit with the Journal staff at the AAAAI Member Resource Center.



Associate and Guest Activities

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA



Associates (Spouses & Friends) to the AAAAI

Since 1982, the Associates (Spouses & Friends) to the AAAAI have provided social events and networking opportunities for the spouses and friends to the AAAAI.

Full membership in the Associates is included in each spouse/guest registration fee. Membership includes volunteer opportunities, a chance to participate in future programming for the Associates and networking membership directory on the AAAAI website.

Hospitality Suite

Hyatt, Convention Level, Rainbow Spring I

Make sure to visit the Associates Hospitality Suite, which is open Friday, March 2 to Monday March 5 from 8:00 am - 12:00 pmdaily. A host will be on-hand to assist with restaurant and activity recommendations and to help in making reservations. Stop by, have a cup of coffee and learn how you can get involved!

Associates Breakfast and Business Meeting

Saturday, March 3, 9:00 to 11:00 am

Hyatt, Convention Level, Orlando L

Pre-Registration and Ticket required The Associates Steering Committee would like to invite you to begin your Joint Congress experience by joining us for the Associates Celebration at the Hyatt Regency Orlando. This breakfast event is open to spouse/guests attendees only (those displaying a delegate or exhibitor badge would not be allowed entry). For guests interested in bringing a child under the age of 17, pre-registration and a ticket is required. Children under the age of 6 are complimentary.



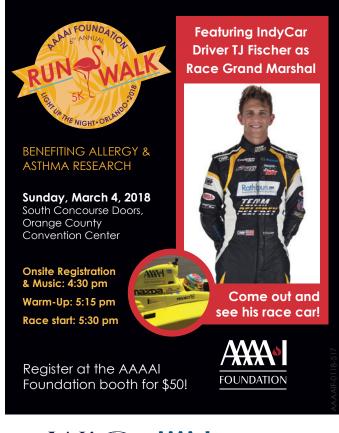
Thank our AAAAI President David B. Peden, MD, MS, FAAAAI, for his year of service to the AAAAI with the \$100 purchase of a Friend of the President Ribbon.

This ribbon honors Dr. Peden and directly supports the mission of the AAAAI Foundation: funding research that leads to the prevention and cure of asthma and allergic and immunologic disease.



American Academy of Allergy, Asthma & Immunology Foundation

Purchase or pick up your ribbon at the AAAAI Foundation booth located in the South Concourse, Level 2, across from S220A.

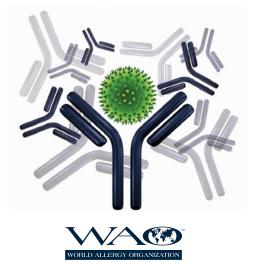








Official publication of the World Allergy Organization



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Annual Meeting Lectureships



Annual Meeting Lectureships

For nearly five decades, members of the American Academy of Allergy, Asthma & Immunology have honored outstanding individuals who have contributed to this field as leaders and teachers by the establishment of Annual Meeting lectureships. The Annual Meeting Program Committee is pleased to announce the lectureships and lectureship speakers for the 2018 AAAAI/WAO Joint Congress. Biographies and photographs are available at annualmeeting.aaaai.org.

The Isil Berat Barlan Memorial Lectureship: 2nd Year

Lecturer: Marcus Maurer, MD

Award presentation at Symposium Session 2302: World Allergy Forum: New Approaches for the Optimal Management of Angioedema on Saturday, March 3, 10:45 am to 12:00 pm

The Rebecca Buckley Lectureship: 7th Year

Lecturer: Raif S. Geha, MD FAAAAI

Award presentation at Symposium Session 2307: The Atopic March: What Have We Learned from the Natural History of Atopic Diseases on Saturday, March 3, 10:45 am to 12:00 pm

The Robert A. Cooke Memorial Lectureship: 56th Year

Lecturer: Stephen R. Durham, MA MD FRCP

Award presentation at Symposium Session 4305: Advances in Aeroallergen Immunotherapy on Monday, March 5, 10:45 am to 12:00 pm

The Elliot F. Ellis Memorial Lectureship: 20th Year

Lecturer: John Oppenheimer, MD FAAAAI

Award presentation at Symposium Session 1803: The Evolution of Practice Parameters: What You Need to Know to Interpret Guidelines in 2018 on Friday, March 2, 4:00 to 5:15 pm

The Hugh A. Sampson Lectureship in Food Allergy: 3rd Year

Lecturer: Emma Guttman-Yassky, MD PhD

Award presentation at Symposium Session 3305: New Developments in Atopic Dermatitis and Implications for the Atopic March on Sunday, March 4, 10:45 am to 12:00 pm

The Robert G. Townley Memorial Lectureship: 4th Year

Lecturer: Avraham Beigelman, MD MSCI FAAAAI

Award presentation at Symposium Session 2306: NHLBI's AsthmaNet Clinical Trial Results 2018 on Saturday, March 3, 10:45 am to 12:00 pm



AAAAI Foundation Named Lectureships

AAAAI Foundation Named Lectureships are established to recognize substantial contributions of at least \$100,000 to the AAAAI Foundation through collaborative contributions of others or individual contributions honoring an individual or entity. The AAAAI Foundation leadership is proud to announce the lectureships and lectureship speakers for the 2018 AAAAI/WAO Joint Congress. Biographies and photographs are available at annualmeeting.aaaai.org.

AAAAI Foundation and I. Leonard Bernstein, MD FAAAAI Memorial Lectureship: 2nd Year

Lecturer: David B. Peden, MD MS FAAAAI

Award presentation at Presidential Plenary Session 1601: Environmental Impacts on Asthma: Biology to Intervention on Friday, March 2, 2:15 to 3:45 pm

AAAAI Foundation and Dr. William and Judith H. Busse Lectureship: Investing Together in Our Future: 5th Year

Lecturer: Linda S. Birnbaum, PhD DABT ATS

Award presentation at Keynote Session 2701: Global Environmental Change and Our Health on Saturday, March 3, 3:30 to 4:30 pm

AAAAI Foundation and Bettina C. Hilman, MD Lectureship: Inaugural Year

Lecturer: Stacie M. Jones, MD

Award presentation at Plenary Session 4101: Cutting Edge-Food Allergy Pathogenesis, Diagnosis and Therapy on Monday, March 5, 8:15 to 9:45 am

AAAAI Foundation and Phillip E. Korenblat, MD FAAAAI Lectureship: Investing Together in Our Future: Inaugural Year

Lecturer: Nelson Augusto Rosario, MD PhD FAAAAI

Award presentation at Plenary Session 2101: Asthma and Allergic Disorders in an Environment of Continuous Climate Change on Saturday, March 3, 8:15 to 9:45 am

AAAAI Foundation and Donald Y. M. Leung, MD PhD FAAAAI-JACI Editors Lecture: Investing Together in Our Future: 6th Year

Lecturer: Jill A. Poole, MD FAAAAI

Award presentation at Plenary Session 3101: Environmental Influences on Innate Immunity-Insights and Mechanisms on Sunday, March 4, 8:15 to 9:45 am

AAAAI Foundation and Phil and Barbara Lieberman and Friends Lecture: Investing Together in Our Future: 4th Year Lecturer: Isabella Annesi-Maesano, MD PhD DSc

Award presentation at Plenary Session 2101: Asthma and Allergic Disorders in an Environment of Continuous Climate Change on Saturday, March 3, 8:15 to 9:45 am





Annual Meeting Lectureships

AAAAI Foundation and Louis Mendelson Lectureship: Investing Together in Our Future: 2nd Year

Lecturer: Gennaro D'Amato, MD FAAAAI

Award presentation at Plenary Session 2101: Asthma and Allergic Disorders in an Environment of Continuous Climate Change on Saturday, March 3, 8:15 to 9:45 am

AAAAI Foundation and Gary S. Rachelefsky, MD FAAAAI Lectureship: Investing Together in Our Future: Inaugural Year

Lecturer: Elizabeth Matsui, MD MHS

Award Presentation at Presidential Plenary Session 1601: Environmental Impacts on Asthma: Biology to Intervention on Friday, March 2, 2:15 to 3:45 pm

AAAAI Foundation and William T. Shearer and Lynn Des Prez Lecture: Investing Together in Our Future: 4th Year

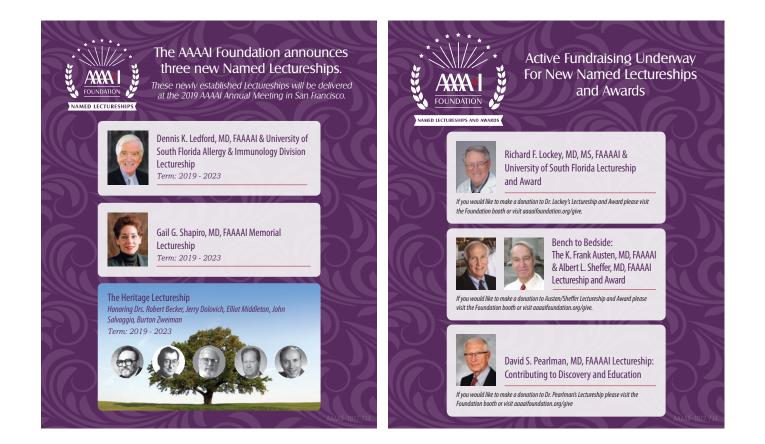
Lecturer: Talal A. Chatila, MD MSc

Award presentation at Plenary Session 4101: Cutting Edge-Food Allergy Pathogenesis, Diagnosis and Therapy on Monday, March 5, 8:15 to 9:45 am

AAAAI Foundation and Sheldon L. Spector, MD FAAAAI Memorial Lectureship: Inaugural Year

Lecturer: Rachel L. Miller, MD FAAAAI

Award presentation at Presidential Plenary Session 1601: Environmental Impacts on Asthma: Biology to Intervention on Friday, March 2, 2:15 to 3:45 pm





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Awards

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Allied Health Abstract Travel Award Recipients

Lianne Soller, PhD BC Children's Hospital "Supervised epinephrine autoinjector administration in a cohort of children with anaphylaxis during oral food challenges (OFCs)"

James J. Anderson, MLT *Environmental Allergy Assays* "Climate Change Anomaly: Local Ragweed Levels Declining"

Dena M. Pence, RRT *Allergy Partners of North Texas*

"Nut Oral Immunotherapy (NOIT) Using Two or More Nuts Successfully Desensitizes Most Patients"

Angela R. Hague, PA *Allergy Partners of North Texas* "Nut Oral Immunotherapy (NOIT) for Allergy to One Nut Desensitizes to the Cross Reactive Nut"

AAAAI/APFED Best Abstract on EGIDs Award

Fellow in Training

Peter S. Capucilli, MD *The Children's Hospital of Philadelphia* "A Comparison of Comorbid Diagnoses in Children with and without Eosinophilic Esophagitis in a Large Primary Care Population"

Member

Ichiro Nomura, MD

National Research Institute for Child Health and Development

"Elevated Serum TSLP, IL-33, 6Ckine and MCP-3 Levels in School Children or Older Patients with Eosinophilic Gastroenteritis" *The award is funded by APFED and provides \$750.*

2018 Bernard B. Siegel Memorial Abstract Award

Shira Benor

Tel Aviv Sourasky Medical Center "Cutaneous Exposure to Peanut Oil Induces Systemic and Pulmonary Peanut Hypersensitivity Reaction"

American Academy of Pediatrics (AAP) Section on Allergy and Immunology Outstanding Pediatric Abstract Award Recipients

FIT Award Recipients - \$750

Ammara G. Ahmed, DO Johns Hopkins School of Medicine "Atopy Modifies the Effect of Mouse Allergen Reduction on Asthma Outcomes in Lowincome, Urban Children with Persistent Asthma"

Ashley Devonshire, MD, MPH Northwestern/Ann & Robert H. Lurie Children's Hospital of Chicago "Post-Transplantation Food Allergy and

Tacrolimus Exposure In A Pediatric Population"

David Hill, MD, PhD *The Children's Hospital of Philadelphia* "Eosinophilic Esophagitis is a Late Manifestation of the Atopic March"

Junior Faculty - \$1000

Monica Lawrence, MD Univ of Virginia Division of Asthma Allergy & Immunology "IL-5Rα expression on airway neutrophils in children with treatment-refractory asthma"

Kirsten Kloepfer, MD, MS Indiana University School of Medicine "Dysbiosis of the Newborn Upper Airway is Associated with Early Wheeze"

Allied Health Professional Assembly Travel Scholarship Recipients

Linda M. Cimino, EdD, MS, CPNP, ANP, CCRC, CHSE SUNY at Stony Brook

Stony Brook, NY

Cindy Denise Fiscus, RN, BSN, AE-C Riley Children's Hospital IU Health Indianapolis, IN

Lauren Herlihy, RN, MSN, CPNP University of North Carolina-Chapel Hill Chapel Hill, NC

Sarah E. Herr, RN Children's Hospital Los Angeles Los Angeles, CA

Christopher Simon Knight, BS Icahn School of Medicine at Mount Sinai New York, NY

Claire Marie Murphy, NP-C VA Boston Healthcare West Roxbury, MA

Susana Rangel, NP LAC+USC Medical Center-Breathmobile Program Los Angeles, CA

Cindy A Trubisky, MSEd, AE-C American Lung Association-New York Rochester, NY





2018 AAAAI/WAO Junior Member Travel Grant Recipients

The following WAO Junior Members have been awarded Travel Grants to attend the Joint Congress. The 2018 International Travel Grants are funded by the Joint Congress and selected by an ad hoc panel selected by WAO leadership.

Africa

Adeyinka Odebode, PhD University of Lagos

Asia

Jiratchaya Chamnanrua, MD Queen Sirikit National Institute of Child Health

Nisarat Chantaravisarut, MD Prince of Songkla University

Jintana Chataroopwijit, MD King Chulalongkorn Memorial Hospital

Yoko Inoue, MD National Sagamihara Hospital

Thatchai Kampitak, MD Samitivej Sukhumvit Hospital

Bijoya Karmakar, PhD *Bose Institute*

Vanlaya Koosakulchai, MD Prince of Songkla University

So-Hee Lee, MD Ajou University Medical Center

Isree Leelayuwattanakul, MD Siriraj Hospital, Mahidol University

Lou Ver Leigh Manzon-Reyes, MD University of Santo Tomas Hospital

Duy Pham, MD University of Medicine and Pharmacy at Ho Chi Minh City

Thunyatorn Phisitbuntoon, MD Siriraj Hospital, Mahidol University

Tipyapa Rattanamanee, MD Ramathibodi Hospital, Mahidol University

Nuntanut Rutrakool, MD Siriraj Hospital, Mahidol University

Anchalee Senavonge, MD Chulalongkorn University

Napatsayod Swangtrakul, MD Ramathibodi Hospital, Mahidol University

Bastsetseg Ulambayar, MD Ajou University School of Medicine

Caribbean

Raul Lazaro Castro Almaralez, MD National Center of Bioproducts

Mirta Alvarez, MD University Hospital Calixto Garcia

Belkis Lopez, MD University Hospital Calixto Garcia

Maytee Mateo Morejan, MD National Center of Bioproducts

Lisdeivis Medina, MD University Hospital Calixto Garcia

Wendy Ramarez Gonzalez, MD National Center of Bioproducts

Mary Carmen Reyes Zamora, MD National Center of Bioproducts

Jose Rodriguez, MD University Hospital Calixto Garcia

Europe

Chiriac Anca, MD University of Medicine and Pharmacy Grigore T. Popa

Vladyslava Barzylovych, MD Institute of Pediatrics, Obstetrics and Gynaecology

Margherita Carotenuto, MD ICS Maugeri

Pasquale Comberiati, MD University of Verona

Margaretha Faber, MD University Hospital of Antwerp

Maria Rosaria Galdiero, MD University of Naples Federico II

Aida Gomez Cardenosa, MD *Fundacion Jimenez Diaz*

Laura Losappio, MD Niguarda ca Granda hospital

Maria Jose Rodriguez, MD IBIMA

Maja Stojanovic, MD *Clinical Center of Serbia*

Ilaria Testa, MD Universita Degli Studi di Perugia

Wendy Vargas Porras, MD Hospital Universitario Fundacion Alcorcon

Mexico

Amyra Ali Azamar Jacome, MD National Institue of Pediatrics

Cindy de Lira-Quezada, MD University Hospital "Dr. Jose Eleuterio Gonzalez"

Victor Gonzalez, MD Universidad La Salle

Rosa Ivett Guzman-Avilan, MD Hospital Universitario Dr. Jose Eleuterio Gonzalez

César Fireth Pozo Beltrán, MD Hospital Infantil de Mexico Federico Gomez

Rosalaura Virginia Villarreal-Gonzalez, MD University Hospital "Dr. Jose Eleuterio Gonzalez"

Middle East

Na'ama Epstein-Rigbi, MD Assaf Harofe Medical Center

South America Walmir Cutrim Aragao Filho, MD University of Sao Paulo

Julian Esteban Londono Hernandez, MD University of Antiquia

Anna Paula Mambriz, MD Federal University of Sao Paulo

Raquel Mendonca, MD Federal University of Sao Paulo

Gigia Roizen, MD Comprehensive Allergy and Asthma Care

Cristine Rosario, MD Federal Univer sity of Parana

Maria Gabriela Torre, MD British Hospital





AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

AAAAI Interest Section Fellow-in-Training Abstract Award Recipients

Asthma Diagnosis and Treatment Interest Section

Eric M. Schauberger, DO PhD *Cincinnati Children's Hospital Medical Center* "Predicting Asthma Development in Children Using a New Personalized Asthma Risk Score"

Basic and Clinical Immunology Interest Section

Erinn Kellner, MD

Northwestern University Feinberg School of Medicine

"Cellular Defects Amongst Common Variable Immunodeficiency (CVID) Patients with Chronic Lung Disease in the USIDNET (United States Immunodeficiency Network) Cohort"

Environmental and Occupational Respiratory Diseases Interest Section

Neema Izadi, MD MS National Jewish Health "Evaporative (swamp) coolers are not associated with house dust mite or mold sensitization in a large pediatric cohort in Colorado"

Food allergy, Anaphylaxis, Dermatology and Drug Allergy Interest Section

Cheryl A. Steiman, MD University of Wisconsin School of Medicine and Public Health "Farm Exposure Influences Skin Microbiota In Infancy"

Health outcomes, Education, Delivery and Quality Interest Section Amy Levin, MD

Massachusetts General Hospital "Risk Stratification for Outpatient Penicillin Allergy Evaluations"

Immunotherapy, Rhinitis, Sinusitis, and Ocular diseases Interest Section Sultan Albuhairi, MD

Boston Children's Hospital "The Rate of Systemic Reactions In Pediatric Patients Receiving Standardized Allergen Subcutaneous Immunotherapy Is Elevated and Not Affected by Seasonal Dose Adjustment"

Mechanisms of Asthma and Allergic Inflammation Interest Section

Jay Jin, MD PhD *Mayo Clinic* "T Follicular Helper (Tfh) Cells are Activated by Natural Exposure to Pollens During the Ragweed Hay Fever Season"

2018 Domestic Fellow-In-Training Travel Scholarships

The FIT Travel Scholarships are open to Fellows-In-Training in the United States and Canada. *Funded by the AAAAI and in part through a sponsorship from Teva Respiratory.*

Awarded Amount: \$1100

Andrew Abreo, MD Sarah N. Adams, MD Amanda Agyemang, MD Ammara G. Ahmed, DO Ayobami Akenroye, MD MPH Sultan Albuhairi, MD Hanadys Ale, MD Salma Alkhammash, MD Santiago Alvarez Arango, MD Niloofar Anooshiravani, MD Vivian T. Aranez, MD Yanira Arce, MD Thu Thu Aung, MD Jasdeep Badwal, MD Mary Grace Baker, MD Carolyn H. Baloh, MD Nicole Barberis, MD Sara Barmettler, MD Maggie Barnthouse, MD Muhammad Hassan Bashir, MD Mariel R. Benjamin, MD Jennifer E. Boeckman, DO Joel P. Brooks, DO Peter S. Capucilli, MD Juline Caraballo, MD Jeffrey Chambliss, MD Meng Chen, MD

> American Academy of Allergy Asthma & Immunology

Meng Chen, MD Kara Coffey, MD Gregory M. Constantine, MD Quindelyn Cook, MD Wilfredo Cosme-Blanco, MD PhD Cleavon J. Covington, MD Alma Cruz, MD Erica Cua, MD Lyda Cuervo-Pardo, MD Miranda L. Curtiss, MD PhD Andrew Dang, MD Elizabeth Daniel, MD Jennifer A. Dantzer, MD Anh Dao, MD Christin Deal, MD Vincent P. Devlin, Jr., DO Ashley Devonshire, MD MPH Melanie C. Dispenza, MD PhD Hannah Duffey, MD Joan Dunlop, MD Rachel Eisenberg, MD Marwa El-Bohy, MD Brittany Esty, MD Angela Fadahunsi, MD Megan Ford, MD August J. Generoso, MD Yael Gernez, MD PhD Francois Graham, MD

Torie L. Grant, MD Kathleen Grisanti, MDw Lara Gross, MD Canting Guo, MD Opal Gupta, MD Ahmad Hamad, MD Daniel Har. MD Gretchen Harmon, MD Maria Paula Henao, MD David A. Hill, MD PhD Brittany Hines, MD Hsi-en Ho. MD Margaret Huntwork, MD Sharon L. Hwang, MD Ryan B. Israelsen, MD Onvinye I. Iweala, MD PhD Neema Izadi, MD MS Supriya Jain, MD Tiffany Jean, MD Samira Jeimy, MD PhD Rekha Jhamnani, MD Fonda Jiang, MD Jay Jin, MD PhD Warit Jithpratuck, MD Reece A. Jones, MD Shyam Joshi, MD Sonia Joychan, MD Nora Kabil, MD



Awards

\$1100 Awardees (continued)

Sumona Kabir, DO Anita Kallepalli, MD Merhunisa Karagic, MD Keerthi Karamched, MD Ravdeep Kaur, MD Erinn Kellner, MD Katie Kennedy, MD Haroon Khalid, MD Fatima Khan, MD MBA Nicholas Klaiber, MD Renee Kleris, MD Samantha Knox, MD Rebecca Koransky, MD Fei Li Kuang, MD PhD Emmanuel Kwesiga, MBChB Weyman Lam, MD Anna Lang, MD PhD Alexandra Langlois, MD Stephen LeBlanc, MD Charlie Lee, MD Julia S. Lee, MD Yoomie J. Lee, MD Kathleen Lee-Sarwar, MD Lyvia Leigh, MD Bella Lerman, DO Amy Levin, MD Connie H. Lin, MD David Lindsay, MD Elizabeth Lippner, MD Marissa A. Love, MD Shazia Lutfeali, MD Kristen Lutzkanin, MD Nieri Maina, MD PhD Amarilla Bernadett Mandola, MD Zachary Marshall, MD Lisa Martorano, DO Katherine McCormack, MD Kara McNamara, MD Jennifer Miller, MD Yuk-Yue Mo, MD Nazanin Montazeri, MD Christine Muglia, MD Youko Murakami, MD Laura Murphy, MD Roshni Naik, MD Vivian C. Nanagas Brianne Navetta-Modrov, MD Irum Noor. DO Ashika Odhav, MD Camile Ortega, DO Christina F. Ortiz, MD MPH Charmi Patel, MD Gargi Patel, MD Hardik Patel, MD Jay Patel, MD

Nilam D. Patel, DO Mohini Pathria, MD David Peloza, MD Amber N. Pepper, MD Michele N. Pham. MD Sara Powell, MD Amanda L. Pratt, MD DeVon C. Preston, MD Sima Ramratnam, MD MPH Niharika Rath, MD Brian Reed, MD Zhen Ren, MD Erica K. Ridley Lacey Robinson, MD Melissa Robinson, DO Chen E. Rosenberg, MD Gregory A. Rosner, MD Melanie A. Ruffner, MD PhD Chloe L. Russo, MD Tehila A. Saadia, MD Geetika Sabharwal, MD Tara V. Saco, MD Eric M. Schauberger, DO PhD Amanda Schneider, MD Charles Schuler, MD Justin Schwartz, MD PhD Sara Seghezzo, MD Michael G. Sherenian, MD Maria Shtessel, MD Jennifer C. Simonaire, DO Neha Sirohi, MD Claire Smigiel, MD Martin A. Smith. MD Gary K. Soffer, MD Julia Sohn, MD Amika Sood, MD Puja Sood, MD Cheryl A. Steiman, MD Erin C. Steinbach, MD PhD Margo R. Stevenson, DO Cosby Stone, MD Robert A. Sullivan, Jr., MD Cristina L. Swanson, MD PhD Toru Takahashi, MD PhD David E. Tapke, MD MPH Niharika Thota, MD Pamela P. Tongchinsub, MD Katherine Larabee Tuttle, MD Anusha Vadlamudi, MD Kristine Vanijcharoenkarn, MD Aaron Ver Heul, MD PhD Jamie L. Waldron, MD Alberta L. Wang, MD Helen T. Wang, MD Kathleen Wang, MD

Tamar Weinberger, MD Caroline Weisser, MD Alissa Welsh, MD Emma Westermann-Clark, MD Jeffrey Wilson, MD PhD Alanna Wong, MD Albert Wu. MD Yan Yan, MD Luanna Yang, MD Chih-Yin Yeh, MD Adil Zahiruddin, MD Awarded Amount: \$800 Nicole Akar-Ghibril, MD Abeer S. Algrafi, MD Fadi Alkhatib. DO Mohammed Alosaimi, MD Taha Al-Shaikhly, MBChB Roula Altisheh, MD Sasha A. Alvarado, DO Rachel Bean, MD Nathan Boggs, MD David Brauer, MD Joshua Burkhardt, DO Gagandeep Cheema, MD Sun Mi Choi, MD PhD Amanda Ciccolini, MD Dara Cohn, MD Ana Maria Copaescu, MD Amar Dixit, MD Joshua Dorn, MD Dinah Foer, MD Meghan F. Garcia, MD Christopher Gordon, DO Catherine Hammond, MD Allison Hicks, MD Jane Hsieh, MD Melissa Itsara, MD Baruch Jakubovic, MD John A. Johnson, Jr., DO Nancy Joseph, DO Watcharoot Kanchongkittiphon, MD PhD Diuro Karanovic, MD Hasan Kular, MD Amanda N. Lewis, MD Lily Li, MD Ling Ling, MD Elise Liu, MD Dayna Lee Lucuab-Fegurgur, MD Raymond Mak, MD Matthew Mavissakalian, DO David McGarry, DO Samantha C. Minnicozzi, MD Gordon Myers, MD

Vivian Wang, MD

AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA





Awards

\$800 Awardees (continued)

Marjan Nassiri, MD Dariush Orandi, MD Gayatri Patel, MD Shiven Patel, MD Jessica B. Perkins, MD Emilie Proulx, MD Cali Revnolds. MD Christopher Rigell, MD Hannah Roberts. MD BSc Daniel Rodriguez, MD Jamie A. Rosenthal, MD

Christine Rukasin, MD Rebecca Saenz, MD PhD Ruchi Shah, MD Trisha Sharma, MD Kirk V. Shepard, II, MD Junghee J. Shin, MD PhD Safiah Sumayli, MD Samantha Swain, MD Robert Tamayev, MD PhD Monica Tang, MD Zoya Treyster, MD Anand D. Trivedi, MD

Hani Harb, PhD

Ara Jo, PhD

James Jung

Quan Nhu

Alix McLaughlin

Jun Nagai, PhD

Koa Hosoki, MD PhD

Alicia Widge, MD MS Yu Wong, MD PhD Ofer Zimmerman, MD

Awarded Amount: \$650

AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA UŚA

Jennifer L. Barnas, MD PhD Jeff Bulva, MD MS FACP Amer M. Khojah, MD Tamar Rubin, MD Kateryna Vostretsova, MD David Yue, MD Samuel Yung, MD

Awarded Amount: \$800

Chandini C. Revanna, PhD, MS, MPH

Mina Derakhshan

Lyndsey M. Muehling

Ashlev Ramos, PhD

Dana Shik, MSc PhD

2018 PhD Travel Scholarships

The PhD Travel Scholarships is open to non-faculty PhD Post-Doctoral Fellows and PhD Students/Candidates working on A/I related topic with an affiliated A/I program in the US or Canada.

Awarded Amount: \$1100

Leila A. Alenazy, MD Dhuha Al-Sajee, MD PhD Paige Bolcas Peter E. Deak. PhD Danh C. Do, PhD Cameron H. Flayer Wendy Fonseca, PhD MSc DVM Hubaida Fuseini

2018 AAAAI/EAACI Reciprocal Travel Grants

Each year, AAAAI sponsors two EAACI junior members to attend the AAAAI Annual Meeting, and in turn, EAACI sponsors two AAAAI fellows-in-training to attend the EAACI Congress.

Noriko Ogasawara, MD PhD

Johanna Smeekens, PhD Shadia Khan Sunny

Simona Barni, MD Anna Meyer Children's Hospital Ibon Eguiluz-Gracia, MD, PhD

WAO Lifetime Achievement Award Jean Bousquet, France

WAO Distinguished Service Award Giorgio Walter Canonica, Italy Nelson Rosario Filho, Brazil

WAO Scientific Achievement Award

Kathleen C. Barnes, United States Marcus Maurer, Germany

WAO Outstanding Clinician Award

Victoria Cardona, Spain Sang-Heon Cho, Korea Sandra Gonzalez Diaz, Mexico Richard Lockey, United States

UGC Allergy and Research Laboratory Regional University Hospital of Maloga and IBIMA

WAO Special Recognition Award

Nancy Agmon-Levin, Israel David D Chaplin, United States Mary Beth Fasano, United States Alessandro Fiocchi. Italv Thomas A. Fleisher, United States Elizabeth García Gomez, Colombia Margarita Olivares Gómez, Colombia David Peden, United States

WAO Gold Medal Award Ruby Pawankar, Japan



Continuing Education & Accreditation

Two types of continuing education credit will be available at the 2018 Joint Congress: *AMA PRA Category 1 CME Credits*TM for physicians and Continuing Education (CE) contact hours for nurses. Not all Joint Congress sessions may offer credit, and of those that do, not all may offer both CME and CE. The types and amount of credit offered for each session are indicated in the session descriptions beginning on page 49. Attendance certificates are available to all delegates.

Credit Claiming: Continuing education credits and attendance certificates can be claimed at the Registration Desk, located at the Convention Center, South Concourse, Level 2, S210 Concourse, beginning Thursday March 1. Credits and certificates can also be claimed online at, http://annualmeeting.aaaai.org beginning Thursday, March 1 and ending December 31, 2018.

Physicians - Continuing Medical Education (CME) Credits

Accreditation Statement

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Allergy, Asthma & Immunology (AAAAI) and the World Allergy Organization (WAO). The AAAAI is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation

The AAAAI designates this live activity for a maximum of 39.00 *AMA PRA Category 1 Credits*TM. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The American Medical Association has determined that physicians not licensed in the U.S. who participate in this CME activity are eligible for AMA PRA Category 1 CreditsTM.

Target Audience

The Joint Congress is designed for clinicians, researchers, trainees/ students and allied health professionals involved and/or interested in the study of allergy, asthma and immunology.

Program Objective

Upon completion of the Joint Congress, participants should be able to discuss the latest advances in the research, diagnosis and treatment of allergic and immunologic disease. Please refer to the individual session descriptions in this program for session-specific learning objectives.

ABAI – Continuing Medical Education (CME) Credits

The American Board of Allergy and Immunology (ABAI) requires diplomates to attest to obtaining 25 *AMA PRA Category 1 Credits*[™] in allergy/immunology each year. AAAAI reports all CME credits it issues to physician learners to the ABAI on a quarterly basis to be posted in learners' diplomate portals. For more information about credit requirements for ABAI Maintenance of Certification, visit the ABAI website at https://abai.org/cme.asp.

Allied Health – Continuing Education (CE) Credits

Nurses – Continuing Education (CE) Contact Hours

The American Academy of Allergy, Asthma & Immunology (AAAAI) is a Provider, approved by the California Board of Registered Nursing, Provider #10704, for up to 39.00 Contact Hours.

Medical Administrators

Practice administrators who attend the Joint Congress may apply for credit through the American College of Medical Practice Executives (ACMPE). For additional information, please contact the Medical Group Management Association at www.mgma.com.

Advanced Practitioners

The AAPA, ANCC and AANP accept reports from advanced practitioners of their participation in activities offering *AMA PRA Category 1 Credits*TM for continuing education and credentialing purposes. For more information, please contact the appropriate organization.

Pharmacists

Pharmacists are encouraged to contact their state boards of pharmacy to determine if reports of participation in the 2018 Joint Congress are accepted for re-licensure.

Target Audience

Healthcare professionals who assist with and provide care to persons with asthma, allergy and immunologic disease, specifically: RNs, LPNs, nurse practitioners, physician assistants, respiratory therapists, medical technologists, medical assistants, clinical research coordinators and practice managers/administrators.

Learning Objectives

Upon completion of the Joint Congress, participants should be able to discuss and expand upon the latest advances in medications, equipment and procedures necessary to promote health for their patients; describe and discuss new therapies, information, patient care and education in the field of allergy, asthma and immunology; identify new approaches to clinical research which will improve efficiency and effectiveness; and discuss coding and other administrative aspects of a medical practice. Please refer to the individual session descriptions in this program for session-specific learning objectives.





Sessions Tracked by Topic

To help you navigate the 250+ sessions on the Joint Congress program, the index on the following pages lists all of the education sessions by topic. The topic categories include:

Allergic and Immunologic Skin Diseases

Allergy Office Practice

Anaphylaxis/Urticaria/Angioedema

Asthma

Autoimmune/Auto-Inflammatory Disorders

Drug/Insect Allergy/Vaccines

Food Allergy

Immune Mechanisms

Immunodeficiency

Lung Diseases other than Asthma

Mast Cell/Eosinophilic Disorders

Research Principle

Rhinosinusitis/Ocular Allergy

These categories are included in the session descriptions in the Online Program as well. Use this index to tailor your Joint Congress agenda to best meet your learning needs and answer your questions about your practice.

2018 Clinical Theme: Global Environmental Change and Respiratory Health

All education sessions related to the Joint Congress theme are highlighted in the session descriptions in light green. Theme-related sessions include plenaries, symposia, workshops, and seminars throughout the meeting.

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Track: Allergens/Allergy Testing/Allergy Therapeutics

Thursday, March 1, 2018

Session 0201: Advanced Course in Pollen Identification Session 0601: Advanced Course in Fungal Spore Identification Session 0602: 2018 Literature Review: ABAI Continuous Assessment Study Course

Friday, March 2, 2018

Session 1002: NIEHS: Understanding the Exposome: Allergens, Adjuvants and Non-Allergens

Session 1501: AH: Picking Your Pollens: Aeroallergen Identification for the Allied Health Provider

Session 1504: Evaluating Systemic Side Effects in Children Receiving Inhaled Corticosteroids

Session 1516: Local Allergic Rhinitis

Session 1520: JACI: In Practice Year-in-Review Workshop

Session 1801: Italian Society of Allergy, Asthma and Clinical Immunology (SIAAIC) Sister Society Symposium: Hot Topics in Allergy

Session 1802: Cannabis Exposure: An Emerging Allergen and Potential Workplace Hazard

Session 1807: Immunotherapy: Future Perspectives

Saturday, March 3, 2018

Session 2014: AH: Integrative, Complementary, Alternative Medicine (CAM): What Do We Need to Know?

Session 2101: Asthma and Allergic Disorders in an Environment of Continuous Climate Change

Session 2401: Indoor Allergen Abatement: Strategies for Home and School-based Environmental Interventions

Session 2507: Multi-Allergen SCIT as Practiced in the United States vs. Commonly Used Methods of Immunotherapy Outside of the United States

Session 2610: AH: Cluster Immunotherapy and its Application in Clinical Practice

Session 2701: Global Environmental Change and Our Health

Session 2801: Hot Topics in Pediatric Allergy/Immunology

Session 2812: Patch Testing and Practical Pearls: An Overview for Fellows-in-Training and Junior Members

Sunday, March 4, 2018

Session 3007: A Review of Cross-Reactivity Patterns, Extract Stability, Optimal Dosing and Mixing for Subcutaneous Immunotherapy: A Case-Based Immunotherapy Prescription Mixing Workshop

Session 3301: Latin American Society of Allergy, Asthma and Immunology (SLAAI) Sister Society Symposium: The Influence of Climate and Environmental Features Over Allergic Diseases

Session 3302: EAACI: New Concepts in Managing Allergic Patients

Session 3306: Optimal Allergens for Diagnostic Testing and Immunotherapy: Are We Using the Best Allergens and How Can They Be Improved?

Session 3501: Impact of Indoor Fungal Exposures at Home and in the Occupational Setting

Session 3506: Side Effects and Relative Risks Associated with Subcutaneous and Sublingual Immunotherapy

Session 3521: JACI Year-in-Review Workshop

Session 3552: Allergen Immunotherapy: Dose Adjustments are Needed for Local Reactions, Peaks of Season and Gaps in Treatment

Session 3703: EORD: Allergen Exposure, Sensitization and Asthma: What Should We Learn from the Opposing Results

Sunday, March 4, 2018

Session 4003: Not Just for Research Anymore: Utilizing Biomarkers to Implement Personalized Medicine in the Clinic

Session 4012: The Use of Anti-Eosinophil Therapies for Allergic Diseases

Session 4305: Advances in Aeroallergen Immunotherapy

Session 4307: From the Exam Room to the Neighborhood: Targeting the Indoor Environment as a Public Health Strategy for Asthma

Session 4710: Update from the US Food and Drug Administration Center for Drug Evaluation and Research (FDA/CDER)

Session 4712: Expanding the Scope of Practice: Adding Occupational Allergic Diseases to the Allergist's Repertoire

Track: Allergic and Immunologic Skin Diseases

Friday, March 2, 2018

Session 1001: Difficult Cases: Part I

Session 1208: Rash Diagnostics: Distinguishing Features of Allergy, Autoimmunity, Autoinflammation and Infection in the Skin

Session 1518: Factors to Consider in Young Children with Severe Atopic Dermatitis

Session 1551: AH: Spectrum of Treatments for Atopic Dermatitis *Session 1810:* AH Plenary: Multidisciplinary Care for Patients with Atopic Dermatitis

Sunday, March 4, 2018

Session 3006: My Eczema Patient is Allergic to Everything: What Do I Do?

Session 3305: New Developments in Atopic Dermatitis and Implications for the Atopic March

Session 3504: The Itchy Patient

Session 3513: Practical Pearls in the Treatment of Severe Atopic Dermatitis in Children

Monday, March 5, 2018

Session 4006: Should I Test my Patient with Atopic Dermatitis for Food Allergies?





Track: Allergy Office Practice

Thursday, March 1, 2018

Session 0602: 2018 Literature Review: ABAI Continuous Assessment Study Course

Friday, March 2, 2018

Session 1012: 2018 FIT Symposium

Session 1050: 2018 Chrysalis Project Program

Session 1101: AH: Advanced Practice Update

Session 1202: The Best of the Practice Management Workshop

Session 1205: Improving Cross-Cultural Communication Among Allergy/Immunology Providers and Patients

Session 1803: The Evolution of Practice Parameters: What You Need to Know to Interpret Guidelines in 2018

Saturday, March 3, 2018

Session 2002: Are We Choosing Wisely? How to Promote Cost Effective and Necessary Care for Allergy and Immunology Patients Session 2004: The ART of Negotiation: Employee Agreements/ Contracts and More

Session 2009: There's an App for That: iPhone/iPad, Android and Web Tools for Clinical Practice

Session 2502: Let Us Help You Change Your Practice: A Review of JACI: In Practice "Options Beyond Our Pages"

Session 2521: You Talked and We Listened: The ABAI's Updated MOC Program Options

Session 2802: Telemedicine and You

Session 2805: MACRA, MIPS & APM: Time to Face the Ch-Ch-Changes in US Clinical Practices

Monday, March 5, 2018

Session 4713: Lean In to a Career You Love: Strategies to Create a Fulfilling Work Life and Prevent Burnout in Academia, Private Practice, Industry and Beyond

Track: Anaphylaxis/Urticaria/Angioedema

Saturday, March 3, 2018

Session 2006: Exercise-Induced Anaphylaxis: Food-Dependent, Food-Independent and Drug-Dependent

Session 2302: World Allergy Forum: New Approaches for the Optimal Management of Angioedema

Session 2505: Worldwide Challenges for Evaluation and Treatment of HAE

Session 2808: Anaphylaxis Across the Allergy Spectrum

Sunday, March 4, 2018

Session 3011: Work-up and Management of Chronic Urticaria

Monday, March 5, 2018

Session 4703: Spells: Spectrum from Idiopathic Anaphylaxis to Systemic Mastocytosis



Track: Asthma

Thursday, March 1, 2018

Session 0001: 32nd Annual Harold S. Nelson Miltary Allergy/ Immunology Symposium

Friday, March 2, 2018

Session 1203: NIAID: Early Events in the Development of Asthma *Session 1209:* Problem Based Learning: Severe Uncontrolled Asthma Patient?

Session 1301: Bridging the Care Gap: Using School Partnerships to Advance Care for Asthma, Food Allergy and Anaphylaxis

Session 1512: Prenatal Diet and Childhood Allergy and Asthma

Session 1519: Insights into Asthma Development and Severity *Session 1552:* AH: An Innovative Online Learning Approach to

Teaching Healthcare and Allied Health Professionals to Successfully Deliver Asthma Guidelines-Based Messages

Session 1601: Environmental Impacts on Asthma: Biology to Intervention

Session 1804: 17q21 Genes in Asthma: From Linkage to Function *Session 1809:* Opportunities to Answer Critical Questions about Asthma from NHLBI & NIAID

Saturday, March 3, 2018

Session 2003: Treatment and Possible Prevention of Wheezing in Preschool Children: New Research, Novel Ideas and Open Discussion **Session 2015:** AH: Management of Severe Asthma in the Pediatric Patient

Session 2305: Indoor and Outdoor Air Pollution Create Health Disparities for Rural Asthma Patients

Session 2306: NHLBI's AsthmaNet Clinical Trial Results 2018

Session 2310: AH: Evaluation and Management of the Pediatric Patient with Severe Asthma

Session 2410: Empowering the Health Care Team: Prevention of Asthma Development and Exacerbation

Session 2501: Inner-City Environmental Exposures and Childhood Asthma: Emerging Concepts from Home and School Studies

Session 2508: Practical Advice on Stepping Down Asthma Medications

Session 2551: Early Allergen Exposure Prevents Asthma

Sunday, March 4, 2018

Session 3002: Viruses and Bacteria in Asthma Exacerbations

Session 3003: Practical Issues of High Risk Asthma Clinics

Session 3303: Cost-Effectiveness of Pharmaceutical and Environmental Interventions for Asthma

Session 3503: Performing and Interpreting Spirometry: Understanding and Implementing the ATS/ERS Guidelines

Session 3507: Eosinopoietic Processes in Asthma

Session 3509: Storms and Asthma

Session 3551: Home Environmental Interventions are a Valuable Component of Asthma Management for Low-income Children with Asthma

Session 3701: ADT: How Viruses Predispose Children to Develop Asthma

Session 3705: HEDQ: Asthma Guidelines for Indoor Allergen Interventions: Methods and Clinical Implications

Monday, March 5, 2018

Session 4011: Underutilized Therapies for Asthma: Exercise, Weight Loss and Yoga

Session 4302: Allergies, Asthma and Environmental Risk Factors in a Changing World

Session 4303: The Effects of a Warming Climate on the Diagnosis and Treatment of Asthma

Session 4308: Early Life Environmental Exposures Regulate Host Allergic Immune Responses: Lessons Learned from the AADCRC Birth Cohorts

Session 4702: Meeting Patients Where They Are: Improving our Community Care Models for Asthma and COPD

Session 4714: Asthma Severity and Medications During Pregnancy: Multiple Perspectives





Track: Autoimmune/Auto-Inflammatory Disorders

Monday, March 5, 2018

Session 4007: Autoinflammatory Syndromes: An In-Depth Look

Track: Drug/Insect Allergy/Vaccines

Friday, March 2, 2018

Session 1505: Performing Outpatient Aspirin Desensitizations for Patients with AERD

Saturday, March 3, 2018

Session 2005: Diagnosis of Drug Allergy in Children

Session 2301: Turkish National Society of Allergy and Clinical Immunology (TNSAI) Sister Society Symposium: Novel Perspectives of NSAID Exacerbated Respiratory Diseases

Session 2308: Guidelines for the Evaluation and Management of Drug Hypersensitivity

Session 2552: Skin Testing is Required Prior to Drug Challenges *Session 2807:* A Novel Approach to Antimicrobial Allergy

Sunday, March 4, 2018

Session 3010: Insect Allergy: Changes in Practice from the 2016 Practice Parameter

Session 3505: Skin Testing to Drugs in the Outpatient Clinic

Track: Food Allergy

Friday, March 2, 2018

Session 1006: Comprehensive Management of FPIES

Session 1102: Going Nuts About Tree Nuts

Session 1151: AH: Technology in Food Allergy Practice

Session 1201: Difficult Cases: Part II

Session 1515: Updates in Food Allergy Management: Lessons Learned from Work Groups within the Adverse Reactions to Foods Committee

Session 1806: Social and Ethnic Disparities Matter in Allergy

Saturday, March 3, 2018

Session 2013: AH: The Role of the Dietitian in an Allergy Practice in the US and Across the Pond

Session 2021: AH: Your Food Allergy Study is Over: Now What? Life Beyond a Desensitization Study

Session 2311: AH: Oral Food Challenges in Infants, FPIES and Alpha-Gal Allergy

Session 2504: Non-IgE-Mediated Food Allergy: A Practical Approach for Recognition and Treatment

Session 2506: Managing Milk Allergy in Children

Session 2806: Gastrointestinal Food Allergies: The Challenges of Studying the Pathogenesis of Food Allergies Without Using Specific IgE

Sunday, March 4, 2018

Session 3005: Going Nuts for Peanuts in the Infant Diet **Session 3015:** AH: Dietary and Nutrition Management of Eosinophilic Esophagitis: Practical Application of the AAAAI/EGID Committee Workgoup Report

Session 3016: AH: From Paper to Clinic Along the FPIES Spectrum *Session 3310:* AH: Food Allergy Management: Challenges in Working with Special Populations

Session 3311: AH: Management of Feeding Difficulties in Non-IgE Mediated Food Allergy

Session 3401: Oral Food Challenges: Practical Tips for Preparation in the Office Setting

Session 3512: AH: Parent and Child Anxiety During Pediatric Oral Immunotherapy Clinical Trials

Session 3704: FADDA: Food Allergy Guidelines Galore

Monday, March 5, 2018

Session 4101: Cutting Edge-Food Allergy Pathogenesis, Diagnosis and Therapy



Track: Immune Mechanisms

Friday, March 2, 2018

Session 1003: From Genome-Wide to Worldwide: Allergic Diseases Around the Globe

Session 1204: The Microbiome: Terminology, Genetics, Role in Atopy Inception and Progression and Implications for Prevention

Session 1513: Anti-Inflammatory and Homeostatic Functions of TSLP and IL-33

Session 1514: Immunological Consequences of the Use of Biologics

Session 1517: IL-17A and Asthma

Session 1805: Biologics and Biomarkers for Asthma, Chronic Urticaria and Nasal Polyposis

Session 1808: The Epithelial Cell, Barrier Dysfuction and Immune Regulation in Allergic Inflammation

Saturday, March 3, 2018

Session 2012: Prostaglandin Regulation of Allergic Disease

Session 2303: New Insights into T Lymphocyte Regulation

Session 2304: Microbiome Manipulations for Allergic Disease

Session 2307: The Atopic March: What Have We Learned from the Natural History of Atopic Diseases

Session 2554: Whole Exome Sequencing Should Be Done For Every Abnormal Newborn Screen

Sunday, March 4, 2018

Session 3013: Epigenetic Mechanisms in Allergic Diseases

Session 3101: Environmental Influences on Innate Immunity-Insights and Mechanisms

Session 3304: Human Immune System Variation in Health and Disease

Session 3307: Chitinases: Accomplices in Chronic Allergic Inflammation or Friends in Wound Repair?

Session 3308: The Epithelium as Boss: Lessons from the AADCRC

Session 3510: The Microbiome In Immune Development and the Airways

Session 3707: MAAI: Cellular Players of Immune Tolerance

Monday, March 5, 2018

Session 4005: Allergen and Virus-Specific T Cells in Allergic Diseases

Session 4008: Epithelial Cells and Allergic Diseases: What Are These Cells Doing There?

Session 4301: Japanese Society of Allergology (JSA) Sister Society Symposium: Barrier Dysfunction in Allergic Diseases

Session 4306: Shaping Type 2 Inflammation: The Role of ILC2

Session 4701: Unlocking Microbial Diversity: What Sequencing Studies Have Revealed about Personal Microbial Exposure

Track: Immunodeficiency

Friday, March 2, 2018

Session 1007: Hot Topics in Immunologic Disorders in Children *Session 2512:* Late Effects Following HCT for SCID: What is Known and What to Look For

Session 2612: Difficult Questions from the Patient with Primary Immunodeficiency: How Do We Respond?

Saturday, March 3, 2018

Session 2512: Late Effects Following HCT for SCID: What is Known and What to Look For

Session 2612: AH: Difficult Questions from the Patient with Primary Immunodeficiency: How Do We Respond?

Sunday, March 4, 2018

Session 3001: Problem-Based Learning: Recurrent Infection in an Adult

Session 3004: Prescribing IgG for Immunodeficiency

Session 3012: Beyond the Basics: Advanced Testing for Primary Immunodeficiency Disorders

Session 3508: What Immunology Work-up is Appropriate in a Child with Very Early Onset Inflammatory Bowel Disease?

Session 3511: A Nuts and Bolts Approach to the Work-Up of Immunodeficiency Disorders in Children

Session 3702: BCI: Mechanisms Underlying Incomplete Penetrance and Variable Clinical Presentation of Primary Immunodeficiency Disorders

Monday, March 5, 2018

Session 4304: Update in PIDD Diagnostics and Treatments *Session 4711:* Novel Primary Immunodeficiency Syndromes

Track: Lung Diseases other than Asthma

Friday, March 2, 2018

Session 1502: Asthma/COPD Overlap Syndrome (ACOS) With and Without Occupational Causes

Session 1510: E-Cigarettes: What's the Harm?

Saturday, March 3, 2018

Session 2001: Helping Your Patients Quit Smoking: Patches, Pills, or E-Cigarettes?

Session 2503: The Child with a Chronic Cough

Session 2553: The Overlap of Asthma and COPD (ACOS) is a Distinct Syndrome that Changes Treatment and Patient Outcomes *Session 2813:* Particles and Particulates Revisited

Monday, March 4, 2018

Session 4001: Allergic Bronchopulmonary Aspergillosis: The Term Fails Us

Session 4715: Innate Immunity and AERD: Lessons from the AADCRC



Track: Mast Cell/Eosinophilic Disorders

Thursday, March 1, 2018

Session 0101: CEGIR/TIGERS EGID Symposium

Friday, March 2, 2018

Session 1207: Management of Special Issues in Mastocytosis *Session 1503:* Urinary Tests for Mast Cell Mediators: Why Order Them?

Saturday, March 3, 2018

Session 2010: High Tryptase: When is it Time for a Bone Marrow Biopsy?

Session 2509: Validated Surrogate Markers of Mast Cell Burden and Activation

Session 2511: Do I Have Mast Cell Activation Syndrome?

Session 2804: Mast Cell Biology on the March: Lessons from the AADCRC

Session 2811: Targeting Mast Cells in Asthma and Other Allergic Diseases

Sunday, March 4, 2018

Session 3008: Anti-IL5 Therapies in Eosinophilic Disorders

Session 3009: Mastocytosis and Mast Cell Activation Syndromes in Children

Session 3553: Mast Cell Activation Syndrome (MCAS): Real or Myth?

Monday, March 4, 2018

Session 4009: Are Mast Cells and Eosinophils the Preferred Targets for Anti-Allergic Therapy?

Session 4010: When Does Eosinophilia Require Further Work Up? *Session 4704:* The EoE Patient in Clinical Practice: Is There a Role for Combination Therapies?

Track: Research Principles

Friday, March 2, 2018

Session 1511: Geocoding and Asthma Epidemiology

Saturday, March 3, 2018

Session 2011: Animal Models of Asthma and Food Allergy: Choosing the Model that is Right for You

Session 2611: Allied Health Travel Grant Recipients

Session 2803: Optimal Scientific Writing: From Manuscript Preparation to Publication

Sunday, March 4, 2018

Session 3502: Engaging Underserved Populations in Clinical/ Translational Research

Monday, March 5, 2018

Session 4302: From Innovation to Publication: Taking QI Work Seriously





Track: Rhinosinusitis/Ocular Allergy

Friday, March 2, 2018

Session 1005: Rhinosinusitis: Bench to Bedside *Session 1150:* Introductory Course in Rhinolaryngoscopy with Hands-On Instruction

Saturday, March 3, 2018

Session 2007: Ocular Allergy for the Practicing Allergist
Session 2008: Chronic Rhinosinusitis in Children
Session 2510: What to Do with a Patient with Severe Chronic Rhinosinusitis
Session 2809: Pathways to Chronic Rhinosinusitis: Molecular to Microbial and Back

Sunday, March 4, 2018

Session 3706: IRSO: Advances in Chronic Rhinosinusitis

Monday, March 5, 2018

Session 4004: How to Link Your Chronic Rhinosinusitis Evaluation to Actionable Treatment Decisions

Session 4705: How Allergists and ENTs Can Work Together Effectively to Care for Chronic Rhinosinusitis

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Chrysalis Project



Thursday, March 1, 2018

Chrysalis Project Registration (Invite Only)

6:00 to 7:00 pm Hyatt, Convention Level, Celebration 4 Registration restricted to selected participants of award program.

Friday, March 2, 2018

Course

1050	2018 Chrysalis Project Program (Invite Only) 7:30 am to 1:45 pm
	Hyatt, Convention Level, Regency 0 Pre-registration and ticket required. Attendance restricted to selected participants of award program. No fee. Continental breakfast and box lunch included. Credit: No CME/CE
7:30	Breakfast
8:00	Welcome from the AAAAI President David B. Peden, MD MS FAAAAI
8:05	Welcome from the Chrysalis Project Chairs A. Wesley Burks, MD FAAAAI and Kimberly A. Risma, MD PhD FAAAAI
8:15	Eosinophilic Disorders Amy D. Klion, MD
8:45	Immunodeficiency Thomas A. Fleisher, MD FAAAAI
9:15	Food Allergy A. Wesley Burks, MD FAAAAI
9:45	Asthma Gurjit K. Khurana Hershey, MD PhD FAAAAI
10:15	Break
10:25	Atopic Dermatitis Donald Y. M. Leung, MD PhD FAAAAI
10:55	Drug Allergy Kimberly G. Blumenthal, MD MSc
11:25	Academic Career Paths Kimberly A. Risma, MD PhD FAAAAI
11:45	Industry Career Paths Daniel C. Adelman, MD FAAAAI
12:05	Private Practice Career Paths Maeve Edel O'Connor, MD
12:25	Class Photo
12:35	Luncheon with FIT Mentors and Chrysalis Faculty

Saturday, March 3, 2018

Chrysalis Project Reception (Invite Only)

6:00 to 7:00 pm

Hyatt, Convention Level, Regency V

Private reception open to current Chrysalis participants, Chrysalis mentors, Chrysalis faculty, Chrysalis workgroup members, Program Directors Assembly and AAAAI Board of Directors. Prior RSVP required.



Fellows-in-Training (FIT) Programming

Friday, March 2, 2018

Course

1012	2018 FIT Symposium (The second
	Hyatt, Convention Level, Regency R
	Pre-registration and ticket required. Attendance restricted to current allergy/immunology Fellows-in-Training only. No fee. Continental breakfast and box lunch included. This Session Will Use Audience Response Technology. Credit: No CME/CE
	Moderator: Christina G. Kwong, MD
7:00	Networking Breakfast
7:45	Introductions
	Christina G. Kwong, MD
7:50	Networking Organizations
8:05	American Board of Allergy and Immunology Stephen I. Wasserman, MD FAAAAI
8:10	Welcome from WAO Leadership Mario Sanchez-Borges, MD FAAAAI
8:20	Welcome from AAAAI President David B. Peden, MD MS FAAAAI
8:30	Environmental Factors in Allergic and Immunologic Disease David B. Peden, MD MS FAAAAI
9:00	Small Group discussion between WAO JMs and AAAAI FITs: Comparing Practice Approaches
9:30	Break
9:45	Occupational Asthma: Diagnosis, Management and the Role of the Physician When Patients Take Legal Action Karin A. Pacheco, MD MSPH FAAAAI
10:15	Eosinophilic Esophagitis: Management Approaches Marc E. Rothenberg, MD PhD FAAAAI
10:45	Break
11:00	Workshop 1: Aeroallergen/Venom Immunotherapy David M. Lang, MD FAAAAI
11:45	Workshop 2: Patch Testing Luz S. Fonacier, MD FAAAAI
12:30	Networking Lunch

Upon completion of this session, participants should be able to: Describe environmental factors in allergic and immunologic disease; Outline management approaches for eosinophilic esophagitis; Discuss approaches to aeroallergen and venom immunotherapy

FIT Reception

5:00 to 6:00 pm Hyatt, Convention Level, Plaza H

Sponsored by Teva Respiratory.

Private reception open to current allergy/immunology Fellows-in-Training only.

Saturday, March 3, 2018

Workshop

2557	Interesting Cases Part 1 12:30 to 1:45 pm Convention Center, South Concourse, Level 3, S331C Credit: 1.25 CME/CE <i>T. Prescott Atkinson, MD PhD FAAAAI</i> <i>Eric M. Schauberger, D0 PhD</i>	
12:30	A Clinical Diagnosis: Pdgfra Positive Myeloid Variant Hypereosinophilic Syndrome Gregory M. Constantine, MD	
12:40	Question & Answer	
12:45	Successful Treatment of Symptomatic Hypereosinophilia with Reslizumab Kara Coffey, MD	
12:55	Question & Answer	
1:00	Lymphocytic Hypereosinophilic Syndrome (HES) with Eosinophilic Cholangitis Albert Wu, MD	
1:10	Question & Answer	
1:15	Thick Cast Sputum Production and Eosinophilia in an Adult Presenting with Respiratory Distress Warit Jithpratuck, MD	
1:25	Question & Answer	
1:30	Development of Food Protein-Induced Enterocolitis Syndrome (FPIES) to Egg Following Immunoglobulin E (IgE)-Mediated Egg Allergy Hannah Duffey, MD	
1:40	Question & Answer	
Upon completion of this session, participants should be able to: Evaluate the management of challenging patient cases by trainees in allergy/immunology; Compare and contrast management strategies for challenging patient cases with peers.		





Fellows-in-Training (FIT) Programming

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Sunday, March 4, 2018

Workshop

3557	Interesting Cases Part 2
	12:30 to 1:45 pm
	Convention Center, South Concourse, Level 3, S331C Credit: 1.25 CMF/CF
	Moderators: Paul J. Dowling, MD FAAAAI
	Christina G. Kwong. MD
12:30	Management of Netherton Syndrome from the Immunology
	Perspective
	Meng Chen, MD
12:40	Question & Answer
12:45	Diagnostic and Treatment Considerations for Complete Digeorge Anomaly
	Anusha Vadlamudi
12:55	Question & Answer
1:00	When Looks Can be Deceiving: Mycobacterium Avium Complex
	Infection Masquerading As Asthma in an Immunocompetent
	Adolescent
	Cleavon J. Covington, MD
1:10	Question & Answer
1:15	A Case of (SIFD) Congenital Sideroblastic Anemia, Immunodeficiency, Fevers, and Developmental Delay Salma Salim Alkhammash. MD
1:25	Question & Answer
1:30	A Peculiar Non-Allergy Rash in the Allergy Clinic Peter Capucilli, MD
1:40	Question & Answer

Upon completion of this session, participants should be able to: Evaluate the management of challenging patient cases by trainees in allergy/immunology; Compare and contrast management strategies for challenging patient cases with peers.



VAMPSS —Vaccines and Medications in Pregnancy Surveillance System Helping asthmatic women deliver healthy babies

Help us find out how asthma and its treatments affect pregnancy outcomes.

The Vaccines and Medications in Pregnancy Surveillance System (VAMPSS) is coordinated by AAAAI and monitors the use and safety of vaccines and medications during pregnancy. Our current focus is the safety of new biologics used to treat severe asthma in pregnant women.

Visit our prospective cohort study partner MotherToBaby at booth #2628 to find out how you can refer your pregnant asthma patients for this important study.

Learn more by attending:

Asthma Severity and Medications During Pregnancy: Multiple Perspectives Monday, March 5, 3:30 - 4:45 pm, Convention Center, South Concourse, Level 2, S220B Primary moderators: Michael Schatz, MD, MS and Anahi Yanez Speakers: Christina Chambers, PhD, MPH; Melissa Tassinari, PhD, DABT; Vanessa Murphy, PhD

www.aaaai.org/VAMPSS



American Academy of Allergy Asthma & Immunology

AAAAI Advocacy: 2018 Priorities



- Protect in-office allergen extract compounding
- Promote penicillin allergy testing as a component of antibiotic stewardship
- Engage Congress and CMS to make the MACRA Quality Payment Program more physician-friendly
- Enact Asthma in Schools Legislation
- Defend patient access to care and physician reimbursement

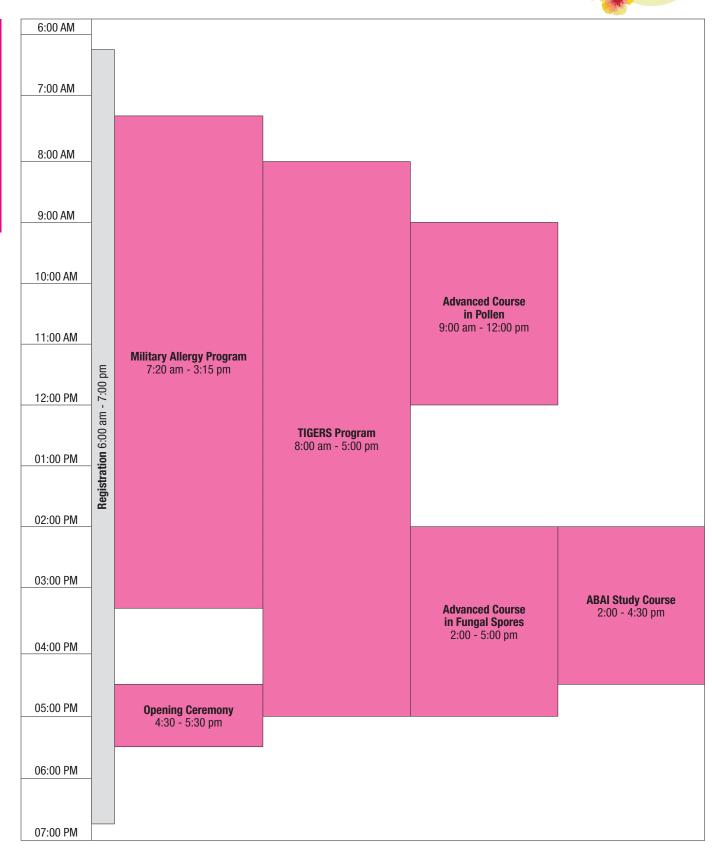
The AAAAI Advocacy Committee invites your input. Email advocacy@aaaai.org

Because Practice Matters! to the AAAAI http://www.aaaai.org/advocacy





Thursday At-A-Glance



AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Thursday, March 1

48 American Academy of Allergy Asthma & Immunology



Thursday Scientific Program

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA UŚA

0001	32nd Annual Harold S. Nelson Miltary Allergy/Immunology Symposium ^(Mag) 7:20 am to 3:15 pm	11:40	Lunch and Bruton Lecture: The Evolution of Molecular Phenotypes in Asthma: Implications for Treatment Sally Wenzel, MD FAAAAI
	Convention Center, South Concourse, Level 2, S220EF		Consultants to the Surgeons General Updates
	Pre-registration and ticket required. No fee for approved and registered Military members.	1:00	VHA Allergy Committee Anna H. Heisser, MD
	Continental breakfast and box lunch included. Credit: 6.50 CME/CE	1:15	Air Force John Freiler, MD FAAAAI
	Moderator: Taylor A. Banks, MD	1:30	Army
7:20	Registration and Breakfast		Kirk H. Waibel, MD FAAAAI
7:50	Welcome and Overview Taylor A. Banks, MD	1:45	Navy Rachel Umi Lee, MD FAAAAI FACP
8:00	Morning Address: The Buzz Around Alpha-Tryptase Jonathan Lyons, MD	2:00	Interactive Small Group Discussion VHA Allergy Committee Moderator
9:00	Break		Anna H. Heisser, MD
	Case Reports		Air Force Moderator
9:10	Severe Malnutrition Mimicking an Immune Dysregulation		John Freiler, MD FAAAAI
	Syndrome		Army Moderator
	Martin O. Evans, DO		Kirk H. Waibel, MD FAAAAI
9:25	Complement Deficiency in an Active Duty Sailor		Navy Moderator
	Luke Pittman, MD		Rachel Umi Lee, MD FAAAAI FACP
9:40	Persistent Hypogammaglobulinemia after in Utero Rituximab	2:50	Business Meeting
	Exposure	Upon co	mpletion of this session, participants should be able to: Discuss emerging tryptase
	Diana R. Lindsey, MD		s and the process of evaluating affected patients; Identify different asthma pheno-
9:55	An Uncommon Case of Common Variable Immunodeficiency Karin J. Brockman, MD		dotypes and targeted/personalized treatment approaches; Discuss the limitations notype/endotypes-based approach to asthma management.
	Original Research		
10:10	Safety and Efficacy of a 12-Week Maintenance Interval in Patients Treated with Imported Fire Ant Immunotherapy: An Interim Update		
	Rebecca Schapira, DO		
10:25	Rapid Build-up in Subcutaneous Aeroallergen Immunotherapy		
10120	(SCIT) Refill Dosing Chandra S. Punch, MD		
10:40	Improvement in Spirometry Quality after ATS Criteria		
	Incorporation		
	Priya Nath, MD		
10:55	Defense Health Agency: Immunization Healthcare Branch Update Limone C. Collins, MD		
11:05	Military Aeroallergen Extract Laboratory Updates Brian D. Robertson, MD		
11:15	Widening the Aperture: Elucidating the Pathogenesis of Vaccine and Biologic Countermeasure Development Against Warfighter ID Threats		
11.05	Christopher Brian Soltis, MD		
11:25	MAIA: Research Goals and Collaborative Efforts John Freiler, MD FAAAAI		





Thursday Scientific Program

Courses		2:30	Biological and Emerging Therapies Patricia C. Fulkerson, MD PhD		
0101	CEGIR/TIGERS EGID Symposium 🛛 🚾	2:45	Nutritional Aspects for EGID		
	8:00 am to 5:00 pm		Marion E. Groetch, MS RDN		
	Convention Center, South Concourse, Level 3, S320CD	3:00	Pro/Con: PPI - REE vs. EoE		
	Pre-registration and ticket required. Box lunch included.		Chris A. Liacouras, MD		
	Credit: 7.00 CME/CE		Evan S. Dellon, MD MPH		
	This session is funded in part by educational grants from The American Partnership for Eosinophilic Disorders (APFED) and the		Conclusions		
	Campaign Urging Research for Eosinophilic Disease (CURED).	3:30	Patient Perspective: Needs for Future		
8:00	Welcome & Introduction		Melissa Scott, RN BSN		
	Marc E. Rothenberg, MD PhD FAAAAI	3:40	Going Forward		
8:10	Introduction to TIGERS and CEGIR	2.50	Michael Minnicozzi, PhD		
	Marc E. Rothenberg, MD PhD FAAAAI	3:50	Concluding Remarks Marc E. Rothenberg, MD PhD FAAAAI		
8:20	Patient Perspective: Living with EGID	Upon coi	mpletion of this session, participants should be able to: Describe eosinophilic		
	Wendy Book, MD	gastrointestinal diseases (EGID) in terms of their clinical features, biology and treatment;			
	Basic Disease Features		the diagnosis of EGID and the differentiation of EoE from other forms of esophagi-		
8:30	Defining EGID Pathology	tis; Disci	uss the multidisciplinary approach to caring for patients with EGID.		
	Margaret H. Collins, MD	0201	Advanced Course in Pollen Identification 🛛 🚾 📀		
8:45	Epidemiology of EGID		9:00 am to 12:00 pm		
	Evan S. Dellon, MD MPH		Hyatt, Convention Level, Regency 0		
9:00	Consequences of EoE - Remodeling		Pre-registration and ticket required. Fee: \$125.		
0.15	Seema S. Aceves, MD PhD FAAAAI		Credit: 3.00 CME/CE		
9:15	Break Basis Frielewi	0.00	Moderator: Estelle Levetin, PhD FAAAAI		
0.20	Basic Etiology Genetics of EoE	9:00	Triporate Pollen Richard W. Weber, MD FAAAAI		
9:30	Leah C. Kottyan, PhD	9:30	Hands-On Instruction: Question & Answer		
9:45	T Cell Responses	10:00	Tricolporate Pollen		
0.40	Antonella Cianferoni, MD PhD FAAAAI	10.00	Estelle Levetin, PhD FAAAAI		
10:00	EoE Pathogenesis	10:30	Hands-On Instruction: Question & Answer		
	Marc E. Rothenberg, MD PhD FAAAAI	11:00	Asteraceae Pollen		
10:15	Big Data Dissection		Peter K. Van de Water, PhD		
	Ting Wen, PhD	11:30	Hands-On Instruction: Question & Answer		
10:30	Pro/Con: Frequent Endoscopy or Monitor Symptoms	Upon coi	mpletion of this session, participants should be able to: Identify how to differenti-		
	Amanda Muir, MD		in the Betulaceae and related triporate pollen types; Identify how to differentiate		
	Ikuo Hirano, MD	ragweed	tricolporate pollen types; Identify how to differentiate Asteraceae pollen other than		
11:10	Lunch Pro/Con Debates: Ticketed Sessions				
11:30	Pro/Con: What's More Important - Mast Cells or Eosinophils?	0601	Advanced Course in Fungal Spore Identification 🔤 🛇		
	Joshua B. Wechsler, MD Lisa A. Spencer, PhD FAAAAI		2:00 to 5:00 pm		
12:10	Pro/Con: Diet vs. Steroid Therapy		Hyatt, Convention Level, Regency 0 Pre-registration and ticket required. Fee: \$125.		
12.10	Kara Kliewer, PhD RD		Credit: 3.00 CME/CE		
	Nirmala Gonsalves, MD		Moderator: Estelle Levetin, PhD FAAAAI		
	Clinical Associations	2:00	Basidiospore Identification		
12:50	Relationship between EoE and Other Forms of Esophagitis with		Estelle Levetin, PhD FAAAAI		
	Focus on PPI Responses	2:30	Hands-On Instruction: Question & Answer		
	Edaire Cheng, MD	3:00	Ascospore Identification		
1:05	Relationship Between EGID and Atopy		W. Elliot Horner, PhD LEED AP FAAAAI		
	Jonathan M. Spergel, MD PhD FAAAAI	3:30	Hands-On Instruction: Question & Answer		
1:20	Pro/Con: What's More Important in EoE - IgE	4:00	Challenging Spore Types		
	Thomas A.E. Platts-Mills, MD PhD FAAAAl Mirra Chabada MD MPH		James A. Scott, PhD		
2.00	Mirna Chehade, MD MPH	4:30	Hands-On Instruction: Question & Answer		
2:00	Break Diagnosis and Treatment Debates		mpletion of this session, participants should be able to: Discuss and differentiate I basidiospores; Discuss and differentiate common ascospores; Discuss and		
2:15	Less Invasive Testing for EoE and Beyond		iate Fusarium, Penicillium/Aspergillus and other difficult spore types.		
2.13	Joel Friedlander, DO				

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Thursday Scientific Program

Courses (continued)

0602	2018 Literature Review: ABAI Continuous Assessment Study Course 🛛 🚾 🖤		
	2:00 to 4:30 pm		
	Convention Center, South Concourse, Level 2, S230AB		
	Pre-registration and ticket required.		
	This Session Will Use Audience Response Technology.		
	This Session Requires Pre-Meeting Reading.		
	Credit: 2.50 CME/CE		
	Moderator: Denise A. DiPrimio-Kalman, DO FAAAAI		
2:00	Immune Deficiency/Autoimmunity/Immune-Based Disorders John M. Routes, MD FAAAAI		
2:30	Question & Answer		
2:35	Mast Cell Disorders/Eosinophilic Disorders/Anaphylaxis/Drug-		
	Insect-Vaccine Allergy		
	Princess U. Ogbogu, MD FAAAAI		
3:05	Question & Answer		
3:10	Food Allergy/Allergic & Immunologic Skin Disorders/Urticaria-		
	Angioedema		
	John M. Kelso, MD FAAAAI		
3:40	Question & Answer		
3:45	Asthma & Other Lung Diseases/Allergy Testing & Therapeutics/		
	Rhinosinusitis/Ocular Allergy		
	Bradlev E. Chipps. MD FAAAAI		

4:15 Question & Answer

Upon completion of this session, participants should be able to: Discuss recently published research relevant to the practice of allergy/immunology.

Opening Ceremony

4:30 to 5:30 pm

Hyatt, Convention Level, Regency S

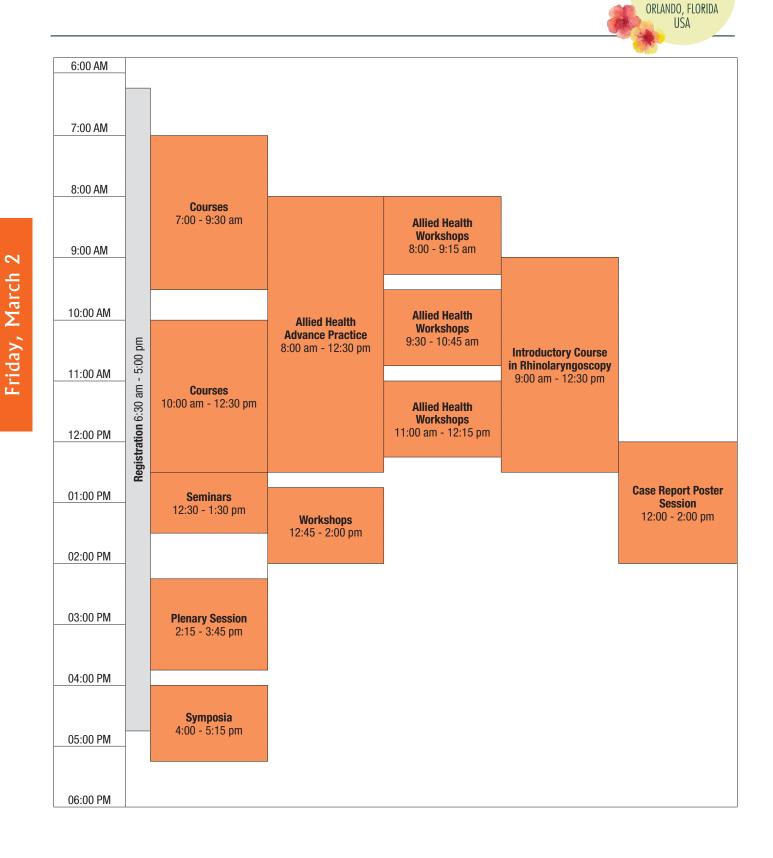
The Opening Ceremony welcomes delegates to the AAAAI/WAO Joint Congress. Presentations will be made by the WAO and AAAAI Presidents, awards will be given to leaders in the field and entertainment will be provided. Attendance is complimentary to all meeting participants. A Welcome Reception will follow.







Friday At-A-Glance



AAAAI/WAO

Joint Congress 2-5 March 2018



Cours	;es	1003	From Genome-Wide to Worldwide: Allergic Diseases
1001	Difficult Cases: Part I ♥ 7:00 to 9:30 am Convention Center, South Concourse, Level 3, S320CD This Session Will Use Audience Response Technology. Credit: 2.25 CME/CE Moderators: Jonathan S. Tam, MD FAAAAI Luciana Kase Tanno, MD PhD	7:00	Around the Globe V 7:00 to 9:30 am Convention Center, South Concourse, Level 2, S230AB Credit: 2.50 CME/CE Moderator: Kathryn E. Hulse, PhD The Use of Race, Ethnicity and Genetic Ancestry Information in Allergic Disease Research Establean C. Burshard, MD, MDH
7:00	Atopic Dermatitis	7:20	Esteban G. Burchard, MD MPH Question & Answer
	Junior Presenter: Razvigor B. Darlenski, MD PhD Senior Presenter: James R. Treat, MD	7:25	From Mom to Baby: Epigenetics and the Risk of Childhood Asthma
7:35	Question & Answer		Donata Vercelli, MD
7:45	When Biologics Do Not Work: Difficult to Treat Asthma	7:45	Question & Answer
	Junior Presenter: Marco Caminati, MD Senior Presenter: Alvaro Cruz, MD	7:50	Genetic Variation in the Receptor for Rhinovirus C and Asthma Risk
8:20	Question & Answer		James E. Gern, MD FAAAAI
8:30	Break	8:10	Question & Answer
8:45	Mast Cell Activation Syndrome Junior Presenter: Malika Gupta, MD Senior Presenter: Mariana C. Castells, MD PhD FAAAAI	8:15	The Rural-Urban Enigma of Allergy: Studies from Around the World
9:20	Question & Answer		Erika von Mutius, MD MSc
Upon co	mpletion of this session, participants should be able to: Discuss diagnostic and nanagement challenges encountered in allergy, asthma and immunology practice.	8:35 8:40	Question & Answer Development of Food Allergy in Genetically Similar Populations Living in Distinct Locations
1002	NIEHS: Understanding the Exposome: Allergens, Adjuvants		Mayumi Nishioka Tamari, MD PhD
	and Non-Allergens ∇	9:00	Question & Answer
	7:00 to 9:30 am Convention Center, South Concourse, Level 3, S310AB Credit: 2.50 CME/CE	9:05	From the Outside in: Helminth Infection Alters the Microbiome t Modulate Allergic Inflammation Miguel Leon Stein, MD FAAAAI
	Moderator: Geoffrey Mueller, PhD	9:25	Question & Answer
7:00	Allergen Detection and Standardization Anna Pomés, PhD FAAAAI	nicity inf	mpletion of this session, participants should be able to: Discuss how race and e fluence development of allergic disease; Identify the epigenetic mechanisms the e risk of asthma development; Discuss the mechanisms whereby environment
7:20	Question & Answer		etic background influence susceptibility to allergic disease.
7:25	Individual Allergen Exposure Measurements Euan R. Tovey, MSc PhD	Jan 19	
7:45	Question & Answer		
7:50	The Influence of Pollution Exposure on Allergic Sensitization Juan C. Celedon, MD DrPH FAAAAI		
8:10	Question & Answer		
8:15	The Immune Response to Allergens and Non-Allergens Bjoern Peters		
8:35	Question & Answer		
8:40	Are Allergens More Abundant and/or More Stable Than Other Proteins? Geoffrey Mueller, PhD		

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	ORLANDO, FLORIDA	
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- 9:00 **Question & Answer**
- The Influence of Environmental Factors on Allergens and 9:05 **Antibody Recognition** Maksymilian Chruszcz, PhD
- 9:25 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss the totality of human exposure and how this influences allergic disease; Describe the molecular mechanisms of allergic sensitization using a holistic view of allergen, adjuvant and non-allergen exposure; Identify environmental influences on the antibody recognition of allergens.





•	/ H N	1000		
Courses (continued)		1006	Comprehensive Management of FPIES V	
1004	How to Apply For and Obtain an NIH Grant for the Junior Investigator		7:00 to 9:30 am Convention Center, South Concourse, Level 3, Credit: 2.50 CME/CE	
	7:00 to 9:30 am		Moderator: Ruchi S. Gupta, MD MPH	
	Convention Center, South Concourse, Level 3, S312 Pre-registration and ticket required. Fee: \$20.	7:00	Manifestations of Acute, Chronic and Atypical Jean-Christoph Caubet, MD	
	Attendees will be required to Submit a One to Three Page Grant	7:20	Question & Answer	
	Proposal Consisting Primarily of Hypotheses and Specific Aims to participate in this Course Credit: 2.25 CME/CE	7:25	MCAS: The Overlapping Features with FPIES Juan Pablo Abonia, MD	
	Moderator: Tanya M. Laidlaw, MD FAAAAI	7:45	Question & Answer	
7:00	NIH Funding Opportunities and Strategies for Success.	7:50	Nutritional Risks and Feeding Difficulties in In Carina Venter, PhD RD	
	Panelists	8:10	Question & Answer	
	Michael Minnicozzi, PhD Alkis Togias, MD FAAAAI	8:15	The Burden of FPIES	
7:30	Ouestion & Answer		Fallon Schultz, MSW LCSW CAM	
7:45	Strategies to Write a Fundable NIH Grant	8:35	Question & Answer	
7.43	Panelists Supinda Bunyavanich, MD MPH FAAAAI	8:40	The Structured Visit: An Allergist's Guide to Ac Clinical and Practical Needs of FPIES Antonella M. Muraro, MD PhD	
	Nora A. Barrett, MD FAAAAI	9:00	Question & Answer	
	Stokes Peebles, MD FAAAAI	9:05	Trends in FPIES Epidemiology	
8:45	Break	0.00	Matthew J. Greenhawt, MD MBA MSc	
9:00	Panel Presentation: Review of Submitted Grant Proposals	9:25	Question & Answer	
Upon completion of this session, participants should be able to: Discuss the various programs available at the NIH (and elsewhere) for funding research; Discuss how to write a hypothesis-driven series of specific aims for a grant designed to motivate and generate an enthusiastic response from the reviewer.		Upon completion of this session, participants should be able to: Dis of the practical management of FPIES in the allergy office; Describ acute, chronic and atypical FPIES in childhood and FPIES presental		
1005	Rhinosinusitis: Bench to Bedside 🖤	1007	Hot Topics in Immunologic Disorders in C	
	7:00 to 9:30 am		7:00 to 9:30 am	
	Convention Center, South Concourse, Level 3, S310GH Credit: 2.50 CME/CE		Convention Center, South Concourse, Level 3, This Session Will Use Audience Response Technol Credit: 2.50 CME/CE	
	Moderator: Patricia A. Takach, MD FAAAAI		Moderator: Rebecca Scherzer, MD FAAAAI	
7:00	The Microbiome of the Paranasal Sinuses Mahboobeh Mahdavinia, MD PhD	7:00	Newborn Screening for Primary Immunodefici Where Are We in 2018?	
7:20	Question & Answer		Morna J. Dorsey, MD MMSc FAAAAI	
7:25	The Inflammatory Pattern in Chronic Rhinosinusitis without Nasal	7:20	Ouestion & Answer	
	Polyps Atmatic Kata, Dh.D.	7:30	Use of Standard Vaccines in Patients with Prin	
7.45	Atsushi Kato, PhD	1.00	Immunodeficiency Diorders	
7:45	Question & Answer The Data of II C2a in Chronic Dhinacinveitie		Peter Mustillo, MD FAAAAI	
7:50	The Role of ILC2s in Chronic Rhinosinusitis Amber Uyen Luong, MD PhD	7:50	Question & Answer	
8:10	Question & Answer	8:00	Update on the Use of Genetic Testing in Patien	
8:15	The Epithelial Barrier Disruption in Chronic Rhinosinusitis		Primary Immunodeficiency Disorders	
0.10	Peter W. Hellings, MD		Thomas A. Fleisher, MD FAAAAI	
8:35	Question & Answer	8:20	Question & Answer	
8:40	Leukotrienes and Arachidonate Metabolites in Chronic	8:30	Autoinflammatory Disorders in Children: What	
	Rhinosinusitis		Immunologists Should Know	
	Larry Borish, MD FAAAAI	0.50	Michelle L. Hernandez, MD FAAAAI	
9:00	Question & Answer	8:50	Question & Answer	
9:05	Biologics for Severe Chronic Rhinosinusitis Claus Bachert, MD PhD	9:00	The Role of the Immunologist in Children with Inflammatory Bowel Disease (VEO-IBD)	
9:25	Question & Answer		Kathleen E. Sullivan, MD PhD FAAAAI	

Upon completion of this session, participants should be able to: Discuss the microorganisms that make up the microbiome in the normal and diseased paranasal sinuses; Describe the role of the epithelial cells, adaptive immunity, bitter taste receptors and leukotrienes in CRS; Describe our updated understanding of cystic fibrosis and its implications for other CRS clinical subtypes.



	Convention Center, South Concourse, Level 3, S330GH Credit: 2.50 CME/CE Moderator: Ruchi S. Gupta, MD MPH
7:00	Manifestations of Acute, Chronic and Atypical FPIES in Children Jean-Christoph Caubet, MD
7:20	Question & Answer
7:25	MCAS: The Overlapping Features with FPIES Juan Pablo Abonia, MD
7:45	Question & Answer
7:50	Nutritional Risks and Feeding Difficulties in Infantile FPIES Carina Venter, PhD RD
8:10	Question & Answer
8:15	The Burden of FPIES Fallon Schultz, MSW LCSW CAM
8:35	Question & Answer
8:40	The Structured Visit: An Allergist's Guide to Addressing the Clinical and Practical Needs of FPIES Antonella M. Muraro, MD PhD
9:00	Question & Answer
9:05	Trends in FPIES Epidemiology Matthew J. Greenhawt, MD MBA MSc
9:25	Question & Answer
of the pr	mpletion of this session, participants should be able to: Discuss the components actical management of FPIES in the allergy office; Describe manifestations of pronic and atypical FPIES in childhood and FPIES presentation in adults.
1007	Hot Topics in Immunologic Disorders in Children V 7:00 to 9:30 am
	Convention Center, South Concourse, Level 3, S330AB This Session Will Use Audience Response Technology. Credit: 2.50 CME/CE Moderator: Rebecca Scherzer, MD FAAAAI
7:00	Newborn Screening for Primary Immunodeficiency Disorders: Where Are We in 2018?
	Morna J. Dorsey, MD MMSc FAAAAI
7:20	Question & Answer
7:30	Use of Standard Vaccines in Patients with Primary Immunodeficiency Diorders Peter Mustillo, MD FAAAAI
7:50	Question & Answer
8:00	Update on the Use of Genetic Testing in Patients with Suspected Primary Immunodeficiency Disorders Thomas A. Fleisher, MD FAAAAI
8:20	Ouestion & Answer
8:30	Autoinflammatory Disorders in Children: What All Practicing Immunologists Should Know Michelle L. Hernandez, MD FAAAAI
8:50	Question & Answer
9:00	The Role of the Immunologist in Children with Very Early Onset Inflammatory Bowel Disease (VEO-IBD)

- athleen E. Sullivan, MD PhD FAAAAI
- 9:20 **Question & Answer**

Upon completion of this session, participants should be able to: Recognize the importance of screening for SCID on the newborn screen; Describe the more common autoinflammatory diseases seen in children; Discuss the role that the immunologist plays in children with very early onset inflammatory bowel disease.

Courses (continued)

1012	2018 FIT Symposium 🛛 🗠
	7:00 am to 1:30 pm
	Hyatt, Convention Level, Regency R
	Pre-registration and ticket required.
	This Session Will Use Audience Response Technology.
	Credit: No CME/CE
	Moderator: Christina G. Kwong, MD
7:00	Networking Breakfast
7:45	Introductions
	Speaker
	Christina G. Kwong, MD
7:50	Networking Organizations
8:05	American Board of Allergy and Immunology
	Stephen I. Wasserman, MD FAAAAI
8:10	Welcome from WAO Leadership
	Mario Sanchez-Borges, MD FAAAAI
8:20	Welcome from AAAAI President
	David B. Peden, MD MS FAAAAI
8:30	Environmental Factors in Allergic and Immunologic Disease David B. Peden, MD MS FAAAAI
9:00	Small Group Discussion between WAO JMs and AAAAI FITs: Comparing Practice Approaches
9:30	Break
9:45	Occupational Asthma: Diagnosis, Management and the Role of
3.43	the Physician When Patients Take Legal Action
	Karin A. Pacheco, MD MSPH FAAAAI
10:15	Eosinophilic Esophagitis: Management Approaches
	Marc E. Rothenberg, MD PhD FAAAAI
10:45	Break
11:00	Workshop 1: Aeroallergen/Venom Immunotherapy
	David M. Lang, MD FAAAAI
11:45	Workshop 2: Patch Testing
	Luz S. Fonacier, MD FAAAAI
12:30	Networking Lunch
Upon co	noletion of this session, participants should be able to: Describe environmenta

Upon completion of this session, participants should be able to: Describe environmental factors in allergic and immunologic disease; Outline management approaches for eosinophilic esophagitis; Discuss approaches to aeroallergen and venom immunotherapy.

_	1050	2018 Chrysalis Project Program 🛛 🗠
		7:30 to 1:45 pm
		Hyatt, Convention Level, Regency 0
		Pre-registration and ticket required. No fee.
		Credit: No CME/CE
	7:30	Breakfast
	8:00	Welcome from the AAAAI President David B. Peden, MD MS FAAAAI
	8:05	Welcome from the Chrysalis Chairs
		A. Wesley Burks, MD FAAAAI
		Welcome from the Chrysalis Chairs
		Kimberly A. Risma, MD PhD FAAAAI
	8:15	Eosinophilic Disorders
		Amy D. Klion, MD
	8:45	Immunodeficiency
		Thomas A. Fleisher, MD FAAAAI
	9:15	Food Allergy
		A. Wesley Burks, MD FAAAAI
	9:45	Asthma
		Gurjit K. Khurana Hershey, MD PhD FAAAAI
	10:15	Break
	10:25	Atopic Dermatitis
		Donald Y. M. Leung, MD PhD FAAAAI
	10:55	Drug Allergy
		Kimberly G. Blumenthal, MD MSc
	11:25	Academic Career Paths
		Kimberly A. Risma, MD PhD FAAAAI
	11:45	Industry Career Paths
		Daniel C. Adelman, MD FAAAAl
	12:05	Private Practice Career Paths
		Maeve Edel O'Connor, MD
	12:25	Class Photo
	12:35	Luncheon with FIT Mentors and Chrysalis Faculty

Upon completion of this session, participants should be able to: Discuss a number of conditions commonly encountered in the practice of allergy/immunology; Compare and contrast the career paths available to a fellowship-trained allergist/immunologist.

AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA UŚA





1101 AH: Advanced Practice Update

 8:00 to 12:30 pm
 Hyatt, Convention Level, Plaza E
 Credit: 4.00 CME/CE
 Moderator: Kim E. Mudd, RN MSN CCRP

 8:00 Introduction
 8:05 Drug Allergy Update: Penicillin and Beyond

 Jennifer S. Kim, MD FAAAAI

- 8:40 Question & Answer 8:55 Diagnosis of Primary Immur
- 8:55 Diagnosis of Primary Immune Deficiency: Now What? M. Elizabeth M. Younger, CRNP PhD
 9:30 Question & Answer
- 9:45 Break
 10:00 The Importance of a Diet History in the Diagnosis of Food Allergy Isabel J. Skypala, PhD RD
- 10:35 Question & Answer
- 10:50 Psychosocial Dynamics With Asthma Melissa T. Korenblat-Hanin, ACSW LCSW
- 11:25 Question & Answer
- 11:40 EoE: Diagnosis and Management Mirna Chehade, MD MPH

12:15 Question & Answer

Upon completion of this session, participants should be able to: Discuss current clinical updates and resources in the field of allergy/immunology; Discuss ways to integrate current data into clinical practice; Identify allergy and immunology resources to continue future development of allergy/immunology clinical practice.

Workshops

1102	AH: Going Nuts About Tree Nuts 🛡	
	8:00 to 9:15 am	
	Hyatt, Convention Level, Plaza I	
	This Session Will Use Audience Response Technology.	
	Credit: 1.25 CME/CE	
	Moderator: Amanda S. Troger, BSN, RN, CPN	
8:00	Tree Nut Allergy: Is Additional Testing Necessary?	
	Hemant P. Sharma, MD MHS FAAAAI	
0.00	Question 9 Annuar	

- 8:20Question & Answer8:25Tree Nut Sensitization: Now What?
 - Christina E. Ciaccio, MD FAAAAI
- 8:45 Question & Answer
- 8:50 Tree Nut Allergy: One for All or All for One? Jodi A. Shroba, MSN APRN CPNP
- 9:10 Question & Answer

Upon completion of this session, participants should be able to: Describe testing options and interpretation of results; Identify when oral challenges could be utilized to help with diagnosis; Discuss current options in management of nut allergy.

1150	Introductory Course in Rhinolaryngoscopy with Hands-On Instruction 🔤 📀
	9:00 am to 12:00 pm
	Hyatt, Convention Level, Plaza JK
	Pre-registration and ticket required. Fee: \$50.
	Credit: 3.50 CME/CE
	Moderator: Jerald W. Koepke, MD FAAAAI
9:00	Introduction to Rhinolaryngoscopy
	Jerald W. Koepke, MD FAAAAI
10:30	Hands-On Learning
	Instructors
	Allen D. Adinoff, MD FAAAAI
	Grant C. Olson, MD
	Kevin R. Murphy, MD
	Donald W. Pulver, MD FAAAAI
	C. Ross Westley, MD FAAAAI
omy of th of norma changes	npletion of this session, participants should be able to: Discuss the surgical anat- te upper airway, including the nasal cavity, pharynx and larynx; Discuss examples I and abnormal anatomy, as well as disease presentations and post-operative found with endoscopic examination of the upper airway; Demonstrate the initial eded to perform a comprehensive upper airway examination with a fiberoptic be.

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1151	AH: Technology in Food Allergy Practice 9:30 to 10:45 am
	Hyatt, Convention Level, Plaza I
	Credit: 1.25 CME/CE
	Moderator: David R. Stukus, MD FAAAAI
9:30	The Dietitian's Role in Telehealth Utilization for Food Allergic
	Patients
	Alexia K. Beauregard, MS RD CSP LD
9:50	Question & Answer
9:55	Accessing Dietary Advice Using Telemedicine
	Raquel Durban, MS RD CSP LDN
10:15	Question & Answer
10:20	The Dos and Don'ts of Online Communication with Patients:
	HIPAA Compliance
	Claudia Guglielmo, MPA AE-C
10:40	Question & Answer

Upon completion of this session, participants should be able to: Identify opportunities for food allergy-related nutrition consultations via telehealth; Discuss how symptom and dietary tracking apps enhance provider and patient communication.

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1201	Difficult Cases: Part II 🔍
1201	10:00 am to 12:30 pm
	Convention Center, South Concourse, Level 3, S320CD
	Credit: 2.25 CME/CE
	Moderators: Ashwini Reddy, MD
	Razvigor B. Darlenski, MD PhD
10:00	Eosinophilic Esophagitis and Eosinophilic Diseases
	Benjamin L. Wright, MD
	Jonathan M. Spergel, MD PhD FAAAAI
10:35	Question & Answer
10:45	NSAID Hypersensitivity
	Mario Sanchez-Borges, MD FAAAAI
	Hae-Sim Park, MD PhD FAAAAI
11:20	Question & Answer
11:30	Break
11:45	Food Allergy: Challenges with New Guidelines
	Moira E. Breslin, MD
	Gideon Lack, MD
12:20	Question & Answer

Upon completion of this session, participants should be able to: Discuss diagnostic and clinical management challenges encountered in allergy, asthma and immunology practice.

Courses

1202	The Best of the Practice Management Workshop V 10:00 am to 12:30 pm	
	Convention Center, South Concourse, Level 3, S310AB	
	Credit: 2.50 CME/CE Moderator: Weily Soong, MD FAAAAI	
10:00	Revenue Cycle Managment: From Appointment to Payment and Beyond Helen Combs	
10:40	Question & Answer	
10:50	Best Practices in HR for Allergy Practices Mohamed S. Yassin, MD FAAAAI	
11:30	Question & Answer	
11:40	Successful Coding Strategies Teresa Thompson, CPC CMSCS CCC	
12:20	Question & Answer	
Upon completion of this session, participants should be able to: Define the process to ca ture accurate insurance information in an effort to produce a clean claim and maximize		

cap ze reimbursements; List several tactics a practice can take to maximize staff satisfaction and retention; Describe how to accurately assess the value of an allergy practice, including the impact of assets, liabilities and "goodwill."

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	2-5 March 2018
	ORLANDO, FLORIDA
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	-
NIAID: Early Events in the Development	nt of Asthma 🔻
10:00 am to 12:30 pm	
Convention Center, South Concourse, Leve	I 3, S330AB
Credit: 2.50 CME/CE	
Moderator: Lisa M. Wheatley, MD	
In Utero Events and Asthma	

AAAAI/WAO

Joint Congress

Friday, March

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- Credit: 2.50 CME/CE Moderator: Lisa M. Wh 10:00 In Utero Events and As Augusto A. Litonjua, MD MPH **Question & Answer** 10:20 Early Allergen Sensitization and Its Consequences 10:30 James E. Gern, MD FAAAAI 10:50 **Question & Answer** 11:00 **Early Viral Infections and Asthma** Tina V. Hartert, MD MPH 11:20 **Question & Answer** 11:30 Early Microbial Exposures and Asthma Christine Cole Johnson. PhD MPH FAAAAI 11:50 **Ouestion & Answer** 12:00 Lung Function in Infants with Early Wheezing Peter Le Souef, MBBS MD MRCP 12:20 **Question & Answer** Upon completion of this session, participants should be able to: Discuss the evidence for in utero events possibly influencing early development of asthma; Identify early immunologic and lung function characteristics of infants and young children who develop asthma; Discuss the variable roles of early viral infections and the environmental microbiome in the development of asthma. 1204 The Microbiome: Terminology, Genetics, Role in Atopy Inception and Progression and Implications for Prevention 10:00 am to 12:30 pm **Convention Center, South Concourse, Level 2, S230AB** Credit: 2.50 CME/CE Moderator: Joshua L. Kennedy, MD 10:00 Microbiome 101: Essential Terminology and Common Research Methodologies Yvonne Huang, MD 10:20 **Question & Answer Do Host Genetics Affect the Airway Microbiome Composition?** 10:25 Carole Ober, PhD
- 10:45 **Question & Answer**

1203

- 10:50 Environmental Exposures, the Gut Microbiome and the **Development of Allergic Diseases** Susan V. Lynch, PhD
- 11:10 **Question & Answer**
- 11:15 **Bacterial-Viral Interactions: Determinants of Childhood Asthma Inception and Progression** Avraham Beigelman, MD MSCI FAAAAI
- 11:35 **Question & Answer**
- 11:40 Not Just Bacteria: The Role of Molds and Fungi in Atopy and **Asthma Development** David B. Corry, MD
- 12:00 **Question & Answer**
- 12:05 The Microbiome: Target for Atopy Prevention Donata Vercelli, MD
- 12:25 **Question & Answer**

Upon completion of this session, participants should be able to: Describe the essential terminology and common research methodologies of the microbiome field; Discuss the evidence on the roles of airway bacterial-viral interactions, the gut microbiome and molds/ fungi as determinants of atopy inception and progression; Discuss how the microbiome may serve as a target for atopy/asthma prevention approaches.







Courses (continued)			Management of Special Issues in Mastocytosis 🖤	
1205	Improving Cross-Cultural Communication Among Allergy/ Immunology Providers and Patients (S) The ABAI will accept completion of this session for the self- assessment requirement of MOC Part II.		10:00 am to 12:30 pm Convention Center, South Concourse, Level 3, S310GH Credit: 2.50 CME/CE <i>Moderators: Dean D. Metcalfe, MD FAAAAI</i> <i>Yoseph A. Mekori, MD FAAAAI</i>	
	10:00 am to 12:30 pm Hyatt, Convention Level, Plaza F Pre-registration and ticket required. Fee: \$20.	10:00	Recognizing and Treating Skin Lesions in Pediatric and Adult Mastocytosis Karin Hartmann, MD	
	Credit: 2.50 CME/CE	10:20	Question & Answer	
	Moderators: Princess U. Ogbogu, MD FAAAAI Andrea J. Apter, MD MA MSc FAAAAI	10:25	Diagnosis, Monitoring and Treatment Options for Mastocytosis- Related Osteoporosis	
10:00	Overview		Sigurd Broesby-Olsen	
10:05	Talking with Patients: Getting Your Message Across to Those with Low Health Literacy Skills and/or English as a Second Language Adrian Casillas, MD FAAAAI	10:45 10:50	Question & Answer Mast Cells in the Gastrointestinal Tract: Is It Mastocytosis? Update in Diagnosis and Treatment	
10:15 10:25	Illness Representation: Non-Biomedical Views of Symptoms, Disease and Treatment Gregory M. Metz, MD FAAAAI Implicit Bias: What Is It and How Do We Combat It? Quinn Capers, MD	11:10 11:15	Matthew Hamilton, MD Question & Answer The Importance and the Clinical Impact of Neurologic, Psychiatric, and Other Mediator-Induced Symptoms in Mastocytosis	
10:35	Delivering Patient-Centered Care to Patients of Varied Cultural Backgrounds Maureen George, PhD RN AE-C	11:35 11:40	Mariana C. Castells, MD PhD FAAAAI Question & Answer Venom Allergy and Mastocytosis	
10:45	Small Group Discussions	12:00	Patrizia Bonadonna, MD Ouestion & Answer	
12:05	Applying What You Learned: Case Discussion, Question and Answer and Post-Test	12:05	MCAS: Is It Just the New Overlap Syndrome of the Decade? Lawrence B. Schwartz, MD PhD FAAAAI	
	Upon completion of this session, participants should be able to: Identify barriers to effective cross-cultural communication; Describe forms of non-	12:25	Question & Answer	
	biomedical based illness representation; Describe methods that can be used to improve communication with patients of varied backgrounds and methods to reduce the impact of implicit bias in the provider-patient relationship.	cytosis le	mpletion of this session, participants should be able to: Identify cutaneous masto- esions in adults and children; Discuss gastrointestinal and neurological features of tosis; Discuss how to diagnose and treat venom allergy in mastocytosis.	



Courses (continued)

Rash Diagnostics: Distinguishing Features of Allergy, Autoimmunity, Autoinflammation and Infection in the Skin W	
10:00 am to 12:30 pm	
Convention Center, South Concourse, Level 3, S330GH	40.00
	10:00
Elham M. Hossny, MD PhD FAAAAI	10:50
What Skin Biopsy Does and Does Not Tell You in the Diagnosis of Allergic, Infectious, Autoimmune and Autoinflammatory Rashes	10:55
	11:10
Question & Answer	11:15
Distinguishing Allergic Drug Rashes and Viral Exanthema	
Moshe Ben-Shoshan, MD	11:30
Question & Answer	11:35
Diagnosing Vasculitic and Autoinflammatory Disorders That	11.00
Present with Urticaria	11:50
Sarbjit Singh Saini, MD FAAAAI	11:55
Question & Answer	
Diagnostic Work-up in Autoimmune and Allergic Bullous Rashes David H. Drevfus. MD PhD FAAAAI	12:10
	Upon o
	notype biologi
	and bo
	Autoimmunity, Autoinflammation and Infection in the Skin V 10:00 am to 12:30 pm Convention Center, South Concourse, Level 3, S330GH Credit: 2.50 CME/CE Moderators: Peck Y. Ong, MD FAAAAI Elham M. Hossny, MD PhD FAAAAI What Skin Biopsy Does and Does Not Tell You in the Diagnosis of Allergic, Infectious, Autoimmune and Autoinflammatory Rashes Corinne Savides Happel, MD Question & Answer Distinguishing Allergic Drug Rashes and Viral Exanthema Moshe Ben-Shoshan, MD Question & Answer Diagnosing Vasculitic and Autoinflammatory Disorders That Present with Urticaria Sarbjit Singh Saini, MD FAAAAI Question & Answer

12:20 Question & Answer

Upon completion of this session, participants should be able to: Describe the uses and limitations of skin biopsy in the diagnosis of allergic, autoimmune, autoinflammatory and infectious skin rashes; Identify characteristics that do and do not separate viral exanthema and allergic drug rashes; Differentiate bullous rashes of autoimmune and drug-associated etiologies and accurately diagnose infections that commonly superimpose atopic dermatitis; Discuss features of urticarial rashes that require workup beyond what is commonly performed in chronic spontaneous urticaria and recommend appropriate diagnostic workup in these patients.

1209 Problem Based Learning: Severe Uncontrolled Asthma Patient? 🔤 🚳 10:00 am to 12:30 pm Hyatt, Convention Level, Regency V Pre-registration and ticket required. Fee: \$20. Credit: 2.50 CME/CE Moderator: Ray S. Davis, MD FAAAAI Patient with Severe Uncontrolled Asthma: PBL Case Presentation Ray S. Davis, MD FAAAAI **Question & Answer Differential Diagnosis of Severe Uncontrolled Asthma** Monica Kraft, MD FAAAAI **Question & Answer** Phenotypes of Severe Uncontrolled Asthma Sally Wenzel, MD FAAAAI **Question & Answer Biological Therapies: Risks Vs Benefits** Reynold A. Panettieri, MD **Question & Answer** When Is It Time for Bronchial Thermoplasty? Mario Castro, MD MPH Panel Discussion completion of this session, participants should be able to: Discuss the various phees of severe uncontrolled asthma; Identify the potential benefits versus risks of the ic agents available to treat a severe uncontrolled asthma patient; Discuss the nuts olts of how to present a shared decision making discussion with a patient.

Allied Health Workshop

1301 Bridging the Care Gap: Using School Partnerships to Advance Care for Asthma, Food Allergy and Anaphylaxis V

11:00 am to 12:15 pm **Hyatt, Convention Level, Plaza I** Credit: 1.25 CME/CE *Moderator: Denise A. DiPrimio-Kalman, DO FAAAAI*

- 11:00 Leading the Way: How the AAAAI is Building a Network of School Partnership Programs Sujani Kakumanu, MD FAAAAI
- 11:20 Question & Answer
- 11:25 The Future of SAMPROTM: Expanding Our Reach Robert F. Lemanske, MD FAAAAI
- 11:45 Question & Answer
- 11:50 Broadening Our Care Community: How Allergists Can Work with Schools
 - Melanie C. Gleason, MS PA-C

12:10 Question & Answer

Upon completion of this session, participants should be able to: Identify how schools can improve care coordination of asthma and allergic disease; Develop resources and tools to disseminate SAMPROTM in their local communities; Identify future expansions of the SAMPROTM initiative including resources to coordinate care of food allergy and anaphylax-is with schools.





Case Report Poster Session

12:00 to 2:00 pm		
Hyatt, Convention Level, Regency Foyer		
Credit: No CME/CE		
TRACK:		
Anaphylaxis		
Asthma		
Autoimmunity		
Drug Allergy		
Eosinophilic Disorders		
Food Allergy		
Immunodeficiency		
Immunotherapy		
Mast Cell Disorders		
Rhinitis		
Sinusitis		
Skin Allergy		
Stinging Insect Allergy		

Program Directors Assembly (PDA) Business Meeting and Forum

12:00 to 2:00 pm Hyatt, Convention Level, Plaza H

- 12:00 Lunch 12:15 Program Directors Assembly Business Meeting T. Prescott Atkinson, MD PhD FAAAAI
- 12:25 Anaphylaxis Simulation Improves Knowledge and Patient Care Aleena Banerji, MD Sara Barmettler, MD Kimberly G. Blumenthal, MD MSc
- 12:40 A/I Fellowship Funding Panel and Open Forum T. Prescott Atkinson, MD PhD FAAAAI Aidan A. Long, MD FAAAAI Elizabeth A. Secord, MD FAAAAI
- 1:40 Other Business
- 2:00 Adjourn

Allied Health Seminar 🛛 🗠 🔊

12:30 to 1:30 pm Pre-registration and ticket required. Fee: \$20. Sessions are limited to 30 people. Refreshments not included. Credit: 1.00 CME/CE

1501 AH: Picking Your Pollens: Aeroallergen Identification for the Allied Health Provider

Hyatt, Convention Level, Celebration 5

Discussion Leaders: Terri F. Brown-Whitehorn, MD FAAAAI Richard W. Weber, MD FAAAAI

Upon completion of this session, participants should be able to: Identify aeroallergens in their communities; Identify more thorough education for families about the management of allergic conditions.

Seminars 🛛 🔤 🚳

12:30 to 1:30 pm

Pre-registration and ticket required. Fee: \$40. Box lunch included. Sessions and meals are limited to 30 people. Credit: 1.00 CME/CE

1502 Asthma/COPD Overlap Syndrome (ACOS) With and Without Occupational Causes

Hyatt, Convention Level, Celebration 2

Discussion Leaders: Stokes Peebles, MD FAAAAI

Bryan L. Martin, DO FAAAAI

Upon completion of this session, participants should be able to: Identify asthma among patients with occupational COPD; Identify COPD among patients with work-related asthma and possible reasons for the overlap; Discuss the appropriate management of ACOS with and without an occupational component.

1503 Urinary Tests for Mast Cell Mediators: Why Order Them? Hyatt, Convention Level, Celebration 3

Discussion Leaders: Joseph H. Butterfield, MD FAAAAI Catherine R. Weiler, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Discuss which mast cell mediators can be measured in the urine and what dietary and medicinal factors can influence their levels; Discuss how measurements of urinary levels of mast cell mediators can be used in treatment of MCAS and SM.

1504 Evaluating Systemic Side Effects in Children Receiving Inhaled Corticosteroids

Hyatt, Convention Level, Celebration 1

Discussion Leaders: Heather K. Lehman, MD FAAAAI

Nelson Augusto Rosario, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Identify gaps in knowledge related to inhaled corticosteroid dosing and side effects; Describe potential effects of inhaled corticosteroids on growth, bones, adrenal gland and eyes; Discuss the benefits and limitations of non-steroid alternatives in the treatment of childhood asthma and allergy.

1505 Performing Outpatient Aspirin Desensitizations for Patients with AERD

Hyatt, Convention Level, Celebration 6

Discussion Leaders: Whitney W. Stevens, MD PhD

Ignacio Jesus Davila Gonzalez, MD PhD

Upon completion of this session, participants should be able to: Discuss how to perform outpatient aspirin desensitizations for patients with AERD.

American Academy of Allergy Asthma & Immunology



Workshops

1510	E-Cigarettes: What's the Harm? 12:45 to 2:00 pm
	Convention Center, South Concourse, Level 3, S320A
	This Session Will Use Audience Response Technology.
	Credit: 1.25 CME/CE
	Moderators: Riccardo Polosa, MD PhD
	Sergio Bonini, MD
12:45	How E-Cigarettes Work: From Microprocessors to Flavored
	Liquids
	Loretta G. Que, MD
1:05	Question & Answer
1:10	Epidemiology of E-Cigarette Use Jill A. Poole, MD FAAAAI
1:30	Question & Answer
1:35	Are E-Cigarettes Safer Than Combustible Cigarettes? Thomas B. Casale, MD FAAAAI
1:55	Question & Answer

Upon completion of this session, participants should be able to: Describe how e-cigarettes work; Discuss the usage of e-cigarettes including current use by children; Describe the health effects of e-cigarette use in comparison to combustible cigarettes.

1511 Geocoding and Asthma Epidemiology 🖤

12:45 to 2:00 pm

Convention Center, South Concourse, Level 2, S220B Credit: 1.25 CME/CE

Moderator: Isabella Annesi-Maesano, MD PhD DSc 12:45 What Is GIS "Big Data" and How Can It Help You Understand Your

- Patients?
- Mark A. Hoffman, PhD
- 1:05 Question & Answer
- 1:10 Geocoding to Examine Child Asthma Admission Rates and Community Characteristics Andrew Beck, MD
- 1:30 Question & Answer
- 1:35 Geocoding and Housing Characteristics Related to Allergic Disease Kevin Kennedy, MPH CIEC
- 1:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss the kinds of information geocoding can produce; Discuss some of the recent asthma epidemiology related to housing and geospatial locations. 1512 Prenatal Diet and Childhood Allergy and Asthma 12:45 to 2:00 pm Convention Center, South Concourse, Level 2, S230AB Credit: 1.25 CME/CE Moderator: Patricia Latour-Staffeld, MD
 12:45 Food Intake During Pregnancy: Eating Toward or Away from Childhood Allergy?

Supinda Bunyavanich, MD MPH FAAAAI

- 1:05 Question & Answer
- 1:10 Vitamin D Supplementation for Primary Prevention of Asthma: Results from Randomized Controlled Trials Augusto A. Litonjua, MD MPH
- 1:30 Question & Answer
- 1:35 Maternal Intake of Fish Oil for the Prevention of Asthma and Allergy

Hans Bisgaard, MD DMSc

1:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss early life as a formative window for immunologic development; Discuss the potential role of food, vitamins and dietary supplements in the maternal diet during pregnancy; Discuss the most recent evidence for maternal diet's relationship to allergy prevention.

1513 Making and Breaking Tolerance by TSLP and IL-33 ▼ 12:45 to 2:00 pm Convention Center, South Concourse, Level 3, S331A

This Session Requires Pre-Meeting Reading. Credit: 1.25 CME/CE Moderators: Magdalena M. Gorska, MD PhD FAAAAI Kenji Matsumoto, MD PhD

- 12:45 TSLP Prevents Systemic Spread of Local Inflammation Mariko Kashiwagi
- 1:05 Question & Answer
- 1:10 IL-33 in Countering Treg Suppression Hirohito Kita, MD
- 1:30 Question & Answer
- 1:35 Non-Overlapping Function of IL33 and TSLP: Relevance for Allergic Inflammation and its Steroid Resistance Rafeul Alam, MD PhD FAAAAI
- 1:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss recent research into the functions of TSLP and IL-33.





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1514	Immunological Consequences of the Use of Biologics V 12:45 to 2:00 pm Convention Center, South Concourse, Level 3, S310AB Credit: 1.25 CME/CE
	Moderator: Mildred Kwan, MD PhD
12:45	Immunologic Consequences of Anti-Cytokine Biologics Teresa K. Tarrant, MD FAAAAI
1:05	Question & Answer
1:10	B Cell Biologics: Effects on Immune Function Mubeccel Akdis, MD PhD
1:30	Question & Answer
1:35	How T Cell Biologics Affect Immune Function Gulbu Uzel, MD
1:55	Question & Answer
indication pathway efficacy, regulated	s modulated by biologics targeting pro-inflammatory cytokines, rheumatologic ns and efficacy, immunological effects and adverse events; Discuss immune s regulated by B cell-targeting biologics, indications for treatment and their immunological effects and adverse events; Discuss T-cell mediated pathways d by biologics targeting this pathway, indications for treatment and their efficacy, ogical outcomes and adverse events.
1515	Updates in Food Allergy Management: Lessons Learned from Work Groups within the Adverse Reactions to Foods Committee
	12:45 to 2:00 pm
	Hyatt, Convention Level, Regency S
	This Session Will Use Audience Response Technology.
	Credit: 1.25 CME/CE
10.45	Moderator: David M. Fleischer, MD FAAAAI
12:45	Food Allergens in Medications and Vaccines John M. Kelso, MD FAAAAI
1:05	Question & Answer
1:10	Food Allergy Management in Restaurants and Schools

- 1:10 Food Allergy Management in Restaurants and School Michael C. Young, MD FAAAAI
- 1:30 Question & Answer
- 1:35 Structured Product Labeling for Foods April Clark, RDN CSP

1:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss recent advances in caring for the food allergic patient in restaurants and schools; Discuss national advances in epinephrine availability in the school setting; Identify medications and vaccines that put the food-allergic patient at risk and highlight changes being considered in food product labeling guidelines.

1516 Local Allergic Rhinitis

12:45 to 2:00 pm **Convention Center, South Concourse, Level 2, S230EF** Credit: 1.25 CME/CE *Moderators: Anjeni Keswani, MD MSCI Yoshitaka Okamoto, MD PhD*

- 12:45 Rhinitis: The Diagnostic Algorithm Martin Wagenmann, MD FAAAAI
- 1:05 Question & Answer
- 1:10 Nasal Allergen Provocation Test in the Office: Is It Feasible?: The Practical Aspects

Allen D. Adinoff, MD FAAAAI

- 1:30 Question & Answer
- 1:35 Treatment of Local Allergic Rhinitis Paloma Campo, MD PhD FAAAAI
- 1:55 Question & Answer

Upon completion of this session, participants should be able to: Describe the different methods for performing a nasal allergen provocation test (NAPT) and the difficulties and challenges of performing the test; Discuss the different methods of evaluation and sources of variability, including extracts and protocols; Discuss the applications in different entities and settings, such as research and private practice environments.

1517 IL-17A and Asthma 🖤

12:45 to 2:00 pm **Convention Center, South Concourse, Level 2, S220EF** Credit: 1.25 CME/CE *Moderator: Lorenzo Cosmi*

- 12:45 Mechanisms of IL-17A Mediated Enhancement of IL-13 Pathology lan Paul Lewkowich, PhD
- 1:05 Question & Answer
- 1:10 Mechanisms of Mixed Th2/T17 Cell Inflammation in Asthma Talal A. Chatila, MD MSc
- 1:30 Question & Answer
- 1:35 IL-17A and Steroid Responsiveness Catherine M. Hawrylowicz, PhD
- 1:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss how gender influences IL-17A production; Discuss how IL-17A may mechanistically drive the development of more severe asthma; Discuss how IL-17A may regulate steroid responsiveness in allergic asthma (IPL).





- 1518 Factors to Consider in Young Children with Severe Atopic Dermatitis ♥
 12:45 to 2:00 pm
 Convention Center, South Concourse, Level 3, S330AB
 Credit: 1.25 CME/CE
 Moderator: Luz S. Fonacier, MD FAAAAI
- 12:45 When to Consider a Workup for a Primary Immunodeficiency Disorder in Your Pediatric Patients with Atopic Dermatitis Rebecca Scherzer, MD FAAAAI
- 1:05 Question & Answer
- 1:10 When and How to Workup a Child with Atopic Dermatitis for Food Allergy Irene Mikhail, MD
- 1:30 Question & Answer
- 1:35 Best Treatment Options for Children with Severe Atopic Dermatitis Lisa A. Beck, MD FAAAAI
- 1:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss the pertinent laboratory results and physical examination findings that may suggest an immune work-up would be beneficial in young children with severe atopic dermatitis; Discuss the approach to testing for food allergy in an infant with moderate to severe atopic dermatitis; Identify the best treatment options in very young children with atopic dermatitis.

- 1519 Insights into Asthma Development and Severity ▼
 12:45 to 2:00 pm
 Convention Center, South Concourse, Level 3, S330GH
 This Session Requires Pre-Meeting Reading.
 Credit: 1.25 CME/CE
 Moderators: Lisa M. Wheatley, MD
 Fernando Idunate, MD

 12:45 How Do Childhood Asthma Phenotypes and Disease Severity
 Develop?
 Leonard B. Bacharier, MD FAAAAI

 1:05 Question & Answer
- 1:10 What Role and Contribution Does Rhinitis Play in Asthma Severity? Jean Julien Bousquet, MD PhD
- 1:30 Question & Answer
- 1:35 What Role and Contribution Does Obesity Play in Asthma Severity?
 - Meredith C. McCormack, MD
- 1:55 Question & Answer

Upon completion of this session, participants should be able to: Define the emergence of specific phenotypes and disease severity during asthma development; Identify the contribution of rhinitis to asthma and its severity; Identify the molecular pathways associated with asthma exacerbations, their contribution to a loss of disease control and their role as a novel target for treatment.

- 1520 JACI: In Practice Year-in-Review Workshop 12:45 to 2:00 pm Convention Center, South Concourse, Level 3, S320CD Credit: 1.25 CME/CE Moderator: Michael Schatz, MD MS FAAAAI
- 12:45 Asthma Robert S. Zeiger, MD PhD FAAAAI 1:05 Question & Answer
- 1:10 Food Allergy
 - Scott H. Sicherer, MD FAAAAI
- 1:30 Question & Answer
- 1:35 Drug Allergy
 - Pascal M. Demoly, MD PhD
- 1:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss the findings from recent clinical research in the areas of asthma, food allergy, and drug allergy; Identify the strengths, limitations and practical implications of the highlighted studies; Discuss how to incorporate the new findings in the management of patients with asthma, food allergy, and drug allergy.

Basic Science Poster Discussion

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    1521 Innate Immunity in the Driver's Seat of Allergic
Inflammatory Responses
    12:45 to 2:00 pm
    Convention Center, South Concourse, Level 2, S210C
    Credit: No CME/CE
    Moderators: Katherine N. Cahill, MD
    Hirohisa Saito, MD PhD FAAAAI
    12:45 Poster Viewing
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1:25 Discussion of Following Posters

- 1 Role of TNFSF11 and Group 2 Innate Lymphoid Cells in Type 2 Inflammation in Chronic Rhinosinusitis with Nasal Polyps Noriko Ogasawara, MD PhD
- 2 Identification of MEK2 and CBX7 as Top Steroid Resistant Genes in Airway ILC2s and Lymphocytes from Asthma Kapil Sirohi, PhD
- 3 Group 2 innate lymphoid cells display ILC3-like functional plasticity in asthmatics and non-human primates *Cameron H. Flayer*
- 4 TSLP and IL-33 Reciprocally Regulate Each Other's Lung Protein Expression and Receptor Expression on ILC2 following Aeroallergen Challenge in Mice. Shinji Toki, PhD
- 5 IL33 Receptor Deficiency Leads To Steroid Resistant Asthma Due To TSLP-driven Increase In IL9+ILC2s And Mast Cells Mukesh Verma, PhD





AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Allied Health Workshops

Friday, March 2

1551	AH: Spectrum of Treatments for Atopic Dermatitis	1601	Environmental Impacts on Asthma: Biology to
	12:45 to 2:00 pm		Intervention V
	Hyatt, Convention Level, Plaza I		2:15 to 3:45 pm
	Credit: 1.25 CME/CE		Convention Center, South Concourse, Level 1, South Hall A1
	Moderator: Julie Wang, MD FAAAAI		Credit: 1.50 CME/CE
12:45	Matching the Right Topical Steroid and the Right Potency to Your		Moderators: David B. Peden, MD MS FAAAAI
	Patient: Indications for Topical Steroids in the Management of		Ignacio J. Ansotegui, MD PhD
	Atopic Dermatitis	2:15	Introduction and Lectureship Presentation
	Karol G. Timmons, RN MS CPNP	2:20	Epigenetic Changes Ascribed to Pollutant Exposures
1:05	Question & Answer		Rachel L. Miller, MD FAAAAI
1:10	When and Where to Use Non-Steroidal Topical Medications: The		Recipient of the AAAAI Foundation and Sheldon L. Spector, MD F
	Role of PDE4 Inhibitors and Calcineurin Inhibitors	0.45	Memorial Lectureship: Inaugural Year
	Megan Ott Lewis, MSN CRNP	2:45	Introduction and Lectureship Presentation
1:30	Question & Answer	2:50	Indoor Home Remediations and Interventions
1:35	Indications for the Use of Biologics and Applications in Practice		Elizabeth Matsui, MD MHS Recipient of the AAAAI Foundation and Gary S. Rachelefsky, MD
	Mark Boguniewicz, MD FAAAAI		FAAAAI Lectureship Investing Together in Our Future: Inaugural
1:55	Question & Answer	3:15	Introduction and Lectureship Presentation
	npletion of this session, participants should be able to: Describe the various	3:20	Approaches to Mitigating Pollutant Effects on Disease
	ion treatments for atopic dermatitis; Discuss the application of these treatments I practice.	3.20	David B. Peden, MD MS FAAAAI
	i practice.		Recipient of the AAAAI Foundation and I. Leonard Bernstein, MD
1552	AH: An Innovative Online Learning Approach to Teaching		FAAAAI Memorial Lectureship: 2nd year
	Healthcare and Allied Health Professionals to Successfully	Upon co	mpletion of this session, participants should be able to: Discuss remediation
	Deliver Asthma Guidelines-Based Messages		tions to mitigate exposures to environmental respiratory triggers in the hor
	12:45 to 2:00 pm		pigenetic changes that can be traced to pollutant exposures; Identify approa ing the effects of pollutants on patients with allergic and immunologic disea
	Hyatt, Convention Level, Plaza D		ew NIEHS-funded research on the impact of the environment on asthma.
	Credit: 1.25 CME/CE		ge 76 for details on the Plenary Session Q&A
10.45	Moderator: Stanley Goldstein, MD FAAAAI	000 pu	
12:45	Teaching Healthcare Professionals How to Educate Patients about	Symp	oosia
	Asthma through a Web-Based Educational Module Lisa Romard, RN MS CPNP ANP AE-C		
1:05	Cuestion & Answer	1801	Italian Society of Allergy, Asthma and Clinical Immuno (SIAAIC) Sister Society Symposium: Hot Topics in Aller
1:10			4:00 to 5:15 pm
1:10	Utilizing Multiple Teaching Modalities to Enhance the Learner's Experience and Afford the Learner Integration and Retention of		Convention Center, South Concourse, Level 3, S330AB
	the Information		Credit: 1.25 CME/CE
	Linda M. Cimino, EdD CPNP ANP CCRC CHSE		Moderator: Ignacio J. Ansotegui, MD PhD
1:30	Ouestion & Answer	4:00	New Biologicals in Respiratory Allergies
1:35	Hands-On Skills Building: Using Evidence-Based Education	-1.00	Giorgio Walter Canonica, MD
1.00	Materials for Successful Asthma Self-Management	4:20	Question & Answer
	Anne M. Little, MPH AE-C	4:25	Chronic Urticaria and Angioedema
1:55	Question & Answer	4.20	Massimo Triggiani, MD PhD
	npletion of this session, participants should be able to: Describe the rationale for	4:45	Question & Answer
•	online learning interactive tool to teach practitioners about asthma guide-	4:50	Molecular Allergy Diagnosis: Updates on Clinical Application
	ed care; Discuss how to use education tools to convey guidelines-based care	-1.00	Giovanni Melioli, MD
message	s to patients in a culturally and linguistically appropriate manner.	5:10	Question & Answer
			mpletion of this session, participants should be able to: Identify the clinical
			ters (clinical, functional and molecular) to define candidate patients for diffe

Foundation and Sheldon L. Spector, MD FAAAAI : Inaugural Year tureship Presentation ations and Interventions MHS Foundation and Gary S. Rachelefsky, MD vesting Together in Our Future: Inaugural Year tureship Presentation ating Pollutant Effects on Disease IS FAAAAI Foundation and I. Leonard Bernstein, MD

Plenary

ureship: 2nd year ticipants should be able to: Discuss remediations and to environmental respiratory triggers in the home; Debe traced to pollutant exposures; Identify approaches on patients with allergic and immunologic diseases on the impact of the environment on asthma.

1801	Italian Society of Allergy, Asthma and Clinical Immunology (SIAAIC) Sister Society Symposium: Hot Topics in Allergy 🖤
	4:00 to 5:15 pm
	Convention Center, South Concourse, Level 3, S330AB
	Credit: 1.25 CME/CE
	Moderator: Ignacio J. Ansotegui, MD PhD
4:00	New Biologicals in Respiratory Allergies
	Giorgio Walter Canonica, MD
4:20	Question & Answer
4.05	Obvious in Hudio and a such a device

- d Angioedema D PhD
- agnosis: Updates on Clinical Applications

rticipants should be able to: Identify the clinical use of molecular) to define candidate patients for different biologics and the relevance of interprofessional networking in severe asthma care; Identify diagnosis and treatment of atopic dermatitis and angioedema; Discuss the use of allergen molecular diagnosis to define and predict severe allergen reactions and properly define eligibility of patients to allergen immunotherapy.



4:00 to 5:15 pm Convention Center, South Concourse, Level 3, S310AB		4:00 to
Convention Center, South Concourse, Level 3, S310AB		Conven
		Credit: 1
Credit: 1.25 CME/CE		Modera
Moderators: David I. Bernstein, MD FAAAAI William S. Silvers, MD FAAAAI	4:00	Introdu Carole (
Hypersensitivity Reactions and Work-Related Contact Urticaria to	4:20	Questio
Cannabis	4:25	Role of
Gordon Lloyd Sussman, MD FAAAAl		Clare M
	4:45	Questio
Cross-Reactivity	4:50	ORMDL David H
Jeronimo Carnes Sanchez, PhD	5:10	Questio
Question & Answer	Upon co	mpletion of
Microbial Hazards Encountered By Workers That Handle or Process Cannabis	GSDMB	chromoson in airway re
Brett J. Green, PhD FAAAAI	tion in as	sthma.
Question & Answer	1805	Biologi
pletion of this session, participants should be able to: Discuss the hypersensi- tions and work-related contact urticaria to cannabis; Describe the characterized sativa allergens and the influence of cross-reactivity; Discuss workplace micro- ds associated with the cultivation, processing and handling of Cannabis sativa.		and Na 4:00 to Conven Credit: 1
The Evolution of Practice Parameters: What You Need to Know to Interpret Guidelines in 2018		Modera
4:00 to 5:15 pm	4:00	Precisio
Convention Center, South Concourse, Level 2, S230EF		Thomas
This Session Requires Pre-Meeting Reading.	4:20	Questio
Credit: 1.25 CME/CE	4:25	Utility o
Alberto Martelli		Spontal Marcus
	4:45	Questio
	4:50	Biologia
		Claus B
	5:10	Questio
•	Upon co	mpletion of
John Oppenheimer, MD FAAAAI		rize the phe
Recipient of the Elliot F. Ellis Memorial Lectureship: 20th year Ouestion & Answer		the results o al polyposis:
	therapie	1 21 2
The WAO Immunotherapy Parameter	anorapio	5.
The WAO Immunotherapy Parameter Moises A. Calderon, MD PhD	arorapio	
The WAO Immunotherapy Parameter	atorapio	5.
	Question & Answer Characterization of Cannabis sativa Allergens and the Role of Cross-Reactivity Jeronimo Carnes Sanchez, PhD Question & Answer Microbial Hazards Encountered By Workers That Handle or Process Cannabis Brett J. Green, PhD FAAAAI Question & Answer pletion of this session, participants should be able to: Discuss the hypersensi- tions and work-related contact urticaria to cannabis; Describe the characterized sativa allergens and the influence of cross-reactivity; Discuss workplace micro- ds associated with the cultivation, processing and handling of Cannabis sativa. The Evolution of Practice Parameters: What You Need to Know to Interpret Guidelines in 2018 4:00 to 5:15 pm Convention Center, South Concourse, Level 2, S230EF This Session Requires Pre-Meeting Reading. Credit: 1.25 CME/CE Moderators: Jay M. Portnoy, MD FAAAAI Alberto Martelli The GRADE Format for Allergy Practice Parameter Development David M. Lang, MD FAAAAI Question & Answer The Old and New Practice Parameter Formats: The SLIT and Rhinitis Parameters as Examples	Question & Answer4:45Characterization of Cannabis sativa Allergens and the Role of Cross-Reactivity Jeronimo Carnes Sanchez, PhD4:50Question & Answer5:10Question & AnswerUpon cou- between GSDMB Brett J. Green, PhD FAAAAI5:10Question & Answer1805Pletion of this session, participants should be able to: Discuss the hypersensi- tions and work-related contact urticaria to cannabis; Describe the characterized sativa allergens and the influence of cross-reactivity; Discuss workplace micro- ds associated with the cultivation, processing and handling of Cannabis sativa.1805The Evolution of Practice Parameters: What You Need to Know to Interpret Guidelines in 2018 4:00 to 5:15 pm4:00Convention Center, South Concourse, Level 2, S230EF This Session Requires Pre-Meeting Reading. Alberto Martelli4:20The GRADE Format for Allergy Practice Parameter Development David M. Lang, MD FAAAAI Question & Answer4:45The Old and New Practice Parameter Formats: The SLIT and Rhinitis Parameters as Examples5:10

- Genes in Asthma: From Linkage to Function V 5:15 pm tion Center, South Concourse, Level 2, S220EF .25 CME/CE tor: John W. Holloway, BSc PhD
- ction to 17q21 Linkage and Asthma Ober, PhD

on & Answer

ORMDL3 in Alternaria-Induced Airway Inflammation 1. Lloyd, PhD

on & Answer

3 and GSDMB: Roles in Airway Remodeling in Asthma I. Broide, MB ChB FAAAAI

on & Answer

this session, participants should be able to: Discuss the relationship me 17q21 genes and asthma; Discuss the functions of ORMDL3 and modeling in asthma; Discuss the role of ORMDL3 in airway inflamma-

	1805	Biologics and Biomarkers for Asthma, Chronic Urticaria
d		and Nasal Polyposis
u -		4:00 to 5:15 pm
		Convention Center, South Concourse, Level 3, S320CD
		Credit: 1.25 CME/CE
		Moderators: Paula J. Busse, MD FAAAAI
		Gilda Varricchi
	4:00	Precision Biologic Therapy for Severe Asthma
		Thomas B. Casale, MD FAAAAI
	4:20	Question & Answer
	4:25	Utility of Biologics for Antihistamine-Resistant Chronic
		Spontaneous Urticaria
		Marcus Maurer, MD
	4:45	Question & Answer
	4:50	Biologics for Nasal Polyposis
		Claus Bachert, MD PhD

on & Answer

this session, participants should be able to: Describe biomarkers to enotype and endotype of asthma, chronic urticaria and nasal polyposis; of key clinical trials using biologics for asthma, chronic urticaria Describe the role of biomarkers in choosing patients for biologic





	AAAAI/WAO
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1806	Social and Ethnic Disparities Matter in Allergy 4:00 to 5:15 pm	1808
	Convention Center, South Concourse, Level 2, S220B	
	Credit: 1.25 CME/CE	
	Moderators: Gary Wing-Kin Wong, MD Stanley M. Fineman, MD MBA FAAAAI	
4:00	Inner City Asthma Studies: Does the Hygiene Hypothesis Apply to	
	Inner City Populations?	4:00
	Arnaldo L. Capriles Hulett, MD FAAAAI	
4:20	Question & Answer	
4:25	Disparities in Food Allergy Prevalence and Management in the US Mahboobeh Mahdavinia, MD PhD	4:20 4:25
4:45	Question & Answer	
4:50	South African Food Allergy Study: Why, How and Where You Live	4:45
	Matters	4:50
	Michael E. Levin, MBBCh PhD FAAAAl	
5:10	Question & Answer	= 40
between Identify t	npletion of this session, participants should be able to: Describe the interplay social and environmental factors in the development of allergic disorders; he risk factors and the protective factors for allergy associated with race and	5:10 Upon c nisms
	nomic status; Interpret the hygiene hypothesis in the context of inner city urban iral populations.	1809
1807	Immunotherapy: Future Perspectives V 4:00 to 5:15 pm	
	Convention Center, South Concourse, Level 3, S330GH	
	Credit: 1.25 CME/CE	
	Moderator: Mark S. Dykewicz, MD FAAAAI	4:00
4:00	Immunotherapy: A Prototype of Precision Medicine Giovanni Passalacqua, MD	4:00
4:20	Question & Answer	4:20
4:25	What's New in Allergen Immunotherapy for Allergic Respiratory Diseases: Modified Allergens/Adjuvant Vaccines/Peptide	4:20 4:25
	Constructs	
4:45	Peter S. Creticos, MD FAAAAI Ouestion & Answer	4:45
4:45 4:50		4:50
4:50	Is the Combination of Biologics and Antigen in the Future of Allergen Immunotherapy?	
	Mohamed H. Shamji, BSc MSc PhD FAAAAI	5:10
5:10	Ouestion & Answer	Upon c
Upon cor	npletion of this session, participants should be able to: Discuss the clinical bene- iT and SLIT and how long they should be prescribed; Discuss the use of modified	to pher biomar biospe

fits of SCIT and SLIT and how long they should be prescribed; Discuss the use of modified allergens/adjuvant vaccines/peptide constructs for allergen immunotherapy; Discuss the safety and the efficacy evidence of biologic and immunotherapy combination treatment.

	4:00 to 5:15 pm
	Convention Center, South Concourse, Level 3, S310GH
	Credit: 1.25 CME/CE
	Moderators: Caroline L. Sokol, MD PhD
	Paul A. Greenberger, MD FAAAAI
4:00	Defective Airway Epithelial Barrier and the Impact of
	Environmental Factors in Asthma
	Stephen T. Holgate, MD DSc FAAAAI
4:20	Question & Answer
4:25	Epithelial Genes in Allergic Inflammation
	Cezmi A. Akdis, MD FAAAAI
4:45	Question & Answer
4:50	Perinatal Activation of the IL-33 Pathway Promotes Type 2
	Immunity in the Developing Lung
	Bart N. Lambrecht, MD PhD
5:10	Question & Answer
	pletion of this session, participants should be able to: Identify the novel mecha- how the epithelium activates and instructs the allergic immune response.
1809	Opportunities to Answer Critical Questions about Asthma from NHLBI & NIAID
	4:00 to 5:15 pm
	Convention Center, South Concourse, Level 2, S230AB
	Credit: 1.25 CME/CE
	Moderator: Christine A. Sorkness, PharmD
4:00	Severe Asthma Phenotypes (Severe Asthma Research Program, SARP)
	Wendy C. Moore, MD
4:20	Question & Answer
4:25	Asthma Phenotypes in the Inner City (Inner City Asthma
	Consortium, ICAC)
	Andrew H. Liu, MD FAAAAI
4:45	Question & Answer
4:50	Stability of Phenotypes As Measured By Biomarkers Michael Peters, MD MAS
5:10	Question & Answer

The Epithelial Cell, Barrier Dysfuction and Immune

Regulation in Allergic Inflammation W

Upon completion of this session, participants should be able to: Describe approaches to phenotyping patients within a longitudinal cohort study; Recognize and interpret biomarker variability over time in individuals with asthma; Understand how analysis of biospecimens can augment clinical trial results.



Friday, March 2



Symposia (continued)

1810	AH Plenary: Multidisciplinary Care for Patients with Atopic Dermatitis V 4:00 to 5:15 pm	
	Hyatt, Convention Level, Plaza G Credit: 1.25 CME/CE Moderator: Sally A. Noone, RN MSN	
4:00	Multidisciplinary Care for Patients with Atopic Dermatitis Karol G. Timmons, RN MS CPNP	
4:20	Question & Answer	
4:25	25 Psychosocial Burden of Atopic Dermatitis and Approaches to	
	Support	
	Jennifer S. LeBovidge, PhD	
4:45	Question & Answer	
4:50	The Dietician's Role in Multidisciplinary Care of Patients with Atopic Dermatitis Wendy Elverson, RD LDN	
5:10	Question & Answer	
Upon completion of this session, participants should be able to: Describe barriers to effective disease control for patients with atopic dermatitis; Describe the formation of		

a multidisciplinary team to care for children with atopic dermatitis; Discuss the roles of multidisciplinary healthcare providers in the management of atopic dermatitis.

Federation of RSLAAIS Assembly Forum and Business Meeting

4:45 to 6:15 pm Hyatt, Convention Level, Regency O No CME/CE

- 4:45 Wine and Cheese Reception/Meet the RSLAAIS Governors Networking
- 5:10 RSLAAIS Assembly Business Meeting Moderator: Denise DiPrimio-Kalman, DO FAAAAI Special Guests: David B. Peden, MD MS FAAAAI

5:30 Practicing Allergist/Immunologist Thought Leader Panel: Learning, Leadership, Legacy: Perspectives on a Lifetime of Allergy Practice Moderator: Weily Soong, MD FAAAAI Panelists: Christina Ciaccio, MD FAAAAI Jeff Demain, MD FAAAAI Amber Patterson, MD FAAAAI Michael Rupp, MD FAAAAI

Allied Health Wine and Cheese Reception

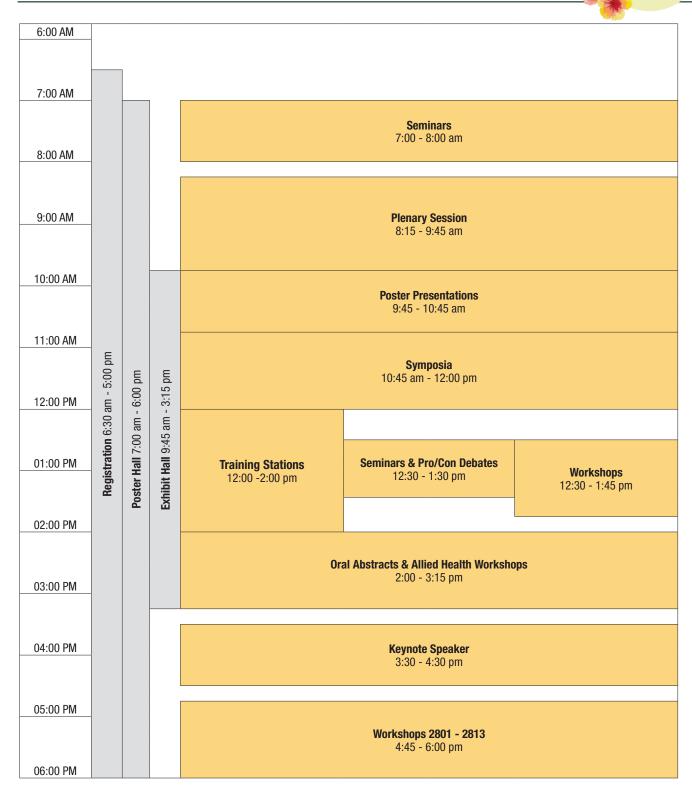
5:15 to 6:30 pm **Hyatt, Convention Level, Plaza G** *Sponsored by Aimmune Therapeutics.* Private reception open to Allied Health professionals only.







Saturday At-A-Glance



AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA



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Saturday Scientific Program



Seminars 🔤 📀

7:00 to 8:00 am

Pre-registration and ticket required. Fee: \$40. Continental Breakfast included. Sessions and meals are limited to 30 people. Credit: 1.00 CME/CE

2001 Helping Your Patients Quit Smoking: Patches, Pills, or E-Cigarettes?

Hyatt, Convention Level, Celebration 1

Discussion Leaders: Andrew S. Nickels, MD

Tavni Y. Joshi, MD

Upon completion of this session, participants should be able to: Describe the most effective methods for smoking cessation; Identify the role of e-cigarettes in smoking cessation and harm reduction; Describe effective practice management strategies to support smoking cessation counseling, including appropriate billing and coding for this service.

2002 Are We Choosing Wisely? How to Promote Cost Effective and Necessary Care for Allergy and Immunology Patients Hyatt, Convention Level, Celebration 2

Discussion Leaders: Kristin C. Sokol, MD MS MPH Jeffrey G. Demain, MD FAAAAI

Ignacio J. Ansotegui, MD PhD

Upon completion of this session, participants should be able to: Discuss the AAAAI's Choosing Wisely recommendations; Discuss strategies for the integration of Choosing Wisely into local, state and regional programs; Discuss how Choosing Wisely can be implemented broadly, such as programs, hospitals and health care systems.

2003 Treatment and Possible Prevention of Wheezing in Preschool Children: New Research, Novel Ideas and Open Discussion

Hyatt, Convention Level, Celebration 3

Discussion Leaders: Avraham Beigelman, MD MSCI FAAAAI

William J. Sheehan, MD Zeinab Awad El-Sayed, MD

Upon completion of this session, participants should be able to: Discuss the current literature on asthma controller therapies in young children, including intermittent versus persistent inhaled corticosteroids and the utility of anti-infectious agents; Discuss novel therapeutic strategies for the prevention of asthma in young children, including recently published studies, current ongoing studies and possible future research; Describe individual cases of patients with childhood wheezing to explore how current phenotype-driven research can affect management choices in the real world.

2004 The ART of Negotiation: Employee Agreements/Contracts and More

Hyatt, Convention Level, Celebration 4

Discussion Leaders: Vivian P. Hernandez-Trujillo, MD FAAAAI Weily Soong, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the important themes to be considered when negotiating an employee agreement.

2005 Diagnosis of Drug Allergy in Children Hyatt, Convention Level, Celebration 9 Discussion Leaders: Jean-Christoph Caubet, MD Miguel A. Park, MD

Upon completion of this session, participants should be able to: Identify a variety of complex patients with suspicion of drug hypersensitivity in order to discuss the clinical characteristics and the differential diagnosis; Discuss the available diagnostic tests, particularly skin tests, in vitro tests and where, when and how to perform an OPT in patients with a suspicion of drug hypersensitivity.

2006 Exercise-Induced Anaphylaxis: Food-Dependent, Food-Independent and Drug-Dependent

Hyatt, Convention Level, Celebration 6 Discussion Leaders: Victoria Cardona, MD PhD

Paul A. Greenberger, MD FAAAAI

Upon completion of this session, participants should be able to: Describe exercise-induced anaphylaxis and the classification of its diverse food- and drug-dependent types; Discuss an accurate differential diagnosis; Identify an effective management plan for prevention and treatment.

2007 Ocular Allergy for the Practicing Allergist Hyatt, Convention Level, Celebration 7

Discussion Leaders: Sergio Bonini, MD

Leonard Bielory, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss ocular surface disorders seen by practicing allergist/immunologists; Describe the development of new techniques in the assessment and testing of anterior surface disorders of the eye.

2008 Chronic Rhinosinusitis in Children

Hyatt, Convention Level, Celebration 8 Discussion Leaders: Daniel L. Hamilos, MD FAAAAI Robert M. Naclerio, MD FAAAAI

Upon completion of this session, participants should be able to: Describe the pathophysiology of chronic rhinosinusitis in children; Discuss medical treatment strategies for chronic rhinosinusitis in children; Discuss indications for surgical intervention, the types of surgeries offered and their relative chances of success.

2009 There's an App for That: iPhone/iPad, Android and Web Tools for Clinical Practice

Hyatt, Convention Level, Celebration 5 This Session Will Use Audience Response Technology. Discussion Leaders: Nabeel Farooqui, MD FAAAAI Juan Carlos Ivancevich, MD Melinda M. Rathkopf, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss how to select mobile technology applications to enhance practice; Discuss how to use mobile technology applications to improve practice efficiency; Discuss how to use mobile technology applications for communication with patients and colleagues.

2010 High Tryptase: When is it Time for a Bone Marrow Biopsy? Hyatt, Convention Level, Celebration 10

Discussion Leaders: Catherine R. Weiler, MD PhD FAAAAI

Lawrence B. Schwartz, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Identify clinical disorders with high tryptase other than mastocytosis; Decide whether to perform a bone marrow biopsy in patients with high tryptase.

2011 Animal Models of Asthma and Food Allergy: Choosing the Model that is Right for You

Hyatt, Convention Level, Celebration 12 Discussion Leaders: Ian Paul Lewkowich, PhD

Simon P. Hogan, PhD

Upon completion of this session, participants should be able to: Describe mouse models for the study of allergic asthma and food allergy; Discuss the strengths and weaknesses of major models of allergic diseases of the airways and GI tract (IPL).

2012 Prostaglandin Regulation of Allergic Disease

Hyatt, Convention Level, Celebration 13

Discussion Leaders: Stokes Peebles, MD FAAAAI Joshua A. Boyce, MD FAAAAI

Upon completion of this session, participants should be able to: Describe the role of PGE2 in regulating aspirin exacerbated respiratory disease; Describe the immunoinhibitory role of PGI2 in modulating allergic inflammation; Describe the role of thromboxane and PGD inhibitors in treating allergic airway diseases.







Saturday Scientific Program

Allied Health Seminars 🛛 🔤 🔊

Pre-registration and ticket required. Fee: \$20. No meal or refreshments are provided.

2013 AH: The Role of the Dietitian in an Allergy Practice in the U.S. and Across the Pond

Hyatt, Convention Level, Plaza D

Discussion Leaders: Raquel Durban, MS RD CSP LDN Rosan Meyer, PhD RD

Upon completion of this session, participants should be able to: Discuss the role of the dietitian in an allergy practice; Compare and contrast the role of the dietician in the U.S. and in the U.K. in research and clinical care; Discuss whether or not having a dietitian involved in the food allergy service makes a difference in the nutritional status of the children.

2014 AH: Integrative, Complementary, Alternative Medicine (CAM): What Do We Need to Know?

Hyatt, Convention Level, Plaza E

Discussion Leaders: William S. Silvers, MD FAAAAI Maureen George, PhD RN AE-C

Upon completion of this session, participants should be able to: Discuss CAM and integrative evidence-based modalities; Identify tools to utilize during intake interviews; Discuss available online resources.

2015 AH: Management of Severe Asthma in the Pediatric Patient

Hyatt, Convention Level, Plaza F

Discussion Leaders: Lila C. Kertz, MSN RN CPNP AE-C Caroline C. Horner, MD FAAAAI

Upon completion of this session, participants should be able to: Develop an understanding of the use of biologics (based on specific phenotypes) in the pediatric patient with severe asthma.

Workshops

- 2021 AH: Your Food Allergy Study is Over: Now What? Life Beyond a Desensitization Study

 6:45 to 8:00 am
 Hyatt, Convention Level, Plaza I
 Credit: 1.25 CME/CE
 Moderator: Danielle Thiboutot, RN BSN

 6:45 How To Transition From Study to Clinical Care Beth D. Strong, FNP-C
- 7:05 Question & Answer
- 7:10 Determining Specific Allergen Protein Content of Foods and Providing Patient Education Marion E. Groetch, MS RDN
- 7:30 Question & Answer
- 7:35 Life Beyond a Food Desensitization Study: Managing Families and Expectations

Megan Ott Lewis, MSN CRNP

7:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss the ongoing patient/family education needed once the desensitization study is complete; Describe the process of transitioning food allergy research participants out of a study and onto a plan to maintain desensitization as part of clinical care; Identify how to assess products and provide patient education for specific food protein content.

Plenary

2101	Asthma and Allergic Disorders in an Environment of
	Continuous Climate Change
	8:15 to 9:45 am
	Convention Center, South Concourse, Level 1, South Hall A1
	Credit: 1.50 CME/CE
	Moderators: Mario Sanchez-Borges, MD FAAAAI
	David B. Peden, MD MS FAAAAI
8:15	Introduction and Lectureship Presentation
8:20	Chemical and Biological Pollution: Exposure and Prevention
	Isabella Annesi-Maesano, MD PhD DSc
	Recipient of the AAAAI Foundation and Phil and Barbara Lieberman
	and Friends Lecture: Investing Together in Our Future: 4th year
8:45	Introduction and Lectureship Presentation
8:50	The Effect of Climate Change on Pollen Allergy and Respiratory
	Allergic Diseases
	Nelson Augusto Rosario, MD PhD FAAAAI
	Recipient of the AAAAI Foundation and Phillip E. Korenblat, MD FAAA
	Lectureship Investing Together in Our Future: Inaugural Year
9:15	Introduction and Lectureship Presentation
9:20	Pollens and Molds as Trigger Factors of Severe Asthma and Near
	Fatal Asthma: The Role of Climate Change
	Gennaro D'Amato, MD FAAAAI
	Recipient of the AAAAI Foundation and Louis M. Mendelson, MD
	FAAAAI Lectureship: Investing Together in Our Future: 2nd year
pollutants	pletion of this session, participants should be able to: Discuss the effects of on human respiratory diseases; Discuss how climate change can modify the
	ic expression of allergic diseases in different regions of the world; Discuss wha ne to prevent climate change and reduce the risks of allergic diseases.

See page 76 for details on the Plenary Session Q&A



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Saturday Poster Sessions

9:45 to 10:45 am

Convention Center, South Concourse, Level 1, South Hall A2 Credit: No CME/CE

Refer to pages 106 - 176 for abstracts and pages 210 - 234 for authors.

- 2201 Asthma Pathogenesis
- 2202 Intervention Therapies in Asthma Part I
- 2203 Primary Immunodeficiency I
- 2204 Primary Immunodeficiency II
- 2205 Occupational Exposures
- 2206 Outdoor Aerobiology
- 2207 Drug Allergy
- 2208 Urticaria and Angioedema
- 2209 Asthma Treatment and Control
- 2210 Food Allergy and Anaphylaxis
- 2211 Chronic Rhinosinusitis: With and Without Nasal Polyps
- 2212 Allergic Rhinitis Medical Therapy/Immunotherapy/Venom Immunotherapy
- 2213 Measures of Eosinophil Activation in Allergic Inflammation
- 2214 Cytokines and Chemokines in Allergy
- 2215 Allied Health Saturday Poster Session

Symposia

- 2301 Turkish National Society of Allergy and Clinical Immunology (TNSAI) Sister Society Symposium: Novel Perspectives of NSAID Exacerbated Respiratory Disease V 10:45 am to 12:00 pm Convention Center, South Concourse, Level 3, S310AB Credit: 1.25 CME/CE Moderator: Bulent Enis Sekerel, MD
 10:45 Novel Classifications: Met and Unmet Needs
- **10:45** Novel Classifications: Met and Unmet Needs Asli Gelincik, MD
- 11:05 Question & Answer
- 11:10 What do Traditional Methods Tell About Aspirin Desensitization: How Can the Methods be Improved? Katharine M. Woessner, MD FAAAAI
- 11:30 Question & Answer
 11:35 A National Model for Development of Standardized Aspirin Desensitization Care *Gulfem E. Celik, MD*
- 11:55 Question & Answer

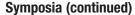
Upon completion of this session, participants should be able to: Identify the spectrum of novel classifications of NSAID exacerbated respiratory diseases; Describe the basic methods of aspirin desensitization in NERD as well as any new methods; Identify a national model for standardizing follow-up for patients with NERD who underwent aspirin

desensitization.

	2302	World Allergy Forum: New Approaches for the Optimal Management of Angioedema V
		10:45 am to 12:00 pm Convention Center, South Concourse, Level 3, S310GH Credit: 1.25 CME/CE
		Moderators: Ignacio J. Ansotegui, MD PhD Mario Sanchez-Borges, MD FAAAAI This educational activity is supported by an independent medical
		educational grant from Shire.
	10:45	An Overview of Mechanisms of Histamine- and Non-Histamine- Mediated Angioedema
		Marcus Maurer, MD Recipient of the Isil Berat Barlan Memorial Lectureship; 2nd year
	11:05	Use of Patient Registries to Study Angioedema Teresa Caballero, MD PhD
	11:25	Specific Therapies for the Different Types of Angioedema Marc A. Riedl, MD MS
	11:45	Question & Answer
	knowledg cuss the efforts to current a	npletion of this session, participants should be able to: Discuss the current ge of the different mechanisms involved in the pathogenesis of angioedema; Dis- importance of the data from patient registries in understanding angioedema and address unmet needs, especially regarding hereditary angioedema; Discuss the ind future symptomatic and prophylactic therapies for patients suffering different angioedema.
	2303	New Insights into T Lymphocyte Regulation $oldsymbol{\mathbb{V}}$
		10:45 am to 12:00 pm
		Convention Center, South Concourse, Level 3, S331A
		Credit: 1.25 CME/CE Moderator: Christina Nance, PhD MA FAAAAI
	10:45	Role of Follicular T Cells in Allergic Response
	10.40	Hirohito Kita, MD
	11:05	Question & Answer
	11:10	Resident Memory T Cells David Masopust
_	11:30	Question & Answer
	11:35	Role of T Cells in Anti-Viral Responses
7	44.55	Nicholas W. Lukacs, PhD
	11:55	Question & Answer
	related to	npletion of this session, participants should be able to: Identify the basic researcl o T-cell signaling and T-cell memory responses; Describe new knowledge on naling and function related to clinical scenarios.







2304	 Microbiome Manipulations for Allergic Disease 10:45 am to 12:00 pm Convention Center, South Concourse, Level 2, S220EF Credit: 1.25 CME/CE Moderator: James E. Gern, MD FAAAAI 		Convention Center, South Co Credit: 1.25 CME/CE Moderators: William W. Busse, James P. Kiley, Pl
10:45		10:45	Best African American Respo BARD Trial Michael E. Wechsler, MD MMS
11:05		11:05	Question & Answer
11:10	Use of Twins and Other Cohorts to Probe Gene-Microbial Environment Interactions in Allergic Responses Elizabeth T. Jensen, MPH PhD	11:10	Does Increasing ICS in the "" Exacerbations in School Age Daniel J. Jackson, MD FAAAAI
11:30	• • • • • • • • •	11:30	Question & Answer
11:35	5 Microbiome Contributions to the Understanding, Diagnosis and Treatment of Eosinophilic Esophagitis Seema S. Aceves, MD PhD FAAAAI	11:35	Is the Airway Microbiome As Exacerbations in Children? Avraham Beigelman, MD MSC
11:55	5 Question & Answer		Recipient of the Robert G. Tow
the ca diagno dysbio	completion of this session, participants should be able to: Discuss dysbiosis, usal mechanisms of dysbiosis in allergic responses and the use of dysbiosis for osis; Explain the importance of germ-free mice and experimental systems to analyze osis; Discuss the modification of microbiomes and prebiotics for the treatment of ic diseases.	step-up controlle for differ "yellow :	Question & Answer mpletion of this session, participants therapy in African Americans ages 5 d on low dose ICS and the degree to ent therapies; Discuss whether or no zone" reduces risk of severe asthma
2000	Disparities for Rural Asthma Patients V	the airwa	ay microbiome composition and the r
10:45	10:45 am to 12:00 pm Convention Center, South Concourse, Level 3, S330AB Credit: 1.25 CME/CE <i>Moderators: Bruce G. Bender, PhD FAAAAI</i> <i>R. Maximiliano Gomez, MD PhD</i>	2307	The Atopic March: What I Natural History of Atopic 10:45 am to 12:00 pm Convention Center, South Co Credit: 1.25 CME/CE Moderators: Lanny J. Rosenwa
	Andrew H. Liu, MD FAAAAI		Alessandro Fiocci
11:05 11:10	D Environmental Threats to Asthma in Rural West Virginia	10:45	Epidemiological Evidence of Studies Jean Julien Bousquet, MD PhL
11:30	David B. Peden, MD MS FAAAAI O Question & Answer	11:05	From Eczema to Allergy: Rol
11:30			System in Allergy Developme Raif S. Geha, MD FAAAAI
11:55	5 Question & Answer	11:25	Recipient of the Rebecca Buck Can We Stop the Atopic Mar
	completion of this session, participants should be able to: Describe the role that onmental exposures play in disparities in health care outcomes for individuals with	11.20	Jonathan M. Spergel, MD PhD

Upon completion of this session, participants should be able to: Discuss epidemiological data that support the notion of the atopic March; Discuss the genetic and molecular basis of the natural history of allergy; Discuss strategies to prevent allergy development and progression.

asthma living in different rural communities; Identify underlying factors that may account for difficult-to-treat asthma in rural regions; Describe efforts to mitigate severe asthma in rural patients.

NHLBI's AsthmaNet Clinical Trial Results 2018 V 2306

oncourse, Level 3, S330GH MD FAAAAI hD

AAAAI/WAO

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onse to Asthma Drugs: The NHLBI

Sc

- Yellow Zone" Prevent Severe Asthma e Children?
- ssociated with a Risk of Asthma CI FAAAAI

nley Memorial Lectureship; 4th year

should be able to: Identify the preferred and older with asthma who are inadequately which African ancestry affects preference ot increasing from low to high dose ICS in the exacerbations; Discuss the evidence linking response to inhaled corticosteroids.

Have We Learned from the Diseases oncourse, Level 2, S230EF asser, MD FAAAAI hi, MD the Atopic March in Birth Cohort D

e of the Innate and Adaptive Immune ent

kley Lectureship; 7th year

ch? FAAAAI

Question & Answer 11:45



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Symposia (continued)

2308 Guidelines for the Evaluation and Management of Drug Hypersensitivity V 10:45 am to 12:00 pm Convention Center, South Concourse, Level 3, S320CD Credit: 1.25 CME/CE Moderators: Pascal M. Demoly, MD PhD Edgardo J. Jares, MD

- 10:45 **Overview and Practical Applications of the New Guidelines for the Evaluation and Management of Drug Hypersensitivity** Ana Dioun Broyles, MD FAAAAI
- 11:05 Better Practices for Drug Allergy: Skin Testing, Drug Challenges and Guideline-Based Care Aleena Banerji, MD
- Fundamentals of Desensitization Indications and Risk 11:25 Stratification: Lessons from the Brigham and Women's Hospital **Desensitization Center** Mariana C. Castells, MD PhD FAAAAI

11:45 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss the expanded presentation of drug allergy and current phenotypes; Identify guidelines for the best practices in the evaluation and management of reported drug allergy; Discuss candidates for drug desensitization and the mechanisms of the multiple modalities.

2310	AH: Evaluation and Management of the Pediatric Patient with Severe Asthma $\overline{\mathbf{V}}$
	10:45 am to 12:00 pm
	Hyatt, Convention Level, Plaza H
	Credit: 1.25 CME/CE
	Moderator: Caroline C. Horner, MD FAAAAI
10:45	Evaluation of the Pediatric Patient with Severe Asthma
	Leonard B. Bacharier, MD FAAAAI
11:05	Question & Answer

11:10 Assessment of Barriers to Care in the Pediatric Patient with Severe Asthma

Anne E. Borgmeyer, DNP RN CPNP AE-C

- 11:30 **Question & Answer**
- **Review of Biologic Therapies for the Treatment of Uncontrolled** 11:35 Asthma

Lila C. Kertz, MSN RN CPNP AE-C

11:55 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss the use of biologic therapies in pediatric patients with severe asthma; Describe the appropriate assessment and management of the pediatric patient with severe asthma; Outline potential barriers to care for the pediatric patient with severe asthma.

2311 AH: Oral Food Challenges in Infants, FPIES and Alpha-Gal Allerav V

> 10:45 am to 12:00 pm Hyatt, Convention Level, Plaza G Credit: 1.25 CME/CE Moderator: Jaime E. Ross, RN MSN

- 10:45 **Conducting Oral Food Challenges in High-Risk Infants** Daria Szelag, DNP CRNP
- 11:05 **Question & Answer**
- **Conducting Oral Food Challenges in Alpha-Gal Allergy Patients** 11:10 Scott P. Commins, MD PhD
- **Question & Answer** 11:30
- **Conducting Oral Food Challenges in FPIES Patients** 11:35 Jennifer Fishman, RN
- 11:55 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss the process by which an oral food challenge is effectively conducted in the high-risk infant population; Discuss the special considerations for conducting FPIES challenges including highlighting FPIES consensus guidelines; Discuss the indication and interpretation of oral food challenges conducted in Alpha-Gal allergy patients.

Workshops

2321	AH: Empowering the Health Care Team: Prevention of Asthma Development and Exacerbation
	10:45 am to 12:00 pm
	Hyatt, Convention Level, Plaza I
	Credit: 1.25 CME/CE
	Moderator: Pooja Varshney, MD
10:45	A New look into the Development of Asthma
	Gregory M. Metz, MD FAAAAI
11:05	Question & Answer
11:10	Targeting Interventions: Timing is Everything
	Karen L. Gregory, DNP APRN-BC RRT AE-C
11:30	Question & Answer
11:35	Thinking Outside the Box: Stretgies for Improving Asthma Care Nina A. Zimmermann, MSN RN ANP-BC AE-C

11:55 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss research findings about factors contributing to the development of asthma; Describe the role of targeted interventions for preventing asthma; Identify strategies that might be utilized by all members of the healthcare team to prevent or reduce asthma exacerbations.







Workshops (continued)

2401 Indoor Allergen Abatement: Strategies for Home and School-based Environmental Interventions 12:00 to 2:00 pm Convention Center, South Concourse, Level 1, South Hall A2 Credit: 0.25 CME/CE Interactive Training Station Instructors

- Susan L. Balcer-Whaley, MPH Charles S. Barnes, PhD FAAAAI Martin D. Chapman, PhD FAAAAI Amparito Cunningham, MD MPH
- Patricia Mason Fritz, M. Eng.
- Kevin Kennedy, MPH CIEC
- Michelle Newman, RN
- Wanda Phipatanakul, MD MS FAAAAI
- Joshua A. Steinberg, MD FAAAAI

Upon completion of this session, participants should be able to: Demonstrate appropriate use of standardized assessment tools to remedy home and school environments; Discuss indications for a home or school allergen assessment; Educate patients on environmental control strategies tailored to specific indoor exposures.

	2411	and Oral Abstract Session
		12:15 to 1:45 pm
		Hyatt, Convention Level, Plaza G
		Credit: 1.25 CME/CE
		Moderators: Karen L. Gregory, DNP APRN-BC RRT AE-C
		Anne E. Borgmeyer, DNP RN CPNP AE-C
	12:15	Business Meeting
	12:30	Restarting Venom Immunotherapy After the Recent Venom Extract Shortage: Our Experience as a Tertiary Center Tyler Carpenter, LPN
	12:45	Role of Non-Allergists in the Removal of "Penicillin-Allergic" Labels August Generoso, MD
	1:00	Common Dietetic Questions in The Allergy Clinic: What Do Parents Want To Know? Lauren Kronisch
priate iscuss	1:15	Phenotypic Expression of Hypersensitivity Drug Reactions in Outpatient Infusion Centers, 1 Year Experience. Cintia A. Falck-Fuentes, MD
nental	1:30	Hypoallergenicity of a new whey-based, extensively hydrolyzed infant formula Anna H. Nowak-Wegrzyn, MD PhD FAAAAI

Allied Health Professional Assembly Rusiness Meeting

Seminars 🔤 🚳

2503

9/11

12:30 to 1:30 pm Pre-registration and ticket required. Fee: \$40. Box lunch included. Sessions and meals are limited to 30 people. Credit: 1.00 CME/CE

2501 Inner-City Environmental Exposures and Childhood Asthma: Emerging Concepts from Home and School Studies

> Hyatt, Convention Level, Celebration 1 Discussion Leaders: Matthew Perzanowski, PhD William J. Sheehan, MD

Upon completion of this session, participants should be able to: Describe emerging evidence on allergen exposures specific to inner-city childhood environments, with a focus on mouse and cockroach allergen exposures and successful allergen reduction strategies; Describe the current literature on air pollution exposures specific to the inner-city and efforts to reduce or eliminate these exposures; Discuss how young children with asthma are susceptible to harmful effects of these exposures not only in the home, but also in the school environment.

2502 Let Us Help You Change Your Practice: A Review of JACI: In Practice "Options Beyond Our Pages"

Hyatt, Convention Level, Celebration 2

Discussion Leaders: Brian C. Schroer, MD Julie Wang, MD FAAAAI

Upon completion of this session, participants should be able to: Identify barriers to and solutions for the implementation of practice-changing research.

The Child with a Chronic Cough Hyatt, Convention Level, Celebration 3 Discussion Leaders: Alan B. Goldsobel, MD FAAAAI Bradley E. Chipps, MD FAAAAI

Upon completion of this session, participants should be able to: Describe the diagnostic and therapeutic approach to children with chronic cough; Identify and treat those with protracted bacterial bronchitis.

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ATTEND THE CAREER CONNECTIONS JOB FAIR

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Saturday, March 3, 2018 12:00 to 3:15 pm

Convention Center, South Concourse, Level 1, South Hall A2

New for 2018: Delegates who attend and meet with exhibiting companies are entered for a chance to win free registration to the 2019 Annual Meeting in San Francisco, California!







Seminars (continued)

2504 Non-IgE-Mediated Food Allergy: A Practical Approach for **Recognition and Treatment**

Hyatt, Convention Level, Celebration 4

Discussion Leaders: Jean-Christoph Caubet, MD

Terri F. Brown-Whitehorn, MD FAAAAI

Upon completion of this session, participants should be able to: Describe when to suspect non-IgE-mediated food allergies; Discuss diagnostic pathways to confirm non-IgE-mediated food allergies; Discuss current methods to treat non-IgE-mediated food allergies.

2505 Worldwide Challenges for Evaluation and Treatment of **Hereditary Angioedema**

Hyatt, Convention Level, Celebration 5

Discussion Leaders: Marcus Maurer, MD Jonathan A. Bernstein, MD FAAAAI Teresa Caballero, MD PhD

Upon completion of this session, participants should be able to: Discuss the current guidelines for HAE care; Discuss the different therapies available in different countries for HAE patients.

2506 Managing Milk Allergy in Children

Hyatt, Convention Level, Celebration 6

Discussion Leaders: Alessandro Fiocchi, MD

Wendy Elverson, RD LDN

Upon completion of this session, participants should be able to: Describe evaluation and monitoring of infants and young children with milk allergy; Describe criteria for selecting an alternative formula in a milk-allergic infant; Discuss and compare various hypoallergenic formulas.

2507 Multi-Allergen SCIT as Practiced in the United States vs. **Commonly Used Methods of Immunotherapy Outside of** the United States

Hyatt, Convention Level, Celebration 7

Discussion Leaders: Giovanni Passalacqua, MD

Christopher W. Calabria, MD FAAAAI

Upon completion of this session, participants should be able to: Identify different approaches to allergen immunotherapy for rhinitis in the United States and around the world, including multi-allergen versus single or low number of allergens, subcutaneous allergen immunotherapy and sublingual allergen immunotherapy; Discuss differences in efficacy, safety and adherence between different methods of allergen immunotherapy in the U.S. and abroad; Describe optimal strategies for prescribing allergen immunotherapy based on understanding of existing literature.

2508 Practical Advice on Stepping Down Asthma Medications Hyatt, Convention Level, Celebration 8

Discussion Leaders: John B. Hagan, MD FAAAAI

Pascal M. Demoly, MD PhD

Upon completion of this session, participants should be able to: Discuss how practicing allergist-immunologists will make the most informed decisions with their patients about stepping down asthma medications.

2509 Validated Surrogate Markers of Mast Cell Burden and Activation

Hyatt, Convention Level, Celebration 9

Discussion Leaders: Lawrence B. Schwartz, MD PhD FAAAAI Dean D. Metcalfe, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the valid surrogate markers of mast cell disease; Describe which markers are specific to mast cells; Identify normal laboratory values when testing for surrogate markers of mast cell disease.

2510 What to Do with a Patient with Severe Chronic **Rhinosinusitis**

Hyatt, Convention Level, Celebration 10 Discussion Leaders: Robert C. Kern, MD

Anjeni Keswani, MD MSCI

Upon completion of this session, participants should be able to: Describe the benefits and adverse effects associated with nasal rinses; Discuss balloon sinus surgery; Identify new treatment options including biologics.

Do I Have Mast Cell Activation Syndrome? 2511

Hyatt, Convention Level, Celebration 12 Discussion Leaders: Cem Akin, MD PhD FAAAAI Melody C. Carter, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss diagnosis of patients with MCAS; Identify therapeutic options available for those patients.

2512 Late Effects Following HCT for SCID: What is Known and What to Look For

Hyatt, Convention Level, Celebration 13 Discussion Leaders: Elie Haddad, MD Discussion Leaders: Andrew R. Gennery, MD

Upon completion of this session, participants should be able to: Discuss the known late effects greater than 5 years after HCT for SCID; Discuss late effects uniquely observed in radiosensitive SCID ; Discuss screening recommendations for late effects in SCID patients.

Pro/Con Debates

2551 Early Allergen Exposure Prevents Asthma 12:30 to 1:30 pm Convention Center, South Concourse, Level 3, S330GH Credit: 1.00 CME/CE Moderator: Perdita Permaul. MD FAAAAI Pro Speaker: Miles Weinberger, MD FAAAAI Con Speaker: Thomas A.E. Platts-Mills, MD PhD FAAAAI Upon completion of this session, participants should be able to: Identify allergen exposures that do and do not prevent development of asthma and/or other allergic diseases.

2552 Skin Testing is Required Prior to Drug Challenges V

12:30 to 1:30 pm Convention Center, South Concourse, Level 3, S330AB Credit: 1.00 CME/CE Moderator: Moshe Ben-Shoshan, MD Pro Speaker: Luis Felipe C. Ensina, MD Con Speaker: Eric M. Macy, MD MS FAAAAI

Upon completion of this session, participants should be able to: Present the evidence for and against using drug skin tests prior to challenges in patients with suspicion of drug hypersensitivity; Discuss the available diagnostic tests, particularly skin tests and in vitro tests, as well as where, when and how to perform an OPT in patients with a suspicion of beta lactam hypersensitivity.







🚾 ticket required 🛛 🚯 fee required 🛛 🤍 included in the Virtual Joint Congress

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2553	The Overlap of Asthma and COPD (ACOS) is a Distinct Syndrome that Changes Treatment and Patient Outcomes
	12:30 to 1:30 pm

Convention Center, South Concourse, Level 3, S310GH Credit: 1.00 CME/CE

Moderator: Carol A. Saltoun, MD FAAAAI

Pro Speaker: Donald P. Tashkin, MD

Con Speaker: Stokes Peebles, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the diagnostic and pathophysiologic criteria for asthma and COPD; Discuss how asthma and COPD might overlap in some patients; Describe differences in the the treatment and prognosis for asthma, COPD and asthma/COPD overlap syndrome.

2554 Whole Exome Sequencing Should Be Done For Every Abnormal Newborn Screen ♥

12:30 to 1:30 pm

Convention Center, South Concourse, Level 3, S310AB Credit: 1.00 CME/CE Moderator: Jennifer Heimall, MD Pro Speaker: Sergio Rosenzweig, MD

Con Speaker: Ramsay L. Fuleihan, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the role for genetic diagnosis in SCID; Relate the cost and timing of genetic testing to the risk and benefit for SCID therapy; Discuss the effect of genetic diagnosis on HSCT planning (source and conditioning).

Workshops

2521	You Talked and We Listened: The ABAI's Updated MOC Program Options $\overline{\mathbf{V}}$
	12:30 to 1:45 pm
	Convention Center, South Concourse, Level 3, S320CD
	Credit: 1.25 CME/CE
	Moderator: Stephen I. Wasserman, MD FAAAAI
12:30	Evolution in the ABAI MOC Program
	Stephen I. Wasserman, MD FAAAAI
12:50	MOC Part III: The New Continuous Assessment Program
	Theodore M. Freeman, MD FAAAAI
1:10	MOC Part IV: New Options to Get Credit for What You're Already

Doing Stephen A. Tilles, MD FAAAAI

1:30 Question & Answer

Upon completion of this session, participants should be able to: Describe the ABAI Continuous Assessment Program; Identify practice improvement opportunities that are relevant to their practices.

2557	Interesting Cases Part 1
	12:30 to 1:45 pm
	Convention Center, South Concourse, Level 3, S331C
	Credit: 1.25 CME/CE
	Moderators: T. Prescott Atkinson, MD PhD FAAAAI
	Eric M. Schauberger, DO PhD
12:30	A Clinical Diagnosis: Pdgfra Positive Myeloid Variant
	Hypereosinophilic Syndrome
	Gregory M. Constantine, MD
12:40	Question & Answer
12:45	Successful Treatment of Symptomatic Hypereosinophilia with
	Reslizumab
	Kara Coffey, MD
12:55	Question & Answer
1:00	Lymphocytic Hypereosinophilic Syndrome (HES) with Eosinophilic
	Cholangitis
	Albert Wu, MD
1:10	Question & Answer
1:15	Thick Cast Sputum Production and Eosinophilia in an Adult
	Presenting with Respiratory Distress
	Warit Jithpratuck, MD
1:25	Question & Answer
1:30	Development of Food Protein-Induced Enterocolitis Syndrome
	(FPIES) to Egg Following Immunoglobulin E (IgE)-Mediated Egg
	Allergy
	Hannah Duffey, MD
1:40	Question & Answer
Upon con	npletion of this session, participants should be able to: Evaluate the managemen

Upon completion of this session, participants should be able to: Evaluate the management of challenging patient cases by trainees in allergy/immunology; Compare and contrast management strategies for challenging patient cases with peers.

Combined Friday and Saturday Plenary Session Q&A

12:30 to 1:30 pm

Convention Center, South Concourse, Level 1, South Hall A2 Credit: No CME/CE Moderators: Ignacio J. Ansotegui, MD PhD Mario Sanchez-Borges, MD FAAAAI

David B. Peden, MD MS FAAAAI

Friday Plenary Speaker

Rachel L. Miller, MD FAAAAI

Friday Plenary Speaker Elizabeth Matsui, MD MHS

Friday Plenary Speaker David B. Peden, MD MS FAAAAI

Saturday Plenary Speaker

Isabella Annesi-Maesano, MD PhD DSc

Saturday Plenary Speaker

Gennaro D'Amato, MD FAAAAI





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Basic Science Poster Discussion 2722 **Basic Science Moves Forward** 4:30 to 6:00 pm Convention Center, South Concourse, Level 2, S210C Credit: No CME/CE Moderators: David D. Chaplin, MD PhD FAAAAI Philip W. Askenase, MD FAAAAI 4:30 Poster Viewing

Discussion of Following Posters: 5:10

- 252 Airway IL-1a promotes development of allergen-specific follicular helper T (Tfh) cells and production of IgE antibody Takavasu Nomura. MD
- 253 Type 6 Purinergic Receptors (P2Y6) Homeostatic Regulation In Allergic Sensitization And Lung Inflammation Jun Nagai
- 254 CD8 T-cell abundance and early antiviral functions Andrew Soerens, PhD
- 255 miR-511-3p limits allergic inflammation through M2 macrophage polarization and modulating CCL2 expression Danh C. Do, PhD
- 256 Effect of prenatal supplementation of mothers with Lactobacillus johnsonii on offspring microbiome and RSV immunity Wendy Fonseca

Oral Abstract Sessions

2601	Asthma Epidemiology and Intervention		
	2:00 to 3:15 pm		
	Convention Center, South Concourse, Level 3, S330AB		
	Credit: 1.25 CME/CE		
	Moderators: Sharmilee M. Nyenhuis, MD FAAAAI		
	Isabella Annesi-Maesano, MD PhD DSc		
2:00	Tezepelumab demonstrates clinically meaningful improvements in asthma control (ACQ-6) in patients with uncontrolled asthma: results from a phase 2b clinical trial Jonathan Corren		
2:15	Lung Function Trajectories From Childhood To Young Adulthood; A Peek Into The Future Of Lung Health? Sved H Arshad DM ERCP		

- 2:30 Clinical Drug Candidate MIDD0301 is a Novel Oral Asthma Treatment combating Inflammation and Muscle Constriction in the Lung Leggy A. Arnold
- 2:45 Atopy Modifies the Effect of Mouse Allergen Reduction on Asthma Outcomes in Low-income. Urban Children with Persistent Asthma Ammara G. Ahmed. DO
- An Innovative Approach to Identify Asthma among Preschool 3:00 **Children through Automated Chart Review** Young J. Juhn, MD MPH

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.

2602 **Topics in Common Variable Immunodeficiency** 2:00 to 3:15 pm **Convention Center, South Concourse, Level 3, S310AB** Credit: 1.25 CME/CE Moderators: Elena E. Perez, MD PhD FAAAAI Maria A. Slack, MD MS 2:00 **Gastrointestinal (GI) Manifestations in Common Variable**

Immunodeficiency (CVID) Sara Barmettler, MD

- 2:15 **Cellular Defects Amongst Common Variable Immunodeficiency** (CVID) Patients with Chronic Lung Disease in the USIDNET (United States Immunodeficiency Network) Cohort Erinn S. Kellner, MD
- 2:30 **Retrospective Study of Spirometry in CVID Reveals that FEF25%-**75% Can Be Used to Guide the Dose of IgG Used to Protect **Pulmonary Function** Harry W. Schroeder, MD PhD

Low class switched memory B cells predicts the need for 2:45 continued need for replacement immunoglobulin therapy post Rituximab use and adequate numeric B cell reconstitution Caitlin MG McNulty, MD

3:00 Relationship of specific IgM responses with infection and lymphoproliferative states in common variable immunodeficiency Travis M. Sifers, MD

2603 Climate and Technology

2:00 to 3:15 pm **Convention Center, South Concourse, Level 2, S230AB** Credit: 1.25 CME/CE Moderators: Jiu-Yao Wang, MD PhD Ruby Pawankar. MD PhD FAAAAI

- 2:00 Speciated Pollen Season Parameters, Trends, and Associations with Temperature in the Contiguous United States Jeremy J. Hess, MD MPH
- Increasing Length of Ragweed Season in the Central Midwest 2:15 Minati G. Dhar
- **Climate Change Anomaly: Local Ragweed Levels Declining** 2:30 James J. Anderson, MLT
- AirRater Tasmania: Using Smartphone Technology to Understand 2:45 Local Environmental Drivers of Symptoms in People with Asthma and Allergic Rhinitis Fay Johnston
- 3:00 A Novel Framework to Facilitate Multisector Activities to Improve Population-Level Asthma Control: The EXHALE Technical Package Joy Hsu, MD

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.







Oral Abstract Sessions (continued)			Getting Over The Shock: Deploying New Systems for	
2604	Food Allergy at the Beginning and the End of the Atopic March 2:00 to 3:15 pm Convention Center, South Concourse, Level 3, S320CD Credit: 1.25 CME/CE Moderators: Amal H. Assa'ad, MD FAAAAI Anna H. Nowak-Wegrzyn, MD PhD FAAAAI	2:00	Anaphylaxis Management 2:00 to 3:15 pm Convention Center, South Concourse, Level 2, S230EF Credit: 1.25 CME/CE Moderators: Joshua A. Steinberg, MD FAAAAI Andrew S. Nickels, MD Identifying Barriers to Implementation of Stock Epinephrine Bills: The Texas Experience	
2:00	Changes In Metabonomic Profile During Peanut-Induced Anaphylaxis And Correlation With Symptom <i>Paul J. Turner, FRACP PhD</i> <i>This abstract will be presented in the Poster Hall on Sunday, March 4</i>	2:15	Chih-Yin Yeh, MD Disparities in Risk of Hospitalization for Food Anaphylaxis in the United States. Claudia L. Gaefke, MD	
2:15	from 9:45 - 10:45 am Continuous Cow's Milk Protein Consumption from Birth and a Decrease in Milk Allergy: a Prospective Cohort Study Related to the PETIT Study	2:30	Central Ohio 911 dispatcher adherence to national triage protocols for anaphylaxis Lisa M. Martorano, DO	
2:30	Osamu Natsume, MD PhD Eosinophilic Esophagitis is a Late Manifestation of the Atopic	2:45	Serum Tryptase Levels in 114 Pediatric Patients with Cutaneous Mastocytosis Neha Seth, MD	
2:45	March David A. Hill, MD PhD The Association Between Folate/Folic Acid Metabolites and the	3:00	Utilization of Anaphylaxis Action Plans and Barriers to Use in Primary Care Pediatrics Hsi-en Ho, MD	
	Development of Food Allergy (FA) in Children Emily C. McGowan, MD		npletion of this session, participants should be able to discuss recent research nents in the field of allergy/immunology.	
3:00	Farm Exposure Influences Skin Microbiota In Infancy Cheryl A. Steiman, MD	2607	Rhinitis: With or Without Nasal Polyps 2:00 to 3:15 pm	
2605	Drug Allergy in the Era of Big Data 2:00 to 3:15 pm Convention Center, South Concourse, Level 3, S310GH Credit: 1.25 CME/CE		Convention Center, South Concourse, Level 3, S330GH Credit: 1.25 CME/CE Moderator: Seong Ho Cho, MD FAAAAI Claus Bachert, MD PhD	
2:00	Moderators: Allison Ramsey, MD FAAAAI Corinne Sandes Happel, MD Big Data Analysis of Drug Induced Hypersensitivity and	2:00	B-cell activating factor/Th17/Neutrophils axis plays a role in refractory nasal polyposis Dong-Kyu Kim, MD	
2.00	Anaphylaxis Reactions in Clinical Cancer Trials Christina Eldredge, MD	2:15	Atopic Comorbidities and Biomarkers of Type 2 Inflammation in Patients With Chronic Rhinosinusitis With Nasal Polyposis	
2:15	Adverse drug reactions to antibiotics collected by a pharmacovigilance center in Korea: an eight-year retrospective study	2:30	(CRSwNP) Who Failed Intranasal Corticosteroids <i>Claus Bachert, MD PhD</i> Airway epithelial cells enhances tissue plasminogen activator by	
2:30	Young-Min Ye, MD PhD Tryptase as a biomarker of mast cell activation in perioperative		short chain fatty acids via G protein coupled receptor 41 and 43 Yoshimasa Imoto, MD PhD	
0.45	anaphylaxis: survey from a Belgium reference centre Margaretha A. Faber, MD PhD	2:45	Symptom severity from RV infections are increased in those with unified airway disease	
2:45	Single Cell Approaches to Define the Pathogenic Immune Cells that Mediate Drug Hypersensitivity Katie D. White, MD PhD	3:00	Jaeden T. Calton Early Life Risk Factors for Chronic Sinusitis: a Longitudinal Birth Cohort Study	
3:00	The increased risk of methicillin-resistant Staphylococcus aureus and Clostridium difficile in patients with a documented penicillin allergy <i>Kimberly G. Blumenthal, MD MSc</i>		<i>Eugene H. Chang, MD</i> npletion of this session, participants should be able to discuss recent research nents in the field of allergy/immunology.	

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.





2608 Immune Mechanisms in Atopic Dermatitis 2:00 to 3:15 pm Convention Center, South Concourse, Level 2, S220EF Credit: 1.25 CME/CE Moderators: Lisa A. Beck, MD FAAAAI

Harald Renz, MD FAAAAI

- 2:00 Neuronal IL-4Ra and JAK1 signaling critically mediate atopic dermatitis-associated Landon K. Oetjen
- 2:15 Elevated Eosinophil Lineage-Committed Progenitors In Skin Lesions Of Patients With Moderate-To-Severe Atopic Dermatitis Emma Price, BSc
- 2:30 A Comparison Of The Gut Microbiome Of Food Allergic Hosts With and Without Atopic Dermatitis Versus Healthy Controls Brianne Navetta-Modrov
- 2:45 Cockroach allergen induces atopic dermatitis and up regulates DCIR expression in mast cell Huang Yang
- 3:00 Investigating the Role of Staphylococcal Biofilms in the Pathogenesis of Pediatric Atopic Dermatitis Tammy Gonzalez

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.

2609 Late Breaking Oral Abstract Session: Basic Science 2:00 to 3:15 pm Convention Center, South Concourse, Level 2, S220B

Credit: 1.25 CME/CE

Moderator: Francesca Levi-Schaffer, PhD PharmD FAAAAI

- 2:00 Pediatric Patients with Allergic Comorbidities Exhibit Increased IL-9-Producing Mucosal Mast Cells in the Gut Dana Shik
- 2:15 A High-Throughput Genetic Analysis of Common Drug Allergy Labels Using Data from a Large Biobank Elizabeth J. Phillips, MD FAAAAI
- 2:30 IL-33, but Not TSLP, Augments Carbachol-Induced Bronchoconstriction and Attenuates Formoterol-Induced Bronchodilation of Human Small Airways Cynthia Koziol-White, PhD
- 2:45 Soy Isoflavones Improve Poor Asthma Control in Asthmatics with High PAI-1 Producing Genotypes Seong Ho Cho, MD FAAAAI
- 3:00 The Leukotriene E4 Receptor, CysLT3r Regulates Airway Chemosensory Brush Cell Expansion Lora Georgieva Bankova, MD

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.

Workshops

2610	AH: Cluster Immunotherapy and its Application in Clinica Practice $\overline{\mathbf{V}}$
	2:00 to 3:15 pm
	Hyatt, Convention Level, Plaza I
	Credit: 1.25 CME/CE
	Moderator: Kim E. Mudd, RN MSN CCRP
2:00	Accelerated Buildup Regimens for SCIT and their Application in
	Clinical Practice
	Justin C. Greiwe, MD
2:20	Question & Answer
2:25	ACAAI/AAAAI Surveillance Study of Immunotherapy Safety David I. Bernstein, MD FAAAAI
2:45	Question & Answer
2:50	USP Chapter 797 Immunotherapy Update
	Cheryl K. Bernstein, RN BSN CCRC
3:10	Question & Answer
accelerate apy; Discu	pletion of this session, participants should be able to: Describe the role of ed buildup regimens such as cluster IT for initiating subcutaneous immunother- uss the current results of the ACAAI/AAAI surveillance study for immunotherap scuss the requirements for compliance with the USP Chapter 797 immunother- ounding.
2611	Allied Health Travel Scholarship Recipients
	2:00 to 3:15 pm
	Hyatt, Convention Level, Plaza E
	Credit: 1.25 CME/CE
	Moderator: Anne E. Borgmeyer, DNP RN CPNP AE-C
2:00	Asthma Champion Program
	Linda M. Cimino, EdD CPNP ANP CCRC CHSE
2:05	Treatment of High Risk Asthma Patients in Metro Indianapolis
	Cindy Fiscus, RN BSN AE-C
2:10	Food Allergic Children in Schools: An Interventional Pilot
	Education Program
	Lauren Herlihy, RN MSN CPNP
2:15	Empower (Enhancing, Managing, and Promoting Well-being and
	Resiliency) Program
	Christopher Simon Knight, BS
2:20	Bringing It to the Veteran: Veteran's Administration New England Healthcare: Accessing Allergy/Immunology Consultative Service Via Clinical Video Telehealth
	Claire Marie Murphy, NP-C

- Susana Rangel, NP 2:30 Implementing a Food Allergy Workshop
- Sarah E. Herr, RN
- 2:35 Implementation of Health Systems Based Quality Improvement Models of Asthma Care Cindy A. Trubisky, AE-C CHES

2:40 Question & Answer

Upon completion of this session, participants should be able to discuss activities by Allied Health members that contribute to overall patient care.





Workshops (continued)

- 2612 AH: Difficult Questions from the Patient with Primary Immunodeficiency: How Do We Respond? 2:00 to 3:15 pm Hyatt, Convention Level, Plaza F Credit: 1.25 CME/CE
 - Moderator: Debra A. Sedlak, MSN CPNP
- 2:00 Quality of Life for Patients with PIDD: Real Life Concerns Vivian P. Hernandez-Trujillo, MD FAAAAI
- 2:30 Disease Susceptability in Different Primary Immune Diseases M. Elizabeth M. Younger, CRNP PhD

3:00 Question & Answer

Upon completion of this session, participants should be able to identify difficult questions presented by patents with prim ary immunodeficiency disorders and possible answers to them.

New Allergist/Immunologist Assembly Business Meeting and Reception

4:45 to 6:15 pm Hyatt

Convention Level, Regency 0

Keynote

2701 Global Environmental Change and Our Health ♥ 3:30 to 4:30 pm Convention Center, South Concourse, Level 1, South Hall A1 Credit: 1.00 CME/CE Moderator: David B. Peden, MD MS FAAAAI Speaker: Linda Birnbaum, PhD DABT ATS Recipient of the AAAAI Foundation and Dr. William and Judith H. Busse Lectureship: Investing Together in Our Future: 5th year
Upon completion of this session, participants should be able to: Understand unique interactions between genes and environment that contribute to human health or disease; Recognize the global increases in non-communicable diseases that are attributable to

environmental conditions; Identify opportunities to improve human health by modifying

Workshops

environmental exposures.

2801 Hot Topics in Pediatric Allergy/Immunology 🔻

4:45 to 6:00 pm

Hyatt, Convention Level, Regency S This Session Will Use Audience Response Technology. Credit: 1.25 CME/CE Moderator: Elizabeth Matsui, MD MHS

4:45 Asthma Tamara T. Perry, MD

- 5:05 Question & Answer
- 5:10 Food Alleray

Carla M. Davis, MD FAAAAI

5:30 Question & Answer

5:35 Primary Immunodeficiency

Vivian P. Hernandez-Trujillo, MD FAAAAI

5:55 Question & Answer

Upon completion of this session, participants should be able to: Describe the latest developments in pediatric allergy and immunology; Discuss how the latest developments might affect the care of pediatric patients.

2802 Telemedicine and You

4:45 to 6:00 pm **Convention Center, South Concourse, Level 3, S320A** Credit: 1.25 CME/CE *Moderator: Nathaniel D. Hare, MD FAAAAI*

- 4:45 e-Health in Allergic and Respiratory Diseases Matteo Bonini, MD PhD
- 5:05 Question & Answer
- 5:10 Telemedicine in Practice Jennifer A. Shih, MD
- 5:30 Question & Answer
- 5:35 How to Set Up a Telemedicine Practice/Billing and Coding Issues Teresa Thompson, CPC CMSCS CCC

5:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss key practice management and regulatory issues related to the practice of telemedicine; Describe why telemedicine is a good fit for the field of allergy and immunology; Discuss how to improve patient adherence using telemedicine.

- 2803 **Optimal Scientific Writing: From Manuscript Preparation** to Publication V 4:45 to 6:00 pm **Convention Center, South Concourse, Level 3, S320E** Credit: 1.25 CME/CE Moderators: Michael Schatz, MD MS FAAAAI Zuhair K. Ballas, MD FAAAAI Alessandro Fiocchi, MD Tips for the Organization and Contents of a Scientific Manuscript 4:45 David E. Sloane, MD EdM 5:05 **Question & Answer** 5:10 Tips for Clear and Correct Scientific Writing Margaret LeMay
- 5:30 Question & Answer
- 5:35 Accepting a Manuscript: What Do Editors Look for? Cezmi A. Akdis, MD FAAAAI
- 5:55 Question & Answer

Upon completion of this session, participants should be able to: Describe the strategies for critically developing scientific manuscripts for publication; Improve the clarity and accuracy of scientific writing; Discuss what editors look for in evaluating a manuscript submitted for publication.



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Workshaps (continued)

2804	Mast Cell Biology on the March: Lessons from the AADCRC 🔻
	4:45 to 6:00 pm
	Convention Center, South Concourse, Level 2, S230AB Credit: 1.25 CME/CE
	Moderator: Tanya M. Laidlaw, MD FAAAAI
4:45	Mast Cell Activation By MrgprX2/B2 Receptors: Potential Roles in Allergic (as well as "Pseudoallergic") Disorders
	Stephen J. Galli, MD
5:05	Question & Answer
5:10	Regulation and Function of Type-2 Mucosal Mast Cells in Allergic
	Disorders
	Yui Hsi Wang, PhD
5:30	Question & Answer
5:35	Targeting Mast Cells As a Treatment for Asthma Using Imatinib:
	The Results of the KIT in Asthma (KIA) Study
	Joshua A. Boyce, MD FAAAAI
mast cel tors regu	Question & Answer mpletion of this session, participants should be able to: Describe how mucosal ls regulate allergic disorders; Discuss how mast cell activation by MRGPRX recep- lates allergic (as well as "pseudoallergic") disorders; Discuss the effectiveness of in the KIT In Asthma (KIA) study.
2805	MACRA, MIPS & APM: Time to Face the Ch- Ch- Changes
	in U.S. Clinical Practices
	4:45 to 6:00 pm
	Convention Center, South Concourse, Level 3, S310AB Credit: 1.25 CME/CE

Moderator: Andrew W. Murphy, MD FAAAAI

- 4:45 MACRA One Year In: What We Have Learned and What's Next? Paul V. Williams, MD FAAAAI
- 5:05 **Question & Answer**
- 5:10 Coding, Billing and Quality Reporting: How It All Fits Together Emily Graham. RHIA CCS-P
- 5:30 **Question & Answer**
- 5:35 Alternative Payment Models in Allergy and Immunology Cindy H. Moon, MPP MPH

5:55 **Question & Answer**

Upon completion of this session, participants should be able to: Describe changes in quality payment programs; Identify compensation models for allergy/immunology services under MACRA.

2806 **Gastrointestinal Food Allergies: The Challenges of** Studying the Pathogenesis of Food Allergies Without Using Specific IgE 4:45 to 6:00 pm **Convention Center, South Concourse, Level 1, South Hall A1** This Session Will Use Audience Response Technology. Credit: 1.25 CME/CE Moderator: Rosa Huerta-Hernandez, MD 4:45 FPIES: Is There Enough Evidence That It Is T Cell Mediated? Anna H. Nowak-Wegrzyn, MD PhD FAAAAI 5:05 **Question & Answer** 5:10 Eosinophilic Esophagitis: The Role of the Intertalk Between Innate and Adaptive Immunity Antonella Cianferoni, MD PhD FAAAAI 5:30 **Question & Answer** 5:35 Celiac Disease: Can a Th1-Mediated Disease Teach Us How to Study the Non-Ige-Mediated Food Allergies? Frits Koning, MD 5:55 **Question & Answer** Upon completion of this session, participants should be able to: Discuss the current understanding of FPIES pathogenesis; Discuss the current understanding of eosinophilic esophagitis pathogenesis; Describe immune mechanisms that cause celiac disease. 2807 A Novel Approach to Antimicrobial Allergy 4:45 to 6:00 pm 🔻 **Convention Center, South Concourse, Level 2, S230EF** Credit: 1.25 CME/CE Moderators: David A. Khan, MD FAAAAI Enrique A. Martí-Guadano, PhD

AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

- Novel Pathways of Integrating Antibiotic Allergy Testing into 4:45 Antimicrobial Stewardship Kimberly G. Blumenthal, MD MSc
- 5:05 **Question & Answer**
- 5:10 The Role of Antimicrobial Allergy Testing in Delayed Hypersensitivity

Elizabeth J. Phillips. MD FAAAAI

- 5:30 **Question & Answer**
- 5:35 The Use of Alternative Beta-Lactams in Patients Allergic to Penicillin
 - Antonino Gaetano Romano. MD

5:55 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss how antibiotic allergy evaluation can impact antimicrobial stewardship and improve antibiotic choice; Describe the safety and efficacy of antimicrobial allergy testing in delayed hypersensitivity; Discuss the mechanisms of beta-lactam allergy and interpret the safety of alternative beta-lactam use in penicillin allergic patients.





Workshops (continued)

TUIN		2010	opu
2808	Anaphylaxis Across the Allergy Spectrum V 4:45 to 6:00 pm		4:45 Conv Cred
	Convention Center, South Concourse, Level 3, S330AB Credit: 1.25 CME/CE		Mod
	Moderators: Susan Waserman, MD MSc FAAAAI	4:45	Cellu
	Maria Isabel Rojo Gutierrez, MD PhD	4.43	Didie
4:45	Assessing Risk for Reactions to Drugs	5:05	Que
	Aziz Sheikh, MD	5:10	Tow
5:05	Question & Answer		Diag
5:10	Can Severity of Food Allergic Reactions be Predicted?		Victo
F.00	Jonathan O'B. Hourihane, MD FAAAAI	5:30	Que
5:30	Question & Answer	5:35	Non
5:35	Risk Factors for Anaphylaxis Due to Venom Markus Ollert, MD PhD		Gian
5:55	Ouestion & Answer	5:55	Que
may influ reactions	npletion of this session, participants should be able to: Discuss risk factors that uence the severity of food allergic reactions; Discuss the increased risk of severe s to venom in patients with mastocytosis; Discuss the evaluation and manage- patients with adverse reactions to medications.	Upon col of cellula why mol sensitiza among p	ar assay ecular a ition; Dis
2809	Pathways to Chronic Rhinosinusitis: Molecular to Microbial and Back	2811	Tar <u>(</u> Dise
	4:45 to 6:00 pm		4:45
	Convention Center, South Concourse, Level 3, S320CD		Con
	Credit: 1.25 CME/CE		Cred
4.45	Moderator: Robert P. Schleimer, PhD FAAAAI	4.45	Mod
4:45	Bitter Taste Receptors: A First Line of Defense in the Sinuses? Noam A. Cohen, MD PhD	4:45	Anti Thoi
5:05	Question & Answer	5:05	Que
5:10	Deconvoluting Chronic Rhinosinusitis with Single Cell Expression	5:10	KIT
	Approaches		in A
5:30	Nora A. Barrett, MD FAAAAI Ouestion & Answer	F-00	Kath
5:35	The Community of Microbes in the Healthy and Diseased Sinuses	5:30	Que
0.00	Susan V. Lynch, PhD	5:35	Targ <i>Gian</i>
5:55	Question & Answer	5:55	Que
applicati	npletion of this session, participants should be able to: Discuss how the on of single cell RNA sequencing can reveal the immunopathogenesis of chronic and its addatage how microbial beta defause interactions and drive the	Upon co pathway	•

5 to 6:00 pm nvention Center, South Concourse, Level 3, S310GH dit: 1.25 CME/CE derators: Bryan L. Martin, DO FAAAAI Ignacio J. Ansotegui, MD PhD lular Assays on Allergy Diagnosis lier G. Ebo, MD PhD FAAAAI estion & Answer wards Precision Medicine: The Role of the Molecular Allergy gnostic Approach toria Cardona, MD PhD estion & Answer n-Validated Tests in Allergy Diagnosis nenrico Senna, MD estion & Answer on of this session, participants should be able to: Discuss the importance ys and their role in diagnosis of non IgE mediated mechanisms; Discuss allergy diagnosis is necessary to identify the different patterns of allergic Discuss non-validated tests for allergy diagnosis that are creating confusion rgeting Mast Cells in Asthma and Other Allergic eases 🔻 5 to 6:00 pm nvention Center, South Concourse, Level 2, S220EF dit: 1.25 CME/CE derator: Sally Wenzel, MD FAAAAI ti-IgE: Is It All about Blocking Allergens? omas B. Casale, MD FAAAAI estion & Answer Inhibition for Severe Asthma: What We Learned from the KIT Asthma (KIA) Trial herine N. Cahill, MD estion & Answer

Update on Allergy Diagnosis

2810

- 5:35 Targeting Siglec 8 for Asthma and Mast Cell Disorders Gianni Marone, MD
- 5:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss the molecular pathways and mechanisms by which mast cell function can be targeted with existing or developing drugs; Discuss the clinical and laboratory markers that identify subjects most likely to respond to these interventions.

sinusitis and its endotypes; Discuss how microbial-host defense interactions can drive the pathology of chronic rhinosinusitis.



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2812	Patch Testing and Practical Pearls: An Overview for Fellows-in-Training and Junior Members V 4:45 to 6:00 pm Convention Center, South Concourse, Level 3, S330GH Credit: 1.25 CME/CE Moderators: Christina G. Kwong, MD
	Marco Caminati, MD
4:45	Practical Aspects of Patch Testing: When, Who and How? Razvigor B. Darlenski, MD PhD
5:05	Question & Answer
5:10	Identification of Common and Uncommon Reasons for Patch Testing
	Jose Luis Garcia Abujeta, PhD
5:30	Question & Answer
5:35	Learning and Practicing Patch Testing Interpretation Curt Hamann, MD
	Question & Answer npletion of this session, participants should be able to: Identify situations when ting is appropriate; Identify how to practice reading patch testing results.
2813	Particles and Particulates Revisited V
	4:45 to 6:00 pm
	Convention Center, South Concourse, Level 2, S220B
	Credit: 1.25 CME/CE
	Moderators: Jill A. Poole, MD FAAAAI Alfonso M. Cepeda, MD
4:45	What Are Particulates and Why Do They Matter for Health?
4.43	Patricia Mason Fritz, M. Eng.
5:05	Question & Answer
5:10	Overview of Current Research on Airborne Particles and Their Respiratory and Cardiac Consequences Carmi Geller-Bernstein, MD
5:30	Ouestion & Answer
5:35	Update on the Public Warning Levels for Air Pollution and
0.00	Particulates

Jonathan A. Bernstein, MD FAAAAI

5:55 **Question & Answer**

Upon completion of this session, participants should be able to: Describe regulated and non-regulated particle pollution in outdoor and workplace air; Discuss how particle pollution may influence a patient's health; Discuss how the EPA's AQI and Nowcast pollution warning systems can help patients avoid unhealthy exposures.







European Academy of Allergy and Clinical Immunology 26 – 30 May 2018 Munich, Germany



EAACI Congress 2018

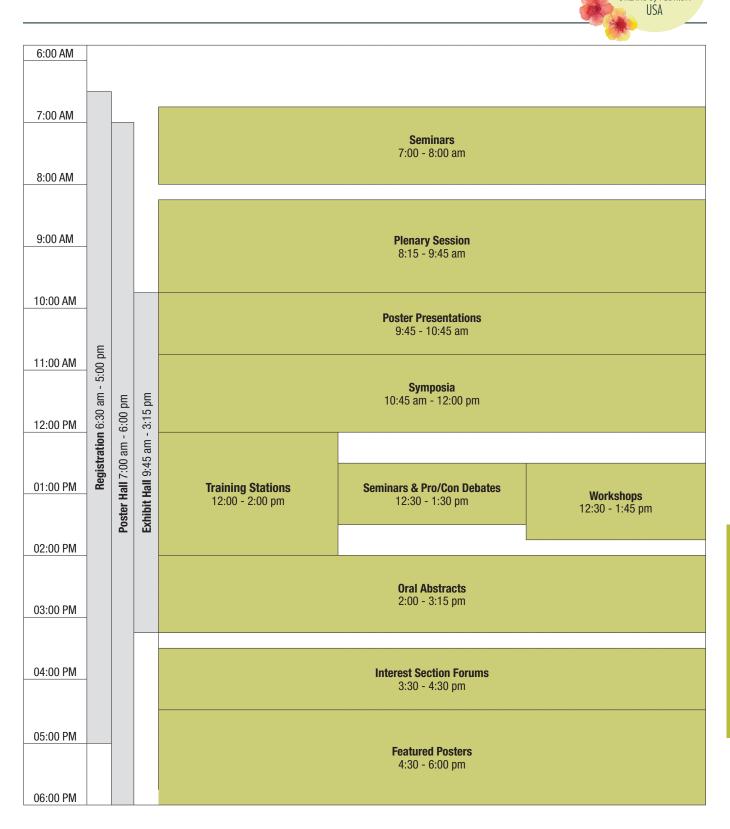
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Sunday At-A-Glance







AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA



Seminars 🛛 🗠 🔊

7:00 to 8:00 am

Pre-registration and ticket required. Fee: \$40. Continental Breakfast included. Sessions and meals are limited to 30 people. Credit: 1.00 CME/CE

3001 Problem-Based Learning: Recurrent Infection in an Adult Convention Center, South Concourse, Level 2, S210C

Discussion Leaders: Richard L. Wasserman, MD PhD FAAAAI David P. Huston, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss how to apply the appropriate diagnostic algorithm to an adult patient with immunodeficiency; Discuss how to counsel adult patients with recurrent infection regarding their prognosis; Discuss how to counsel adult patients with recurrent infection about the potential therapies for their condition.

3002 Viruses and Bacteria in Asthma Exacerbations Hyatt, Convention Level, Celebration 1

Discussion Leaders: Kirsten M. Kloepfer, MD MS Daniel J. Jackson, MD FAAAAI

Upon completion of this session, participants should be able to: Describe the association between viruses, bacteria, asthma exacerbations and global differences in the associations; Discuss potential mechanisms for viral infections to promote infections with pathogenic airway bacteria; Discuss potential treatment implications related to respiratory infections and exacerbations of asthma.

3003 Practical Issues of High Risk Asthma Clinics Hyatt, Convention Level, Celebration 2

Discussion Leaders: Joshua A. Steinberg, MD FAAAAI Lanny J. Rosenwasser, MD FAAAAI

Upon completion of this session, participants should be able to: Describe models for asthma self-management, problem solving skills and models to change adherence behaviors used in high risk clinics; Discuss the distinctions between treatment resistant and difficult-to-treat severe asthma; Discuss obstacles to determining value and cost-effectiveness of high risk clinics.

3004 Prescribing IgG for Immunodeficiency

Hyatt, Convention Level, Celebration 3 Discussion Leaders: Mark Ballow, MD FAAAAI Elena E. Perez, MD PhD FAAAAI

Elena E. Perez, MD PhD FAA David M. Edgar

Upon completion of this session, participants should be able to: Discuss how to counsel patients on the risks and benefits of IgG therapy as well as decisions regarding route and frequency of administration; Discuss how to make patient specific selections, where appropriate, of immunoglobulin products and correctly write orders for IgG therapy; Describe the relative importance of the characteristics of immunoglobulin products.

3005 Going Nuts for Peanuts in the Infant Diet

This Session Requires Pre-Meeting Reading.

Hyatt, Convention Level, Celebration 4

Discussion Leaders: Matthew J. Greenhawt, MD MBA MSc Philippe Eigenmann, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss findings from the LEAP trial and NIAID Expert Panel Guidelines for the Prevention of Peanut Allergy related to evaluating infants for introduction of peanut; Discuss which infants should be introduced to peanuts and in what setting; Discuss how to provide guidance on managing continued peanut ingestion at home as well as the plan for follow-up care.

3006 My Eczema Patient is Allergic to Everything: What Do I Do?

Hyatt, Convention Level, Celebration 15 Discussion Leaders: Anne Marie Singh, MD Kelly D. Stone, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Discuss the limitations of IgE blood testing in patients with atopic dermatitis; Discuss the importance of good skin care prior to skin testing and oral food challenges; Describe how to properly manage the multiple food allergies in a patient with atopic dermatitis.

3007 A Review of Cross-Reactivity Patterns, Extract Stability, Optimal Dosing and Mixing for Subcutaneous Immunotherapy: A Case-Based Immunotherapy Prescription Mixing Workshop

Hyatt, Convention Level, Celebration 6

This Session Requires Pre-Meeting Reading. Discussion Leaders: Tolly Epstein, MD MS FAAAAI Olga Luengo, MD PhD

Upon completion of this session, participants should be able to: Identify the math-free guides recently published for allergen doses and glycerin concentrations; Discuss cross-reactivity patterns of pollens and the stability of different extracts when mixed together (pollens vs molds vs danders vs dust mites); Discuss case scenarios and how one may formulate a patient's immunotherapy prescription.

3008 Anti-IL5 Therapies in Eosinophilic Disorders

Hyatt, Convention Level, Celebration 7

Discussion Leaders: Anna Kovalszki, MD Praveen Akuthota, MD Takao Fujisawa, MD FAAAAI

Upon completion of this session, participants should be able to describe indications for anti-IL5 therapy in various eosinophilic disorders.

3009 Mastocytosis and Mast Cell Activation Syndromes in Children

Hyatt, Convention Level, Celebration 8

Discussion Leaders: Melody C. Carter, MD FAAAAI Mary C. Tobin, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss how to construct a differential diagnosis; Discuss laboratory tests for evaluation; Discuss therapeutic options.

3010 Insect Allergy: Changes in Practice from the 2016 Practice Parameter

Hyatt, Convention Level, Celebration 9

Discussion Leaders: David B.K. Golden, MD FAAAAI James M. Tracy, DO FAAAAI

Upon completion of this session, participants should be able to: Discuss changes in the indication for venom immunotherapy; Identify techniques used to diagnose venom allergy and when to order a tryptase level; Describe circumstances requiring lifelong venom immunotherapy.

3011 Workup and Management of Chronic Urticaria

Hyatt, Convention Level, Celebration 10 Discussion Leaders: Syed Mustafa, MD FAAAAI

Mario Sanchez-Borges, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the differential diagnosis of urticaria; Discuss the different options for laboratory testing in urticaria; Discuss how to apply practical suggestions for the treatment of urticaria in adults and children.





Seminars (continued)

3012 Beyond the Basics: Advanced Testing for Primary **Immunodeficiency Disorders**

Hvatt, Convention Level, Celebration 12 Discussion Leaders: Michael D. Keller. MD

Jennifer W. Leiding, MD FAAAAI

Upon completion of this session, participants should be able to discuss the usage and limitations of advanced immune diagnostics tests, including lymphocyte subset immunophenotyping, functional flow cytometry, cytogenetic testing, and genetic sequencing.

Allied Health Seminars 🛛 🗠 🔊

Pre-registration and ticket required. Fee: \$20. No meal or refreshments are provided.

3013 **Epigenetic Mechanisms in Allergic Diseases** Hyatt, Convention Level, Celebration 13 Discussion Leaders: Narasaiah Kolliputi, PhD

Rachel L. Miller, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss epigenetic regulatory mechanisms in allergic disease; Describe the difference between gene-environment interaction and epigenetic mechanisms; Recognize gene-environment interactions that regulate mucus secretion in allergic disease.

3015 **AH: Dietary and Nutrition Management of Eosinophilic Esophagitis: Practical Application of the AAAAI/EGID Committee Workgroup Report**

Hyatt, Convention Level, Celebration 5

Discussion Leaders: Raquel Durban, MS RD CSP LDN Berber Vlieg-Boerstra, PhD RD

Upon completion of this session, participants should be able to: Identify the nutritional risks associated with eosinophilic esophagitis and elimination diets; Discuss how to manage avoidance measures and strategies; Discuss how to utilize repository documents from the work group report to guide patients toward a healthy, balanced and pleasing diet.

3016 AH: From Paper to Clinic Along the FPIES Spectrum Hyatt, Convention Level, Celebration 16

Carina Venter, PhD RD Rosan Meyer, PhD RD

Upon completion of this session, participants should be able to discuss how to apply FPIES guidelines in daily nutritional practice.

Plenary

8:1 8:20

8:4

3101	Environmental Influences on Innate Immunity: Insights and Mechanisms $\overline{\mathbb{V}}$
	8:15 to 9:45 am
	Convention Center, South Concourse, Level 1, South Hall A1 Credit: 1.50 CME/CE
	Moderators: Lanny J. Rosenwasser, MD FAAAAI
	Gurjit K. Khurana Hershey, MD PhD FAAAAI
8:15	Introduction
8:20	Trained Innate Immunity: Environmental Effects and Implications Siroon Bekkering, PhD
8:45	Introduction and Lectureship Presentation
8:50	Environmental and Agricultural Modifications of Macrophage Functions: Impact on Innate Immunity Jill A. Poole, MD FAAAAI
	Recipient of the AAAAI Foundation and Donald Y.M. Leung, MD PhD FAAAAI-JACI Editors Lecture: Investing Together in Our Future: 6th year
9:15	Introduction
9:20	Systems Immunology: Data Modeling to Understand Human Disease

Atul Butte, MD PhD

Upon completion of this session, participants should be able to: Discuss how environmental influences affect the development of allergic diseases; Discuss the mechanisms by which environmental influences impact the pathogenesis of allergic disorders; Discuss the application of Systems Biology/Precision Medicine to allergic and immunologic disease.

See page 92 for details on the Plenary Session Q&A

Sunday Poster Sessions

9:45 to 10:45 am

Convention Center, South Concourse, Level 1, South Hall A2 Credit: No CME/CE

- 3201 Asthma Diagnosis
- 3202 Airway Immunology and Inflammation
- 3203 Autoimmune and Inflammatory Disorders
- 3204 Basic and Clinical Immunology I
- **Indoor Allergens** 3205
- 3206 Sensitization
- Eczema and Contact Dermatitis, Eosinophilic Esophagitis 3207 and Food Induced Enterocolitis
- 3208 Anaphylaxis, Oral Food Challenges and Epidemiology of **Food Allergy**
- 3209 **Rhinosinusitis: Quality of Life and Newer Therapies**
- Adverse Reactions to Drugs and Access to Prescription 3210 **Medications**
- **Chronic Rhinosinusitis: With and Without Nasal Polyps** 3211
- 3212 Allergic Rhinitis: Epidemiology, Diagnosis and Treatment
- 3213 Allergic Inflammation
- Immune Mechanisms in Allergic Disease 3214





Symposia

3

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301	Latin American Society of Allergy, Asthma and Immunology (SLAAI) Sister Society Symposium: The Influence of Climate and Environmental Features Over Allergic Diseases V 10:45 am to 12:00 pm Convention Center, South Concourse, Level 3, S330AB	
	Credit: 1.25 CME/CE	
	Moderators: Edgardo J. Jares, MD Patricia Latour-Staffeld. MD	
0:45	Urban Development, Pollution and Allergy	
	Sandra Nora González- Diaz, MD PhD FAAAAI	
1:05	Question & Answer	
1:10	Environment and Allergic Conjunctivitis: Co-Morbidity or Primary Diseases? Nelson Augusto Rosario, MD PhD FAAAAI	
1:30	Ouestion & Answer	
1:35	The Immunomodulatory Effects of Parasites on Allergy <i>Luis Caraballo, MD PhD</i>	
1:55	Question & Answer	
arm of a ommon a formatio	pletion of this session, participants should be able to: Describe the potential dverse environment and climate changes; Identify the relationship between allergic conditions like conjunctivitis and changes in the environment; Discuss in on the latest findings of immunomodulation from parasites, under the scope merica researchers.	
302	EAACI: New Concepts in Managing Allergic Patients	

3

10:45 am to 12:00 pm

Convention Center, South Concourse, Level 3, S330GH Credit: 1.25 CME/CE Moderator: Antonella M. Muraro, MD PhD

10:45 Allergen Exposure Chambers: Opportunities and Pitfalls Marek M. Jutel, PhD MD

11:05 **Question & Answer**

- 11:10 Severity Score for Allergic Reactions: Where Are We? Validation from Food Challenge Cohort Results Montserrat Fernandez Rivas, MD PhD
- 11:30 **Question & Answer**
- 11:35 How Does the Exposome Apply to Managing Allergies and Asthma?

Ioana Octavia Agache, MD PhD

11:55 **Question & Answer**

Upon completion of this session, participants should be able to: Identify the key role of the allergen chambers in allergy and asthma; Discuss the concept of environmental health and exposure science with the precision medicine approach in allergy and asthma; Describe how to apply a new concept for evaluating severity of allergic reactions.

3303	Cost-Effectiveness of Pharmaceutical and Environmental Interventions for Asthma
	10:45 am to 12:00 pm
	Convention Center, South Concourse, Level 2, S230EF
	Credit: 1.25 CME/CE
	Moderators: Carlos A. Ferreira Nunes, MD
	Christopher D. Codispoti, MD PhD FAAAAI
10:45	An Introduction to Cost-Effectiveness Analysis Mohsen Sadatsafavi, MD PhD
11:05	Question & Answer
11:10	Cost-Effectiveness of Pharmaceutical Interventions for Asthma <i>Todd A. Lee, PharmD PhD</i>
11:30	Question & Answer
11:35	Cost-Effectiveness of Environmental Interventions for Asthma Wanda Phipatanakul, MD MS FAAAAI
11:55	Question & Answer
and applic	pletion of this session, participants should be able to: Describe the methodology cation of cost-effectiveness analysis in asthma; Identify cost-effective pharma- sthma strategies from the currently available options; Identify cost-effective ental interventions for asthma.
3304	Human Immune System Variation in Health and Disease
	10:45 am to 12:00 pm
	Convention Center, South Concourse, Level 2, S230AB Credit: 1.25 CME/CE
	Moderators: David D. Chaplin, MD PhD FAAAAI José Antonio Ortega Martell, MD
10:45	Environmental Influences on Normal Immune Responses Elizabeth Estrada Reyes, MSc
11:05	Question & Answer
11:10	The Normal Variations of the Human Immune Response Petter Brodin, MD PhD

11:30 **Question & Answer**

EAACI

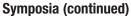
- 11:35 Molecular Control of Th17 Responses and their Involvement in **Health and Diseases**
 - Francesco Annunziato, PhD
- 11:55 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss the various studies using cutting-edge and high throughput technologies to determine the normal and temporal variations of human immune responses; Describe recent studies unraveling the environmental impact on human immune responses; Describe recent findings in allergen-specific immune responses in normal and allergic individuals.









3305 New Developments in Atopic Dermatitis and Implications for the Atopic March V 10:45 am to 12:00 pm **Convention Center, South Concourse, Level 3, S320CD** Credit: 1.25 CME/CE Moderator: Lynda C. Schneider, MD FAAAAI Cytokines and Anticytokine Therapies in AD and Other Atopic 10:45 Diseases Emma Guttman-Yassky, MD PhD Recipient of the Hugh A. Sampson Lectureship in Food Allergy; 3rd year 11:00 **Question & Answer** Other Biologics with Potential for Treating AD 11:05 Lisa A. Beck, MD FAAAAI 11:20 **Question & Answer** Therapeutic Interventions to Prevent AD and the Atopic March 11:25 Donald Y. M. Leung, MD PhD FAAAAI

11:40 Question & Answer

Upon completion of this session, participants should be able to: Discuss the basis of emerging anti-cytokine (anti-TH2, Th22 and Th 17) biologics in the treatment of AD; Discuss other potential therapeutic targets for AD, including JAK inhibitors, PDE4 antagonists, H4R antagonists in AD, and which inflammatory axes are targeted in clinical efficacy and safety data; Discuss new strategies for preventing AD in high risk children and their potential role in preventing other atopic manifestations such as food allergies.

 3306 Optimal Allergens for Diagnostic Testing and Immunotherapy: Are We Using the Best Allergens and How Can They Be Improved? ▼
 10:45 am to 12:00 pm Convention Center, South Concourse, Level 3, S310GH Credit: 1.25 CME/CE

Moderators: Fernan M. Caballero Fonseca, MD David I. Bernstein, MD FAAAAI

- 10:45 Optimal Allergens for Diagnostic Testing and Treatment: The Current Process and Areas for Improvement: An American Perspective Jay E. Slater, MD
- 11:00 Question & Answer
- 11:05 Optimal Allergens for Diagnostic Testing and Treatment: The Current Process and Areas for Improvement: A European Perspective

Jörg R. Kleine-Tebbe, MD FAAAAI

- 11:20 Question & Answer
- 11:25 Molecular Allergy Diagnostic Approach (MADA) in Immunotherapy

Ignacio J. Ansotegui, MD PhD

11:40 Question & Answer

Upon completion of this session, participants should be able to: Describe how allergens are identified, measured and prepared for testing and treatment; Discuss American and European processes for measuring and obtaining allergens for testing and treatment; Identify new forms of allergen immunotherapy and how immunotherapy will be administered in the future.

3307 Chitinases: Accomplices in Chronic Allergic Inflammation or Friends in Wound Repair? 10:45 am to 12:00 pm

AAAAI/WAO

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Convention Center, South Concourse, Level 2, S220EF

Credit: 1.25 CME/CE Moderators: Ajay P. Nayak, PhD

Juan Carlos Sisul, MD

- 10:45 Chitinase Paradigms: Chronic Inflammation and Wound Repair Geoffrey Chupp, MD
- 11:05 Question & Answer
- 11:10 Fungal Chitins in Home Environments and Eosinophilic Lung Infiltration Steven J. Van Dyken, PhD
- 11:30 Question & Answer
- 11:35 Chitinases in Asthma and COPD: Clinical Associations Sven-Erik K. Dahlen, MD PhD

11:55 Question & Answer

Upon completion of this session, participants should be able to: Identify chitinases in the contexts of disease severity, tissue injury and homeostasis; Identify environmental sources of chitin and establish an immunological role for chitinases in eosinophil recruitment; Discuss the clinical relevance of chitinase enzymes in asthma and COPD with emphasis on disease exacerbations and therapy.

3308 The Epithelium as Boss: Lessons from the AADCRC \triangledown

10:45 am to 12:00 pm **Convention Center, South Concourse, Level 3, S310AB** Credit: 1.25 CME/CE *Moderators: Mubeccel Akdis, MD PhD Alkis Togias, MD FAAAAI*

- **10:45** Airway Epithelial Reprogramming in Asthma David Erle, MD
- 11:05 Question & Answer
- 11:10 Regulation of IL-13 By Surfactant Protein A2 in Asthma Monica Kraft, MD FAAAAI
- 11:30 Question & Answer
- 11:35 SPINK7 in Allergic Inflammation Marc E. Rothenberg, MD PhD FAAAAI

11:55 Question & Answer

Upon completion of this session, participants should be able to: Describe the mechanisms by which the major airway mucins MUC5AC and MUC5B are organized within the mucus gel and how this gel contributes to airway obstruction in asthma; Describe the endoge-nous pathway that normally curtails the development of Th2 immunity at the squamous mucosa mediated by the serine protease inhibitor SPINK7, whose loss of function is involved in unleashing marked Th2 related responses; Describe the role of surfactant protein A in regulating allergic airway disease.





Allied Health Symposia

3310	AH: Food Allergy Management: Challenges in Working with Special Populations ♥ 10:45 am to 12:00 pm Hyatt, Convention Level, Regency V Credit: 1.25 CME/CE
	Moderator: Sally A. Noone, RN MSN
10:45	Food Allergy Management in the Adolescent Population Kim E. Mudd, RN MSN CCRP
11:00	Question & Answer
11:05	Food Allergy Management in the Infant Population Terri Gagen-Hursey, NP
11:20	Question & Answer
11:25	Food Allergy Management in the Underserved Population Sonia Capriles, RN
11:40	Question & Answer
	pletion of this session, participants should be able to: Identify obstacles as well o successfully work with special populations in the management of food allergy.
3311	AH: Management of Feeding Difficulties in Non-IgE Mediated Food Allergy

Mediated Food Allergy 10:45 am to 12:00 pm Hyatt, Convention Level, Regency O Credit: 1.25 CME/CE Moderator: Ruchi S. Gupta, MD MPH

- **10:45** Management of Feeding Difficulties Alexia K. Beauregard, MS RD CSP LD
- 11:00 Question & Answer
- **11:05** Feeding Difficulties in FPIES Rosan Meyer, PhD RD
- 11:20 Question & Answer
- 11:25 Feeding Difficulties in EoE Mirna Chehade, MD MPH

11:40 Question & Answer

Upon completion of this session, participants should be able to: Identify the difference between typical childhood eating patterns and feeding complications as a result of EoE; Identify how FPIES reactions may lead to feeding difficulties; Identify strategies to help pediatric patients and their families overcome food phobias.

Workshop

3401 Oral Food Challenges: Practical Tips for Preparation in the Office Setting 12:00 to 2:00 pm Convention Center, South Concourse, Level 1, South Hall A2 Credit: 0.25 CME/CE Interactive Training Station Instructors Amy Arneson, RN J. Andrew Bird, MD FAAAAI S. Allan Bock, MD FAAAAI S. Allan Bock, MD FAAAAI Taryn Brennan, RD April Clark, RDN CSP Maria Crain, CPNP AE-C

Justin C. Greiwe, MD Syed Mustafa, MD FAAAAI Sally A. Noone, RN MSN Benjamin Prince, MD Humaira D. Robinson, BSN RN

Carina Venter, PhD RD Berber Vlieg-Boerstra, PhD RD

Upon completion of this session, participants should be able to: Demonstrate techniques for preparing foods for oral food challenges in the office setting; Demonstrate techniques for administering oral food challenges in the office setting; Discuss practical aspects of safely preparing and administering foods for oral food challenges in different age groups.

Seminar 🛛 🔤 🚳

12:30 -1:30 PM Pre-registration and ticket required. Fee: \$40. Box lunch included. Sessions and meals are limited to 30 people. Credit: 1.00 CME/CE

3501 Impact of Indoor Fungal Exposures at Home and in the Occupational Setting

Hyatt, Convention Level, Celebration 1

Discussion Leaders: Mona I. Kidon, MD FAAAI

Karin A. Pacheco, MD MSPH FAAAAI Charles S. Barnes, PhD FAAAAI

Upon completion of this session, participants should be able to: Identify that fungal exposure is associated with rhinitis and asthma both at home and in the workplace, and with other illnesses including allergic bronchopulmonary mycoses, allergic fungal sinusitis, and hypersensitivity pneumonitis; Describe interventions that might be considered for homes and buildings in which there are increased fungal exposures; Identify research that is necessary to establish causality and evaluate interventions for fungal- and dampness-related health effects.

3502 Engaging Underserved Populations in Clinical/ Translational Research

Hyatt, Convention Level, Celebration 2

Discussion Leaders: Adnan Custovic, MD PhD FAAAAI

L. Keoki Williams, MD MPH FAAAAI

Upon completion of this session, participants should be able to: Identify common barriers to recruiting and retaining underserved groups in clinical/translational research studies; Identify successful ways to alleviate common barriers to engagement and retention of underserved groups in clinical/translational research.





Seminars (continued)

3503 Performing and Interpreting Spirometry: Understanding and Implementing the ATS/ERS Guidelines

Hyatt, Convention Level, Celebration 3

Discussion Leaders: James M. Quinn, MD FAAAAI Karla E. Adams. MD

Upon completion of this session, participants should be able to: Identify the most recent sources and relevance of the ATS/ERS guidelines for spirometry and the Global Lung Initiative reference values for spirometry; Discuss the ATS/ERS standards for performing acceptable and reproducible spirometry valid for interpretation; Discuss the ATS/ERS guidelines to interpret spirometry and classify the severity of identified abnormalities.

3504 The Itchy Patient

Hyatt, Convention Level, Celebration 4 Discussion Leaders: Anna De Benedetto, MD Peter A. Lio, MD

Marta M. Ferrer, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Identify common pitfalls in the diagnosis and treatment of itch; Describe the rationale for an extended therapeutic ladder in refractory itch, including novel treatments; Describe allergic and non-allergic causes of itch and how these relate to treatment.

3505 Skin Testing to Drugs in the Outpatient Clinic

Hyatt, Convention Level, Celebration 15 Discussion Leaders: Roland Solensky, MD FAAAAI

Pedro Giavina-Bianchi, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Discuss how to perform skin testing to drugs in the outpatient clinic safely; Discuss how to review non-irritating skin test concentrations of various drugs.

3506 Side Effects and Relative Risks Associated with Subcutaneous and Sublingual Immunotherapy

Hyatt, Convention Level, Celebration 6

Discussion Leaders: Moises A. Calderon, MD PhD Tolly Epstein, MD MS FAAAAI

Upon completion of this session, participants should be able to: Identify patients at highest risk of systemic anaphylaxis or fatal reactions with SCIT and SLIT; Discuss risk reduction strategies for severe anaphylaxis associated with SCIT.

3507 **Eosinopoietic Processes in Asthma**

Hyatt, Convention Level, Celebration 7

Discussion Leaders: Roma Sehmi, PhD FAAAAI Patricia C. Fulkerson, MD PhD

Upon completion of this session, participants should be able to: Discuss how genetic factors and environment interact to influence bone marrow response in asthma; Discuss the role of bone marrow progenitors as effector cells in asthma; Describe how asthma therapy, including biologics, impacts local eosinophilopoietic responses.

3508 What Immunology Workup is Appropriate in a Child with Very Early Onset Inflammatory Bowel Disease?

Hyatt, Convention Level, Celebration 8

Discussion Leaders: Margaret Redmond, MD Kathleen E. Sullivan, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Describe the differential diagnosis of primary immunodeficiency disorders in children with very early onset inflammatory bowel disease (VEO-IBD); Discuss the different options for genetic testing in children with VEO-IBD; Identify practical suggestions on the treatment of children with VEO-IBD.

3509 Storms and Asthma

Hyatt, Convention Level, Celebration 9 Discussion Leaders: Salem Al-Tamemi, MD Lorenzo Cecchi, MD

Upon completion of this session, participants should be able to: Discuss the change in aeroallergen concentration during thunderstorms and sandstorms; Discuss the thunderstorm- and sandstorm-related asthma exacerbation and other health hazards of storms; Identify the preventive measures to reduce the impact of storms on allergic patients and the emergency care needed in cases of exposure.

3510 The Microbiome In Immune Development and the Airways Hyatt, Convention Level, Celebration 10

Discussion Leaders: Naoki Shimojo, MD PhD

Supinda Bunyavanich, MD MPH FAAAAI

Upon completion of this session, participants should be able to: Discuss the disparate and overlapping roles of the gut, skin and environmental microbiome in allergy; Discuss the role of the microbiome and metabolites produced in the pathogenesis and course of allergic disorders; Discuss the implications of differential microbial profiles associated with allergic disorders.

3511 A Nuts and Bolts Approach to the Workup of Immunodeficiency Disorders in Children

Hyatt, Convention Level, Celebration 12 Discussion Leaders: Peter Mustillo, MD FAAAAI

M. Teresa De La Morena, MD

Upon completion of this session, participants should be able to: Identify the appropriate diagnostic algorithm for the evaluation of a child with recurrent infections; Discuss the most appropriate therapy for a child with recurrent infection; Discuss the standard laboratory work-up in children with recurrent infections.

Allied Health Seminars 🛛 🗠 🚳

Pre-registration and ticket required. Fee: \$20. No meal or refreshments are provided.

3512 AH: Parent and Child Anxiety During Pediatric Oral Immunotherapy Clinical Trials

Hyatt, Convention Level, Celebration 14 Discussion Leaders: Linda Herbert, PhD

Kim E. Mudd, RN MSN CCRP

Upon completion of this session, participants should be able to: Discuss the common psychosocial concerns related to pediatric OIT clinical trial participation, such as stress and anxiety; Identify methods and developmentally appropriate coping techniques used by study teams throughout OIT clinical trials to address stress and anxiety.







3513 AH: Practical Pearls in the Treatment of Severe Atopic Dermatitis in Children

Hyatt, Convention Level, Celebration 5 This Session Requires Pre-Meeting Reading. Discussion Leaders: Carah B. Santos, MD Bruce J. Lanser, MD

Upon completion of this session, participants should be able to: Discuss the role of abnormal skin barrier function and immune dysregulation in patients with atopic dermatitis and reasons for treatment failure in patients with severe atopic dermatitis; Demonstrate appropriate skin care for severe atopic dermatitis, including hydration therapy, application of topical medications and wet wrap therapy, through case discussions and hands-on practice; Discuss the importance of step-up and step-down skin care management based on atopic dermatitis severity, including the role of maintenance skin care.

Sunday Plenary Session Q&A

12:30 to 1:30 pm Convention Center, South Concourse, Level 1, South Hall A2 Credit: No CME/CE

Moderators: Lanny J. Rosenwasser, MD FAAAAI Gurjit K. Khurana Hershey, MD PhD FAAAAI

Sunday Plenary Speaker TBD Sunday Plenary Speaker Jill A. Poole, MD FAAAAI

Sunday Plenary Speaker Atul Butte, MD PhD

Pro/Con Debates

3551 Home Environmental Interventions are a Valuable Component of Asthma Management for Low-income Children with Asthma ♥ 12:30 to 1:30 pm

> Convention Center, South Concourse, Level 2, S220EF Credit: 1.00 CME/CE Moderator: Wanda Phipatanakul, MD MS FAAAAI

Pro Speaker: Elizabeth Matsui, MD MHS

Con Speaker: Matthew Perzanowski, PhD

Upon completion of this session, participants should be able to identify the controversies and state of the evidence regarding home-based environmental interventions in asthma management.

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3552 Allergen Immunotherapy: Dose Adjustments are Needed for Local Reactions, Peaks of Season and Gaps in Treatment ♥
12:30 to 1:30 pm
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Convention Center, South Concourse, Level 2, S230AB Credit: 1.00 CME/CE Moderator: Christopher W. Calabria, MD FAAAAI

Pro Speaker: David I. Bernstein, MD FAAAAI Con Speaker: Mike Tankersley, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss whether or not immunotherapy doses need to be altered for local reactions, during peak pollen seasons or with gaps in therapy or new maintenance vials; Discuss whether or not large local reactions predict anaphylaxis.

3553 Mast Cell Activation Syndrome (MCAS): Real or Myth? ▼ 12:30 to 1:30 pm

> Convention Center, South Concourse, Level 2, S230EF Credit: 1.00 CME/CE Moderator: Dean D. Metcalfe, MD FAAAAI Pro Speaker: Catherine R. Weiler, MD PhD FAAAAI

Con Speaker: Massimo Triggiani, MD PhD

Upon completion of this session, participants should be able to: Identify how to diagnose and treat MCAS; Discuss how to rule out this condition when vague symptoms are not backed by supporting evidence; Determine whether or not MCAS meets the criteria of a real disease.

Workshops

3521	JACI Year-in-Review Workshop
	12:30 to 1:45 pm
	Convention Center, South Concourse, Level 3, S320CD
	Credit: 1.25 CME/CE
	Moderator: Zuhair K. Ballas, MD FAAAAI
12:30	Rhinitis/Sinusitis
	Claus Bachert, MD PhD
12:50	Question & Answer
12:55	Epithelium in Allergic Diseases
	Cezmi A. Akdis, MD FAAAAI
1:15	Question & Answer
1:20	Aspirin Exacerbated Respiratory Disease (AERD) Joshua A. Boyce, MD FAAAAI

1:40 Question & Answer

Upon completion of this session, participants should be able to: Discuss JACI's published content to help advance attendees' knowledge for their own research or clinical practice; Describe the latest advances in rhinitis/sinusitis and AERD; Discuss the latest research on the epithelium in allergic diseases and its impact on clinical practice.

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3557	Interesting Cases Part 2	3
	12:30 to 1:45 pm	
	Convention Center, South Concourse, Level 3, S331C	
	Credit: 1.25 CME/CE	
	Moderators: Paul J. Dowling, MD FAAAAI Christina G. Kwong, MD	
12:30	Management of Netherton Syndrome from the Immunology	2
12.30	Perspective	4
	Meng Chen, MD	
12:40	Question & Answer	2
12:45	Diagnostic and Treatment Considerations for Complete Digeorge	
	Anomaly	
	Anusha Vadlamudi	
12:55	Question & Answer	2
1:00	When Looks Can be Deceiving: Mycobacterium Avium Complex	
	Infection Masquerading As Asthma in an Immunocompetent Adolescent	
	Cleavon J. Covington, MD	:
1:10	Ouestion & Answer	
1:15	A Case of (SIFD) Congenital Sideroblastic Anemia,	
	Immunodeficiency, Fevers, and Developmental Delay	
	Salma Salim Alkhammash, MD	:
1:25	Question & Answer	
1:30	A Peculiar Non-Allergy Rash in the Allergy Clinic	ι
	Peter Capucilli, MD	(
1:40	Question & Answer	
	npletion of this session, participants should be able to: Evaluate the management nging patient cases by trainees in allergy/immunology; Compare and contrast	•
	nent strategies for challenging patient cases with peers.	
Oral A	Abstract Sessions	
0001	Asthma Dathananasia and Inflammatian	
3601	Asthma Pathogenesis and Inflammation	1
	2:00 to 3:15 pm Convention Center, South Concourse, Level 3, S330GH	
	Credit: 1.25 CME/CE	
	Moderators: Giorgio Walter Canonica, MD	
	Alysa G. Ellis, MD FAAAAl	2
2:00	Differential response to aspirin-lysine of	

- 2:00 Differential response to aspirin-lysine of 15-Hydroxyeicosatetraenoic Acid in Nasal Polyp Supernatants from Aspirin-Exacerbated Respiratory Disease Patients Elina Jerschow, MD FAAAAI
- 2:15 Reduction in mouse allergen exposure is associated with greater lung function growth in mouse sensitized and exposed children and adolescents with persistent asthma *Torie L. Grant, MD*
- 2:30 Epigenome-Wide Assessment on DNA Methylation Change with Asthma Transition in Adolescence Hongmei Zhang, PhD
- 2:45 Cytokines (IL-15, IL-18, IFNγ) and Vitamin D3 Increase Expression of Inducible Nitric Oxide Synthase (iNOS) by Monocytes from IgE+ Adults with Asthma. *Maia Nowakowski. PhD*
- 3:00 Infants with Early House Dust Mite Sensitization Predicts Persistent Asthma, Allergic Rhinitis, and Atopic Dermatitis At Seven Year of Age: The PATCH Birth Cohort Study Kuo-Wei Yeh, MD FAAAAI

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.

- 502 The Microbiome in Atopic Disease 2:00 to 3:15 pm Convention Center, South Concourse, Level 2, S220EF Credit: 1.25 CME/CE Moderators: Benjamin Prince, MD Anna H. Nowak-Wegrzyn, MD PhD FAAAAI
- 2:00 Fecal Microbiome Signatures are Different in Food Allergic Children Compared to Siblings and Healthy Children Atoosa Kourosh, MD
- 2:15 Transplanted Human Microbiota and Enteric Pathogen Challenge Enhanced Susceptibility to Allergen-Mediated Asthma in a Murine Model

Susan L. Ewart, DVM PhD

- 2:30 Evaluating Bacterial Communities in the Upper Respiratory Tract Provides Interesting but Incomplete Information About Bronchial Microbiota Associated with Asthma. Juliana Durack, PhD
- 2:45 Effect of Host Genetic Background on Development of Autoimmunity in Transplanted and Vertically Transmitted Human Microbiota Mouse Models Linda S. Mansfield, VMD PhD
- 3:00 Skin microbiome regulates SCF level in Keratinocytes and defines mast cell maturation

Anna Di Nardo

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology

3603 Fungal Allergy

2:00 to 3:15 pm

Convention Center, South Concourse, Level 2, S230EF Credit: 1.25 CME/CE Moderators: Kirsten M. Kloepfer, MD MS

Paul A. Greenberger, MD FAAAAI

2:00 Identification of Immuno-Reactive Proteins and Study of Immunogenic Peptides of the Major Allergen of Aspergillus terreus

Bijoya Karmakar

- 2:15 Fungal fragmentation influences pulmonary immune responses following repeated exposure to Stachybotrys chartarum Tara L. Croston, PhD
- 2:30 Domestic fungal diversity in NYC homes, neighborhood asthma prevalence and asthma persistence. Karen C. Dannemiller, PhD
- 2:45 Evaporative (swamp) coolers are not associated with house dust mite or mold sensitization in a large pediatric cohort in Colorado Neema Izadi, MD MS
- 3:00 Domestic fungal exposure and asthma morbidity among asthmatic children living in NYC homes damaged by Hurricane Sandy.

Maureen Little, DrPH DABT

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.





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Oral A	bstract Sessions (continued)	3606	Immunotherapy
3604	Eczema: Pathogenesis, Genetics and Epigenetics 2:00 to 3:15 pm Convention Center, South Concourse, Level 3, S330AB Credit: 1.25 CME/CE		2:00 to 3:15 pm Convention Center, South Concourse, Level 3, S310AB Credit: 1.25 CME/CE <i>Moderators: Anil Nanda, MD FAAAAI</i> <i>Mike Tankersley, MD MBA FAAAAI</i>
	Moderators: Kimberly G Blumenthal, MD MSc Lynda C. Schneider, MD FAAAAI	2:00	Occurrence of Systemic Allergic Reactions and Severe Swellings with SQ HDM SLIT-tablet
2:00	Atopic dermatitis phenotypes in African American and Black South African children Kylie N. Jungles	2:15	David I. Bernstein, MD FAAAAI Systemic Reactions to Subcutaneous Immunotherapy (SCIT): A Retrospective Study
2:15	Expression profile of IL-33/ST2 and TSLP/TSLP-R in the skin of		Sonam Sani, MD
	atopic dermatitis post-allergen exposure Dhuha Al-Sajee, MD PhD	2:30	Effects of subcutaneous immunotherapy (SCIT) on the numbers of IL-10-producing CD4+ T-cells and IL-10-producing B cells in
2:30	DNA Methylation Mediates the Long Term Effect of Breastfeeding Duration on Eczema at Age 18 Years Nandini Mukherjee, PhD candidate		peripheral blood of pollinosis patients Tetsuya Terada
2:45	Skin Innate Lymphoid Cells Type 2 Activated by Keratinocyte- derived IL-25 promote IL-13-mediated skin allergic inflammation Juan-Manuel Leyva-Castillo	2:45	The Rate of Systemic Reactions In Pediatric Patients Receiving Standardized Allergen Subcutaneous Immunotherapy Is Elevated and Not Affected by Seasonal Dose Adjustment Sultan Albuhairi, MD
3:00	IL-13 Mediates Skin Lipid Abnormalities in Atopic Dermatitis Evgeny Berdyshev, PhD	3:00	Long-term Reproducibility of Allergen-specific IgE Measurements by ImmunoCAP
	npletion of this session, participants should be able to discuss recent research nents in the field of allergy/immunology.		Robert G. Hamilton, PhD DABMLI FAAAAI npletion of this session, participants should be able to discuss recent research
3605	Early Peanut Introduction: Leaping on to Implementation	developn	nents in the field of allergy/immunology.
	2:00 to 3:15 pm	3607	IgE in Allergic Disease
	Convention Center, South Concourse, Level 3, S320CD Credit: 1.25 CME/CE		2:00 to 3:15 pm
	Moderators: Carina Venter, PhD RD Eric T. Oliver, MD		Convention Center, South Concourse, Level 2, S230AB Credit: 1.25 CME/CE Moderator: Cem Akin, MD PhD FAAAAI
2:00	Study Design with Staggered Sampling Times for Evaluating Sustained Unresponsiveness to Peanut Sublingual Immunotherapy	2:00	The Affinity of IgE for Antigen is a Primary Determinant of Basophil Activation J. B. Jung
	Monica Chaudhari	2:15	Detection of antigen-specific IgE-expressing B cells in food
2:15	General Pediatrician Beliefs and Practices about Early Peanut Introduction: An Opportunity for Allergists to Engage Community Pediatricians		allergy is feasible and inversely associated with dietary antigen exposure Shailesh Choudhary, PhD
2:30	Angela Chang, MD Implementing the Addendum Guidelines for the Prevention of Peanut Allergy in a Primary Care Practice: A Quality Improvement Project	2:30	Platelet Activation is Increased in IgE-mediated Systemic Anaphylaxis but not in IgE-mediated Oral Antigen-induced Anaphylaxis in Mice. Andrew T. Dang, MD
2:45	Chloe L. Russo, MD Implementation of the new NIAID Peanut Allergy Guidelines: Outcomes and Experience	2:45	Phosphatases in Mouse Mast Cells Rapid IgE Desensitization: The Role of SHIP-1 Leila A. Alenazy, MD MMSc
	Amanda L. Pratt, MD	3:00	Cat dander extract directly stimulates BAFF-dependent class
3:00	Implementation of Guidelines for Early Peanut Introduction at a Pediatric Academic Center	0.00	switch recombination to IgE in B cells without T-cell help Toshiko Itazawa, MD PhD
Upon con	David R. Stukus, MD FAAAAI npletion of this session, participants should be able to discuss recent research		npletion of this session, participants should be able to discuss recent research nents in the field of allergy/immunology

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology

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Sunday, March 4



3608	Environmental Influences on Asthma Development and Morbidity	Intere	est Section Forums
	2:00 to 3:15 pm	3701	ADT: How Viruses Predispo
	Convention Center, South Concourse, Level 3, S310GH		V
	Credit: 1.25 CME/CE		3:30 to 4:30 pm
	Moderators: Rebecca Scherzer, MD FAAAAI Tamara T. Perry, MD		Convention Center, South Con Credit: 0.50 CME/CE
2:00	Environmental exposure to Staphylococcus aureus and SEB are		Moderator: Leonard B. Bacharie
	associated with asthma symptoms and worse lung function among low-income, urban children with asthma	3:30	Business Meeting Leonard B. Bacharier, MD FAAA
	Meghan F. Davis, PhD DVM MPH	4:00	Presenter
2:15	12-year Study of Risk Factors of New-Onset Asthma Among		Tina V. Hartert, MD MPH
	US military service members and Recent Conflicts in Iraq and	4:25	Question & Answer
	Afghanistan Rachel Umi Lee, MD FAAAAI FACP		mpletion of this session, participants sl ract with host susceptibility factors to action
2:30	Early Life Weight Gain and Development of Childhood Asthma in a		
	Prospective Birth Cohort Hui-Ju Tsai	3702	BCI: Mechanisms Underlyi and Variable Clinical Prese
2:45	Dysbiosis of the Newborn Upper Airway is Associated with Early Wheeze		Immunodeficiency Disorde 3:30 to 4:30 pm
	Kirsten M. Kloepfer, MD MS		Convention Center, South Con
3:00	Effect of Outdoor Air Pollution (OAP) on Pediatric Asthma Outcomes in Pittsburgh		Credit: 0.50 CME/CE <i>Moderator: Elena E. Perez, MD I</i>
llnon oor	Deborah A. Gentile, MD mpletion of this session, participants should be able to discuss recent research	3:30	Business Meeting
	nents in the field of allergy/immunology		Elena E. Perez, MD PhD FAAAAI
3609	Late Breaking Oral Abstract Session: Clinical Science	3:55	Incomplete Penetrance Revea Rescues an Inborn Error of Ini
	2:00 to 3:15 pm	4.10	Anne Puel, PhD
	Convention Center, South Concourse, Level 2, S220B Credit: 1.25 CME/CE Moderators: Antonella Cianferoni, MD PhD FAAAAI	4:10	The Genetic Basis of Autoimm Immunodeficiency Disorders Raif S. Geha, MD FAAAAI
	Mimi L. K. Tang, MBBS PhD FAAAAI	4:25	Question & Answer
2:00	Efficacy and Safety of AR101 in Peanut Allergy: Results from a		mpletion of this session, participants sl
	Phase 3, Randomized, Double-Blind, Placebo-Controlled Trial (PALISADE)		nodeficiency disorders.
	Stacie M. Jones, MD	3703	EORD: Allergen Exposure,
2:15	Recent Trends in Fatalities, Waiting Times, and Use of Epinephrine		Should We Learn from the
	Auto-Injectors for Subcutaneous Allergen Immunotherapy (SCIT):		3:30 to 4:30 pm
	AAAAI/ACAAI National Surveillance Study 2008-2016 Tolly Epstein, MD MS FAAAAI		Convention Center, South Con Credit: 0.50 CME/CE
2:30	Introduction of Allergen-Containing Foods: Feeding Infants and	0.00	Moderator: Wanda Phipatanaku
	Toddlers Study (FITS) 2016 Marion E. Groetch, MS RDN	3:30	Business Meeting Wanda Phipatanakul, MD MS F4
2:45	Sensitization and Exposure to Other Indoor Allergens May Attenuate the Clinical Benefit of Mouse Allergen Reduction	4:00	Presenter Adnan Custovic, MD PhD FAAAA
	Among Mouse-Sensitized Urban Children with Asthma Sara C. Sadreameli, MD MHS		Question & Answer mpletion of this session, participants sl
3:00	Associations between Total and Speciated Pollen Counts and Several Morbidity Measures in the Contiguous United States from 2008 to 2015	role of th	e environment and allergy on asthma.
	Jeremy J. Hess, MD MPH		

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.

rest Section Forums

3701	ADT: How Viruses Predispose Children to Develop Asthma
	3:30 to 4:30 pm
	Convention Center, South Concourse, Level 3, S330AB
	Credit: 0.50 CME/CE
	Moderator: Leonard B. Bacharier, MD FAAAAI
3:30	Business Meeting
	Leonard B. Bacharier, MD FAAAAI
4:00	Presenter
	Tina V. Hartert, MD MPH
4:25	Question & Answer
	npletion of this session, participants should be able to describe how viral illness ract with host susceptibility factors to increase the risk of asthma development action.
3702	BCI: Mechanisms Underlying Incomplete Penetrance and Variable Clinical Presentation of Primary
	Immunodeficiency Disorders 🔻
	3:30 to 4:30 pm
	Convention Center, South Concourse, Level 2, S220B Credit: 0.50 CME/CE
	Moderator: Elena E. Perez, MD PhD FAAAAI
3:30	Business Meeting
0.00	Elena E. Perez, MD PhD FAAAAI
3:55	Incomplete Penetrance Revealed: Human Adaptive Immunity Rescues an Inborn Error of Innate Immunity Anne Puel. PhD
4:10	The Genetic Basis of Autoimmune Manifestations in Primary Immunodeficiency Disorders Raif S. Geha, MD FAAAAI
4:25	Question & Answer
	npletion of this session, participants should be able to describe the pathogenesis nodeficiency disorders.
3703	EORD: Allergen Exposure, Sensitization and Asthma: What Should We Learn from the Opposing Results $\overline{\mathbb{V}}$
	3:30 to 4:30 pm
	Convention Center, South Concourse, Level 3, S310AB Credit: 0.50 CME/CE
	Moderator: Wanda Phipatanakul, MD MS FAAAAI
3:30	Business Meeting Wanda Phipatanakul, MD MS FAAAAI
4:00	Presenter
	Adnan Custovic, MD PhD FAAAAI
4:20	Question & Answer
Upon coi	npletion of this session, participants should be able to describe the data on the







Interest Section Forums (continued)

3704 FADDA: Food Allergy Guidelines Galore ♥

3:30 to 4:30 pm **Convention Center, South Concourse, Level 3, S330GH** Credit: 0.50 CME/CE *Moderator: Lynda C. Schneider, MD FAAAAI*

3:30 Business Meeting Lynda C. Schneider, MD FAAAAI

- 3:55 Guidelines for the Prevention of Peanut Allergy (January 2017) Amal H. Assa'ad, MD FAAAAI
- 4:05 Guidelines for FPIES (March 2017) Anna H. Nowak-Wegrzyn, MD PhD FAAAAI

4:15 DRACMA Guidelines Update Alessandro Fiocchi, MD

4:25 Question & Answer

Upon completion of this session, participants should be able to: Identify the guidelines and their expected impact; Identify the most important features of the various guidelines; Identify the target populations impacted by the various guidelines.

 3705 HEDQ: Asthma Guidelines for Indoor Allergen Interventions: Methods and Clinical Implications ♥ 3:30 to 4:30 pm Convention Center, South Concourse, Level 3, S320A Credit: 0.50 CME/CE

Moderator: Giselle Mosnaim, MD MS FAAAAI

- 3:30 Business Meeting Asriani M. Chiu, MD FAAAAI
- 3:55 The Methods Behind the Upcoming Asthma Guidelines: Indoor Allergen Interventions for Asthma Brian F. Leas, MS MA
- 4:10 Clinical Implications of the Evidence Review for Indoor Allergen Interventions

Andrea J. Apter, MD MA MSc FAAAAI

4:25 Question & Answer

Upon completion of this session, participants should be able to: Discuss methods used to update NHLBI asthma guidelines specific to indoor allergen interventions; Discuss the clinical implications of findings from the systematic review of indoor allergen interventions for asthma.

- 3706 IRSO: Advances in Chronic Rhinosinusitis ♥
 3:30 to 4:30 pm
 Convention Center, South Concourse, Level 3, S310GH
 Credit: 0.50 CME/CE
 Moderator: Anju T. Peters, MD FAAAAI
 3:30 Business Meeting
 Anju T. Peters, MD FAAAAI
 4:00 Presenter
- Robert P. Schleimer, PhD FAAAAI
- 4:25 Question & Answer

Upon completion of this session, participants should be able to identify advances in chronic rhinosinusitis.

- 3:30
 Business Meeting Cem Akin, MD PhD FAAAAI

 3:55
 Effector and Regulatory B Cell Subsets
- 4:10 Mubeccel Akdis, MD PhD 4:10 Role of ILC During Tolerance Induction Hideaki Morita, MD PhD

4:25 Question & Answer

Upon completion of this session, participants should be able to: Identify effector and regulatory B cells; Identify the type of ILC involved in tolerance induction.

Featured Poster Session and Reception

4:30 to 6:00 pm

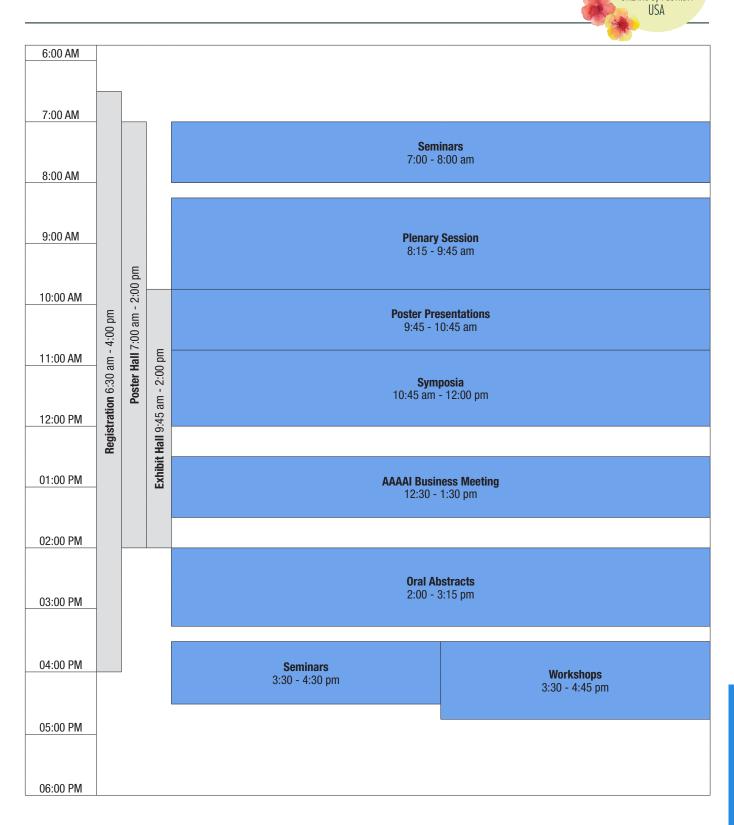
Convention Center, South Concourse, Level 1, South Hall A2 All Annual Meeting delegates and their guests are invited to attend this event. No fee and no pre-registration required. Credit: No CME/CE

Featured Posters highlight the highest quality abstracts submitted for presentation at the Annual Meeting. During the Featured Poster Session and Reception on Sunday evening, authors will be present with their posters to discuss their research. Take this opportunity to talk with these authors and network with other meeting delegates.

- 3801 Severe and Exacerbation Prone Asthma
- 3802 Novel Therapeutics in Allergy and Immunology
- 3803 Immune Responses to Environmental Exposures
- 3804 Ara h to Alpha Gal: From China to Africa to the USA
- 3805 Asthma: Tools to Improve Outcomes from Birth to Adults
- 3806 Advances in Rhinitis and Rhinosinusitis
- 3811 Allied Health Featured Poster Session



Monday At-A-Glance







AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA



Seminars 🛛 🗠 🔊

7:00 to 8:00 am

Pre-registration and ticket required. Fee: \$40. Continental Breakfast included. Sessions and meals are limited to 30 people. Credit: 1.00 CME/CE

4001 Allergic Bronchopulmonary Aspergillosis: The Term Fails Us

Hyatt, Convention Level, Celebration 1

Discussion Leaders: Alan P. Knutsen, MD FAAAAI Andrew J. Wardlaw, MD PhD

Upon completion of this session, participants should be able to: Discuss the clinical entity described by allergic bronchopulmonary aspergillosis and appreciate its limitations; Describe the clinical implications of recognizing a subtype of patients described by severe asthma with fungal sensitization.

4002 From Innovation to Publication: Taking QI Work Seriously Hyatt, Convention Level, Celebration 2

Discussion Leaders: Sujani Kakumanu, MD FAAAAI Paige G. Wickner, MD FAAAAI

Upon completion of this session, participants should be able to: Identify the fundamental components of quality improvement; Describe the process of preparing a completed quality improvement project for publication, including IRB submissions; Identify what outcome measures are needed for publication of quality improvement work.

4003 Not Just for Research Anymore: Utilizing Biomarkers to Implement Personalized Medicine in the Clinic Hyatt, Convention Level, Celebration 3

Discussion Leaders: William C. Anderson, MD

Stanley J. Szefler, MD FAAAAI

Upon completion of this session, participants should be able to: Identify the results of recent publications linking patient biomarkers with their responses to therapy (e.g., inhaled corticosteroids, long-acting beta-agonists, leukotriene modifiers and biologics); Discuss how to use the biomarkers available to the practicing allergist to help phenotype patients and guide therapeutic interventions.

4004 How to Link Your Chronic Rhinosinusitis Evaluation to Actionable Treatment Decisions

Hyatt, Convention Level, Celebration 4

Discussion Leaders: Anju T. Peters, MD FAAAAI Matthew A. Rank, MD FAAAAI

Luo Zhang, MD PhD

Upon completion of this session, participants should be able to: Discuss how to perform an evaluation for subtyping Chronic Rhinosinusitis that links to actionable management choices.

4005 Allergen- and Virus-Specific T-Cells in Allergic Diseases Hyatt, Convention Level, Celebration 5

Discussion Leaders: Lyndsey M. Muehling

William W. Kwok, PhD

Upon completion of this session, participants should be able to: Describe the methodologies for identifying the T-cell epitopes of allergens and viruses; Describe the methodologies for identifying antigen-specific T-cells in patient specimens, either directly ex vivo or following in vitro manipulation; Discuss how to critically interpret antigen-specific T-cell literature.

4006 Should I Test my Patient with Atopic Dermatitis for Food Allergies?

Hyatt, Convention Level, Celebration 6 Discussion Leaders: Irene Mikhail, MD

Anne Marie Singh, MD

Upon completion of this session, participants should be able to: Describe the risk of IgE mediated food allergy in a young child with moderate to severe atopic dermatitis and the role of food allergy testing in this situation; Discuss the data on food-exacerbated atopic dermatitis and the best approach to diagnose and manage food triggers; Discuss the practical suggestions on formula selection and food introduction in infants and young children with atopic dermatitis.

4007 Autoinflammatory Syndromes: An In-Depth Look Hyatt, Convention Level, Celebration 7

Discussion Leaders: Zeinab Awad El-Sayed, MD Michelle L. Hernandez, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the underlying pathogenetic mechanisms of these syndromes; Identify the different clinical syndromes, how to diagnose them and the role of molecular studies in their diagnosis; Discuss the role of biologics in the treatment of these syndromes.

4008 Epithelial Cells and Allergic Diseases: What Are These Cells Doing There?

Hyatt, Convention Level, Celebration 8

Discussion Leaders: Zoulfia Allakhverdi, PhD FAAAAI Angela Haczku, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Discuss molecular mechanisms of epithelial barrier regulation by cells and cytokines; Describe the activity of epithelial cell-derived cytokines/immune modulators on cells of the innate immune system and allergic airways changes.

4009 Are Mast Cells and Eosinophils the Preferred Targets for Anti-Allergic Therapy?

Hyatt, Convention Level, Celebration 9

Discussion Leaders: Francesca Levi-Schaffer, PhD PharmD FAAAAI Lisa A. Spencer, PhD FAAAAI

Upon completion of this session, participants should be able to discuss new molecules as targets for therapy on mast cells and eosinophils.

4010 When Does Eosinophilia Require Further Work Up? Hyatt, Convention Level, Celebration 10

Discussion Leaders: Benjamin Prince, MD

Princess U. Ogbogu, MD FAAAAI

Upon completion of this session, participants should be able to: Review the differential diagnosis for eosinophilia in adults and children; Discuss the appropriate work-up for an elevated eosinophil count; Describe treatment options for patients with hypereosinophila syndrome.

4011 Underutilized Therapies for Asthma: Exercise, Weight Loss and Yoga

Hyatt, Convention Level, Celebration 12

Discussion Leaders: Sharmilee M. Nyenhuis, MD FAAAAI Justin C. Greiwe, MD

Upon completion of this session, participants should be able to: Identify knowledge gaps in recommended lifestyle changes and alternative therapies for asthma; Discuss the existing literature on integrating lifestyle changes in patients with asthma; Identify ways to approach asthma patients about making lifestyle changes.

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Seminar (continued)

4012 The Use of Anti-Eosinophil Therapies for Allergic Diseases Hvatt, Convention Level, Celebration 13

Discussion Leaders: Sameer K. Mathur. MD PhD FAAAAI Stephen T. Holgate, MD DSc FAAAAI Enrico Heffler, MD PhD

Upon completion of this session, participants should be able to: Discuss data supporting the use of anti-IL5 medications for severe asthma; Discuss the clinical trial data on the use of anti-eosinophil therapies for other eosinophilic diseases such as hypereosinophilic syndrome, nasal polyposis and eosinophilic esophagitis.

Plenary

4101	Cutting Edge-Food Allergy Pathogenesis, Diagnosis and Therapy $\overline{\mathbf{V}}$	2
	8:15 to 9:45 am	4
	Convention Center, South Concourse, Level 1, South Hall A1 Credit: 1.50 CME/CE	
	Moderators: Anna H. Nowak-Wegrzyn, MD PhD FAAAAI Mimi L. K. Tang, MBBS PhD FAAAAI	2
8:15	Introduction and Lectureship Presentation	4
8:20	Immunologic Mechanisms in the Development of Tolerance to Foods	4
	Talal A. Chatila, MD MSc	4
	Recipient of the AAAAI Foundation and William T. Shearer and Lynn	4
	Des Prez Lecture: Investing in Our Future: 4th year	4
8:45	Introduction	
8:50	Component Resolved Diagnostics for Food Allergy Motohiro Ebisawa, MD PhD FAAAAI	
9:15	Introduction and Lectureship Presentation	
9:20	Emerging Therapies for Food Allergy, Oral Vs Epicutaneous Stacie M. Jones, MD	
	Recipient of the AAAAI Foundation and Bettina C. Hilman, MD Lectureship: Inaugural Year	
	mpletion of this session, participants should be able to: Discuss the develop- tolerance to food and what does away in food alleray. Discuss poyel therapeutic	

approaches to food allergy; Identify new diagnostic approaches for food allergy.

4201 **Monday Poster Sessions** 9:45 to 10:45 am Convention Center, South Concourse, Level 1, South Hall A2

AAAAI/WAO

Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

- 4201 Intervention Therapies in Asthma Part II
- 4202 **Asthma Epidemiology and Public Health**
- 4203 **Basic and Clinical Immunology II**
- 4204 **Basic and Clinical Immunology in Atopic Disease**
- 4205 **Immunity to Aeroallergens**

Credit: No CME/CE

- 4206 E-Cigarettes, Smoking and Sensitization
- 4207 Food Allergens and Food Immunotherapy
- **Food Allergy Diagnosis and Treatment** 208
- 209 Primary Immune Deficiency: Quality of Life and New Therapies
- 210 **Individualized Medicine: From Genetics to Electronic Medical Records to Patient Satisfaction**
- 211 **Chronic Rhinosinusitis: With and Without Nasal Polyps**
- 212 Allergic Rhinitis: Diagnosis and Treatment
- Hypereosinophilic Syndrome, EoE and Mastocytocis 213
- 214 Food Allergies: Microbiome and Allergic Disease
- 215 Late Breaking Poster Session

Attend the 2018 AAAAI

Annual Business Meeting

to include the induction of all new Fellows and members approved in 2017

Monday, March 5, 2018 12:30 to 1:30 pm **Convention Center**, South Concourse, Level 3, S320CD







Monday Plenary Q&A

10:00 to 10:30 am Convention Center, South Concourse, Level 1, South Hall A2 Credit: No CME/CE Moderators: Anna H. Nowak-Wegrzyn, MD PhD FAAAAI Mimi L. K. Tang, MBBS PhD FAAAAI **Monday Plenary Speakers** Stacie M. Jones, MD FAAAAI Motohiro Ebisawa, MD PhD FAAAAI

Talal A. Chatila, MD MSc

Symposia

4301	Japanese Society of Allergology (JSA) Sister Society Symposium: Barrier Dysfunction in Allergic Diseases V 10:45 am to 12:00 pm
	Convention Center, South Concourse, Level 2, S220EF Credit: 1.25 CME/CE
	Moderators: Hirohisa Saito, MD PhD FAAAAI Motohiro Ebisawa, MD PhD FAAAAI
10:45	Immune Responses of the Skin to Allergens Tetsuya Honda, MD
11:05	Question & Answer
11:10	Function of Bronchial Epithelial Cells in Asthma Susumu Nakae, PhD
11:30	Question & Answer
11:35	Clinical Evidence of Epidermal Barrier Dysfunction in Food Allergy <i>Yukihiro Ohya, MD PhD</i>
11:55	Question & Answer
	pletion of this session, participants should be able to discuss the barrier function cosal surfaces.
4302	Allergies, Asthma and Environmental Risk Factors in a Changing World $\overline{\mathbb{V}}$
	10:45 am to 12:00 pm
	Convention Center, South Concourse, Level 2, S230EF Credit: 1.25 CME/CE
	Moderators: Jay M. Portnoy, MD FAAAAI Sandra Nora González-Diaz, MD PhD FAAAAI
10:45	Allergy and Asthma Risk in Migrants: A Study of Gene- Environment Interaction
	Frank Thien, MD FRACP FCCP
11:05	Question & Answer
11:10	Chemical, Early Life Exposure to Pollutants and Childhood Asthma <i>Timothy K. Takaro</i>
11:30	Question & Answer

11:35 Air Pollution, Biodiversity and Allergic Diseases in the Developing World: Challenges and Opportunities Ruby Pawankar, MD PhD FRCP FAAAAI

11:55 **Question & Answer**

Upon completion of this session, participants should be able to: Describe the impact of environmental factors on the development of allergies and asthma in migrants; Describe the impact of pesticides and pollutants on childhood asthma; Describe the impact of air pollution on biodiversity and allergic diseases, especially airway allergies in the developing world

4303	The Effects of a Warming Climate on the Diagnosis and Treatment of Asthma ∇
	10:45 am to 12:00 pm
	Convention Center, South Concourse, Level 3, S310GH
	Credit: 1.25 CME/CE
	Moderators: Elham M. Hossny, MD PhD FAAAAI Menachem Rottem. MD FAAAAI
10:45	How Meteorological Changes Can Precipitate Acute, Serious
10:40	Exacerbations of Asthma and the Diagnostic Considerations of
	Such Events
	Gennaro D'Amato. MD FAAAAI
11:05	Ouestion & Answer
11:10	How Global Warming Has Changed Pollination Patterns and the
	Duration of Seasons
	Lorenzo Cecchi, MD
11:30	Question & Answer
11:35	The Effects of Global Warming as it Impacts CO2, Nitrous Oxide,
	Greenhouse Gases and Biomasses
	Richard W. Weber, MD FAAAAI
11:55	Question & Answer
as it imp pollinatio meteorol	npletion of this session, participants should be able to: Discuss global warming acts CO2, nitrous oxide, greenhouse gases and biomasses; Discuss the changing n patterns and duration of seasons from global warming; Describe how the ogical changes can precipitate acute, serious exacerbations of asthma and c considerations of such events.
4304	Update in PIDD Diagnostics and Treatments $oldsymbol{\mathbb{V}}$
	10:45 am to 12:00 pm
	Convention Center, South Concourse, Level 3, S330AB
	Credit: 1.25 CME/CE

Moderators: Kathleen E. Sullivan, MD PhD FAAAAI Ricardo U. Sorensen, MD

- **Diagnostic Algorithms for PIDDs** 10:45 Alice Chan, MD PhD
- 11:05 **Question & Answer**
- 11:10 **Treatment Options for PIDDs** Elie Haddad, MD
- 11:30 **Question & Answer**
- 11:35 Pearls and Pitfalls of Genetic Testing in PIDDs Isabelle Meyts, MD PhD

11:55 **Question & Answer**

Upon completion of this session, participants should be able to: Identify common diagnostic algorithms for evaluating PIDDs; Explain caveats of genetic testing; Identify appropriate treatment options for PIDDs.

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AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

Symposia (continued)

4305	Advances in Aeroallergen Immunotherapy 🖤
	10:45 am to 12:00 pm Convention Center, South Concourse, Level 3, S330GH Credit: 1.25 CME/CE
	Moderator: Giorgio Walter Canonica, MD
10:45	Use of SCIT and SLIT in Europe Stephen R. Durham, MA MD FRCP Recipient of the Robert A. Cooke Memorial Lectureship: 56th year
11:05	Ouestion & Answer
11:10	Why Immunotherapy in the USA is Different than Immunotherapy in Europe Harold S. Nelson, MD FAAAAI
11:30	Question & Answer
11:35	AIT: From Evidence to Clinical Practice Oliver Pfaar, MD
11:55	Question & Answer
SLIT are	npletion of this session, participants should be able to: Discuss how SCIT and currently used in Europe; Discuss the roles of SLIT and SCIT in the United States, the preference for multiallergen SCIT; Describe the use of polymerized extracts.
4306	Shaping Type 2 Inflammation: The Role of ILC2 V 10:45 am to 12:00 pm
	Convention Center, South Concourse, Level 2, S220B Credit: 1.25 CME/CE Moderator: Taylor Alan Doherty, MD FAAAAI
10:45	First-Breath Induced Type 2 Pathways in the Lung Sylvia Knapp, MD
11:05	Question & Answer
11:10	Sex Hormones Regulate ILC2-Mediated Inflammation Kristi J. Warren, PhD
11:30	Question & Answer
11:35	Tissue Checkpoints in Type 2 Immunity Steven J. Van Dyken, PhD

11:55 Question & Answer

Upon completion of this session, participants should be able to discuss the importance of ILC2 cells in maintaining homeostasis and mediating allergic airway inflammation through controlled mechanisms. 4307 From the Exam Room to the Neighborhood: Targeting the Indoor Environment as a Public Health Strategy for Asthma V 10:45 am to 12:00 pm **Convention Center, South Concourse, Level 2, S230AB** Credit: 1.25 CME/CE Moderators: Elizabeth Matsui, MD MHS Noel Rodriguez Perez, MD FAAAAI 10:45 **Reframing Individual-Level Interventions As Community-Level** and Policy Interventions Matthew Perzanowski, PhD **Question & Answer** 11:05 The Role of Single- and Multi-Exposure Interventions in Public 11:10 **Health Approaches to Asthma** Felicia A. Rabito, PhD MPH 11:30 **Question & Answer** Principles and Strategies for Dissemination of Research Findings 11:35 Tyra Bryant-Stephens, MD 11:55 **Question & Answer** Upon completion of this session, participants should be able to: Describe the controversies and future directions of indoor environmental interventions as a component of a public health and population health approach to asthma management; Discuss the rationale for, and approaches to, dissemination of research findings from community-engaged research. 4308 Early Life Environmental Exposures Regulate Host Allergic Immune Responses: Lessons Learned from the AADCRC Birth Cohorts V 10:45 am to 12:00 pm

Convention Center, South Concourse, Level 3, S310AB Credit: 1.25 CME/CE Moderator: Wendy F. Davidson, PhD

- 10:45 Effects of the Farming Environment on Immune Development and Childhood Respiratory Illnesses: Lessons from the WISC Study James E. Gern, MD FAAAAI
- 11:05 Question & Answer
- 11:10 Identifying Asthma-Causing RSV Strains and Elucidating the Mechanisms of RSV-Mediated Asthma Development: Lessons Learned from the INSPIRE Cohort Tina V. Hartert. MD MPH
- 11:30 Question & Answer
- 11:35 Traffic Related Air Pollution and Childhood Asthma: Lessons from the CCAAPS Birth Cohort

Gurjit K. Khurana Hershey, MD PhD FAAAAI

11:55 Question & Answer

Upon completion of this session, participants should be able to: Discuss and reveal the unpublished data from University of Wisconsin WISC cohort that defines the early life environmental exposures that significantly decreased respiratory infections during the first 2 years of life in farm children compared to non-farm children; Discuss the strains of the ubiquitous respiratory syncytial virus (RSV) that are associated with increased risk of severe infant illness and later wheezing, which we call RSV strains, as proposed by the Vanderbilt University INSPIRE cohort; Describe the epidemiology between traffic-related air pollution and childhood asthma as defined by the Cincinnati Children's Hospital CCAAPS birth cohort.







AAAAI Annual Business Meeting		4603	Indoor Allergens	
	12:30 to 1:30 pm Convention Center, South Concourse, Level 3, S320 All AAAAI Fellows and members should attend the annual Business Meeting. Box lunches will be provided. No fee. No pre-registration required.	2:00	2:00 to 3:15 pm Convention Center, South Concourse, Level 3, S310GH Credit: 1.25 CME/CE Moderators: Adnan Custovic, MD PhD FAAAAI Guillermo A. Guidos, MD MSc High-quality assembly of Dermatophagoides	
Oral A	Abstract Sessions	2.00	pteronyssinus genome and transcriptome reveals a wide range of novel allergens	
4601 2:00	2:00 to 3:15 pm Credit: 1.25 CME/CE Asthma and Airway Immunology Moderators: Maleewan Kitcharoensakkul, MD Christina G. Kwong, MD Testosterone decreases and ovarian hormones increase house dust mite-induced dual type 2 and IL-17A-mediated airway	2:15 2:30	Angel Tsz-Yau Wan, BSc Minor Allergens in Moderate-Severe Allergic Rhinitis: Group 4 Mite Amylasa (Blo t4) and Geographical Variations. Ruperto Gonzalez-Perez, MD PhD Multiplex assay for high throughput potency and stability measurement of all known German cockroach (GCr) allergens: A step toward full characterization	
2:15	inflammation Hubaida Fuseini Celastrol Alleviates Airway Hyperresponsiveness by Downregulating Th17 in Obese Asthmatic Mice	2:45	Samuel Mindaye, PhD Identification of fungal hazards associated with mold- contaminated homes in Atanta, Georgia Angela R. Lemons, MS	
2:30	Weixi Zhang, MD PhD A Jagged1-Notch4 interaction between Alveolar Macrophages and Allergen-Specific T-cells Mediates Airway Inflammation by Ultrafine Particles Hani Harb		Perception of Aeroallergen Sensitization Versus Actual Aeroallergen Sensitization Michele N. Pham, MD mpletion of this session, participants should be able to discuss recent research ments in the field of allergy/immunology	
2:45	Asthma associated transcriptomic profiles differ by tissue Debajyoti Ghosh, PhD	4604	Novel Mechanisms in Food Allergy	
3:00	IL-5Ra expression on airway neutrophils in children with treatment-refractory asthma Monica G. Lawrence, MD		2:00 to 3:15 pm Convention Center, South Concourse, Level 3, S330GH Credit: 1.25 CME/CE <i>Moderator: Michiko K. Oyoshi, PhD FAAAAI</i>	
developn		2:00	Decrease in early basophil sensitivity to Ara h 2 correlates with sustained unresponsiveness in peanut oral immunotherapy	
4602	The Role of Lymphocyte in Allergic and Immunologic Disease 2:00 to 3:15 pm Convention Center, South Concourse, Level 2, S220EF Credit: 1.25 CME/CE Moderators: Antonella Cianferoni, MD PhD FAAAAI Jennifer W. Leiding, MD FAAAAI	2:15 2:30	Colby P. Rondeau, BA Administration of two doses of an oral, irreversible inhibitor of Bruton's tyrosine kinase (BTK) to food allergic adults abrogates skin test responses and eliminates IgE-mediated basophil activation ex vivo. Melanie C. Dispenza Intestinal Microbial-Derived Sphingolipids Are Associated with	
2:00	High-Dimensional Phenotyping of B-Cells Responding to Rhinovirus Infection		Childhood Food Allergy Kathleen Lee-Sarwar, MD	
2:15	Jacob D. Eccles Unique profiles of lesional T follicular helper cells in the pathogenesis of IgG4-related disease	2:45	A Role for CD1d-restricted Invariant Natural Killer T Cells and Glycolipids in Alpha-Gal Allergy Onyinye I. Iweala, MD PhD	
2:30	Ryuta Kamekura Chronic Allergen Stimulation Yields T-cell Dysfunction in Obese Asthmatics	3:00	A distinct T helper subset contributes to the pathogenesis of classical Th2-mediated food allergy disorders Nahir Garabatos, PhD	
2:45	Sarah E. Henrickson, MD PhD Type 2 innate lymphoid cells expressing death receptor 3 are increased in airway of mild atopic asthmatic subject following allergen inhalation challenge Kentaro Machida, MD PhD		mpletion of this session, participants should be able to discuss recent research nents in the field of allergy/immunology	
3:00	Soluble Markers of B-cell Homing, Activation and Survival and Infection Risk in Rheumatoid Arthritis Maria J. Gutierrez, MD			
	mpletion of this session, participants should be able to discuss recent research nents in the field of allergy/immunology.			





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Oral Abstract Sessions (continued)

4605	Adverse Drug Reactions: Individual and System-Based Approaches	
	2:00 to 3:15 pm	
	Convention Center, South Concourse, Level 3, 310AB Credit: 1.25 CME/CE	0.00
	Moderators: Kristin C. Sokol, MD MS MPH Luciana Kase Tanno, MD PhD	2:00
2:00	Readmission rates following removal of penicillin allergy label after inpatient penicillin allergy testing Shyam R. Joshi, MD	2:15
2:15	Characterizing the Prevalence of Reported Beta-Lactam Allergy in Pediatric Oncology Patients Stephannie Davies	2:30
2:30	Is there a higher prevalence of methicillin- resistant Staphylococcus aureus (MRSA) or vancomycin- resistant Enterococcus (VRE)colonization in patients with antibiotic allergies? Weyman Lam, MD	2:45
2:45	Risk Stratification for Outpatient Penicillin Allergy Evaluations Amy S. Levin, MD	3:00
3:00	Elevations in IL-6 Correlate with Cytokine-Related Reactions as a Biomarker for Oxaliplatin Hypersensitivity Marlene Garcia-Neuer, MS	Upon co develop
	npletion of this session, participants should be able to discuss recent research nents in the field of allergy/immunology	Semi
4606	Rhinitis and Immunotherapy	00111
	2:00 to 3:15 pm	
	Convention Center, South Concourse, Level 3, S330AB Credit: 1.25 CME/CE	
	Moderator: Mohamed H. Shamji, BSc MSc PhD FAAAAI	4704
2:00	Increased Local IgE Production in Allergic Rhinitis (AR) During Rhinovirus (RV) Infection DeVon C. Preston, MD	4701
2:15	Association between prenatal vitamin D and child allergic rhinitis Christina F. Ortiz, MD MPH	
2:30	Quality of Life during the hay fever season after short-course subcutaneous immunotherapy with Lolium perenne peptides (LPP) in grass pollen related rhinoconjunctivitis: A RDBPCT Ralph Mosges, MD FAAAAI	Upon co approad outdoor relevan
2:45	Usefulness of saliva in predicting clinical effectiveness for sublingual immunotherapy in seasonal allergic rhinitis. <i>Mitsuhiro Okano. MD</i>	4702

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.

		2:00 to 3:15 pm
		Convention Center, South Concourse, Level 2, S230AB
		Credit: 1.25 CME/CE
		Moderators: Hirohito Kita, MD
		Roma Sehmi, PhD FAAAAI
	2:00	Monocyte Trafficking and Differentiation in Response to Allergen- Activated Peripheral Blood-Derived Mast Cells within an Allergy Tissue Model Tahereh Derakhshan
n	2:15	Human lung endothelial cells produce IL-33 and TSLP simultaneously after dsRNA stimulation Maiko Emi-Sugie, PhD
	2:30	The D816V-KIT Mutation Causes IL-6 Upregulation In Human Mast Cells Araceli Tobio

Update on Innate Immune Mechanism in Allergic Disease

- 2:45 MicroRNA-29 suppresses cytokine-mediated production of soluble IL-33 receptor, sST2, by bronchial epithelial cells Arisa Igarashi, PhD
- 3:00 Type 2 Innate Lymphoid Cells and Eosinophil Progenitor Cells are Preferentially Increased in Lesional Skin of Subjects with Atopic Dermatitis

Sai Sakktee Krisna, BSc

Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology

Seminars 🔤 🕥

4607

3:30 to 4:30 pm

Pre-registered and ticket required. Fee: \$40. Refreshments included. Sessions and refreshments are limited to 30 people. Credit: 1.00 CME/CE

4701 Unlocking Microbial Diversity: What Sequencing Studies Have Revealed about Personal Microbial Exposure Hyatt, Convention Level, Celebration 1 Discussion Leaders: Charles S. Barnes, PhD FAAAAI

Brett J. Green, PhD FAAAAI

Jpon completion of this session, participants should be able to: Discuss molecular approaches to assess bacterial and fungal microbial diversity; Discuss the influence of butdoor, personal and pet microbiomes on indoor microbial diversity; Discuss the clinical relevance of microbial diversity datasets.

4702 Meeting Patients Where They Are: Improving our Community Care Models for Asthma and COPD Hyatt, Convention Level, Celebration 2

Discussion Leaders: Sujani Kakumanu, MD FAAAAI Sharmilee M. Nyenhuis, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the health disparities and adherence gaps that affect management of asthma and COPD; Discuss evidence-based models for improving care coordination for asthma and COPD; Describe interventions within their own practices to improve the management of asthma and COPD in high risk populations.





Seminars (continued)

4703 Spells: Spectrum from Idiopathic Anaphylaxis to Systemic Mastocytosis

Hyatt, Convention Level, Celebration 3

Discussion Leaders: Cem Akin, MD PhD FAAAAI

Catherine R. Weiler, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Discuss the diagnosis of recurrent spells of anaphylaxis; Describe the difference between idiopathic anaphylaxis and systemic mastocytosis; Discuss the World Health Organization Criteria for the Diagnosis of Systemic Mastocytosis.

4704 The EoE Patient in Clinical Practice: Is There a Role for Combination Therapies?

Hyatt, Convention Level, Celebration 4

Discussion Leaders: Terri F. Brown-Whitehorn, MD FAAAAI Antonella Cianferoni, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Discuss whether or not therapies can be combined in managing EoE patients in daily practice; Describe how combination therapies can influence a patient's overall well-being.

4705 How Allergists and ENTs Can Work Together Effectively to Care for Chronic Rhinosinusitis Hyatt, Convention Level, Celebration 7

Discussion Leaders: Robert C. Kern, MD

Anjeni Keswani, MD MSCI

Upon completion of this session, participants should be able to discuss how to facilitate effective collaboration between allergists and ENT surgeons when diagnosing and managing chronic rhinosinusitis.

Workshops

3:30

4710 Update from the US Food and Drug Administration Center for Drug Evaluation and Research (FDA/CDER) ▼ 3:30 to 4:45 pm Convention Center, South Concourse, Level 3, S331A Credit: 1.25 CME/CE Moderator: Paul A. Greenberger, MD FAAAAI

The Year in Review: An Update from the US Food and Drug Administration

Badrul A. Chowdhury, MD PhD FAAAAI

- 3:50 Question & Answer
- 3:55 New Approaches for Drug Development in Asthma and Allergic Diseases
- Sofia Chaudhry, MD 4:15 Question & Answer
- 4:20 LABA Safety: An Update from the FDA Robert Lim, MD

4:40 Question & Answer

Upon completion of this session, participants should be able to discuss recent issues of scientific importance at the FDA and their clinical implications. 4711 Novel Primary Immunodeficiency Syndromes ▼ 3:30 to 4:45 pm
 Convention Center, South Concourse, Level 2, S220EF Credit: 1.25 CME/CE

Moderators: Ivan K. Chinn, MD Roberto Paganelli, MD

- 3:30 PID Associated with High Serum IgE Eleonora Gambineri, MD
- 3:50 Question & Answer
- 3:55 PID Associated with Leukocyte Migration Defects Kirk M. Druey, MD
- 4:15 Question & Answer
- 4:20 PID Associated with Lymphoproliferative Syndromes Gulbu Uzel, MD
- 4:40 Question & Answer

Upon completion of this session, participants should be able to: Discuss novel primary immunodeficiencies associated with high serum IgE; Discuss novel primary immunodeficiencies associated with leukocyte migration defects; Discuss novel primary immunodeficiencies associated with lymphoproliferative syndromes.

- 4712 Expanding the Scope of Practice: Adding Occupational Allergic Diseases to the Allergist's Repertoire ▼
 3:30 to 4:45 pm
 Convention Center, South Concourse, Level 3, S320E
 Credit: 1.25 CME/CE
 Moderators: Jill A. Poole, MD FAAAAI
 Santiago Quirce, MD PhD
 3:30 Workplace Exposures Causing Asthma, Bronchitis, Rhinosinusitis and How to Manage Them
 Hae-Sim Park, MD PhD FAAAAI
- 3:50 Question & Answer
- 3:55 Work-Associated Irritant and Contact Dermatitis: What Are Common Causes? Linn Holness, MD
- 4:15 Question & Answer
- 4:20 Understanding Worker's Compensation Systems: A Brief Introduction

Karin A. Pacheco, MD MSPH FAAAAI

4:40 Question & Answer

Upon completion of this session, participants should be able to: Identify common workplace exposures causing asthma and rhinosinusitis and how to manage them; Discuss how to manage work-associated irritant and contact dermatitis; Discuss the core concepts of workers' compensation and how to address them.





4713	Lean In to a Career You Love: Strategies to Create a Fulfilling Work Life and Prevent Burnout in Academia, Private Practice, Industry and Beyond W
	3:30 to 4:45 pm
	Convention Center, South Concourse, Level 3, S331C
	Credit: 1.25 CME/CE
	Moderators: Corinne Savides Happel, MD
	Aishah Ali, MD
3:30	Preventing Physician Burnout
	Kevin J. Kelly, MD FAAAAI
3:50	Question & Answer
3:55	Negotiating for or Creating a Physician Position You Love Christina E. Ciaccio. MD FAAAAI

- 4:15 **Question & Answer**
- **Thriving in Your Medical Career and Home Life** 4:20 Elizabeth Matsui, MD MHS

4:40 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss techniques to prevent physician burnout; Identify strategies to address home life needs while practicing medicine that may include caring for sick or aging parents, adoption, fertility treatments, breastfeeding, pregnancy, marriage and/or parenthood; Describe effective negotiation strategies to create a position that fits your career goals.

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4714	Asthma Severity and Medications During Pregnancy: Multiple Perspectives ؆
	3:30 to 4:45 pm
	Convention Center, South Concourse, Level 2, S220B
	Credit: 1.25 CME/CE
	Moderators: Michael Schatz, MD MS FAAAAI
	Anahi Yañez
3:30	Evaluating Asthma Medication Safety During Pregnancy: The VAMPSS Cohort Study Perspective Christina D. Chambers, PhD MPH
3:50	Question & Answer
3:55	Obtaining and Disseminating Information Regarding Asthma Medication Safety During Pregnancy: A US Regulatory Perspective

Melissa S. Tassinari, PhD DABT

- 4:15 **Ouestion & Answer**
- 4:20 Asthma Medication Safety and Use During Pregnancy: An **International Perspective**
- Vanessa E. Murphy, PhD

4:40 **Question & Answer**

Upon completion of this session, participants should be able to: Discuss how cohort and database studies can address asthma medication safety during pregnancy as well as take into consideration asthma severity and control; Describe the pharmaceutical company perspective regarding obtaining and disseminating information regarding the safety of asthma medications during pregnancy; Discuss the international perspective regarding the safety and use of asthma medications during pregnancy.

Innate Immunity and AERD: Lessons from the AADCRC W 4715 3:30 to 4:45 pm

Convention Center, South Concourse, Level 3, S320A Credit: 1.25 CME/CE Moderator: Katherine N. Cahill, MD

- 3:30 **ILC2 Regulation of AERD** Taylor Alan Doherty, MD FAAAAI
- 3:50 **Question & Answer**
- 3:55 IL-33 in AERD Pathogenesis Nora A. Barrett, MD FAAAAI
- 4:15 **Question & Answer**
- 4:20 **TSLP Slips into AERD** Atsushi Kato, PhD

Question & Answer 4:40

Upon completion of this session, participants should be able to: Discuss the role of the innate immune response in AERD pathogenesis; Describe the contribution of TSLP to AERD; Describe how IL-33 influences AERD disease activity.





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Scientific Abstract Sessions

6

8

Innate Immunity in the Driver's Seat of Allergic Inflammatory Responses

Basic Science

1521

Friday, March 2nd, 2018, 12:45 PM - 2:00 PM

- Role of TNFSF11 and Group 2 Innate Lymphoid Cells in Type 2 Inflammation in Chronic Rhinosinusitis with Nasal Polyps Noriko Ogasawara, MD, PhD¹, Julie A. Poposki, MS¹, Aiko I. Klingler, PhD1, Bruce K. Tan, MD, MS2, Kathryn E. Hulse, PhD¹, Whitney W. Stevens, MD, PhD¹, Anju T. Peters, MD, FAAAAI¹, Leslie C. Grammer, MD, FAAAAI¹, Robert P. Schleimer, PhD FAAAAI¹, Kevin C. Welch, MD², Stephanie S. Smith, MD², David B. Conley, MD², Joseph R. Raviv, MD³, Pejman Soroosh, PhD⁴, Tetsuo Himi, MD, PhD⁵, Robert C. Kern, MD², and Atsushi Kato, PhD¹, ¹Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ²Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL, ³Division of Otolaryngology-Head and Neck Surgery, North-Shore University HealthSystem, The University of Chicago, Pritzker School of Medicine, Evanston, IL, ⁴Janssen Research and Development, San Diego, CA, ⁵Department of Otolaryngology, Sapporo Medical University School of Medicine, Sapporo, Japan
- 2 Identification of MEK2 and CBX7 as Top Steroid Resistant Genes in Airway ILC2s and Lymphocytes from Asthma Kapil Sirohi, PhD¹, Mukesh Verma, PhD², Lidia Michalec, PhD³, Anand Sripada, PhD², Donald Rollins², James Good, MD², Richard J. Martin, MD¹, Magdalena M. Gorska, MD, PhD, FAAAAI⁴, and Rafeul Alam, MD, PhD, FAAAAI¹, ¹National Jewish Health, Denver, CO, ²National Jewish Health, Denver, ³National Jewish Health & University of Colorado Denver, Denver, CO, ⁴1400 Jackson Street, National Jewish Health, Denver, CO
- 3 Group 2 innate lymphoid cells display ILC3-like functional plasticity in asthmatics and non-human primates Cameron H. Flayer, Moyar Qing Ge, PhD, Daniel G Tompkins, Maya Juarez, Lisa Miller, PhD, Christopher M Royer, Brian M Morrissey, MD, Nicholas J Kenyon, MD, and Angela Haczku, MD, PhD, FAAAAI, University of California, Davis, Davis, CA
- 4 TSLP and IL-33 Reciprocally Regulate Each Other's Lung Protein Expression and Receptor Expression on ILC2 following Aeroallergen Challenge in Mice Shinji Toki, PhD, Vanderbilt University School of Medicine, Nashville, TN Baohua Zhou, PhD, Indiana University School of

Nashville, TN, Baohua Zhou, PhD, Indiana University School of Medicine, Indianapolis, IN and Stokes Peebles, MD, FAAAAI, Vanderbilt Univ School of Medicine, Nashville, TN

5 IL33 Receptor Deficiency Leads To Steroid Resistant Asthma Due To TSLP-driven Increase In IL9+ILC2s And Mast Cells Mukesh Verma, PhD¹, Sucai Liu, PhD², Lidia Michalec, PhD³, Anand Sripada, PhD¹, Magdalena M. Gorska, MD, PhD, FAAAAI⁴, and Rafeul Alam, MD, PhD, FAAAAI², ¹National Jewish Health, Denver, ²National Jewish Health, Denver, CO, ³National Jewish Health & University of Colorado Denver, Denver, CO, ⁴1400 Jackson Street, National Jewish Health, Denver, CO

Asthma Pathogenesis

ADT

2201 Saturday, March 3rd, 2018, 9:45 AM - 10:45 AM

COCKROACH SENSITIZATION AS DETERMINANT FAC-TOR IN ASTHMA CONTROL IN A TROPICAL URBAN YOUTH

Julián E Londoño Hernández, MD¹, Rodrigo A Gaviria, MD², Jaime Ocampo, MD², Victor Calvo, BSc, MSc², and Ricardo Cardona, MD, MSc², ¹Group of Clinical and Experimental Allergology, University of Antioquia, Medellín, ²Group of Clinical and Experimental Allergology, University of Antioquia, Medellín, Colombia

7 Risk of Asthma Among Children from In-Utero Exposure to Traffic-Related Air Pollutants

Christina D Schwindt, MD¹, Jun Wu, PhD², and Ralph Delfino, MD, PhD², ¹Allergy & Asthma Associates of Southern CA, Irvine, CA, ²UC Irvine, Irvine, CA

Effect of Food Allergy on Astma Control in children

Sukruthi Jois¹, Betty Andy-Nweye¹, Alice N Hackett, MD², Opal J Kamdar³, Kylie N. Jungles¹, Ruchi S. Gupta, MD MPH^{4,5}, Mary C. Tobin, MD, FAAAAI⁶, and Mahboobeh Mahdavinia, MD, PhD^{7,8}, ¹Department of Immunology and Microbiology Allergy/Immunology Section Rush University Medical Center, Chicago, IL, ²Rush University Medical Center, Chicago, ³Department of Immunology and Microbiology Allergy/Immunology Section Rush University Medical Center, Chicago, ⁴Northwestern University Feinberg School of Medicine, Chicago, IL, ⁵Ann & Robert H. Lurie Children's Hospital of Chicago, IL, ⁵Department of Internal Medicine, Division of Allergy and Immunology, Rush University Medical Center, Chicago, IL, ⁸Rush University Medical Center, Chicago, IL

Recurrent Wheeze After Hospital Discharge Among Preschool Children Hospitalized With Acute Wheezing: 18-Months Follow-Up of A Multi-Center Study

Patrada Thanee, MD, Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Thammasat University, Pathumthani, Thailand, Paskorn Sritipsukho, MD, Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Center of Excellence in Applied Epidemiology, Thammasat University, Pathumthani, Thailand, Orapan Poachanukoon, MD, Division of Allergy and Immunology, Center of Excellence for Allergy, Asthma and Pulmonary Diseases, Department of Pediatrics, Faculty of Medicine, Thammasat University, Pathumtani, Thailand, Araya Satdhabudha, MD, Division of Respiratory disease, Department of Pediatrics, Faculty of Medicine, Thammasat University, Pathumthani, Thailand, Khlongtip Matchimmadamrong, MD, Department of Pediatrics, Saraburi Hospital, Saraburi, Thailand, Sasawan Chinratanapisit, MD, Department of Pediatrics, Bhumibol Adulyadej Hospital, Bangkok, Thailand, Jitladda Deerojanawong, MD, Division of Respiratory disease and intensive care, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, bangkok, Thailand, Pantipa Chatchatee, MD, Division



of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand and Narissara Suratannon, MD, Division of Allergy, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

10 Overweight/Obesity as a risk factor for Severe Wheezing up to 5 years old

Leticia Lambert¹, Luisa B Savastano¹, Sephanie L Vargas¹, Etienne L Duim², Maria Celia C Ciaccia¹, and Vera E. Rullo, MD¹, ¹Fundação Lusiada's Medicine Course, Santos, Brazil, ²School of Public Health, University of São Paulo, Santos, Brazil

- 11 Measures of heart rate variability shortly after birth are associated with wheeze and ED visits at age 2-3 years Matthew Perzanowski, PhD¹, Khalil W Savary, MD¹, Emilio Arteaga-Solis, MD, PhD¹, Natalie H Brito, PhD¹, Virginia A Rauh, PhD¹, Laura A Lautenbacher, DO¹, Amy J Elliot, PhD², Michael M Myers, PhD¹, and William P Fifer, PhD¹, ¹Columbia University, New York, NY, ²Sanford Health, Sioux Falls
- 12 Early-Onset Eczema is Associated with Increased Milk Sensitization and Risk of Rhinitis and Asthma in Early Childhood Jing Long Huang, MD, Chang Gung Memorial Hospital, Taoyuan, Taiwan, Chih-Yung Chiu, Chang Gung Memorial Hospital at Keelung, Keelung and Kuo-Wei Yeh, MD, FAAAAI, Chang Gung Memorial Hospital, Taoyuan, Taiwan
- 13 Neonatal Jaundice and Risk of Allergic Diseases By 6 Years of Age: A Cohort Study

Chun-Chun Gau¹, Wan Fang Lee¹, I-Chun Lu¹, Li-Lun Lin¹, Chao-Yi Wu, MD, PhD¹, Hui-Ju Tsai, PhD^{2,3}, and Tsung-Chieh Yao^{1,4}, ¹Division of Allergy, Asthma, and Rheumatology, Department of Pediatrics, Chang Gung Memorial Hospital, Taoyuan, Taiwan, ²National Health Research Institutes, Zhunan, Taiwan, ³Department of Pediatrics, Feinberg School of Medicine, Northwestern University, Chicago, IL, ⁴Department of Medicine, Chang Gung University, Taoyuan, Taiwan

- 14 Effect of Birth Weight on Lung Function and Exhaled Nitric Oxide in A Cohort of Asian Children at Six Years of Age Wan-Fang Lee¹, Chun-Chun Gau¹, I-Chun Lu¹, Li-Lun Lin¹, Chao-Yi Wu, MD, PhD¹, Hui-Ju Tsai, PhD^{2,3}, and Tsung-Chieh Yao^{1,4}, ¹Division of Allergy, Asthma, and Rheumatology, Department of Pediatrics, Chang Gung Memorial Hospital, Taoyuan, Taiwan, ²National Health Research Institutes, Zhunan, Taiwan, ³Department of Pediatrics, Feinberg School of Medicine, Northwestern University, Chicago, IL, ⁴Department of Medicine, Chang Gung University, Taoyuan, Taiwan
- 15 AIRWAYS REMODELLING IN CHILDREN WITH CON-TROLLED MILD-MODERATE ASTHMA CORRELATES WITH HIGHER SERUM IL-4 BUT NOT WITH CLINICAL SCORE

Roberto Paganelli, MD, Via Dei Vestini, University of Chieti, Chieti, Italy, Anna Cingolani, Pediatric Clinic, Chieti scalo, Italy, Marika D'Urbano, Dept Medicine & Sci of Aging, Chieti scalo, Italy, Francesco Chiarelli, University of Chieti, Chieti scalo, Italy and Sabrina Di Pillo, Ospedale SS Annunzita, Chieti scalo, Italy

16 Gender-Specific Dysregulation Of The Endocrine System Is A Novel Feature Of Asthma

Lyda Cuervo-Pardo, MD¹, Sergio E. Chiarella, MD², Mahboobeh Mahdavinia, MD, PhD³, Hiam Abdala-Valencia, PhD⁴, and Sergejs Berdnikovs, PhD¹, ¹Division of Allergy and Immunology, Northwestern University, Chicago, IL, ²Medicine, Division of Allergy and Immunology, Northwestern University, Chicago, IL, ³Rush University Medical Center, Chicago, IL, ⁴Division of Pulmonary and Critical Care, Northwestern University, Chicago, IL

17 Early-life House Dust and Infant Nasal Microbiota Similarity is Diminished in Infants who Develop Atopy Kathryn McCaulay MPH¹ Douglas Eadrosh MS² Kole Lynch¹

Kathryn McCauley, MPH¹, Douglas Fadrosh, MS², Kole Lynch¹, Agustin Calatroni, MA MS³, Petra LeBeau⁴, Hoang Tran³, Homer A. Boushey, MD, FAAAAI⁵, Daniel J. Jackson, MD, FAAAAI⁶, James E. Gern, MD, FAAAAI⁶, and Susan V. Lynch, PhD², ¹University of California, San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³Rho Federal Systems Division Inc., Chapel Hill, NC, ⁴Rho Federal Systems Division Inc., Chapel Hill, ⁵University CA - San Francisco, San Francisco, CA, ⁶University of Wisconsin School of Medicine and Public Health, Madison, WI

18 Association Between Maternal Prenatal Vitamin D Concentration And Child Asthma

Kecia N. Carroll, MD¹, Sarah N. Adams, MD², Tebeb Gebretsadik, MPH³, Christina F. Ortiz, MD MPH², Margaret Adgent, PhD¹, Frances A Tylavsky, D.P.H, MS, BS⁴, and Terry J Hartman, PhD, MPH, RD⁵, ¹Vanderbilt University School of Medicine, Nashville, TN, ²Vanderbilt University Medical Center, Nashville, TN, ³Department of Biostatistics, Vanderbilt University Medical Center, Nashville, TN, ⁴University of Tennessee Health Science Center, Memphis, TN, ⁵Emory University, Atlanta, GA

Maternal Stress and Depression are Associated with Development of a High-Wheeze, Low-Atopy Phenotype in Their Young Offspring

Sima K Ramratnam, MD MPH¹, Agustin Calatroni, MA MS², Leonard Bacharier, MD, PhD³, Daniel J. Jackson, MD, FAAAAI⁴, Avraham Beigelman, MD MSCI FAAAAI⁵, Robert A. Wood, MD, FAAAAI^{6,7}, Meyer Kattan, MD⁸, George T. O'Connor, MD9, Cynthia M. Visness, PhD10, Peter J. Gergen, MD MPH¹¹, and James E. Gern, MD, FAAAAI¹, ¹University of Wisconsin School of Medicine, Madison, WI, ²Rho Federal Systems Division, Inc., Chapel Hill, NC, ³Washington University, St. Louis, MO, ⁴University of Wisconsin School of Medicine and Public Health, Madison, WI, ⁵Washington University School of Medicine, St. Louis, MO, ⁶Johns Hopkins University School Medicine, Baltimore, MD, ⁷Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD, 8Columbia University, New York, NY, 9Boston University School of Medicine, Boston, MA, ¹⁰Rho, Inc., Chapel Hill, NC, ¹¹NIH/NIAID, Rockville, MD

20 Comparison of Fel d 1 and Fel d 4 levels in house dust samples from the Canadian CHILD birth cohort

Kristina Reid Black¹, Brian Murphy¹, Stephanie Filep¹, Jeff Brook², Padmaja Subbarao, MD³, Stuart Turvey⁴, Piush Mandhane, MD⁵, Allan Becker, MD FRCPC⁶, Timothy K. Takaro⁷, James A. Scott, PhD⁸, Malcolm R. Sears, MD, FAAAAI⁹, and Martin D. Chapman, PhD FAAAAI¹, ¹Indoor Biotechnologies, Inc., Charlottesville, VA, ²Environmental and Climate Change Canada, Gatineau, QC, Canada, ³Hospital for Sick Children, Toronto, ON, Canada, ⁴Rm A2-148, BC Children's Hospital, Vancouver, BC, Canada, ⁵University of Alberta, Edmonton, AB, Canada, ⁶University of Manitoba, Winnipeg, BC, Canada, ⁷Simon Fraser University, Burnaby, BC, Canada, ⁸University of Toronto, Toronto, ON, Canada, ⁹McMaster University, Hamilton, ON. Canada

Progression of Difficult Wheeze to Persistent Asthma in Children: Ontogeny of Anatomic, Inflammatory, and Physiological Factors with Age

W. Gerald Teague, MD¹, Monica G. Lawrence, MD², Stephen Early, MD¹, John W. Steinke, PhD FAAAAI³, Andrea Garrod, MD¹, Debbie-Ann Shirley, MD¹, Thomas J. Braciale, MD, PhD⁴, Michael Ellwood⁵, and Larry Borish, MD, FAAAAI⁶, ¹University of Virginia School of Medicine, Charlottesville, VA, ²MR4 Building, Room 5051a, Univ of Virginia Division of Asthma Allergy & Immunology, Charlottesville, VA, ³Asthma and Allergic Diseases Center, Charlottesville, VA, ⁴University of Virginia Hospital, Charlottesville, VA, ⁵University Physicians Group, Charlottesville, VA, ⁶University of Virginia Health System, Charlottesville, VA

The effect of antibiotics in children and adolescent developing asthma and allergic diseases

Soo Whan Kim, The Catholic University of Korea, Seoul, Korea, Republic of (South)



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23 Rhinovirus causes increased acute symptoms in children with first time wheezing compared to either controls with cold symptoms or children with first time wheezing and Respiratory Syncytial Virus

Ashley Stoner, MD¹, Darrell L Dinwiddie, PhD^{2,3}, Claire C Putt, BA¹, Kurt Schwalm, BS⁴, John C Kincaid, MD¹, Mallory Bell, BA⁵, Thomas J Abramo, MD¹, Tonya M Thompson, MD¹, Stacie M. Jones, MD, FAAAAI⁶, Richard C. Kurten, PhD^{1,7}, and Joshua L. Kennedy, MD¹, ¹University of Arkansas for Medical Sciences, Little Rock, AR, ²Clinical Translational Science Center, University of New Mexico HSC, Albuquerque, NM, ³Department of Pediatrics, University of New Mexico HSC, Albuquerque, NM, ⁴University of New Mexico, Albuquerque, NM, ⁵Arkansas Children's Hospital, Little Rock, AR, ⁶UAMS/Arkansas Children's Hospital, Little Rock, AR, ⁷Arkansas Children's Hospital Research Institute, Little Rock, AR

24 Fixed Airways Obstruction In Smokers At 26 Years Of Age; An Early Indication Of COPD?

John W. Holloway, BSc PhD¹, Claire Hodgekiss², Graham Roberts, DM MSc MRCPCH³, Wilfried Karmaus, MD⁴, Hongmei Zhang, PhD⁴, Susan Ewart⁵, Linda S. Mansfield, VMD, PhD⁵, Ramesh Jagath Kurukulaaratchy, BM DM MRCP¹, and Syed H. Arshad, DM, FRCP¹, ¹University of Southampton, Southampton, United Kingdom, ²David Hyde Asthma & Allergy Centre, Newport, United Kingdom, ³Tremona Road, Southampton University Hospital, Southampton, United Kingdom, ⁴The University of Memphis, TN, ⁵Michigan State University, East Lansing, MI

25 Mixed infant feeding poses an increased risk for asthma in early childhood

Wilfried Karmaus, MD¹, Suryatapa Kar², Nelis Soto-Ramirez, PhD³, Hongmei Zhang, PhD¹, and Syed H. Arshad⁴, ¹The University of Memphis, Memphis, ³University of South Carolina, Columbia, SC, ⁴University of Southampton, Southampton, United Kingdom

26 Sex Modifies the Association Between Acetaminophen Use and Asthma Among Young Adults: Results from Two Population-Based Studies

Ali H. Ziyab, PhD¹, Hongmei Zhang, PhD², Ramesh Jagath Kurukulaaratchy, BM DM MRCP³, Hasan Arshad, MD³, and Wilfried Karmaus, MD², ¹Kuwait University, Safat, Kuwait, ²The University of Memphis, Memphis, TN, ³University of Southampton, Southampton, United Kingdom

- 27 Asthma in Siblings and Risk for Childhood Asthma David L. Peloza, MD, Michael D. Evans, MS, James E. Gern, MD, FAAAAI, Robert F. Lemanske, MD, FAAAAI and Daniel J. Jackson, MD, FAAAAI, University of Wisconsin School of Medicine
 - son, MD, FAAAAI, University of Wisconsin School of Medicine and Public Health, Madison, WI Increased Risk of Otitis Media, Pneumonia, and Antibiotic Uti-
- 28 Increased Risk of Otitis Media, Pneumonia, and Antibiotic Utilization Following RSV Bronchiolitis Among Infants Born to Mothers With and Without Asthma Andrew Abreo, MD¹, Tan Ding, MS², Cosby A Stone, MD MPH¹,

Andrew Abreo, MD, Tan Ding, MS, Cosby A Stone, MD MPH, Kedir N Turi, PhD¹, Tebeb Gebretsadik, MPH², Pingsheng Wu, PhD¹, and Tina V. Hartert, MD MPH¹, ¹Center for Asthma Research, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, ²Department of Biostatistics, Vanderbilt University Medical Center, Nashville, TN

29 More Than Estrogen: Puberty Switch Of Non-Sex Hormones In Allergic Disease

Sergio E. Chiarella, MD¹, Lyda Cuervo-Pardo, MD², Mackenzie E. Coden², Brian M. Jeong², Raul I. Rodriguez, MD², Mahboobeh Mahdavinia, MD, PhD³, Anne M. Singh, MD², Hiam Abdala-Valencia, PhD⁴, and Sergejs Berdnikovs, PhD², ¹Medicine, Division of Allergy and Immunology, Northwestern University, Chicago, IL, ²Division of Allergy and Immunology, Northwestern University, Chicago, IL, ³Department of Internal Medicine, Division of Allergy and Immunology, Rush University Medical Center,



Chicago, IL, ⁴Division of Pulmonary and Critical Care, Northwestern University, Chicago, IL

30 A Polymorphism in the Catalase Gene Promoter Confers Protection Against Severe RSV Bronchiolitis Jeffrey Chambliss, MD, John P. Kelley, MD, Kimberly Palkowetz, Heidi Spratt, Roberto P. Garofalo, MD and Antonella Casola, MD, University of Texas Medical Branch, Galveston, TX

Intervention Therapies in Asthma Part I

ADT

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Saturday, March 3rd, 2018, 9:45 AM - 10:45 AM

31 Disease Severity and Baseline Characteristics of Patients Receiving Mepolizumab or Omalizumab in Employer Claims Database: A real-world experience

Beth Hahn, PhD¹, Jean-Pierre Llanos-Ackert, MD², Hector Ortega, MD, FAAAAI¹, Elizabeth Packnett, MPH³, Debra Irwin, PhD, MSPH³, Ellen Riehle, MPH³, Christina Chebili, MA³, and Christopher Bell, MS¹, ¹GlaxoSmithKline, RTP, NC, ²GlaxoSmithKline, Research Triangle Park, NC, ³Truven Health Analytics, Ann Arbor, MI

32 Mepolizumab for Treatment of Asthma: Post-Approval Academic Practice Experience

Mariel Rosati Benjamin, MD, Northwestern University, Allergy and immunology, Chicago, IL, Bruce S. Bochner, MD, FAAAAI, Northwestern University, Allergy and Immunology, Chicago, IL and Anju T. Peters, MD, FAAAAI, Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL

- 33 KIT Inhibition by Imatinib in Patients with Severe Refractory Asthma - Impact on Airway Remodeling measured by MDCT Daniel T. Ilges, PharmD Candidate¹, LI Zhou, MD², Chase Hall, MD², Shweta Sood, MD², James Kozlowski, MS², Charles Goss, PhD², Katherine N. Cahill, MD³, Jing Cui, MD, PhD⁴, Allison Crosby-Thompson, MS⁴, Nizar N. Jarjour, MD⁵, Emily DiMango, MD⁶, Serpil C. Erzurum, MD⁷, Jennifer L. Trevor, MD⁸, Michael E. Wechsler, MD MMSc9, Joshua A. Boyce, MD, FAAAAI4, Elliot Israel, MD, FAAAAI⁴, and Mario Castro, MD, MPH, FCCP², ¹St. Louis College of Pharmacy, Saint Louis, MO, ²Washington University, Saint Louis, MO, ³Brigham and Women's Hospital, Division of Rheumatology, Immunology, and Allergy, Boston, MA, ⁴Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ⁵University of Wisconsin School of Medicine, Madison, WI, 6Columbia University Medical Center, New York, NY, 7Cleveland Clinic Foundation, Cleveland, OH, ⁸Universality of Alabama at Birmingham, Birmingham, AL, 9National Jewish Health, Denver, CO
- The Use Of Omalizumab In A Tertiary Care Hospital In The UAE: A Retrospective Study
 Mohsen Nasir, MD, Cleveland Clinic Abu Dhabi, Abu Dhabi, United Arab Emirates
 Eligibility Of Monoclonal Antibody-based Therapy For Pa-

Eligibility Of Monoclonal Antibody-based Therapy For Patients With Severe Asthma: A Canadian Perspective Samira Jeimy, MD, PhD, FRCPC¹, Julie Hachey, MD¹, and Harold Lee-Yonge Kim, MD, FRCPC², ¹Western University, London, ON, Canada, ²Western University, Kitchener, Canada

36 Clinical Efficacy of Benralizumab in Patients With Severe, Uncontrolled Eosinophilic Asthma and Nasal Polyposis: Pooled Analysis of the SIROCCO and CALIMA Trials Jorge Maspero¹, Tim Harrison², Viktoria Werkström³, Yanping

Jorge Maspero', Tim Harrison', Viktoria Werkstrom', Yanping Wu⁴, Gokul Gopalan⁴, and James Zangrilli⁴, ¹Fundacion CIDEA,

Buenos Aires, Argentina, ²Nottingham City Hospital, Nottingham, United Kingdom, ³AstraZeneca, Mölndal, Sweden, ⁴AstraZeneca, Gaithersburg, MD

37 Seasonal Variability of Exacerbations in Patients With Severe, Uncontrolled Eosinophilic Asthma and Clinical Benefits of Benralizumab: Pooled Analysis of the SIROCCO and CALIMA Trials

Lawrence DuBuske¹, Paul Newbold², Yanping Wu³, Frank Trudo⁴, and Gokul Gopalan³, ¹George Washington University School of Medicine, Washington, DC, ²MedImmune, LLC, Gaithersburg, MD, ³AstraZeneca, Gaithersburg, MD, ⁴AstraZeneca, Wilmington, DE

38 Adverse Systemic Reaction Rates with Omalizumab, Subcutaneous Immunotherapy, and Combination Therapy in Children with Allergic Asthma

Daniel Har, MD and Min Jung Lee, MD, University of Texas-Southwestern, Dallas, TX

- 39 Severe Asthma with Onset in Adulthood is a Distinct Phenotype that is Most Likely to Respond to Mepolizumab Katherine McCormack, MD¹, Pasquale Comberiati, MD^{1,2}, and Joseph D. Spahn, MD^{1,3}, ¹Children's Hospital Colorado, Aurora, CO, ²University of Verona, Verona, Italy, ³National Jewish Health, Denver, CO
- 40 ASP7266, a novel antibody against human TSLPR, in the treatment of allergic disease

Mako Numazaki, Kaori Hanaoka, Emiko Imamura, Masashi Maeda, PhD, Kazunori Arai, Tetsu Saito, PhD, Fujiko Takamura, Hiroshi Suzuki, PhD, Satoshi Kubo, PhD, and Shigetada Furukawa, PhD, Drug Discovery Research, Astellas Pharma Inc., Tsukuba, Japan

- 41 Benralizumab Reduces Exacerbations and Improves Lung Function in Patients From Republic of Korea With Severe, Uncontrolled Asthma: Subgroup Analysis of the SIROCCO Trial Hae-Sim Park, MD, PhD, FAAAAI¹, Sang Haak Lee², Viktoria Werkström³, Yanping Wu⁴, James Zangrilli⁴, and Gokul Gopalan⁴, ¹Department of Allergy and Clinical Immunology, Ajou University School of Medicine, Suwon, Korea, Republic of (South), ²Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, St. Paul's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea, Republic of (South), ³AstraZeneca, Mölndal, Sweden, ⁴AstraZeneca, Gaithersburg, MD
- 42 No Effect of Benralizumab Treatment on Antibody Response to Seasonal Influenza Vaccination in Adolescent and Young Adult Patients With Moderate to Severe Asthma: Results From the Phase IIIb ALIZE Trial

Pamela L. Zeitlin¹, Mila Leong², Jeremy Cole³, Raburn M. Mallory⁴, Vivian H. Shih⁵, Richard F. Olsson⁶, and Mitchell Goldman⁵, ¹Department of Pediatrics, National Jewish Health, Denver, CO, ²Pediatric Pulmonary & Asthma Associates, Northfield, NJ, ³OK Clinical Research, LLC, Edmond, OK, ⁴MedImmune, LLC, Gaithersburg, MD, ⁵AstraZeneca, Gaithersburg, MD, ⁶AstraZeneca, Gothenberg, Sweden

43 Greater Treatment Benefit with Omalizumab in Children with Increased Asthma Severity: Exploratory Analyses from the Inner-City Anti-IgE Therapy for Asthma (ICATA) Study William W. Busse¹, Tmirah Haselkorn, PhD², Karin Rosén, MD, PhD³, Benjamin L. Trzaskoma, MS³, Benjamin Ortiz, MD⁴, and Stanley J. Szefler, MD, FAAAAI5, 1School of Medicine and Public Health, Madison, WI, ²EpiMetrix, Inc., Los Altos, CA, ³Genentech, Inc., South San Francisco, CA, ⁴Novartis Pharmaceuticals Corporation, East Hanover, NJ, 5Children's Hospital Colorado, Aurora, CO

44 **Benralizumab Treatment Produces Rapid Changes in Morning** Peak Expiratory Flow in Patients With Severe, Uncontrolled Eosinophilic Asthma

Geoffrey Chupp, MD¹, Gary T. Ferguson², Ian Hirsch³, Mitchell Goldman³, James Zangrilli³, and Frank Trudo⁴, ¹Yale Center for Asthma and Airway Disease, New Haven, CT, ²Pulmonary Research Institute of Southeast Michigan, Farmington Hills, MI, ³AstraZeneca, Gaithersburg, MD, ⁴AstraZeneca, Wilmington, DE

An Update On: The Observed Incidence of Anaphylaxis in Pa-45 tients Receiving Omalizumab in a Tertiary Allergy and Asthma Clinic in Canada

Jodi Valois, RPN, Yang Medicine, Ottawa, Canada

46 **Response to Omalizumab Observed Over Wide Range of Blood Eosinophil Levels**

Nicola A. Hanania, MBBS¹, Karin Rosén, MD, PhD², Noelle M. Griffin, PhD², Benjamin L. Trzaskoma, MS², Tmirah Haselkorn, PhD³, Bradley E. Chipps, MD, FAAAAI⁴, and Thomas B. Casale, MD, FAAAAI5, ¹Baylor College of Medicine, Houston, TX, ²Genentech, Inc., South San Francisco, CA, ³EpiMetrix, Inc., Los Altos, CA, ⁴Capital Allergy and Respiratory Disease Center, Sacramento, CA, ⁵University of South Florida, Tampa, FL

47 Baseline Characteristics Associated with Quartiles of Reslizumab Effect: Pooled Analysis Of Two Phase 3 Studies

Bradley E. Chipps, MD, FAAAAI¹, Mirna McDonald², and Margaret Garin², ¹Capital Allergy and Respiratory Disease Center, Sacramento, CA, ²Teva Branded Pharmaceutical Products R&D Inc., Malvern, PA

48 Characteristics of Asthmatic Responders to Mepolizumab after Failed Response to Omalizumab

Geetika Sabharwal, MD, Penn State Health Milton S. Hershey Medical Center, Camp Hill, PA and Faoud Terrence Ishmael, MD, PhD, FAAAAI, Penn State College of Medicine, Hershey, PA

49 Improvement of lung function measured by AM PEF in patients with severe eosinophilic asthma treated with mepolizumab: A combined analysis of the MENSA and MUSCA studies

Hector Ortega, MD, ScD, FAAAAI¹, Andrew Menzies-Gow, MD², Jean-Pierre Llanos-Ackert, MD¹, Mark S. Forshag, MD, MHA¹, Frank C. Albers, MD, PhD³, Necdet Gunsoy, PhD⁴, Eric Bradford, MD¹, Steven W. Yancey, MSc3, and Monica Kraft, MD, FAAAAI5, 1GlaxoSmithKline, Research Triangle Park, NC, ²Royal Brompton Hospital, London, United Kingdom, ³GSK, Research Triangle Park, Durham, NC, ⁴GlaxoSmithKline, Middlesex, United Kingdom, ⁵Dept of Medicine, College of Medicine, Univ of Arizona, Tucson, AZ

50 Association Between Asthma Exacerbations and Lung Function With Reslizumab Treatment In Patients With Uncontrolled Eosinophilic Asthma: Pooled Analysis of Two Phase 3 Trials John M. Fahrenholz, MD, FAAAAI¹, Mirna McDonald², and Margaret Garin², ¹Vanderbilt University Medical Center, Nashville,

TN, ²Teva Branded Pharmaceutical Products R&D Inc., Malvern, PA Impact of Reslizumab on Duration of Exacerbations in Patients with Severe Eosinophilic Asthma

Michael E. Manning¹, Margaret Garin², Bo Jiang³, and Shawn X Sun³, ¹Allergy, Asthma, and Immunology Associates, Scottsdale, AZ, ²Teva Branded Pharmaceutical Products R&D Inc., Malvern, PA, ³Teva Branded Pharmaceutical Products R&D Inc, Malvern, PA

Improvements In Individual Asthma Control Questionnaire (ACQ-5) Questions With Reslizumab In Patients With Inadequately Controlled Asthma and Elevated Blood Eosinophils: Pooled Analysis of Two Phase 3 Trials

Phillip E. Korenblat, MD, FAAAAI¹, Mirna McDonald², and Margaret Garin², ¹Washington University School of Medicine, St Louis, MO, ²Teva Branded Pharmaceutical Products R&D Inc., Malvern, PA

Primary Immunodeficiency I

BCI

2203

Saturday, March 3rd, 2018, 9:45 AM - 10:45 AM

Prenatal and postnatal exposure to perfluoroalkyl substances and antibody concentrations with mass vaccination in 5, 8, 11 and 14 year-old children in Taiwan

Shu-Li Julie Wang, Shiang-Jen Jane Lin, Hui-Ju Wen and Yuliang

American Academy of Allergy Asthma & Immunology

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Leon Guo, National Health Research Institutes, Miaoli County, Taiwan

- 54 Basophils and IL-4 Dampen the Protective Innate Immune Response Against Cutaneous Staphylococcus aureus Infection Raif S. Geha, MD, FAAAAI and Juan-Manuel Leyva-Castillo, PhD, Boston Children's Hospital, Boston, MA
- 55 Mast Cell Activation Disorder As A Presentation Of Primary Immunodeficiencies Anna L. Maidand, MD, PhD, Mt. Sinai School of Madicine, Fact

Anne L. Maitland, MD, PhD, Mt. Sinai School of Medicine, Eastchester, NY, Sydney Littlejohn, Comprehensive Allergy and Asthma care, New York and Gigia Roizen, Comprehensive Allergy and Asthma Care, New York

56 Immunoglobulin Reference Ranges In An Appalachian Pediatric Population

Apoorwa Thati, MS, BS, Quillen College of Medicine, East Tennessee State University, Johnson City, TN, Ahmad Al Balbissi, MD, Department of Medicine, East Tennessee State University, Johnson City, TN, Sumana Reddy, MD, Department of Internal Medicine, University of Alabama, Montgomery, AL, Rodrigo Tejeida-Estrada, BS, Illinois Institute of Technology, Chicago, IL, Kevin F. Breuel, PhD, MS, ETSU Clinical Labs, Department of OB/GYN, East Tennessee State University, Johnson City, TN and Alexei Gonzalez-Estrada, MD, Division of Allergy and Clinical Immunology, East Tennessee State University, Johnson City, TN

57 Presentation and Skin Biopsy Findings in Delayed Type Hypersensitivity Reactions to Facilitated Subcutaneous Immunoglobulin Replacement

Kara B McNamara, MD¹, Jim M. Fernandez, MD, PhD², Lily Pien, MD, FAAAAI¹, and Dawn M. Zacharias, MD³, ¹Cleveland Clinic Foundation, Cleveland, OH, ²Crile A90/A50, The Cleveland Clinic Foundation, Cleveland, OH, ³University Hospitals, Westlake, OH

58 Genetic and Mechanistic Diversity in Hemophagocytic Lymphohistiocytosis

Ivan K Chinn, MD¹, Olive S Eckstein, MD¹, Erin C Peckham-Gregory, PhD¹, Baruch R Goldberg, MD¹, Lisa R. Forbes, MD¹, Sarah K. Nicholas, MD¹, Emily M Mace, PhD¹, Tiphanie P Vogel, MD, PhD¹, Harshal A Abhyankar², Maria I Diaz², Helen E Heslop, MD², Robert A Krance, MD², Caridad A Martinez, MD², Trung C Nguyen, MD², Dalia A Bashir, MD², Jordana R Goldman, MD², Asbjorg Stray-Pedersen, MD, PhD3, Luis A Pedroza, PhD4, M. Cecilia Poli, MD⁵, Juan Carlos Aldave Becerra, MD⁶, Sean A. McGhee, MD, FAAAAI7, Zeynep H Coban-Akdemir, PhD1, Shalini N Jhangiani¹, Donna M Muzny¹, Tram N Cao¹, Diana N Hong¹, Richard A Gibbs, PhD¹, James R Lupski, MD, PhD¹, Jordan S Orange, MD, PhD, FAAAAI1, Kenneth L McClain, MD, PhD², and Carl E Allen, MD, PhD², ¹Baylor College of Medicine, Houston, TX, ²Texas Children's Hospital, Houston, TX, ³University of Oslo, Oslo, Norway, ⁴Universidad San Francisco de Quito, Quito, Ecuador, ⁵Universidad del Desarrollo, Santiago, Chile, ⁶Hospital Nacional Edgardo Rebagliati Martins, Lima, Peru, ⁷Stanford University, Palo Alto, CA

59 Screening for immunodeficiency in patients with communityacquired pneumonia Syed Mustafa, MD, FAAAAI¹, Karthik Vadamalai¹, Denise Sanchez Tejera², and Jonathan Bress², ¹Rochester Regional Health, Ro-

chester, NY, ²Rochester Regional Health, Rochester Pharmacokinetics of Hizentra at Weekly vs. Biweekly Docing

60 Pharmacokinetics of Hizentra at Weekly vs. Biweekly Dosing Regimens

Mikhail Rojavin¹, Hugo Chapdelaine, MD², Gautam Baheti¹, Jutta Hofmann¹, Michaela Praus³, Michael Tortorici¹, and Elie Haddad⁴, ¹CSL Behring LLC, King of Prussia, PA, ²University of Montreal,

Montreal, QC, Canada, ³CSL Behring GmbH, Marburg, Germany, ⁴Ste Catherine, Montreal, Canada

61 The effects of DOCK8 deficiency on human neutrophil functions Amarilla B Mandola, MD^{1,2}, Jacov Levy, MD^{3,4}, Amit Nahum, MD, PhD^{3,4}, Nurit Hadad^{3,5}, Rachel Levy, PhD^{3,5}, Anna Rylova⁶, Amos J Simon, PhD⁶, Atar Lev, PhD⁶, Raz Somech, MD, PhD⁶, and Arnon Broides, MD^{3,4}, ¹The Hospital for Sick Children, University of Toronto, Toronto, Canada, ²Soroka University Medical Center, The Faculty of Health Sciences, Ben Gurion University of the Negev, Beer Sheva, Israel, ³Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer Sheva, Israel, ⁴Pediatric Immunology Clinic, Soroka University Medical Center, Beer Sheva, Israel, ⁵Infectious Disease Laboratory, Department of Clinical Biochemistry, Soroka University Medical Center, Beer Sheva, Israel, ⁶Pediatric Immunology, Edmond and Lily Safra Children's Hospital, Sheba Medical Center, Tel Hashomer, Ramat Gan, Israel

62 Serum total Immunoglobulin and Mycoplasma pneumonia Jung Hyun Kwon, MD., PhD.¹, Won Hee Seo, MD., PhD.², Young Yoo, MD, PhD³, Dae Jin Song, MD., PhD.⁴, and Ji Tae Choung, MD., Phd.^{3.5}, ¹Department of Pediatrics, Korea University College of Medicine, Ansan Hospital, Seoul, Korea, Republic of (South), ²Department of Pediatrics, Korea University College of Medicine, Ansan Hospital, Seoul, Korea, ³Department of Pediatrics, Korea University College of Medicine, Anam Hospital, Seoul, Korea, Republic of (South), ⁴Department of Pediatrics, Korea University, College of Medicine, Guro Hospital, Seoul, Korea, Republic of (South), ⁵Department of Pediatrics, Korea University College of Medicine, Seoul, Korea, Republic of (South)

63 Heterozygous Mutations in *NFKB2* Exhibit a Broad Clinical Phenotype

Erik N Newman¹, Julie Feusier¹, Shancy P Jacob¹, Lynn B Jorde¹, Harry R Hill^{1,2}, Celine Hanson³, Kazushi Izawa⁴, T. Ronan Leahy⁵, Masafumi Yamada⁶, William Rae⁷, Fabian Hauck⁸, Hassan Abolhassani⁹, Asghar Aghamohammadi⁹, Lennart Hammarström¹⁰, Hirokazu Kanegane¹¹, Charlotte Slade¹², Chaim M Roifman¹³, Bodo Grimbacher¹⁴, Guy A Zimmerman¹, John F Bohnsack¹, and Karin Chen¹, ¹University of Utah, Salt Lake City, UT, ²ARUP Institute for Clinical and Experimental Pathology, Salt Lake City, UT, ³Texas Children's Hospital, Houston, TX, ⁴Kyoto University Graduate School of Medicine, Kyoto, Japan, ⁵Our Lady's Children's Hospital, Dublin, Ireland, ⁶Hokkaido University, Sapporo, Japan, ⁷University Hospital Southampton NHSFT, Southampton, United Kingdom, 8Dr von Hauner Children's Hospital, Ludwig-Maximilians-Universität, Munich, Germany, 9Children Medical Center Hospital, Tehran University of Medical Sciences, Tehran, Iran (Islamic Republic of), ¹⁰Karolinska University Hospital, Stockholm, Sweden, ¹¹Tokyo Medical and Dental University, Tokyo, Japan, ¹²Royal Melbourne Hospital, Melbourne, Australia, ¹³The Hospital for Sick Children and the University of Toronto, Toronto, Canada, ¹⁴University of Freiburg, Freiburg, Germany

64 Incidence of reactivated Herpes Zoster (shingles) in patients with Primary Immune Deficiency

David S Lindsay, MD, University of South Florida, Johns Hopkins All Children's Hospital, Saint Petersburg, FL, Charlotte Cunningham-Rundles, MD, PhD, FAAAAI, Mt. Sinai Medical Center, New York, NY, Ramsay L. Fuleihan, MD, FAAAAI, Ann & Robert H. Lurie Children's Hospital of Chicago Box 60, Chicago, IL, Mark Ballow, MD, FAAAAI, Windom Allergy, Asthma & Sinus, Sarasota, FL; Johns Hopkins All Childrens Hospital, University of South Florida, St. Petersburg, FL and Jennifer W. Leiding, MD, FAAAAI, University of South Florida Morsani College of Medicine, St. Petersburg, FL; Johns Hopkins - All Children's Hospital, St. Petersburg, FL



- 66 Characterization of pediatric onset common variable immunodeficiency (CVID) in a large cohort Carolyn H. Baloh, MD¹, Anupama Reddy, PhD², Rebecca H. Buckley, MD, FAAAAI¹, and Patricia L. Lugar, MD MS¹, ¹Duke University Medical Center, Durham, NC, ²Duke University, Dur-
- ham, NC
 Predictors of persistent respiratory infections in patients with primary antibody deficiency, data from the US Immunodeficiency network (USIDnet)

Joud Hajjar, MD, Baylor College of Medicine and Texas Children's Hospital, Department of Pediatrics, Section of Immunology, Allergy and Rheumatology, Houston, TX, Carleigh Kutac, MS, Baylor College of Medicine, Houston and Jordan S Orange, MD, PhD, FAAAAI, Baylor College of Medicine, Houston, TX

68 Clinical Diagnostic Difficulties of Post-Rituximab Secondary Immunodeficiency Prior to the Onset of Long Term Complications Jeehyun Katie Rha, MD¹, Elise Loughman, BS², Marissa A. Love, MD¹, and Selina A. Gierer, DO FAAAAI¹, ¹University of Kansas Medical Center, Kansas City, KS, ²University of Kansas School of Medicine, Kansas City, KS

Primary Immunodeficiency II

BCI

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Saturday, March 3rd, 2018, 9:45 AM - 10:45 AM

69 Naïve B cells are prone to develop into polyreactive autoantibody secreting cells from adult RAG2-deficient patient with combined immunodeficiency

Matthew T. Stowell, Undergraduate Student¹, Jolan E. Walter, MD, PhD, FAAAAI², Thomas C. Pennix, student¹, Boglarka Ujhazi¹, Gail Mueller¹, Manish Butte³, Elisabeth G Hoyte⁴, Joseph D. Hernandez, MD, PhD⁵, Eric RF Meffre⁶, and Krisztian Csomos, PhD⁷, ¹University of South Florida, St. Petersburg, FL, ²University of South Florida, Saint Petersburg, FL, ³University of California: Los Angeles, Los Angeles, CA, ⁴Stanford University, Stanford, CA, ⁵Stanford University School of Medicine, Palo Alto, CA, ⁶Yale University, New Haven, CT, ⁷University of South Florida, St. Petersburg

70 Mast Cell Activation Disorders In The Setting Of Idiopathic CD4 Lymphopenia

Gigia Roizen, Comprehensive Allergy and Asthma Care, New York, Corey Peruffo, Comprehensive Allergy and Asthma care, New York and Anne L. Maitland, MD, PhD, Mt. Sinai School of Medicine, Eastchester, NY

71 A Simple Method of Blood Collection to Detect Mutational Changes [BTK Gene Analysis] in Vietnamese Children With XLA [X-Linked Agammaglobulinemia]

Anh V.T. Nguyen, MD, National Children's Hospital, Hanoi, Viet Nam

72 Correlation Of B Cell Number With Typhi Vi IgG Antibodies In Primary Immunodeficient Patients

Antony R. Parker¹, Suranjith L. Seneviratne, MB BS MD MRCP², N. Rajiva De Silva³, Jeevani Kumarage⁴, Vijitha Senatane³, Amitha Fernando³, Kirthi Gunasekara³, Bandu Gunasena³, Nishantha Padmalal Gurugama⁵, and Sudath Peiris³, ¹The Binding Site Group Limited, Birmingham, United Kingdom, ²St Mary's Hospital, Headington, United Kingdom, ³Medical Research Institute, Colombo, Sri Lanka, ⁴Medical Research Institute, Columbo, Sri Lanka, ⁵Cambridge University, Cambridge, United Kingdom

Transcriptome analysis of T cells in chromosome 22q11.2 deletion syndrome
 Nilita Data MD MDDCl² Chai Olice Va MD, PhDl² Data D

Nikita Raje, MD MBBS^{1,2}, Shui Qing Ye, MD, PhD^{1,2}, Daniel P Heruth, PhD^{1,2}, Nicole M Gigliotti, BS², Hongying Dai, PhD², Min Xiong, PhD^{1,2}, and Marcia A. Chan, PhD², ¹University of Missouri Kansas City, Kansas City, MO, ²Children's Mercy Hospital, Kansas City, MO

74 Infectious and Non-infectious Pulmonary Complications of Primary Immunodeficiency Diseases in the USIDNET Registry

Kaileen Rohr, Morgan Stanley Children's Hospital of NYP, Columbia University Medical Center, New York, NY and Joyce E. Yu, MD, FAAAAI, Columbia University Medical Center, Division of Pediatric Allergy & Immunology, New York, NY

Eosinophilic Gastrointestinal Disease in Patients with Primary Immunodeficiency

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Melanie A. Ruffner, MD, PhD¹, Elizabeth K. Garabedian, RN², Ramsay L. Fuleihan, MD, FAAAAI³, Kathleen E. Sullivan, MD, PhD, FAAAAI⁴, and Jonathan M. Spergel, MD, PhD, FAAAAI¹, ¹The Children's Hospital of Philadelphia, Philadelphia, PA, ²National Human Genome Research Institute, NIH, Bethesda, MD, ³Ann & Robert H. Lurie Children's Hospital of Chicago Box 60, Chicago, IL, ⁴Children's Hospital of Philadelphia, Philadelphia, PA

76 Myelosuppression Effect Of Trimethoprim-Sulfamethoxazole Prophylaxis In Innate Immune Defect Patients: Retrospective Comparative Study

Reem Elajez¹, and Mehdi Adeli, MD^{1,2}, ¹Hamad Medical Corporation, Doha, Qatar, ²Sidra Medical and Research Center, Doha, Qatar

The Outcome of Hematopoietic Stem Cell Transplantation Among Patients With Severe Combined Immunodeficiency is Similar to Patients With Hurler Syndrome

Melanie Conway, MD, FRCPC^{1,2}, Ryan Chan, HBSc¹, Jessie MacDonald, HBSc¹, Adam Gassas, MD², and Eyal Grunebaum, MD^{1,2}, ¹The University of Toronto, Toronto, ON, Canada, ²The Hospital for Sick Children, Toronto, ON, Canada

78 Renal Disease in Chronic Granulomatous Disease: Data from the USIDNET Registry

Keith A. Sacco, MD, Mayo Clinic, Jacksonville, FL and Avni Y. Joshi, MD, Mayo Clinic, Rochester, MN

79 Onboarding Experience of Patients With Primary Immunodeficiency Diseases Who Switched to Subcutaneous Human Immune Globulin 20% (Ig20Gly) From Intravenous or Subcutaneous Immune Globulin 10%

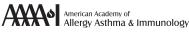
Sudhir Gupta¹, Iftikhar Hussain², Kenneth Paris³, Mark Stein⁴, Barbara McCoy⁵, Ping Wang⁵, Christopher J. Rabbat⁶, and Leman Yel⁵, ¹University of California at Irvine, Irvine, CA, ²Allergy, Asthma, and Immunology Center, Tulsa, OK, ³LSU Health Sciences Center, Children's Hospital of New Orleans, New Orleans, LA, ⁴Allergy Associates of the Palm Beaches, North Palm Beach, FL, ⁵Shire, Inc, Cambridge, MA, ⁶Shire, Inc, Chicago, IL

High Flow Hizentra in Patient with Primary Immunodeficiency Disease

Kaley McCrary, MD, University of South Florida Morsani College of Medicine, Tampa, FL, Jennifer Leiding, MD, John Hopkins All Childrens Hospital, Saint Petersburg, FL and Carla M. Duff, CPNP-PC, MSN, IgCN, University of South Florida, Parrish, FL

Newborn Screening for Severe Combined Immunodeficiency: Experience at a New York City Academic Medical Center Rebecca Koransky, New York - Presbyterian/Columbia University Medical Center, New York, NY, Abigail Leathe,





SATURDAY

New York - Presbyterian/Morgan Stanley Children's Hospital, New York, NY, Sairaman Nagarajan, SUNY Downstate Medical Center, Brooklyn, NY and Yesim Demirdag, New York- Presbyterian/Morgan Stanley Children's Hospital, New York, NY

82 Screening for Severe Combined Immunodeficiency on the Ohio Newborn Screen Using TREC Analysis: Experience from the **First Four Years**

David E Tapke, MD MPH¹, Benjamin Prince, MD¹, Peter Mustillo, MD, FAAAAI¹, Sherman Alter, MD², Rosemary Hage, PhD³, Leigh Ann A. Kerns, MD, FAAAAI⁴, Sharon Linard, MS³, Rebecca A. Marsh, MD⁵, Kimberly A. Risma, MD, PhD, FAAAAI⁶, Nancy Wasserbauer, DO FAAAAI7, and Rebecca Scherzer, MD, FAAAAI8, ¹Nationwide Children's Hospital, Columbus, OH, ²Dayton Children's Hospital, Dayton, OH, ³Ohio Department of Health Laboratory, Reynoldsburg, OH, ⁴Rainbow Babies and Children's Hospital, Cleveland, OH, 5Cincinnati Children's Hospital Med. Ctr., Cincinnati, OH, 6Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ⁷Westshore Primary Care Center for Allergy and Immunology, Rocky River, OH, 8 Division of Allergy & Immunology, Nationwide Children's Hospital, Columbus, OH

83 A Retrospective Chart Review of Infants Referred for Abnormal TREC on Newborn Screen

Melissa D. Stone, MD, Montefiore Medical Center, Bronx, NY and Tatyana Gavrilova, MD, Allergy/Immunology, Montefiore Medical Center, Bronx, NY

Occupational Exposures

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84 Nasal Application of Powder vs. Liquid Cellulose Derivatives to Suppress Allergen Challenge

Jean Carol Emberlin, BSc PhD, Allergy UK, Kent, United Kingdom, Robert M. Naclerio, MD, FAAAAI, University of Chicago, Chicago, IL and Todor A. Popov, MD, PhD, Clinic of Allergy and Asthma, Sofia, Bulgaria

85 Bisphenol A(BPA) alters molecular signaling in Immune cells that promotes the development of childhood asthma Youko Murakami, MD¹, Sahar Fahmy², Barun K. Choudhury, PhD1, Randall M. Goldblum, MD3, and Terumi Midoro-Horiuti, MD, PhD, FAAAAI⁴, ¹University of Texas Medical Branch, Galveston, TX, ²University of Texas Medical Branchi, Galveston, TX, ³Univ of Texas Medical Branch, Galveston, TX, ⁴University of Texas Medical Branch, Pediatrics, Galveston, TX

86 Downregulation of Circulating miRs-206-3p and -381-3p May Serve As Putative Serum Biomarkers for Detection of 4,4'-Methylene Diphenyl Diisocyanate Exposure Chen-Chung Lin, PhD, Brandon F Law, MS, Paul D, Siegel, PhD, and Justin M. Hettick, PhD, National Institute for Occupational Safety and Health, Morgantown, WV

87 Sensitization to Occupational Respiratory Allergens in Workers of Seven Bakeries in Havana, Cuba Mirta Alvarez, MD¹, Yaquelin Levva², Raúl Lazaro Castro Almarales, MD³, Victor R Meli⁴, Humberto Julian Barata, MD⁴, and Alexis Labrada, PhD⁵, ¹Calixto García University Hospital, Havana, Cuba, ²University Hospital Calixto García, Havana, ³National Center of Bioproducts, Havana, ⁴Diater Laboratorios, Buenos Aires, Argentina, ⁵National Center of Bioproducts, Havana, Cuba

Effect of the iQOS electronic cigarette device on susceptibility 88 to S. pneumoniae infection Lisa Miyashita, PhD and Jonathan Grigg, BSc MB BS MD, Queen

Mary University of London, London, United Kingdom Daily Products Containing Paraben and Triclosan Use

89 and Allergic Diseases In Tokyo, 2016-2017: a Cross-Sectional Study

Mitsui Motoko, MD¹, Yamamoto Kiwako, MD, PhD¹, Hirota Ryoji, PhD², Muto Go, MD³, Nakamura Takeshi⁴, Yuma Fukutomi, MD, PhD⁵, Nakamura Hiroyuki, MD, PhD⁶, and Yukihiro Ohya, MD, PhD¹, ¹National Center for Child Health and Development, Tokyo, Japan, ²Kochi Medical School, Kochi, Japan, ³Juntendo University Graduate School of Medicine, Tokyo, Japan, ⁴Shin Nippon Biomedical Laboratories, Ltd, Wakayama, Japan, ⁵Sagamihara National Hospital, Kanagawa, Japan, ⁶Kanazawa University, Kanazawa, Japan

90 Impact of GSTM1 Genotype on Airway Response to Inhaled Wood Smoke Particles

Allison J. Burbank, MD¹, Michelle L. Hernandez, MD, FAAAAI¹, Katherine H Mills, BA¹, Neil E Alexis, PhD², and David B. Peden, MD MS FAAAAI3, 1UNC Center for Environmental Medicine, Asthma, & Lung Biology, Chapel Hill, NC, ²Center Environmental Med. Asthma/Lung Biology, Chapel Hill, NC, ³University of North Carolina at Chapel Hill School Medicine, Chapel Hill, NC

Outdoor Aerobiology

EORD

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Saturday, March 3rd, 2018, 9:45 AM - 10:45 AM

- Pollen counting samplers trends from 1963-2016 91
 - Jendayi Jones¹, Preeti Wagle¹, and Leonard Bielory, MD, FAAAAI^{2,3}, ¹University Asthma and Allgery Associates, Springfield, NJ, ²Rutgers University, Center for Environmental Prediction, Springfield, NJ, 3Thomas Jefferson University Kimmel School of Medicine, Springfield, NJ
- 92 Airborne Rhodotorula concentrations and associated meteorological variables in Tulsa, Oklahoma Josh D McLoud, MS. and Estelle Levetin, PhD FAAAAI, University of Tulsa, Tulsa, OK
- 93 Association of Moulds and Metrological Parameters in Relation to Severe Asthma Exacerbation

Mona Sulaiman Al-Ahmad, MD, FAAAAI, Al-Rashed Allergy Center, Sukibikhat, Kuwait; Faculty of Medicine, Kuwait University, kuwait, Kuwait, Nermina Arifhodzic, MD, PhD, Al-Rashed Allergy Center, kuwait, Kuwait and Edin Jusufovic, Medical Faculty, University of Tuzla, Tuzla

94 Environmental Factors Which Increase Alternaria spores in Central Ukraine

Viktoriya Rodinkova¹, V Mokin², O Bilous¹, Lawrence Dubuske^{3,4}, and M Dratovanyj², ¹National Pirogov Memorial Medical University, Vinnytsya, Ukraine, ²Vinnytsia National Technical University, Vinnytsya, Ukraine, ³Immunology Research Institute of New England, Gardner, MA, ⁴George Washington University School of Medicine, Washington, DC

95 Sensitization to Peach tree pollen in a non-exposed population Maria Luisa Somoza, MD¹, Natalia Blanca-López, MD, PhD¹, Diana Victoria Pérez-Alzate, MD¹, María Vazquez de la Torre,



MD, PhD¹, Damian López-Sánchez, MD², Laura Victorio-Puche, MD², María Garrido-Arandia³, Araceli Diaz-Perales³, Miguel Blanca, MD, PhD¹, and María Gabriela Canto, MD, PhD¹, ¹Allergy Unit, Infanta Leonor University Hospital, Madrid, Spain, ²Allergy Unit, Virgen de la Arrixaca University General Hospital, Murcia, Spain, ³Center for Plant Biotechnology and Genomic (UPM-INIA), Madrid, Spain

Dennis Bazylinski, PhD, and Joram S. Seggev, MD, FAAAAI, University of Nevada Las Vegas, Las Vegas, NV

97 Peach pollen sensitisation is highly prevalent in areas of great extension of peach tree cultivar

Laura Victorio Puche¹, Damian López-Sánchez, MD¹, Natalia blanca-Lopez², Maria Luisa Somoza-Alvarez², Elisa Haroun Diaz², Araceli Diaz-perales³, María Gabriela Canto, MD, PhD², and Miguel Blanca², ¹Allergy Unit, Virgen de la Arrixaca University General Hospital, Murcia, Spain, ²Allergy Unit, Infanta Leonor University Hospital, Madrid, Spain, ³Center for Plant Biotechnology and Genomic (UPM-INIA), Madrid, Spain

98 A comparison of *Plantago major* pollen counts at two different heights

Preeti Wagle¹, Jendayi Jones¹, and Leonard Bielory, MD, FAAAAI^{2,3}, ¹University Asthma and Allgery Associates, Springfield, NJ, ²Rutgers University, Center for Environmental Prediction, Springfield, NJ, ³Thomas Jefferson University Kimmel School of Medicine, Springfield, NJ

99 (1) Aerobiology in Oaxaca City. Pollen count 3 years long trough Hirst Trap

Rosa Garcia-Munoz, MD, FAAAAI, Clinica de Pediatria Asma Y Alergia SC, Oaxaca, Mexico, David Leonor Quiroz-Garcia, Laboratorio de Palinologia, Instituto Politecnico Nacional, Mexico City, Mexico, Isabel Martinez-Rico, Biologist, Instituto Politecnico Nacional, Mexico Cotu, Mexico and Salvador Acosta-Castellanos, Laboratorio de Palinologia, Instituto Politecnico Nacional, Mexico City

Drug Allergy

FADDA

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 Inpatient Penicillin Allergy Evaluation Program Enriches Anti-Microbial Stewardship Aims
 Renee Kleris, MD, Christina Sarubbi, PharmD, Rebekah Wrenn, PharmD, Deverick Anderson, MD MPH and Patricia L. Lugar, MD MS, Duke University Medical Center, Durham, NC

101 Risk Factors for Anaphylactoid Reaction to Low Osmolar Contrast During Cardiac Catheterization Martin A Smith, MD¹, Lisanne P. Newton, MD¹, David Newton, MD², Leslie Cho, MD¹, Maria A. Barcena Blanch, MD³, Lyda Cuervo Pardo, MD⁴, Xiaofeng Wang¹, Manshi Li¹, and David M. Lang, MD, FAAAAI¹, ¹Cleveland Clinic Foundation, Cleveland, OH, ²Memorial University Medical Center, Savannah, ³Asthma and Allergy Associates of Florida, Miami, DC, ⁴Northwestern University, Chicago, OH

102 Testing Strategies For Patients Labeled As Allergic To Fluoroquinolones

Sarah N. Adams, MD, Vanderbilt University, Nashville, TN, Elizabeth McKinnon, PhD, Murdoch University, Murdoch, Australia and Elizabeth J. Phillips, MD, FAAAAI FIDSA, A-2200 Medical Center North, Division of Infectious Diseases, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN

103 Anxiety and depression effects during drug provocation test Laura M. Losappio, MD, PhD, Unit of Allergy and Immunology, Niguarda Ca' Granda Hospital, Milan, Alessandra Cappai, MD, South London and Maudsley NHS Foundation Trust, london, Alessandra Arcolaci, Unit of Allergy, Policlinico Hospital (Verona, Italy), verona, Iuliana Badiu, MD, Unit of Allergy, Santa Croce e Carle Hospital, Cuneo, Italy, Patrizia Bonadonna, MD, Asthma Center and Allergy Unit, Verona, Elisa Boni, MD, Unit of Allergy, Santo Spirito Hospital, Alessandria, Italy, Claudia Bussolino, MD, Unit of Allergy and Clinical Immunology, Mauriziano Umberto I Hospital, torin, Marco Caminati, MD, Asthma Center and Allergy Unit, Verona University Hospital, Verona, Italy, Pietro Galati, MD, Unit of Allergy, Sant' Orsola Malpighi Hospital, Bologna, ME, Italy, Enrico Heffler, MD, PhD, Department of Biomedical Sciences - Personalized Medicine, Asthma and Allergy Clinic - Humanitas University and Research Hospital, milano, Rossella Intravaia, MD, Unit of Medicine, Catania University, ACI S. Antonio, Italy, Marina Mauro, MD, Poliambulatorio Ospedale S Anna, Como, Italy, Ilaria Massaro, MD, Unit of Transfusion Medicine, Careggi Hospital, Pistoia, Italy, Antonino Gaetano Romano, MD, Unit of Allergy, Fondazione Policlinico Universitario A. Gemelli, Sacro Cuore University, Columbus, Rome, Italy, Gabriele Rumi, MD, Unit of Allergy, Fondazione Policlinico Universitario A. Gemelli, Sacro Cuore University, Columbus, Roma, Italy, Anna Parolo, MD, Inter-departmental, Unit of Transfusion Medicine, Padova, Italy, Stefano Pizzimenti, MD, Unit of Immunology and Microbiology, Agnelli Hospital ., Torino, Italy and Elide Anna Pastorello, MD, Unit of Allergy and Immunology, Niguarda Ca' Granda Hospital, Milano, Italy

104 Use of Telemedicine for Penicillin Allergy De-Labeling

Allison Ramsey, MD, FAAAAI¹, Anne M. Holly, RPA-C², and Mary L. Staicu, PharmD¹, ¹Rochester Regional Health, Rochester, NY, ²Rochester Regional Health, Webster, NY

105 Refrigerated Stability of Diluted Cisatracurium, Rocuronium, and Vencuronium for Skin Testing After Perioperative Anaphylaxis

Kristen G. Dinsmore¹, Bethany Campbell², Timothy Archibald¹, Gregory Mosier¹, Stacy Brown, PhD¹, and Alexei Gonzalez-Estrada, MD¹, ¹East Tennessee State University, Johnson City, TN, ²King University, Bristol, TN

106 Engineering Inhibitors for Food and Drug Allergies

Basar Bilgicer, PhD¹, Peter E. Deak, PhD.¹, Tanyel Kiziltepe, PhD¹, Amina Abdul Qayum, MD², and Mark H. Kaplan, PhD², ¹University of Notre Dame, Notre Dame, IN, ²Indiana University School of Medicine, Indianapolis, IN

107 The Role of History in Determining the Outcome of Penicillin Testing in Children

Alysa G. Ellis, MD, FAAAAI^{1,2}, Gordon R. Bloomberg, MD, FAAAAI³, and Sharon Bathon¹, ¹Washington University School of Medicine, St. Louis, MO, ²St. Louis Children's Hospital, Saint Louis, MO, ³Washington University School of Medicine, Saint Louis, MO

108 Impact of a Novel Radiocontrast Media Reaction Treatment Algorithm in Simulation Settings of Anaphylaxis

Iris M. Otani, MD¹, Alexi Otrakji², Niki Holtzman³, Matthew Iandoli⁴, Kimberly G Blumenthal, MD MSc², Aleena Banerji, MD⁵, and Gloria Salazar², ¹UCSF, San Francisco, CA, ²Massachusetts General Hospital, Boston, MA, ³Feinberg School of Medicine -Northwestern University, Chicago, IL, ⁴Imaging and Radiation Oncology Core Group - Quality Assurance Review Center, Lincoln, RI, ⁵Harvard Medical School, Boston

109 Oral Graded Challenges to Amoxicillin without Prior Skin Testing

Melissa Iammatteo, MD¹, Santiago Alvarez-Arango, MD², Denisa E. Ferastraoaru, MD¹, Nadeem Akbar, MD¹, Andrew Lee, MD¹,



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Hillel Cohen, DrPH³, and Elina Jerschow, MD, FAAAAI¹, ¹Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY, ²Johns Hopkins University, Baltimore, MD, ³Albert Einstein College of Medicine, Bronx, NY

- 110 Study of Specific IgE Recognition of New Potential Synthetic Antigenic Determinants for α-Amino-Cephalosporins Angela Martin-Serrano Ortiz^{1,2}, Cristobalina Mayorga, PhD^{1,3}, Esther Barrionuevo, MD, PhD³, Alba Rodriguez-Nogales, PhD¹, Ezequiel Perez-Inestrosa, PhD^{2,4}, Maria Jose Torres Jaén, MD, PhD^{2,3}, and Maria Isabel Montañez, PhD^{1,2}, ¹Research Laboratory, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain, ²BIONAND - Andalusian Centre for Nanomedicine and Biotechnology, Malaga, Spain, ³Allergy Unit, IBIMA, Regional University Hospital of Malaga, Spain, ⁴Department of Organic Chemistry, UMA, Malaga, Spain
- 111 In Vivo Mast Cell Activation by the MRGPRX2 Receptor Ligands

Maria Shtessel, MD, Eric T. Oliver, MD, Kristin L. Chichester, MS and Sarbjit Singh Saini, MD, FAAAAI, Department of Medicine, Division of Allergy and Clinical Immunology, Johns Hopkins University School of Medicine, Baltimore, MD

112 Underutilization of Penicillin Skin Testing in the Outpatient Setting

Omar Waqar, MD, Artemio M. Jongco, MD, PhD MPH FAAAAI and Roxanne C. Oriel, MD, Hofstra Northwell School of Medicine, Great Neck, NY

- 113 Time Frame Of Recurrent Angioedema Following Discontinuation of Angiotension Converting Enzyme Inhibitor Medications Anita Kallepalli, MD, VA Greater Los Angeles Healthcare System, Los Angeles, CA and Joseph S Yusin, MD, FAAAAI, VA Greater Los Angeles Health Care System, Los Angeles, CA
- 114 Hypersensitivity Reactions To Low Molecular Weight Heparins: A Case Series

Wendy Vargas Porras¹, Ana Gonzalez Moreno¹, Ana M. Nieto¹, Maria Dolores Alonso Diaz de Durana², Monica Rodriguez¹, María Del Mar Moro¹, Aura P Silva Barajas³, and Sabela Perez Codesido², ¹Hospital Universitario Fundación Alcorcón, Madrid, Spain, ²Hospital Universitario Fundación Alcorcón, Madrid, ³Hospital Gregorio Marañón, Madrid

- Comparison Between ImmunoCAP And RAST For Diagnosis 115 Of Hypersensitivity To Betalactams Inmaculada Doña, MD, PhD¹, Natalia Pérez-Sánchez, MD¹, Esther Barrionuevo, MD, Phd², Ruben Fernandez³, Maria Isabel Montañez, PhD3, Maria Isabel Sanchez4, Ana Molina5, Cristobalina Mayorga, PhD⁶, and Maria Jose Torres Jaén, MD, PhD^{7,8}, ¹Allergy Unit, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, Spain, ²Allergy Unit, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, ³Research Laboratory, IBIMA-Regional University Hospital of Malaga-UMA, Malaga, Spain, Malaga, Spain, ⁴Allergy Unit, Regional University Hospital of Malaga-IBIMA, UMA, Spain, Málaga, Spain, ⁵Research Laboratory, IBIMA, Regional University Hospital of Malaga, UMA, MA-LAGA, 6Research Laboratory, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain, 7BIONAND - Andalusian Centre for Nanomedicine and Biotechnology, Malaga, Spain, ⁸Allergy Unit, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain
- 116 Trend and Characteristics of Anaphylaxis-related Hospitalization From 2009-2011: Data from the Nationwide Inpatient Sample Pragya Shrestha, MD¹, Rashmi Dhital, MD¹, Dilli Poudel, MD¹, Paras Karmacharya, MD², and Anthony Donato, MD¹, ¹Reading Health System, West Reading, PA, ²Mayo Clinic, Rochester, MN

117 Immediate and Delayed Reactions to Cephalexin in Children with Confirmed Allergy to Amoxicillin Ashley Tritt¹, Alexandra Langlois, MD², Sofianne Gabrielli, MSc³, Christine Lejtenyi, MD, M. Sc.⁴, Thomas Eiwegger, MD^{5,6}, Adelle Roberta Atkinson, MD⁶, Vy Hong-Diep Kim⁷, Andrew O'Keefe, MD⁸, Yarden Yanishevsky, MD, FAAAAI⁹, and Moshe Ben-Shoshan, MD, MSc¹⁰, ¹McGill University, Montreal, QC, ²Division of Pediatric Allergy and Clinical Immunology, Department of Pediatrics, Montreal Children's hospital, Montreal, QC, Canada, ³The Research Institute of the McGill University Hospital Centre, Montreal, QC, Canada, ⁴Montreal Children's Hospital, McGill Universi, Montreal, QC, Canada, ⁵Division of Clinical Immunology & Allerg, The University of Toronto, Toronto, Canada, ⁶Hospital for Sick Children, Toronto, ON, Canada, ⁷Hospital for Sick Children, Toronto, Canada, ⁸St. John's, Canada, ⁹University of Alberta, ECHA, Edmonton, AB, Canada, ¹⁰The Research Institute of the McGill University Health Center, Montreal, QC, Canada

118 Case Series Of Cross-Intolerance Reactions To Nonsteroidal Anti-Inflammatory Drugs In Children And Adolescents In Our Allergy Unit

Ana Gonzalez Moreno, Wendy Vargas Porras, María Del Mar Moro, Ana M. Nieto, Monica Rodriguez, Maria Dolores Alonso Diaz De Durana, Sabela Perez Codesido and Martina Privitera, Hospital Universitario Fundación Alcorcón, Madrid, Spain

119 Hypersensitivity To Multiple Iodinated Contrast Media: A Serie Of Cases

Natalia Pérez-Sánchez, MD¹, Maria Salas, MD, PhD¹, Gador Bogas, MD, PhD², Inmaculada Doña, MD, PhD¹, Maria Francisca Palomares, PhD³, Dolores Cañamero¹, and Maria J Torres, MD, PhD², ¹Allergy Unit, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, Spain, ²Allergy Unit, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain, ³Research Laboratory, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, Spain

120 Value of drug provocation test in non-immediate hypersensitivity reactions to betalactams in pediatric age

Ana Prieto, MD, PhD¹, Inmaculada Doña, MD, PhD², Candelaria Muñoz, MD³, María Salas, MD, PhD⁴, Esther Barrionuevo, MD, Phd⁴, and Maria J Torres, MD, PhD⁵, ¹Pediatric Allergy Unit, Regional University Hospital of Malaga-IBIMA,UMA, Malaga, ²Allergy Unit, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, Spain, ³Pediatric Allergy Unit, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, ⁴Allergy Unit, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, ⁵Allergy Unit, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain

121 Midazolam is a major cause of intraoperative immediate hypersensitivity reactions

Ana Carolina D'Onofrio E Silva, MD¹, Cristiane Fernandes Boralli², Nathalia Coelho Portilho³, Laila Sabino Garro, MD⁴, Marisa Rosimeire Ribeiro², Manoela Crespo De Magalhaes³, Lucila Campos⁵, Antonio Abilio Motta⁶, Jorge Elias Kalil Filho, MD, PhD⁷, Pedro Giavina-Bianchi, MD, PhD, FAAAAI⁷, and Marcelo V. Aun, MD⁸, ¹University of Sao Paulo, SAo PAULO, Brazil, ²Universo of Sao Paulo, Sao Paulo, ³University of Sao Paulo, Sao Paulo, Brazil, ⁴Division of Clinical Immunology and Allergy, University of São Paulo, Brazil, Sao Paulo, ⁵University of Sao Paulo, Sao Paulo, ⁶Clinical Imunollogy and Allergy Division, University of São Paulo, Sao Paulo, Brazil, ⁷Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil, ⁸Clinical Immunology and Allergy Division - University of Sao Paulo, Sao Paulo

122 Desensitization To Cytostatic Drugs

Irene Garcia Gutierrez, MD, Maria L. Baeza, MD, PhD, Alicia Prieto, MD, PhD, and Pilar Tornero, MD, Hospital General Universitario Gregorio Maranon. Allergy Department., Madrid, Spain

123 Identification of patients eligible for penicillin skin test protocol Christine Muglia, MD¹, Sarah M. Abbassi, MD¹, Jasmine Huerta², Arun Mattappallil, PharmD³, Reena Khianey, MD¹, Alan H. Wolff, MD¹, and Eugenio Capitle, MD¹, ¹Rutgers New Jersey Medical School, Newark, NJ, ²Rutgers New Jersey Medical School, Newark, ³University Hospital, Newark, NJ



- 124 Human Factors Study of a Newly Approved Epinephrine Prefilled syringe (PFS) for the Emergency Treatment of Allergic Reactions (Type I) including Anaphylaxis Ronald B. Moss, MD, FAAAAI¹, Thomas Moll, PhD², Karen Daniels², and Dennis J Carlo, PhD³, ¹Adamis Pharmaceuticals, San Deigo, CA, ²Adamis Pharmaceuticals, San Diego, ³Adamis Pharmaceuticals, San Diego, CA
- 125 Safety of amoxicillin provocation test using the PSU 2-step challenge in children with a history of non-immediate reactions Vanlaya Koosakulchai, MD, Duangdee Wantanaset, MD, Wipa Jessadapakorn, MD, Pasuree Sangsupawanich, MD, PhD, Araya Yuenyongviwat, MD, and Thatchai Wirodwanich, MD, Allergy and Immunology Division, Department of Pediatrics, Prince of Songkla University, Songkhla, Thailand
- 126 Prospective Validation of an Algorithm for the Evaluation and Treatment of Hypersensitivity Reactions to Taxanes, Including Desensitizations

Teodorikez W. Jimenez Rodriguez, MD^{1,2}, Leticia de las Vecillas Sánchez, MD^{1,3}, Marlene Garcia-Neuer, MS¹, Cintia A. Falck-Fuentes, MD^{1,4}, Donna-Marie Lynch, NP¹, Kathleen A Marquis, Pharm PhD¹, Leila A. Alenazy, MD MMSc^{1,5}, and Mariana C. Castells, MD, PhD, FAAAAI¹, ¹Division of Rheumatology, Immunology and Allergy, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ²Division of Allergy, Alicante General University Hospital, Alicante, Spain, ³Division of Allergy, Marqués de Valdecilla University Hospital-IDIVAL, Santander, Spain, ⁴Pediatric Allergy and Immunology Department, National Institute of Pediatrics, National Autonomous University of Mexico, Mexico City, Mexico, ⁵Department of Medicine, King Khalid University Hospital, King Saud University, Riyadh, Saudi Arabia

127 Development And Implementation Of An Educational Initiative Directed To Improve Penicillin Allergy Knowledge Among Internal Medicine Residents Juline Caraballo, MD, Deanna McDanel, PharmD and Amy M.

Dowden, MD, FAAAAI, University of Iowa Hospitals and Clinics, Iowa City, IA

128 Rates of Antibiotic-Associated Infections in Patients Following Removal of their Penicillin Allergy Label Shazia Lutfeali, MD¹, Scott A. Tarver, PharmD², Kristin Alvarez, Associate Director Pharmacy², Belinda Mang, Clinical Pharmacist², Wenjing Wei, Clinical Pharmacy Specialist², and David A. Khan, MD, FAAAAI³, ¹University of Texas Southwestern Medical Center, Dallas, TX, ²Parkland Medical Center, Dallas, TX, ³University Texas SW Medical Center, Dallas, TX

129 Factors Correlated with Repeated Aspirin Dosing during Aspirin Desensitization

Charles F Schuler IV, MD, PO Box 442, Suite H-2100, University of Michigan, Division of Allergy and Clinical Immunology, Ann Arbor, MI, James L. Baldwin, MD, FAAAAI, University of Michigan Allergy Immunology Specialty Clinic, Ann Arbor, MI and Alan P. Baptist, MD MPH FAAAAI, University of Michigan, Division of Allergy and Clinical Immunology, Ann Arbor, MI

130 Paracetamol tolerance in children with non-steroidal anti-inflammatory hypersensitivity reactions Anna Paula Marques Mambriz, Federal University of Sao Paulo, Sao Paulo, Brazil

131 Immediate selective hypersensitivity reaction to Clavulanic acid in Ukrainian children

Vladyslava Barzylovych, PhD^{1,2}, Tetiana Umanets, PhD¹, Natalia Vakulenko¹, Fernando Pineda, PhD³, and Anastasia Barzylovych, PhD⁴, ¹Drug allergy Center, Institute of Pediatrics, Obstetrics and Gynaecology, Kyiv, Ukraine, ²Bohomolets National Medical Univercity, Kyiv, Ukraine, ³DIATER Laboratories, Madrid, Spain, ⁴Oberig Clinik, Kyiv, Ukraine

- 132 Methotrexate hypersensitivity- maintenance of desensitized state with daily low oral dose after rapid IV desensitization Johnson T. Wong, MD, FAAAAI, Massachusetts General Hospital, Boston, MA
- 133 Steroid Management of Allergic Reactions and Anaphylaxis in the Emergency Room

Yuk-Yue Mo, MD¹, Aricia Marie Byrd², Asfo Jr. Kwane Stephens², Wajeeha Shahid³, Mahboobeh Mahdavinia, MD, PhD⁴, and Mary C. Tobin, MD⁴, ¹Rush University Medical Center, Chicago, IL, ²Trinity School of Medicine, St. Vincent and the Grenadines, ³Dow University of Health Sciences, Pakistan, ⁴Department of Internal Medicine, Division of Allergy and Immunology, Rush University Medical Center, Chicago, IL

134 Hypersensitivity reaction to corticosteroids

Orlando Trevisan Neto¹, Janaina Michelle Lima Melo¹, Mariana Paes Leme Ferriani¹, Thais Nociti De Mendonca², Ullissis Padua De Menezes³, Débora Corazza Biazin¹, Julianne Alves Machado¹, Leilane Hoffman Nogueira¹, and Luisa Karla P. Arruda, MD, PhD, FAAAAI⁴, ¹Medical School of Ribeirão Preto, University of São Paulo, Ribeirão Preto, ²Medical School of Ribeirão Preto, University of São Paulo, Ribeirao Preto, Brazil, ³Medical School of Ribeirão Preto, University of São Paulo, Bom Fim Paulista, Brazil, ⁴Ribeirao Preto Medical School - University of Sao Paulo, Ribeirao Preto, Brazil

135 Descriptive Analysis of Diagnostic Methods In Betalactam Hypersensitivity in our Allergy Unit

Esther Barrionuevo, MD, Phd¹, Natalia I. Pérez Sánchez², Francisca Gomez, MD, PhD³, María Salas, MD, PhD¹, Maria Auxiliadora Guerrero, Mrs², Dolores Ruiz, Mrs², Angela Martin-Serrano Ortiz², and Maria Jose Torres Jaén, MD, PhD³, ¹Allergy Unit, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, ²Hospital Regional Universitario Carlos Haya, Málaga, Spain, ³Allergy Unit, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain

136 Evaluation of Morbidity and Mortality from Drug Allergies in Patient with Acute Myeloid Leukemia Maria Paula Henao, Penn State, Milton S. Hershey Medical Cen-

ter, Hershey, PA and Faoud Terrence Ishmael, MD, PhD, FAAAAI, Penn State Hershey Medical Center, Palmyra, PA

137 Prevalence Of Documented Penicillin Allergy In A Tertiary Care Center

Sarah M. Abbassi, MD¹, Christine Muglia, MD¹, August Generoso, MD¹, Arun Mattappallil, PharmD², Eugenio Capitle, MD¹, Reena Khianey, MD¹, and Alan H. Wolff, MD^{1,3}, ¹Rutgers New Jersey Medical School, Newark, NJ, ²University Hospital, Newark, NJ, ³Medical Service (111) Department of Veterans Affairs, East Orange, NJ

138 Hypersensitivity to paracetamol: placebo effect or overdiagnosis?

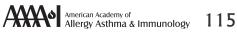
Andressa Zanandréa¹, Cláudia Castilho Mouco², João Paulo de Assis, MD², Gabriella Melo Fontes Silva Dias, MD², Raisa Borges Castro, MD², Rebeca M. Brugnolli², Jorge Kalil, MD, PhD², Antonio Abilio Motta³, Pedro Giavina-Bianchi, MD, PhD, FAAAAI⁴, and Marcelo V. Aun, MD⁵, ¹Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, ²Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ³Clinical Imunollogy and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ⁴Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil, ⁵Clinical Immunology and Allergy Division - University of Sao Paulo, Sao Paulo

139 Anaphylaxis During Surgery and Medical Procedures

Maria Gabriela Torre, MD, Hospital Britanico, Buenos Aires, Argentina

140 Retrospective Analysis of Skin and Drug Provocation Test Results of Children with Suspected Betalactam Allergy Mehtap Yazicioglu and Emre Akkelle, Trakya University, Edirne, Turkey





141 UNIT OF ALLERGY IN AN ONCOLOGY INSTITUTE. FIRST NATIONALE EXPERIENCE in SPAIN . ABOUT THE FIRST 800 DESENSITIZATIONS TO CHEMOTHERA-PEUTICS AND MONOCLONAL ANTIBODIES Enrique A Martí-Guadano, PhD, Hospital Universitario Sagrat Cor, Barcelona, Spain

142 Delayed reactions to Acetaminophen Ines Torrado¹, Ana Rodriguez Fernandez², Marcos Sanchez-Dominguez¹, Blanca Noguerado Mellado³, and Patricia Rojas Perez-Ezquerra⁴, ¹Hospital General Universitario Gregorio Marañón, Madrid, Spain, ²Hospital Gregorio Marañon, Madrid, Spain, ³HGUGM, Madrid, Spain, ⁴HGUGM, MADRID, Spain

Urticaria and Angioedema

FADDA

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Saturday, March 3rd, 2018, 9:45 AM - 10:45 AM

143 Severe Tongue Swellings In Hereditary Angioedema With A Specific Mutation In The Plasminogen Gene

Konrad Bork, MD¹, Karin Wulff², Lars Steinmueller-Magin³, Ingrid Braenne⁴, Guenther Witzke¹, and Jochen Hardt⁵, ¹Department of Dermatology, Johannes Gutenberg University, Mainz, Germany, ²University Medicine, Ernst Moritz Arndt University, Greifswald, Germany, ³Institute of Laboratory Medicine and Human Genetics, Singen, Germany, ⁴Center for Public Health Genomics, University of Virginia, Charlottesville, VA, ⁵Department of Medical Psychology and Medical Sociology, Johannes Gutenberg University, Mainz, Germany

144 Reduced D-dimer Levels In C1-esterase-inhibitor Hereditary Angioedema (C1-INH-HAE) Patients Treated With Subcutaneous C1-esterase-inhibitor (C1-INH[SC]): Findings From The COMPACT Study

Avner Reshef, Sheba Medical Center, Ramat Gan, Israel, Marco Cicardi, MD, Università di Milano, Milano, Italy, Bruce L. Zuraw, MD, University of California San Diego, La Jolla, CA, Timothy Craig, DO, FAAAAI, AOA, Penn State Hershey Medical Center, Hershey, Hilary Longhurst, Barts Health NHS Trust, London, United Kingdom, Teresa Caballero, MD, PhD, Hospital La Paz Institute for Health Research (IdiPaz), Madrid, Spain, Henriette Farkas, Semmelweis University of Budapest, Budapest, Hungary, John-Philip Lawo, CSL Behring, Marburg, Germany, Iris Jacobs, MD, CSL Behring, King of Prussia and Ingo Pragst, MD, CSL Behring, King of Prussia, PA

145 Initiation of Prophylactic Treatment with Subcutaneous C1-Esterase Inhibitor (C1-INH [SC]) for Prevention of Hereditary Angioedema (HAE) Attacks and Onset of Effect: Findings from the Phase III COMPACT Study

Huamin Henry Li, MD, PhD, FAAAAI, Institute for Asthma and Allergy, Chevy Chase, MD, Marc A. Riedl, MD MS, UCSD School of Medicine, La Jolla, CA, Timothy Craig, DO, FAAAAI, AOA, Penn State College of Medicine, Hershey, PA, Hilary J Longhurst, MA, FRCP, PhD, FRCPath, Barts Health NHS Trust, London, United Kingdom, Marco Cicardi, MD, Department of Biomedical and Clinical Sciences, Luigi Sacco Hospital, University of Milan, ASST Fatebenefratelli Sacco, Milan, Italy, Bruce L. Zuraw, MD, Division of Rheumatology, Allergy and Immunology, University of California – San Diego School of Medicine, La Jolla, CA and Henrike Feuersenger, PhD, CSL Behring, Marburg, Germany

146 Prevention of Attacks of Hereditary Angioedema (HAE) with Subcutaneous C1-Esterase Inhibitor (C1-INH [SC]) by

Anatomical Location: Results From the Phase III COMPACT Study (NCT01912456)

Donald S. Levy, MD, University of California, Irvine, Orange, CA, Orange, CA, Joseph Chiao, MD, CSL Behring, King of Prussia, PA, Henrike Feuersenger, PhD, CSL Behring, Marburg, Germany, Timothy Craig, DO, FAAAAI, AOA, Penn State Hershey Medical Center, Hershey, Hilary J Longhurst, MA, FRCP, PhD, FRCPath, Barts Health NHS Trust, London, United Kingdom, Marco Cicardi, MD, Department of Biomedical and Clinical Sciences, Luigi Sacco Hospital, University of Milan, ASST Fatebenefratelli Sacco, Milan, Italy, Bruce L. Zuraw, MD, Division of Rheumatology, Allergy and Immunology, University of California – San Diego School of Medicine, La Jolla, CA and Iris Jacobs, MD, CSL Behring, King of Prussia

147 The Autologous Serum Skin Test as a Prognostic Factor for the Severity and Duration of Chronic Urticaria after five years of Follow-up

Karen Milena Lozano Mosquera¹, Beatriz Moya Camacho¹, Ruth Mielgo Ballesteros¹, Alicia Enriquez Matas, MD², Miguel Angel Díaz¹, Consuelo Fernández Rodríguez³, and Lys Herraez¹, ¹Hospital universitario 12 de Octubre, Madrid, Spain, ²Hospital universitario 12 de octubre, Madrid, Spain, ³Hospital universitario12 de Octubre, Madrid, Spain

148 In silico Analysis Of Alterations In ANGPT1 Gene Supports A New Pathway Responsible To Mediate Hereditary Angioedema In Brazilian Patients With No Mutations In SERPING1 And F12 Genes

Nathália Cagini, MsC¹, Camila Lopez Veronez, PhD¹, Bruna Franca Azevedo¹, Rosemeire Navickas Constantino-Silva, PhD², Renan Paulo Martin, PhD¹, Jane da Silva, PhD³, Anete S. Grumach, PhD⁴, and João Bosco Pesquero, PhD⁵, ¹Federal University of São Paulo, São Paulo, Brazil, ²Faculty of Medicine - ABC, Santo André, Brazil, ³University of South of Santa Catarina, Florianópolis, Brazil, ⁴Clinical Immunology, Faculty of Medicine ABC, Sao Paulo, Brazil, ⁵Federal University of São Pauloe, São Paulo, Brazil

149 Cinryze is Efficacious for Hereditary Angioedema (HAE) Attack Prevention In Pediatric Patients: Final Phase 3 Efficacy And Safety Results

Emel Aygören-Pürsün, MD¹, Daniel F. Soteres, MD, FAAAAI², Sandra Nieto–Martinez³, Jim Christensen, MD, FAAAAI⁴, Kraig W. Jacobson, MD, FAAAAI⁵, Dumitru Moldovan, MD, PhD⁶, Arthur Van Leerberghe⁷, Tom Tang⁷, Peng Lu, MD, PhD⁷, and Inmaculada Martinez-Saguer, MD⁸, ¹Department for Children and Adolescents, Angioedema Centre, University Hospital Frankfurt, Goethe University, Frankfurt, Germany, ²Asthma and Allergy Associates, P. C., Colorado Springs, CO, ³Instituto Nacional de Pediatria, Unidad de Genetica de la Nutricion, Mexico City, Mexico, ⁴Nevada Access to Research & Education Society, Las Vegas, NV, ⁵Oregon Allergy Associates, Allergy and Asthma Research Group, Eugene, OR, ⁶University of Medicine and Pharmacy, Tirgu Mures, Romania, ⁷Shire, Lexington, MA, ⁸Haemophilia Centre Rhine Main, Mörfelden-Walldorf, Germany

150 Efficacy of lanadelumab in patients switching from long-term prophylaxis with C1-inhibitor (C1-INH): results from the phase 3 HELP Study

Douglas T. Johnston, DO FAAAAI¹, John T. Anderson, MD², Jennifer Schranz, MD³, Christina Nurse, PhD³, and Marco Cicardi, MD⁴, ¹Clinical Research of Charlotte, Charlotte, NC, ²Alabama Allergy & Asthma Center, Birmingham, AL, ³Shire, Lexington, MA, ⁴Department of Biomedical and Clinical Sciences, Luigi Sacco Hospital, University of Milan, ASST Fatebenefratelli Sacco, Milan, Italy

151 Consistent Lanadelumab Treatment Effect In Patients With Hereditary Angioedema (HAE) Regardless Of Baseline Attack Frequency In The Phase 3 HELP Study

Marc A. Riedl, MD MS¹, Raffi Tachdjian, MD MPH², Jennifer Schranz, MD³, Christina Nurse, PhD³, and Jonathan A. Bernstein,



MD, FAAAAI⁴, ¹UCSD School of Medicine, La Jolla, CA, ²UCLA School of Medicine, Los Angeles, CA, ³Shire, Lexington, MA, ⁴University of Cincinnati College of Medicine, Cincinnati, OH

152 Lanadelumab Markedly Improves Health-related Quality of Life in Hereditary Angioedema Patients in the HELP Study

William R. Lumry, MD, FAAAAI¹, Karsten Weller, MD², Markus Magerl, MD³, Jennifer Schranz, MD⁴, Gagan Jain⁴, Helen Doll⁵, and Marcus Maurer, MD², ¹Allergy and Asthma Research Associates Research Center, Dallas, TX, ²Department of Dermatology and Allergy, Allergie-Centrum-Charité, Charité–Universitätsmedizin Berlin, Berlin, Germany, ³Charité Universitätsmedizin Berlin, Berlin, Germany, ⁴Shire, Lexington, MA, ⁵ICON plc, Oxford, United Kingdom

- 153 Cooperative Effects between CRTh2 and CCR3 on Eosinophils and Basophils in Chronic Spontaneous Urticaria Eric T. Oliver, MD, Kristin L. Chichester, MS and Sarbjit Singh Saini, MD, FAAAAI, Department of Medicine, Division of Allergy and Clinical Immunology, Johns Hopkins University School of Medicine, Baltimore, MD
- 154 Drug-induced urticaria (DIU) and angioedema in Latin American Countries

Edgardo J. Jares, MD¹, Mario Sanchez-Borges, MD, FAAAAI², R Maximiliano Gomez, MD, PhD3, Carlos D. Serrano, MD4, Luis Felipe C. Ensina, MD⁵, Ivan Cherrez- Ojeda, MD⁶, Jonathan A. Bernstein, MD, FAAAAI7.8, Alicia Mabel De Falco, MD9, Mabel Noemi Cuello, MD¹⁰, Blanca Maria Del Refugio Morfin Maciel, MD, FAAAAI11, Alfredo Arias Cruz, MD, FAAAAI12, Ricardo Cardona Villa13, Sandra Nora González- Diaz, MD, PhD, FAAAAI FA-CAAI, EAACI14, Alejandra Macias-Weinmann, MD15, Silvana Beatriz Monsell¹, Galie E. Mimessi, MD¹⁶, Raul Adolfo Salvatierra, MD17, Andrea Zanacchi18, Luis F Ramirez Zuluaga19, Norma Susana de Barayazarra, MD¹⁸, Juan F. Schuhl, MD, FAAAAI²⁰, Paola A. Toche Pinaud²¹, Susana Diez²², Miguel Angel Vinuesa, MD²³, Mara Morelo Rocha Felix²⁴, and Ada Del Castillo Mendez, MD25, ¹LIBRA FOUNDATION, Buenos Aires, Argentina, ²Centro Médico Docente La Trinidad, Caracas, Venezuela (Bolivarian Republic of), ³Instituto Médico Alas, Salta, Argentina, ⁴Fundacion Valle Del Lili, Cali, Colombia, 5FEDERAL UNIVERSITY OF SAO PAULO, SAO PAULO, Brazil, ⁶Kennedy Hospital, Guayaquil, Ecuador, 7Bernstein Allergy Group, Inc, Cincinnati, OH, 8University of Cincinnati, Cincinnati, OH, 9Hosp. Interzonal de Agud. Prof. Rossi, La Plata, Argentina, ¹⁰Hospital Infantil, San Juan, Argentina, ¹¹Hospital Angeles Mocel, Mexico, Mexico, ¹²Universidad Autonoma de Nuevo Leon, Monterrey, Mexico, ¹³Universidad De Antioquia, Medellin, Colombia, 14 Hospital Universitario Monterrey, NL UANL, Monterrey, Mexico, 15 Hospital Universitario UANL, Monterrey, Mexico, 16 Instituto Alas, Salta, Argentina, ¹⁷Centro Médico Bolivar, San Luis, Argentina, ¹⁸Hospital San Roque, Cordoba, Argentina, 19Fundación Valle de Lili, Cali, Colombia, ²⁰Avda Italia 2420, British Hospital, Montevideo, Montevideo, Uruguay, ²¹Hosp. J.J.Aguirre, Providencia, Chile, ²²Uni- versidad de Antioquia, Medellin, Colombia, ²³Htal. Zonal de Lobos & Consultorio, Lobos Pcia., Argentina, ²⁴ASBAI, Rio de Janeiro, Brazil, 25Salvador Allende General Hospital, C. de La Habana, Cuba

155 Validity and Responsiveness of Urticaria Activity and Impact Measure (U-AIM), a New Patient-Reported Tool to Assess Disease Activity and Impact in Patients with Chronic Spontaneous/ Idiopathic Urticaria (CSU/CIU)

Marcus Maurer, MD¹, Evgeniya N. Antonova, PhD, MS², Susan D. Mathias, MPH³, Ross D. Crosby, PhD⁴, and James L. Zazzali, PhD, MPH², ¹Charite - Universitätsmedizin Berlin, Berlin, Germany, ²Genentech, Inc., South San Francisco, CA, ³Health Outcomes Solutions, Winter Park, FL, ⁴Neuropsychiatric Research Institute, Fargo, ND

156 Real-life experience with recombinant human C1-inhibitor in treatment of hereditary angioedema with C1-inhibitor deficiency

Henriette Farkas, MD, PhD, DSc, Nora Veszeli, Kinga V Kőhalmi and Lilian Varga, Hungarian Angioedema Center, 3rd Department of Internal Medicine, Semmelweis University, Budapest, Hungary

157 Association Between Systemic Lupus Erythematosus and Angioedema in Hospital Settings: A Nationwide Study Xiaowen Fan¹, Yiming Luo¹, and Jiehui Xu², ¹Mount Sinai St Luke's and Mount Sinai West, Icahn School of Medicine at Mount Sinai, New York, NY, ²Mailman School of Public Health, Columbia University Medical Center, New York, NY

158 Use Of Central Venous Access Devices (CVAD) And Associated Outcomes In Hereditary Angioedema (HAE) Patients: Findings From A Large United States (US) Claims Database

Douglas J. Watson¹, Marc A. Riedl, MD MS², Aleena Banerji, MD³, Michael E. Manning⁴, Earl Burrell⁵, Namita Joshi⁶, Dipen Patel⁶, Thomas Machnig⁷, and Ming-Hui Tai⁶, ¹CSL Behring, King of Prussia, PA, ²UCSD School of Medicine, La Jolla, CA, ³Massachusetts General Hospital, Boston, MA, ⁴Medical Research of Arizona, Allergy, Asthma & Immunology Associates, Scottsdale, AZ, ⁵Amgen, CA, ⁶Pharmerit International, Bethesda, Bethesda, MD, ⁷CSL Behring, Marburg, Germany

- 159 Genetic variants of *VDR* and vitamin D insufficiency are associated with chronic spontaneous urticaria in Colombian adults Eduardo Egea, MD, PhD¹, Luis Fang, DDS, MSc.¹, Nicole Pereira-Sanandres^{1,2}, Fernando R De la cruz-Lopez^{1,2}, Sofia Moreno-Woo¹, and Gloria Garavito-De Egea, MD, PhD¹, ¹Division of health sciences. Universidad del Norte, Barranquilla, Colombia, ²Universidad Simon Bolivar, Barranquilla, Colombia
- 160 Clinical Characteristics of Patients in Allergy Clinic with Presumed Diagnosis of Mast Cell Activation Syndrome (MCAS) Kristine K Arndt, MD, Ravi K. Viswanathan, MD, and Sameer K Mathur, MD, PhD, FAAAAI, Department of Medicine, Division of Allergy, Pulmonary and Critical Care Medicine, University of Wisconsin School of Medicine and Public Health, Madison, WI

161 Subgroup Analysis Identifies Differences Between Sexes In How CIU Patients Respond To Omalizumab Sarbjit Singh Saini, MD, FAAAAI¹, Benjamin L. Trzaskoma, MS², and Noelle M. Griffin, PhD², ¹Department of Medicine, Division of Allergy and Clinical Immunology, Johns Hopkins University School of Medicine, Baltimore, MD, ²Genentech, Inc., South San Francisco, CA

162 The influence of individualized treatment on the quality of life (QoL) in 100 patients with Hereditary Angioedema (HAE C1-INH)

Inmaculada Martinez Saguer¹, Carmen Escuriola Ettingshausen², Zeynep Gutowski², and Richard Linde², ¹Hämophilie Zentrum Rhein Main (HZRM), Moerfelden-Walldorf, Germany, ²Hemophilia Centre Rhine Main, Moerfelden-Walldorf, Germany

163 Development of a New Tool for Assessing Health-Related Quality of Life (QoL) in Patients with Hereditary Angioedema (HAE): The United States HAE Association (HAEA)-QoL Sandra C. Christiansen, MD, FAAAAI, University of California, San Diego, Del Mar, CA, Paula J. Busse, MD, FAAAAI, Mount Sinai School of Medicine, New York, NY, Janette Birmingham, MS, Mount Sinai School of Medicine, New York, Aleena Banerji, MD, Massachusetts General Hospital, Boston, MA, William R. Lumry, MD, FAAAAI, Allergy and Asthma Specialists, Dallas, TX and Bruce L. Zuraw, MD, University of California San Diego, La Jolla, CA

164 Subcutaneous (SC) vs Intravenous (IV) C1-esterase-inhibitor (C1-INH) Replacement Treatment For The Prevention Of Attacks Of Hereditary Angioedema (HAE): A Population-based Exposure-response Analysis



Bruce L. Zuraw, MD¹, Marco Cicardi, MD², Timothy J. Craig³, Hilary J Longhurst, MA, FRCP, PhD, FRCPath⁴, William R. Lumry⁵, Jonathan A. Bernstein, MD, FAAAAI⁶, Ying Zhang⁷, and Dipti K. Pawaskar, PhD⁷, ¹University of California San Diego, La Jolla, CA, ²Università degli Studi di Milano, Milan, Italy, ³Penn State Hershey Medical Center, Hershey, ⁴Barts Health NHS Trust, London, United Kingdom, ⁵Allergy & Asthma Specialists, Dallas, TX, ⁶Bernstein Clinical Research Center and University of Cincinnati, Cincinnati, OH, ⁷CSL Behring, King of Prussia

165 Long term efficacy of Omalizumab for patients with refractory chronic urticaria and angioedema

Zhen Ren, MD, Ph.D and H. James Wedner, MD, FAAAAI, Washington University School of Medicine, Saint Louis, MO

- 166 Angioedema in patients with chronic spontaneous urticaria: assessment of disease severity and response to treatment João Paulo de Assis, MD¹, Gabriella Melo Fontes Silva Dias, MD¹, Claudia Castilho Mouco¹, Andressa Zanandréa², Raisa Borges Castro, MD¹, Jorge Kalil, MD, PhD³, Antonio Abilio Motta^{3,4}, and Rosana C. Agondi, MD, PhD⁵, ¹Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ²Clinical Immunology and Allergy Division, University of Sao Paulo, Brazil, ⁴Clinical Immunology and Allergy Division, University of São Paulo, Brazil, ⁵Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil, ⁵Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil
- 167 Safety of Recombinant Human C1 Esterase Inhibitor for Hereditary Angioedema Attacks in Pregnant Women Dumitru Moldovan, MD, PhD, MediQuest Clinical Research, Sangeorgiu de Mures, Romania, Jonathan A. Bernstein, MD, FAAAAI, University of Cincinnati, Cincinnati, OH, Roman Hakl, MD, St. Anne's University Hospital in Brno, Faculty of Medicine, Masaryk University, Brno, Czech Republic, Luca Bellizzi, Pharming Group NV, Leiden, Netherlands and Anurag Relan, Pharming Healthcare Inc., Bridgewater, NJ
- 168 Characterization Of Hereditary Angioedema Attacks Requiring Reinjection Of Icatibant: Findings From The Icatibant Outcome Survey

Irmgard Andresen, MD¹, Hilary J Longhurst, MA, FRCP, PhD, FRCPath², Laurence Bouillet, MD, PhD³, Teresa Caballero, MD, PhD^{4,5}, Andrea Zanichelli, MD⁶, Marcus Maurer, MD⁷, Anete S. Grumach, PhD⁸, Anette Bygum, MD⁹, Jaco Botha¹, and Werner Aberer, MD¹⁰, ¹Shire, Zug, Switzerland, ²Department of Immunology, Barts Health NHS Trust, London, United Kingdom, ³Grenoble University Hospital, Grenoble, France, ⁴Biomedical Research Network on Rare Diseases (CIBERER, U754), Madrid, Spain, ⁵Allergy Department, Hospital La Paz Institute for Health Research (IdiPaz), Madrid, Spain, ⁶Department of Biomedical and Clinical Sciences Luigi Sacco, University of Milan, Luigi Sacco Hospital, Milan, Italy, ⁷Department of Dermatology and Allergy, Allergie-Centrum-Charité, Charité-Universitätsmedizin Berlin, Berlin, Germany, ⁸Clinical Immunology, Faculty of Medicine ABC, Sao Paulo, Brazil, ⁹Department of Dermatology and Allergy Centre, Odense University Hospital, Odense, Denmark, ¹⁰Department of Dermatology and Venereology, Medical University of Graz, Graz, Austria

169 Healthcare Resource Utilization Among a US Cohort Treated for Hereditary Angioedema, 2010-2015 Raffi Tachdjian¹, Karin Johnson², Deborah Casso², Susan Oliveria³, Giovanna Devercelli⁴, and Gagan Jain⁴, ¹UCLA School of Medicine, Los Angeles, CA, ²QuintilesIMS, Seattle, WA, ³QuintilesIMS, New York, NY, ⁴Shire, Lexington, MA

170 The Urticaria Control Test as a Tool for Monitoring Chronic Idiopathic/Spontaneous Urticaria Treatment: Results From XTEND-CIU, a 48-Week, Randomized, Placebo-controlled Study Allen P. Kaplan, MD, FAAAAI¹, Thomas B. Casale, MD, FAAAAI², Jonathan A. Bernstein, MD, FAAAAI³, Michael Holden, MD, MS⁴, Ahmar Iqbal, MD⁴, Benjamin L. Trzaskoma, MS⁴, and Marcus Maurer, MD⁵, ¹Medical University of South Carolina, Charleston, SC, ²University of South Florida Morsani College of Medicine, Tampa, FL, ³Berstein Clinical Research Center and the University of Cincinnati, Cincinnati, OH, ⁴Genentech, Inc., South San Francisco, CA, ⁵Dpt. of Dermatology and Allergy Allergie-Centrum-Charité Charité - Universitätsmedizin Berlin, Berlin, Germany

171 Serum levels of leptin, adiponectin and vitamin D in Colombian adults with chronic urticaria

Luis Fang, DDS, MSc.¹, Eduardo Egea, MD, PhD¹, Nicole Pereira-Sanandres^{1,2}, Fernando R De la cruz-Lopez^{1,2}, Sofia Moreno-Woo¹, and Gloria Garavito-De Egea, MD, PhD¹, ¹Division of health sciences. Universidad del Norte, Barranquilla, Colombia, ²Universidad Simon Bolivar, Barranquilla, Colombia

172 CHRONIC URTICARIA IN CHILDREN: ARE THERE DIF-FERENCES IN COMPARISON WITH ADULTS?

Pamela P. Silva¹, Lais Gomes Japiassú², Patrícia Guerzet Ayres Bastos², Luis Felipe C. Ensina, MD³, Ines Cristina Camelo Nunes², Dirceu Sole, MD, PhD, FAAAAI⁴, Barbara Martins de Aquino², Chayanne Andrade de Araújo², Alex Eustáquio de Lacerda², and Marina Medeiros Caputo², ¹UNIFESP, São Paulo, Brazil, ²UNI-FESP, São Paulo, ³Universidade Federal de São Paulo, São Paulo, Brazil, ⁴Federal University of São Paulo, Sao Paulo, Brazil

- 173 Distinguishing Features of Patients with Comorbid Urticaria and Angioedema Versus Isolated Urticaria and Angioedema Jennifer E. Boeckman, DO, Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA; 4401 Penn Avenue, Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA, Shari V. Montandon, DO, Asthma and Allergy of Idaho, Coeur D'Alene, ID, Andrej Petrov, MD, 4th Floor, University of Pittsburgh Medical Center, Pittsburgh, PA and Merritt L. Fajt, MD, FAAAAI, University of Pittsburgh Medical Center, Pittsburgh, PA
- 174 Omalizumab for management of chronic urticaria in a pediatric population: a case-series

Jason El Bilali, MSc¹, Sofianne Gabrielli, MSc^{2,3}, Greg Shand, BSc, MSc², Elena Netichoprouk¹, and Moshe Ben-Shoshan, MD, MSc⁴, ¹McGill University, Montreal, ²The Research Institute of the McGill University Hospital Centre, Montreal, QC, Canada, ³McGill University Health Centre, Montreal, QC, Canada, ⁴Division of Pediatric Allergy and Immunology, Department of Pediatrics, Montreal Children's Hospital, Montreal, QC, Canada

175 Clinical evolution of patients with chronic spontaneous urticaria steroid-dependent

Raisa Borges Castro, MD¹, Rafaella amorim gaia Duarte, MD², Andressa Zanandréa³, Claudia Castilho Mouco¹, Joao Paulo de Assis², Gabriella Melo Fontes Silva Dias, MD¹, Franciane Almonfrey, MD², Rebeca M. Brugnolli¹, Jorge Kalil, MD, PhD¹, and Rosana C. Agondi, MD, PhD⁴, ¹Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ²Clinical Imunollogy and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ³Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, ⁴Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil

- Burden Of Hereditary Angioedema In The Quality Of Life Among Puerto Ricans
 Yanira M. Arce-Ayala, MD¹, Sylvette Nazario, MD², and Cristina J. Ramos-Romey, MD¹, ¹University of Puerto Rico, San Juan, PR, ²University of Puerto Rico-Medical Sciences Campus, San Juan, PR
- 177 Acute Respiratory Reactions Triggered by NSAIDs in Patients With Chronic Spontaneous Urticaria Exacerbated by NSAIDs Mariele Lopes, Pamella Diogo-Salles, Jorge Kalil, MD, PhD, Antonio Abilio Motta and Rosana C. Agondi, MD, PhD, Clinical

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Immunology and Allergy Division, University of São Paulo School of Medicine, Sao Paulo, Brazil, Sao Paulo

178 Long-Term Prophylaxis with Recombinant Human C1 Inhibitor in Patients with Hereditary Angioedema: Is Intramuscular Administration an Option?

Anna Valerieva, Borislava Krusheva, MD, and Maria Staevska, Medical University of Sofia, Clinic of Allergy and Asthma, Sofia, Bulgaria

179 Pharmacokinetic Profile of Subcutaneous C1-Esterase Inhibitor (C1-INH [SC]) in Adolescent and Adult Patients with Hereditary Angioedema (HAE)

Dipti K. Pawaskar, PhD¹, Iris Jacobs, MD¹, Ingo Pragst, MD², and Henrike Feuersenger, PhD³, ¹CSL Behring, King of Prussia, ²CSL Behring, King of Prussia, PA, ³CSL Behring, Marburg, Germany

180 Burden of Hereditary Angioedema: Findings From a US Patient Survey

Giovanna Devercelli¹, Kimberly Davis², Michelle Brown², Kelly Hollis², Shannon Hunter², Janet Long³, Gagan Jain¹, and Aleena Banerji⁴, ¹Shire, Lexington, MA, ²RTI Health Solutions, Research Triangle Park, NC, ³US Hereditary Angioedema Association, Fairfax City, VA, ⁴Massachusetts General Hospital, Boston, MA

181 Is There a Difference in Omalizumab Treatment Response in Patients With Chronic Autoimmune Urticaria vs Chronic Spontaneous Urticaria?

Kiranjit K. Khalsa, MD¹, Gargi Patel², Natalia Testo, MD², and Muhammad A. Pasha, MD, FAAAAl³, ¹Albany Medical Center, Albany, NY, ²Albany Medical College, Albany, ³Albany Medical College, Albany, NY

182 The Predictability of Attacks in Patients with Hereditary Angioedema

Markus AK Magerl, MD¹, Marc A. Riedl, MD MS², Scott D. Newcomer, MS³, Dylan Supina, PhD⁴, and Girishanthy Krishnarajah, MPH, MBA/MS, PHD⁴, ¹Department of Dermatology and Allergy, Charité – Universitätsmedizin, Berlin, Germany, ²UCSD School of Medicine, La Jolla, CA, ³Davenport Scientific Services, LLC, West Chester, PA, ⁴CSL Behring, King of Prussia, PA

183 Effect of Antileukotriene Agents in Chronic Urticaria-Isolated Angioedema Phenotype Ayobami T Akenroye, MD MPH¹, Conor McEwan², and Sarbjit Singh Saini, MD, FAAAAI¹, ¹Department of Medicine, Division of Allergy and Clinical Immunology, Johns Hopkins University

School of Medicine, Baltimore, MD, ²Johns Hopkin Asthma and Allergy Center, Baltimore, MD 4 Long-term Safety Outcomes of Prekallikrein Deficiency: A Sys-

184 Long-term Safety Outcomes of Prekallikrein Deficiency: A Systematic Literature Review

Moshe Vardi¹, Antonio Girolami², Dan Sexton¹, Catherine Rolland³, and Jonathan A. Bernstein, MD, FAAAAI⁴, ¹Shire, Lexington, MA, ²University of Padua Medical School, Padua, Italy, ³Envision Pharma Group, London, United Kingdom, ⁴University of Cincinnati College of Medicine, Cincinnati, OH

 185 Is Intramuscular Administration of Recombinant Human C1-Inhibitor an Alternative for the Treatment of Acute Attacks in Patients with Hereditary Angioedema? Maria Staevska and Anna Valerieva, Medical University of Sofia, Clinic of Allergy and Asthma, Sofia, Bulgaria
 186 Chronic spontaneous urticaria and autoimmunity: a follow up

Chrome spontaneous uritearia and autommunity: a follow up study of patients with chronic urticaria for 16 years Claudia Castilho Mouco¹, Andressa Zanandréa², João Paulo de Assis, MD¹, Raisa Borges Castro, MD¹, Gabriella Melo Fontes Silva Dias, MD¹, Jorge Kalil, MD, PhD³, Antonio Abilio Motta³, and Rosana C. Agondi, MD, PhD⁴, ¹Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ²Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, ³Clinical Imunollogy and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ⁴Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil 187 An Observational Study to Understand Patient and Physician Communication in Hereditary Angioedema (HAE) Gagan Jain¹, Lauren Walter², Carolyn Reed², and Pattie O'Donnell², ¹Shire, Lexington, MA, ²Verilogue, Horsham

188 Etiology of Chronic Urticaria in Latin America, Ecuadorian experience

Annia Cherrez¹, Emanuel Vanegas^{1,2}, Miguel Felix¹, Valeria Mata¹, Leonardo Greiding, MD, FAAAAl³, René Maximiliano Gómez, SLaai^{4,5}, and Ivan Cherrez^{1,2}, ¹Respiralab, Guayaquil, Ecuador, ²Universidad Especialidades Espíritu Santo, Samborondón, Ecuador, ³Instituto Argentino de Alergie E Inmunologia, Buenos Aires, Argentina, ⁴Fundación AYRE, Salta, Argentina, ⁵Hospital San Bernardo, Salta, Argentina

189 Cold contact urticaria: association of positive ice cube test and autoimmunity

Rebeca M. Brugnolli¹, Pamella Diogo Salles², Larissa P Cau, MD^{2,3}, Raisa B Castro², Jorge Elias Kalil Filho, MD, PhD², Antonio Abilio Motta², and Rosana C. Agondi, MD, PhD⁴, ¹Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ²Clinical Imunollogy and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ³Clinical Immunology and Allergy Department, University of Sao Paulo, Sao Paulo, Brazil, ⁴Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, Sao Paulo, Brazil

Asthma Treatment and Control

HEDQ

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20 Comparison the Change of Lung Function between Morning and Evening Dosing of Once-daily Inhaled Corticosteroids in Patients with Asthma: A Systemic Review and Meta-analysis Jonghoo Lee, Jeju National University Hospital, Jeju, Korea, Republic of (South) and Jae-Uk Song, Kangbuk Samsung Hospital, Seoul, Korea, Republic of (South)

191 Validation of The Asthma Adherence Management Model (AAMM)

Andrew G. Weinstein, MD, FAAAAI¹, Deborah A. Gentile, MD², Anil Singh³, David P. Skoner, MD⁴, Jennifer Maiolo³, Rihab Sharara⁵, Kiet Ma³, Tariq Cheema⁶, Erica Butler², and Allison Kong³, ¹Asthma Management Systems, Rockland, DE, ²Pediatric Alliance, Pittsburgh, PA, ³Allegheny Health Network, Pittsburgh, PA, ⁴West Virginia University School of Medicine, Morgantown, WV, ⁵Allegheny Health Networky, Pittsburgh, PA, ⁶Allegheny health Network, Pittsburgh, PA

192 Inhaled Corticosteroid Adherence: The Role of Perceived Control of Asthma

Sara E. Voorhees, MS^{1,2}, Christine M Nezu, PhD, ABPP¹, Arthur M Nezu, PhD, ABPP, DHL¹, Michael Sherman, MD³, Jessica Most, MD³, and Ellen R. Sher, MD, FAAAAI, CPI^{3,4}, ¹Drexel University, Philadelphia, PA, ²University of Florida, Gainesville, FL, ³Drexel University College of Medicine, Philadelphia, PA, ⁴Allergy Partners of NJ, Ocean, NJ

193 Real-Life Patterns of Asthma Controller Use Vary by Age, Time of Day and Season

Leanne Kaye, PhD¹, Heather Hoch, MD², Stanley J. Szefler, MD, FAAAAI², William Anderson, MD³, Meredith Barrett, PhD¹, David Van Sickle, PhD⁴, and David A. Stempel, MD, FAAAAI¹, ¹Propeller Health, San Francisco, CA, ²University of Colorado School of Medicine and Children's Hospital Colorado, Aurora, CO, ³Allergy



Section, University of Colorado School of Medicine and Children's Hospital Colorado, Aurora, CO, ⁴Propeller Health, Madison, WI

- 194 Allergy to mosquito bites and association with asthma and allergic diseases in children from Havana. Population-based study Silvia J. Venero Fernandez, National Institute Hygiene, Epidemiology and Microbiology, Havana, Cuba
- 195 Real-Life Patterns of Short-Acting Beta-Agonist Use in Persistent Asthmatics Vary by Age, Time of Day, and Season William Anderson, MD¹, John Brinton, PhD², Leanne Kaye, PhD³, Heather Hoch, MD⁴, Meredith Barrett, PhD³, David Van Sickle, PhD⁵, Stanley J. Szefler, MD, FAAAAI⁴, and David A. Stempel, MD, FAAAAI³, ¹Allergy Section, University of Colorado School of Medicine and Children's Hospital Colorado, Aurora, CO, ²University of Colorado School of Public Health, Aurora, CO, ³Propeller Health, San Francisco, CA, ⁴University of Colorado School of Medicine and Children's Hospital Colorado, Aurora, CO, ⁵Propeller Health, Madison, WI
- 196 Patient-Reported Outcomes And Quality Of Life Improvements In Patients With Asthma Receiving A New, Breath-Actuated Beclomethasone Dipropionate Inhaler

Jeffrey P. Tillinghast, MD¹, Craig F. LaForce, MD², Lisa Hickey, MS³, and Calvin J. Small, MD, MS³, ¹The Clinical Research Center, St Louis, MO, ²North Carolina Clinical Research, Raleigh, NC, ³Teva Pharmaceuticals Industries, Malvern, PA

Food Allergy and Anaphylaxis

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197 Rising Prescription Rates of Self-injectable Epinephrine in a Tertiary Referral Center

Fonda Jiang, MD, VA Greater Los Angeles Allergy and Immunology, Los Angeles, CA, Brad Kimura, MD, VA Greater Los Angeles Healthcare System, Los Angeles, CA, Payam Bokhoor, MD, VA Greater Los Angeles, Los Angeles, CA, Andrew Q. Pham, MD, VA Greater Los Angeles Healthcare Center, Los Angeles, CA and Joseph S Yusin, MD, FAAAAI, VA Greater Los Angeles Health Care System, Los Angeles, CA

198 Caregiver Perceptions of Epinephrine Autoinjector Training Gretchen A. Harmon, MD, Thomas Jefferson University Hospital, Philadelphia, PA; Nemours A.I. duPont Hospital for Children, Wilmington, DE and Magee L. DeFelice, MD, Nemours/AI duPont Hospital for Children, Wilmington, DE

199 A Comparison of Clinical Manifestations between Childhood and Adult Onset Shrimp Allergy Jintana Chataroopwijit, MD¹, Pantipa Chatchatee, MD², Pornphan Paurika, MD³, Jaichat Mekaroonkamol, MD², Jarungchit Ngamphaiboon, MD², and Narissara Suratannon, MD⁴, ¹Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, bangkok, Thailand, ²Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, ³Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Bangkok, ⁴Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

200 Oral allergy syndrome in birch pollen sensitized patients in Korea: Results of a Retrospective Chart Review Yoon Seok Chang¹, Jung-hyun Kim¹, Woo-Jung Song², Sung-Yoon Kang², Sae Hoon Kim, MD¹, Heung-Woo Park², and Sang Heon Cho², ¹Seoul National University Bundang Hospital, Seongnam, Korea, Republic of (South), ²Seoul National University Hospital, Seoul, Korea, Republic of (South)

201 Food Allergic Patient's Perception of the Scientific and Alternative Therapies in Social Media

Alberto Alvarez-Perea, MD, PhD, Paula Cabrera-Freitag, MD, PhD, Victoria Fuentes-Aparicio, MD, Sonsoles Infante, MD, Oliver Muñoz-Daga, MD, Lydia Zapatero, MD, PhD, and Jose Manuel Zubeldia, MD, PhD, Allergy Service, Hospital General Universitario Gregorio Marañón, Madrid, Spain

202 Validation of the Brazilian Versions of the Food Allergy Quality of Life Questionnaires

Raquel B. Mendonca¹, Roseli O. S. Sarni¹, and Dirceu Sole, MD, PhD, FAAAAl², ¹Federal University of Sao Paulo, Sao Paulo, Brazil, ²Federal University of São Paulo, Sao Paulo, Brazil

- 203 When Does The Milk Allergy Go Away? Patterns Of Resolution Of Non-IgE Milk Protein Induced Colitis Andrew Pidutti¹, Stephanie L. Vakaljan, BSc.², and Jason A. Ohayon, MD FRCPC², ¹McMaster University, Hamilton, ON, ²Hamilton Allergy, Hamilton, ON, Canada
 204 Evoluction of an Educational Intervention Introducing New
- 204 Evaluation of an Educational Intervention Introducing New Food Allergy Guidelines for Pediatric Residents at an Academic Center

Parisa Kaviany, MD¹, Hemant P. Sharma, MD MHS FAAAAI², and Burcin Uygungil, MD MPH¹, ¹Children's National Health Systems, Washington, DC, ²Children's National Medical Center, Washington, DC

205 Food allergy related clinical outcomes in relation with empowerment of parents with food-allergic children

Alice N Hackett, MD¹, Opal J Kamdar², Betty Andy-Nweye³, Sukruthi Jois³, Ruchi S. Gupta, MD MPH⁴, Mary C. Tobin, MD⁵, and Mahboobeh Mahdavinia, MD, PhD¹, ¹Rush University Medical Center, Chicago, ²Department of Immunology and Microbiology Allergy/Immunology Section Rush University Medical Center, Chicago, ³Department of Immunology and Microbiology Allergy/Immunology Section Rush University Medical Center, Chicago, IL, ⁴Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ⁵Department of Immunology and Microbiology, Allergy/Immunology Section, Rush University Medical Center, Chicago, IL

- Food Allergy-Related Anxiety and Quality of Life in Parents and Children Transitioning to School Ashika Odhav, MD, Bruce J. Lanser, MD, and Nathan Rabinovitch, MD MPH, National Jewish Health, Denver, CO
- 207 Cost-effectiveness of Bystander Epinephrine in Community Anaphylaxis

Marcus S. Shaker, MD MS FAAAAI, Dartmouth-Hitchcock Medical Center, Lebanon, NH, David Corbin, MD, New London Hospital, New London, NH, Matthew Shaker, MS, Altrix Medical, Centreville, VA and Susan Shaker, BA, Dartmouth College, Hanover, NH

Chronic Rhinosinusitis: With and Without Nasal Polyps

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208 Elevated levels of β6 integrin and alpha smooth actin positive microparticles in nasal lavage fluid in chronic rhinosinusitis with nasal polyps: a potential biomarker of epithelial-mesenchymal transition in the pathophysiology of polyp recurrence

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Toru Takahashi, MD, PhD¹, Atsushi Kato, PhD¹, Sergejs Berdnikovs, PhD¹, Whitney W. Stevens, MD, PhD¹, Lydia A Suh, BS¹, James E Norton, MS¹, Roderick G. Carter, BS¹, Kathleen E Harris, BS¹, Anju T. Peters, MD, FAAAAI¹, Kathryn E. Hulse, PhD¹, Leslie C. Grammer, MD, FAAAAI¹, Kevin C. Welch, MD², Stephanie Shintani-Smith, MD², Bruce K. Tan, MD, MS², David B. Conley, MD², Robert C. Kern, MD², and Robert P. Schleimer, PhD FAAAAI¹, ¹Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ²Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL

209 Clinical and laboratory characteristics of children with nasal polyposis

Kevin Li¹, Nadeem Akbar, MD², Waleed M. Abuzeid, MD³, and Denisa E. Ferastraoaru, MD², ¹Albert Einstein College of Medicine, Bronx, NY, ²Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY, ³Albert Einstein College of Medicine/ Montefiore Medical Center, Bronx, NY

210 Inhibitory effect of glucocorticoids on TGF-β1-mediated epithelial-to-mesenchymal transition of airway epithelium via MAPK and Snail/Slug signaling pathways

Heung Man Lee^{1,2}, Hyun-Woo Yang³, Seoung Ae Lee², Joo-Hoo Park³, Min-jeong Heo³, and Jae-Min Shin^{1,2}, ¹Korea University Guro Hospital, Seoul, ²Institute for Medical Devices Translation Clinical Trial Support Center, Korea University Guro Hospital, Seoul, ³Division of Brain Korea 21 Program for Biomedical Science, Korea University, College of Medicine, Seoul

211 Age-Related Increase Of IL-33 In Non-Eosinophilic Nasal Polyps

Dae Woo Kim, MD, PhD¹, Dong-Kyu Kim, MD², Il Gyu Kong³, Kyoung Mi Eun⁴, Thomas B. Casale, MD, FAAAAI⁵, and Seong Ho Cho, MD, FAAAAI⁵, ¹Dongjak-Gu, Seoul National University Hospital, Boramae Medical Center, Seoul, Korea, Republic of (South), ²Hallym Medical University, Chuncheon, Korea, ³Hallym University College of Medicine, Anyang, Korea, Republic of (South), ⁴Seoul National University, Seoul, ⁵University of South Florida Morsani College of Medicine, Tampa, FL

Allergic Rhinitis Medical Therapy/ Immunotherapy/Venom Immunotherapy

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Systemic Reactions To Aeroallergen Subcutaneous Immunotherapy In A Pediatric Practice

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Megan K. Ford, MD, Sidney Kimmel Medical College at Thomas Jefferson University, Nemours/ A.l. duPont Hospital For Children, Wilmington, DE, Roslyn Whitley, MPH, Nemours/ AI DuPont Hospital for Children, Wilmington, DE and Magee L. DeFelice, MD, Nemours/AI duPont Hospital for Children, Wilmington, DE

213 Preliminary indications regarding the safety and efficacy potential of allergen bearing bioparticles as an evolved form of immunotherapy

Guy Tropper, MD FRCSC^{1,2}, Veronique M. Gomord, PhD³, Virginie Stordeur, M Sc³, Brian J Ward, MDCM⁴, Sébastien Viel, PharmD PhD⁵, Elizabeth D Fixman, PhD⁴, Anne-Catherine Fitchette, PhD³, Lorna Garnier⁵, Louis-Philippe Vézina, PhD³, and Loic J-Y Faye, PhD³, ¹AVANT GARDE Medical, Boucherville, QC, Canada, ²Parc d'affaires des portes, Angany Genetics, Val de Reuil, France, ³Angany Genetics, Val de Reuil, France, ⁴McGill University Health Centre, Montreal, Canada, ⁵CHU Lyon, Lyon, France

214 Allergen Immunotherapy for asthma in a public healthcare setting: The Cuban experience Alexis Labrada, PhD¹, Maytee Mateo Morejon, MSc², Wendy Ramirez Gonzalez, MSc³, Raul L. Castro Almarales, MD³, and Mirta Alvarez Castello, MD⁴, ¹National Center of Bioproducts, Bejucal, Cuba, ²National Center of Bioproducts BioCen, Bejucal, Mayabeque, Cuba, ³National Center of Bioproducts, Bejucal, ⁴Cal-

ixto Garcia University Hospital, Havana, Cuba
215 Cetirizine 5mg Provides Effective Relief of Worst Seasonal Allergy Symptoms in Children Ages 2-6 Years
Mitesh K Patel, PharmD¹, Mei-Miau Mu, Dr PH², and Kathleen B. Franklin, BSN RN¹, ¹Johnson & Johnson Consumer Inc., Fort Washington, PA, ²Johnson & Johnson Consumer Inc, Skillman, NJ
216 Depicting environmental sensitizations in Patients with Immunoglobulin E Deficiency

Rebecca Forman, BA, Albert Einstein College of Medicine, Bronx, NY and Denisa Ferastraoaru, MD, Montefiore Medical Center, Bronx

217 Mometasone Furoate Nasal Spray Relieves Moderate-Severe Nasal Congestion in Patients with Seasonal Allergic Rhinitis: A Responder Analysis

Eduardo R. Urdaneta, MD., Kaan Tunceli, PhD. and Davis Gates, PhD., Merck, Kenilworth, NJ

218 Comparison of sensitisation to prevalent allergens in children vesus adolescents in the same geographical area

Jose Alessandro Bastidas-Parlanti^{1,2}, Damian López-Sánchez, MD³, Maria Luisa Somoza, MD⁴, Elisa Haroun¹, Natalia Blanca-López, MD, PhD⁴, Laura Victorio-Puche, MD⁵, María Vazquez de la Torre, MD, PhD⁴, Maria Isabel Garcimartin, MD⁶, Miguel Blanca, MD, PhD⁷, and María Gabriela Canto, MD, PhD⁴, ¹Hospital Universitario Infanta Leonor, Madrid, Spain, ²Allergy Unit. Infanta Leonor University Hospital, Madrid, ³Allergy Unit.Virgen de la Arrixaca University General Hospital, Murcia, ⁴Allergy Unit, Infanta Leonor University Hospital, Madrid, Spain, ⁵Allergy Unit, Virgen de la Arrixaca University General Hospital, Murcia, Spain, ⁶Allergy Unit. Infanta Leonor University Hospital, Madrid, Spain, ⁷Allergy Service, Carlos Haya Hospital, Málaga, Spain, Malaga, Spain

219 Intranasal Association of Fluticasone propionate/Azelastine hydrochloride is Effective in Children with Allergic Rhinitis Nelson Augusto Rosario, MD, PhD, FAAAAI¹, Tatiane gs Scaliante², Cristine S. Rosario, MD¹, Herberto J. Chong Neto, MD, PhD, FAAAAI¹, and Carlos a Riedi¹, ¹Federal University of Parana, Curitiba, Brazil, ²federal University of Parana, curitiba, Brazil

220 Rapid Onset of Action on Nasal Symptoms and Ocular Symptom Relief With Olopatadine/Mometasone Combination Nasal Spray in a Ragweed Environmental Exposure Chamber Piyush Patel, MD, Inflamax Research, Mississauga, ON, Canada, Anne Marie Salapatek, MSc, PhD, Inflamax Research Limited, Mississauga, ON, Canada and Sudeesh K. Tantry, PhD, Glenmark

 Pharmaceuticals Inc., Jamison, PA
 221 The Role of Adjuvant 1.25-Dihidroxyvitamin D3 on CD4⁺CD25⁺CD127^{low} Regulatory T-cell in Subcutaneous Allergen Specific Immunotherapy

Melati Sudiro¹, Teti Madiadipoera¹, Thaufiq Siddiq Boesoirie¹, and Budi Setiabudiawan², ¹Department of Otorhinolaryngology-Head and Neck Surgery, Faculty of Medicine Universitas Padjadjaran, Bandung, Indonesia, ²Faculty of Medicine, Universitas Padjadjaran, Bandung, Indonesia

222 Effects of topical in vivo treatment on ovalbumin antibody production in mice

Greg A. Plunkett, PhD¹, Henry J. Legere, MD, FAAAAl², Dennis Harris³, Peter Hurwitz, President^{4,5}, Jose Toscano⁶, and James Strader⁶, ¹Independent, Pflugerville, TX, ²Greater Austin Allergy, Asthma & Immunology, Austin, TX, ³Clarity Science, Austin,

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TX, ⁴Clarity Sciences, Austin, TX, ⁵Clarity Research, Austin, TX, ⁶Safe Harbor, Austin, TX

223 Experimental Allergen Immunotherapy with Monomeric Allergoid From House Dust Mite *Dermatophagoides pteronyssinus* in a Mouse Model of Allergic Rhinitis

Alexander A. Babakhin, MD, PhD¹, Anton A. Laskin¹, Oleg Y Kamishnikov², Denis G Chuvirov², Svetlana V Khlgatyan³, Valentina M Berzhets³, Lawrence Dubuske^{4,5}, and Musa R Khaitov, MD, PhD¹, ¹«National Research Center - Institute of Immunology», Federal Medical-Biological Agency of Russia, Moscow, Russia, ²«National Research Center - Institute of Immunology», Federal Medical-Biological Agency of Russia, Moscow, Russian Federation, ³Metchnikov's Research Institute for Vaccines and Sera, Russian Academy of Sciences, Moscow, Russian Federation, ⁴Immunology Research Institute of New England, Gardner, MA, ⁵George Washington University School of Medicine, Washington, DC

224 Safety and Efficacy of a 12-week Maintenance Interval in Patients Treated with Imported Fire Ant Immunotherapy: An Interim Update

Rebecca Schapira, DO¹, Kathryn P. Edwards, MD², Derek M. Smith, MD¹, Thad L. Ocampo, MD³, Shayne C. Stokes, MD⁴, Kevin Michael White, MD⁵, Kirk H. Waibel, MD, FAAAAI⁶, Mike Tankersley, MD, FAAAAI⁷, and Karla E. Adams, MD⁸, ¹San Antonio Uniformed Services Health Education Consortium, Lackland AFB, TX, ²Brooke Army Medical Center, Fort Sam Houston, TX, ³Wright Patterson Medical Center, Dayton, OH, ⁴377 Medical Group, Albuquerque, NM, ⁵Lakenheath, Ely, United Kingdom, ⁶Landstuhl Regional Medical Center, APO, AE, Ghana, ⁷University of Tennessee Health Science Center, Memphis, TN, ⁸San Antonio Uniformed Services Health Education Consortium - Wilford Hall, JBSA Lackland AFB, TX

Measures of Eosinophil Activation in Allergic Inflammation

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- 225 Tissue environment has a greater affect than genetic background on homeostatic eosinophil transcriptome
- Jillian O. Grace, Cincinnati Children's Hospital, Cincinnati, OH
 Cryj 1, a major allergen of Japanese cedar pollen, up-regulates the effector functions of eosinophils

Takehito Kobayashi, MD, PhD¹, Kazuyuki Nakagome, MD, PhD², Sachiko Miyauchi, MD³, Toru Noguchi, MD, PhD³, Kouhei Saitou, MD³, Tomoyuki Soma, MD, PhD⁴, Hidetomo Nakamoto, MD, PhD³, and Makoto Nagata, MD, PhD², ¹Department of General Internal Medicine,Saitama Medical University, Saitama, Japan, ²Allergy Center, Saitama Medical University, Saitama, Japan, ³Saitama Medical University, Saitama, Japan

227 Eosinophil-Derived Exosomes Contribute to Asthma Remodeling by Activating Structural Lung Cells Beatriz Sastre¹, Jose A Cañas², Jose M Rodrigo-Muñoz², Mar Fernandez-Nieto², Pilar Barranco³, Santiago Quirce, MD, PhD⁴, Joaquin Sastre, MD, PhD, FAAAAI⁵, and Victoria Del Pozo, PhD^{1,2}, ¹CIBERES, MADRID, ²IIS-FJD, MADRID, ³Hospital La Paz, MADRID, Spain, ⁴Hospital La Paz. Department of Allergy, Madrid, Spain, ⁵Fundacion Jimenez Diaz, Madrid, Spain



228 Nasal eosinophil correlation with aeroallergen sensitization in children

Beom joon Kim, Woori Bae, MD, Kyunghoon KIM, Hyejin Lee, Eun Ae Yang, Hwan Soo Kim, Yoon Hong Chun, Jong-seo Yoon, Hyun Hee Kim and Jin Tack Kim, College of Medicine, The Catholic University of Korea, Seoul

229 Eosinophil autophagy and extracellular DNA traps are involved in severe asthma

Duy Le Pham, University of Medicine and Pharmacy at Ho Chi Minh City, Ho Chi Minh, Viet Nam, Youngwoo Choi, Clinical Trial Center, Ajou University Medical Center, Suwon, Korea, Republic of (South), Ga-Young Ban, Department of Allergy and Clinical Immunology, Ajou University Medical Center, Suwon, Korea, Republic of (South) and Hae-Sim Park, MD, PhD, FAAAAI, Ajou University School of Medicine, Suwon, Korea, Republic of (South)

230 IL-33 is a Potent Stimulus for Eosinophil Activation

Elizabeth M McKernan, BS, Evelyn L Angulo, MD, Paul S Fichtinger, BS and Sameer K Mathur, MD, PhD, FAAAAI, Department of Medicine, University of Wisconsin, Madison, WI

- 231 A Phenotypically Distinct Subset of Eosinophils is Recovered with Intestinal Intraepithelial Leukocytes Yanjun Huang¹, Dilanjan T. Anketell¹, Jason J. Xenakis², Kalmia Smith², Courtney L. Olbrich¹, Evangeline W. Cornwell, PhD¹, Emily D. Ericson², and Lisa A. Spencer, PhD FAAAAI², ¹Gordon College, Wenham, MA, ²Beth Israel Deaconess Medical Center, Boston, MA
- 232 Inner City Severe Allergic Asthma: Differential Clinical Markers in Eosinophilic Low Cohort (LC, <150 uL) vs Medium Cohort (MC, 150-300 uL) vs High Cohort (HC, > 300 uL) Muhammad Ahmad¹, James Mantas¹, Muhammad Salman Aslam², Ahmad Arslan¹, Tushar Thakur¹, Nikhil Tambe¹, Radha Dhingra³, and Edward S. Schulman, MD, FAAAAI¹, ¹Drexel Univ College of Med, Philadelphia, PA, ²Allama Iqbal Med College, Lahore, Pakistan, ³Mahatma Gandhi Med College, Jaipur, India

Cytokines and Chemokines in Allergy

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233 APRIL, BAFF, and TGF-β Concentrations in Colostrum Correlate with Allergic Disease Outcome

Puja Sood, MD¹, John J. Varrone, PhD¹, Anna K. Kukkonen, PhD², Mikael Kuitunen, MD, PhD³, Erkki Savilahti, MD, PhD³, Antti E. Seppo, PhD¹, and Kirsi M. Jarvinen-Seppo, MD, PhD, FAAAAI¹, ¹Department of Pediatrics, Division of Pediatric Allergy and Immunology, University of Rochester Medical Center, Rochester, NY, ²Skin and Allergy Hospital, University of Helsinki, Helsinki, Finland, ³The Children's Hospital, University of Helsinki, Helsinki, Finland

234 Socioeconomic Variables Associated with Immune Biomarkers in Asthmatic Children

Akua O. Nyarko-Odoom, Student¹, Mary Prunicki, MD, PhD², Wenming Zhang, PhD¹, Xiaoying Zhou¹, and Kari C. Nadeau, MD, PhD, FAAAAl^{3,4}, ¹Stanford University, Stanford, CA, ²Stanford, Stanford, ³Stanford Univ School Medicine, Los Altos Hills, CA, ⁴Sean N. Parker Center for Allergy and Asthma Research at Stanford University, Palo Alto, CA

235 Histamine Pharmacodynamic Response is associated with Allergic Cytokine levels in Children with Allergic Asthma Mary Nguyen, MD¹, Hongying Dai, PhD², Marcia A. Chan, PhD², Nicole M Gigliotti, BS², and Bridgette Jones, MD³, ¹Kansas

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University Medical Center, Kansas City, ²Children's Mercy Hospital, Kansas City, MO, ³Children's Mercy Hospital, kansas City, MO

236 The impact of nectin-4 on asthma

An Soo Jang, Soonchunhyang University Bucheon Hospital, Bucheon, Korea, JuneHyuk Lee, Soonchunhyang university Bucheon Hospital, Bucheon, Pureun-Haneul Lee, Soonchunhyang University Hospital, Bucheon, Byeong-Gon Kim, Soonchunhyang University Bucheon Hospital, Bucheon and Sun-Hye Lee, Soonchunhyang University Hospital, Bucheon, Korea, Republic of (South)

- 237 Role for CD11c expressing cells in generation of pulmonary vascular leak during a respiratory viral infection Jennifer L Santoro¹, Michelle Rohlfing¹, Syed-Rehan A Hussain, PhD¹, and Mitchell H. Grayson, MD, FAAAAl², ¹Nationwide Children's Hospital, Columbus, OH, ²Nationwide Children's Hospital / The Ohio State University, Columbus, OH
- 238 Fine particulate air pollution epigenetically affects TET1 expression in dendritic cells and exacerbates the inflammation of Allergic Rhinitis

Hang Li and Wei Ping Wen, Sun Yat-sen University, Guangzhou, China

239 Different anti-allergic mechanism of 2 green tea extracts in murine rhinitis model

Yu-Lian Zhang, PhD¹, Young Kyung Ko, MS², Hahn Jin Jung, MD³, Sung-Woo Cho, MD¹, Minhyung Lee, MD¹, and Chae-Seo Rhee, MD, Ph.D^{2.4}, ¹Department of Otorhinolaryngology-Head and Neck Surgery, Seoul National University Bundang Hospital, Seoul, Korea, Republic of (South), ²Department of Otorhinolaryngology-Head and Neck Surgery, Seoul National University College of Medicine, Seoul, Korea, Republic of (South), ³Department of Otorhinolaryngology-Head and Neck Surgery, Chungbuk National University College of Medicine, Seoul, Korea, Republic of (South), ⁴Department of Otorhinolaryngology-Head and Neck Surgery, Seoul National University Bundang Hospital, Seougnam, Korea, Republic of (South)

240 Hypoxia regulated NLRP3 inflammmasome mediated neutrophilicinflammation by promoting oxidase stress in nasal mucosa

Yi Wei¹, Liman Liu², and Xingliang Fan¹, ¹The First Affiliated Hospital, Sun Yat-Sen University, Guangzhou, ²The First Affiliated Hospital, Sun Yat-Sen University, GuangZhou, China

241 Induction of allergic responses in experimental murine model by long-term intranasal exposure of House Dust Mite(HDM) allergen

Jeom-Kyu Lee, PhD, Woo-Sung Chang, PhD, Sung-Hee Lee, Gyo Jeong Gu, Kyu-Tae Jeong and Ji-Hye Do, Korea National Institute of Health, Korea Centers for Disease Control and Prevention, Cheongju, Korea, Republic of (South)

- 242 Associations Between Asthma Severity and Responsiveness to Th2- and Th17-derived Cytokines in Pediatric Asthmatics Jaclyn W. McAlees, PhD¹, Theresa Baker, MS¹, Sara L. Hall, PhD¹, Emily Kim^{1,2}, Christopher G. McKnight, MD², Andrew Warren Lindsley, MD, PhD¹, Richard Thomas Strait, MD¹, Xue Zhang, PhD¹, Jocelyn M Biagini Myers, PhD¹, Melinda Butsch Kovacic, PhD¹, and Ian Paul Lewkowich, PhD¹, ¹Cincinnati Children's Hospital, Cincinnati, OH, ²University of Cincinnati, Cincinnati, OH
- 243 Quantification Of Genomic DNA Damage In Lung and Nasal Epithelium and Response To Allergen Challenge

Adil S. Zahiruddin, MD¹, Koa Hosoki, MD, PhD¹, Julia W. Tripple, MD¹, Pawel Jaruga, MsC, PhD, Dr hab², Erdem Coskun², Cynthia Rather³, Robert L. Jacobs, MD³, Miral Dizdaroglu², and Sanjiv Sur, MD¹, ¹University of Texas Medical Branch, Galveston, TX, ²National Institute of Standards and Technology, Gaithersburg, MD, ³Biogenics Research Institute, San Antonio, TX

Allied Health Saturday Poster Session

Allied Health

2215

Saturday, March 3rd, 2018, 9:45 AM - 10:45 AM

244 Delayed reactions to low-molecular weight heparins: Cross reactivity with unfractioned heparin

Ana Rodriguez Fernandez¹, Patricia Rojas-Perez¹, and Blanca Noguerado-Mellado², ¹Hospital Gregorio Marañon, Madrid, Spain, ²Hospital General Universitario Gregorio Marañón, Madrid, Spain

245 Effect of indoor pollutants exposure on symptoms of 315 patients allergic to mite

Edouard Virot¹, Martine OTT¹, Audrey Dazy¹, Anh Poirot¹, Julien Godet², and Frederic J. de Blay, MD³, ¹Chest Thoracic diseases department, Strasbourg, France, ²Department od Biostatistics, Strasbourg, France, ³Chest thoracic diseases department, Strasbourg, France

246 Serum vitamin D levels in a healthy Korean population

Jee Hye Wee, Bundang Jesaeng Hospital, Seongnam, Korea, Republic of (South), Sung-Woo Cho, MD, Department of Otorhinolaryngology-Head and Neck Surgery, Seoul National University Bundang Hospital, Seoul, Korea, Republic of (South), Jeong Whun Kim, MD, PhD, Seoul National University Bundang Hospital, Seongnam, Korea and Chae-Seo Rhee, MD, Ph.D, Department of Otorhinolaryngology-Head and Neck Surgery, Seoul National University Bundang Hospital, Seongnam, Korea, Republic of (South)

Allied Health Professional Assembly Business Meeting and Oral Abstract Session

Allied Health

2411

Saturday, March 3rd, 2018, 12:15 PM - 1:45 PM

247 Restarting Venom Immunotherapy After the Recent Venom Extract Shortage: Our Experience as a Tertiary Center Tyler Carpenter, LPN¹, Timothy J. Craig, DO FAAAAI², Reece A. Jones, MD³, Stacey Shaeffer, LPN¹, and Mark Yoder, LPN¹, ¹/₁Page State Health Hardbey BA²Page State Health Hearbey

¹Penn State Health, Hershey, PA, ²Penn State University, Hershey Medical Center, Hershey, PA, ³Hershey Medical Center/Penn State, Hershey, PA

248 Role of Non-Allergists in the Removal of "Penicillin-Allergic" Labels

August Generoso, MD¹, Christine Muglia, MD¹, Arun Mattappallil, PharmD², Reena Khianey, MD¹, Eugenio Capitle, MD¹, and Alan H. Wolff, MD¹, ¹Rutgers New Jersey Medical School, Newark, NJ, ²University Hospital, Newark, NJ

249 Common Dietetic Questions in The Allergy Clinic: What Do Parents Want To Know? Lauren Kronisch, Texas Children's Hospital, Houston, TX and Ai-

katerini Anagnostou, MD MSc PhD, Baylor College of Medicine, Houston, TX

250 Phenotypic Expression of Hypersensitivity Drug Reactions in Outpatient Infusion Centers, 1 Year Experience Cintia A. Falck-Fuentes, MD^{1,2}, Teodorikez W. Jimenez Rodriguez, MD^{2,3}, Donna-Marie Lynch, NP², Marlene Garcia-Neuer, MS²,

Kathleen A Marquis, Pharm PhD2, Leila A. Alenazy, MD MMSc2,4,



and Mariana C. Castells, MD, PhD, FAAAAl², ¹Pediatric Allergy and Immunology Department, National Institute of Pediatrics, National Autonomous University of Mexico, Mexico City, Mexico, ²Division of Rheumatology, Immunology and Allergy, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ³Division of Allergy, Alicante General University Hospital, Alicante, Spain, ⁴Department of Medicine, King Khalid University Hospital, King Saud University, Riyadh, Saudi Arabia

251 Hypoallergenicity of a new whey-based, extensively hydrolyzed infant formula

Anna H. Nowak-Wegrzyn, MD, PhD, FAAAAI, Icahn School of Medicine at Mount Sinai, New York, NY, Laura Czerkies, MS, RD, Nestle Nutrition, Florham Park, NJ, Michelle Kessling, Nestle Health Science, Bridgewater, NJ, Barbara Collins, Clinipace Worldwide, Morrissville, NC and Ralf G. Heine, MD FRACP, Nestle Health Science, Vevey, Switzerland

Basic Science Moves Forward

Basic Science

2722

Saturday, March 3rd, 2018, 4:30 PM - 6:00 PM

252 Airway IL-1α promotes development of allergen-specific follicular helper T (Tfh) cells and production of IgE antibody Takayasu Nomura, MD, Takao Kobayashi, PhD, Koji Iijima, PhD, and Hirohito Kita, MD, Mayo Clinic, Rochester, MN

253 Type 6 Purinergic Receptors (P2Y₆) Homeostatic Regulation In Allergic Sensitization And Lung Inflammation Jun Nagai^{1,2}, Haley Cirka², Junrui Lin², Barbara Balestrieri, MD², and Joshua A. Boyce, MD, FAAAAI^{1,3}, ¹Harvard Medical School, Boston, MA, ²Brigham and Women's Hospital, Boston, MA, ³Brigham and Women's Hospital, Division of Rheumatology, Immunology and Allergy, Boston, MA

- 254 CD8 T cell abundance and early antiviral functions Andrew Soerens, PhD, University of Minnesota Center for Immunology, Minneapolis, MN and David Masopust, University of Minnesota, Minneapolis, MN
- 255 miR-511-3p limits allergic inflammation through M2 macrophage polarization and modulating CCL2 expression Danh C. Do, PhD¹, Jie Mu^{1,2}, Yufeng Zhou, MD, PhD^{1,3}, and Peisong Gao, MD, PhD¹, ¹Johns Hopkins University, Baltimore, MD, ²Sichuan University, Sichuan Providence, China, ³Institute of Biomedical Sciences and Children's Hospital, Shanghai, China
- 256 Effect of prenatal supplementation of mothers with Lactobacillus johnsonii on offspring microbiome and RSV immunity Wendy Fonseca¹, Catherine Ptaschinski¹, Kei E. Fujimura, PhD², Andrew Rasky¹, Susan V Lynch, PhD³, and Nicholas W. Lukacs, PhD⁴, ¹University of Michigan, Ann Arbor, MI, ²UCSF, San Francisco, CA, ³University of California, San Francisco, San Francisco, CA, ⁴University of Michigan Medical School, Ann Arbor, MI

Asthma Epidemiology and Intervention

ADT

2601 Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

257 Tezepelumab demonstrates clinically meaningful improvements in asthma control (ACQ-6) in patients with uncontrolled asthma: results from a phase 2b clinical trial Jonathan Corren¹, Jane R. Parnes, MD², Liangwei Wang, PhD³, May Mo, MS², Stephanie L. Roseti, APN, MSN³, Janet M. Griffiths, PhD³, Sean O'Quinn, MPH⁴, and Rene van der Merwe, MBChB⁵, ¹Allergy Medical Clinic, Los Angeles, CA, ²Amgen, Thousand Oaks, CA, ³MedImmune, Gaithersburg, MD, ⁴AstraZeneca, Gaithersburg, MD, ⁵MedImmune, Cambridge, United Kingdom

258 Lung Function Trajectories From Childhood To Young Adulthood; A Peek Into The Future Of Lung Health? Syed H. Arshad, DM, FRCP¹, Claire Hodgekiss², John W. Holloway, BSc PhD¹, Graham Roberts, DM MSc MRCPCH³, Wilfried Karmaus, MD⁴, Hongmei Zhang, PhD⁴, Susan Ewart⁵, Linda S. Mansfield, VMD, PhD⁵, and Ramesh Jagath Kurukulaaratchy, BM DM MRCP¹, ¹University of Southampton, Southampton, United Kingdom, ²David Hyde Asthma & Allergy Centre, Newport, United Kingdom, ³Tremona Road, Southampton University Hospital, Southampton, United Kingdom, ⁴The University of Memphis, Memphis, TN, ⁵Michigan State University, East Lansing, MI

- 259 Clinical Drug Candidate MIDD0301 is a Novel Oral Asthma Treatment combating Inflammation and Muscle Constriction in the Lung Leggy A. Arnold^{1,2}, Gloria Forkuo², Amanda Nieman², Oliva Yu², Margaret Guthrie², Revathi Kodali², Michael Stephen², Charles W Emala, MD³, Gene Yocum³, James Cook², Douglas Stafford^{1,2}, and Mitchell H. Grayson, MD, FAAAAI⁴, ¹Milwaukee Institute for Drug Discovery, Milwaukee, WI, ²University of Wisconsin Milwaukee, Milwaukee, WI, ³Columbia University, New York City, NY, ⁴⁷00 Children's Drive, Nationwide Children's Hospital / The Ohio State University, Columbus, OH
- 260 Atopy Modifies the Effect of Mouse Allergen Reduction on Asthma Outcomes in Low-income, Urban Children with Persistent Asthma Ammara G. Ahmed, DO¹, Torie L. Grant, MD¹, Wanda Phipatanakul, MD MS FAAAAI², Matthew Perzanowski, PhD³, Susan L. Balcer-Whaley, MPH¹, Roger Peng, PhD⁴, Jean Curtin-Brosnan, MA¹, Michelle Newman, RN¹, Amparito Cunningham, MD MPH⁵, Adnan Divjan, BA³, Mary Beth Bollinger, DO⁶, Robert A. Wise, MD⁷, Rachel L. Miller, MD, FAAAAI³, Ginger L. Chew, ScD³, and Elizabeth C Matsui, MD MHS1, 1Division of Pediatric Allergy/Immunology, Johns Hopkins University School of Medicine, Baltimore, MD, ²Division of Pediatric Allergy/Immunology, Boston Children's Hospital, Harvard University Medical School, Boston, MA, ³Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY, ⁴Department of Biostatistics, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, ⁵Boston Children's Hospital, Harvard University Medical School, Boston, MA, ⁶Department of Pediatrics, University of Maryland School of Medicine, Baltimore, MD, ⁷Division of Pulmonary and Critical Care Medicine, Johns Hopkins University School of Medicine, Baltimore, MD
- 261 An Innovative Approach to Identify Asthma among Preschool Children through Automated Chart Review Young J. Juhn, MD MPH¹, Hongfang Liu, PhD¹, Chung I. Wi, MD², Sunghwan Sohn, PhD¹, and Euijung Ryu, PhD¹, ¹Mayo Clinic, Rochester, MN, ²Dept of Pediatric and Adolescent Medicine, Mayo Clinic, Rochester, MN

Topics in Common Variable Immunodeficiency

BCI

2602

Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

- 262 Gastrointestinal (GI) Manifestations in Common Variable Immunodeficiency (CVID)
 - **Sara Barmettler, MD**¹, Jocelyn Farmer, MD, PhD², Alexandra Brady², Jolan E. Walter, MD, PhD^{3,4}, and Mark Cobbold, MD,

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PhD², ¹Massachusetts General Hospital, Boston, ²Massachusetts General Hospital, Boston, MA, ³Division of Pediatric Allergy/Immunology, Massachusetts General Hospital for Children, Harvard Medical School, Boston, MA, ⁴University of South Florida, St Petersburg, FL

- 263 Cellular Defects Amongst Common Variable Immunodeficiency (CVID) Patients with Chronic Lung Disease in the USIDNET (United States Immunodeficiency Network) Cohort Erinn S. Kellner, MD¹, Ramsay L. Fuleihan, MD, FAAAAI², Charlotte Cunningham-Rundles, MD, PhD, FAAAAI³, and Joshua B Wechsler, MD^{1,4}, ¹Northwestern University Feinberg School of Medicine, Chicago, IL, ²Ann & Robert H. Lurie Children's Hospital of Chicago Box 60, Chicago, IL, ³Icahn School of Medicine at Mount Sinai, New York, NY, ⁴Ann & Robert H. Lurie Children's Hospital of, Chicago, IL
- 264 Retrospective Study of Spirometry in CVID Reveals that FEF25%-75% Can Be Used to Guide the Dose of IgG Used to Protect Pulmonary Function Harry W. Schroeder, MD, PhD, Jack G. Ghably, MD, Zhixin

Wang, Tracy Hwangpo, MD, PhD, and Xingqin Cui, PhD, University of Alabama at Birmingham, Birmingham, AL

- Low class switched memory B cells predicts the need for continued need for replacement immunoglobulin therapy post Rituximab use and adequate numeric B cell reconstitution
 Caitlin MG McNulty, MD and Avni Y. Joshi, MD, Mayo Clinic, Rochester, MN
 Belationschip of cassific LoW responses with infaction and lymp
- 266 Relationship of specific IgM responses with infection and lymphoproliferative states in common variable immunodeficiency Travis M. Sifers, MD, Icahn School of Medicine at Mount Sinai, New York, NY, Paul J. Maglione, MD, PhD, Clinical Immunology, Icahn School of Medicine at Mount Sinai, New York, NY, Tukisa Smith, MD, Mount Sinai School of Medicine, New York and Emily Gotschlich, Ichan School of Medicine at Mount Sinai, New York

Climate and Technology

EORD

2603

Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

- 267 Speciated Pollen Season Parameters, Trends, and Associations with Temperature in the Contiguous United States Jeremy J. Hess, MD MPH¹, Fiona Lo, MS¹, Claudia L. Brown, MPH², Kristie L. Ebi, PhD¹, Arie Manangan, MS², George Luber, PhD², Shubhayu Saha, PhD², Paul J. Schramm, MPH², Lewis Ziska, PhD³, and Cecilia Bitz, PhD¹, ¹University of Washington, Seattle, WA, ²Centers for Disease Control and Prevention, Atlanta, GA, ³United States Department of Agriculture, Beltsville, MD
- 268 Increasing Length of Ragweed Season in the Central Midwest Minati G. Dhar¹, Jay M. Portnoy, MD, FAAAAl², and Charles S. Barnes, PhD FAAAAl¹, ¹Children's Mercy Hospital, Kansas City, MO, ²The Children's Mercy Hospital, Kansas City, MO
- 269 Climate Change Anomaly: Local Ragweed Levels Declining James J. Anderson, MLT, Environmental Allergy Assays, London, ON, Canada and Peter J. Pityn, PhD, OSHTECH Incorporated, London, ON, Canada
- 270 AirRater Tasmania: Using Smartphone Technology to Understand Local Environmental Drivers of Symptoms in People with Asthma and Allergic Rhinitis

Fay Johnston¹, Amanda Wheeler¹, Grant Williamson², Penelope Jones¹, and Iain S Koolhof¹, ¹University of Tasmania, Menzies

Institute for Medical Research, Tasmania, Hobart, Australia, ²University of Tasmania, School of Biological Sciences, Tasmania, Hobart, Australia

271 A Novel Framework to Facilitate Multisector Activities to Improve Population-Level Asthma Control: The EXHALE Technical Package

Joy Hsu, MD, Centers for Disease Control and Prevention, Atlanta, GA

Food Allergy at the Beginning and the End of the Atopic March

FADDA

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Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

272 CHANGES IN METABONOMIC PROFILE DURING PEA-NUT-INDUCED ANAPHYLAXIS AND CORRELATION WITH SYMPTOM

Paul J. Turner, FRACP PhD¹, Monica Ruiz Garcia, MD¹, Isabel J Skypala, PhD RD², Stephen R. Durham, MA MD FRCP³, Robert J Boyle, MB ChB PhD¹, Gonçalo DS Correia, MPhil¹, Jake TM Pearce, PhD¹, and Elaine Holmes, PhD¹, ¹Imperial College London, London, United Kingdom, ²Royal Brompton & Harefield NHS Foundation Trust, London, United Kingdom, ³National Heart and Lung Institute, Imperial College London, London, United Kingdom

273 Continuous Cow's Milk Protein Consumption from Birth and a Decrease in Milk Allergy: a Prospective Cohort Study Related to the PETIT Study

Osamu Natsume, MD, PhD^{1,2}, Kiwako Yamamoto-Hanada, MD, PhD², Shigenori Kabashima, MD, PhD², Junko Nakazato, MD, PhD², Masami Narita, MD, PhD², Mai Kondo, MD², Saito Mayako, MD², Ai Kishino, MD², Hiroshi Kido, MD, PhD³, Kenji Matsumoto, MD, PhD⁴, Hirohisa Saito, MD, PhD, FAAAAI⁵, and Yukihiro Ohya, MD, PhD², ¹Hamamatsu University School of Medicine, Shizuoka, Japan, ²National Center for Child Health and Development, Tokyo, Japan, ³the Division of Enzyme Chemistry, Institute for Enzyme Research, Tokushima University, Tokushima, Japan, ⁴National Research Institute for Child Health and Development, Tokyo, Japan, ⁵Department of Allergy and Clinical Immunology, National Research Institute for Child Health and Development, Tokyo, Japan

274 Eosinophilic Esophagitis is a Late Manifestation of the Atopic March

David A. Hill, MD, PhD¹, Robert W Grundmeier, MD², Mark Ramos, BS², and Jonathan M. Spergel, MD, PhD, FAAAAI³, ¹3401 Civic Center Blvd, Children's Hospital of Philadelphia, Philadelphia, PA, ²2716 South St, Children's Hospital of Philadelphia, Philadelphia, PA, ³The Children's Hospital of Philadelphia, Philadelphia, PA

275 The Association Between Folate/Folic Acid Metabolites and the Development of Food Allergy (FA) in Children

Emily C. McGowan, MD¹, Xiumei Hong², Jacob Selhub, PhD³, Ligi Paul, PhD³, Robert A. Wood, MD, FAAAAI⁴, Elizabeth Matsui, MD MHS⁵, Corinne Keet, MD MS PhD⁵, and Xiaobin Wang, MD MPH ScD⁶, ¹University of Virginia School of Medicine, Charlottesville, VA, ², Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, ³Jean Mayer USDA HNRC at Tufts University, Boston, MA, ⁴Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD, ⁵Division of Pediatric Allergy/Immunology, Johns Hopkins School of Medicine,





Baltimore, MD, ⁶Johns Hopkins University Bloomberg School of Public Health, Baltimore

276 Farm Exposure Influences Skin Microbiota In Infancy Cheryl A. Steiman, MD¹, Douglas Fadrosh, MS², Michael D. Evans, MS¹, Rose F. Vrtis¹, Brent Olson³, Kathrine L. Barnes, MS, MPH³, Christine M. Seroogy, MD, FAAAAI¹, Casper G. Bendixsen, PhD³, Susan V. Lynch, PhD², and James E. Gern, MD, FAAAAI¹, ¹University of Wisconsin School of Medicine and Public Health, Madison, WI, ²UCSF, San Francisco, CA, ³Marshfield Clinic Research Institute, Marshfield, WI

Drug Allergy in the Era of Big Data

FADDA

2605

Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

- 277 Big Data Analysis of Drug Induced Hypersensitivity and Anaphylaxis Reactions in Clinical Cancer Trials Christina Eldredge, MD, University of South Florida, Tampa, FL, Arun Singavi, MD, Medical College of Wisconsin, Milwaukee, WI, Cesar Lam, MD, H Lee Moffitt Cancer Center, Tampa, FL, Joel L. Gallagher, MD, Allergy and Asthma Center of North Carolina, Greensboro, NC and Jake Luo, PhD, University of Wisconsin-Mil-
- waukee, Milwaukee, WI
 278 Adverse drug reactions to antibiotics collected by a pharmacovigilance center in Korea: an eight-year retrospective study
 Young-Min Ye, MD, Ph.D^{1.2}, Seung-Kwan Lim, MD³, Young-Wha Choi, MD, PhD³, So-Hee Lee, MD⁴, Ji-Ho Lee, MD¹, Seung-Hee Park², and Lee Young-Hee², ¹Dept. Allergy & Clinical Immunology, Ajou University School of Medicine, Suwon, Korea, Republic of (South), ²Regional Pharmacovigilance Center, Ajou University Medical Center, Suwon, Korea, Republic of (South), ³Dept. Infection, Ajou University School of Medicine, Suwon, Korea, Republic of (South), ⁴Department of Allergy and Clinical Immunology, Ajou University School of Medicine, Suwon, Korea, Republic of (South)
- 279 Tryptase as a biomarker of mast cell activation in perioperative anaphylaxis: survey from a Belgium reference centre Margaretha A. Faber, MD, PhD, University of Antwerp, Antwerpen, Belgium, Didier G. Ebo, MD, PhD, FAAAAI, University Antwerp, Antwerp, Belgium, Margo Hagendorens, Univ. Hospital of Antwerp, Edegem, Belgium, Christiaan H. Bridts, MD, University of Antwerp, Kontich, Belgium and Vito Sabato, MD, University of Antwerp, Antwerp. Belgium
- 280 Single Cell Approaches to Define the Pathogenic Immune Cells that Mediate Drug Hypersensitivity Katie D. White, MD, PhD¹, Katherine C. Konvinse¹, Mark A. Pilkinton, MD, PhD¹, Alec Redwood, PhD², Jason A. Trubiano, MBBS, FRACP³, Jonathan Grant Peter, MBChB, PhD, MMED⁴, Rannakoe Lehloenya, MD⁵, Wen-Hung Chung, MD, PhD⁶, Shuen-Iu Hung, PhD⁷, Ren-You Pan, PhD⁷, Abha Chopra, PhD², Louise Barnett¹, Rama Gangula¹, Simon A. Mallal, MBBS FRACP FRCPA^{1,2}, and Elizabeth J. Phillips, MD, FAAAAI FIDSA^{1,2}, ¹Vanderbilt University Medical Center, Nashville, TN, ²The Institute for Immunology and Infectious Diseases, Murdoch University, Perth, Australia, ³Austin Health and The University of Melbourne, Victoria, Australia, ⁴University of Cape Town/Western Cape Provincial Health, Cape Town, South Africa, ⁵University of Cape Town, Cape Town, South Africa, 6Chang Gung Memorial Hospital, Taipei, Taiwan, ⁷National Yang-Ming University, Taipei, Taiwan
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281 The increased risk of methicillin-resistant Staphylococcus aureus and Clostridium difficile in patients with a documented penicillin allergy Kimberly G Blumenthal, MD MSc^{1,2}, Na Lu, MPH¹, Yuqing

Zhang, DSc^{1,2}, Yu Li, SM¹, Rochelle P Walensky, MD, MPH^{1,2}, and Hyon K Choi, MD, DrPH^{1,2}, ¹Massachusetts General Hospital, Boston, MA, ²Harvard Medical School, Boston, MA

Getting Over The Shock: Deploying New Systems for Anaphylaxis Management

HEDQ

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Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

282 Identifying Barriers to Implementation of Stock Epinephrine Bills: The Texas Experience

Chih-Yin Yeh, MD¹, Anita Wheeler², Karen Schwind³, Jannifer Fulbright⁴, Douglas Jeffrey⁵, Wesley W. Stafford, MD, FAAAAI⁶, J. Andrew Bird, MD, FAAAAI⁷, Pooja Varshney, MD⁸, Louise H. Bethea, MD, FAAAAI9, Erika G. Gonzalez-Reyes, MD, FAAAAI10,11, Theodore M. Freeman, MD, FAAAAI12, Crystal Beard¹³, and Carla M. Davis, MD, FAAAAI¹, ¹Baylor College of Medicine, Houston, TX, ²Texas Department of State Health Services, Houston, ³New Braunfels Independent School District, New Braunfels, ⁴Lufkin Independent School District, Austin, ⁵Emergency Service Partners, Austin, ⁶Allergy & Asthma Center of Corpus Christi, Corpus Christi, TX, 7UT Southwestern Medical Center, Dallas, TX, ⁸University of Texas at Austin Dell Medical School, Department of Pediatrics, Austin, TX, ⁹Allergy, Asthma & Immunology Care Center, The Woodlands, TX, ¹⁰South Texas Allergy and Asthma Medical Professionals, San Antonio, ¹¹Texas Allergy and Asthma Medical Professionals, San Antonio, TX, ¹²San Antonio Asthma and Allergy Clinic, Helotes, TX, ¹³Texas Department of State Health Services, Austin

283 Disparities in Risk of Hospitalization for Food Anaphylaxis in the United States

> **Claudia L. Gaefke, MD**, Department of Medicine, University of Arizona, Tucson, AZ, Mark Borgstrom, Ph.D, Research Computing, University of Arizona, Tucson, AZ, Christian Bime, MD, Division of Pulmonary, Allergy, Critical Care, and Sleep Medicine, Department of Medicine, University of Arizona, Tucson, AZ and Tara F. Carr, MD, FAAAAI, Division of Pulmonary, Allergy, Critical Care and Sleep Medicine, Department of Medicine, University of Arizona, Tucson, AZ

284 Central Ohio 911 dispatcher adherence to national triage protocols for anaphylaxis

Lisa M. Martorano, DO¹, Kasey R. Strothman, MD², Kathleen Grisanti, MD¹, Tara McCarthy, BS³, Margaret Redmond, MD², Rebecca Scherzer, MD, FAAAAI², and Julie C. Leonard, MD, MPH⁴, ¹Division of Allergy & Immunology, The Ohio State University Wexner Medical Center & Nationwide Children's Hospital, Columbus, OH, ²Division of Allergy & Immunology, Nationwide Children's Hospital, Columbus, OH, ³Department of Clinical Research, Nationwide Children's Hospital, Columbus, OH, ⁴Division of Emergency Medicine, Nationwide Children's Hospital & The Ohio State University College of Medicine, Columbus, OH

285 Serum Tryptase Levels in 114 Pediatric Patients with Cutaneous Mastocytosis

Neha Seth, MD¹, Javier Chinen, MD, PhD, FAAAAI¹, Maria G. Buheis, MD², Audrey J Chan, MD³, Raegan D Hunt, MD³, and Karen Thursday S. Tuano, MD¹, ¹Baylor College of Medicine, The

Abstracts AB315

Woodlands, TX, ²Baylor College of Medicine/ Texas Children's Hospital, Houston, TX, ³Baylor College of Medicine, Houston, TX Utilization of Anaphylaxis Action Plans and Barriers to Use in

286

Primary Care Pediatrics

Hsi-en Ho, MD, Yara Sifri and Julie Wang, MD, FAAAAI, Icahn School of Medicine at Mount Sinai, New York, NY

Rhinitis: With or Without Nasal Polyps

IRSO

2607

Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

287 B-cell activating factor/Th17/Neutrophils axis plays a role in refractory nasal polyposis

Dong-Kyu Kim, **MD**¹, Gwanghui Ryu², Sang Duk Hong³, Il Gyu Kong⁴, Seung Kyu Chung⁵, Jae Seo Lee⁶, Hun Jong Dhong, PhD⁵, and Dae Woo Kim, MD, PhD⁷, ¹Hallym Medical University, Chuncheon, Korea, ²Samsung Medical Center, Seoul, ³Samsung Medical Center, Seoul, Korea, Republic of (South), ⁴Hallym University College of Medicine, Anyang, Korea, Republic of (South), ⁵50 liwon-dong, Sungkyunkwan Univ. School of Med., Kangnamgu, Korea, ⁶Seoul National University Hospital, Jongno-gu, Korea, ⁷Dongjak-Gu, Seoul National University Hospital, Boramae Medical Center, Seoul, Korea, Republic of (South)

288 Atopic Comorbidities and Biomarkers of Type 2 Inflammation in Patients With Chronic Rhinosinusitis With Nasal Polyposis (CRSwNP) Who Failed Intranasal Corticosteroids Claus Bachert, MD, PhD¹, Peter W. Hellings, MD, PhD², Joaquim Mullol, MD, PhD, FAAAAI³, Robert M. Naclerio, MD, FAAAAI⁴, Daniel L. Hamilos, MD, FAAAAI⁵, Philippe Gevaert, MD⁶, Dongui Zhang⁷, Asif Khan⁸, Chunpeng Fan⁷, Nikhil Amin⁹, Jennifer D. Hamilton, PhD10, Brian N Swanson7, Gianluca Pirozzi11, Neil M.H. Graham⁹, and Leda Mannent¹², ¹Ghent University, Ghent, Belgium, ²University Hospitals Leuven, Leuven, Belgium, ³IDI-BAPS, Barcelona, Spain, ⁴University of Chicago, Chicago, IL, ⁵Massachusetts General Hospital, Boston, MA, ⁶Ghent University Hospital, Gent, Belgium, ⁷Sanofi, Bridgewater, ⁸Sanofi, Chilly-Mazarin, France, ⁹Regeneron Pharmaceuticals, Inc., Tarrytown, NY, ¹⁰Regeneron Pharmaceuticals Inc, Tarrytown, ¹¹Sanofi, Bridgewater, NJ, 12Sanofi R&D, Chilly Mazarin

289 Airway epithelial cells enhances tissue plasminogen activator by short chain fatty acids via G protein coupled receptor 41 and 43 Yoshimasa Imoto, MD, PhD^{1,2}, Atsushi Kato, PhD², Tetsuji Takabayashi, MD¹, Masafumi Sakashita, MD¹, James E Norton, MS², Lydia A Suh, BS², Roderick G. Carter, BS², Ava R Weibman², Kathryn E. Hulse, PhD², Whitney W. Stevens, MD, PhD², Kathleen E. Harris, BSc², Anju T. Peters, MD, FAAAAI², Leslie C. Grammer, MD, FAAAAI², Bruce K. Tan, MD, MS³, Kevin C. Welch, MD³, David B. Conley, MD³, Robert C. Kern, MD³, Shigeharu Fujieda, MD¹, and Robert P. Schleimer, PhD FAAAAI², ¹University of Fukui, Fukui, Japan, ²Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ³Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL

290 Symptom severity from RV infections are increased in those with unified airway disease Jaeden T Calton, Amanda L Willis, MS, Joshua B Calton, BS and Eugene H. Chang, MD, University of Arizona - Department of Otolaryngology, Tucson, AZ

291 Early Life Risk Factors for Chronic Sinusitis: a Longitudinal Birth Cohort Study Eugene H. Chang, MD¹, Debra A Stern, MS², Amanda L Willis, MS¹,

Eugene H. Chang, MD¹, Debra A Stern, MS², Amanda L Willis, MS¹, Stefano Guerra, MD, PhD², Anne L. Wright, PhD³, and Fernando D

Martinez, MD⁴, ¹University of Arizona - Department of Otolaryngology, Tucson, AZ, ²University of Arizona - Asthma and Airway Disease Research Center, Tucson, AZ, ³Asthma and Airway Disease Research Center, University of Arizona Health Sciences, Tucson, AZ, ⁴Department of Pediatrics and the Asthma and Airway Disease Research Center, University of Arizona Health Sciences, Tucson, AZ

Immune Mechanisms in Atopic Dermatitis

MAAI

2608 Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

292 Neuronal IL-4Rα and JAK1 signaling critically mediate atopic dermatitis-associated

Landon K. Oetjen¹, Madison R. Mack¹, Jing Feng¹, Timothy M. Whelan¹, Haixia Niu¹, Changxiong J. Guo¹, Sisi Chen², Anna M. Trier¹, Amy Z. Xu¹, Shivani V. Tripathi¹, Jialie Luo¹, Xiaofei Gao¹, Lihua Yang¹, Samantha L. Hamilton¹, Peter L. Wang¹, Jonathan R. Brestoff¹, Martha L. Council¹, Richard Brasington¹, Andras Schaffer¹, Frank Brombacher³, Chyi-Song Hsieh¹, Robert W. Gereau¹, Mark J. Miller¹, Zhou-Feng Chen¹, Hongzhen Hu¹, Steve Davidson², Qin Liu¹, and Brian S. Kim¹, ¹Washington University School of Medicine, St. Louis, MO, ²University of Cincinnati College of Medicine, Cincinnati, OH, ³University of Cape Town, Cape Town, South Africa

- 293 Elevated Eosinophil Lineage-Committed Progenitors In Skin Lesions Of Patients With Moderate-To-Severe Atopic Dermatitis Emma Price, BSc, Dhuha Al-Sajee, MD, PhD, Sai Sakktee Krisna, BSc, Karen J. Howie, BSc, Caroline Munoz, Michelle Yee, Mathew Patel, Paul M. O'Byrne, MB, Hermenio Lima, MD, PhD, Roma Sehmi, PhD, FAAAAI and Gail M. Gauvreau, PhD, McMaster University, Hamilton, ON, Canada
- 294 A Comparison Of The Gut Microbiome Of Food Allergic Hosts With and Without Atopic Dermatitis Versus Healthy Controls Brianne Navetta-Modrov¹, Cristina P. Sison, PhD², Annette Lee, PhD², and Punita Ponda, MD, FAAAAI³, ¹NorthWell Health System, Great Neck, NY, ²NorthWell Health System, Manhasset, NY, ³Division of Allergy and Immunology, Departments of Medicine and Pediatrics, Northwell Health, Great Neck, NY

295 Cockroach allergen induces atopic dermatitis and up regulates DCIR expression in mast cell Huang Yang^{1,2}, Xiaoyan Luo^{1,2}, Danh C. Do, PhD³, and Pei-song Gao¹, ¹JHAAC, Baltimore, MD, ²Children's Hospital, Chongqing Medical University, Chongqing, China, ³Johns Hopkins University, Baltimore, MD
 296 Investigating the Role of Staphylococcal Biofilms in the Patho-

genesis of Pediatric Atopic Dermatitis

Tammy Gonzalez¹, Asel Baatyrbek-kyzy, BS², Heidi Andersen, MD³, David B Haslam, MD², Jocelyn M Biagini Myers, PhD⁴, Gurjit K. Khurana Hershey, MD, PhD, FAAAAI¹, and Andrew B. Herr, PhD², ¹Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ²Cincinnati Children's Hospital Medical Center, Cincinnati, ³Cincinnati Children's Hospital Medical Center, Cincinnati, ⁴Cincinnati Children's Hospital, Cincinnati, OH

Asthma Diagnosis

ADT

3201

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

297 Measuring reversible airflow obstruction and/or methacholine hyper-reactivity in all individuals referred for asthma specialty care Eric Macy, MD MS FAAAAI, Kaiser Permanente San Diego, San Diego, CA





298 Study On Asthma Exacerbations In Patients With Asthma And Rhinitis Ken Ohta, MD, PhD, FAAAAI, National Hospital Organization

Ken Onta, MD, PhD, FAAAAI, National Hospital Organization Tokyo National, Tokyo, Japan, Hiroshi Tanaka, MD, NPO Sapporo Cough Athma, and Allergy Center, Sapporo, Japan, Yuhji Tohda, Kinki Univ. School of Med., Osaka-sayama-shi, Japan, Hirotsugu Kohrogi, MD, Kumamoto Univ. Graduate School of Medicine, Chuo-ku, Japan, Kazuo Akiyama, MD, National Sagamihara Hospital, Sagamihara-shi, Japan, Junichi Chihara, Soseikai General Hospital, Fushimi-ku, Japan, Hiroki Sakakibara, MD, Tokushige Kokyuki Clinic, Nagoya, Japan, Mitsuru Adachi, Allergic & Respiratory Diseases Research Institute, Minato-ku, Japan and Gen Tamura, Sendai Kido Lab. Co., Ltd., Sendaishi, Japan

299 Feasibility and Safety of Cockroach Nasal Allergen Challenge (NAC) in Cockroach Sensitized Children and Adults with Asthma: A Multi-Site, Open-Label Pilot Study (Inner City Asthma Consortium)

Amanda K Rudman Spergel, MD, NIH/ NIAID/ DAIT/ AAABB, Bethesda, MD, Michelle L. Sever, PhD, Rho, Inc., Chapel Hill, NC, Jacqueline Johnson, DrPH, Rho Federal Systems Division, Inc., Chapel Hill, NC, Michelle A Gill, MD, PhD, UT Southwestern Medical Center, Dallas, TX, Carolyn Kercsmar, MD, Department of Pediatrics, Asthma Center, Division of Pulmonary Medicine, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, Dan A. Searing, MD, Children's Hospital Colorado, Aurora, CO, Stephanie Lovinsky-Desir, MD, MS, Columbia University Medical Center, New York, NY, Stephen J. Teach, MD, Children's National Health System, Washington, DC, James E. Gern, MD, FAAAAI, University of Wisconsin School of Medicine and Public Health, Madison, WI, William W. Busse, UW Allergy, Pulmonary and Critical Care Medicine, University of Wisconsin School of Medicine and Public Health, Madison, WI, Alkis Togias, MD, FAAAAI, NIAID/NIH, Rockville, MD, Robert A. Wood, MD, FAAAAI, Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD, and Andrew H. Liu, MD, FAAAAI, Children's Hospital Colorado, University of Colorado School of Medicine, Aurora, CO

- 300 Effect on FEV1 of albuterol administered in obese and nonobese children without asthma to assess bronchial reversibility Victor Gonzalez-Uribe, MD, Facultad Mexicana de Medicina-Universidad La Salle Mexico, Mexico City, Mexico, Blanca Estela Del Rio Navarro, Hospital Infantil de Mexico Federico Gomez, Mexico City, Mexico, Juan Jose Luis Sienra Monge, MD, Hospital Angeles del Pedregal, Mexico, Mexico and Jaime Mariano Del Rio Chivardi, Hospital Espanol, Mexico, Mexico
- 301 Aspergillus fumigatus IgG level greater than 60 mg/L Increases Diagnostic Specificity of Allergic Bronchopulmonary Aspergillosis

Sujoy Khan, FRCPath¹, Sushmita R Chowdhury, FRCP¹, and Stephen Holding, FRCPath², ¹Apollo Gleneagles Hospital, Kolkata, India, ²Hull Royal Infirmary, Hull, United Kingdom

302 Korean Version of Test for Respiratory and Asthma Control in Kids (TRACK): Reliability and Validity Dong In Suh¹, Yun Jung Choi¹, Kwang-Cheon Jang², Hyeon-Jong Jong Yang, MD³, Hyo Bin Kim⁴, Mee-Yong Shin⁵, and Young Yull Koh¹, ¹Seoul National University Hospital, Seoul, Korea, Republic of (South), ²Ilsan Hospital, Koyang, Korea, ³Soonchunhyang University Hospital, Seoul, Korea, Republic of (South), ⁴Sang-gye Paik Hospital, Nowon-gu, Korea, ⁵Soonchunhyang University Bucheon Hospital, Wonmi-gu, Korea

303 Reduction in Asthma Related Emergency Department Visits and Hospitalizations Among Children Evaluated in a Specialty Asthma Clinic

Mayuran Ravindran, The Ohio State University College of Medicine, Columbus, OH and David R. Stukus, MD, FAAAAI, Nationwide Children's Hospital, New Albany, OH

304 An Analysis of Type 2 Biomarkers in TENOR II

Eugene R. Bleecker, MD, FAAAAI¹, Stanley J. Szefler, MD, FAAAAI², Robert S. Zeiger, MD, PhD, FAAAAI³, Aimee Foreman⁴, Tmirah Haselkorn, PhD⁵, Evgueni Neiman⁶, Farid Kianifard, PhD⁷, Brandee Paknis, PharmD⁷, Benjamin Ortiz, MD⁷, and Bradley E. Chipps, MD, FAAAAI⁸, ¹The University of Arizona Health Sciences, Tucson, AZ, ²The Breathing Institute, Children's Hospital Colorado, Aurora, CO, ³Kaiser Permanente Southern California, San Diego, CA, ⁴ICON Plc, San Francisco, CA, ⁵EpiMetrix, Inc., Los Altos, CA, ⁶ICON Plc, San Francisco, CA, ⁷Novartis Pharmaceuticals Corporation, East Hanover, NJ, ⁸Capital Allergy and Respiratory Disease Center, Sacramento, CA

305 The SensitometerTM test: New iPhone App Accurately Measures Human Smooth Muscle Reactivity
 Steven L. Kagen, MD, FAAAAI, The Kagen Allergy Clinic, S.C., Appleton, WI, Jason McAnany, PhD, University of Illinois-Chicago, Chicago, IL, Brandon Smith, PhD, University of Wisconsin - Madison, Madison, WI and Amy Garland, RN, The Kagen Allergy Clinic SC, Appleton, WI

306 Evaluating a Multidisciplinary Approach for the Management of Severe Asthma in the New York City Borough of the Bronx: The Montefiore Asthma Center Experience

Ryan Abraham¹, Jalpa Patel², David Cobden², and Sunit P. Jariwala, MD³, ¹Montefiore Medical Center, Roslyn, NY, ²AstraZeneca, Hillsborough, ³Montefiore Medical Center, Bronx

307 Frequency Of Anti-inflammatory Related Cutaneous Manifestation In Patients With Aspirin-exacerbated Respiratory Disease (AERD)

Mayra Coutinho Andrade, MD, Rosilane dos Reis Pacheco, MD, Mila Almeida, MD, Priscila Takejima, MD, Jorge Elias Kalil Filho, MD, PhD, Pedro Giavina-Bianchi, MD, PhD, FAAAAI and Rosana C. Agondi, MD, PhD, Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil

308 Factors associated with severe asthma exacerbation in children: Preliminary Report

Isree Leelayuwattanakul, MD, Punchama Pacharn, MD, Orathai Jirapongsananuruk, MD, and Nualanong Visitsunthorn, MD, Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

309 Measurement of the fraction of exhaled breath temperature as a biomarker of asthma control in patients in northeastern Mexico Cindy Elizabeth de Lira-Quezada, MD¹, Sandra Nora Gonzalez-Diaz, MD, PhD², Alfredo Arias Cruz, MD, FAAAAI³, Barbara Elizondo Villarreal, MD^{4,5}, Carlos Macouzet-Sanchez, MD¹, Gabriela Galindo-Rodriguez, MD, PhD⁵, Rosalaura Virginia Villarreal-Gonzalez, MD¹, Rosa Ivett Guzman-Avilan, MD¹, Daniel Sanchez-Guerra, MD¹, and Emilio G Soto-Zamora, MD⁵, ¹University Hospital "Dr Jose Eleuterio González", Monterrey, Mexico, ²University Hospital "Dr Jose Eleuterio Gonzalez", Monterrey, Mexico, ³Universidad Autonoma de Nuevo Leon, Monterrey, Mexico, ⁴Hospital Universitario "José Eleuterio González", Monterrey, Mexico, ⁵University Hospital "Dr Jose Eleuterio González", Monterrey, Mexico,

310 Comparison Of Exhaled Breath Fraction Temperature (frEBT) In Patients With Respiratory Allergy

Rosa Ivett Guzman-Avilan, MD¹, Sandra Nora González- Diaz, MD, PhD, FAAAAI FACAAI, EAACI², Alfredo Arias Cruz, MD, FAAAAI³, Alejandra Macias-Weinmann, MD⁴, Barbara Elizondo Villarreal, MD⁵, Carlos Macouzet-Sanchez, MD⁶, Rosalaura Virginia Villarreal-Gonzalez, MD⁷, Cindy Elizabeth de Lira-Quezada, MD^{8,9}, Katia Guzman Avilan, MD⁶, and Daniel Sanchez-Guerra, MD⁷, ¹Facultad Y Hospital Universitario Dr José Eleuterio Gonzalez, Monterrey, Mexico, ²Hospital Universitario Monterrey, NL UANL, Monterrey, Mexico, ³Universidad Autonoma de Nuevo Leon, Monterrey, Mexico, ⁵Hospital Universitario "José Eleuterio González", Monterrey, Mexico, ⁶Hospital Universitario Dr José



Eleuterio González, Monterrey, Mexico, ⁷University Hospital "Dr Jose Eleuterio González", Monterrey, Mexico, ⁸Hospital Universitario Dr Jose Eleuterio González, San Nicolas de Los Garza, Mexico, ⁹Hospital Universitario "José Eleuterio González"Universitario "José Eleuterio González", Monterrey, Mexico

- 311 Impact of asthma control on susceptibility to ambient air pollution among African American teens with asthma Michelle L. Hernandez, MD, FAAAAI¹, Radhika Dhingra, PhD², Allison J. Burbank, MD¹, Krista Todoric, MD³, Ceila Loughlin, MD⁴, Marcia Frye, MD⁵, Kelly E Duncan, PhD⁶, Carole Robinette, MS⁷, Katherine H Mills, BA¹, Robert Devlin, PhD², David B. Peden, MD MS FAAAAI¹, and David Diaz Sanchez, PhD⁸, ¹UNC Center for Environmental Medicine, Asthma, & Lung Biology, Chapel Hill, NC, ²US Environmental Protection Agency, Chapel Hill, ³Penn State Health Milton S Hershey Medical Center, Hershey, ⁴University of North Carolina Chapel Hill, Chapel Hill, ⁵Naval Medical Center, Portsmouth,
- Hill, NC 312 Biomarkers of Severity in Pediatric Asthma in Memphis, Tennessee

⁶Merck, Kenliworth, ⁷UNC Center for Environmental Medicine,

Asthma, & Lung Biology, Chapel Hill, ⁸NHEERL, ORD, Chapel

D. Betty Lew, MD, FAAAAI, UTHSC, CFRI, Memphis, TN, Amali E. Samarasinghe, PhD, Pediatrics, University of Tennessee Health Science Center, Memphis, TN, Rhiannon Renkert, St Jude Children's Research Hospital, Memphis, Robert Sealy, St Jude Children's Research Hospital, Memphis, TN, Catherine Hammond, MD, University of Tennessee Health Science Center, Memphis, TN, Patricia J Dubin, MD, UTHSC, CFRI, SJCRH, Memphis, TN and Julia L Hurwitz, PhD, SJCRH, Memphis, TN

313 Vitamin D and Forced Oscillation Technique parameters in asthmatic children Napatsayod Swangtrakul, MD, Ramathibodi Hospital, Mahidol

University, Bangkok, Thailand and Wiparat Manuyakorn, MD, Rama 6 Rd., Ramathibodi Hospital, Bangkok, Thailand

- 314 Microbiological findings in children with severe asthma Jon R. Konradsen, MD, PhD¹, Bjorn Nordlund, PhD², Lars Öhrmalm¹, Kristina Broliden, dr¹, Kjell Alving, PhD³, and Gunilla Hedlin, MD, PhD⁴, ¹Karolinska Institutet, Stockholm, ²Karolinska Institutet, Bromma, Sweden, ³Uppsala University, Uppsala, Sweden, ⁴Karolinska Institutet, Stockholm, Sweden
- 315 The Composite Asthma Severity Index: A Tool for Assessing Impact of Omalizumab Treatment in Children with Moderate-to-Severe Persistent Allergic Asthma Stoplay L Scoffer MD EAAAAl¹ Twirch Hacelborn PhD²

Stanley J. Szefler, MD, FAAAAI¹, Tmirah Haselkorn, PhD², Benjamin Ortiz, MD³, Benjamin L. Trzaskoma, MS⁴, Ahmar Iqbal, MD⁴, and William W. Busse⁵, ¹University of Colorado School of Medicine and Children's Hospital Colorado, Aurora, CO, ²EpiMetrix, Inc., Los Altos, CA, ³Novartis Pharmaceuticals Corporation, East Hanover, NJ, ⁴Genentech, Inc., South San Francisco, CA, ⁵School of Medicine and Public Health, Madison, WI

316 Diagnosis and treatment of AERD: clinical practice realities Gabriella Melo Fontes Silva Dias, MD¹, João Paulo de Assis, MD¹, Mayra Coutinho Andrade, MD², Raisa Borges Castro, MD¹, Claudia Castilho Mouco¹, Andressa Zanandréa³, Marcelo V. Aun, MD⁴, Jorge Kalil, MD, PhD⁵, Pedro Giavina-Bianchi, MD, PhD⁵, and Rosana C. Agondi, MD, PhD⁶, ¹Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ²Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil, ³Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, ⁴Clinical Immunology and Allergy Division - University of Sao Paulo, Sao Paulo, ⁵Clinical Imunollogy and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil, ⁶Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, Sao Paulo, Brazil

317 Peak oral and nasal inspiratory flows in asthmatics from a low income community in Rio de Janeiro, Brazil Marta Machado¹, Andrea Venerabile², Aniela Bonorino Xexeo Castelo Branco², and Eliane Fonseca², ¹Fundação Técnico Educacional Souza Marques, RIO DE JANEIRO, Brazil, ²Fundação Técnico-Educacional Souza Marques, RIO DE JANEIRO, Brazil

 A Survey On Sleep Behaviors And Sleep-Related Problems Among Asthmatic Children Ages 6 – 12 Years Old In University of Santo Tomas Hospital – Outpatient Division Using The Filipino Version Of The Children's Sleep Habits Questionnaire (CSHQ)

Glaiza M. Madulara, University of Santo Tomas Hospital, Manila, Philippines

319 Characteristic features of airflow limitation and airway inflammation in stable school-aged asthmatics without requiring medication

Eiji Morita, MD¹, Kennichi Tokuyama^{2,3}, Yutaka Ueda^{2,3}, Takeshi Koga, MD, PhD¹, Shunichi Ogawa, MD¹, and Hideko Nishimura, MD, PhD⁴, ¹Saitama medical University hospital, Irumagun, Japan, ²Allergy Center, Saitama Medical University, Saitama, Japan, ³Department of Pediatrics, Saitama Medical University, Saitama, Japan, ⁴Tone chuou Hospital, Numata city, Gunma, Japan

320 Characteristics of patients with severe asthma in our population Vicente Javier Albendiz¹, Francisco Javier de Castro², Irene Garcia Gutierrez², Jimena Crespo², and Jose Manuel Zubeldia, MD, PhD^{3,4}, ¹Hospital General Universitario Gregorio Marañon, Madrid, Spain, ²Hospital General Universitario Gregorio Marañon, Madrid, ³Hospital General Universitario Gregorio Marañon, Pozuelo de Alarcón, Spain, ⁴Allergy Service, Hospital General Universitario Gregorio Marañón, Madrid, Spain

321 Impulse oscillometry as a noninvasive measure to diagnose tracheobronchomalacia

Yoomie J. Lee, MD and Nathan Rabinovitch, MD MPH, National Jewish Health, Denver, CO

323 Assessment of Asthma Outcomes and Risk Factors in School Children from Clairton, PA

Nicole L. Sossong, BS¹, Albert Presto², Tricia Morphew, MSc³, Jennifer P Elliott¹, and Deborah A. Gentile, MD^{4,5}, ¹Duquesne University School of Pharmacy, Pittsburgh, PA, ²Carnegie Mellon University, Pittsburgh, PA, ³Morphew Consulting, LLC, Manhattan Beach, CA, ⁴Pediatric Alliance, Pittsburgh, PA, ⁵Duquesne University, Pittsburgh, PA

324 Discrimination Between Asthmatic and Healthy Children Using Eosinophil Derived Neurotoxin is Independent of Blood Sample Matrix

Mizuho Nagao, MD, PhD¹, Helena Ekoff², Magnus Borres, MD, FAAAAI³, Anders Sjolander⁴, and Takao Fujisawa, MD, FAAAAI¹, ¹Mie National Hospital, Mie, Japan, ²ThermoFisher Scientific, Uppsala, Sweden, ³Uppsala University & ThermoFisher Scientific, Uppsala, Sweden, ⁴Phadia AB, Uppsala, Sweden

325 Population-based evaluation of blood eosinophil counts and association with patient characteristics in US adults with asthma Herve Caspard, MD, ScD, Trung N. Tran, MD, PhD, and Chris Ambrose, MD, AstraZeneca, Gaithersburg, MD





326 High-Quality Pediatric Spirometry Via Telemedicine

- **Tamara T. Perry, MD**¹, Pam K Leisenring, RRT, RPFT², Shawn A Harwell, MBA², Sheva K. Chervinskiy, DO¹, Larry A Simmons, MD¹, Stacie M. Jones, MD, FAAAAI¹, John L Carroll, MD¹, and Ariel Berlinski, MD¹, ¹UAMS/Arkansas Children's Hospital, Little Rock, AR, ²Arkansas Children's Hospital, Little Rock, AR
- 327 Characterization the Lung Function of Patients with Allergic Rhinitis Without Asthma Lisdeivis Medina, University Hospital Calixto García, Havana, Cuba
- 328 Fractional Exhaled Nitric Oxide (FeNO) Measurements with the NIOX VERO[®] in Children 4 to 6 Years Old using the 6 and 10 Second Exhalation Modes

Neal Jain, MD, FAAAAI¹, Richard L. Wasserman, MD, PhD, FAAAAI², Craig F. LaForce, MD³, Robert Anolik, MD, FAAAAI⁴, Margot MacDonald-Berko⁵, and Kathleen A. Rickard⁵, ¹San Tan Allergy, Gilbert, AZ, ²Allergy Partners of North Texas, Dallas, TX, ³North Carolina Clinical Research, Raleigh, NC, ⁴Allergy and Asthma Specialists, PC, Blue Bell, PA, ⁵Circassia Pharmaceuticals, Inc., Morrisville, NC

- 329 Adrenal insufficiency in severe asthma. Comparison with mild to moderate asthma and other related allergic diseases Michiko Haida, MD, PhD¹, Akihiko Hashiguchi, BS², Katsutoshi Ogawa, PharmD³, Takahiro Inoue, MD, PhD¹, and Bruce G. Bender, PhD FAAAAI⁴, ¹Hanzoumon Hospital, Tokyo, Japan, ²BML, Kawagoe, Japan, ³Amical-Life-Science, Tokyo, Japan, ⁴National Jewish Health, Denver, CO
- 330 Is Neck Circumference Associated with Asthma Severity in Adolescence?

Heloisa N Oliveira¹, Jessica Rosemberger¹, Alanne M. S. Bonfim¹, Natalia A Salata¹, Amanda M Vieira¹, Maria Regina A Cardoso², Maria Celia C Ciaccia¹, and Vera E. Rullo, MD¹, ¹Fundação Lusiada's Medicine Course, Santos, Brazil, ²School of Public Health, University of São Paulo, Brazil University of São Paulo - Brazil, São Paulo, Brazil

331 Association of Aspirin-Exacerbated Respiratory Disease with Airway Mycosis

Zachary W. Marshall, MD, Evan Li, MD, and David B. Corry, MD, Baylor College of Medicine, Houston, TX

- 332 The Association between Asthma and Cancer Diagnoses in the National Health Interview Survey Niloofar Anooshiravani, MD, Sairaman Nagarajan, Maria-Anna Vastardi, MD, Helen G Durkin and Rauno Joks, MD, SUNY Downstate Medical Center, Brooklyn, NY
- 333 A comparison of the utilities of the fractional exhaled nitric oxide level and mannitol bronchial provocation test in terms of predicting exercise-induced bronchoconstriction in asthmatic children

Yeong-Gwan Im, Chonnam National University, Gwangju, Korea, Republic of (South), Man Yong Han, Bundang CHA General Hospital, Bundang-gu, Korea, Republic of (South), Sun Hee Choi, MD, Kyung Hee University Hospital at Gangdong, Seoul, Korea, Republic of (South) and Heysung Baek, MD, Hallym University Kangdong Sacred Heart Hospi, Seoul, Korea, Republic of (South)

- 334 Longitudinal observation of non-specific bronchial hyperresponsiveness in school children: The role of the Atopy Sun Hee Choi, MD, Kyung Hee University Hospital at Gangdong, Seoul, Korea; Kyung Hee University Hospital at Gangdong, Seoul, Korea, Republic of (South), Kyung Suk Lee, MD, CHA Bundang Medical Center, CHA University, School of Medicine, Seongnamsi, Gyeonggi-do, Korea, Yeong-Ho Rha, Kyung Hee University Medical Center, Dongdaemun-gu, Korea and Hannah Jang, Department of Pediatrics, Kyung Hee University Hospital, Seoul, Korea, Republic of (South)
- 335 Risk factors and comorbidities of allergic rhinitis phenotype in children according to ARIA classification

Sungsu Jung, Department of Pediatrics, Childhood Asthma Atopy Center, Environmental Health Center, Asan Medical Center, University of Ulsan College of Medicine, Korea, Republic of (South), Seoul, Korea, Republic of (South), Jisun Yoon, Department of Pediatrics, Childhood Asthma Atopy Center, Environmental Health Center, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea, Republic of (South), Hyun-ju Cho, MD, Department of Pediatrics, Mediplex Sejong Hospital, seoul, So-Yeon Lee, Department of Pediatrics, Childhood Asthma Atopy Center, Environmental Health Center, Asan Medical Center, seoul, Young-Ho Kim, MD, Department of Pediatrics, Gyeongsang National University Changwon Hospital, Seoul, Korea, Republic of (South), Dong In Suh, Seoul National Univesity College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), Song-I Yang, 5Department of Pediatrics, Hallym University Sacred Heart Hospital, Hallym University College of Medicine, Anyang, Korea, Republic of (South), Ji-Won Kwon, MD, Seoul National University Bundang Hospital, Seongnam-Si, Korea, Gwang-Cheon Jang, MD, NHIC ILSAN Hospital, Ilsan-gu, Korea, Yong Han Sun, Gil Medical Center, Namdong-gu, Korea, Sung Il Woo, Heungdukgu, Choongbuk Univ. Hosp., Cheongju, Korea, You Sook Youn, MD, St. Mary's Hospital, Daejeon, Korea, Republic of (South), Kang Seo Park, MD, PhD, Presbyterian Medical Center, Jeonju, Korea, Hwa Jin Cho, Department of Pediatrics, Chonnam National University Hospital, Chonnam National University Medical School, Gwangju, Korea, Republic of (South), Myung Hee Kook, Gwangju Veterans Hospital, Kwangsan-gu, Korea, Hye Ryoung Yi, Department of Pediatrics, Gwangju Veterans Hospital, Gwangju, Korea, Republic of (South), Hai Lee Chung, MD, PhD, Catholic University of Taegu Hospital, Nam-gu, Korea, Ja Hyeong Kim, MD, Ulsan University Hospital, Ulsan, Korea, Republic of (South), Hyung Young Kim, MD, Pusan National University Yangsan Hospital, Yangsan, Korea, Republic of (South), Jin A Jung, Dong-A University Hospital, Seo-gu, Korea, Hyang Ok Woo, Gyeongsang National University College of Medicine, Jinju, Korea and Soo-Jong Hong, Asan Medical Center, Ulsan University, Seoul, Korea, Republic of (South)

336 Non-Specific Bronchial Hyperreactivity measured by Methacholine in the Diagnosis of Asthma in Children Blanca Barroso Garcia, Hospital Universitario Fundación Jiménez

Blanca Barroso Garcia, Hospital Universitario Fundación Jiménez Díaz, Madrid, Spain, Madrid, Spain

337 Predicting Asthma Development in Children Using a New Personalized Asthma Risk Score

Eric M. Schauberger, DO PhD^{1,2}, Gurjit K. Khurana Hershey, MD, PhD, FAAAAI^{1,2}, David I. Bernstein, MD, FAAAAI², Jocelyn M. Biagini Myers, PhD¹, Hua He, MS¹, Lisa J. Martin, PhD¹, John Kroner, MS¹, James E. Lockey, MD MS FAAAAI², and Grace K. LeMasters, PhD², ¹Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ²University of Cincinnati, Cincinnati, OH

338 Decreased asthma control in older patients with Cytomegalovirus seropositivity

Janette Birmingham, MS, Mount Sinai School of Medicine, New York, Agustin Calatroni, MA MS, Rho Federal Systems Division, Inc., Chapel Hill, NC, Juan P. Wisnivesky, MD, DrPH, Mount Sinai, New York, NY and Paula J. Busse, MD, FAAAAI, Mount Sinai School of Medicine, New York, NY

339 Spirometry utilization in primary care – adherence to national asthma guidelines

Jasdeep S Badwal, MD, University of Rochester - Strong Memorial Hospital, Rochester, NY and Fadi Alkhatib, Larkin Community Hospital, South Miami, FL

340 Allergic Sensitization and Asthma Severity

Yoavanit Srivaro, MD^{1,2}, Jettanong Klaewsongkram, MD^{1,2}, and Hiroshi Chantaphakul, MD, FAAAAI^{1,2}, ¹King Chulalongkorn Memorial Hospital, Thai Red Cross Society, Bangkok, ²Chulalongkorn



University, Faculty of Medicine, Department of Medicine, Division of Allergy and Clinical Immunology, Chulalongkorn Allergy and Clinical Immunology Research Group, Bangkok, Thailand

Airway Immunology and Inflammation

ADT

3202

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

341 Potency Of German Cockroach Extracts For IgE Reactivity Depends On Allergen Content And Allergen-specific IgE Titers Of The Cockroach Allergic Patient

Jill Glesner¹, Stephanie Filep¹, Véronique M. Schulten, PhD², April Frazier, PhD², Lisa D Vailes¹, Sabina Wünschmann, PhD³, Kyoung Y. Leong⁴, Coby Schal, PhD⁵, Martin D. Chapman, PhD FAAAAI1, Alessandro Sette, PhD2, and Anna Pomés, PhD FAAAAI1, 1Indoor Biotechnologies, Inc., Charlottesville, VA, 2La Jolla Institute for Allergy & Immunology, La Jolla, CA, ³Indoor Biotechnologies Inc., Charlottesville, VA, ⁴Yonsei University College of Medicine, Seoul, Korea, Republic of (South), ⁵North Carolina State University, Raleigh, NC

342 In vitro and in vivo analysis of T cell-induced bronchoconstriction

Akio Mori, MD, PhD¹, Satoshi Kouyama¹, Miyako Yamaguchi¹, Chiemi Kumitani¹, Akemi Ohtomo¹, Yuto Nakamura¹, Yasuhiro Tomita¹, Hamada Hamada¹, Yosuke Kamide¹, Hiroaki Hayashi, MD¹, Kentaro Watai¹, Chihiro Mitsui, MD, PhD¹, Kiyoshi Sekiya¹, Yuma Fukutomi, MD, PhD1, Masami Taniguchi, MD, PhD1, Takavuki Ohtomo², and Osamu Kaminuma³, ¹Clinical Research Center for Allergy and Rheumatology, Sagamihara National Hospital, Sagamihara, Japan, ²Tokyo University of Pharmacy and Life Science, Hachioji, ³The Center for Life Science Research, University of Yamanashi, Chuo

Lung Epithelial Derived SPLUNC1 Regulates Th2 inflamma-343 tion in Allergic Asthma

Tongde Wu, The University of North Carolina at Chapel Hill, Chapel Hill and Robert Tarran, PhD, University of North Carolina School of Medicine, Chapel Hill, NC

Anti-elastin Antibody May Contribute To Airway Remodeling 344 In Asthma

Shingo Tokita¹, Kumiya Sugiyama², and Hirokuni Hirata¹, ¹Dokkyo Medical University Koshigaya Hospital, Koshigaya, Japan, ²Dokkyo Medical University Koshigaya Hospital, Koshigaya

345 Nasopharyngeal Microbiome During Health and Illness in Early Life

Anna Lang¹, Kathryn E. Holt², Michael Inouye², Patrick G. Holt³, Shu Mei Teo², Howard HF Tang², Louise M. Judd², Robert F. Lemanske, MD, FAAAAI¹, Michael D. Evans¹, Daniel J. Jackson, MD, FAAAAI¹, and James E. Gern, MD, FAAAAI¹, ¹University of Wisconsin School of Medicine, Madison, WI, ²The University of Melbourne, Melbourne, ³Telethon Kids Institute, West Perth, Australia

Anti-IL-6 treatment in two pediatric patients with severe persis-346 tent asthma with the *IL4R*⁵⁷⁶ variant Brittany Esty, MD¹, Lisa M. Bartnikas, MD¹, Louis M. Charbonnier, PhD¹, Amir Hossein Massoud, PhD¹, Carmen Leon-Astudillo, MD², Gary Visner, DO², Meera Subramaniam, MD², Wanda Phipatanakul, MD MS FAAAAI¹, and Talal A. Chatila, MD MSc¹, ¹Division of Immunology, Boston Children's Hospital, Harvard Medical School, Boston, MA, ²Division of Respiratory Diseases, Boston Children's Hospital, Harvard Medical School, Boston, MA

347 Coordinated Epithelial and Eosinophil Inflammatory Pathways Underpin Upper Respiratory Tract Viral Infection (URI) Triggered Asthma Exacerbations

Matthew C. Altman, MD¹, Denise Babineau², Elizabeth Whalen, PhD³, Michelle A Gill, MD, PhD⁴, Baomei Shao⁵, Andrew H. Liu, MD, FAAAAI⁶, Brett Jepson⁷, Rebecca S. Gruchalla, MD, PhD, FAAAAI8, George T. O'Connor, MD9, Jacqueline A. Pongracic, MD, FAAAAI¹⁰, Carolyn M. Kercsmar, MS, MD¹¹, Gurjit K. Khurana Hershey, MD, PhD, FAAAAI12, Edward M. Zoratti, MD, FAAAAI¹³, Christine Cole Johnson, PhD MPH FAAAAI¹⁴, Stephen J. Teach, MD¹⁵, Meyer Kattan, MD¹⁶, Leonard B. Bacharier, MD, FAAAAI¹⁷, Avraham Beigelman, MD MSCI FAAAAI¹⁷, Steve M. Sigelman, BSN¹⁸, Peter J. Gergen, MD MPH¹⁹, Lisa M. Wheatley, MD²⁰, Scott Presnell, PhD³, Alkis Togias, MD, FAAAAI²¹, William W. Busse²², and Daniel J. Jackson, MD, FAAAAI23, ¹University of Washington, Seattle, WA, ²Rho Inc., Chapel Hill, NC, ³Benaroya Research Institute, Seattle, WA, ⁴UT Southwestern Medical Center, Dallas, TX, ⁵UT Southwestern, Dallas, TX, 6Children's Hospital Colorado, University of Colorado School of Medicine, Aurora, CO, 7Rho, Chapel Hill, NC, 8Univ. Texas Southwestern Medical Center, Dallas, TX, ⁹Boston University School of Medicine, Boston, MA, ¹⁰Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ¹¹Cincinnati Children's Hospital, Cincinatti, OH, ¹²Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ¹³Henry Ford Hospital, Detroit, MI, ¹⁴Henry Ford Health System Public Health Sciences, Detroit, MI, ¹⁵Children's National Health System, Washington, DC, ¹⁶Columbia University, New York, NY, 17Washington University, Saint Louis, MO, ¹⁸NIH/NIAID, Bethesda, MD, ¹⁹NIH/NIAID, Rockville, MD, 20NIAID/NIH, Bethesda, MD, 21NIAID/NIH, Rockville, MD, 22UW Allergy, Pulmonary and Critical Care Medicine, University of Wisconsin School of Medicine and Public Health, Madison, WI, ²³University of Wisconsin School of Medicine, Madison, WI

348 Differential features of pro-inflammatory eicosanoids in exhaled breath condensate and sputum from asthmatics

Yoshitaka Uchida, MD^{1,2}, Tomoyuki Soma, MD, PhD^{2,3}, Takehito Kobayashi, MD, PhD4,5, Kazuyuki Nakagome, MD, PhD5,6, and Makoto Nagata, MD, PhD^{5,6}, ¹Department of Respiratory Medecine,Saitama Medical University, Saitama, Japan, ²Allergy Center,-Saitama Medical University, Saitama, Japan, ³Department of Respiratory Medicine, Saitama Medical University, Saitama, Japan, ⁴Department of General Internal Medicine, Saitama Medical University, Saitama, Japan, ⁵Allergy Center, Saitama Medical University, Saitama, Japan, ⁶Department of Respiratory Medicine, Saitama Medical University, Saitama, Japan

Generation of Neutrophil Mediators During an Experimental Infection with Rhinovirus-16 in Asthmatic Patients Robert A. Sullivan, MD¹, Evan Rajadhyaksha, BSc², Patricia Jorge, M.D³, Holliday T. Carper, BS⁴, Deborah D. Murphy, RN¹, Thomas A.E. Platts-Mills, MD, PhD, FAAAAI5, and Peter W. Heymann, MD⁴, ¹University of Virginia, Charlottesville, VA, ²University of Virginia, Alexandria, VA, ³Federal University, Sao Carlos, Brazil, ⁴University of Virginia Asthma and Allergic Diseases Center and the Department of Pediatrics Division of Respiratory Medicine, Charlottesville, VA, ⁵Division of Asthma, Allergy & Immunology, University of Virginia Health System, Charlottesville, VA

Downregulation Of Type 2 Innate Lymphoid Cells (ILC2s) In The Blood By Aspirin Before But Not After Aspirin Desensitization In Aspirin Exacerbated Respiratory Disease (AERD) Maxwell Yisheng Li, MD¹, Sucai Liu, PhD², and Rafeul Alam, MD, PhD, FAAAAI², ¹University of Colorado/National Jewish Health, Denver, CO, ²National Jewish Health, Denver, CO 351 Dermatophagoides farinae upregulates the effector functions of

eosinophils through aMB2 integrin and PAR-2 Yutaka Ueda^{1,2}, Kennichi Tokuyama^{1,2}, Kazuyuki Nakagome, MD, PhD^{2,3}, Takehito Kobayashi, MD, PhD^{2,4}, and Makoto Nagata, MD, PhD^{2,3}, ¹Department of Pediatrics, Saitama Medical University, Saitama, Japan, ²Allergy Center, Saitama Medical University, Saitama, Japan, ³Department of Respiratory Medicine, Saitama



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Medical University, Saitama, Japan, ⁴Department of General Internal Medicine, Saitama Medical University, Saitama, Japan

352 Human iPSC-derived MSC negatively modulates ILC2 by PDL1/2

Chenglin Li, Zhibin Xu, Zili Qin, Yaqi Pen and Qingling Fu, Otorhinolaryngology Hospital, The First Affiliated Hospital, Sun Yatsen University, Guangzhou, China

- Heterogeneity of Immune Responses to Endotoxin in Mild Allergic Asthma Versus Severe Uncontrolled Asthma
 V. Beloglazov¹, Yu Popenko¹, L Znamenska¹, and Lawrence Dubuske^{2,3}, ¹Medical Academy named after SI Georgievsky Crimean Federal University, Simferopol, ²Immunology Research Institute of New England, Gardner, MA, ³George Washington University School of Medicine, Washington, DC
- 354 Exacerbation Risk and Type 2 Inflammation in Placebo Patients During a Phase 2b Study of Dupilumab in Patients With Uncontrolled Persistent Asthma

Mario Castro, MD, MPH, FCCP¹, Brian N. Swanson, PhD², Shyamalie Jayawardena³, Jennifer D. Hamilton, PhD⁴, Nikhil Amin⁴, Gianluca Pirozzi², Neil M.H. Graham⁴, and Ariel Teper, MD², ¹Washington University, Saint Louis, MO, ²Sanofi, Bridgewater, NJ, ³Sanofi, Bridgewater, ⁴Regeneron Pharmaceuticals, Inc., Tarrytown, NY

- 355 Salivary MicroRNA Expression Profiles May Predict Loss of Lung Function and Weight Gain in Asthmatics Elizabeth M. Daniel¹, Maria Paula Henao¹, Jennifer Kraschnewski¹, and Faoud Terrence Ishmael, MD, PhD, FAAAAI², ¹Penn State, Milton S. Hershey Medical Center, Hershey, PA, ²Penn State College of Medicine, Hershey, PA
- 356 Plasminogen activator inhibitor 1 (PAI-1) level and lung function over 30 years: the CARDIA study Michael C. Sharmin, MD¹ Michael J. Cutting, MD¹ Sedius S.

Michael G. Sherenian, MD¹, Michael J Cuttica, MD¹, Sadiya S Khan, MD¹, Laura A Colangelo, MS¹, Joan Cook-Mills, PhD¹, Seong Ho Cho, MD, FAAAAI², Myriam Fornage, PhD³, Myron Gross, PhD⁴, David Jacobs, PhD⁴, Pamela Schreiner, PhD⁴, Douglas Vaughn, MD¹, Donald Lloyd-Jones, MD ScM¹, Ravi Kalhan, MD¹, and Rajesh Kumar, MD, FAAAAI⁵, ¹Northwestern University, Chicago, IL, ²University of South Florida Morsani College of Medicine, Tampa, FL, ³The University of Texas, Houstan, TX, ⁴University of Minessota, Minneapolis, MN, ⁵Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL

- 357 Plasma concentration of selected sphingolipids correlates with lung function parameters in house dust mite allergic patients Krzysztof Kowal, MD, PhD, Ewa Zebrowska, PhD, and Adrian Chabowski, MD, PhD, Medical University of Bialystok, Bialystok, Poland
- 358 An efficient approach for recombinant expression and purification of Rhinovirus 16 (HRV-16) capsid proteins in *Escherichia coli*

Sayeh Agah, PhD¹, Martin D. Chapman, PhD FAAAAI², and Sabina Wünschmann, PhD¹, ¹Indoor Biotechnologies Inc., Charlottesville, VA, ²Indoor Biotechnologies, Inc., Charlottesville, VA

359 Eosinophil Gene Activation in the Upper Airway is a Marker of Asthma Exacerbation Susceptibility in Children Daniel J. Jackson, MD, FAAAAI¹, Denise Babineau², Elizabeth Whalen, PhD3, Michelle A Gill, MD, PhD4, Baomei Shao5, Andrew H. Liu, MD, FAAAAI⁶, Brett Jepson⁷, Rebecca S. Gruchalla, MD, PhD, FAAAAI⁸, George T. O'Connor, MD⁹, Jacqueline A. Pongracic, MD, FAAAAI¹⁰, Carolyn M. Kercsmar, MS, MD¹¹, Gurjit K. Khurana Hershey, MD, PhD, FAAAAI¹², Edward M. Zoratti, MD, FAAAAI13, Christine Cole Johnson, PhD MPH FAAAAI14, Stephen J. Teach, MD15, Meyer Kattan, MD16, Leonard B. Bacharier, MD, FAAAAI17, Avraham Beigelman, MD MSCI FAAAAI17, Steve M. Sigelman, BSN¹⁸, Peter J. Gergen, MD MPH¹⁹, Lisa M. Wheatley, MD²⁰, Scott Presnell, PhD³, Alkis Togias, MD, FAAAAI²¹, William W. Busse²², and Matthew C. Altman, MD²³, ¹University of Wisconsin School of Medicine and Public Health,

Madison, WI, ²Rho Inc., Chapel Hill, NC, ³Benaroya Research Institute, Seattle, WA, ⁴UT Southwestern Medical Center, Dallas, TX, ⁵UT Southwestern, Dallas, TX, ⁶Children's Hospital of Colorado, Denver, ⁷Rho, Chapel Hill, NC, ⁸Univ. Texas Southwestern Medical Center, Dallas, TX, ⁹Boston University School of Medicine, Boston, MA, ¹⁰Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ¹¹Cincinnati Children's Hospital, Cincinatti, OH, ¹²Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ¹³Henry Ford Hospital, Detroit, MI, ¹⁴Henry Ford Health System Public Health Sciences, Detroit, MI, ¹⁵Children's National Health System, Washington, DC, ¹⁶Columbia University, New York, NY, ¹⁷Washington University, Saint Louis, MO, ¹⁸NIH/NIAID, Bethesda, MD, ¹⁹NIH/NIAID, Rockville, MD, ²⁰NIAID/NIH, Bethesda, MD, ²¹NIAID/NIH, Rockville, MD, ²²School of Medicine and Public Health, Madison, WI, ²³University of Washington, Seattle, WA

360 RhoA signaling in CCL2-induced macrophage polarization Jie Mu, Johns Hopkins University, Baltimore, MD

- 361 Serum periostin levels during follow-up and management of asthma in children treated with inhaled corticosteroids Heysung Baek, MD, Hallym University Kangdong Sacred Heart Hospi, Seoul, Korea, Republic of (South), Yeong-Gwan Im, Chonnam National University, Gwangju, Korea, Republic of (South), Sun Hee Choi, MD, Kyung Hee University Hospital at Gangdong, Seoul, Korea, Republic of (South), Man Yong Han, Bundang CHA General Hospital, Bundang-gu, Korea, Republic of (South) and Kenji Izuhara, MD, PhD, Saga Medical School, Saga, Japan
- 362 The expression of TRPV1 and innate Th2-cytokines in patients with chronic rhinosinusitis and asthma Joo-Hee Kim, MD¹, Joong-Seob Lee², Young-Suk Jang¹, Ji Young Park¹, Yong Il Hwang¹, Sunghoon Park¹, Seung-Hun Jang¹, and Ki-Suck Jung¹, ¹Division of Pulmonary, Allergy, and Critical Care Medicine, Department of Medicine Hallym University Sacred Heart Hospital, Hallym University College of Medicine, Anyang, Korea, Republic of (South), ²Department of Otorhinolaryngology Head and Neck Surgery, Hallym University Medical Center, Hallym University College of Medicine, Republic of (South)
- 363 Digital Technology Interventions and Their Outcomes in Moderate-to-Severe Asthmatic Patients: A Targeted Literature Review

Benjamin Parcher¹, Susan Gabriel², Kimberly Ruiz¹, Rinat Ariely³, and Giselle Mosnaim⁴, ¹Medical Communications, Xcenda, Palm Harbor, FL, ²Teva Pharmaceuticals, Malvern, PA, ³Teva Pharmaceutical Industries, Frazer, PA, ⁴NorthShore University HealthSystem, Evanston, IL

- 364 Effect of microsphere-encapsulated antigen in maturation of CD103+ dendritic cells for use in allergen-specific immunotherapy Sarah S Killingbeck, B.A. and Angela Haczku, MD, PhD, FAAAAI, University of California, Davis, Davis, CA
- 365 CD4+ and CD8+CD60+CD45RO+IL-4+IFNγ- T Cells Expressing Receptors for Complement Split Product (CSP) C3a, but Not C5a, Are Increased in Blood of Serum IgE+, Compared With Serum IgE- Adults

Lucius DeGregorio¹, Timothy D. Morello, BS², Seto M. Chice, MS², Maja Nowakowski, PhD², Tehila A. Saadia, MD², Tamar A. Smith-Norowitz, PhD², Rauno Joks, MD², and Helen G. Durkin, PhD², ¹Vanderbilt University, Nashville, TN, ²SUNY Downstate Medical Center, Brooklyn, NY

366 An Exaggerated Type I Interferon Antiviral Response is Associated with Exacerbations in Pediatric Asthma Cristina L. Swanson, MD, PhD¹, Denise Babineau², Elizabeth Whalen, PhD³, Michelle A Gill, MD, PhD⁴, Baomei Shao⁵, Andrew H. Liu, MD, FAAAAI⁶, Brett Jepson⁷, Rebecca S. Gruchalla, MD, PhD, FAAAAI⁸, George T. O'Connor, MD⁹, Jacqueline A. Pongracic, MD, FAAAAI⁸, George T. O'Connor, MD⁹, Jacqueline A. Pongracic, MD, FAAAAI¹⁰, Carolyn M. Kercsmar, MS, MD¹¹, Gurjit K. Khurana Hershey, MD, PhD, FAAAAI¹², Edward M. Zoratti, MD, FAAAAI¹³, Christine Cole Johnson, PhD MPH FAAAAI¹⁴,

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Stephen J. Teach, MD¹⁵, Meyer Kattan, MD¹⁶, Leonard B. Bacharier, MD, FAAAAI17, Avraham Beigelman, MD MSCI FAAAAI17, Steve M. Sigelman, BSN¹⁸, Peter J. Gergen, MD MPH¹⁹, Lisa M. Wheatley, MD²⁰, Scott Presnell, PhD³, Alkis Togias, MD, FAAAAI²¹, William W. Busse²², Daniel J. Jackson, MD, FAAAAI23, and Matthew C. Altman, MD1, 1University of Washington, Seattle, WA, ²Rho Inc., Chapel Hill, NC, ³Benaroya Research Institute, Seattle, WA, ⁴UT Southwestern Medical Center, Dallas, TX, ⁵UT Southwestern, Dallas, TX, ⁶Children's Hospital Colorado, University of Colorado School of Medicine, Aurora, CO, 7Rho, Chapel Hill, NC, 8Univ. Texas Southwestern Medical Center, Dallas, TX, 9Boston University School of Medicine, Boston, MA, ¹⁰Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ¹¹Cincinnati Children's Hospital, Cincinatti, OH, ¹²Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ¹³Henry Ford Hospital, Detroit, MI, ¹⁴Henry Ford Health System Public Health Sciences, Detroit, MI, ¹⁵Children's National Health System, Washington, DC, ¹⁶Columbia University, New York, NY, ¹⁷Washington University, Saint Louis, MO, 18NIH/NIAID, Bethesda, MD, ¹⁹NIH/NIAID, Rockville, MD, ²⁰NIAID/NIH, Bethesda, MD, ²¹NIAID/NIH, Rockville, MD, ²²School of Medicine and Public Health, Madison, WI, 23 University of Wisconsin School of Medicine, Madison, WI

367 Admixture Mapping of Total Serum IgE in African American subjects from CAAPA

Michelle Daya¹, Aniket Shetty¹, Nicholas M Rafaels¹, Victor E Ortega², Eugene R Bleecker³, Deborah A Meyers⁴, Carole Ober⁵, L. Keoki Williams, MD MPH FAAAAI⁶, Margaret A Taub⁷, Terri H Beaty⁷, Ingo Ruczinski⁷, Rasika A Mathias⁷, and Kathleen C Barnes¹, ¹University of Colorado, Aurora, CO, ²Wake Forest School of Medicine, Winston-Salem, NC, ³University of Arizona, Tuscon, AZ, ⁴University of Arizona, Tucson, AZ, ⁵University of Chicago, Chicago, IL, ⁶Henry Ford Health System, Detroit, MI, ⁷Johns Hopkins University, Baltimore, MD

- 368 Associations between Sputum Microbiome and Antibiotic Allergy in Patients with Cystic Fibrosis Reece A. Jones, MD, Hershey Medical Center/Penn State, Hershey, PA, Shenil Shah, MD, Hershey medical Center, Hershey, Judie A. Howrylak, MD, PhD, Hershey Medical Center, Hershey, PA and Faoud Terrence Ishmael, MD, PhD, FAAAAI, Penn State Hershey Medical Center, Palmyra, PA
- Loss of IL-4Ra signaling is partially able to restore anti-Myco-369 plasma pneumoniae IgG titers during allergic airway disease Arthur H. Totten¹, Li Xiao, PhD², Danlin Luo, PhD², Donna Crabb², Amy Ratliff², Ken B Waites, MD², and T. Prescott Atkinson, MD, PhD, FAAAAI³, ¹University of Alabama at Birmingham, Birmingham, AL, ²University of Alabama at Birmingham, Birmingham, ³University of Alabama at Birmingham Department of Pediatrics, Birmingham, AL
- 370 Lack of Genetic Association between CDHR3 and Human Rhinovirus C Infection in Hong Kong Children Hospitalized for **Respiratory Tract Infections**

Ting Fan Leung, MD FRCPCH FAAAAI, Man Fung Tang, Yu Ping Song, Agnes Sze Yin Leung, Kin Pong Tao, Joseph Gar Shun Tsun, Gary Wing Kin Wong and Renee Wan Yi Chan, Department of Pediatrics, The Chinese University of Hong Kong, Hong Kong, Hong Kong

371 Heme oxygenase 1 attenuates cockroach allergen-induced airway inflammation

Lipeng Qiu, PhD, Qi Tang and Guohui Li, Institute of Life Sciences, Jiangsu University, Zhenjiang, China

372 Nasal Biomarkers Characterization In Lebrikizumab Bronchoscopy Study (CLAVIER) Fang Cai¹, Francis Abreu¹, Han Ting Ding¹, David Choy¹, Meire

Bremer¹, Tracy Staton¹, Rich Erickson¹, Kun Peng¹, Jian Shuang Wang¹, Amelia Au-Yeung¹, Trevor T. Hansel, MD, PhD², Leif Bjermer, MD, PhD³, Cecile Holweg¹, Karl Yen¹, John G.

Matthews¹, and Heleen Scheerens¹, ¹Genentech Inc., South San Francisco, CA, ²St. Mary's Hospital, Paddington, United Kingdom, ³Skane University Hospital, Lund, Sweden

Autoimmune and Inflammatory Disorders

BCI

3203 Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

Phenotypic Presentation of Four Patients with Novel Mutations 373 for Periodic Fever Syndromes Rachel Eisenberg, MD¹, Shikha Gupta, MD², and Arye Rubinstein, MD, FAAAAI¹, ¹Montefiore Medical Center, Bronx, NY, ²Children's Hospital at Montefiore, Bronx, NY

374 Innate immunity-related Gene Expression Profiling Reveals **Two Distinct Endotypes in PFAPA Syndrome**

Mariko Hara, MD¹, Noriko Morimoto, MD², Kae Fujii, MD², Sota Yamaguchi, MD², Mayumi Tsunoda, MD², Keisuke Yoshihama, MD², Hideaki Morita, MD, PhD¹, and Kenji Matsumoto, MD, PhD3, 1Department of Allergy and Clinical Immunology, National Research Institute for Child Health and Development, Tokyo, Japan, ²Division of Otorhinolaryngology, National Center for Child Health and Development, Tokyo, Japan, ³National Research Institute for Child Health and Development, Tokyo, Japan

- 375 Establishing A Mouse Model of Checkpoint Inhibitor-Induced **Colitis: Pilot Experiments and Future Directions** Aaron Ver Heul, MD, PhD and Thaddeus Stappenbeck, MD, PhD, Washington University, Saint Louis, MO
- 376 Association between Lymphopenia and Clinical Manifestations, Anti-dsDNA, and Disease Activity in Children with Systemic Lupus Ervthematosus

Gartika Sapartini, Reni Ghrahani and Budi Setiabudiawan, Faculty of Medicine, Universitas Padjadjaran, Bandung, Indonesia

377 Familial PFAPA syndrome in childhood with evolution to febrile urticaria/angioedema after puberty

Cosby A Stone, MD MPH¹, Kalpana Manthiram², Yong H Park², Ashley L Blaske³, Susan Kroop³, Andrew S Nickels¹, Hirsh D. Komarow⁴, Amanda Ombrello², JaeJin Chae², David Kastner², Amy K Robertson⁵, John Newman^{1,5}, John A Phillips^{5,6}, Rizwan Hamid^{5,6}, and the Undiagnosed Disease Network⁵, ¹Division of Allergy, Pulmonary and Critical Care Medicine, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, ²National Human Genome Research Institute, National Institutes of Health, Bethesda, MD, ³Division of Rheumatology, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, ⁴NIAID/NIH, Bethesda, MD, ⁵Vanderbilt Center for Undiagnosed Diseases, Undiagnosed Disease Network, National Institutes of Health, Nashville, TN, ⁶Division of Medical Genetics and Genomic Medicine, Department of Pediatrics, Vanderbilt University Medical Center, Nashville, TN

Positive antinuclear antibodies and elevated IgE

Vylma Velazquez and Ernesto Santini, Hospital Episcopal San Lucas, Ponce, PR

379 Autoantibody profile in treatment naïve Takayasu arteritis patients

Maja Stojanovic, MD¹, Sanvila Raskovic^{1,2}, Dragana Jovanovic¹, Jasna Bolpacic^{1,2}, Aleksandra Peric Popadic^{1,2}, Ivan Rankovic³, Vladimir Milivojevic³, and Mirjana Bogic^{1,2}, ¹Clinic of Allergy and Immunology, Clinical Center of Serbia, Belgrade, Serbia, ²School of Medicine, University of Belgrade, Belgrade, Serbia, ³Clinic of Gastroenterology, Clinical Center of Serbia, Belgrade



380 Multiple Myeloma and Sclerodermatous Disease: Cause and Consequence Emilie S. Chan, Samir Parekh, Ahmed Elshamy, and Peter D. Gorevic. Department of Medicine, Mount Sinai School of Medicine, New York, NY Peter D. Gorevic, MD, FAAAAI, Mount Sinai Medical Center,

New York, NY; Mount Sinai Medical Center, Northport, NY

381 Unique epigenetic signature in T cell compartment after epicutaneous immunotherapy in peanut sensitized mice Lucie Mondoulet, PhD¹, Vincent Dioszeghy, PhD¹, Camille Plaquet¹, Elodie Roche², Veronique Dhelft¹, Florence Busato², Christophe Dupont, MD, PhD³, Hugh A. Sampson, MD, FAAAAI⁴, and Jorg Tost, PhD², ¹DBV Technologies, Montrouge, France, ²CEA Institut de Génomique, Evry, France, ³Necker Hospital, Paris, France, ⁴DBV Technologies, New York

Basic and Clinical Immunology I

BCI

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Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

382 Effect of probiotics and prebiotics on immune response to influenza vaccination in adults: A systematic review and meta-analysis of randomized controlled trials

Wei Te Lei, MD, Division of Allergy, Immunology, Rheumatology Disease, Department of Pediatrics, Mackay Memorial Hospital, Hsinchu, Taiwan, Hsinchu, Taiwan

383 Assessment of IL-16 From Peripheral Blood in Patients with Oral Lichen Planus

Andriy Kurchenko¹, George N. Drannik, MD, PhD¹, Raisa Rehuretska¹, and Lawrence Dubuske^{2,3}, ¹Bogomolets National Medical University, Kyiv, Ukraine, ²Immunology Research Institute of New England, Gardner, MA, ³George Washington University School of Medicine, Washington, DC

384 Human Olfactory Mucosa-Derived Mesenchymal Stem Cells Suppress Cytotoxic Functions of CD8+ T-Lymphocytes and Natural Killer Cells

N Antonevich¹, Andrei Hancharou², O Buschik¹, A Rydna¹, V Chekan³, E Strinkevich³, and Lawrence Dubuske^{4,5}, ¹The Republican Research and Practical Center for Epidemiology and Microbiology, Minsk, Belarus, ²Republican Research and Practical Center for Epidemiology and Microbiology, Minsk, Belarus, ³State Educational Institution Belarusian Medical Academy of Post-Graduate Education, Minsk, Belarus, ⁴Immunology Research Institute of New England, Gardner, MA, ⁵George Washington University School of Medicine, Washington, DC

385 Short Course of Lolium Perenne Peptides (LPP) Immunotherapy Induces IL-35⁺ T Regulatory Cells (iTr35) that Promote **B Regulatory Cells (Bregs) and Blocking Antibodies** Iesha Singh^{1,2}, Hanisah Sharif, BHSc MSc^{3,4}, Lubna Kouser^{2,3}, Angeliki Karamani³, Uday Kishore⁵, Gabriële Holtappels⁶, Lara Derycke⁶, Rémy von Frenckell⁷, Nathalie Wathelet⁸, Jean Duchateau⁸, Thierry Legon⁸, Sabine Pirotton⁸, Ralph Mosges, MD, FAAAAI9, Stephen R. Durham, MA MD FRCP4,10, Claus Bachert, MD, PhD11, and Mohamed H. Shamji, BSc MSc PhD FAAAAI^{12,13}, ¹Immunomodulation and Tolerance group, Allergy and Clinical Immunology, Inflammation Repair & Development, MRC Asthma UK Centre Imperial College London, London, United Kingdom, London, United Kingdom, ²MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, London, United Kingdom, London, United Kingdom, ³Immunomodulation and

Tolerance Group, Immune Tolerance Network (ITN) Distributed Centre of Excellence for Allergy & Asthma, Allergy & Clinical Immunology Inflammation, Repair and Development National Heart & Lung Institute, Imperial College London, London, United Kingdom, ⁴MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, London, London, United Kingdom, ⁵Brunel University, London, United Kingdom, ⁶Ghent University, Brussels, Belgium, ⁷Freelance Biostatistics Consultant, Waterloo, Belgium, ⁸ASIT biotech s.a., Brussels, Belgium, ⁹CRI-Clinical Research International Ltd, Hamburg, Germany, ¹⁰Allergy and Clinical Immunology, Inflammation, Repair and Development, and Immune Modulation and Tolerance Group, Allergy and Clinical Immunology, Inflammation, Repair and Development, National Heart and Lung Institute, Imperial College London, London, United Kingdom, ¹¹Ghent University, Ghent, Belgium, 12Immunomodulation and Tolerance Group, Immune Tolerance Network (ITN) Distributed Centre of Excellence for Allergy & Asthma, Allergy & Clinical Immunology Inflammation, Repair and Development National Heart & Lung Institute, Imperial College London., London, United Kingdom, ¹³MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, London, United Kingdom, London

386 Neutrophils Involvement in Human Thyroid Cancer

Maria Rosaria Galdiero, MD, PhD¹, Gilda Varricchi, MD, PhD¹, Stefania Loffredo, PhD¹, Claudio Bellevicine¹, Tiziana Lansione¹, Anne Lise Ferrara¹, Raffaella Iannone¹, Sarah Di Somma¹, Francesco Borriello^{1,2}, Eduardo Clery¹, Maria Triassi¹, Giancarlo Troncone¹, and Gianni Marone, MD³, ¹University of Naples Federico II, Naples, Italy, ²Department of Medicine, Division of Infectious Diseases, Boston Children's Hospital and Harvard Medical School, Boston, ³Via S. Pansini 5, University of Naples Federico II, Naples, Italy

- 387 Chlamydia pneumoniae enhances CD4+ and CD8 +T effector memory cell IL-2 and IL-4 responses in stimulated peripheral blood mononuclear cells in human subjects Yitzchok M Norowitz, B.S., Stephan Kohlhoff, Natalie Banniettis, Margaret R Hammerschlag and Tamar A. Smith-Norowitz, PhD,
- SUNY Downstate Medical Center, Brooklyn, NY 388 Cell Surface Markers and Immunogenetic Characteristics of Tumor Cells Suitable for Preparing Personalized Antitumor

Vaccine against Solid Tumors Tatiana A Slavyanskaya, 85478, Peoples' Friendship University of

Russia, Moscow, Russian Federation and Svetlana V Salnikova, FSBI Clinical Hospital 1 of the Presidential Affairs Management of the Russian Federation, Moscow, Russian Federation

389 IL-13 acidifies airway surface liquid pH via an omeprazole inhibitable mechanism

Jin Young Min, MD, PhD^{1,2}, Julia He Huang, MS², James E Norton, MS³, Lydia A Suh, BS³, Caroline PE Price², Roderick G. Carter, BS³, Su Y Jung¹, Hyung S Kim¹, David B. Conley, MD², Stephanie Shintani-Smith, MD², Kevin C. Welch, MD², Anju T. Peters, MD, FAAAAI³, Leslie C. Grammer, MD, FAAAAI³, Whitney W. Stevens, MD, PhD³, Kathryn E. Hulse, PhD³, Atsushi Kato, PhD³, Robert C. Kern, MD², Robert P. Schleimer, PhD FAAAAI³, and Bruce K. Tan, MD, MS², ¹Department of Otorhinolaryngology-Head and Neck Surgery, School of Medicine, Kyung Hee University, Seoul, Korea, Republic of (South), ²Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL, ³Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL

390 Impact of Silica Nanoparticles on Rat Immune Responses Roman Khanferyan, MD, PhD¹, I Gmoshinski¹, S Hotimchenko¹, N Riger¹, E Trushina¹, O Mustafina¹, and Lawrence Dubuske^{2,3}, ¹Federal Center of Nutrition and Biothechnology, Moscow, Russian Federation, ²Immunology Research Institute of New England, Gardner, MA, ³George Washington University School of Medicine, Washington, DC



- 391 Immunological changes induced by Pru p 3-glycodendrimers Maria Francisca Palomares, PhD¹, Francisca Gomez, MD, PhD², Ainhoa Mascaraque, PhD³, Gador Bogas, MD, PhD², Javier Ramos-Soriano, BsC³, Maria José Rodríguez, BSC⁴, Maria Jose Torres Jaén, MD, PhD², Javier Rojo, PhD³, and Cristobalina Mayorga, PhD⁴, ¹Research Laboratory, Regional University Hospital of Malaga-IBIMA, UMA, Malaga, Spain, ²Allergy Unit, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain, ³Glycosystems Laboratory, Instituto de Investigaciones Químicas (IIQ), CSIC - Universidad de Sevilla, SEVILLA, ⁴Research Laboratory, IBIMA-Regional University Hospital of Malaga-UMA, Malaga, Spain
 - 392 Iron Deficiency Reduces Systemic Inflammation in Obese Women

Igor Petrovich Kaidashev, MD¹, V Nedoborenko¹, T Mamontova¹, L Vesnina¹, and Lawrence Dubuske^{2,3}, ¹Ukrainian Medical Stomatological Academy, Poltava, Ukraine, ²Immunology Research Institute of New England, Gardner, MA, ³George Washington University School of Medicine, Washington, DC

393 Microscopic Assessment of Prostate Secretions in Inflammatory Versus Non-inflammatory Chronic Pelvic Pain Syndrome in Men

I. Gorpynchenko¹, K Nurimanov¹, T Poroshina¹, V Savchenko¹, George N. Drannik, MD, PhD¹, and Lawrence Dubuske^{2,3}, ¹Institute of Urology NAMSci of Ukraine, Kyiv, Ukraine, ²Immunology Research Institute of New England, Gardner, MA, ³George Washington University School of Medicine, Washington, DC

394 Transcriptional features of Th2 and Th17-priming dendritic cells

Miranda L. Curtiss, MD, PhD¹, Travis Ptacek, PhD², Alexander Rosenberg, PhD¹, Christopher Scharer³, Daniel Silberger¹, Casey T. Weaver, MD¹, and Frances E. Lund, PhD¹, ¹University of Alabama at Birmingham, Birmingham, AL, ²University of North Carolina at Chapel Hill, Chapel Hill, NC, ³Emory University School of Medicine, Atlanta, GA

395 Allergic and Immunologic Dysregulation in Ehlers-Danlos Syndrome: A Case Series

Alice S Chau, MD MSE, Hofstra Northwell School of Medicine, Manhasset, NY and Artemio M. Jongco, MD, PhD MPH FAAAAI, Hofstra Northwell School of Medicine, Great Neck, NY

Indoor Allergens

EORD

3205

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

- 396 Income Level as a Predictor of Indoor Mouse Allergen Levels in Inner-City Homes of Kansas City Jessica S. Van Mason, MD, Jane B. Taylor, MD, Hongying Dai, PhD, and Charles S. Barnes, PhD FAAAAI, Children's Mercy Hospital, Kansas City, MO
- 397 Development of a Method to Evaluate Cat Dander Levels by Safranin-O Staining Jennifer Marcelo, Suzanne M. Kelly, PhD, Jenna Falbo, Khang Ly,

Jimmy Yang, Jacob Karsh, Bryan Santone and William Ho-Ching Yang, FRCPC, Red Maple Trials Inc, Ottawa, ON, Canada

398 Stabilizing Fel d1 Levels in a Cat Allergen Exposure Chamber Suzanne M. Kelly, PhD, Jennifer Marcelo, Jenna Falbo, Khang Ly, Jimmy Yang, Jacob Karsh, Bryan Santone and William Ho-Ching Yang, FRCPC, Red Maple Trials Inc, Ottawa, ON, Canada

- 399 Pollen and air quality control in the Environmental Exposure Unit (EEU): A review of 20 years data for refinements, improvements, and distinction in indoor air quality assurance David Miller, PhD, Carleton University, Ottawa, ON, Canada, Terry Walker, BA, Allergy Research Unit, Kingston, ON, Canada and Anne K. Ellis, MD FRCPC FAAAAI, Queen's University, Kingston, ON
- 400 Detection of dust mite allergens in homes throughout the US Tricia Moore, ALK Abello, Round Rock, TX and Greg A. Plunkett, PhD, ALK-Abello, Round Rock, TX

401 Reduction of asthma and allergic rhinitis by minimizing the animal dander and particle count in indoor air on using the AHPCO and Plasma Nanotechnology

Nabarun K. Ghosh, PhD¹, Constantine K. Saadeh, MD, FAAAAI², Jeff Bennert, PhD CTN³, Chandini Revanna, MS, MPH, CIH⁴, and Nelofar Sherali, BS¹, ¹West Texas A&M University, Canyon, TX, ²Allergy ARTS ACCR, Amarillo, TX, ³Air Oasis, Amarillo, TX, ⁴Texas Tech University, Lubbock, TX

Sensitization

EORD

3206

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

402 Behavior Of Allergy Rhinitis In Old Havana. March To December 2016

Belkis Lopez Gonzalez, MD.¹, Jorge Torres², Mirta Alvarez, MD¹, Adelquis Guerrero Betancourt³, and Marisel Suarez⁴, ¹Calixto García University Hospital, Havana, Cuba, ²Lidia And Clodomira Clinic, La Habana, Cuba, ³Blanco Y Trocadero Clinic, Havana, Cuba, ⁴Robert Manuel Zulueta Clinic, Havana

403 Comparison of sensitization to prevalent pollens in two different ethnic populations of children-adolescents born in the same region

Natalia Blanca-Lopez¹, Damian López-Sánchez, MD², Elisa Haroun Diaz³, Laura Victorio-Puche, MD⁴, Maria Luisa Somoza-Alvarez³, Diana Victoria Perez-Alzate⁵, Francisco Javier Ruano^{6,7}, Maria Isabel Garcimartin⁸, Miguel Blanca³, and María Gabriela Canto, MD, PhD³, ¹Allergy Unit, Infanta Leonor University Hospital, Madrid, ²Allergy Unit. Virgen de la Arrixaca University General Hospital, Murcia, ³Allergy Unit, Infanta Leonor University Hospital, Madrid, Spain, ⁴Allergy Unit, Virgen de la Arrixaca University General Hospital, Murcia, Spain, ⁵InfantaAllergy Unit, Infanta Leonor University Hospital, Madrid, ⁶Allergy Unit. Infanta Leonor University Hospital.Hospital Infanta Leonor, Madrid, Spain, ⁷Allergy Unit. Infanta Leonor University Hospital, Madrid, Spain, ⁸Allergy Unit. Infanta Leonor University Hospital, Madrid, Spain,

404 Indoor Airborne Particles and Dust Aeroallergen Level

Freddy Pacheco, MS¹, Luke Gard¹, Ryan Allenbrand¹, Eric Bowles¹, Kevin Kennedy, MPH CIEC¹, Anita DiDonna¹, Jay M. Portnoy, MD, FAAAAl², and Charles S. Barnes, PhD FAAAAl¹, ¹Children's Mercy Hospital, Kansas City, MO, ²The Children's Mercy Hospital, Kansas City, MO

405 Prevalence of skin sensitivity to temperate and subtropical grasses in patients with seasonal allergic rhinitis in Bahía Blanca, Argentina

Ivan Cherrez-Ojeda, Respiralab, Guayaquil, Ecuador; Universidad de Especialidades Espíritu Santo, School of Medicine, La Puntilla, Ecuador, German Dario Ramon, MD, Instituto de Aler.E Inmun.Del Sur, Bahia Blanca, Argentina, Laura B. Barrionuevo,

> American Academy of Allergy Asthma & Immunology



Instituto de alergia e Inmunologia del Sur, Bahía Blanca, Argentina, Nadia Arango, Instituto de Alergia e Inmunologia del Sur, Bahía Blanca, Argentina, Maria A. Long, Dpto. de Biología, Bioquímica y Farmacia Universidad Nacional del Sur, Bahía Blanca, Argentina and Valentina Viego, Instituto de Investigaciones Económicas y Sociales del Sur, Universidad Nacional del Sur, Bahía Blanca, Argentina

- 406 The Prevalence of Coexisting Allergies To Cladosporium And Aspergillus In A Pediatric Population Niharika Rath, MD, Charles S. Barnes, PhD FAAAAI, Brian Lee, PhD, and Neha N Patel, Children's Mercy Hospital, Kansas City, MO
- 407 Impact of Pollution on the Quality of Life of Lebanese Allergic Rhinitis patients: a cross-sectional study Carla Irani, MD, FAAAAI, Hotel Dieu De France, St Joseph University Lebanon, Beirut, Lebanon; University of Alberta, Edmonton, Canada and Michel Kassab, Hotel Dieu de France hospital, St Joseph University, Beirut, Lebanon
- 408 Patterns of IgE sensitization to Dermatophagoides pteronyssinus in Persistent Allergic Rhinitis from subtropical Tenerife, Spain Fernando Pineda, PhD¹, Ruperto Gonzalez-Perez, MD, PhD², Paloma Poza-Guedes, MD, PhD^{2,3}, Miriam Castillo⁴, Inmaculada Sanchez-Machin, MD, PhD², and Victor Matheu, MD, PhD², ¹DIATER Laboratories, Madrid, Spain, ²Hospital Universitario de Canarias, La Laguna, Spain, ³Hospital Universitario de Canarias, La Laguna, ⁴DIATER Laboratories, Madrid
- 409 Allergy to *Cynodon dactylon (Cyn d)* pollen in seasonal rhinitis, comparison between skin tests and component-resolved diagnosis (CRD) in Bahía Blanca (Argentina)

German D. Ramon, MD, FAAAAI, Instituto de Alergia E Imm. Del Sur, Buenos Aires, Argentina, Valentina Viego, Instituto de Investigaciones Económicas y Sociales del Sur, Universidad Nacional del Sur, Bahía Blanca, Argentina, Nadia Arango, Instituto de Alergia e Inmunologia del Sur, Bahía Blanca, Argentina, Maria A. Long, Dpto. de Biología, Bioquímica y Farmacia Universidad Nacional del Sur, Bahía Blanca, Argentina, Adrian Kahn, MD, FAAAAI, Hospital Privado Universitario de Cordoba, Cordoba, Argentina; Instituto Universitario de Ciencias Biomédicas de Córdoba, Cordoba, Argentina and Laura B. Barrionuevo, Instituto de alergia e Inmunologia del Sur, Bahía Blanca, Argentina

Eczema and Contact Dermatitis Eosinophilic Esophagitis and Food Induced Enterocolitis

FADDA

3207

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

410 Staphylococcus Aureus-Culture Positivity Observed In Adults With Atopic Dermatitis Is Most Indicative Of An Increased Absolute and Relative Abundance Of S. Aureus and Not Reduced Biodiversity

Takeshi Yoshida, PhD¹, Alex Grier¹, Ann Gill¹, Anthony Corbett¹, Mike P. Cahill², Alexandre Lockhart³, Eric L. Simpson, MD⁴, Mark Boguniewicz, MD, FAAAAl⁵, Jon M. Hanifin, MD, FAAAAl⁴, Anna De Benedetto, MD¹, Gloria L. David, PhD³, Donald YM Leung, MD, PhD, FAAAAl⁵, Patrick M. Schlievert, PhD², Steven R. Gill, PhD¹, and Lisa A. Beck, MD, FAAAAl¹, ¹University of Rochester Medical Center, Rochester, NY, ²University of Iowa Carver College of Medicine, Iowa City, IA, ³Rho, Inc., Chapel Hill, NC, ⁴Oregon Health & Science University, Portland, OR, ⁵National Jewish Health, Denver, CO 411 Twice Daily Versus Twice Weekly Soak-and-Seal Baths in Pediatric Atopic Dermatitis: A Randomized, Single-blinded, Prospective Cross-over Controlled Trial

Ivan D. Cardona, MD, Maine Medical Center, Portland, ME, Erin E. Kempe, DO, Colorado Allergy and Asthma Centers, Fort Collins, CO, Julia H Ginder, Massachusetts Institute of Technology, Cambridge, MA and Neal Jain, MD, FAAAAI, San Tan Allergy, Gilbert, AZ

412 Patients with adult- and late childhood-onset atopic dermatitis report a higher burden of disease severity than patients with early childhood-onset atopic dermatitis

Peck Y. Ong, MD, FAAAAI¹, Zelma Chiesa Fuxench², Luz S. Fonacier, MD, FAAAAI3, Lawrence B. Schwartz, MD, PhD, FAAAAI⁴, Mitchell H. Grayson, MD, FAAAAI⁵, Julie Block⁶, Lynda Mitchell, MA⁷, Joel M Gelfand², Jonathan I Silverberg, MD, PhD⁸, David J Margolis², Mark Boguniewicz, MD, FAAAAI⁹, and Eric L. Simpson, MD, MCR¹⁰, ¹Children's Hospital of Los Angeles/USC, Los Angeles, CA, ²University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, ³NYU Winthrop Hospital, Mineola, NY, ⁴Virginia Commonwealth University, Richmond, VA, ⁵Nationwide Children's Hospital / The Ohio State University, Columbus, OH, 6National Eczema Association, San Rafael, CA, ⁷Asthma and Allergy Foundation of America, Landover, MD, ⁸Northwestern University Feinberg School of Medicine, Chicago, IL, ⁹National Jewish Health and University of Colorado School of Medicine, Denver, CO, ¹⁰Oregon Health and Science University, Portland, OR

413 Early Onset Eczema and the Association with Early Onset Asthma

Heather R. Cassell, MD¹, Debra A Stern², Anne L. Wright, PhD², and Fernando D Martinez, MD¹, ¹Department of Pediatrics and the Asthma and Airway Disease Research Center, University of Arizona Health Sciences, Tucson, AZ, ²Asthma and Airway Disease Research Center, University of Arizona Health Sciences, Tucson, AZ

414 Comparative Analysis of Fecal Short Chain Fatty Acids Profiles in Atopic Dermatitis And Healthy Infants

Le Duc Huy Ta¹, James Chun Yip Chan², Chiung-Hui Huang¹, Gaik Chin Yap¹, Lynette Pei-Chi Shek¹, Anne Goh³, Hugo P.S. Van Bever¹, Oon Hoe Teoh³, Jian Yi Soh¹, Biju Thomas³, Mahesh Babu Ramamurthy¹, Daniel Goh¹, Christophe Lay^{1,4}, Shu E Soh^{1,5}, Fabian Yap³, Kok Hian Tan³, Yap-Seng Chong^{6,7}, Keith B.M Godfrey8, Peter D. Gluckman7, Eric Chun Yong Chan2, and Bee Wah Lee1, 1Department of Paediatrics, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore, ²Department of Pharmacy, Faculty of Science, National University of Singapore, Singapore, Singapore, ³Department of Paediatrics Allergy and Respiratory, KK Children's and Women's Hospital, Singapore, Singapore, Singapore, ⁴Danone Research Centre for Specialised Nutrition, Singapore, Singapore, ⁵Saw Swee Hock School of Public Health, National University of Singapore, Singapore, Singapore, ⁶Department of Obstetrics & Gynaecology, National University of Singapore, Singapore, Singapore, ⁷Singapore Institute for Clinical Sciences, Agency for Science, Technology and Research Singapore, Singapore, Singapore, ⁸MRC Lifecourse Epidemiology Unit and NIHR Southampton Biomedical Research Centre, University of Southampton and University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom

415 Dupilumab in Moderate-to-Severe Atopic Dermatitis With or Without Comorbid Food Allergy: Pooled Analysis of 2 Randomized Phase 3 Trials (LIBERTY AD SOLO 1 & 2) Eric L. Simpson, MD¹, Jean-Philippe Lacour², Jonathan I. Silverberg, MD, PhD, MPH³, Margitta Worm, MD⁴, Andreas Wollenberg, MD, FAAAAI⁵, Neil M.H. Graham⁶, Gianluca Pirozzi⁷, Bolanle Akinlade⁶, Laurent Eckert⁸, Abhijit Gadkari⁶, and Marius Ardeleanu⁶, ¹Oregon Health & Science University, Portland, OR, ²CHU de Nice Hôpital, Alpes-Maritimes, France, ³Northwestern



University Feinberg School of Medicine, Chicago, IL, ⁴Charité -Universitätsmedizin Berlin, Berlin, Germany, ⁵Ludwig-Maximillian University, Munich, Germany, ⁶Regeneron Pharmaceuticals, Inc., Tarrytown, NY, 7Research and Development, Sanofi, Bridgewater, NJ, 8Sanofi, Chilly-Mazarin, France

- 416 TGFβ1 Promoter SNP C-509T Increases TGFb1 Expression and Alters Cellular Function in Eosinophilic Esophagitis Loan D. Duong, BS¹, Renee Rawson, BS¹, Braxton Bell¹, and Seema Sharma Aceves, MD, PhD, FAAAAI^{2,3}, ¹University of California, San Diego, La Jolla, CA, ²University of California, San Diego, Rady Children's Hospital, San Diego, CA, 3Pediatrics, University of California San Diego, La Jolla, CA
- 417 Dupilumab in Moderate-to-Severe Atopic Dermatitis With or Without Comorbid Asthma: Pooled Analysis of 2 Randomized Phase 3 Trials (LIBERTY AD SOLO 1 & 2) Mette Deleuran¹, Emma Guttman-Yassky, MD, PhD², Kulli Kingo³, Neil M.H. Graham⁴, Gianluca Pirozzi⁵, Bolanle Akinlade⁴, Laurent Eckert⁶, Abhijit Gadkari⁴, and Marius Ardeleanu⁴, ¹Aarhus Universitetshospital, Aarhus, ²Mount Sinai Health System - Dermatology, New York, NY, ³Clinic of Dermatology, Tartu University Hospital, Tartu, ⁴Regeneron Pharmaceuticals, Inc., Tarrytown, NY, ⁵Sanofi, Bridgewater, NJ, ⁶Sanofi, Chilly-Mazarin, France
- 418 Allergic profiles of mothers and fathers in the Japan Environment and Children's Study (JECS): a nationwide birth cohort study

Kiwako Yamamoto-Hanada, MD, PhD¹, Limin Yang, MD, PhD¹, Kazue Ishitsuka, MD, MPH¹, Tadayuki Ayabe, MD, PhD¹, Hidetoshi Mezawa, MD, PhD¹, Mizuho Konishi, PhD¹, Tetsuo Shoda, MD, PhD¹, Kenji Matsumoto, MD, PhD², Hirohisa Saito, MD, PhD, FAAAAI², and Yukihiro Ohya, MD, PhD¹, ¹National Center for Child Health and Development, Tokyo, Japan, ²National Research Institute for Child Health and Development, Tokyo, Japan

- 419 Food Protein-Induced Enterocolitis Syndrome (FPIES) is Associated with Increased Risk of Feeding Disorders Jacqueline D Squire, MD, Duke University Medical Center, Durham, NC and Amy P Stallings, MD, Duke University, Durham, NC
- 420 Allergen-specific low- and high-affinity IgE production associated with differential immunoglobulin class-switching in the development of pediatric food allergy in early infancy

Hiroshi Kido, MD, PhD, the Division of Enzyme Chemistry, Institute for Enzyme Research, Tokushima University, Tokushima, Japan, Makoto Irahara, National Center for Child Health and Development of Japan, Tokyo, Japan and Wakako Shinahara, Tokushima University, Tokushima, Japan

421 Serum squamous cell carcinoma antigen-2 is a highly sensitive biomarker for atopic dermatitis in children Toshiaki Kawano, MD¹, Mizuho Nagao, MD, PhD², Takao Fuji-

sawa, MD, FAAAAI², Hiroshi Odajima, MD, PhD¹, Shinichiro Inagaki, MD, PhD³, Yukihiro Ohya, MD, PhD⁴, Yoshinori Azuma⁵, Noriko Nomura⁵, and Kenji Izuhara, MD, PhD⁶, ¹National Hospital Organization Fukuoka Hospital, Fukuoka, Japan, ²Mie National Hospital, Mie, Japan, ³National Center for Child health and Development, Tokyo, Japan, ⁴National Center for Child Health and Development, Tokyo, Japan, 5Shino-Test Corporation, Kanagawa, Japan, 6Saga Medical School, Saga, Japan

422 Airborne Formaldehyde Exacerbates Skin Barrier Dysfunction in NC/Nga Mice With House Dust Mite-induced Atopic Dermatitis

Kangmo Ahn¹, Ei-Seul Na², Jihyun Kim, MD¹, and Ji-Yun Kim², ¹Department of Pediatrics, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of (South), ²Environmental Health Center for Atopic Diseases, Samsung Medical Center, Seoul, Korea, Republic of (South)

423 Association between atopic march and asthma morbidity Ejaz Yousef, MD, FAAAAI, Nemours Children's Clinic, Jacksonville, FL and Emily Hoehn, RN, Nemours Children Speciality Care, Jacksonville, FL

Deletion of SPINK7 by CRISPR/Cas9 Elicits Pro-Inflammatory 424 and Impaired Epithelial Barrier Responses in Esophageal Epithelial Cells

Ayushi Jain, BS¹, Nurit P. Azouz, PhD¹, Julie M Caldwell, PhD², and Marc E Rothenberg, MD, PhD, FAAAAI1, ¹Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ²Division of Allergy and Immunology, Cincinnati Children's Hospital Medical Center, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH

425 Characterization and Burden of Pain in Atopic Dermatitis: A Pilot Study

Sunada Mattancheril, University of Tennessee, Mephis, Miranda Schmidt, Northwestern University, Chicago, Frank Penedo, Northwestern, Chicago, Amy S Paller, Northwestern University Feinberg School of Medicine, Chicago, IL and Anna B. Fishbein, MD, Division of Allergy & Immunology, Department of Pediatrics, Ann & Robert H. Lurie Children's Hospital of Chicago, Northwestern University Feinberg School of Medicine, Chicago, IL

426 Olfactory Receptors Expression in the Skin of Atopic Dermatitis Patients

Elizabeth H Tham, MRCPCH^{1,2}, Nathan Dyjack, BS², Byung Eui Kim, MD, PhD², Cydney Rios, BS², Max A Seibold, PhD², Donald YM Leung, MD, PhD, FAAAAI², and Elena Goleva, PhD², ¹National University Health System, Singapore, Singapore, ²National Jewish Health, Denver, CO

427 Effects of Early life Factors on the Incidence of Allergic diseases in an Asian Birth cohort

Anchalee Senavonge, MD¹, Pantipa Chatchatee, MD¹, Kanlada Wongworapat, MD¹, Yong Poovorawan², Nasamon Wanlapakorn², Pierre Van Damme³, Camille Locht⁴, Surasith Chaithongwongwatthana⁵, Pathareeyawan Srimuan¹, Jarungchit Ngamphaiboon, MD¹, and Narissara Suratannon, MD1, 1Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, ²Center of excellence in clinical virology, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Bangkok, ³Centre for the Evaluation of Vaccination, Vaccine and Infectious Diseases Institute, University of Antwerp-Campus Drie Eiken, Antwerpen, Belgium, ⁴Center for infection and immunity of Lille, Institute Pasteur de Lille, Lille, France, ⁵Department of Obstetrics and Gynecology, Faculty of Medicine, Chulalongkorn University, Bangkok, Eosinophilic esophagitis during milk oral immunotherapy: a

Bruna Pultrini Aquilante, Maria Carolina Nhola Faion, Fernanda Marcelino Silva Veiga, Gustavo Soldateli, Glauce Hiromi Yonamine, Cristiane N. Santos, MD, Mayra B. Dorna, MD, Antonio C. Pastorino, MD, PhD, and Ana Paula C. Moschione, MD, PhD, University of Sao Paulo, Sao Paulo, Brazil

Thailand

growing concern

428

429

Mold exposure affects the development of atopic dermatitis in early life especially in infants with epithelial dysfunction Eun Lee, MD¹, So-Yeon Lee², Ji-Sun Yoon³, Hyun-ju Cho, MD⁴, Sungsu Jung³, Si Hyeon Lee⁵, Kangmo Ahn⁶, Kyung Won Kim7, Youn Ho Shin8, Dong In Suh9, and Soo-Jong Hong², ¹Department of Pediatrics, Chonnam National University Hospital, Gwangju, Korea, ²University of Ulsan College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ³Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, Seoul, ⁴Department of Pediatrics, Mediplex Sejong Hospital, seoul, ⁵University of Ulsan College of Medicine, Seoul, 6Department of Pediatrics, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of (South), ⁷Yonsei University College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ⁸Department of Pediatrics, CHA University School of Medicine, Seoul, Korea, Republic of (South), ⁹Seoul National Univesity College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South)



430 Dupilumab in Moderate-to-Severe Atopic Dermatitis With or Without Comorbid Allergic Rhinitis: Pooled Analysis of 2 Randomized Phase 3 Trials (LIBERTY AD SOLO 1 & 2) Diamant Thaçi, MD¹, Thomas R.M. Bieber, MD, PhD, FAAAAI², Neil M.H. Graham³, Gianluca Pirozzi⁴, Bolanle Akinlade³, Laurent

Neff M.H. Granam^{*}, Giantuca Pirozzi⁺, Bolanie Akiniade^{*}, Laurent Eckert⁵, Abhijit Gadkari³, and Marius Ardeleanu³, ¹Comprehensive Center for Inflammation Medicine, University Hospital Schleswig-Holstein, Lübeck, Germany, ²Department of Dermatology and Allergy, University of Bonn, Bonn, Germany, ³Regeneron Pharmaceuticals, Inc., Tarrytown, NY, ⁴Sanofi, Bridgewater, NJ, ⁵Sanofi, Chilly-Mazarin, France

431 Bone minderal density screening in a pediatric population with eosinophilic esophagitis Ellen Martin¹, Megan Patterson, MD^{1,2}, Sarah Beckwith^{1,2}, Mallikarjuna Rettiganti, PhD^{1,2}, Chunqiao Luo, MS¹, Peggy L. Chandler, APRN¹, Christina Tootle, APRN¹, Rebecca Levy, MD^{1,2}, Amy M.

Scurlock, MD³, Stacie M. Jones, MD, FAAAAI⁴, and Robbie D. Pesek, MD^{1,2}, ¹Arkansas Children's Hospital, Little Rock, AR, ²University of Arkansas for Medical Sciences, Little Rock, AR, ³UAMS/AR Children's Hospital, Little Rock, AR, ⁴UAMS/Arkansas Children's Hospital, Little Rock, AR

- Patch Testing in Patients with Atopy Irum Noor, DO¹, Marcella R. Aquino, MD, FAAAAI¹, Mark A. Davis-Lorton, MD, FAAAAI², and Luz S. Fonacier, MD, FAAAAI³, ¹Winthrop University Hospital, Allergy & Immunology, Mineola, NY, ²Division of Rheumatology, Allergy, and Immunology, NYU Winthrop Hospital, Mineola, NY, ³NYU Winthrop Hospital, Mineola, NY
- 433 Differential Treatment effects of Budesonide on Eosinophilic Esophagitis (EoE) versus Healthy Fibroblasts Lance Y. Hsieh, University of California, San Diego, San Diego, CA
- 434 Daily Yogurt Consumption In Infancy Is Associated With Reduced Skin Hypersensitivity

Miwa Shinohara, MD, PhD., Department of Pediatrics, Ehime University Hospital, Toon, Japan; Department of Pediatrics, Kochi University, Nankoku, Japan and Kenji Matsumoto, MD, PhD, National Research Institute for Child Health and Development, Tokyo, Japan

435 Elevated serum TSLP, IL-33, 6Ckine and MCP-3 levels in school children or older patients with eosinophilic gastroenteritis

Ichiro Nomura, MD, PhD¹, Hideaki Morita, MD, PhD¹, Akio Matsuda, PhD.¹, Miori Sato, MD², Motoko Mitsui², Yumiko Miyaji, MD, PhD², Shinichiro Inagaki, MD, PhD², Tatsuki Fukuie, MD, PhD², Masami Narita, MD, PhD², Yukihiro Ohya, MD, PhD², Hirohisa Saito, MD, PhD, FAAAAI¹, and Kenji Matsumoto, MD, PhD¹, ¹National Research Institute for Child Health and Development, Tokyo, Japan, ²National Center for Child Health and Development, Tokyo, Japan

436 Atopic Disease As A Prediction Of Metal Hypersensitivity In Pectus Excavatum Patients Charmi Patel, MD¹, Laura Helfner, MD², Sherry Farzan, MD², Artemio M. Jongco III, MD, PhD MPH², Blanka M. Kaplan, MD, FAAAAI², Punita Ponda, MD, FAAAAI³, and David W. Rosenthal, DO PhD², ¹Division of Allergy and Immunology, Decontinuents of Medicine and Padiateire Northwell Health Count

partments of Medicine and Pediatrics, Northwell Health, Great Neck, NY, ²Departments of Medicine and Pediatrics, Hofstra Northwell School of Medicine, Great Neck, NY, ³Departments of Medicine and Pediatrics, Hofstra Northwell School of Medicine, Hempstead, NY

437 A COMPARISON OF COMORBID DIAGNOSES IN CHIL-DREN WITH AND WITHOUT EOSINOPHILIC ESOPHAGI-TIS IN A LARGE PRIMARY CARE POPULATION

Peter S. Capucilli, MD¹, Antonella Cianferoni, MD, PhD, FAAAAI¹, Robert W Grundmeier, MD², and Jonathan M. Spergel, MD, PhD, FAAAAI¹, ¹The Children's Hospital of Philadelphia,

Philadelphia, PA, ²2716 South St, Children's Hospital of Philadelphia, Philadelphia, PA

438 Correlation of the Eosinophilic Histopathological Scoring System with Esophageal Gene Expression in Patients with Eosinophilic Esophagitis

Tetsuo Shoda, MD, PhD¹, Ting Wen, PhD¹, Julie M Caldwell, PhD², Jonathan Kuhl¹, Seema S. Aceves, MD, PhD, FAAAAI³, Peter Bonis, MD⁴, Kelley E. Capocelli, MD⁵, Margaret H Collins, MD¹, Evan S. Dellon, MD MPH⁶, Gary W Falk, MD⁷, Glenn Furuta, MD⁵, Nirmala Gonsalves, MD⁸, Sandeep Gupta, MD, FAAAAI9, Ikuo Hirano, MD10, John Leung, MD11, Paul Menard-Katcher¹², Jonathan M. Spergel, MD, PhD, FAAAAI¹³, Barry K. Wershil¹⁴, Guang-Yu Yang¹⁵, and Marc E Rothenberg, MD, PhD, FAAAAI¹, ¹Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ²Division of Allergy and Immunology, Cincinnati Children's Hospital Medical Center, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH, ³Rady Children's Hospital, San Diego, CA, ⁴Tufts-New England Medical Center, Boston, MA, ⁵Children's Hospital Colorado, Aurora, CO, ⁶University of North Carolina, Chapel Hill, NC, ⁷University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, ⁸Northwestern University- The Feinberg School of Medicine, Chicago, IL, 9University of Illinois College of Medicine/Children's Hospital of Illinois, Peoria, IL, ¹⁰Northwestern University, Chicago, IL, ¹¹Tufts Medical Center, Boston, ¹²University of Colorado Anschutz Medical Campus, Aurora, CO, 13The Children's Hospital of Philadelphia, Philadelphia, PA, 14Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, 15 Northwestern University Feinberg School of Medicine, Chicago, IL

439 Failure to Consider Atopic Status Limits Existing Minimally-Invasive Biomarker Studies in Eosinophilic Esophagitis: A Systematic Review

Brittany Hines, MD¹, Matthew A. Rank, MD, FAAAAI², Benjamin L. Wright, MD¹, Lisa Marks¹, Matthew J. Greenhawt, MD MBA MSc³, and Evan S. Dellon, MD MPH⁴, ¹Mayo Clinic, Scottsdale, AZ, ²Mayo Clinic and Foundation, Scottsdale, AZ, ³Children's Hospital of Colorado, Aurora, CO, ⁴University of North Carolina, Chapel Hill, NC

440 Eosinophil progenitor levels correlate with disease activity as assessed by the eosinophilic esophagitis histologic scoring system in pediatric eosinophilic esophagitis Justin T Schwartz, MD, PhD, David W. Morris, MD, Margaret H Collins, MD, Marc E Rothenberg, MD, PhD, FAAAAI and Patricia C. Fulkerson, MD, PhD, Cincinnati Children's Hospital Medical Center, Cincinnati, OH

441 Methotrexate as a possible therapeutic in pediatric patients with atopic dermatitis: efficacy and safety

Caroline F. Formigari, MD¹, Pryscilla F. Silva, MD¹, Pamela A. Barbosa, MD¹, Gislane S. Juliao, MD¹, Myllena A. Cunha, MD¹, Antonio C. Pastorino, MD, PhD², Ana Paula C. Moschione, MD, PhD², Mayra B. Dorna, MD², and Cristiane N Santos, MD¹, ¹University of Sao Paulo, São Paulo, Brazil, ²University of Sao Paulo, Sao Paulo, Brazil

442 IgE sensitization profiles of adult patients with moderate and severe atopic dermatitis: is there a role for molecular-based allergy diagnosis?

Karine Boufleur, MD, Janaina ML Melo, MD, PhD, Renata Nahas Cardili, MD, PhD, Marcelo ABR Amaral, Mariana PL Ferriani, MD, PhD, Thais N Mendonça, MD, Luana SM Maia, LuisaKarla P Arruda, MD, PhD, FAAAAI and Adriana S Moreno, PhD, Ribeirão Preto Medical School - University of São Paulo, Ribeirão Preto, Brazil

443 Food Sensitization in Young Thai Children with Atopic Dermatitis

Mongkol Lao-araya¹, Phuwat Feilung¹, and Dararat Dankai², ¹Chiang Mai University, Chiang Mai, Thailand, ²Chiang Mai University, Chaing Mai, Thailand



444 Patch testing in children and adolescents with contact dermatitis

Priscila Moraes, Maria Elisa Bertocco Andrade, Veridiana Aun Rufino Pereira, Carlos Alves Bezerra Filho, Daniele Maciel Alevato, Adriana Teixeira Rodrigues and Fatima Rodrigues Fernandes, Hospital do Servidor Público Estadual de São Paulo, Sao Paulo, Brazil

445 Modulation of IgE and IgG4 with Dietary Treatment of Eosinophilic Esophagitis and Peanut Allergy

Elizabeth Erwin, MD, Nationwide Children's, Columbus, OH, Alexander J Schuyler, B.S., University of Pittsburgh School of Medicine, Pittsburgh, PA, Julia A. Cronin, MD, Palo Alto Medical Foundation, Mountain View, CA, Patrice G Kruszewski, Emory, Atlanta, GA, Lisa J. Workman, BA, University of Virginia, Charlottesville, VA, Scott P. Commins, MD, PhD, University of North Carolina at Chapel Hill, Chapel Hill, NC and Thomas A.E. Platts-Mills, MD, PhD, FAAAAI, Division of Asthma, Allergy & Immunology, University of Virginia Health System, Charlottesville, VA

446 Significant comorbidity of necrotizing enterocolitis with non-IgE-mediated gastrointestinal food allergy in non-premature babies

Yumiko Miyaji, MD, PhD¹, Tatsuki Fukuie, MD, PhD¹, Masami Narita, MD, PhD¹, Yukihiro Ohya, MD, PhD¹, Kenji Matsumoto, MD, PhD², and Ichiro Nomura, MD, PhD¹, ¹National Center for Child Health and Development, Tokyo, Japan, ²National Research Institute for Child Health and Development, Tokyo, Japan

447 An Assessment of School Nurses' Familiarity with Eosinophilic Esophagitis

Heather H Stern, D.O. and Pooja BM Jhaveri, MD, Penn State Health Milton S. Hershey Medical Center, Hershey, PA

448 IgG4 responses to milk proteins in pediatric eosinophilic esophagitis: comparison by sex and age Julia K. Sohn, MD¹, Jeffrey M. Wilson, MD, PhD¹, Alexander J. Schuyler, BS, BA¹, Elizabeth Erwin, MD², and Thomas A.E. Platts-Mills, MD, PhD, FAAAAI, FRS¹, ¹Division of Asthma, Allergy & Immunology, University of Virginia Health System, Char-

 lottesville, VA, ²Nationwide Children's, Columbus, OH
 449 Esophageal IgG4 Levels Are Elevated in Pediatric Eosinophilic Esophagitis and Correlate with Esophageal Histopathology Including Levels of Eosinophils

Chen E Rosenberg, MD¹, Melissa K Mingler, MS, MBA², David W Morris, MD³, Margaret H Collins, MD², Julie M Caldwell, PhD⁴, Vincent A Mukkada, MD², Philip E Putnam, MD², and Marc E Rothenberg, MD, PhD, FAAAAI², ¹Division of Allergy and Immunology, Cincinnati Children's Hospital, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH, ³Dayton Children's Hospital, Dayton, OH, ⁴Division of Allergy and Immunology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ³Dayton Children's Hospital, Dayton, OH, ⁴Division of Allergy and Immunology, Cincinnati Children's Hospital Medical Center, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH

450 Complementary and Alternative Medicine among Children with Atopic Dermatitis

Miori Sato, MD¹, Kiwako Yamamoto-Hanada, MD, PhD², Makoto Irahara², Fumi Ishikawa², Motoko Mitsui¹, Mayako Saito², Yumiko Miyaji, MD, PhD², Shinichiro Inagaki, MD, PhD², Tatsuki Fukuie, MD, PhD², Ichiro Nomura, MD, PhD³, Masami Narita, MD, PhD², and Yukihiro Ohya, MD, PhD², ¹National Center for Child Health and Development, Tokyo, Japan, ²National Center for Child Health and Development (NCCHD), Tokyo, Japan, ³National Research Institute for Child Health and Development, Tokyo, Japan

451 Down syndrome is overrepresented in Food Protein Induced Enterocolitis Syndrome

Valentina Pecora, Diletta Valentini, Alberto Villani, Maurizio Mennini and Alessandro Fiocchi, MD, Pediatric Research Hospital Bambino Gesù, Rome, Holy See 452 An In-Depth Characterization of a Large Cohort of Adult Patients with Eosinophilic Esophagitis (EoE) in a Major East Coast Tertiary Care Center

Lyvia Leigh, MD, Hospital of the University of Philadelphia, Philadelphia, PA and Jonathan M. Spergel, MD, PhD, FAAAAI, The Children's Hospital of Philadelphia, Philadelphia, PA

453 Skin Testing with Different Food Formulations in an Eosinophilic Esophagitis Population

Jennifer Miller, MD^{1,2}, Christopher Frey, BS¹, Charles Minard, PhD¹, Jessica Lee, BS¹, Munazza Noor, MS¹, Anthony Olive, MD^{1,2}, Carla M. Davis, MD, FAAAAI^{1,2}, and Sara Anvari, MD, MSc^{1,2}, ¹Baylor College of Medicine, Houston, TX, ²Texas Children's Hospital, Houston, TX

 454 Can Clinical History and Demographics Predict Low or Changing BMI in Children with Esophageal Eosinophilia? Tara Sarin, MD, William Bennett, Jr, MD, MS, Girish V. Vitalpur, MD, and Emily Hon, MD, Riley Hospital for Children at Indiana University Health, Indianapolis, IN

455 Allergen Immunotherapy in Patients with Eosinophilic Esophagitis

Scott P. Commins, MD, PhD¹, Benjamin Robey², Barrett Barnes³, Craig C Reed⁴, Swathi Eluri⁴, Michelle L. Hernandez, MD, FAAAAI⁵, Maya R. Jerath, MD, PhD, FAAAAI⁶, and Evan S. Dellon, MD MPH⁷, ¹University of North Carolina at Chapel Hill, Chapel Hill, NC, ²UNC, Chapel Hill, NC, ³University of Virginia, Charlottesville, VA, ⁴University of North Carolina, Chapel Hill, ⁵UNC Center for Environmental Medicine, Asthma, & Lung Biology, Chapel Hill, NC, ⁶University of North Carolina - Chapel Hill, Chapel Hill, NC, ⁷University of North Carolina, Chapel Hill, NC Chronic Hand Dermatitis: Impact Of Patch Testing and Aller-

gen Avoidance Post Treatment Natalka Parzei, McMaster University, Hamilton, ON, Canada, Stephanie Vakaljan, Bsc, McMaster University, Hamilton, ON and Jason A. Ohayon, MD FRCPC, Hamilton Allergy, Hamilton, ON, Canada

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457 Eating Disorders are Prominent Among the Comorbidities of Eosinophilic Esophagitis in a U.S. Midwestern Children's Hospital

Sara D. Powell, MD¹, Jeffrey H. Teckman, MD², and Bradley A. Becker, MD, FAAAAI¹, ¹Saint Louis University, Department of Pediatrics, Division of Allergy and Immunology, Saint Louis, MO, ²Saint Louis University, Department of Pediatrics, Division of Gastroenterology, Saint Louis, MO

O Syzon¹, I Voznyak¹, M Dashko¹, K Lischuk-Yakymovych¹, Lawrence Dubuske^{2,3}, and R Pukalyak¹, ¹Danylo Halytskyi L'viv National Medical University, L'viv, Ukraine, ²Immunology Research Institute of New England, Gardner, MA, ³George Washington University School of Medicine, Washington, DC

459 Breastfeeding in Patients with Eosinophilic Esophagitis Kristen M Lutzkanin, MD, Penn State Health, Hershey, PA, Pooja BM Jhaveri, MD, Penn State Health Milton S. Hershey Medical Center, Hershey, PA and Punit Jhaveri, MD, Penn State Hershey Medical Center, Hershey, PA

460 Challenges in Managing Patients Referred to the Allergy Clinic for Eosinophilic Esophagitis Samantha K. Lin, MD, University of North Carolina, Chapel Hill,

NC, Neelu Kalra, MD, St. Vincent Medical Group, Evansville, IN and Gisoo Ghaffari, MD, FAAAAI, Penn State Health Milton S. Hershey Medical Center, Hershey, PA

461 Serum Periostin in Eosinophilic Oesophagitis and Proton Pump Inhibitor-Responsive Oesophageal Eosinophilia

Daiana Guillen Vera, M.D, PhD¹, Natividad De Las Cuevas, PhD¹, Ruth Barranco, MD², Jesús Fernández-Crespo, MD, PhD³, and Maria Del Carmen Dieguez, MD, PhD¹, ¹Hospital Universitario





⁴⁵⁸ Impact of Laser Therapy on Immune Responses in Acne Patients

12 de Octubre, Madrid, Spain, ²Hospital Universitario 12 de Octubre, Madrid, Spain, ³Instituto de Salud Carlos III, Madrid, Spain

462 The Importance Community Care in Patients With Atopic Dermatitis: Primary Caregives Can Share the Same Staphylococcus Aureus Colonization Vanessa Tavares Pereira, USP, BELEM, Brazil

Anaphylaxis, Oral Food Challenges and Epidemiology of Food Allergy

FADDA

3208

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

463 Discrepancies between self-reported healthcare utilization data in parents of food-allergic children

Opal Gupta, MD¹, Betty Andy–Nweye¹, Sukruthi Jois², Alice N Hackett, MD³, Ruchi S. Gupta, MD MPH^{4,5}, Mary C. Tobin, MD¹, and Mahboobeh Mahdavinia, MD, PhD¹, ¹Department of Internal Medicine, Division of Allergy and Immunology, Rush University Medical Center, Chicago, IL, ²Department of Immunology and Microbiology Allergy/Immunology Section Rush University Medical Center, Chicago, IL, ³Rush University Medical Center, Chicago, ⁴Northwestern University Feinberg School of Medicine, Chicago, IL, ⁵Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL

- 464 IgE Sensitization to the Food Allergen Galactose-α-1,3-Galactose is Associated with Coronary Atherosclerosis
 Jeffrey M. Wilson, MD, PhD¹, Anh T. Nguyen, PhD², Alexander J. Schuyler, BS, BA¹, Scott P. Commins, MD, PhD³, Angela M. Taylor, MD², Thomas A.E. Platts-Mills, MD, PhD, FAAAAI¹, and Coleen A McNamara, MD², ¹Division of Asthma, Allergy & Immunology, University of Virginia Health System, Charlottesville, VA, ²Division of Cardiology and Robert M. Berne Cardiovascular Center, University of Virginia Health System, Charlottesville, VA, ³University of North Carolina at Chapel Hill, Chapel Hill, NC
- 465 Epinephrine Use in Austin Independent School District (AISD) Schools After Implementation of Unassigned Epinephrine Kathryn Neupert, MD¹, Sheeba Kunnel, MD¹, Sally Freeman², Stephen Pont, MD², and Pooja Varshney, MD^{1,2}, ¹University of Texas at Austin Dell Medical School, Department of Pediatrics, Austin, TX, ²Dell Children's Medical Center of Central Texas, Austin, TX
- 466 An optimal window of age for epicutaneous sensitization following tape-stripping in mice

Masato Tamari, MD^{1,2}, Keisuke Orimo, MD^{1,3}, Kenichiro Motomura, MD, PhD.¹, Ken Arae, PhD.^{1,4}, Susumu Nakae, PhD⁵, Akio Matsuda, PhD.¹, Hideaki Morita, MD, PhD.¹, Hirohisa Saito, MD, PhD, FAAAAI¹, and Kenji Matsumoto, MD, PhD⁶, ¹Department of Allergy and Clinical Immunology, National Research Institute for Child Health and Development, Tokyo, Japan, ²Department of Pediatrics, The Jikei University School of Medicine, Tokyo, Japan, ³First Department of Medicine, Tokyo Women's Medical University School of Medicine, Tokyo, Japan, ⁴Department of Immunology, Faculty of Health Science, Kyorin University, Tokyo, Japan, Tokyo, Japan, ⁵Laboratory of Systems Biology, Center for Experimental Medicine and Systems Biology, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan, ⁶National Research Institute for Child Health and Development, Tokyo, Japan

467 Characterizing the Geographic Distribution of the Alpha-gal Syndrome: Relevance to Lone Star Ticks (*Amblyomma americanum*) and Rickettsia **Thomas A.E. Platts-Mills, MD, PhD, FAAAAI**¹, Alexander J. Schuyler, BS, BA¹, Scott P. Commins, MD, PhD², Tina K. Merritt, MD, FAAAAI³, Erin E. McGintee, MD⁴, Hayley James, MD¹, Lisa J. Workman, BA¹, and Jeffrey M. Wilson, MD, PhD¹, ¹Division of Asthma, Allergy & Immunology, University of Virginia Health System, Charlottesville, VA, ²University of North Carolina at Chapel Hill, Chapel Hill, NC, ³Allergy and Asthma Clinic of NWA, Bentonville, AR, ⁴ENT and Allergy Associates, LLP, Southampton, NY

468 Post-Transplantation Food Allergy and Tacrolimus Exposure In A Pediatric Population Ashley Devonshire, MD MPH, Chicago, IL and Rajesh Kumar,

Ashey Devonsnire, MD MPH, Chicago, IL and Rajesh Kumar, MD, FAAAAI, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL

469 Intragastric sensitization to peanut in the absence of a Th2skewing adjuvant in mice genetically predisposed to food allergy

Johanna Smeekens, PhD¹, Kelly Orgel, BS¹, Martin T. Ferris, PhD², Darla Miller², A. Wesley Burks, MD, FAAAAI³, Fernando Pardo-Manuel de Villena², and Mike D. Kulis, PhD⁴, ¹University of North Carolina, Chapel Hill, NC, ²University of North Carolina, Chapel Hill, ³University of North Carolina at Chapel Hill, Chapel Hill, NC, ⁴University of North Carolina at Chapel Hill, Chapel Hill, NC, ⁴University of North Carolina at Chapel Hill, Chapel Hill

470 Characteristics, morbidity, and mortality of anaphylaxis-associated admissions to North American PICUs, 2010-2015 Nicole B Ramsey, MD, PhD¹, Danielle Guffey, MS², Nana E Coleman, MD EdM², and Carla M. Davis, MD, FAAAAI², ¹Baylor College of Medicine/Texas Children's Hospital, Houston, TX, ²Baylor College of Medicine, Houston, TX

471 Results of A Survey on the Frequency and the Criteria for Epinephrine Autoinjector Prescription in Patients with Acquired Cold-Induced Urticaria (ACIU)

Yael Gernez, MD, PhD, Scott H. Sicherer, MD, FAAAAI and Julie Wang, MD, FAAAAI, Department of Pediatrics, Icahn School of Medicine at Mount Sinai, New York, NY

472 First Clinical Trial with a Medical Device for Anaphylaxis Management

Victoria Cardona, MD, PhD¹, Olga Luengo, MD, PhD², Moises Labrador-Horrillo, MD, PhD³, Nuria Moreno, M.D, Ph.D⁴, Mar Guilarte, M.D, Ph.D⁵, Elena Pala⁶, Adrian Curran, M.D, Ph.D⁶, and Anna Sala-Cunill, M.D, Ph.D⁴, ¹HOSPITAL VALL DE'HE-BRON, Barcelona, Spain, ²Hospital Vall d' Hebron, Barcelona, Spain, ³Vall d'Hebron Hospital, Barcelona, Spain, ⁴Hospital Universitari Vall d'Hebron, Barcelona, Spain, ⁶Adan Medical Innovation LS, Barcelona, Spain

473 Measuring Anaphylaxis with Thermography in a Peanut Murine Model

Brian P. Peppers, DO PhD^{1,2}, Rolf Van Heeckeren³, Devi Jhaveri, DO^{1,4}, Robert W Hostoffer, DO, LhD^{1,4}, and Tracey L. Bonfield, PhD³, ¹University Hospitals Cleveland Medical Center, Cleveland, OH, ²Lake Erie Consortium of Osteopathic Medical Training, Erie, PA, ³Case Western Reserve, Cleveland, OH, ⁴Allergy/Immunology Associates, Inc., Mayfield Heights, OH

474 Review of 228 Consecutive Outpatient Oral Food Challenges to Almond

Mary Grace Baker, MD and Jake Daniel Kattan, MD, Icahn School of Medicine at Mount Sinai, New York, NY

475 Household Dust Endotoxin Level and Food Allergen Sensitization in the National Health and Nutrition Examination Survey (NHANES)

Angela Tsuang, MD MSc, Icahn School of Medicine at Mount Sinai, New York, NY, Ginger L. Chew, ScD, Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY, Joanne Sordillo, ScD, Harvard Medical School, Boston, MA and Supinda Bunyavanich, MD MPH FAAAAI, Division of Allergy & Immunology, Department of Pediatrics, Icahn School of Medicine at Mount Sinai,

SUNDAY



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New York, NY; Department of Genetics and Genomic Sciences and Institute of Genomics and Multiscale Biology, Icahn School of Medicine at Mount Sinai, New York, NY

- **476** Surfing is a risk factor of sensitization to poly(gamma-glutamic acid) in fermented soybean-induced late-onset anaphylaxis Naoko Inomata, Mami Miyakawa and Michiko Aihara, Yokohama City University School of Medicine, Yokohama
- 477 Persistent Cow's Milk Allergy is Associated with Decreased Growth: A Longitudinal Study

Karen A Robbins, MD, Children's National Medical Center, Washington, DC, Robert A. Wood, MD, FAAAAI, Johns Hopkins University School Medicine, Baltimore, MD, and Corinne Keet, MD MS PhD, Johns Hopkins School of Medicine, Baltimore, MD The Changing Face of Anaphylaxis

Angela Fadahunsi, MD, University of Tennessee Health Science Center, Memphis, TN, Debendra Pattanaik, MD, FAAAAI, Univ. of TN Health Sci Ctr, Memphis, TN, Alexandria Tran Keene, MD, University of Tennessee Health Sciences Center, Memphis, Phillip L. Lieberman, MD, FAAAAI, University of Tennessee College of Medicine, Memphis, TN; Allergy and Asthma Associates, Germantown, TN, Thanai Pongdee, MD, FAAAAI, Mayo Clinic, Rochester, MN and Jay A. Lieberman, MD, FAAAAI, The University of Tennessee - Memphis, Memphis, TN

480 Characteristics of Central Ohio 911 Calls for Allergic Reaction and Anaphylaxis

Kathleen Grisanti, MD¹, Margaret Redmond, MD², Lisa M. Martorano, DO³, Tara McCarthy, BS⁴, Rebecca Scherzer, MD, FAAAAI², Kasey R. Strothman, MD², and Julie C. Leonard, MD, MPH⁵, ¹Division of Allergy & Immunology, The Ohio State University Wexner Medical Center & Nationwide Children's Hospital, Columbus, OH, ²Division of Allergy & Immunology, Nationwide Children's Hospital, Columbus, OH, ³Division of Allergy and Immunology at The Ohio State University Wexner Medical Center & Nationwide Children's Hospital, Columbus, OH, ⁴Department of Clinical Research, Nationwide Children's Hospital, Columbus, OH, ⁵Division of Emergency Medicine, Nationwide Children's Hospital & The Ohio State University College of Medicine, Columbus, OH

481 Risk of Anaphylaxis during an Oral Food Challenge Increases with Increasing Specific IgE Levels Noriyuki Yanagida, MD¹, Sakura Sato, MD², Kyohei Takahashi, MD², Kenichi Nagakura¹, Tomoyuki Asaumi², Kiyotake Ogura, MD³, and Motohiro Ebisawa, MD, PhD, FAAAAl⁴, ¹Department of Pediatrics, Sagamihara National Hospital, Kanagawa, Japan, ²Sagamihara National Hospital, Kanagawa, Japan, ³Sagamihara National Hospital, Sagamihara, Japan, ⁴Clinical Research Center for Allergy and Rheumatology, Sagamihara National Hospital, Kanagawa, Japan

482 DIAGNOSTIC PERFORMANCE OF DIFFERENT METHODS FOR DETECTION OF SENSITIZATION TO PRU P 3 IN SPAIN

Carmen M D'Amelio¹, Marta M. Ferrer, MD, PhD, FAAAAl², Rubén M Martínez-Aranguren¹, Jorge Martín-Cuesta³, María J Goikoetxea¹, and Gabriel Gastaminza¹, ¹Clínica Universidad de Navarra, Pamplona, Spain, ²Clinica Universidad de Navarra Medical School, Pamplona, Spain, ³Universidad de Navarra, Pamplona, Spain

483 Pediatric Residents' Knowledge and Proficiency of Epinephrine Auto-injector Administration and Handling

Hanadys Ale, MD¹, and Vivian P. Hernandez-Trujillo, MD, FAAAAI^{1,2}, ¹Nicklaus Children's Hospital, Miami, FL, ²Allergy and Immunology Care Center of South Florida, Miami Lakes, FL

484 Food allergy without a history of atopic dermatitis is associated with increased antibiotic and gastroesophageal reflux medication use

Christine B. Cho, MD, Douglas C Everett, PhD, Marco Ramirez-Gama and Donald Y. M. Leung, MD, PhD, FAAAAI, National Jewish Health, Denver, CO 485 Pitfalls in Anaphylaxis in The Emergency Department Amy W. Castilano, MD, Britni Sternard, MD, Earl D. Cummings, MD, Runhua Shi, MD, PhD, Thomas Arnold, MD, and Sami L. Bahna, MD DrPH FAAAAI, Louisiana State University Health Sciences Center, Shreveport, LA

486 Increasing trends of anaphylaxis-related events: An analysis of anaphylaxis nationwide data in Taiwan, 2001-2013 Tsung-Chieh Yao, MD, PhD¹, Ya-Wen Huang, MSc², Hsiao-Ting Wu, MSc², Yu-Ting Tsai, MSc², Jiu-Yao Wang, MD, PhD³, and Hui-Ju Tsai, PhD², ¹Chang Gung Memorial Hospital, Taoyuan, Taiwan, ²National Health Research Institutes, Zhunan, Taiwan, ³National Cheng Kung University Hospital, Tainan, Taiwan

487 Diagnostic value of basophil activation test on wheat-dependent exercise-induced anaphylaxis(WDEIA)

Qian Zhang, peking union medical college hospital, beijing

489

488 Human Factors Engineering Validation Study for a Novel 0.1 mg Epinephrine Auto-Injector

Evan Edwards, MS¹, Catherine Kessler, PhD¹, Emily Dissinger, MS², Naomi Cherne, PhD², and Adam Shames, MBA², ¹kaleo, Inc., Richmond, VA, ²Core Human Factors, Inc., Bala Cynwyd, PA Knowledge, Attitudes and Comfort of Childcare Providers in

the Care of Children with Food Allergies Kara J. Wada, MD, Ohio State University, Columbus, OH, Amanda Mazzaferri, Upper Arlington High School, Columbus, OH, Rebecca Scherzer, MD, FAAAAI, Division of Allergy & Immunology, Nationwide Children's Hospital, Columbus, OH and David R. Stukus, MD, FAAAAI, Nationwide Children's Hospital, New Albany, OH

490 Food Protein-Induced Enterocolitis Syndrome Food Challenges: The Children's Hospital of Philadelphia Experience Kathleen Y. Wang, MD¹, Juhee Lee, MD¹, Antonella Cianferoni, MD, PhD, FAAAAI¹, Yuran Chi, RN¹, Katie Cunha, RN¹, Jerome M. Molleston, MS², Amy Dean, MPH, RD, LDN¹, Nicholas A. Pawlowski, MD¹, Jennifer Heimall, MD¹, Rushani W. Saltzman, MD¹, Gita S. Ram, MD¹, Joel Fiedler, MD, FAAAAI¹, Laura M. Gober, MD¹, Jonathan M. Spergel, MD, PhD, FAAAAI¹, and Terri F. Brown-Whitehorn, MD, FAAAAI¹, ¹The Children's Hospital of Philadelphia, Philadelphia, PA, ²Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA
491 Low Resolution Rates of Seafood Allergy

 Low Resolution Rates of Seafood Allergy
 Moshe Ben-Shoshan, MD, MSc, Montreal Children's Hospital, Division of Allergy Immunology and Dermatology, Department of Pediatrics, Montreal, QC, Canada, Edmond S. Chan, MD, FRCPC, Division of Allergy and Immunology, Department of Pediatrics, University of British Columbia, BC Children's Hospital, Vancouver, BC, Canada, Ricky Chin, Division of Rheumatology, Department of Medicine, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada, Chynace Van Lambalgen, Division of Rheumatology, Department of Medicine, Cumming School of Medicine, University of Calgary, Calgary, Laurie Harada, Food Allergy Canada, Toronto, Canada and Ann Elaine Clarke, MD, MSc, Division of Rheumatology, Department of Medicine, University of Calgary, Calgary, AB, Canada

492 Cross-Canada Anaphylaxis Registry (C-CARE): comparing rates, triggers, and management of anaphylaxis in a single centre emergency department (ED) over 4 years

Juan C. Ruiz, MD¹, Victoria Zotova, MD¹, Moshe Ben-Shoshan, MD, MSc², Hamna Tariq, Medical Student³, Taylor Sheppard, Medical Student³, Yuka Asai, MD, MSc, FRCPC⁴, Adil Adatia⁵, Yarden Yanishevsky, MD, MRCPI, FACAAI, FAAAAl⁶, Edmond S. Chan, MD, FRCPC⁷, Greg Shand, BSc, MSc⁸, Ricky Chin⁹, and Ann Elaine Clarke, MD, MSc¹⁰, ¹Department of Medicine, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada, ²Division of Pediatric Allergy and Immunology, Department of Pediatrics, Montreal Children's Hospital, Montreal, QC, Canada, ³Cumming School of Medicine, University Calgary, Calgary, AB, ⁴Division of Dermatology, Department of Medicine, Queen's University, Kingston, ON, Canada, ⁵Department of SUNDAY



Medicine, University of Alberta, Edmonton, AB, Canada, ⁶Section of Allergy & Clinical Immunology, Department of Pediatrics, University of Alberta, Edmonton, AB, Canada, ⁷Division of Allergy and Immunology, Department of Pediatrics, University of British Columbia, BC Children's Hospital, Vancouver, BC, Canada, ⁸Division of Clinical Epidemiology, McGill University Health Centre, Montreal, QC, Canada, ⁹Division of Rheumatology, Department of Medicine, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada, ¹⁰Division of Rheumatology, Department of Medicine, University of Calgary, Calgary, AB, Canada

- 493 Treatment of Anaphylaxis: Are We Doing It Right? Andrea Blackman, MD¹, Sara Anvari, MD, MSc^{1,2}, and Aikaterini Anagnostou, MD MSc PhD^{1,2}, ¹Texas Children's Hospital, Houston, TX, ²Baylor College of Medicine, Houston, TX
- 494 Anaphylaxis presenting to the Pediatric Emergency Centers in Qatar

Ahmad Alshami¹, Mehdi Adeli, MD^{1,2}, Khalid Alyafei^{1,3}, and Sabha Nisar¹, ¹Hamad Medical Corporation, Doha, Qatar, ²Sidra Medical and Research Center, Doha, Qatar, ³Sidra Medical and Research Center, Doha, Doha, Qatar

- **495** Assessment of Food Allergy Management in College Students Alix McLaughlin, B.A., Shelby Wilson, MS and Catherine Peterson, PhD, Eastern Michigan University, Ypsilanti, MI
- 496 Timing of Dietary Peanut Introduction and Incidence of Peanut Allergy among High-Risk Infants: Review of Infants followed at an Academic Pediatric Allergy Center

Mihaela Paina, MD MS FRCPC, FE125 — 685 William Avenue, University of Manitoba, Winnipeg, MB, Canada, Matthew Levesque, BSc, Children's Hospital Research Institute of Manitoba, Winnipeg, MB, Canada and Elinor Simons, MD, PhD MS FAAAAI FAAP, University of Manitoba/Children's Hospital Research Institute of Manitoba, Winnipeg, MB, Canada

497 Anaphylaxis in Infants

Waheeda Samady, MD, MSCI^{1,2}, Jennifer Trainor, MD^{1,2}, Diane Houdek², Briget Marie Smith, PhD², and Ruchi S. Gupta, MD MPH^{1,2}, ¹Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ²Northwestern University Feinberg School of Medicine, Chicago, IL

498 Risk of Anaphylaxis Risk In Schools – A Systematic Review Derek K Chu, MD, PhD, Heather Cruickshank, Jan Brozek, MD, PhD, and Susan Waserman, MD MSc FAAAAI, McMaster University, Hamilton, ON, Canada

499 Emergency Management of Pediatric Anaphylaxis due to an Unknown Cause: A 5-year follow-up study in Canada

Michelle Le, BSc, McGill University, Montreal, QC, Canada, Ann Elaine Clarke, MD, MSc, Division of Rheumatology, Department of Medicine, University of Calgary, Calgary, AB, Canada, Harley Eisman, MD, Department of Emergency Medicine, Montreal Children's Hospital, McGill University Health Centre, Montreal, QC, Canada, Judy Morris, MD, MSc, Department of Emergency Medicine, Sacré-Coeur Hospital, Montreal, QC, Canada, Jocelyn Gravel, MD, MSc, Department of Emergency Medicine, Hôpital Sainte-Justine, Montreal University, Montreal, QC, Canada, Edmond S. Chan, MD, FRCPC, Division of Allergy and Immunology, Department of Pediatrics, University of British Columbia, BC Children's Hospital, Vancouver, BC, Canada, Rodrick Lim, MD, Department of Pediatrics & Medicine, Schulich School of Medicine & Dentistry, Western University, Children's Hospital at London Health Sciences Centre, London, ON, Canada, Andrew O'Keefe, MD, Department of Pediatrics, Faculty of Medicine, Memorial University, St. John's, NF, Canada, Greg Shand, BSc, MSc, Division of Clinical Epidemiology, McGill University Health Centre, Montreal, QC, Canada and Moshe Ben-Shoshan, MD, MSc, Division of Pediatric Allergy and Immunology, Department of Pediatrics, Montreal Children's Hospital, Montreal, QC, Canada

500 Major Allergens Sensitized by Thai Patients with Wheat Anaphylaxis

Nuntanut Rutrakool, MD¹, Surapon Piboonpocanun, PhD², Witchaya Srisuwatchari, MD¹, Orathai Jirapongsananuruk, MD¹, Nualanong Visitsunthorn, MD¹, Torpong Thongngarm, MD³, Pakit Vichyanond, MD, FAAAAI⁴, and Punchama Pacharn, MD¹, ¹Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand, ²Institute of Molecular Biosciences, Mahidol University, Nakhorn Pathom, Thailand, ³Division of Allergy and Immunology, Department of Medicine, Faculty of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand, ⁴Samitivej Allergy Institute, Thonburi Hospital, Bangkok, Thailand

501 The Relationship of Parental Allergy and IgE to the Risk of Food Allergy in Offspring

Erica K. Ridley, MD¹, Alexandra R. Sitarik, MS², Christine L.M. Joseph, PhD³, Haejin Kim, MD³, Edward M. Zoratti, MD, FAAAAI⁴, Dennis Ownby, MD, FAAAAI⁵, and Christine Cole Johnson, PhD MPH FAAAAI⁶, ¹Henry Ford Health System Allergy and Immunology, Detroit, MI, ²Department of Public Health Sciences, Henry Ford Hospital, Detroit, MI, ³Henry Ford Health System, Detroit, MI, ⁴Henry Ford Hospital, Detroit, MI, ⁵Department of Pediatrics Georgia Regents University, Augusta, GA, ⁶Henry Ford Health Sciences, Detroit, MI

502 Effects of prenatal dietary pattern and genetic variations on food allergy in infants

Yoon Hee Kim¹, Kyung Won Kim¹, So-Yeon Lee², Kyeong Ok Koo³, Sung-Ok Kwon⁴, Dong In Suh⁵, Youn Ho Shin⁶, Kangmo Ahn⁷, Se-Young Oh³, Soo Young Lee⁸, Myung Hyun Sohn¹, and Soo-Jong Hong², ¹Yonsei University College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ²University of Ulsan College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ³Kyung Hee University, Department of Food and Nutrition, Seoul, Korea, Republic of (South), ⁴Kangwon Medical University School of Medicine, Seoul, Korea, Republic of (South), ⁵Seoul National University College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ⁶CHA University School of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ⁷Sungkyunkwan University School of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ⁸Ajou University School of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South)

503 Drug allergy testing and oral challenge test protocol with metronidazole

Michael Rudenko, MD PHD FAAAAI, London Allergy and Immunology Centre, London, United Kingdom

- 504 Specific IgE sensitization to honey bee venom and auto-injector adrenaline prescriptions for Japanese beekeepers Masamitsu Tatewaki¹, Naruo Yoshida², Hirokuni Hirata³, and Yasutsugu Fukushima³, ¹Dokkyo Medical University Koshigaya Hospital, Saitama, Japan, ²Dokkyo Medical University Koshigaya Hospital, Saitama, Japan, ³Dokkyo Medical University Koshigaya Hospital, Koshigaya, Japan
- 505 Most Pregnant Women and A Half of 1-year-old Children in Japan Have Vitamin D Deficiency: Results from An Inner-City Birth Cohort

Fumiya Yamaide¹, Madoka Tomura², Mamoru Sato³, Yoichi Suzuki⁴, Fumio Nomura³, and Naoki Shimojo, MD, PhD⁵, ¹Department of Pediatrics, Graduate School of Medicine, Chiba University, Chiba, Japan, ²Department of Pediatrics, Graduate School of Medicine, Chiba University, Chiba, ³Division of Clinical Mass Spectrometry, Chiba University Hospital, Chiba, ⁴Department of Education and Training, Tohoku Medical Megabank Organization, Tohoku University, Sendai, ⁵Department of Pediatrics Graduate School of Medicine Chiba University, Chiba, Japan



506 Characteristics Of Anaphylaxis And Management In A Midwestern Hospital System
Julia S. Lee, MD, Saint Louis University School of Medicine. Department of Pediatrics. Division of Allergy and Immunology, Saint Louis, MO and Manoj Warrier, MD, FAAAAI, Saint Louis University School of Medicine. Department of Pediatrics. Division of Allergy and Immunology, St. Louis, MO
507 Racial, Ethnic, and Socioeconomic Differences in Childhood Diet and Teenage Food Allergy
Elise Coulson, MD¹, Sheryl Rifas-Shiman, MPH², Joanne Sordillo, ScD², Supinda Bunyavanich, MD MPH FAAAAI³, Carlos A. Camargo, MD DrPH FAAAAI⁴, Thomas A.E. Platts-Mills, MD, PhD, FAAAAI⁵, Brent Coull, Ph.D⁶, Heiki Gibson, Ph.D⁷, Mathew Gillman, MD, SM⁸, Emily Oken, MD, MPH², Diane Gold, MD.

Gillman, MD, SM⁸, Emily Oken, MD, MPH², Diane Gold, MD, MPH^{2,9}, and Mary Rice, MD, MPH¹, ¹Department of Medicine, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, ²Division of Chronic Disease Research Across the Lifecourse, Department of Population Medicine, Harvard Medical School/Harvard Pilgrim Health Care Institute, Boston, MA, ³Division of Allergy and Immunology, Department of Pediatrics, Icahn School of Medicine at Mount Sinai, New York, NY, ⁴Department of Emergency Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA, 5Division of Asthma, Allergy & Immunology, University of Virginia Health System, Charlottesville, VA, ⁶Department of Biostatistics, Harvard T.H. Chan School of Public Health, Boston, MA, ⁷Department of Environmental Health, Harvard T. H. Chan School of Public Health, Boston, MA, ⁸Department of Nutrition, Harvard T.H. Chan School of Public Health, Boston, MA, ⁹Division of Pulmonary and Critical Care Medicine, Brigham and Women's Hospital, Boston, MA

- 508 Effectiveness of Implementing a Defined Food Allergy Management Plan in the Public School Setting Katherine C Neighbors, RN, UNC Hospitals, Raleigh, NC
- 509 Incidence, Etiology and characteristics of adult onset anaphylaxis in Qatar

Mehdi Adeli, MD^{1,2}, Khalid Alyafei^{2,3}, Sohaib Imtiaz Chaudhry², and Sabha Nisar², ¹Sidra Medical and Research Center, Doha, Qatar, ²Hamad Medical Corporation, Doha, Qatar, ³Sidra Medical and Research Center, Doha, Doha, Qatar

510 A Rare Presentation of Milk Cheese Anaphylaxis with Tolerance to Milk

Rongbo Zhu, University of Toronto, Toronto, ON, Deena Kobric, Gordon Sussman Clinical Research Inc., Toronto and Gordon Lloyd Sussman, MD, FAAAAI, Clinical Research, Inc., Toronto, Canada; University of Toronto, Toronto, ON, Canada

511 Skin prick test in milk allergic patients undergoing oral immunotherapy

Sofianne Gabrielli, MSc, McGill University Health Centre, Montreal, QC, Canada

512 Patient and family perceptions on when it is appropriate to have an oral food challenge

Monica T. Kraft¹, Rebecca Scherzer, MD, FAAAAI², Elizabeth Erwin, MD³, and Irene Mikhail, MD¹, ¹Nationwide Children's Hospital, Columbus, OH, ²Division of Allergy & Immunology, Nationwide Children's Hospital, Columbus, OH, ³Nationwide Children's, Columbus, OH

513 Heart rate interval analysis using moving average curve during oral food challenge

Katsuhito likura, National Hospital Organization Nishisaitama-Chuo National Hospital, Saitama, Japan and Hiroshi Tachimoto, MD, PhD, Tokyo Jikei University Hospital, Tokyo, Japan

514 Food sensitization rate and immediate-type food allergy incidence among infantile atopic dermatitis Yuki Ejiri, MD¹, Tetsuharu Manabe, MD¹, Noriyuki Yanagida, MD¹, Sakura Sato, MD², and Motohiro Ebisawa, MD, PhD, FAAAAI², ¹Department of Pediatrics, Sagamihara National Hospital, Kanagawa, Japan, ²Department of Allergy, Clinical Research Center for Allergy and Rheumatology, Sagamihara National Hospital, Kanagawa, Japan

515 Antigen-specific IgE antibody levels as a negative predictor of oral food challenge with cow's milk in children with cow's milk allergy

Satoshi Fujita, Sagara Nagatoshi, Akiko Aota, Toshio Katsunuma and Kenichi Akashi, Jikei University Daisan Hospital, Tokyo

516 Clinical significance of serum tryptase

Young-Hee Nam, MD, Department of Internal Medicine, College of Medicine, Dong-A University, Busan, Korea, Republic of (South), Hyun Jeong Jin, MD, Yeungnam University College of Medicine, Daegu, Korea and Soo-Keol Lee, PhD, Dong-A University, Busan, Korea

517 Correlation of SPT or OFC Positive Results to IgE on a Novel Immunoassay System

Edsel Sinson, Morkoah Blay, Shamim Bata, Stephanie Ortega, Sean Neath, Richard Hockins and Eric Whitters, Hycor Biomedical, Garden Grove, CA

518 Improvement in Asthma Medication Ratio Performance Is Associated With Decreased Rates of Asthma-Coded Emergency Department Visits Over Time

Vivian Wang, MD¹, Joseph S. Yusin, MD, FAAAAI¹, William W. Crawford, MD, FAAAAI², and Randy Nakahiro, PharmD³, ¹VA Greater Los Angeles Healthcare System, Los Angeles, CA, ²Kaiser South Bay Medical Center, Harbor City, CA, ³Kaiser South Bay Medical Center, Harbor City

Rhinosinusitis: QOL and Newer Therapies

HEDQ

3209

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

519 EDS-FLU Improves Quality of Life and Health Status: Pooled Analysis of Phase 3 Trials Navigate I and II

Fulton F. Velez, MD¹, Emmanuel M. Mahlis, MD¹, John C. Messina Jr., PharmD¹, Sam Colman², Kate Anastassopoulos², and Ramy A. Mahmoud, MD, MPH¹, ¹Optinose US, Inc., Yardley, PA, ²Covance Market Access Services, Inc., Gaithersburg, MD

520 Improved Patient Adherence to Subcutaneous Allergen Immunotherapy Using a Modified Rush Immunotherapy Protocol Jordan N. Teachout¹, Stason Vandegrift², Christine M. Schafer, MD, FAAAAI³, Mark Trottier, PhD¹, Sara J. Uekert, MD, FAAAAI³, Karyn E. Gell, MD, FAAAAI³, Tracy Koehler, PhD⁴, and Alan Davis, PhD⁴, ¹Michigan State University College of Human Medicine, Grand Rapids, MI, ²Michigan State University College of Human Medicine, Lansing, MI, ³Grand Rapids Allergy, PLC, Grand Rapids, MI, ⁴Grand Rapids Medical Education Partners, Grand Rapids, MI

- 521 Treatment with SQ-HDM SLIT-tablet Improves Quality of Life in House Dust Mite Induced Allergic Rhinitis Eva Hammerby¹, Sarah Buchs¹, Karen S. Rance, DNP RN CPNP AE-C², and Dorte Rehm¹, ¹ALK Abelló, Hoersholm, ²ALK Inc, Round Rock
- 522 Development of a 3-Dimensional Practice Nasolaryngoscopy Model



Vivian C. Nanagas, MD, MS¹, Keerthi R. Karamched, MD¹, Allison Powell, BSE², Kevin Green, BSE², Alan P. Baptist, MD MPH

FAAAAI¹, and Glenn E. Green, MD², ¹University of Michigan, Division of Allergy and Clinical Immunology, Ann Arbor, MI, ²University of Michigan, Department of Otolaryngology, Ann Arbor, MI

- 523 Disease Burden of Chronic Rhinosinusitis (CRS) is as Severe as Other Serious Chronic Diseases Eric J. Schenkel, MD¹, John C. Messina Jr., PharmD², Andy Bodine, PhD³, James S. Mcginley, PhD³, R.J. Wirth, PhD³, and Ramy A. Mahmoud, MD, MPH², ¹Allergy Partners of the Lehigh Valley, Bethlehem Township, PA, ²Optinose US, Inc., Yardley, PA, ³Vector Psychometric Group, Durham, NC
- 524 Economic Impact Associated with a Reduction in Surgical Eligibility among Adult Patients with Chronic Rhinosinusitis - A Population Cost Offset Model

Nate J. Smith, PhD¹, Fulton F. Velez, MD², Emmanuel M. Mahlis, MD², Joseph J. Medicis, PharmD³, John C. Messina Jr., PharmD², Rachel A. Beckerman, PhD¹, Joseph Gricar, MS¹, and Ramy A. Mahmoud, MD, MPH², ¹Maple Health Group, LLC, New York, NY, ²Optinose US, Inc., Yardley, PA, ³Pharmaceutical Care Consultants, Syracuse, NY

- 525 Effects of nattokinase, profibrinolytic enzyme, on the patients with chronic rhinosinusitis with nasal polyp Tetsuji Takabayashi, MD¹, Yoshimasa Imoto, MD, PhD², Masafumi Sakashita, MD¹, Yukinori Kato¹, Takahiro Tokunaga³, Kanako Yoshida, MD¹, Norihiko Narita, MD¹, Tamotsu Ishizuka¹, and Shigeharu Fujieda, MD¹, ¹University of Fukui, Fukui, Japan, ²University of Fukui, Fukui, Japan
- 526 Impact of *Choosing Wisely* on Antibiotic Prescription and CT Scan Use for Uncomplicated Acute Rhinosinusitis (ARS) Hardik Patel, MD, Wei Zhang, MS, Yong-fang Kuo, PhD, and Gulshan Sharma, MD, MPH, University of Texas Medical Branch, Galveston, TX
- 527 Exhalation Delivery System with Fluticasone (EDS-FLU) Improves Health-Related Quality of Life (HRQoL) in Patients with Chronic Rhinosinusitis with Nasal Polyps: Results from NAVIGATE II

Shaila U. Gogate, MD¹, John C. Messina Jr., PharmD², Jennifer L. Carothers, ScD, MBA³, Per G. Djupesland, MD, PhD⁴, and Ramy A. Mahmoud, MD, MPH², ¹Colorado Allergy & Asthma Centers, P.C, Denver, CO, ²Optinose US, Inc., Yardley, PA, ³OptiNose US Inc, Yardley, PA, ⁴OptiNose AS, Oslo, Norway

Adverse Reactions to Drugs and Access to Prescription Medications

HEDQ

3210

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

528A Correlation of Antibiotic Allergy Frequency and Problematic Diagnoses

Thomas Bebekoski¹, Carl B. Lauter, MD, FAAAAl², and Matthew Sims^{2,3}, ¹OUWB School of Medicine, Rochester Hills, MI, ²William Beaumont Hospital, Royal Oak, MI, ³OUWB School if Medicine, Rochester Hills, MI

- 528 Pharmacy Deserts and Healthcare Impediment Zones Bruce L. Wolf, MD, FAAAAI, Vanderbilt University School of Medicine, Nashville, TN and Michael Becker, University of Pennsylvania College of Arts and Sciences, Philadelphia, PA
- 529 Hypersensitivity To Nonsteroidal Antiinflammatories: Immediate Selective Reactions to Arylpropionic Acids In A Population In Madrid

Marcos Sanchez-Dominguez, Ana Rodriguez-Fernandez, Ines Torrado, Blanca Noguerado-Mellado and Patricia Rojas-Perez-

SUNDAY



Ezquerra, Hospital General Universitario Gregorio Marañón, Madrid, Spain

- 530 Development and validation of the parent-reported drug hypersensitivity quality of life questionnaire Nisarat Chantaravisarut, MD¹, Thatchai Wirodwanich, MD¹, Wipa Jessadapakorn, MD¹, Pasuree Sangsupawanich, MD, PhD¹, Tippawan Liabsuetrakul, MD, PhD², and Araya Yuenyongviwat, MD¹, ¹Allergy and Immunology Division, Department of Pediatrics, Prince of Songkla University, Songkhla, Thailand, ²Epidemiology Unit, Prince of Songkla University, Songkhla, Thailand
- 531 Documentation of Adverse Drug Reactions in Electronic Medical Records: Areas for Improvement and Impact on Clinical Outcomes

Jenna T. Nguyen, MD and Iris M. Otani, MD, UCSF, San Francisco, CA

Chronic Rhinosinusitis: With and Without Nasal Polyps

IRSO

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Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

532 Antibiotic Use In Patients With Chronic Rhinosinusitis, With and Without Bronchiectasis, After Functional Endoscopic Sinus Surgery

Raul S. Villarreal, MD¹, Whitney W. Stevens, MD, PhD², Robert P. Schleimer, PhD FAAAAI², Bruce K. Tan, MD, MS³, Robert C. Kern, MD³, Leslie C. Grammer, MD, FAAAAI², David B. Conley, MD³, Kevin C. Welch, MD³, Stephanie S. Smith, MD³, and Anju T. Peters, MD, FAAAAI², ¹Department of Internal Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ²Division of Allergy and Immunology, Department of Medicine, Chicago, IL, ³Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL, ³Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL, ⁴Diversity Feinberg School of Medicine, Chicago, IL

- 533 A pragmatic analysis of mepolizumab in patients with aspirinexacerbated respiratory disease Katherine L. Tuttle, MD^{1,2}, Kathleen M. Buchheit, MD^{1,2}, Thomas Schneider, BA¹, Karen S. Hsu Blatman, MD^{1,2}, Nora A. Barrett, MD, FAAAAI^{1,2}, Tanya M. Laidlaw, MD, FAAAAI^{1,2}, and Katherine N. Cahill, MD^{1,2}, ¹Brigham and Women's Hospital, Division of Rheumatology, Immunology, and Allergy, Boston, MA, ²Harvard Medical School, Boston, MA
- 534 Exhalation Delivery System with Fluticasone (EDS-FLU) Improves Outcomes in Chronic Rhinosinusitis without Nasal Polyps (CRSsNP) in Patients With or Without Recent Intranasal Steroid Use

John C. Messina Jr., PharmD¹, Iftikhar Hussain, MD², Jennifer L. Carothers, ScD, MBA³, Emmanuel M. Mahlis, MD¹, and Ramy A. Mahmoud, MD, MPH¹, ¹Optinose US, Inc., Yardley, PA, ²Allergy, Asthma and Immunology Center, P. C., Tulsa, OK, ³OptiNose US Inc, Yardley, PA

535 Evaluation of the basophil response in patients with NSAID-exacerbated respiratory disease (NERD) after nasal provocation test with lysine-aspirin (NPT-LASA)

Jesus Verge, MD¹, Miguel Gonzalez, MSc², Carmen M. Rondon Segovia, MD³, Inmaculada Dona³, Tahia D. Fernandez, PhD⁴, Ruben Fernandez⁴, Jose A. Cornejo-Garcia⁴, Cristobalina Mayorga, PhD⁴, Maria J Torres, MD, PhD⁵, and Paloma Campo, MD, PhD, FAAAAI³, ¹ENT Service, Virgen de la Victoria University Hospital, Malaga, Spain, ²Research Laboratory, IBIMA, Regional

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University Hospital of Malaga, UMA, Malaga, Spain, ³Allergy Unit, IBIMA-Regional University Hospital of Malaga, Malaga, Spain, ⁴Allergy Research Laboratory, IBIMA-Regional University Hospital of Málaga, Malaga, Spain, ⁵Allergy Unit, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain

Allergic Rhinitis: Epidemiology, Diagnosis and Treatment

IRSO

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Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

536 Characterization of Aeroallergens Sensitization And Atopy In The Pediatric Population Of Puerto Rico Wilfredo Cosme-Blanco, MD, PhD¹, Lorena Gonzalez-Sepulveda, MS², Veronica Solivan-Vargas, MD³, Anardi Agosto-Mujica, MD⁴, Sense Riuse Tumerum, DMD, DrPH³, and Sulvatte Nazaria, MD²

Sona Rivas-Tumanyan, DMD DrPH³, and Sylvette Nazario, MD², ¹University of Puerto Rico-Medical Sciences Campus, Guaynabo, PR, Puerto Rico, ²University of Puerto Rico-Medical Sciences Campus, San Juan, PR, ³University of Puerto Rico-Medical Sciences Campus, San Juan, Puerto Rico, ⁴Agosto Medical Group, San Juan, PR

- 537 Rapid Onset of Action on Nasal Symptoms and Ocular Symptom Improvement With Olopatadine/Mometasone Combination Nasal Spray in Patients With Seasonal Allergic Rhinitis Gary Berman, MD¹, Niran J. Amar, MD², Craig F. LaForce, MD³, Aurora Breazna, PhD⁴, Cynthia F. Caracta, MD⁴, and Sudeesh K. Tantry, PhD⁴, ¹Clinical Research Institute, Inc., Minneapolis, MN, ²Allergy Asthma Research Institute, Waco, TX, ³North Carolina Clinical Research, Raleigh, NC, ⁴Glenmark Pharmaceuticals Inc., Mahwah, NJ
- 538 Specific Patterns of Sensitization in Children Assessed Using an Assay of Allergen Components

Tihomir B. Mustakov, Medical University-Sofia, Sofia, Bulgaria, Lawrence Dubuske, Immunology Research Institute of New England, Gardner, MA; George Washington University School of Medicine, Washington, DC and Todor A. Popov, MD, PhD, Medical Center Excelsior, Sofia, Bulgaria

539 Tryptase Levels Following Systemic Reactions Associated with Immunotherapy

Sofia Szari, MD¹, Edward Champoux, MD², Christopher A. Coop, MD³, Priscilla H. Wong, MD¹, Tonya S. Rans, MD⁴, and Howard C. Crisp, MD, FAAAAI⁵, ¹SAUSHEC / Wilford Hall, San Antonio, TX, ²SAUSCHEC/Wilford Hall, San Antonio, TX, ³SAUSHEC/Wilford Hall, San Antonio, TX, ⁴Defense Health Agency, Falls Church, VA, ⁵North Texas Allergy And Asthma Associates, Dallas, TX

540 Specificity And Sensitivity Of Nasal Provocation Test With *Dermatophagoides Siboney* Allergenic Extract In Sensitive Allergic Rhinitis

Raúl Lázaro Castro Almarales, MD¹, Lissette A García Navarro², Marta Ortega Lamas², Manuel E Sevila Salas², Mirta Álvarez Castelló, MD³, Mercedes Ronquillo Diaz, MSc⁴, Mayda González León⁵, Jose S. Rodriguez Canosa, MSc⁴, Wendy Ramirez Gonzalez, MSc⁶, Bárbara I Navarro Vitre⁷, Maivis Cabrera Quiala⁸, Mary C. Reyes Zamora, MSc⁹, Rosado Alexis Labrada¹⁰, and Maytee Mateo Morejon, MSc⁹, ¹National Center of Bioproducts and Calixto García University Hospital, Bejucal, Mayabeque, Cuba, ²Hermanos Ameijeira Hospital, Cuba, ³General Calixto García University Hospital, Havana, Cuba, ⁴"Calixto García Iñiguez" Hospital, Department of Allergy, Havana, Cuba, ⁵edro Fonseca Álvarez" Docent Policlinic, Cuba, ⁶National Center of Bioproducts, Bejucal, Mayabeque, Cuba, ⁷Sanitary Hospital, Barcelona, Spain, ⁸Jorge Soberón, General Hospital, Iguala, Mexico, ⁹National Center of Bioproducts BioCen, Bejucal, Mayabeque, Cuba, ¹⁰National Center of Bioproducts (BioCen), Allergens Department, Cuba

541 Consistent composition and potency of freeze dried tablets for sublingual immunotherapy

Helene Henmar, MSc, Susanne Sønderkær, Pernille H Nørby, Lars H Christensen, PhD, and Jorgen N. Larsen, PhD, ALK A/S, Horsholm, Denmark

542 Correlation between Count and Ratio of Nasal eosinophil in Children with Nasal symptoms

Woo ri Bae, Beom joon Kim, Kyunghoon KIM, Hyejin Lee, Eun Ae Yang, Hwan Soo Kim, Yoon Hong Chun, Jong-seo Yoon, Hyun Hee Kim and Jin Tack Kim, College of Medicine, The Catholic University of Korea, Seoul

543 Freeze-dried HDM-SLIT tablets provide maximal HDM allergen delivery and optimal potency

Katsuyo Ohashi-Doi, PhD¹, Weibin Du², Hirokazu Kito², Hiroshi Nakazawa³, and Kaare Lund, PhD⁴, ¹Torii Pharmaceutical. Co. Ltd., Sakara, Japan, ²Torii Pharmaceutical Co Ltd, Sakura, Japan, ³Torii Pharmaceutical Co Ltd, Sakura, ⁴ALK A/S, Horsholm, Denmark

544 Assessment of the Tolerability and Safety in Humans of a New Adjuvanted Anti-allergic Therapeutic Vaccine

Mary C. Reyes Zamora, MSc¹, Raul L Castro Almarales, MSc¹, Maytee Mateo Morejon, MSc¹, Wendy Ramirez González, MSc¹, Damaris Torralba Averoff¹, Mercedes Ronquillo Diaz, MSc², Alina C González Paredes², Maria A Tamayo Gutierrez², Mirta Álvarez Castelló, MSc², Jose S. Rodriguez Canosa, MSc², Oliver Perez, PhD³, and Alexis Labrada Rosado, PhD¹, ¹National Center of Bioproducts BioCen, Bejucal, Mayabeque, Cuba, ²"Calixto García Iñiguez" Hospital, Department of Allergy, Havana, Cuba, ³Finlay Institute, Havana, Cuba

545 Mitogen-Activated Protein Kinase Serum Levels Relate to Response to Allergen Immunotherapy

Radoslaw Gawlik, MD, Silesian Medical University, Katowice, Poland, B Jawor, Silesian University School of Medicine, Katowice, Poland and Lawrence Dubuske, Immunology Research Institute of New England, Gardner, MA; George Washington University School of Medicine, Washington, DC

546 Efficacy and Safety of Olopatadine/Mometasone Combination Nasal Spray in Patients With Seasonal Allergic Rhinitis
Frank C. Hampel, MD¹, Andrew J. Pedinoff, MD², Robert L. Jacobs, MD³, Aurora Breazna, PhD⁴, Cynthia F. Caracta, MD⁴, and Sudeesh K. Tantry, PhD⁴, ¹Central Texas Health Research, New Braunfels, TX, ²Princeton Allergy and Asthma Associates, Skillman, NJ, ³Biogenics Research Institute, San Antonio, TX, ⁴Glenmark Pharmaceuticals Inc., Mahwah, NJ
547 Evaluation of the immunogenicity in humans of a new adju-

47 Evaluation of the immunogeneity in humans of a new adjuvanted anti-allergic therapeutic vaccine Wendy Ramirez Gonzalez, MSc¹, Maytee Mateo Morejon, MSc², Mary C. Reyes Zamora, MSc², Miriam Lastre³, Elisabet González³, Damaris Torralba Averoff², Oliver Perez, PhD⁴, and Alexis Labrada

Damaris Torralba Averoff², Oliver Perez, PhD⁴, and Alexis Labrada Rosado, PhD², ¹National Center of Bioproducts, Bejucal, Mayabeque, Cuba, ²National Center of Bioproducts BioCen, Bejucal, Mayabeque, Cuba, ³Finlay Institute.Department of Immunology., Cuba, ⁴Finlay Institute, Havana, Cuba

548 The Prevalence of Eosinophilic Esophagitis with Use of SQ HDM SLIT-tablet

Jennifer Maloney, MD¹, Gordon Lloyd Sussman, MD, FAAAAI², Bodil Svanholm Fogh, MSc³, and Hendrik Nolte, MD, PhD¹, ¹ALK, US, Basking Ridge, NJ, ²Clinical Research, Inc., Toronto, Canada, ³ALK, Horsholm, Denmark



Allergic Inflammation

MAAI

3213

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

549 Expression of GPR80/99 Receptor and Leukotriene E₄-induced Intracellular Ca²⁺ Response in Human Vascular Endothelial Cells

Hideaki Shirasaki, MD, PhD, Sapporo Medical Univ. School Medicine, Sapporo, Japan, Etsuko Saikawa, MD, PhD, Sapporo Medical University, Sapporo, Japan and Tetsuo Himi, MD, PhD, Department of Otolaryngology, Sapporo Medical University School of Medicine, Sapporo, Japan

- 550 IL-34 induces lung fibrosis via M2 macrophages differentiation in mouse lung injured model Munehiro Yamaguchi, MD, PhD, Showa University School of Medicine, Tokyo, Japan
- 551 Alda-1 shields endothelial cells against oxidative stress via activation of ALDH2

Sahebgowda S. Patil, B.S.¹, Venkata Ramireddy Narala, PhD^{1.2}, Helena Hernández-Cuervo, MD¹, Byeong J. Cha, PhD³, Jutaro Fukumoto, MD and PhD¹, Mason T. Breitzig, B.S.¹, Richard F. Lockey, MD¹, Narasaiah Kolliputi, PhD¹, and Lakshmi Galam, PhD¹, ¹Division of Allergy and Immunology, Department of Internal Medicine, Morsani College of Medicine, University of South Florida, Tampa, FL, ²Yogi Vemana University, Kadapa, India, ³College of Medicine Molecular Pharmacology & Physiology, University of South Florida, Tampa, FL

552 Ginsenoside Re Protects Rhinovirus-Induced Disruption Of Tight Junction Through Inhibition Of ROS-Mediated Phosphatases Inactivation In Human Nasal Epithelial Cells

Kyeong Ah Kim, Ph.D, Joo Hyun Jung, MD, PhD, Yun Sook Choi and Seon Tae Kim, MD, PhD, Department of Otolaryngology-Head and Neck Surgery, Gachon University Gil Medical Center, Incheon, Korea, Republic of (South)

- 553 Vitamin D Supplementation Attenuates Asthma Development Following Traffic-Related Particulate Matter Exposure Paige E. Bolcas, B.S., Eric B. Brandt, PhD FAAAAI, Zhonghua Zhang, PhD, Jocelyn M. Biagini Myers, PhD, Brandy P. Ruff, B.S. and Gurjit K. Khurana Hershey, MD, PhD, FAAAAI, Cincinnati Children's Hospital Medical Center, Cincinnati, OH
- 554 Chemokine levels and proportions of peripheral immune cells in kidney allograft recipients Ilja Striz, Kristyna Kotschwarova, Veronika Svachova, Janka Slatinska, Martina Fialova, Eva Cecrdlova and Ondrej Viklicky, Institute for Clinical and Experimental Medicine, Prague, Czech Republic
- 555 Identification of ALDH2 Interacting Proteins by Chemical Crosslinking, Co-Immunoprecipitation and Mass Spectrometry Jutaro Fukumoto, MD and PhD¹, Helena Hernández-Cuervo, MD^{1,2}, Venkata Ramireddy Narala, PhD^{1,3}, Sahebgowda S. Patil, B.S.¹, Ramani Soundararajan, PhD¹, Matthew Alleyn, B.S.¹, Mason T. Breitzig, B.S.¹, Richard F. Lockey, MD¹, and Narasaiah Kolliputi, PhD^{1,2}, ¹Division of Allergy and Immunology, Department of Internal Medicine, Morsani College of Medicine, University of South Florida, Tampa, FL, ²Department of Molecular Medicine, Morsani College of Medicine, University of South Florida, Tampa, FL, ³Department of Zoology, Yogi Vemana University, Kadapa, India
- 556 Description of a New Allergenic Member of the Glutathione Transferase (GST) Family from Ascaris with Omega-Class Features

Ana M. Lozano¹, Yoon Kong, MD, PhD², Juan F López¹, Juana Bustillo, MD¹, Luis Caraballo, MD, PhD¹, and Josefina Zakzuk,

- 557 T Follicular Helper (Tfh) Cells are Activated by Natural Exposure to Pollens During the Ragweed Hay Fever Season Jay Jin, MD, PhD, Takao Kobayashi, PhD, Kay A. Bachman, RN and Hirohito Kita, MD, Mayo Clinic, Rochester, MN
- 558 CRTH2 expression on T cell subsets in asthma Teerapol Chantveerawong, MD¹, Panitan Pradubpongsa, MD¹, Sarawut Jindarat, MD², Wat Mitthamsiri, MD¹, Rattanaporn Fuengthong, MD¹, Atik Sangasapaviliya, MD¹, and Tadech Boonpiyathad, MD¹, ¹Phramongkutklao Hospital, Bangkok, Thailand, ²Phramongkutklao College of Medicine, Bangkok, Thailand
- 559 Expression of Th2-associated Surface Markers on T cells in Allergic Disorders

Satoru Watanabe, MS, Gunma University Graduate School of Health Sci, Maebashi, Japan; National Research Institute for Child Health and Development, Tokyo, Japan and Yoshiyuki Yamada, MD, PhD, Gunma Children's Medical Center, Gunma, Japan

560 Anti-parasitic Treatment Modulates TH2 Response in Concomitant Asthma and Parasitic Infestation

El-Desouki E. Fouda, MD, FAAAAI¹, Abd El-Aleem M. Ahmed², and Mona H. Alrays, MD², ¹Al- Azhar University, Cairo, Egypt, ²Al Azhar University, Cairo, Egypt

Immune Mechanisms in Allergic Disease

MAAI

3214

Sunday, March 4th, 2018, 9:45 AM - 10:45 AM

561 The Role of Translationally Controlled Tumor Protein in Chronic Spontaneous Urticaria

Bastsetseg Ulambayar, MD¹, Hee Won Lee², Eun Mi Yang¹, Hae-Sim Park, MD, PhD, FAAAAI¹, Kyung Lim Lee, Ph.D², and Young-Min Ye, MD, Ph.D³, ¹Ajou University School of Medicine, Suwon, Korea, Republic of (South), ²Ewha Womans University, Seoul, Korea, Republic of (South), ³Dept. Allergy & Clinical Immunology, Ajou University School of Medicine, Suwon, Korea, Republic of (South)

562 CD49d⁺ neutrophils produce a soluble factor that induces expression of the high affinity IgE receptor ($Fc \in RI$) on murine lung dendritic cells

Alexander Zha, The Ohio State University College of Medicine, Columbus, OH, Michelle Rohlfing, Nationwide Children's Hospital, Columbus, OH and Mitchell H. Grayson, MD, FAAAAI, Nationwide Children's Hospital / The Ohio State University, Columbus, OH

- 563 Investigation of candidate proteins associated with allergic march in the *Der p*-induced experimental murine model Woo-Sung Chang, PhD, Kyu-Tae Jeong, Ji-Hye Do, Sung-Hee Lee, Gyo Jeong Gu and Jeom-Kyu Lee, PhD, Korea National Institute of Health, Korea Centers for Disease Control and Prevention, Cheongju, Korea, Republic of (South)
- 564 Adult Body Mass Index (BMI) Correlates with both CD33+ monocyte iNOS responses and nitric oxide levels in vitro Brian Goodman, BS¹, Maja Nowakowski, PhD¹, Adam El Sehamy, MD², Emmanuel Kwesiga, MBChB², Telcan Ali Kizi², Seto M. Chice, MS¹, Helen G. Durkin, PhD³, and Rauno Joks, MD², ¹Center for Allergy and Asthma Research at SUNY Downstate Medical Center, Brooklyn, NY, ²Center for Allergy and Asthma



Research, Brooklyn, NY, ³Center for Allergy and Asthma Research, SUNY Downstate, Brooklyn, NY

- Conformational IgE-binding Epitopes of Major Peanut Aller-565 gen Ara h 2 Revealed with Chimeric 2S-albumins Stephane Hazebrouck, PhD¹, Blanche Guillon¹, Evelyne Paty, MD², Karine Adel-Patient, PhD¹, and Hervé Bernard, PhD¹, ¹UMR CEA INRA, Service de Pharmacologie et d'Immunoanalyse, Gif-sur-Yvette, France, ²Université Paris Descartes, Hôpital Necker Enfants Malades, Paris, France
- 566 Epitope Mapping Walnut Allergens Jug r 1 and Jug r 2 Barry K. Hurlburt, PhD¹, Hsiaopo Cheng, MS¹, Alexandra Figueira Santos, MD $\mbox{SpR}^2,$ Gideon Lack, MB $\mbox{BCh}^3,$ and Soheila J. Maleki, PhD FAAAAI¹, ¹USDA-ARS-SRRC, New Orleans, LA, ²Coimbra University Hospital, London, United Kingdom, ³Westminster Bridge Road, King's College London, Guy's & St. Thomas' NHS Foundation Trust, London, United Kingdom
- 567 Identification and assessment of the IgE epitopes of Ara h 1 and Jug r 2 leader sequences Jacqueline B Nesbit, PhD, Hsiaopo Cheng, MS, Barry K. Hurlburt, PhD, and Soheila J. Maleki, PhD FAAAAI, USDA-ARS-SRRC, New Orleans, LA
- 568 Neuropilin-2 is a negative regulator of allergic airway inflammation

Timothy P. Moran, MD, PhD¹, Robert M Immormino, PhD², Hideki Nakano, PhD3, Michelle L. Hernandez, MD, FAAAAI4, David B. Peden, MD MS FAAAAI⁵, and Donald Cook, PhD³, ¹CB# 7248, University of North Carolina School of Medicine, Chapel Hill, NC, ²University of North Carolina School of Medicine, Chapel Hill, NC, ³National Institute of Environmental Health Sciences, NIH, Research Triangle Park, NC, ⁴UNC Center for Environmental Medicine, Asthma, & Lung Biology, Chapel Hill, NC, ⁵University of North Carolina at Chapel Hill School Medicine, Chapel Hill, NC

- 569 Correlation of Exhaled Nitric Oxide Levels with Salivary Melatonin Levels in Adults with and without Allergy/Asthma Tehila A Saadia, MD, Andrew Hasenzahl, BS, MPH, Maja Nowakowski, PhD, Emmanuel Kwesiga, MBChB, Yi-Feng Chen, MD, and Rauno Joks, MD, Center for Allergy and Asthma Research at SUNY Downstate Medical Center, Brooklyn, NY
- Cockroach-induced lung inflammation is associated with in-570 creased autophagy

Xin Zhang, MD^{1,2}, Danh C. Do, PhD³, and Pei-song Gao¹, ¹JHAAC, Baltimore, MD, ²West China Hospital, Chengdu, China, ³Johns Hopkins University, Baltimore, MD

571 Aeropolinologic screening in Patients with allergic diseases Revaz Sepiashvili, Peoples Friendship University of Russia, RUDN University, Moscow, Russian Federation

572 Epithelial cell-basophil interactions stimulate the production of IL-5 in innate allergic inflammation Koji Matsumoto, Shiga University of Medical Science, Otsu, Japan

Asthma Pathogenesis and Inflammation

ADT

3601

Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

Differential response to aspirin-lysine of 15-Hydroxyeicosate-573 traenoic Acid in Nasal Polyp Supernatants from Aspirin-Exacerbated Respiratory Disease Patients

Elina Jerschow, MD, FAAAAI¹, Matthew Edin, PhD², Weiguo Han, PhD³, Fred B Lih, PhD², Artiom Gruzdev, PhD⁴, Alyce J Bradbury, PhD², Waleed M. Abuzeid, MD⁵, Nadeem Akbar, MD¹, Teresa Pelletier³, Taha Keskin, MD³, Simon Spivack, MD⁶,

Victor Schuster³, David L. Rosenstreich, MD, FAAAAI⁷, and Darryl C. Zeldin, MD², ¹Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY, ²NIEHS, Research Triangle Park, NC, ³Albert Einstein College of Medicine, Bronx, NY, ⁴NIEHS, Triangle Park Triangle, ⁵Albert Einstein College of Medicine/ Montefiore Medical Center, Bronx, NY, ⁶Albert Einstein College of Medicine, bronx, NY, ⁷Atrium Building, 2nd Floor, Albert Einstein College of Medicine, Bronx, NY

574 Reduction in mouse allergen exposure is associated with greater lung function growth in mouse sensitized and exposed children and adolescents with persistent asthma

Torie L. Grant, MD¹, Wanda Phipatanakul, MD MS FAAAAI², Matthew Perzanowski, PhD³, Susan L. Balcer-Whaley, MPH¹, Roger Peng, PhD⁴, Jean Curtin-Brosnan, MA¹, Michelle Newman, RN¹, Amparito Cunningham, MD MPH⁵, Adnan Divjan, BA³, Mary Beth Bollinger, DO⁶, Robert A. Wise, MD⁷, and Elizabeth C Matsui, MD MHS1, 1Division of Pediatric Allergy/Immunology, Johns Hopkins University School of Medicine, Baltimore, MD, ²Division of Pediatric Allergy/Immunology, Boston Children's Hospital, Harvard University Medical School, Boston, MA, ³Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY, ⁴Department of Biostatistics, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, 5Boston Children's Hospital, Harvard University Medical School, Boston, MA, ⁶Department of Pediatrics, University of Maryland School of Medicine, Baltimore, MD, 7Division of Pulmonary and Critical Care Medicine, Johns Hopkins University School of Medicine, Baltimore, MD

575 Epigenome-Wide Assessment on DNA Methylation Change with Asthma Transition in Adolescence Hongmei Zhang, PhD¹, Alemayehu Z Wolde², Wilfried Karmaus, MD¹, Faisal I Rezwan³, Cory H. White³, Sabrina Iqbal⁴, Syed H. Arshad³, Susan Ewart⁵, and John W. Holloway, BSc PhD³, ¹The University of Memphis, Memphis, TN, ²University of Memphis, Memphis, TN, ³University of Southampton, Southampton, United Kingdom, ⁴University of Memphis, Memphis, ⁵Michigan State Uni-

SUNDAY

versity, East Lansing, MI 576 Cytokines (IL-15, IL-18, IFNy) and Vitamin D3 Increase Expression of Inducible Nitric Oxide Synthase (iNOS) by Monocytes from IgE+ Adults with Asthma

Maja Nowakowski, PhD¹, Brian Goodman, BS¹, Adam El Sehamy, MD¹, Stephen R McCormick, MD, MPH², Seto M. Chice, MS¹, Helen G Durkin, PhD¹, and Rauno O Joks, MD¹, ¹Center for Allergy and Asthma Research at SUNY Downstate Medical Center, Brooklyn, NY, ²University of Pittsburgh Medical Center, McKeesport, PA

Infants with Early House Dust Mite Sensitization Predicts Per-577 sistent Asthma, Allergic Rhinitis, and Atopic Dermatitis At Seven Year of Age: The PATCH Birth Cohort Study Kuo-Wei Yeh, MD, FAAAAI, Chang Gung Memorial Hospital, Taoyuan, Taiwan, Kuan-Wen Su, MD, Chang Gung Memorial Hospital, Keelung, Taiwan; Graduate Institute of Clinical Medical Science, Taoyuan, Taiwan and Jing Long Huang, MD, Chang Gung Memorial Hospital, Taoyuan, Taiwan

The Microbiome in Atopic Disease

BCI

3602 Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

Fecal Microbiome Signatures are Different in Food Allergic Children Compared to Siblings and Healthy Children Atoosa Kourosh, MD¹, Ruth A Luna^{2,3}, Christina Nance, PhD MA FAAAAI3,4, Aikaterini Anagnostou, MD MSc PhD2,3, Sridevi





578

J ALLERGY CLIN IMMUNOL FEBRUARY 2018

Devaraj, PhD^{2,3}, and Carla M. Davis, MD, FAAAAI^{2,3}, ¹Baylor College of Medicine & Texas Children's Hospital, Houston, TX, ²Baylor College of Medicine, Houston, TX, ³Texas Children's Hospital, Houston, TX, ⁴1102 Bates St., Baylor College of Medicine, Houston

579 Transplanted Human Microbiota and Enteric Pathogen Challenge Enhanced Susceptibility to Allergen-Mediated Asthma in a Murine Model

Susan L. Ewart, DVM, PhD¹, Julia A. Bell, PhD¹, Daniel J. Claiborne¹, Alexander T. Zanetti¹, Lindsey Lund¹, Syed H. Arshad, DM, FRCP^{2,3}, and Linda S. Mansfield, VMD, PhD¹, ¹Michigan State University, East Lansing, MI, ²University of Southampton, Southampton, United Kingdom, ³David Hide Asthma and Allergy Centre, Newport, United Kingdom

580 Evaluating Bacterial Communities in the Upper Respiratory Tract Provides Interesting but Incomplete Information About Bronchial Microbiota Associated with Asthma

Juliana Durack, PhD¹, Yvonne Huang, MD², Snehal Nariya³, Laura Christian³, Susan V. Lynch, PhD⁴, and Homer A. Boushey, MD, FAAAAI⁵, ¹University of California San Francisco, San Francisco, CA, ²University of Michigan, Ann Arbor, MI, ³University of California San Francisco, San Francisco, CA, ⁴UCSF, San Francisco, CA, ⁵University CA - San Francisco, San Francisco, CA

581 Effect of Host Genetic Background on Development of Autoimmunity in Transplanted and Vertically Transmitted Human Microbiota Mouse Models

Linda S. Mansfield, VMD, PhD, Alexander D. Ethridge, BS, Phillip T. Brooks, PhD, Kelsey A. Brakel, DVM and Julia A. Bell, PhD, Michigan State University, East Lansing, MI

582 Skin microbiome regulates SCF level in Keratinocytes and defines mast cell maturation

Anna Di Nardo¹, Zhenping Wang¹, Lars Eckmann¹, Yukiko Miyamoto¹, Toshiaki Kawakami, MD, PhD², and ChiaChi Wu¹, ¹University of California San Diego, San Diego, ²La Jolla Institute for Allergy and Immun, La Jolla, CA

Fungal Allergy

EORD

3603

Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

583 Identification of Immuno-Reactive Proteins and Study of Immunogenic Peptides of the Major Allergen of Aspergillus terreus Bijoya Karmakar^{1,2}, and Swati Gupta Bhattacharya², ¹BOSE IN-STITUTE, KOLKATA,WEST BENGAL, IN, India, ²BOSE INSTI-TUTE, Kolkata, IN, India

584 Fungal fragmentation influences pulmonary immune responses following repeated exposure to *Stachybotrys chartarum* Tara L. Croston, PhD¹, Brett J. Green, PhD FAAAAI¹, Angela R. Lemons, MS¹, Mark A. Barnes, PhD¹, William T. Goldsmith, BSCpE¹, Marlene S. Orandle, DVM¹, Ajay P. Nayak, PhD¹, Benjamin P. Jackson, MD¹, Dori R Germolec, PhD², and Donald H. Beezhold, PhD FAAAAI¹, ¹Health Effects Laboratory Division, National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Morgantown, WV, ²National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC

585 Domestic fungal diversity in NYC homes, neighborhood asthma prevalence and asthma persistence Karan C. Dannamillan PhD¹ Luis M. Acosta, MD², Adnan Div

Karen C. Dannemiller, PhD^1 , Luis M. Acosta, MD^2 , Adnan Divjan, BA^3 , Andrew G Rundle, PhD^4 , Rachel L. Miller, MD, FAAAAI⁵, Angela R. Lemons, MS⁶, Brett J. Green, PhD FAAAAI⁶, and Matthew Perzanowski, PhD³, ¹Ohio State University, Columbus, OH, ²Columbia University, Jersey City, NJ, ³Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY, ⁴Columbia University, New York, NY, ⁵Columbia University College of Physicians and Surgeons, New York, NY, ⁶Health Effects Laboratory Division, National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Morgantown, WV

- 586 Evaporative (swamp) coolers are not associated with house dust mite or mold sensitization in a large pediatric cohort in Colorado Neema Izadi, MD MS, Kanwaljit K. Brar, MD, and Bruce J. Lanser, MD, National Jewish Health, Denver, CO
- 587 Domestic fungal exposure and asthma morbidity among asthmatic children living in NYC homes damaged by Hurricane Sandy

Maureen Little, DrPH, DABT¹, Luis M. Acosta, MD², Christopher D'Andrea, MS, CIH¹, Adnan Divjan, BA², Karen C. Dannemiller, PhD³, Edward A. Sobek, PhD⁴, Angela R. Lemons, MS⁵, Brett J. Green, PhD FAAAAI⁵, and Matthew Perzanowski, PhD², ¹New York City Department of Health and Mental Hygiene, New York, NY, ²Columbia University, New York, NY, ³Ohio State University, Columbus, OH, ⁴Assured Bio, Oak Ridge, TN, ⁵Health Effects Laboratory Division, National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Morgantown, WV

Eczema, Pathogenesis, Genetics and Epigenetics

FADDA

3604

Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

Atopic dermatitis phenotypes in African American and Black South African children

588

Kylie N. Jungles¹, Michael Levin², Maresa Botha², Betty Andy-Nweye¹, Sukruthi Jois¹, Claudia L. Gray, MD MSc², Carol Hlela², Avumile Mankahla², Ben Gaunt², Carl le Roux², Nonhlanhla Lunjani, MD³, Mary C. Tobin, MD, FAAAAI⁴, and Mahboobeh Mahdavinia, MD, PhD⁵, ¹Department of Immunology and Microbiology Allergy/Immunology Section Rush University Medical Center, Chicago, IL, ²Division of Allergy Department of Paediatrics and Child Health University of Cape Town, Cape Town, South Africa, ³University of Cape Town, Cape Town, South Africa, ⁴University Consultants in Asthma and Allergy, Chicago, IL, ⁵Department of Internal Medicine, Division of Allergy and Immunology, Rush University Medical Center, Chicago, IL

589 Expression profile of IL-33/ST2 and TSLP/TSLP-R in the skin of atopic dermatitis post-allergen exposure
Dhuha Al-Sajee, MD, PhD, Emma Price, BSc, Heidi Yin, BSc, Karen J. Howie, BSc, Paul M. O'Byrne, MB, Hermenio Lima, MD, PhD, Gail M. Gauvreau, PhD, and Roma Sehmi, PhD, FAAAAI, McMaster University, Hamilton, ON, Canada
500 Dia Mathematical Action of the Lorent Term The Part of Pa

- 590 DNA Methylation Mediates the Long Term Effect of Breastfeeding Duration on Eczema at Age 18 Years Nandini Mukherjee, PhD candidate¹, Hasan Arshad, MD², John W. Holloway, BSc PhD², Hongmei Zhang, PhD¹, and Wilfried Karmaus, MD¹, ¹The University of Memphis, Memphis, TN, ²University of Southampton, Southampton, United Kingdom
- 591 Skin Innate Lymphoid Cells Type 2 Activated by Keratinocyte-derived IL-25 promote IL-13-mediated skin allergic inflammation Juan-Manuel Leyva-Castillo, Boston Children's Hospital, Boston

American Academy of Allergy Asthma & Immunology



SUNDAY

Children's Hospital, Boston, MA and Raif S. Geha, MD, FAAAAI, Boston Children's Hospital, Boston, MA

IL-13 Mediates Skin Lipid Abnormalities in Atopic Dermatitis 592 Evgeny Berdyshev, PhD1, Elena Goleva, PhD1, Irina Bronova, PhD¹, Patricia A Taylor, NP¹, John Jung, BS¹, Brittany Richers, BS¹, Clifton F Hall, MS¹, Mingeum Jeong, MS², Tao Zheng, MD², and Donald Y. M. Leung, MD, PhD, FAAAAI¹, ¹National Jewish Health, Denver, CO, ²Yale University, New Haven, CT

Early Peanut Introduction: Leaping on to Implementation

HEDQ

3605

Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

Study Design with Staggered Sampling Times for Evaluating 593 Sustained Unresponsiveness to Peanut Sublingual Immunotherapy

Monica Chaudhari, Edwin H. Kim, MD, and Michael R Kosorok, University of North Carolina at Chapel Hill, Chapel Hill, NC

594 General Pediatrician Beliefs and Practices about Early Peanut Introduction: An Opportunity for Allergists to Engage Community Pediatricians

Angela Chang, MD¹, Michael Cabana, MD MPH², Saharsh Patel, MD¹, Taylor Laflam, MD, PhD¹, and Megumi Okumura, MD MAS¹, ¹University of California, San Francisco, San Francisco, ²University of California, San Francisco, San Francisco, CA

595 Implementing the Addendum Guidelines for the Prevention of Peanut Allergy in a Primary Care Practice: A Quality Improvement Project

Chloe L. Russo, MD and Jennifer A. Shih, MD, Emory University, Atlanta, GA

Implementation of the new NIAID Peanut Allergy Guidelines: 596 **Outcomes and Experience**

Amanda L. Pratt, MD, Division of Allergy, Pulmonary and Critical Care Medicine, Department of Medicine, Vanderbilt University School of Medicine, Nashville, TN and Jonathan A. Hemler, MD, Vanderbilt University Medical Center, Monroe Carrell, Jr. Children's Hospital at Vanderbilt, Division of Allergy, Immunology, and Pulmonary Medicine, Department of Pediatrics, Nashville, TN

597 Implementation of Guidelines for Early Peanut Introduction at a Pediatric Academic Center David R. Stukus, MD, FAAAAI¹, Benjamin Prince, MD², and Irene Mikhail, MD², ¹Nationwide Children's Hospital, New Albany, OH, ²Nationwide Children's Hospital, Columbus, OH

Immunotherapy

IRSO

3606

Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

598 Occurrence of Systemic Allergic Reactions and Severe Swellings with SQ HDM SLIT-tablet

David I. Bernstein, MD, FAAAAI^{1,2}, Jennifer Maloney, MD³, Bodil Svanholm Fogh, MSc⁴, Hendrik Nolte, MD, PhD³, and Tolly Epstein, MD MS FAAAAI^{2,5}, ¹Bernstein Clinical Research Center, LLC, Cincinnati, OH, ²University of Cincinnati, Cincinnati, OH, ³ALK, US, Basking Ridge, NJ, ⁴ALK, Horsholm, Denmark, ⁵Allergy Partners of Central Indiana, Indianapolis, IN

599 Systemic Reactions to Subcutaneous Immunotherapy (SCIT): A Retrospective Study Sonam Sani, MD¹, Luz S. Fonacier, MD, FAAAAI¹, Mark A. Davis-Lorton, MD, FAAAAI², Melissa Fazzari, PhD³, and Marcella R. Aquino, MD, FAAAAI⁴, ¹NYU Winthrop Hospital, Mineola, NY, ²Division of Rheumatology, Allergy, and Immunology, NYU Winthrop Hospital, Mineola, NY, ³NYU Winthrop Hospital, Mineola, ⁴Winthrop University Hospital, Allergy & Immunology, Mineola, NY

600 Effects of subcutaneous immunotherapy (SCIT) on the numbers of IL-10-producing CD4⁺ T cells and IL-10-producing B cells in peripheral blood of pollinosis patients

Tetsuya Terada¹, Shouya Matsuda², Takeshi Nabe³, and Ryo Kawata¹, ¹Osaka Medical College, Takatsuki, Japan, ²Setsunan University Department of Immunopharmacology, Faculty of Pharmaceutical Sciences, Hirakata, Japan, ³Setsunan University, Osaka, Japan

601 The Rate of Systemic Reactions In Pediatric Patients Receiving Standardized Allergen Subcutaneous Immunotherapy Is Elevated and Not Affected by Seasonal Dose Adjustment

Sultan Albuhairi, MD¹, Tatyana Sare, PharmD², Paul Lakin, MS³, Kristel El Khoury, Pharm D, MPH1, Elena Crestani, MD1, Lynda C. Schneider, MD, FAAAAI¹, Rocco Anzaldi, PRh², Al Paterson, PharmD², and Rima A. Rachid, MD, FAAAAI¹, ¹Boston Children's Hospital, Boston, MA, ²Department of Pharmacy, Boston Children's Hospital, BOSTON, MA, ³Institutional Centers for Clinical and Translational Research, Boston children's Hospital, Clinical Research Center, Boston, MA

602 Long-term Reproducibility of Allergen-specific IgE Measurements by ImmunoCAP

Robert G. Hamilton, PhD DABMLI FAAAAI¹, John Wisenauer, BS, MT(ASCP)¹, Charles Bronzert, BS, MLT¹, and Martin Mann², ¹Johns Hopkins University School of Medicine, Baltimore, MD, ²Thermo Fisher Scientific, Portage, MI

IgE in Allergic Disease

MAAI

3607

Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

603 The Affinity of IgE for Antigen is a Primary Determinant of Basophil Activation

James B Jung and Christopher D.C. Allen, PhD, University of California, San Francisco, San Francisco, CA

604 Detection of antigen-specific IgE-expressing B cells in food allergy is feasible and inversely associated with dietary antigen exposure

Shailesh Choudhary, PhD, University of North Carolina, Chapel Hil, NC and Scott P. Commins, MD, PhD, University of North Carolina at Chapel Hill, Chapel Hill, NC

605 Platelet Activation is Increased in IgE-mediated Systemic Anaphylaxis but not in IgE-mediated Oral Antigen-induced Anaphylaxis in Mice

Andrew T Dang, MD, Yanfen Yang, Lisa Waggoner, Amnah Yamani, Taeko Noah, PhD, Jazib Uddin and Simon P. Hogan, PhD, Division of Allergy and Immunology and Immunobiology, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati Children's Hospital Medical Center, Cincinnati, OH



606 Phosphatases in Mouse Mast Cells Rapid IgE Desensitization: The Role of SHIP-1

Leila A. Alenazy, MD MMSc^{1,2}, Leticia de las Vecillas Sanchez, MD^{1,3}, Teodorikez W. Jimenez Rodriguez, MD^{1,4}, Cintia A. Falck-Fuentes, MD^{1,5}, and Mariana C. Castells, MD, PhD, FAAAAI¹, ¹Division of Rheumatology, Immunology and Allergy, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ²Department of Medicine, King Khalid University Hospital, King Saud University, Riyadh, Saudi Arabia, ³Division of Allergy, Marqués de Valdecilla University Hospital-IDIVAL, Santander, Spain, ⁴Division of Allergy, Alicante General University Hospital, Alicante, Spain, ⁵Pediatric Allergy and Immunology Department, National Institute of Pediatrics, National Autonomous University of Mexico, Mexico City, Mexico

607 Cat dander extract directly stimulates BAFF-dependent class switch recombination to IgE in B cells without T-cell help Toshiko Itazawa, MD, PhD, Koa Hosoki, MD, PhD, and Sanjiv Sur, MD, University of Texas Medical Branch, Galveston, TX

Environmental Influences on Asthma Development and Morbidity

Clinical Science Workgroup

3608

Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

Environmental exposure to Staphylococcus aureus and SEB are associated with asthma symptoms and worse lung function among low-income, urban children with asthma

Meghan F Davis, PhD DVM MPH¹, Shanna Ludwig, PhD¹, Jonathan Josephs-Spaulding, MHS¹, Kathryn Dalton, VMD MPH¹, Michelle Newman, RN², Susan L. Balcer-Whaley, MPH², Roger Peng, PhD¹, Corinne Keet, MD MS PhD³, Meredith C. McCormack, MD⁴, and Elizabeth C Matsui, MD MHS², ¹Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, ²Division of Pediatric Allergy/Immunology, Johns Hopkins University School of Medicine, Baltimore, MD, ³Division of Pediatric Allergy/Immunology, Johns Hopkins School of Medicine, Baltimore, MD, ⁴Johns Hopkins Pulmonary, Baltimore, MD

609 12-year Study of Risk Factors of New-Onset Asthma Among US military service members and Recent Conflicts in Iraq and Afghanistan

Rachel Umi Lee, MD, FAAAAI FACP, Naval Medical Center San Diego, San Diego, CA; US Navy, San Diego, CA

- 610 Early Life Weight Gain and Development of Childhood Asthma in a Prospective Birth Cohort Hui-Ju Tsai¹, Guoying Wang², Xiumei Hong², Yuelong Ji³, and Xiaobin Wang, MD MPH ScD4, 1National Health Research Institutes, Zhunan Town, Taiwan,², Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, ³Johns Hopkins University Bloomberg School of Public Health, Baltimore, Baltimore, MD, ⁴Johns Hop-
- kins University Bloomberg School of Public Health, Baltimore 611 Dysbiosis of the Newborn Upper Airway is Associated with Early Wheeze Kirsten M Kloepfer, MD MS¹, Isabelle A Dagher, BS¹, Christopher M Hemmerich, MS², Douglas B Rusch, PhD², and Stephanie D Davis, MD¹, ¹Indiana University School of Medicine, Indianapolis, IN, ²Indiana University Center of Genomics and Bioinformatics, Department of Biology, Bloomington, IN

612 Effect of Outdoor Air Pollution (OAP) on Pediatric Asthma Outcomes in Pittsburgh Deborah A. Gentile, MD^{1,2}, Albert Presto³, Tricia Morphew, MSc⁴, Nicole L. Sossong, BS⁵, Paige E. Dewhirst, MPH⁶, and



Jennifer P Elliott⁵, ¹Duquesne University, Pittsburgh, PA, ²Pediatric Alliance, Pittsburgh, PA, ³Carnegie Mellon University, Pittsburgh, PA, ⁴Morphew Consulting, LLC, Manhattan Beach, CA, ⁵Duquesne University School of Pharmacy, Pittsburgh, PA, ⁶american lung association, Pittsburgh, PA

Severe and Exacerbation Prone Asthma

ADT

3801

Sunday, March 4th, 2018, 4:30 PM - 6:00 PM

- Reslizumab improves FVC and $FEF_{25\,\%-75\,\%}$ in severe eosino-613 philic asthma: results from a pooled analysis Warner W Carr, MD FACP, FACAAI, FAAAAI¹, Mirna McDonald², and Paige Meizlik², ¹Allergy and Asthma Associates of Southern California, Mission Viejo, CA, ²Teva Branded Pharmaceutical Products R&D Inc., Malvern, PA
- Impact of Baseline IgE levels on Exacerbations and Asthma 614 Symptom Control After Omalizumab Initiation Thomas B. Casale, MD, FAAAAI¹, Erika G. Gonzalez-Reyes, MD, FAAAAI², Ming Yang, PhD³, Benjamin L. Trzaskoma, MS⁴, Noelle M. Griffin, PhD⁴, and Bradley E. Chipps, MD, FAAAAI5, ¹University of South Florida Morsani College of Medicine, Tampa, FL, ²Baylor College Medicine Children's Hospital of San Antonio, San Antonio, TX, ³Genentech, Inc., South San Francisco, ⁴Genentech, Inc., South San Francisco, CA, ⁵Capital Allergy and Respiratory Dis. Ctr., Sacramento, CA 615

Pulmonary Innate Lymphoid Cell Responses During Rhinovirus-Induced Asthma Exacerbations Jaideep Dhariwal¹, Aoife Cameron², Ernie Wong¹, Belen Trujillotorralbo¹, Ajerico Del rosario¹, Eteri Bakhsoliani¹, Malte Paulsen³, David Jackson¹, Trevor T. Hansel, MD, PhD⁴, Michael Edwards, MD², David Cousins⁵, Ross P. Walton, PhD², and Sebastian L. Johnston, MB BS PhD FRCP², ¹Imperial College London, London, ²Imperial College London, London, United Kingdom, ³St.Mary's Flow Cytometry Facility, London, ⁴St. Mary's Hospital, Paddington, United Kingdom, ⁵MRC Asthma UK Centre in Allergic Mechanisms in Asthma, London

- STAT1 and Glucocorticoid Receptor Interaction: Mechanism 616 for Steroid Insensitivity in Type 1 High Severe Asthma Marc Gauthier, MD¹, Krishnendu Chakraborty, PhD¹, Timothy B. Oriss, PhD1, Prabir Ray, PhD1, Sally Wenzel, MD, FAAAAI2, and Anuradha Ray, PhD1, 1University of Pittsburgh Medical Center, Pittsburgh, PA, ²The University of Pittsburgh Asthma Institute@UPMC, Division of Pulmonary, Allergy, and Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA
- 617 Sputum Mast Cells and Eosinophils Identify Asthmatics with Lower Lung Function and Proneness to Exacerbations Merritt L. Fajt, MD, FAAAAI¹, Michael Peters, MD MAS², Eugene R Bleecker³, Juan Carlos Cardet, MD, MPH⁴, Mario Castro, MD, MPH, FCCP5, Suzy Comhair, PhD6, Andrea Coverstone, MD⁵, Loren C. Denlinger, MD, PhD⁷, Serpil C. Erzurum, MD⁶, Annette T. Hastie⁸, Elliot Israel, MD, FAAAAI⁴, Nizar N. Jarjour, MD⁷, Mats W Johansson, PhD⁷, Bruce D. Levy, MD⁴, David M. Mauger, PhD⁹, Stephen P. Peters, MD, PhD, FAAAAI⁸, Brenda R Phillips⁹, Wanda Phipatanakul, MD MS FAAAAI¹⁰, Kristie R. Ross, MD¹¹, Sima K Ramratnam, MD MPH⁷, John V. Fahy, MD, M.Sc.², and Sally Wenzel, MD, FAAAAI¹², ¹University of Pittsburgh Medical Center, Pittsburgh, PA, ²University of California, San Francisco, San Francisco, CA, ³University of Arizona, Tuscon, AZ, ⁴Brigham and Women's Hospital, Boston, MA, ⁵Washington University School of Medicine, Saint Louis, MO, 6Cleveland Clinic

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SUNDAY

Foundation, Cleveland, OH, ⁷University of Wisconsin School of Medicine, Madison, WI, 8Wake Forest University HSC, Winston Salem, NC, ⁹Penn State University College of Medicine, Hershey, PA, ¹⁰Boston Children's Hospital, Hopkinton, MA, ¹¹Rainbow Babies and Children's Hospital, Cleveland, OH, ¹²The University of Pittsburgh Asthma Institute@UPMC, Division of Pulmonary, Allergy, and Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA

Novel Therapeutics in Allergy and Immunology

BCI

3802

Sunday, March 4th, 2018, 4:30 PM - 6:00 PM

618 Benralizumab (anti-IL5Ra) depletes gut tissue eosinophilia and improves symptoms in hypereosinophilic syndrome with gastrointestinal involvement

Fei Li Kuang, MD, PhD¹, Hawaa Alao², Sheila Kumar², Astin Powers³, Martha Quezado³, Zengfeng Wang³, JeanAnne Ware⁴, Lauren Wetzler⁴, Thomas Brown⁴, Paneez Khoury, MD, FAAAAI¹, and Amy D. Klion, MD⁵, ¹NIH/NIAID, Bethesda, MD, ²Digestive Diseases Branch, NIDDK, Bethesda, MD, ³Laboratory of Pathology, NCI, Bethesda, MD, ⁴NIAID/NIH, Bethesda, MD, ⁵National Institutes of Health, Bethesda, MD

Gene Therapy with pCCLchimP47^{-phox} Lentiviral Vector 619 Achieves Long-term Reconstitution of NADPH Oxidase Activity in p47^{-phox} Chronic Granulomatous Disease (CGD) Mouse Model

Walmir Cutrim Aragao Filho, MSc PhD^{1,2}, Andrea Shejtman¹, Marta Zinicola¹, Ulrich Siler³, Janine Reichenbach, MD³, Gaspar Bobby¹, Adrian J. Thrasher¹, Giorgia Santilli¹, and Antonio Condino-Neto, MD, PhD2, ¹University College London, London, United Kingdom, ²University of Sao Paulo, Sao Paulo, Brazil, ³University Children's Hospital, Zürich, Switzerland

620 **Light-Mediated Delivery of Therapeutics**

Teresa K. Tarrant, MD, FAAAAI¹, Christina Marvin², Qunzhao Wang², Stephen Serafin², and David Lawrence², ¹Duke University, Durham, NC, ²University of North Carolina, Chapel Hill

621 Short Course of Lolium Perenne Peptides (LPP) Immunotherapy Deletes Circulating IL-4⁺IL-21⁺ T follicular helper cells and Induces FoxP3⁺ T follicular regulatory cells: A Randomized Controlled Trial

Hanisah Sharif, BHSc MSc^{1,2}, Angeliki Karamani¹, Rebecca Parkin^{1,3}, Lubna Kouser^{1,3}, Iesha Singh^{3,4}, Abigail Robb^{1,3}, Gabriële Holtappels5, Lara Derycke5, Rémy von Frenckell6, Nathalie Wathelet7, Jean Duchateau7, Thierry Legon7, Sabine Pirotton7, Ralph Mosges, MD, FAAAAI⁸, Stephen R. Durham, MA MD FRCP^{2,9} Claus Bachert, MD, PhD¹⁰, and Mohamed H. Shamji, BSc MSc PhD FAAAAI11,12, 1Immunomodulation and Tolerance Group, Immune Tolerance Network (ITN) Distributed Centre of Excellence for Allergy & Asthma, Allergy & Clinical Immunology Inflammation, Repair and Development National Heart & Lung Institute, Imperial College London, London, United Kingdom, ²MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, London, London, United Kingdom, ³MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, London, United Kingdom, London, United Kingdom, ⁴Immunomodulation and Tolerance group, Allergy and Clinical Immunology, Inflammation Repair & Development, MRC Asthma UK Centre Imperial College London, London, United Kingdom, London, United Kingdom, ⁵Ghent University, Brussels, Belgium, ⁶Freelance Biostatistics Consultant, Waterloo,

Belgium, ⁷ASIT biotech s.a., Brussels, Belgium, ⁸CRI-Clinical Research International Ltd, Hamburg, Germany, ⁹Allergy and Clinical Immunology, Inflammation, Repair and Development, and Immune Modulation and Tolerance Group, Allergy and Clinical Immunology, Inflammation, Repair and Development, National Heart and Lung Institute, Imperial College London, London, United Kingdom, ¹⁰Ghent University, Ghent, Belgium, ¹¹Immunomodulation and Tolerance Group, Immune Tolerance Network (ITN) Distributed Centre of Excellence for Allergy & Asthma, Allergy & Clinical Immunology Inflammation, Repair and Development National Heart & Lung Institute, Imperial College London., London, United Kingdom, ¹²MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, London, United Kingdom, London

THIRD-PARTY T CELL IMMUNOTHERAPY FOR VIRAL 622 INFECTIONS IN PRIMARY IMMUNODEFICIENCY DIS-ORDERS

Michael D Keller, MD¹, Patrick J Hanley, PhD², Jamie Hoover, BA², Lauren Roesch, BA², Sarah McCormack, BS², Haili Lang, MS², Allistair Abraham, MD², Kirsten Williams, MD², Blachy Davila, MD², Roberta Adams, MD³, Jennifer W. Leiding, MD, FAAAAI⁴, and Catherine Bollard, MD², ¹Allergy and Immunology, Children's National Medical Center, Washington, DC, ²Children's National Medical Center, Washington, DC, ³Phoenix Children's, Phoenix, AZ, ⁴University of South Florida Morsani College of Medicine, St. Petersburg, FL

Immune Responses to Environmental Exposures

EORD

3803

Sunday, March 4th, 2018, 4:30 PM - 6:00 PM

Regulatory Variants of ATF3, CDH17 and FAM71A are Risk 623 Factors for Diisocyanate Induced Occupational Asthma (DA) Zana L. Lummus, PhD¹, Banu Kesavalu, MS¹, Kenneth Kaufman, PhD², Jianbo Yao, PhD³, Matthew T. Weirauch, PhD², Leah C Kottyan, PhD², Daniel Miller, BS², André Cartier, MD, FAAAAI⁴, Maria-Jesus Cruz, MD⁵, Catherine Lemiere, MD⁴, Xavier Muñoz, MD⁵, Santiago Quirce, MD, PhD⁶, Joaquin Sastre, MD, PhD, FAAAAI7, Susan M Tarlo, MB BS FAAAAI8, and David I. Bernstein, MD, FAAAAI9, ¹University of Cincinnati College of Medicine, Cincinnati, OH, ²Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ³West Virginia University, Morgantown, WV, ⁴Université de Montréal, Montréal, QC, Canada, ⁵Hospital Universitari Vall d'Hebron, Barcelona, Spain, ⁶Hospital La Paz, Madrid, Spain, ⁷Fundacion Jimenez Diaz, Madrid, Spain, ⁸University of Toronto, Toronto, ON, Canada, ⁹University of Cincinnati, Cincinnati, OH

A Role for B Cells in Organic Dust Induced Lung Injury 624 Jill A Poole, MD¹, Ted R. Mikuls², Michael J. Duryee², Kristi J. J. Warren, PhD³, Todd A Wyatt, PhD², Amy J Nelson², Debra J Romberger², William W West, MD², and Geoffrey Thiele, PhD², ¹University of Nebraska Medical Center, Omaha, NE, ²UNMC, Omaha, NE, ³Internal Medicine - Pulmonary, Critical Care, Sleep and Allergy, University of Nebraska Medicine, Omaha, NE

Co-exposure to antimicrobial chemicals augments IgE mediated immune responses

Hillary L Shane, PhD, Ewa Lukomska and Stacey E Anderson, PhD, Allergy & Clinical Immunology Branch, National Institute for Occupational Safety & Health, Centers for Disease Control and Prevention, Morgantown, WV





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626 Variability in German Cockroach Extract Composition Has A Great Impact On T Cell Potency In Cockroach-Allergic Donors Véronique M. Schulten, PhD¹, Giovanni Birrueta², Jill Glesner³, Stephanie Filep³, Coby Schal, PhD⁴, Kyoung Yong Jeong, PhD⁵, April Frazier, PhD⁶, Anna Pomés, PhD FAAAAI⁷, and Alessandro Sette, Dr Biol. Sci.8, ¹Vaccine Discovery, La Jolla Institute for Allergy & Immunology, La Jolla, CA, ²La Jolla Institute of Allergy and Immunology, La Jolla, CA, ³Indoor Biotechnologies, Inc., Charlottesville, VA, ⁴North Carolina State University, Raleigh, NC, ⁵Yonsei University, Seoul, Korea, ⁶La Jolla Institute for Allergy & Immunology, La Jolla, CA, ⁷INDOOR Biotechnologies, Inc., Charlottesville, VA, 8La Jolla Institute for Allergy and Immunology, La Jolla, CA

627 Venom allergy is increased in alpha-gal allergy: shared environmental or immunologic factors? Shivangi Choudhary, University of North Carolina, Chapel Hill, Diane Bresch, University of North Carolina, Chapel Hill, NC, Maya R. Jerath, MD, PhD, FAAAAI, University of North Carolina - Chapel Hill, Chapel Hill, NC and Scott P. Commins, MD, PhD, University of North Carolina at Chapel Hill, Chapel Hill, NC

Ara h to Alpha Gal: From China to Africa to the USA

FADDA

3804

Sunday, March 4th, 2018, 4:30 PM - 6:00 PM

628 A novel assessment of sustained unresponsiveness (SU) after long term sublingual immunotherapy (SLIT) in peanut allergic children: results of a 4 year phase II clinical trial

Ahmad Hamad, MD¹, Edwin H. Kim, MD², A. Wesley Burks, MD, FAAAAI², Deanna K. Hamilton, RN², Lauren Herlihy, RN MSN CPNP³, Sarah A. Bennick, RN MSN CPNP¹, and Pamela H. Steele, MSN CPNP AE-C⁴, ¹University of North Carolina, Chapel Hill, NC, ²University of North Carolina at Chapel Hill, Chapel Hill, NC, ³UNC Chapel Hill, Chapel Hill, NC, ⁴UNC-Chapel Hill, Raleigh, NC

Alpha Gal Allergy in rural black African subjects associated with a high prevalence of abdominal manifestations and a more rapid onset of symptoms

Tshegofatso Mabelane, MD¹, Maresa Botha, MD², Heidi Facey Thomas, Allergy Sister², and Michael Levin³, ¹University of Cape Town, Polokwane, South Africa, ²University of Cape Town, Cape Town, South Africa, ³Division of Allergy Department of Paediatrics and Child Health University of Cape Town, Cape Town, South Africa

630 Using Siglec-engaging Tolerance-inducing Antigenic Liposomes (STALs) to reduce memory B cell responses to the major peanut allergen Ara h 2

LaKeya C. Hardy¹, Kelly Orgel, BS², Shiteng Duan³, Soheila J. Maleki, PhD FAAAAI⁴, A. Wesley Burks, MD, FAAAAI^{5,6}, James C. Paulson, PhD³, Matthew Macauley, PhD⁷, and Michael D. Kulis Jr., PhD⁸, ¹The University of North Carolina at Chapel Hill, Carrboro, NC, ²The University of North Carolina at Chapel Hill, Chapel Hill, NC, ³The Scripps Research Institute, La Jolla, CA, ⁴USDA-ARS-SRRC, New Orleans, LA, ⁵Department of Pediatrics, University of North Carolina, Chapel Hill, North Carolina, USA, Chapel Hill, ⁶University of North Carolina at Chapel Hill, Chapel Hill, NC, ⁷Scripps Research Institute, La Jolla, CA, ⁸University of North Carolina School of Medicine, Chapel Hill, NC

Sustained silencing peanut allergy by xanthopurpurin is associ-631 ated with suppression of peripheral and bone marrow IgE producing B cell

Xiu-Min Li, MD, MS¹, Kamal D. Srivastava, PhD¹, Yujuan Chen, PhD², Patrick Yoo, MS¹, Changda Liu, PhD¹, Serife Uzun, BS¹, Hang Li, PhD¹, Anna H. Nowak-Wegrzyn, MD, PhD, FAAAAI¹, and Nan Yang, PhD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Changchun University of Science and Technology, JL, P.R.China, Changchun, China

Expression of the Steroidogenic Enzyme, CYP11A1, Identifies 632 Peanut-Allergic Children at Risk for Developing Life-Threatening Anaphylaxis Meigin Wang, MD, PhD¹, Bruce J. Lanser, MD¹, Carah B. Santos, MD¹, Kreso Bendelja¹, Jennifer Fish, PNP¹, Elizabeth A. Esterl, DNP RN1, Jordan Abbott, MD1, and Erwin W. Gelfand, MD, FAAAAI2, 1National Jewish Health, Denver, CO, 2National Jewish Medical and Research Center, Denver, CO

Asthma: Tools to Improve Outcomes from Birth to Adults

HEDQ

3805

Sunday, March 4th, 2018, 4:30 PM - 6:00 PM

- Perceptions of Parents of Children with Asthma and their Phy-633 sicians on Quality of Shared Decision-Making and Care Coordination in 2 Neighboring Health Systems
 - Tamar Sapir, PhD¹, Andrew H. Liu, MD, FAAAAI², Madeleine Shalowitz, MD, MBA^{3,4}, Ewa H. Schafer, MD, FAAAAI⁵, Sindhura Bandi, MD^{6,7}, Christopher D. Codispoti, MD, PhD, FAAAAI⁷, Laura C. Simone, PhD¹, James Mateka¹, and Giselle Mosnaim, MD MS FAAAAI7,8, ¹PRIME Education, Tamarac, FL, ²Children's Hospital Colorado, University of Colorado School of Medicine, Aurora, CO, ³NorthShore University Health System Research Institute, Chicago, ⁴University of Chicago, Pritzker School of Medicine, Chicago, ⁵Northshore University Health System, Glenview, IL, 6Department of Immunology and Microbiology, Allergy/Immunology Section, Rush University Medical Center, Chicago, IL, 7Rush University Medical Center, Chicago, IL, 8North Shore University Health System, Wilmette, IL
- 634 Evaluating the Impact of the Algorithmic Software Tool to Help Manage Asthma (ASTHMA)- Educator on Asthma Knowledge and Clinical Asthma Outcomes in Adult Patients Sammy Wu¹, Brian Hsia¹, Kristine Colon², and Sunit P. Jariwala, MD², ¹Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY, ²Montefiore Medical Center, Bronx, NY
- 635 Changes of DNA methylation and their association with changes in lung function during adolescence - an epigenome-wide study Shadia Khan Sunny, MBBS, MPH¹, Hongmei Zhang, PhD², Wilfried Karmaus, MD², Faisal I Rezwan³, Cory H. White³, Caroline L. Relton⁴, A. John Henderson, MD⁵, Syed H. Arshad, DM, FRCP^{6,7}, Susan Ewart⁸, and John W. Holloway, BSc PhD³, ¹University of Memphis, Memphis, TN, ²The University of Memphis, Memphis, TN, ³University of Southampton, Southampton, United Kingdom, ⁴University of Bristol, Bristol, United Kingdom, ⁵University of Bristol, Bristol, UNITED KINGDOM, ⁶University of Southampton, Isle of Wright, United Kingdom, ⁷University of Southampton, Southampton, ⁸Michigan State University, East Lansing, MI
- 636 Recruitment And Characterization Of The Isle Of Wight 3rd **Generation Birth Cohort**

Frances Mitchell¹, Wilfried Karmaus, MD², Hongmei Zhang, PhD², Susan Ewart³, Linda S. Mansfield, VMD, PhD³, John W.

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Holloway, BSc PhD⁴, Stephen Potter⁵, Ramesh Jagath Kurukulaaratchy, BM DM MRCP^{4,5}, and Syed H. Arshad, DM, FRCP^{1,4}, ¹David Hide Asthma and Allergy Centre, Newport, United Kingdom, ²The University of Memphis, Memphis, TN, ³Michigan State University, East Lansing, MI, ⁴University of Southampton, Southampton, United Kingdom, ⁵The David Hide Asthma & Allergy Centre, Newport, United Kingdom

637 Automated Chart Review for Identifying Factors Associated with Childhood Asthma by Utilizing Electronic Medical Records

Chung-II Wi, MD, So-Hyun Lee, Sungrim Moon, PhD, Hee Yun Seol, MD, Sunghwan Sohn, PhD, Euijung Ryu, PhD, Hongfang Liu, PhD, and Young J. Juhn, MD MPH, Mayo Clinic, Rochester, MN

Advances in Rhinitis and Rhinosinusitis

IRSO

3806

Sunday, March 4th, 2018, 4:30 PM - 6:00 PM

- 638 Mitochondrial Oxidative Stress Is Associated With Age-Related Glandular Remodeling And Nasal Polyp Formation Ara Jo, PhD¹, Thomas B. Casale, MD, FAAAAI¹, Lydia A Suh, BS², Roderick G. Carter, BS², David B. Conley, MD³, Robert C. Kern, MD³, Bruce K. Tan, MD, MS³, Anju T. Peters, MD, FAAAAI², Leslie C. Grammer, MD, FAAAAI², Robert P. Schleimer, PhD FAAAAI², and Seong Ho Cho, MD, FAAAAI¹, ¹University of South Florida Morsani College of Medicine, Tampa, FL, ²Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ³Department of Otolaryngology, Northwestern University Feinberg School of Medicine, CLi
- 639 Cord Blood Soluble Fas Ligand Predicts Allergic Rhinitis, Obstructive-type Lung Function, and Mite Sensitization at Seven Year-old Children: The PATCH study

Kuan-Wen Su, MD, Chang Gung Memorial Hospital, Keelung, Taiwan; Graduate Institute of Clinical Medical Science, Taoyuan, Taiwan, Kuo-Wei Yeh, MD, FAAAAI, Chang Gung Memorial Hospital, Taoyuan, Taiwan and Jing Long Huang, MD, Chang Gung Memorial Hospital, Taoyuan, Taiwan

640 Immunological Markers In House Dust Mite Allergic Subjects Treated With 300IR House Dust Mite Sublingual Tablets: Results From Two Phase III Trials

Pascal M. Demoly, MD, PhD, University Hospital of Montpellier, University Hospital of Montpellier, Paris, France, Karl-Christian Bergmann, MD, PhD, Allergy-Centre-Charité, Berlin, Germany, Yoshitaka Okamoto, MD, PhD, Department of Otorhinolaryngology, Head and Neck Surgery, Graduate School of Medicine, Chiba University, Chiba, Japan, Kathy Abiteboul, PharmD, Stallergenes Greer, Antony, France and Kanchan Relwani, MD, Stallergenes Greer, Cambridge, MA

641 Nasal polyp IgE and IgG4 levels are elevated in aspirin-exacerbated respiratory disease

Kathleen M. Buchheit, MD^{1,2}, Howard Katz, PhD^{2,3}, Katherine C. Murphy³, Juying Lai³, Neil Bhattacharyya, MD^{2,4}, Joshua A. Boyce, MD, FAAAAI^{2,3}, and Tanya M. Laidlaw, MD, FAAAAI^{2,3}, ¹Brigham and Women's Hospital, Division of Rheumatology, Immunology, and Allergy, Boston, MA, ²Harvard Medical School, Boston, MA, ³Brigham and Women's Hospital, Division of Rheumatology, Immunology, Immunology and Allergy, Boston, MA, ⁴Brigham and Women's Hospital, Division of Otolaryngology, Boston, MA

642 Functional Anti-Phospholipid Antibodies are Elevated in Chronic Rhinosinusitis with Nasal Polyp Tissue

Bruce K. Tan, MD, MS¹, Jeffanie Wu², Whitney W. Stevens, MD, PhD³, Paul F. Lindholm, MD⁴, Julia He Huang, MS¹, Kathryn E. Hulse, PhD³, Atsushi Kato, PhD³, David B. Conley, MD¹, Kevin C. Welch, MD¹, Robert C. Kern, MD¹, Anju T. Peters, MD, FAAAAI³, Leslie C. Grammer, MD, FAAAAI³, and Robert P. Schleimer, PhD FAAAAI³, ¹Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL, ²Vanderbilt University, Nashville, IL, ³Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ⁴Northwestern University-Feinberg School of Medicine, Chicago, IL

Advances in Mechanisms of Allergic Inflammation

MAAI

3807

Sunday, March 4th, 2018, 4:30 PM - 6:00 PM

- 643 Dynamics of antigen-specific T effector and T regulatory cell responses during pollen allergy season Blake J. Rust, PhD, Hannah DeBerg, PhD, and Erik R. Wambre,
 - Blake J. Rust, PhD, Hannah DeBerg, PhD, and Erik R. Wambre, PhD, MBE, Benaroya Research Institute, Seattle, WA
- 644 Sexual Dimorphism in Eosinophilic Esophagitis: Roles of Differential Chemokine and Profibrogenic Expression
 - **Quan M. Nhu, MD, PhD**^{1,2}, Loan D. Duong, BS², Renee Rawson, BS², Ranjan Dohil, MD^{2,3}, Richard C. Kurten, PhD^{4,5}, Fouad J. Moawad, MD⁶, and Seema S. Aceves, MD, PhD, FAAAAI^{2,3}, ¹The Scripps Research Institute (TSRI) / Scripps Translational Science Institute (STSI), La Jolla, CA, ²University of California, San Diego, La Jolla, CA, ³Rady Children's Hospital, San Diego, CA, ⁴University of Arkansas for Medical Sciences, Little Rock, AR, ⁵Arkansas Children's Hospital Research Institute, Little Rock, AR, ⁶Scripps Clinic / Scripps Green Hospital, La Jolla, CA
- 645 Identification of specifically reduced memory Th2 cell subsets in HDM-induced allergic rhinitis patients after sublingual immunotherapy

Daiju Sakurai, MD, PhD, Fumie Ihara, MD, PhD, Syuji Yonekura, MD, PhD, Tomohisa Iinuma, MD, PhD, and Yoshitaka Okamoto, MD, PhD, Department of Otorhinolaryngology, Head and Neck Surgery, Graduate School of Medicine, Chiba University, Chiba, Japan

646 Cysteinyl Leukotriene Receptor 2 (CysLT2R) Drives Lung Immunopathology Through a High Mobility Box 1-Dependent Mechanism

Tao Liu, PhD^{1,2}, Nora A. Barrett, MD, FAAAAI², Yoshihide Kanaoka², Tanya M. Laidlaw, MD, FAAAAI², Eri Yoshimoto², Denise Garofalo², Chunli Feng², and Joshua A. Boyce, MD, FAAAAI^{1,3}, ¹Harvard Medical School, Boston, MA, ²Brigham and Women's Hospital, Boston, MA, ³Brigham and Women's Hospital, Division of Rheumatology, Immunology and Allergy, Boston, MA

647 Neonatal gut-microbiome-derived 12,13 DiHOME suppresses immune tolerance via PPARγ

Sophia R. Levan¹, Kei E. Fujimura, PhD², Din L. Lin, PhD¹, Kelsey A. Stamnes¹, Edward M. Zoratti, MD, FAAAAI³, Nicholas W. Lukacs, PhD⁴, Dennis Ownby, MD, FAAAAI⁵, Homer A. Boushey, MD, FAAAAI⁶, Christine Cole Johnson, PhD MPH FAAAAI⁷, and Susan V Lynch, PhD⁸, ¹University of California San Francisco, San Francisco, CA, ²UCSF, San Francisco, CA, ³Henry Ford Hospital, Detroit, MI, ⁴University of Michigan Medical School, Ann Arbor,



MI, ⁵Department of Pediatrics Georgia Regents University, Augusta, GA, ⁶University CA - San Francisco, San Francisco, CA, ⁷Henry Ford Health System Public Health Sciences, Detroit, MI, ⁸University of California, San Francisco, San Francisco, CA

Allied Health Featured Poster Session

Allied Health

3811

Sunday, March 4th, 2018, 4:30 PM - 6:00 PM

648 Findings from a national survey of pediatric primary care providers' awareness of updated feeding guidelines for high risk allergic infants

Harvey L. Leo, MD, FAAAAI¹, Lara J. Thomas, MPH², Todd A. Mahr, MD, FAAAAI³, and Nosheen Hayat, MPH², ¹Center for Managing Chronic Disease, University of Michigan, Ann Arbor, MI, ²University of Michigan School of Public Health, Ann Arbor, MI, ³Gundersen Lutheran Medical Center, La Crosse, WI

Intervention Therapies in Asthma Part II

ADT

4201

Monday, March 5th, 2018, 9:45 AM - 10:45 AM

649 School-based self-management educational interventions for asthma in children and adolescents: A systematic review Kate M. Harris¹, Dylan Kneale², Toby Lasserson³, Vanessa McDonald⁴, James Thomas⁵, and Jonathan Grigg, BSc MB BS MD¹, ¹Queen Mary University of London, London, United Kingdom, ²UCL Institute of Education, London, ³Cochrane Editorial Unit, London, United Kingdom, ⁴School of Nursing and Midwifery, Newcastle, Australia, ⁵EPPI-Centre, London, United Kingdom

650 Comparative efficacy of daily inhaled fluticasone propionate and episodic inhaled combined salmeterol/fluticasone propionate in children with recurrent wheezing

Jiratchaya Chamnanrua, MD, Queen Sirikit National Institute of Child Health, Bangkok, Thailand and Tassalapa Daengsuwan, MD, Samsanenai, Queen Sirikit National Institute of Child Health, Samsanenai, Thailand

651 Assessing the Relationship between Age and Clinical Outcomes in Adult Patients Using the ASTHMA-Educator, a Novel Smartphone Application

Brian Hsia^{1,2}, Sammy Wu^{1,2}, Kristine Colon¹, and Sunit P. Jariwala, MD¹, ¹Montefiore Medical Center, Bronx, NY, ²Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY

652 Gamma Tocopherol (γT) Supplementation Reduces Endotoxin-Induced Sputum Neutrophilia in Healthy Volunteers and Asthmatics Regardless of BMI or glutathione-S-transferase Mu1 (GSTM1) Genotype

Amika Sood, MD¹, Allison J. Burbank, MD¹, Kimberly Enders², Haibo Zhou, PhD², David B. Peden, MD MS FAAAAI¹, and Michelle L. Hernandez, MD, FAAAAI¹, ¹UNC Center for Environmental Medicine, Asthma, & Lung Biology, Chapel Hill, NC, ²UNC Department of Biostatistics, Gillings School of Global Public Health, Chapel Hill, NC 653 Real-world Study Characterizing Patients Prior to Receiving Albuterol Multidose Dry Powder Inhaler or Short-acting β₂-Agonist Via Pressurized Metered-Dose Inhalers for Asthma and COPD in the United States Gregory Bensch¹, Emily D Parker², Rinat Ariely³, Stanislav Stoyanov³, and Karthik Ramakrishnan³, ¹Allergy, Immunology, and

Asthma Medical Group, Inc., Stockton, CA, ²Optum, Eden Prairie, MN, ³Teva Pharmaceutical Industries, Frazer, PA

654 The effects of Spirulina (*Arthrospira platensis*) dietary supplement as an adjunct therapy for children aged 7-14 years old with asthma: A randomized – double blind placebo controlled clinical trial

Lou Ver Leigh A. Manzon-Reyes, University of Santo Tomas Hospital, Manila, Philippines and Agnes G. Andaya, MD, University of Santo Tomas Hospital, Manila City, Philippines

655 Comparison Of Acute Bronchodilator Effects Of Inhaled Ipratropium Bromide And Salbutamol In Adults With Bronchial Asthma

Margherita Carotenuto, Luca Perfetti, Maria Gabriella Calcagno and Antonio Meriggi, Allergy Department Istituti Clinici Scientifici Maugeri IRCCS Pavia, pavia, Italy

656 A Self-Regulation Intervention Can Decrease Asthma Exacerbations Among Older Adults

Alan P. Baptist, MD MPH FAAAAI¹, Keerthi R. Karamched, MD¹, Laurie Carpenter, MSW², Wei Hao, MA², Peter X Song, PhD², and Joel Steinberg³, ¹University of Michigan, Division of Allergy and Clinical Immunology, Ann Arbor, MI, ²University of Michigan, Ann Arbor, MI, ³Wayne State University, Detroit, MI

657 Adherence to Adding ICS to Rescue Therapy in a Pragmatic Trial with Adults with Asthma- a Pilot Study

Juan Carlos Cardet, MD, MPH^{1,2}, Paula J. Busse, MD, FAAAAI³, Jennifer K. Carroll, MD, MPH⁴, Thomas B. Casale, MD, FAAAAI², Tamera Coyne-Beasley, MD MPH⁵, Maureen Fagan, DNP, MHA, FNP-BC⁶, Victoria E. Forth, PA-C⁶, Anne L. Fuhlbrigge, MD MS⁴, Michelle L. Hernandez, MD, FAAAAI⁷, David Kaelber, MD, PhD, MPH, MS8, Barbara Kaplan, MPH, CHES9, Margarita Lorenzi, BS10, Suzanne Madison, PhD, MPH, MPA11, Nancy E. Maher, MPH⁶, Karen Majewski, RN CNP¹², Brian Manning, MPH, CHES13, Melissa D. McKee, MD14, Sylvette Nazario, MD15, Wilson D. Pace, MD4, Michael J. Pencina, PhD16, Cynthia S. Rand, PhD17, Jacqueline Rodriguez-Louis, MPH, MEd6, Lilin She, PhD¹⁶, Joel Shields, MA¹³, Jessica E. Teng, MPH⁶, Michael E. Wechsler, MD MMSc18, Juan P. Wisnivesky, MD, DrPH19, Barbara P. Yawn, MD MSc FAAFP²⁰, and Elliot Israel, MD, FAAAAI⁶, ¹University of South Florida, Tampa, FL, ²University of South Florida Morsani College of Medicine, Tampa, FL, ³Mount Sinai School of Medicine, New York, NY, ⁴University of Colorado, Denver, CO, ⁵University of North Carolina, Chapel Hill, NC, ⁶Brigham and Women's Hospital, Boston, MA, ⁷UNC Center for Environmental Medicine, Asthma, & Lung Biology, Chapel Hill, NC, ⁸MetroHealth System, Cleveland, OH, ⁹American Lung Association, Chicago, IL, ¹⁰Boston Children's Hospital, Boston, MA, ¹¹PCORI, Minneapolis, MN, ¹²MetroHealth Medical Center, Cleveland, OH, ¹³AAFP National Research Network, Leawood, KS, ¹⁴Albert Einstein College of Medicine, Bronx, NY, ¹⁵University of Puerto Rico-Medical Sciences Campus, San Juan, PR, ¹⁶Duke Clinical Research Institute, Durham, NC, ¹⁷Johns Hopkins School of Medicine, Baltimore, MD, ¹⁸National Jewish Health. Denver, CO, ¹⁹Mount Sinai, New York, NY, ²⁰University of Minnesota, Blaine, MN

658 A Novel Photo-electrochemical Oxidation Air-Purification Technology Reduces Asthma Symptoms

Nikhil Rao, MD¹, Yogi Goswami, PhD², Ambuj Kumar, MD, M.P.H², Jenny Wong, MS¹, and Stephen B. Liggett, MD³, ¹Mole-kule, SAN FRANCISCO, CA, ²University of South Florida, Tampa,



FL, ³University of South Florida Morsani College of Medicine, Tampa, FL

659 Inhaled corticoids in asthmatic patients: effect on body mass index and spirometry

Rosilane dos Reis Pacheco, MD¹, Mayra Coutinho Andrade, MD¹, Natalia falci Pedroso², Priscila Takejima, MD¹, Marcelo V. Aun, MD³, Jorge Elias Kalil Filho, MD, PhD¹, Pedro Giavina-Bianchi, MD, PhD, FAAAAI¹, and Rosana C. Agondi, MD, PhD¹, ¹Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, São Paulo, Brazil, ²Clinical Immunology and Allergy Division, University of São Paulo School of Medicine, Brazil, Sao Paulo, ³Clinical Immunology and Allergy Division - University of São Paulo, Sao Paulo

660 The Efficacy Of Fluticasone Proprionate Versus Montelukast In Different Genotypes Of ASP299GLY TLR-4 Polymosphisms In Adult Asthmatics

Yuriy Bisyuk, Bogomolets National Medical University, Kyiv, Ukraine, Kyiv, Ukraine, Andriy Kurchenko, Bogomolets National Medical University, Kyiv, Ukraine, Andriy Dubovyi, The University of Auckland, Auckland, New Zealand and Lawrence Dubuske, George Washington University School of Medicine, Washington, DC; Immunology Research Institute of New England, Gardner, MA

- 661 Inhaler technique among adults with uncontrolled asthma from low-income Philadelphia neighborhoods Patrick K. Gleeson¹, Luzmercy Perez², Russell Localio, PhD², Knashawn Morales, ScD², Xiaoyan Han, MS², Maryori Canales, BS³, Nadirah Lampkin, BS³, Tyra Bryant-Stephens, MD³, and Andrea J. Apter, MD MA MSc FAAAAI², ¹Temple University Hospital, Philadelphia, PA, ²University of Pennsylvania, Philadelphia, PA, ³Children's Hospital of Philadelphia, Philadelphia, PA
- 662 Efficacy of Once-Daily Tiotropium Respimat[®] on Lung Function and Asthma Control in Adults with Asthma at GINA Steps 2–5

Roland Buhl, MD, Pulmonary Department, Mainz University Hospital, Mainz, Germany, J Mark FitzGerald, FRCPC, University of British Columbia, Vancouver, BC, Canada, Eli O. Meltzer, MD, Allergy and Asthma Medical Group & Research Center, San Diego, CA, Alberto de la Hoz, Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim, Germany, Ralf Sigmund, Boehringer Ingelheim Pharma GmbH & Co. KG, Biberach, Germany, Huib AM Kerstjens, MD, University of Groningen and University Medical Center Groningen, Groningen, Netherlands and Eugene R. Bleecker, MD, Genomics and Precision Medicine, University of Arizona College of Medicine, Tucson, AZ

663 Comparison of PEF vs. FEV₁ Endpoints in Trials with Tiotropium in Adults and Adolescents with Moderate or Severe Symptomatic Asthma

David M.G. Halpin, MD, Royal Devon & Exeter Hospital, Exeter, United Kingdom, J Mark FitzGerald, FRCPC, University of British Columbia, Vancouver, BC, Canada, Michael Engel, MD, Boehringer Ingelheim Pharma GmbH & Co.KG, Ingelheim, Germany, Petra Moroni-Zentgraf, MD, Boehringer Ingelheim Pty Limited, North Ryde, Australia, Ralf Sigmund, Boehringer Ingelheim Pharma GmbH & Co. KG, Biberach, Germany, Eli O. Meltzer, MD, Allergy and Asthma Medical Group & Research Center, San Diego, CA and Thomas B. Casale, MD, FAAAAI, University of South Florida Morsani College of Medicine, Tampa, FL

664 Impact of a multidisciplinary school based clinic on asthma outcomes

Christine M Barrett¹, Jennifer P Elliott¹, Nicole L. Sossong, BS¹, Erica Butler², Paige E. Dewhirst, MPH³, Najwa Al-Ghamedi, PharmD⁴, and Deborah A. Gentile, MD^{2,4}, ¹Duquesne University School of Pharmacy, Pittsburgh, PA, ²Pediatric Alliance, Pittsburgh, PA, ³american lung association, Pittsburgh, PA, ⁴Duquesne University, Pittsburgh, PA

665 Health Care Practitioner Knowledge About Dosing And Side Effects Of Fluticasone Propionate Metered-Dose-Inhaler For Children With Asthma

Joseph A Sforza, B.S.¹, Amanda R Skoner, B.S.¹, and David P. Skoner, MD², ¹Juniata College, Huntingdon, PA, ²West Virginia University School of Medicine, Morgantown, WV

666 Effect of inhaled corticosteroids on bone density in patients with asthma

Hiroyoshi Watanabe¹, Kumiya Sugiyama², Hajime Arifuku³, Shingo Tokita³, Hirokuni Hirata⁴, and Yasutsugu Fukushima³, ¹Dokkyo Medical University, Koshigaya, Japan, ²Dokkyo Medical University Koshigaya Hospital, Koshigaya, ³Dokkyo Medical University Koshigaya Hospital, Koshigaya, Japan, ⁴Dokkyo Medical University Koshigaya Hospital, Saitama, Japan

667 An Effort Independent Flow-regulated MDI Spacer Design

Richard R. Rosenthal, MD, FAAAAI, Johns Hopkins School of Medicine, Great Falls, VA and Harvey J. Howe, BS, self, Hertford, NC

668 The Association Between Educational Levels Of Asthma Patients Using The ASTHMA-Educator Mobile Application And Emergency Department Visits

Anna Chen¹, Merhunisa Karagic, MD¹, Brian Hsia², Sammy Wu², Kristine Colon¹, and Sunit P. Jariwala, MD¹, ¹Montefiore Medical Center, Bronx, NY, ²Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY

669 Efficacy and Safety of Specific Immunotherapy for Allergic Asthma Patients with Mold Extracts

Xiang Gao^{1,2}, and Jia Yin², ¹Graduate School, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing, China, ²Department of Allergy, Peking Union Medical College Hospital, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing, China

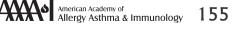
- 670 Clinical validation of Environmental Exposure Chamber in Strasbourg (ALYATEC®)with cat in asthmatic patients Carmen Radu¹, Ibrahim Choual², Naji Khayath³, Nicole Beck⁴, Florian Schoettel⁴, Audrey Jacob⁵, Nathalie Domis⁵, and Frederic J. de Blay, MD⁶, ¹CHU Strasbourg, Strabourg, ²ALYATEC, sTRASBOURG, France, ³CHU Strasbourg, Strabourg, France, ⁴ALYATEC, Strabourg, ⁵ALYATEC, Strabourg, France, ⁶Chest thoracic diseases department, Strasbourg, France
- 671 Managing Inner City Asthma with Sublingual Immunotherapy: A Retrospective Chart Review Roberto Garcia-Ibanez, MD, FAAAAI and Andrea Lucania, ARNP, The Allergi Group, Tampa, FL
- 672 Evaluation Of The Device Mechanics And Inspiratory Flow Rate Required Of The Beclomethasone Dipropionate Breath-Actuated Inhaler

Lyndon E. Mansfield, MD, FAAAAI¹, Frank C. Hampel, MD², Bernard Sfeir, MD³, Calvin J. Small, MD, MS³, Declan Walsh, MSc⁴, and Louise Dunphy, MSc⁴, ¹Western Sky Research, El Paso, TX, ²Central Texas Health Research, New Braunfels, TX, ³Teva Pharmaceuticals Industries, Malvern, PA, ⁴Teva Pharmaceuticals Ireland, Waterford, Ireland

673 Improvement Of Lung Function As Early As Day 1 With Beclomethasone Dipropionate Breath-Actuated Inhaler In Patients With Persistent Asthma

Edward M. Kerwin, MD, FAAAAI¹, Lisa Hickey, MS², Calvin J. Small, MD, MS², and Warner W Carr, MD FACP, FACAAI, FAAAAI³, ¹Allergy and Asthma Center of Southern OR, Medford, OR, ²Teva Pharmaceuticals Industries, Malvern, PA, ³Allergy and Asthma Associates of Southern California, Mission Viejo, CA





Asthma Epidemiology and Public Health

ADT

4202

Monday, March 5th, 2018, 9:45 AM - 10:45 AM

674 Development of a Pediatric Asthma Predictive Index for Hospitalization

Tiffany Jean, MD¹, Su-Jau Yang, PhD¹, William W. Crawford, MD, FAAAAI², Scott H. Takahashi, PharmD³, and Javed Sheikh, MD, FAAAAI¹, ¹Kaiser Permanente Los Angeles Medical Center, Los Angeles, CA, ²Kaiser South Bay Medical Center, Harbor City, CA, ³Kaiser Permanente, Los Angeles, CA

675 Long-term follow-up of patients with aspirin-exacerbated respiratory disease status post-desensitization
Toan T. Do, MS, MEd, Faoud Terrence Ishmael, MD, PhD, FAAAAI and Timothy Craig, DO, FAAAAI, AOA, Penn State College of Medicine, Hershey, PA
676 Effects Of Exposure To New Car Interiors On Patients With

Asthma And Allergic Rhinitis Amber N. Pepper, MD¹, Adeeb A. Bulkhi, MD¹, Catherine R. Smith, CMA CCRC¹, Matthias Colli², Torsten Zuberbier, MD, PhD³, and Thomas B. Casale, MD, FAAAAI¹, ¹Division of Allergy and Immunology, Department of Internal Medicine, University of South Florida Morsani College of Medicine and James A. Haley Veterans' Affairs Hospital, Tampa, FL, ²ECARF Institute GmbH, Berlin, Germany, ³Charité – Universitätsmedizin Berlin, corporate member of Freie Universität Berlin, Humboldt-Universität zu Berlin, and Berlin Institute of Health, Department of Dermatology and Allergy, Comprehensive Allergy Centre Charité, Berlin, Germany

677 Asthma remission in North America: from childhood to adulthood

Alberta L. Wang, MD, Soma Datta, Scott T. Weiss, MD MS and Kelan Tantisira, MD MPH, Brigham and Women's Hospital, Boston, MA

678 Chicago Public School Nurse Opinions About School Asthma Care Coordination

Andrea A. Pappalardo, MD, University of Illinois at Chicago, Chicago, IL, Allison Stinson, University of Illinois at Chicago, Chicago, Robin Bruscato, Chicago Public Schools, Chicago and Molly A Martin, MD, MAPP, Institute for Health Research and Policy, University of Illinois at Chicago, Chicago, IL

- **679** Asthma and Anaphylaxis Preparedness in K-12 Schools Alice E.W. Hoyt, MD^{1,2}, Jesse Persily¹, Jennifer Goertz¹, Kate Donowitz, MD¹, Thamiris Palacios, DO¹, Morgan Richey¹, and Mark Conaway¹, ¹University of Virginia, Charlottesville, VA, ²Vanderbilt University Medical Center, Nashville, TN
- 680 CHRONIC RHINITIS AND THE RISK OF EARLY ASTHMA READMISSION - A RETROSPECTIVE COHORT STUDY Umesh Singh, MD, PhD MBA MHI, Division of Immunology Allergy & Rheumatology, University of Cincinnati Medical Center, Cincinnati, OH; University of Cincinnati, Cincinnati, OH, Victoria Wangia-Anderson, PhD, University of Cincinnati College of Allied Health Sciences, Cincinnati, OH and Jonathan A. Bernstein, MD, FAAAAI, Bernstein Allergy Group, Inc, Cincinnati, OH; University of Cincinnati College of Medicine, Cincinnati, OH
- 681 Highest Level of Household Education is Associated with Asthma Action Plan Receipt in an Urban School-Based Cohort Margee Louisias, MD, MPH^{1,2}, Carter Petty, MA¹, and Wanda Phipatanakul, MD MS FAAAAI^{1,3}, ¹Boston Children's Hospital, Boston, MA, ²Brigham and Women's Hospital, 75 Francis Street Boston, MA 02115, Boston, MA, ³Harvard Medical School, Boston, MA

682 Title: Association between Obstructive Sleep Apnea and Allergen Sensitization in Pediatric Asthmatic Patients Yan Yan, MD¹, Sairaman Nagarajan¹, Haesoon Lee, MD¹, Emily Concepcion, MD¹, and Maria-Anna Vastardi, MD^{1,2}, ¹SUNY

Downstate Medical Center, Brooklyn, NY, ²Center for Allergy and Asthma Research at SUNY Downstate Medical Center, Brooklyn, NY **Comparison of epidemiological characteristics and medical uti***listic and a statuse and designed ACO(Asthma CORD Ownlaw*)

683 Comparison of epidemiological characteristics and medical utilization of asthma-predominant ACO(Asthma COPD Overlap) and COPD

Young Joo Cho, MD, Ewha Womans Mokdong Hosp., Yangchungu, Korea, Min-Hye Kim, Ewha Womans University School of Medicine, Seoul, Korea, Republic of (South), Jin Hwa Lee, Ewha Womans University School of Medicine, Seoul, Chin Kook Lee, Department of Internal Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Korea, Republic of (South), Kyungjoo Kim, Department of Internal Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Kwang Ha Yoo, PhD, Department of Internal Medicine, Konkuk University College of Medicine, Seoul, Korea, Republic of (South) and Ki-Suck Jung, Division of Pulmonary, Allergy, and Critical Care Medicine, Department of Medicine Hallym University Sacred Heart Hospital, Hallym University College of Medicine, Anyang, Korea, Republic of (South)

684 Influence of anxiety and depression in asthma control in Ecuador

Jose Alfredo Cano Eguez^{1,2}, Ivan Cherrez-Ojeda^{2,3}, Domenica M. Maingon⁴, Esther Salazar⁴, Annia J. Cherrez Chica, MD^{5,6}, and Karin Plaza-Lazo^{1,2}, ¹Universidad de Especialidades Espíritu Santo, Samborondon, Ecuador, ²Respiralab, Guayaquil, Ecuador, ³Universidad de Especialidades Espíritu Santo, School of Medicine, La Puntilla, Ecuador, ⁴Universidad de Especialidades Espíritu Santo, Guayaquil, Ecuador, ⁵University of Heidelberg, Heidelberg, Germany, ⁶seccion delta, Respiralab, Guayaquil, Ecuador

685 Prevalence of Long Term Opioid Use in Patients with Asthma and Allergic Rhinitis Roshni Naik, MD¹, Grant Goodrich, MD¹, Taha Al-Shaikhly, MBChB², and Rauno Joks, MD³, ¹SUNY Downstate Medical Center Brooklyn NY ²University of Washington Seattle WA ³Center

MBChB⁻, and Rauno Joks, MD⁻, 'SUNY Downstate Medical Center, Brooklyn, NY, ²University of Washington, Seattle, WA, ³Center for Allergy and Asthma Research at SUNY Downstate Medical Center, Brooklyn, NY

- 686 Characterization of the impact of Stress Exposure on Asthma in African American Children Maggie Barnthouse, MD¹, Chris Sexton, PHD², Carrie Vhylidal, PHD², Briana Woods-Jaeger, PHD², and Bridgette Jones, MD³, ¹Children's Mercy Hospital/UMKC, Kansas City, MO, ²Children's Mercy Hospital, Kansas City, ³Children's Mercy Hospital, kansas City, MO
- 687 Patient Needs Assessment in an Inner-City Pediatric Asthma Disease Management System

Claire B Smigiel, MD¹, Erica Cua, MD², Marilyn Li, MD, FAAAAI³, Lyne G. Scott, MD, FAAAAI⁴, Breck Romine Nichols, MD MPH⁵, and Kenny Kwong, MD¹, ¹LAC+USC Medical Center, Los Angeles, CA, ²LAC+USC Medical Center, Los Angeles, ³Los Angeles County-University So. CA, Los Angeles, CA, ⁴USC+LAC Medical Center, Los Angeles, CA, ⁵LAC-USC Medical Center, Los Angeles, CA

688 Asthma Control, Viral Infections, and Severity of Asthma Exacerbation Symptoms in Children Seen in the Emergency Department

Olga Hardin, **MD**¹, Darrell L Dinwiddie, PhD^{2,3}, Sudeepa Bhattacharyya, PhD¹, Chunqiao Luo, MS¹, Ashley Stoner, MD¹, John C Kincaid, MD¹, Kurt Schwalm, BS⁴, Thomas J Abramo, MD¹, Tonya M Thompson, MD¹, Stacie M. Jones, MD, FAAAAI⁵, Richard C. Kurten, PhD^{1,6}, and Joshua L. Kennedy, MD¹, ¹University of





Arkansas for Medical Sciences, Little Rock, AR, ²Clinical Translational Science Center, University of New Mexico HSC, Albuquerque, NM, ³Department of Pediatrics, University of New Mexico HSC, Albuquerque, NM, ⁴University of New Mexico, Albuquerque, NM, ⁵UAMS/Arkansas Children's Hospital, Little Rock, AR, ⁶Arkansas Children's Hospital Research Institute, Little Rock, AR

689 Morbidities Associated with Chronic Oral Glucocorticoid Exposure in Children with Asthma: A Real-World Analysis of Medical and Pharmacy Claims

David P. Skoner, MD¹, Evgeniya N. Antonova, PhD, MS², Amanda M. Kong, MPH³, Gregory Lenhart³, Ahmar Iqbal, MD², and W. Gerald Teague, MD⁴, ¹West Virginia University, Morgantown, WV, ²Genentech, Inc., South San Francisco, CA, ³Truven Health Analytics, Cambridge, MA, ⁴University of Virginia School of Medicine, Charlottesville, VA

- 690 Does Level of Allergen Sensitization Impact Asthma Related Outcomes Differently in Adult and Pediatric Asthma Patients? Supriya Jain, MD¹, Merritt L. Fajt, MD, FAAAAI¹, and Sally Wenzel, MD, FAAAAI², ¹University of Pittsburgh Medical Center, Pittsburgh, PA, ²The University of Pittsburgh Asthma Institute@UPMC, Division of Pulmonary, Allergy, and Critical Care Medicine, University of Pittsburgh, PA
- 691 The Impact of Patient Autonomy on Older Adults with Asthma Keerthi R. Karamched, MD¹, Wei Hao, MA², Laurie Carpenter, MSW², Joel Steinberg³, and Alan P. Baptist, MD MPH FAAAAI¹, ¹University of Michigan, Division of Allergy and Clinical Immunology, Ann Arbor, MI, ²University of Michigan, Ann Arbor, MI, ³Wayne State University, Detroit, MI
- 692 Atopic Sensitization and Inflammation in Depressed versus Non-depressed Asthmatic Children Vivian T. Aranez, MD¹, Heather K. Lehman, MD, FAAAAI², Bruce Miller, MD³, Beatrice L Wood, PhD, ABPP¹, Hannah Elsinghorst¹, Kristel McGuire¹, Rachel Rainey¹, and Brian Wrotniak¹, ¹University at Buffalo, Buffalo, NY, ²University of Buffalo School of Medicine, Buffalo, NY, ³University at Buffalo, State University of New York, Buffalo, NY
- 693 Asthma Does Not Explain A Decline In Post Bronchodilator Lung Function In Early Adult Life

Ramesh Jagath Kurukulaaratchy, BM DM MRCP¹, Claire Hodgekiss², John W. Holloway, BSc PhD¹, Graham Roberts, DM MSc MRCPCH³, Wilfried Karmaus, MD⁴, Hongmei Zhang, PhD⁴, Susan Ewart⁵, Linda S. Mansfield, VMD, PhD⁵, and Syed H. Arshad, DM, FRCP¹, ¹University of Southampton, Southampton, United Kingdom, ²David Hyde Asthma & Allergy Centre, Newport, United Kingdom, ³Tremona Road, Southampton University Hospital, Southampton, United Kingdom, ⁴The University of Memphis, Memphis, TN, ⁵Michigan State University, East Lansing, MI

694 Oral Habits and Association with Lower Rate of Asthma and Seasonal Allergies

Amy D. Burris, MD, Lisa Guasp, RN, Kirsi M. Jarvinen-Seppo, MD, PhD, FAAAAI and Jeanne M. Lomas, DO, Department of Pediatrics, Division of Pediatric Allergy and Immunology, University of Rochester Medical Center, Rochester, NY

- 695 Comparative Cost Analysis of Monitoring Exhaled Nitric Oxide (FeNO) in Asthma Management Marc Massanari, PharmD¹, Andrew Layton², and Renee Arnold, Pharm.D.^{2,3}, ¹Circassia Pharmaceuticals, Morrisville, NC, ²Quorum Consulting, San Francisco, CA, ³Icahn School of Medicine at Mount Sinai, New York, NY
- 696 Development of Adherence Questionnaire for Children and Adolescents with Asthma

Takao Fujisawa, MD, FAAAAI¹, Mizuho Nagao, MD, PhD¹, Yumi Mizuno, PhD², Naoki Shimojo, MD, PhD³, Natoka Itoh-Nagato, MD, PhD⁴, Yukihiro Ohya, MD, PhD⁵, Takanori Imai, MD⁶, Motohiro Ebisawa, MD, PhD, FAAAAI⁷, Chizu Habukawa⁸, Hiroshi Odajima, MD, PhD⁹, and Yasunori Sato, PhD¹⁰, ¹Mie National Hospital, Mie, Japan, ²Mie National Hospital, Tsu, Japan, ³Department of Pediatrics Graduate School of Medicine Chiba University, Chiba, Japan, ⁴Shimoshizu National Hospital, Yotsukaido, Japan, ⁵National Center for Child Health and Development (NCCHD), Tokyo, Japan, ⁶Showa University School of Medicine, Tokyo, Japan, ⁷Clinical Research Center for Allergy and Rheumatology, Sagamihara National Hospital, Kanagawa, Japan, ⁸Shinjocho, Minami Wakayama Medical Center, Tanabe-shi, Japan, ⁹National Hospital Organization Fukuoka Hospital, Fukuoka, Japan, ¹⁰Chiba University, Chiba, Japan

- 697 The impact of uncontrolled asthma on quality of life among treated, adherent patients with persistent asthma Giselle Mosnaim¹, Lulu K Lee², Colleen Carpinella², Rinat Ariely³, Susan Gabriel⁴, and Njira L Lugogo⁵, ¹NorthShore University HealthSystem, Evanston, IL, ²Health Outcomes Practice, Kantar Health, San Mateo, CA, ³Teva Pharmaceutical Industries, Frazer, PA, ⁴Teva Pharmaceuticals, Malvern, PA, ⁵University of Michigan, Ann Arbor, MI
- 698 Using Predictive Analytics to Identify Risk of Clinical Asthma Exacerbations

Lena Granovsky¹, Ron Kamienchick², Nancy Yacovzada¹, Premprakaash Viswanathan³, Shuai Cao⁴, Dimitris Alevras⁵, Ronen Tamir², Iris Grossman¹, Thomas Ferro², Dilip Chary², Guilherme Safioti⁶, and Shai Fine¹, ¹Teva Pharmaceuticals, Tel Aviv, Israel, ²Teva Pharmaceuticals, Frazer, PA, ³IBM Watson Health Consulting Services, Pittsburgh, PA, ⁴IBM GBS Healthcare & Life Sciences, New York, NY, ⁵IBM Watson Health Consulting Services, Wayne, PA, ⁶Teva Pharmaceuticals, Amsterdam, Netherlands

699 Epidemiology and Risk Factors of Allergic Diseases in Adolescents

Cristine S. Rosario, MD¹, Cristina a Cardozo¹, Debora C Chong e Silva², Herberto J. Chong Neto, MD, PhD, FAAAAI¹, Carlos a Riedi¹, and Nelson Augusto Rosario, MD, PhD, FAAAAI³, ¹Federal University of Parana, Curitiba, Brazil, ²Federal University of Parana, curitiba, Brazil, ³Federal University of Paraná, Curitiba, Brazil

700 The economic impact of uncontrolled asthma among treated, adherent patients with persistent asthma

Lulu K Lee¹, Njira L Lugogo², Colleen Carpinella¹, Rinat Ariely³, Susan Gabriel⁴, and Giselle Mosnaim⁵, ¹Health Outcomes Practice, Kantar Health, San Mateo, CA, ²University of Michigan, Ann Arbor, MI, ³Teva Pharmaceutical Industries, Frazer, PA, ⁴Teva Pharmaceuticals, Malvern, PA, ⁵NorthShore University HealthSystem, Evanston, IL

- 701 Effect of pregnancy on lengths of stay of admitted asthmatic patients in an urban inner city tertiary hospital Emmanuel Kwesiga, MBChB and Rauno Joks, MD, SUNY Downstate Medical Center, Brooklyn, NY
- 702 Caregiver report of child's asthma control predicts future acute visits in a mouse-sensitized population, independent of guideline-based measures of asthma control

Suzanne L. Rossi, MD¹, Torie L. Grant, MD², Wanda Phipatanakul, MD MS FAAAAI³, Matthew Perzanowski, PhD⁴, Susan L. Balcer-Whaley, MPH⁵, Jean Curtin-Brosnan, MA², Michelle Newman, RN², Amparito Cunningham, MD MPH⁶, Mary Beth Bollinger, DO⁷, and Elizabeth C Matsui, MD MHS², ¹Johns Hopkins Pediatric Allergy/Immunology Program, Baltimore, MD, ²Division of Pediatric Allergy/Immunology, Johns Hopkins University School of Medicine, Baltimore, MD, ³Boston Children's Hospital, Hopkinton, MA, ⁴Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY, ⁵Johns Hopkins University, Baltimore, MD, ⁶Boston Children's Hospital, Harvard University Medical School, Boston, MA, ⁷Department of Pediatrics, University of Maryland School of Medicine, Baltimore, MD



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703 Association between occupational exposures and prevalence of asthma among US migrant and seasonal farmworkers: National Agricultural Workers Survey, 2001-2014 Anna Chen Arroyo, MD MPH, Brigham and Women's Hospital, Bastan MC Calca A. Camarana Ia, MD Depth EAAAAL Mar

Boston, MA and Carlos A. Camargo Jr., MD DrPH FAAAAI, Massachusetts General Hospital, Boston, MA Insomnia among Hispanics/Latinos with Asthma

Aminaa Siddiqi, MD¹, Yinglin Xia, PhD², Bharati Prasad, MD³, Ben Gerber, MD², and Sharmilee M. Nyenhuis, MD, FAAAAI³, ¹Department of Medicine, University of Illinois at Chicago, Chicago, IL, ²Division of Academic Internal Medicine and Geriatrics, University of Illinois at Chicago, Chicago, IL, ³Division of Pulmonary, Critical Care, Sleep and Allergy, University of Illinois at Chicago, IL

705 Effect of Rescue Inhaler Dose Counters on ER Utilization, Asthma Admissions and Health Care Claims Costs in a Population of Children in Medicaid Managed Care

Barry S. Lachman, MD MPH, Parkland Community Health Plan, Dallas, TX

Basic and Clinical Immunology II

BCI

4203

Monday, March 5th, 2018, 9:45 AM - 10:45 AM

706 Clinical, Endoscopic and Histopathological Characteristics of Pediatric Patients with Eosinophilic Digestives Diseases attending the Gastroenterology Department of the National Institute Of Pediatrics in Mexico City

Amyra Ali Azamar Jacome, MD¹, Josefina Monserrat Cazares Mendez¹, David Alejandro Mendoza Hernandez², and Jose G. Huerta Lopez, MD, FAAAAI³, ¹National Institute of Pediatrics, Mexico city, Mexico, ²UCB de Mexico, Mexico, Mexico, ³Instituto National de Pediatria, Mexico City, Mexico

707 X chromosomal linkage to eosinophilic esophagitis susceptibility

Leah C Kottyan, PhD¹, Avery Maddox¹, Kate Hoffman², Leanne Ray¹, Carmey Forney¹, Michael Eby³, Melissa K Mingler, MS, MBA¹, Kenneth Kaufman, PhD¹, Phillip Dexheimer¹, Nina Lukac¹, Julie M Caldwell, PhD⁴, Mark Rochman, PhD⁴, Tetsuo Shoda, MD, PhD¹, Ting Wen, PhD¹, Justin C. Wheeler, MD¹, Simon P. Hogan, PhD⁵, Vincent A Mukkada, MD¹, Philip E Putnam, MD¹, Pablo P. Abonia, MD¹, Robert M. Genta, PhD^{6,7}, Lisa J. Martin, PhD¹, Evan S. Dellon, MD MPH⁸, and Marc E Rothenberg, MD, PhD, FAAAAI1, 1Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ²Duke University, Durham, NC, ³Division of Allergy and Immunology, Cincinnati Children's Hospital, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH, ⁴Division of Allergy and Immunology, Cincinnati Children's Hospital Medical Center, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH, ⁵Division of Allergy and Immunology and Immunobiology, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ⁶Dallas Veterans Affairs Medical Center, University of Texas Southwestern Medical Center, Dallas, TX, ⁷Miraca Life Sciences Research Institute, Irving, TX, ⁸University of North Carolina, Chapel Hill, NC

708 The Anti-protease SPINK7 is a Checkpoint Regulator of Esophageal Epithelial Inflammatory Responses

Nurit P. Azouz, PhD¹, Mario Alberto Ynga-Durand1^{2,3}, Julie M Caldwell, PhD¹, Ayushi Jain, BS², Mary Bedard², Mark Rochman,

PhD¹, Demetria Michael², Melissa K Mingler, MS, MBA², Carmy Forney², Ting Wen, PhD², Jonathan Kuhl², Hua He, MS², Jocelyn M. Biagini Myers, PhD², Vincent A Mukkada, MD², Philip E Putnam, MD², Gurjit K. Khurana Hershey, MD, PhD, FAAAAI², Leah C Kottyan, PhD², Lisa J. Martin, PhD², and Marc E Rothenberg, MD, PhD, FAAAAI², ¹Division of Allergy and Immunology, Cincinnati Children's Hospital Medical Center, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH, ²Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ³Instituto Politécnico Nacional, Mexico, Mexico

709 E-cadherin, Passive Smoking and Allergen Sensitization in Children with Adenoid Hypertrophy

Milos Jesenak, Department of Pediatrics, Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Martin, Slovakia, Barbora Uhliarova, Department of Otorhinolaryngology, FD Roosevelt Faculty Hospital, Banska Bystrica, Slovakia, Gabriela Bugova, Department of Otorhinolaryngology, Head and Neck Surgery, Comenius University in Bratislava, Jessenius Faculty of Medicine in Martin, University Hospital, Martin, Slovakia, Peter Banovcin, Department of Paediatrics, Comenius University in Bratislava, Jessenius Faculty of Medicine in Martin, University Hospital, Martin, Slovakia and Eva Babusikova, Department of Medical Biochemistry, Comenius University in Bratislava, Jessenius Faculty of Medicine in Martin, Martin, Slovakia

710 Maternal Exposure to Antibiotics Increases the Severity of Asthma in Offspring Mice

Imke Lingel¹, Jerilyn Gray¹, Hitesh Deshmukh, MD¹, Peter Koenig, MD², and Ian Paul Lewkowich, PhD³, ¹Cincinnati Children's Hospital, Cincinnati, ²University of Luebeck, Luebeck, ³Cincinnati Children's Hospital, Cincinnati, OH

711 Increased TREM-2 Expression on Dendritic Cell Subsets and Th2 and Th17 Immune Response in Allergic Airway Inflammation

Sannette C. Hall, Creighton University, Omaha, NE and Devendra K. Agrawal, PhD MBA FAAAAI, Creighton University School of Medicine, Omaha, NE

712 Nitric Oxide Production by PBMC from IgE+ Allergic Adults Varies with Time of Day and Correlates with Total Serum IgE and Exhaled Breath NO

Adam El Sehamy, MD, Maja Nowakowski, PhD, Charles J. Kim, MD, Telcan Ali Kizi, Helen G Durkin, PhD, and Rauno O Joks, MD, Center for Allergy and Asthma Research at SUNY Downstate Medical Center, Brooklyn, NY

- 713 Biological effect of IL-33R/ST2 in atopic asthmatic children; serum IL-33 changes by administration of omalizumab Yosuke Baba, MD, PhD^{1,2}, Hiromichi Yamada, MD², Toshiyuki Yoneyama, MD², Tomoaki Yokokura, MD², Susumu Yamazaki, MD, PhD², Eisuke Inage, MD, PhD², Mari Mori, MD², Yoshikazu Ohtsuka, MD, PhD², Masato Kantake, MD, PhD^{1,2}, and Toshiaoki Shimizu, MP, PhD², ¹Department of Pediatrics, Juntendo University Shizuoka Hospital, Shizuoka, Japan, ²Department of Pediatrics and Adolescent Medicine, Juntendo University Faculty of Medicine, Tokyo, Japan
- 714 Premedication For Oral Desensitization To Anaphylactoid Reactions At OPD

Kyuchul Choeh, Hye-Young Ryu and You-Sik Jeon, YAHO Allergy Clinic, Daejeon, Korea, Republic of (South)

- Fibrinolytic Pathways In Interleukin-17A-induced lung Injury Sreerama Shetty¹, Venkadesa Perumal¹, Nivedita Tiwari², Amarnath Marudamuthu³, Shwetha Kumari⁴, Seong Park¹, and Rashmi Shetty⁵, ¹The University of Texas Health Science Center at Tyler, Tyler, ²The University of Texas Health Science at Tyler, Tyler, ³The University of Texas Health Science Center at Tyler, 75708, ⁴The University of Texas Health Science Center at Tyler, 75707, ⁵The University of Texas Health Center at Tyler, Tyler
- 716 Novel Basophil Activation and Degranulation Markers for the Basophil Activation Test



Andrei Hancharou, Republican Research and Practical Center for Epidemiology and Microbiology, Minsk, Belarus, I Ramanava, The Republican Research and Practical Center for Epidemiology and Microbiology, Minsk, Belarus and Lawrence Dubuske, Immunology Research Institute of New England, Gardner, MA; George Washington University School of Medicine, Washington, DC

Basic and Clinical Immunology in Atopic Disease

BCI

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Monday, March 5th, 2018, 9:45 AM - 10:45 AM

- 717 Ferritin Particles Accumulate in Human Mast Cell Secretory Granules and Are Released upon Fc∈RI-mediated Activation Brant R Ward, MD, PhD, Mark Hicks, Jaz-Munn Johnson and Yu Par A Myo, Virginia Commonwealth University, Richmond, VA
- 718 Low Density Lipoprotein enhances the *in vitro* production of IL-18 from periferal blood mononuclear Cells Ammar K. Daoud, MD, FAAAAI¹, Nesreen A. Saada², Nizar M. Abu Harfiel², and Nawar A. M. Eisa³, ¹Jordan University Science and Technology, Irbid, Jordan, ²JUST, Irbid, Jordan, ³JUST, Kuwait, Kuwait
- 719 Remote Respiratory Allergen Challenge Increases the Frequency of Small Intestinal Eosinophils in Allergen-Sensitized Mice

Courtney L. Olbrich¹, Maytal Bivas-Benita, PhD², Jason J. Xenakis², Samuel Maldonado², Evangeline W. Cornwell, PhD¹, and Lisa A. Spencer, PhD FAAAAl², ¹Gordon College, Wenham, MA, ²Beth Israel Deaconess Medical Center, Boston, MA

- 720 Safety And Efficacy Of Dupilumab In Adult Patients With A History Of Eczema Herpeticum Jette Hooper, Frank H Netter School of Medicine, Quinnipiac University, Hamden, CT, Brian Weeks, Gesher LLC Allergy, Asthma, Immunology, Waterbury, CT and David H. Dreyfus, MD, PhD, FAAAAI, Gesher Allergy Asthma and Clinical Immunology,
- Waterbury, CT; Yale School of Medicine, New Haven
 721 B Antigen Protects Against the Development of α-Gal-mediated Red Meat Allergy Jonathan R. Brestoff¹, Merih T Tesfazghi, PhD², Ronald Jackups, Jr, MD, PhD², Mitchell G Scott, PhD², Ann M Gronowski, PhD²,

and Brenda J Grossman, MD, MPH², ¹Washington University School of Medicine, St. Louis, MO, ²Washington University School of Medicine, Saint Louis, MO

722 Peculiarities of phenotyping of lymphocytes in patients with pollen allergy against the backdrop of active herpesvirus infection type 4, 5 and 6

Valentyna Chopyak, Danylo Halitskiy Lviv National Medical University, Lviv, Ukraine, Svitlana Zubchenko, Danylo Halitskiy Lviv National Medical University, Lviv, Sergey Yuriev, Ukrainian School of Molecular Allergology and Immunology, Kyiv and Olena Gubska, Bogomolets National Medical University, Kyiv

- 723 Epicutaneous immunotherapy with peanut directly targets Langerhans cells in human skin Vincent Dioszeghy, PhD¹, Emeline Pages², Christophe Dupont, MD, PhD³, Hugh A. Sampson, MD, FAAAAI⁴, Pascal Descargues, PhD², and Lucie Mondoulet, PhD¹, ¹DBV Technologies, Montrouge, France, ²Genoskin, Toulouse, France, ³Necker Hospital, Paris, France, ⁴DBV Technologies, New York
- 724 Fel d1 and Fel d4 Fur, Urine and Saliva Levels in Domestic Cats William Ho-Ching Yang, FRCPC¹, Suzanne M. Kelly, PhD¹, Jacob Karsh¹, Jennifer Marcelo¹, Douglas Boeckh², Bryan Santone¹,

and Jimmy Yang¹, ¹Red Maple Trials Inc, Ottawa, ON, Canada, ²Merivale Cat Hospital, Ottawa, ON

725 Milk-specific IgE and IgG4 responses are lower in Amish than Hutterite children

Lisa J. Workman¹, Maya Retterer², Jeffrey M. Wilson, MD, PhD³, Mark Holbreich, MD, FAAAAI⁴, Erika von Mutius, MD MSc⁵, Michelle M Stein, PhD⁶, Carole Ober, PhD⁶, and Thomas A.E. Platts-Mills, MD, PhD, FAAAAI³, ¹PO Box 801355, University of Virginia, Charlottesville, VA, ²University of Virginia, Charlottesville, VA, ³Division of Asthma, Allergy & Immunology, University of Virginia Health System, Charlottesville, VA, ⁴Private Practice, Indianapolis, IN, ⁵University Children's Hospital, Munich, Germany, ⁶University of Chicago, Chicago, IL

726 Additive effect between prenatal depression and transepidermal water loss on atopic dermatitis via Th2 immune responses: CO-COA study

Mi-young Lee¹, DrSo-Yeon Lee², Si Hyeon Lee³, Ji-Sun Yoon⁴, Sungsu Jung⁴, Hyun-ju Cho, MD⁵, Dong In Suh⁶, Youn Ho Shin⁷, Kyung Won Kim⁸, Kangmo Ahn, MD, PhD⁹, Kyung-Sook Lee¹⁰, Yee-Jin Shin¹¹, and Soo-Jong Hong¹², ¹Asan Medical Center, seoul, Korea, Republic of (South), ²University of Ulsan College of Medicine, seoul, Korea, Republic of (South), ³University of Ulsan College of Medicine, Seoul, ⁴Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, Seoul, ⁵Department of Pediatrics, Mediplex Sejong Hospital, seoul, ⁶Seoul National Univesity College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ⁷Cha Hospital, Kangnam-gu, Korea, 8Yonsei University College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ⁹Samsung Medical Center, Seoul, Korea, Republic of (South), ¹⁰Hanshin University, Seoul, Korea, Republic of (South), 11Gangnam Severance Hospital, seoul, Korea, Republic of (South), ¹²University of Ulsan College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South)

727 Gut *Streptococcus* species affect persistence and severity of atopic dermatitis during infancy

Park Yoon Mee¹, Mi-Jin Kang, MS², So-Yeon Lee³, Ji-Sun Yoon⁴, Sungsu Jung⁴, Hyun-ju Cho, MD⁵, Dong In Suh, MD⁶, Youn Ho Shin7, Kyungwon Kim8, Kangmo Ahn, MD, PhD9, and Soo-Jong Hong^{10,11}, ¹University of Ulsan College of Medicine, seoul, ²Asan Institute for Life Sciences, University of Ulsan College of Medicine, Seoul, Korea, Republic of (South), ³Department of Pediatrics, Childhood Asthma Atopy Center, Environmental Health Center, Asan Medical Center, seoul, ⁴Asan Medical Center, University of Ulsan College of Medicine, Seoul, ⁵Department of Pediatrics, Mediplex Sejong Hospital, seoul, ⁶Department of Pediatrics, Seoul National University College of Medicine, Seoul, Seoul, Korea, Republic of (South), ⁷CHA University School of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ⁸Yonsei University College of Medicine, Chicago, IL, ⁹Samsung Medical Center, Seoul, Korea, Republic of (South), ¹⁰University of Ulsan College of Medicine Departments of Pediatrics, Seoul, Korea, Republic of (South), ¹¹Asan Medical Center, Ulsan University, Seoul, Korea, Republic of (South)

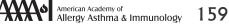
728 Phenotypic changes and IDO over-expression in splenic dendritic cells after epicutaneous immunotherapy

Benjamin Pelletier, Master degree¹, Lucie Mondoulet, PhD², Emilie Puteaux³, Sylvain Tilleul³, Fabien Delisle³, Christophe Dupont, MD, PhD⁴, and Hugh A. Sampson, MD, FAAAAI⁵, ¹DBV Technologies, Bagneux, France, ²DBV Technologies, Montrouge, France, ³DBV Technologies, Montrouge, ⁴Necker Hospital, Paris, France, ⁵DBV Technologies, New York

729 The Expression of ST2⁺mDC in Allergic Rhinitis after Inhaled Allergen Challenge

Yaqi Peng, Otorhinolaryngology Hospital, The First Affiliated Hospital, Sun Yat-sen University, Guangzhou, China and Qingling Fu,





ton, TX

Otorhinolaryngology Hospital, The First Affiliated Hospital, Sun Yat-sen University, Guangzhou, China

730 Type-1 Regulatory T-Cell Frequencies Fluctuate in the First 6 months of Peanut Oral Immunotherapy Sara Anvari, MD, MSe^{1,2}, Levi Watkin, PhD^{1,2}, Sridevi Devaraj, PhD^{1,2}, Victor Cardenas, BSc^{1,2}, Jordan S Orange, MD, PhD, FAAAAI^{1,2}, and Carla M. Davis, MD, FAAAAI^{1,2}, ¹Texas Children's Hospital, Houston, TX, ²Baylor College of Medicine, Hous-

Immunity to Aeroallergens

EORD

4205

Monday, March 5th, 2018, 9:45 AM - 10:45 AM

731 Sensitization to House Dust Mites in Patients with Irritable Bowel Syndrome

Anastasia Levchenko¹, Liliia Romaniuk, MD, PhD², Ilona Du-Buske³, and Lawrence Dubuske^{3,4}, ¹Bogomolets National Medical University, Kyiv, Ukraine, ²Kiev City Clinical Hospital #8, Kyiv, Ukraine, ³Immunology Research Institute of New England, Gardner, MA, ⁴George Washington University School of Medicine, Washington, DC

732 Natural humic substances interfere with multiple stages of the replication cycle of human immunodeficiency virus Yury Zhernov, National Research Center – Institute of Immunology FMBA of Russia, Moscow

733 Serum periostin levels associates to secondhand tobacco smoke exposure and exercise in children

Sung Myong Soon, Inje University Haeundae Paik Hospital, Busan, Lee Kyung Suk, CHA Bundang Medical Center, Bundang, Han Man Yong, CHA Bundang Medical Center, SEOUL, Baek Hey Sung, Hallym University Kandong Sacred Heart Hospital, SEOUL and Izuhara K, Department of Biomolecular Sciences, Saga Medical School, Saga, Japan, Saga

734 Comparison of Serum Eosinophil-Derived Neurotoxin Levels between Wheezing and Non-wheezing Groups in Children with Respiratory Tract Infections Ali Raza, MD¹, Young-Ho Kim, MD^{1,2}, Jin-Sung Park, MD¹, Eun-mi

Ali Kaza, MD', Young-Ho Kim, MD', Jin-Sung Park, MD', Eun-mi Kwon, Doctoral Program¹, Fuyong Jiao, MD³, and Chang Keun Kim, MD¹, ¹Asthma and Allergy Center, Inje University Sanggye Paik Hospital, Seoul, Korea, Republic of (South), ²Department of Pediatrics, Gyeongsang National University Changwon Hospital, Seoul, Korea, Republic of (South), ³Children's Hospital, Shaanxi Provincial People's Hospital of Xi, an Jiaotong University, Xi'an, China

735 Relationship between Vitamin D status and atopic measures in patients with Strongyloidiasis

Ishani Nautiyal, Montefiore Medical Center, Bronx, Lahari Rampur, MD, University of Washington Medical Center, Bellevue, WA and Sunit P. Jariwala, MD, Montefiore Medical Center, Bronx, NY

736 Combination anti-IgE and anti-IL5 therapies in patients with severe persistent asthma and allergic bronchopulmonary aspergillosis (ABPA)

Jay Patel, MD, Andrew G. Ayars, MD, FAAAAI, Lahari Rampur, MD, Stephen Bronson, RN and Matthew C. Altman, MD, University of Washington, Seattle, WA

737 Differences in the proliferative capacities of 2014 Epidemic and Fermon EV-D68 Strains

Nicholas Klaiber, MD, Virginia Commonwealth University Medical Center, Richmond, VA; VCU medical center, Midlothian, VA, Michael Mcvoy, PhD, Virginia Commonwealth University, Richmond, VA and Wei Zhao, MD, PhD, FAAAAI, PO Box 980225, Virginia Commonwealth University, Richmond, VA

E-Cigarettes, Smoking and Sensitization

EORD

4206

Monday, March 5th, 2018, 9:45 AM - 10:45 AM

738 Sensitization pattern in a group of patients with allergic disease through a molecular diagnostic study using microassay-based multiplex technology (ISAC)

Cesar F. Pozo Sr.¹, Elsy M Navarrete¹, and Blanca E Del Rio², ¹Hospital Infantil de Mexico Federico Gomez, Ciudad de Mexico, Mexico, ²Hospital Infantil de Mexico Federico Gomez, Ciudad de Mexico

- Belief, Knowledge, and Practice on Electronic Cigarettes among Allergists, Pulmonologists and General Practitioners
 Sherry Zhou, MD, MSc, University of Michigan, Ann Arbor and Alan P. Baptist, MD MPH FAAAAI, University of Michigan, Division of Allergy and Clinical Immunology, Ann Arbor, MI
- 741 Are smoker asthmatics different than non-smokers in terms of symptoms, risk factors and comorbidities? Bilun Gemicioglu^{1,2}, Benan Musellim¹, Berk Degirmenci³, Esra Sari³, Ipek Calik³, Firuze Ozgokce³, and Onur Merzifonlu³, ¹I.U. Cerrahpasa Faculty of Medicine, Department of Pulmonary Diseases, Istanbul, Turkey, ²I.U. Cerrahpasa Faculty of Medicine, Department of Pulmonary Diseases, Division of Allergy and Immunology, Istanbul, Turkey, ³I.U. Cerrahpasa Faculty of Medicine Students, Istanbul, Turkey
- 742 The Invasiveness of the Genus Sylvilagus in Massachusetts and the Resulting Increase in Human Allergen Sensitization to Rabbits Neal S Krishna, Winchester High School, Winchester, MA, Vandana M. Krishna, MD, FAAAAI, Asthma and Allergy Specialists, P. C., Winchester, MA, Ryan N Krishna, McCall Middle School, Winchester, MA and Sampath Krishna, PhD, MBA, Asthma & Allergy Specialists, PC, Winchester, MA
- 743 Comparison of symptoms during a conjunctival provocation test (CPT) and a controlled exposure to birch pollen in the Strasbourg Environmental Exposure Chamber (EEC) (ALYA-TEC)

Ibrahim Choual¹, Carmen Radu², Naji Khayath³, Nicole Beck⁴, Florian Schoettel⁵, Audrey Jacob⁴, Nathalie Domis⁴, and Frederic J. de Blay, MD⁶, ¹ALYATEC, sTRASBOURG, France, ²CHU Strasbourg, Strabourg, FL, France, ³CHU Strasbourg, Strabourg, France, ⁴ALYATEC, Strabourg, France, ⁵ALYATEC, Strabourg, ⁶Chest thoracic diseases department, Strasbourg, France

744 Specific IgE for Staphyloccocus Aureus In Patients With Allergic Rhinitis

Katia Guzman Avilan, MD¹, Sandra Nora Gonzalez-Diaz, MD, PhD², Alfredo Arias Cruz, MD, FAAAAI³, Alejandra Macias-Weinmann, MD⁴, Rosa Ivett Guzman-Avilan, MD⁵, Barbara Elizondo Villarreal, MD⁶, Cindy Elizabeth de Lira-Quezada, MD⁵, Rosalaura Virginia Villarreal-Gonzalez, MD⁵, and Carlos de la Cruz⁷, ¹Hospital Universitario Dr José Eleuterio González, Monterrey, Mexico, ³Universidad Autonoma de Nuevo Leon, Monterrey, Mexico, ⁴Hospital Universitario UANL, Monterrey, N.L., Mexico, ⁵University Hospital "Dr Jose Eleuterio González", Monterrey, Mexico, ⁶University Hospital "Dr José Eleuterio González", Monterrey, Mexico





Food Allergens and Food Immunotherapy

FADDA

4207

Monday, March 5th, 2018, 9:45 AM - 10:45 AM

- 745 Gly m 5/Gly m 8 fusion component for diagnosing soybean allergy
 - Nobuyuki Maruyama, PhD¹, Sakura Sato, MD², Cerrone Cabanos, PhD¹, Akira Tanaka³, Komei Ito, MD, PhD⁴, and Motohiro Ebisawa, MD, PhD, FAAAAI², ¹Graduate School of Agriculture, Kyoto University, Uji, Japan, ²Department of Allergy, Clinical Research Center for Allergy and Rheumatology, Sagamihara National Hospital, Kanagawa, Japan, ³Thermo Fisher Diagnostics, Tokyo, Japan, ⁴Aichi Children's Health and Medical Center, Obu, Japan
- 746 Impact of Cross-reactivity between Major Peanut Allergens Ara h 2 and Ara h 6 on Specific IgE Measurements Blanche Guillon¹, Hervé Bernard, PhD¹, Evelyne Paty, MD², Stephen C. Dreskin, MD, PhD, FAAAAI³, Karine Adel-Patient, PhD¹, and Stephane Hazebrouck, PhD¹, ¹UMR CEA INRA, Service de Pharmacologie et d'Immunoanalyse, Gif-sur-Yvette, France, ²Université Paris Descartes, Hôpital Necker Enfants Malades, Paris, France, ³University of Colorado Denver, Aurora, CO
- 747 IgE -reactive 11S globulin from chickpea with homology to Ara h 3

Catherine M. Thorpe, BS¹, Sayeh Agah, PhD¹, Martin D. Chapman, PhD FAAAAI², and Sabina Wünschmann, PhD¹, ¹Indoor Biotechnologies Inc., Charlottesville, VA, ²Indoor Biotechnologies, Inc., Charlottesville, VA

748 Epitope Mapping of 2S albumins and Comparison of Ara h 2, Ara h 6 and Ara h 7 from Peanut Soheila J. Maleki, PhD FAAAAI, Hsiaopo Cheng, MS and Barry

K. Hurlburt, PhD, USDA-ARS-SRRC, New Orleans, LA

749 Comparative Analysis Of Specific Allergen Levels In Baked Milk Products James P Hindley, BSc PhD¹, Angharad Cullinane, BSc¹, Martin D. Chapman, PhD FAAAAI², and Maria A Oliver, BSc PhD³, ¹Pentwyn, Indoor Biotechnologies Ltd, Cardiff, United Kingdom, ²Indeen Biotechnologies Ltd, Cardiff, United Kingdom,

²Indoor Biotechnologies, Inc., Charlottesville, VA, ³Pentwyn, Indoor Biotechnologies, Cardiff, United Kingdom **750** Long Term outcome of Peanut Oral Immunotherapy (OIT) in Patients Unable to Reach Maintenance Goal Liat Nachshon, MD, Institute of allergy, immunology and pediatric pulmonology, Assaf Harofe Medical center, Zerifin, Israel, Michael R Goldberg, MD, PhD, Institute of Allergy and Immunolgy, Assaf Harofe Medical Center, Zeriffin, Israel, Michael B. Levy, MD, FAAAAI, Institute of allergy, immunology and pediatric pulmonology, Assaf Harofe Medical center, Zeriffin, Israel, Efrat, Israel; Assaf Harofe Medical Center, Zeriffin, Israel, Na'ama Epstein-Rigbi, MD, Institute of Allergy, Immunology and Pediatric Pulmonology, Assaf Harofe Medical Center, Zerifin, Israel and Arnon Elizur, MD,

- Department of Pediatrics, Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel; Institute of Asthma Allergy & Immunology, Zeriffin, Israel
 Epitane Mapping for the Non Specific Lipid Transfer Proteing
- 751 Epitope Mapping for the Non-Specific Lipid Transfer Proteins (nsLTP) Among Peanut Allergic Patients Christina M. Kronfel, PhD¹, Hsiaopo Cheng, MS¹, Barry K. Hurlburt, PhD¹, Reyna J. Simon², and Soheila J. Maleki, PhD FAAAAI¹, ¹USDA-ARS-SRRC, New Orleans, LA, ²Aimmune Therapeutics, Brisbane, CA
- 752 Nanoallergens: A Nanoparticle Based Platform for Assessment of Immunogenic Peanut Epitopes in a Clinical Population Peter E. Deak, PhD.¹, Amina Abdul Qayum, MD², Joseph Riehm¹, Tanyel Kiziltepe, PhD¹, Mark H. Kaplan, PhD³, and Basar Bilgicer,

PhD¹, ¹University of Notre Dame, Notre Dame, IN, ²Indiana University School of Medicine, Indianapolis, IN, ³Room 202, Indiana University School of Medicine, Indianapolis, IN

753 Changes in quality of life of food-allergic children from initiation of oral immunotherapy, through up-dosing, upon reaching maintenance and after 6 months of follow-up

Na'ama Epstein-Rigbi, MD, Institute of Allergy, Immunology and Pediatric Pulmonology, Assaf Harofe Medical Center, Zerifin, Israel, Michael R Goldberg, MD, PhD, Institute of Allergy and Immunolgy, Assaf Harofeh Medical Center, Zeriffin, Israel, Michael B. Levy, MD, FAAAAI, Institute of allergy, immunology and pediatric pulmonology, Assaf Harofe Medical center, Zerifin, Israel, Efrat, Israel, Liat Nachshon, MD, Institute of allergy, immunology and pediatric pulmonology, Assaf Harofe Medical center, Zerifin, Israel and Arnon Elizur, MD, Department of Pediatrics, Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel; Institute of Asthma Allergy & Immunology, Zeriffin, Israel

- 754 Usefulness of Component-resolved diagnostics (CRD) in predicting hazelnut allergy in Japanese children
 Yoko Inoue, Department of allergy, Clinical Research Center for Allergy and Rheumatology, Sagamihara National Hospital, Kanagawa, Japan, Kanagawa, Japan
 755 Effects of Pressure and Thermal Processing on Pistachio and
- Cashew in vivo Allergic Reactivity Cinthia A. De La Cruz Martinez, Natalia M. Gimenez Licitra, Ruth M. Barranco Jimenez, Jesus F. Fernandez Crespo, P.h.D and Maria Carmen Dieguez Pastor, MD, PhD, Hospital Universitario 12 de Octubre, Madrid, Spain
- **756** Impact of Irradiation on the Protein Content and Microbial Levels of Sesame Seed Flour for use in Oral Immunotherapy Anusha Penumarti, PhD¹, Nicole Szczepanski², Janelle Kesselring¹, Elizabeth Gabel¹, Jelena Petrovic Berglund, PhD, RAC¹, Edwin H. Kim, MD¹, A. Wesley Burks, MD, FAAAAI¹, and Mike D. Kulis, PhD¹, ¹University of North Carolina at Chapel Hill, Chapel Hill, ²Rho Inc, Durham
- 757 Dust Mite Sensitization in Shrimp Allergic Pediatric Patients in the Midwest

Salman A. Aljubran, MD, Children's Mercy Hospital, Kansas, MO and Charles S. Barnes, PhD FAAAAI, Children's Mercy Hospital, Kansas City, MO

758 Nut Oral Immunotherapy (NOIT) for Allergy to One Nut Desensitizes to the Cross Reactive Nut

Angela R. Hague, PA-C¹, Richard L. Wasserman, MD, PhD, FAAAAI^{1,2}, Robert W. Sugerman, MD, FAAAAI^{1,2}, Qurat Ul Ain Kamili, MD^{1,2}, Dena M. Pence, RRT¹, and Joanna G. Rolen, PA-C¹, ¹Allergy Partners of North Texas, Dallas, TX, ²Medical City Children's Hospital, Dallas, TX

759 Urinary Prostaglandin D₂ metabolite is an useful index of oral desensitization against food antigen in mice Takahisa Murata, DVM, PhD., Tatsuro Nakamura, DVM, PhD,

Rina Hirai and Yuri Tachibana, Department of Animal Radiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan

760 Clinical characteristics of oral allergy syndrome in children with birch sensitization and atopic dermatitis

Taek Ki Min, MD¹, Kang-In Kim², Heejeong Kang², and Bok Yang Pyun, MD¹, ¹Pediatric Allergy Respiratory Center, Department of Pediatrics, Soonchunhyang University Hospital, Seoul, Korea, Republic of (South), ²Pediatric Allergy Respiratory Center, Department of Pediatrics, Soonchunhyang University Hospital, Seoul

761 Effects of Pressure and Thermal Processing on Chestnut in vivo Allergic Reactivity Natalia M. Gimenez Licitra, Cinthia A. De La Cruz Martinez,

Ruth Barranco, MD, Jesus F. Fernandez Crespo, P.h.D and Ma Carmen Dieguez, MD, Hospital Universitario 12 de Octubre, Madrid, Spain



762 Analysis of Hazelnut Molecular Component Testing Reactivity

Michelle L. Altrich, PhD, Viracor Eurofins, Lee's Summit, MO Long-Term Effect of Combined Therapy of Oral Immunother-

763 Long-Term Effect of Combined Therapy of Oral Immunotherapy and Japanese Traditional Medicine Kakkonto on Food Allergy Mice

Yuka Nagata, PhD, Takeshi Yamamoto, PhD, and Makoto Kadowaki, PhD, Division of Gastrointestinal Pathophysiology, Institute of Natural Medicine, University of Toyama, Toyama, Japan

764 Cluster analysis of food-allergy patient data reveals patterns of co-sensitization

James R Perkins, PhD¹, Francisca Gomez, MD, PhD², Jose A Cornejo-Garcia, PhD^{1,2}, Gador Bogas, MD, PhD², Oscar Torreño, PhD³, Oswaldo Trelles, PhD³, Miguel Gonzalez, MSc¹, Maria J Torres, MD, PhD^{1,2}, and Cristobalina Mayorga, PhD^{1,2}, ¹Research Laboratory, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain, ²Allergy Unit, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain, ³Department of Computer Architecture, University of Malaga, Malaga, Spain

- Fifects of Pressure and Thermal Processing on Cashew and Pistachio in vitro Allergic Reactivity
 Diego Blanco, Natividad De Las Cuevas, PhD, Ruth Barranco, MD, Jesus F. Fernandez Crespo, P.h.D and Ma Carmen Dieguez, MD, Hospital Universitario 12 de Octubre, Madrid, Spain
 Association of quinoa and apple sensitization
- 766 Association of quinoa and apple sensitization Susamita Kesh, MD¹, Charles S. Barnes, PhD FAAAAI², Janelle Noel-Macdonnell, PhD³, and Neha N. Patel, MD³, ¹Children's Mercy, Kansas City, MO, ²Children's Mercy Hospital, Kansas City, MO, ³Children's Mercy, Kansas City, MO
- 767 Identification of a relevant allergen in the induction of rhinoconjuntivitis in subjects sensitized to peach pollen Elisa Haroun-Díaz¹, Laura Victorio-Puche², Natalia Blanca López¹, Damian lopez-Sanchez², Maria Luisa Somoza¹, Jose Alessandro Bastidas-Parlanti¹, Francisco Javier Ruano Pérez¹, María Gabriela Canto, MD, PhD³, Araceli Diaz Perales⁴, and Miguel Blanca³, ¹Allergy Unit. Infanta Leonor University Hospital, Madrid, ²Allergy Unit.Virgen de la Arrixaca University General Hospital, Murcia, ³Allergy Unit, Infanta Leonor University Hospital, Madrid, Spain, ⁴Centre for Plant Biotechnology and Genomics (UPM-INIA), Madrid, Spain
- The Efficacy of Hazelnut IgE Component Testing in Determining Hazelnut Sensitivity
 Joel P. Brooks, DO and Francis M. Lobo, MD, Yale University
 School of Medicine, New Haven, CT
 Characterizing the IgE Reactivity in Oral Allergy Syndrome to
 Celery and Carrots

Abigail N. Finley, MD, MPH¹, Soheila J. Maleki, PhD FAAAAI², Laurianne G. Wild, MD, FAAAAI¹, and Barry K. Hurlburt, PhD², ¹Tulane University, New Orleans, LA, ²USDA-ARS-SRRC, New Orleans, LA

770 Safety of a Two-visit Cluster Schedule with Venom Immunotherapy

Inmaculada Sanchez-Machin, MD, PhD, Victor Matheu, MD, PhD, Paloma Poza-Guedes, MD, PhD, and Ruperto Gonzalez-Perez, MD, PhD, Hospital Universitario de Canarias, La Laguna, Spain

771 Survey on the proper use of anadrenaline auto-injectorin 551 Japanese outdoor workers after hymenopterastings

Naruo Yoshida¹, Hirokuni Hirata², Yasutsugu Fukushima³, and Kumiya Sugiyama³, ¹Dokkyo Medical University Kosigaya Hospital, Saitama, Japan, ²Dokkyo Medical University Koshigaya Hospital, Saitama, Japan, ³Dokkyo Medical University Koshigaya Hospital, Koshigaya, Japan

Food Allergy Diagnosis and Treatment

FADDA

4208

Monday, March 5th, 2018, 9:45 AM - 10:45 AM

772 Exploration of Non-Daily Maintenance Dosing Regimens in Peanut Oral Immunotherapy

Kim Prescott¹, Kenneth Krantz¹, Kirsten Beyer, MD², A. Wesley Burks, MD, FAAAAI³, Thomas B. Casale, MD, FAAAAI⁴, Jonathan O'B. Hourihane, MD, FAAAAI⁵, Stacie M. Jones, MD, FAAAAI⁶, Andrea Vereda, MD, PhD¹, Brian P. Vickery^{1,3}, and Daniel C. Adelman, MD, FAAAAI¹, ¹Aimmune Therapeutics, Brisbane, CA, ²University Hospital Charité, Berlin, Germany, ³University of North Carolina at Chapel Hill, Chapel Hill, NC, ⁴University of South Florida Morsani College of Medicine, Tampa, FL, ⁵Cork University Hospital, Wilton, Ireland, ⁶Department of Pediatrics, University of Arkansas for Medical Sciences and Arkansas Children's Hospital, Little Rock, AR

773 Goals and Motivations of Families Pursuing Oral Immunotherapy for Food Allergy

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Joan H Dunlop, MD, Johns Hopkins Hospital, Baltimore, MD, and Corinne Keet, MD MS PhD, John Hopkins Hospital, Baltimore, MD Risk Factors Associated with Peanut Allergy in a High Risk In-

fant Cohort (CoFAR) Scott H. Sicherer, MD, FAAAAI¹, Robert A. Wood, MD, FAAAAI2,3, Tamara T. Perry, MD4, Stacie M. Jones, MD, FAAAAI5, Donald Y. M. Leung, MD, PhD, FAAAAI6, Alice Henning, MS7, Peter Dawson, PhD7, A. Wesley Burks, MD, FAAAAI8, Robert W. Lindblad, MD⁷, and Hugh A. Sampson, MD, FAAAAI⁹, ¹Department of Pediatrics, Icahn School of Medicine at Mount Sinai, New York, NY, New York, NY, ²Johns Hopkins University School Medicine, Baltimore, MD, ³Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD, ⁴UAMS/ Arkansas Children's Hospital, Little Rock, AR, ⁵Department of Pediatrics, University of Arkansas for Medical Sciences and Arkansas Children's Hospital, Little Rock, AR, ⁶National Jewish Health, Denver, CO, ⁷The EMMES Corporation, Rockville, MD, ⁸University of North Carolina at Chapel Hill, Chapel Hill, NC, ⁹Icahn School of Medicine at Mount Sinai, New York, NY

- 775 Peanut Oral Immunotherapy Threshold Dose for Reactivity: What is the Upper Limit? Carla M. Davis, MD, FAAAAI^{1,2}, Aikaterini Anagnostou, MD MSc PhD^{1,2}, Sridevi Devaraj, PhD^{1,2}, Daisy Tran, RN², Avina Nguyen, B.S.², Kathy Pitts, RN², Charles Minard, PhD¹, Danielle Guffey, MS¹, Jordan S Orange, MD, PhD, FAAAAI¹, and Sara Anvari, MD, MSc^{1,2}, ¹Baylor College of Medicine, Houston, TX, ²Texas Children's Hospital, Houston, TX
- 776 Changes in Binding Patterns of Cashew-Specific IgE and IgG4 Over the Course of Oral Immunotherapy with Omalizumab Christina T. Stankey, Sandra Andorf, PhD, Afua Tetteh, PhD, Sharon Chinthrajah, MD, and Kari C. Nadeau, MD, PhD, FAAAAI, Sean N. Parker Center for Allergy and Asthma Research at Stanford University, Palo Alto, CA
- 777 Targeting IL-33 in Food Allergy: Toward patient stratification Erik R. Wambre, PhD, MBE¹, Nahir Garabatos Leitón, PhD¹, Veronique Bajzik¹, Marco Londei, MD², Karen Cerosaletti, PhD¹, and Steven Ziegler, PhD¹, ¹Benaroya Research Institute, Seattle, WA, ²AnaptysBio, San Diego, CA
- 778 Clinical utility of basophil activation test in diagnosis of fish allergy

Ryo Imakiire, MD, Tomoki Hattori, MD, Keigo Kainuma, MD, Reiko Tokuda, MD, Keiko Kameda, MD, Naofumi Suzuki, MD,



Yu Kuwabara, MD, Taiga Kobori, MD, Mizuho Nagao, MD, PhD, and Takao Fujisawa, MD, FAAAAI, Mie National Hospital, Mie, Japan

779 Novel Markers in the Basophil Activation Test may Improve its Clinical Relevance as a Diagnostic Tool

Ursula R. Janikowski, MS, Division of Allergy and Immunology, Department of Medicine, Northwestern Feinberg School of Medicine, Chicago, IL, Jenna R. Bergerson, MD MPH, Northwestern University, Division of Allergy and Immunology, chicago, IL; Division of Allergy-Immunology, Department of Pediatrics, Ann & Robert H. Lurie Children's Hospital of Chicago, chicago, IL, Paul J. Bryce, PhD, Northwestern University, Chicago, IL and Anne Marie Singh, MD, Division of Allergy and Immunology, Northwestern University, Chicago, IL; University of Wisconsin School of Medicine and Public Health, Madison, WI

780 Luciferase Immunoprecipitation Systems (LIPS) Immunoassay is a Sensitive and Rapid Method for Detection of Allergen Component-Specific IgE

Adora A. Lin, MD, PhD, Children's National Medical Center, Washington, DC, Pamela A. Guerrerio, MD, PhD, MSC 1889, National Institute of Allergy and Infectious Diseases, Bethesda, MD, and Thomas B. Nutman, MD, National Institutes of Health, Bethesda, MD

781 Can urinary tetranor-PGDM, a metabolite from prostaglandin D₂, be used as a reliable marker for evaluating the effectiveness of oral immunotherapies for children with food allergies?

Shinichiro Inagaki, MD, PhD¹, Masami Narita, MD, PhD², Tatsuro Nakamura, DVM PhD³, Takahisa Murata, DVM, PhD.³, and Yukihiro Ohya, MD, PhD², ¹National Center for Child health and Development, Tokyo, Japan, ²National Center for Child Health and Development, Tokyo, Japan, ³Department of Animal Radiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan

782 Tolerance induction to peach using glycosylated nanostructures including Pru p 3-Epitope

Maria Jose Rodriguez¹, Javier Ramos-Soriano, BsC², Ana Molina¹, Ainhoa Mascaraque, PhD², Miguel Gonzalez, MSc³, Araceli Diaz-perales⁴, James R Perkins, PhD³, Maria J Torres, MD, PhD⁵, Javier Rojo, PhD², and Cristobalina Mayorga, PhD^{1,5}, ¹Research Laboratory, IBIMA, Regional University Hospital of Malaga, UMA, MALAGA, ²Glycosystems Laboratory, Instituto de Investigaciones Químicas (IIQ), CSIC - Universidad de Sevilla, SEV-ILLA, ³Research Laboratory, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain, ⁴Center for Plant Biotechnology and Genomic (UPM-INIA), Madrid, Spain, ⁵Allergy Unit, IBIMA, Regional University Hospital of Malaga, UMA, Malaga, Spain

783 A mouse model of walnut allergy mimics key features of the human disease

Michael D. Kulis Jr., PhD¹, Kelly Orgel, BS², Johanna Smeekens, PhD², Soheila J. Maleki, PhD FAAAAI³, Barry K. Hurlburt, PhD³, and Kenneth Bagley, PhD⁴, ¹University of North Carolina School of Medicine, Chapel Hill, NC, ²University of North Carolina, Chapel Hill, NC, ³USDA-ARS-SRRC, New Orleans, LA, ⁴Profectus Biosciences, Baltimore, MD

784 Age Does Not Affect The Safety of Progressive Food Introduction in Food Allergic Children with High Reaction Thresholds Noémie Paradis¹, Béatrice Paradis¹, Louis P. Paradis, MD, FAAAAI², Francois Graham, MD², Jonathan Lacombe Barrios, MD¹, Philippe Begin, MD, PhD, FRCPC, FAAAAI³, and Anne M. Des Roches, MD, FAAAAI¹, ¹Department of Pediatrics, Service of Allergy and Clinical Immunology, Centre Hospitalier Universitaire Sainte-Justine, Montreal, QC, Canada, ²Department of Medicine, Service of Allergy and Clinical Immunology, Centre Hospitalier de l'Université de Montréal, Montreal, QC, Canada, ³Department of Medicine, Division of Allergy and Clinical Immunology, Centre Hospitalier de l'Université de Montréal, Montreal, QC, Canada

- 785 Safety of Mixed Tree Nut Oral Food Challenges in the Management of Multi-Tree Nut Allergic Children and Adolescents Annette Carlisle, MD¹, Andrea Bell, MS RD LD², Emily Shelton², Peggy L. Chandler, APRN², Sheva K. Chervinskiy, DO³, Anne M. Hiegel, RN CRC², Joshua L. Kennedy, MD⁴, Tamara T. Perry, MD³, Stacie M. Jones, MD, FAAAAI³, Amy M. Scurlock, MD⁵, and Robbie D. Pesek, MD^{2,4}, ¹University of Arkansas for Medical Sciences/Arkansas Children's Hospital, Little Rock, AR, ³UAMS/Arkansas Children's Hospital, Little Rock, AR, ⁵Division of Allergy/Immunology, Department of Pediatrics, University of Arkansas for Medical Sciences and Arkansas Children's Hospital, Little Rock, AR
- 786 Caregiver and Expecting Caregiver Support for Early Peanut Introduction Recommendations

Matthew J. Greenhawt, MD MBA MSc¹, David R. Stukus, MD, FAAAAI², Carina Venter, PhD RD³, David M. Fleischer, MD, FAAAAI⁴, Edmond S. Chan, MD, FRCPC⁵, and Allison Hicks, MD⁴, ¹Children's Hospital of Colorado, Aurora, CO, ²Nationwide Children's Hospital, New Albany, OH, ³Children's Hospital of Colorado, Aurora, ⁴Children's Hospital Colorado, Aurora, CO, ⁵Division of Allergy and Immunology, Department of Pediatrics, University of British Columbia, BC Children's Hospital, Vancouver, BC, Canada

787 Caregiver Peanut Feeding Practices Following Oral Food Challenges to Peanut in Infants

Sharon L. Hwang, MD^{1,2}, and Trong V. Le, MD^{1,2}, ¹Nemours A.I. duPont Hospital for Children, Wilmington, DE, ²Thomas Jefferson University Hospital, Philadelphia, PA

788 Baked Egg Oral Immunotherapy (OIT) Induces Significant Immune Modulation in Baked Egg Reactive Subjects and Induces Tolerance to Lightly Cooked Egg

Hannah White¹, April Clark, RDN CSP², Irene Dougherty¹, L. Steven Brown, MS, CPH³, Amy Arneson, RN², Maria Crain, CPNP AE-C², Christopher P. Parrish, MD¹, and J. Andrew Bird, MD, FAAAAI¹, ¹UT Southwestern Medical Center, Dallas, TX, ²Children's Medical Center Dallas, Dallas, TX, ³Department of Health System Research at Parkland Health and Hospital System, Dallas, TX

- 789 Barriers to Implementation of the NIAID Guideline Among Primary Care Physicians and Allergists Elissa Michele Abrams, MD FRCPC¹, Alexander Singer, MB BaO BCh, CCFP², Lianne Soller, PhD³, and Edmond S. Chan, MD, FRCPC³, ¹Section of Allergy and Immunology, Department of Pediatrics, University of Manitoba, Winnipeg, MB, Canada, ²University of Manitoba, Department of Family Medicine, Manitoba Primary Care Research Network, Winnipeg, MB, Canada, ³Division of Allergy and Immunology, Department of Pediatrics, University of British Columbia, BC Children's Hospital, Vancouver, BC, Canada
- 790 Outcomes after Negative Oral Food Challenges to Peanut and Hazelnut: A Survey Study

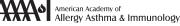
Tamar Weinberger, MD, Ichan School of Medicine at Mount Sinai Hospital, New York, NY, Alana Engelbrecht, NYU Langone Medical Center, New York, Tukisa Smith, MD, Mount Sinai School of Medicine, New York and Anna H. Nowak-Wegrzyn, MD, PhD, FAAAAI, Icahn School of Medicine, New York

791 Synergistic inhibition of Human B cell IgE Secretion by Extracts and Constituents of *Rubia cordifolia* and *Fructus Arctii* Serife Uzun, BS¹, Yujuan Chen, PhD², Nan Yang, PhD¹, Changda Liu, PhD¹, and Xiu-Min Li, MD¹, ¹Icahn School of Medicine at Mount Sinai, New York, NY, ²Changchun University of Science and Technology, JL, P.R.China, Changchun, China

792 Introduction of peanuts in younger siblings of children with peanut allergy: A follow-up

Maxime Paquin, MD¹, Francois Graham, MD¹, Louis P. Paradis, MD, FAAAAI¹, Jonathan Lacombe Barrios, MD², Jean Paradis,





MD, FAAAAI¹, Philippe Begin, MD, PhD, FRCPC, FAAAAI³, and Anne M. Des Roches, MD, FAAAAI², ¹Department of Medicine, Service of Allergy and Clinical Immunology, Centre Hospitalier de l'Université de Montréal, Montreal, QC, Canada, ²Department of Pediatrics, Service of Allergy and Clinical Immunology, Centre Hospitalier Universitaire Sainte-Justine, Montreal, QC, Canada, ³Department of Medicine, Division of Allergy and Clinical Immunology, Centre Hospitalier de l'Université de Montréal, Montreal, QC, Canada

- 793 Cutaneous Exposure to Peanut Oil Induces Systemic and Pulmonary Peanut Hypersensitivity Reaction Shira Benor^{1,2}, Laliv Kadar¹, Shmuel Kivity, MD¹, and Sheila Langier¹, ¹Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, ²Sakler school of Medicine, Tel Aviv University, Tel Aviv, Israel
- 794 Predicting Baked Milk and Baked Egg Challenge Outcomes with Serum Specific IgE Levels Samantha M Knox, MD and Alton Lee Melton, MD, Cleveland Clinic Foundation, Cleveland, OH
- 795 Supervised epinephrine autoinjector administration in a cohort of children with anaphylaxis during oral food challenges (OFCs)

Lianne Soller, PhD¹, Timothy Teoh, MD², Ingrid Baerg, RN, BSN², Tracy Gonzalez, RN, BSN², Tiffany Wong, MD, FRCPC², Kyla J Hildebrand, MD, FRCPC, MScCH (HPTE)², and Edmond S. Chan, MD, FRCPC², ¹Division of Allergy and Immunology, Department of Pediatrics, University of British Columbia, BC Children's Hospital, Vancouver, BC, Canada, ²BC Children's Hospital, Vancouver, BC, Canada

796 Clinical features and allergen analysis in five children with macadamia nut allergy

Koichi Yoshida, MD¹, Shoichiro Shirane, MD², Kazue Kinoshita³, Mayumi Furukawa, MD¹, Yo Omura, MD¹, Emi Kawaguchi, MD⁴, Shoko Matsushita, MD¹, Masako Toda, PhD⁵, Haruyo Nakajima-Adachi, PhD^{1,6}, and Akira Akasawa, MD, PhD¹, ¹Division of Allergy, Tokyo Metropolitan Children's Medical Center, Tokyo, Japan, ²Division of General Pediatrics, Tokyo Metropolitan Children's Medical Center, Tokyo, Japan, ³Molecular Laboratory, Tokyo Metropolitan Children's Medical Center, Tokyo, Japan, ⁴Clinical Research Support Center, Tokyo Metropolitan Children's Medical Center, Tokyo, Japan, ⁵Molecular Allergology, Paul-Ehrlich-Institut, Federal Institute for Vaccines and Biomedicines, Langen, Germany, ⁶Research Center for Food Safety, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan

797 Temporal Trends of Food Specific IgE Levels During and After Anaphylaxis

Alexandra Langlois, MD¹, Sofianne Gabrielli, MSc², Ann Elaine Clarke, MD, MSc³, Sarah De Schryver, MD¹, Greg Shand, BSc, MSc², and Moshe Ben-Shoshan, MD, MSc^{4,5}, ¹Division of Pediatric Allergy and Clinical Immunology, Department of Pediatrics, Montreal Children's hospital, Montreal, QC, Canada, ²The Research Institute of the McGill University Hospital Centre, Montreal, QC, Canada, ³Division of Rheumatology, Department of Medicine, University of Calgary, Calgary, AB, Canada, ⁴The Research Institute of the McGill University Health Center, Montreal, QC, Canada, ⁵Division of Pediatric Allergy and Clinical Immunololgy, Department of Pediatrics, Montreal Children's Hospital, Montreal, QC, Canada

- 798 A Quality Improvement Initiative to Increase Referrals to an Early Peanut Introduction Clinic
 - **Irene Mikhail, MD**¹, Benjamin Prince, MD¹, and David R. Stukus, MD, FAAAAI², ¹Nationwide Children's Hospital, Columbus, OH, ²Nationwide Children's Hospital, New Albany, OH
- 799 Differences in Peanut Allergy Management Between Allergists and Primary Care Providers

Jasmyn E. Atalla, Marshall University Joan C. Edwards School of Medicine, Huntington, WV, Michelle G. Manious, The Ohio State University College of Medicine, Columbus, OH, David R. Stukus, MD, FAAAAI, Nationwide Children's Hospital, New Albany, OH, Elizabeth Erwin, MD, Nationwide Children's, Columbus, OH and Irene Mikhail, MD, Nationwide Children's Hospital, Columbus, OH

- Beta-Lactoglobulin Phenotype in Cow's Milk Allergy: To treat or not to treat?
 Paloma Poza-Guedes, MD, PhD^{1,2}, Ruperto Gonzalez-Perez, MD, PhD², Victor Matheu, MD, PhD², and Inmaculada Sanchez-Machin, MD, PhD², ¹Clinica de Alergia y Asma, Sta Cruz de Tenerife, Spain, ²Hospital Universitario de Canarias, La Laguna, Spain
- 801 Utility of Peanut Component Testing in Children with Peanut Allergy

Yasmin Hamzavi Abedi, MD^{1,2}, Cristina P. Sison, PhD³, and Punita Ponda, MD, FAAAAI^{1,2}, ¹Division of Allergy and Immunology, Northwell Health, Great Neck, NY, ²Departments of Medicine and Pediatrics, Hofstra Northwell School of Medicine, Hempstead, NY, ³Biostatistics Unit, Feinstein Institute for Medical Research, Northwell Health, Manhasset, NY

802 Effects of Pressure and Thermal Processing on Chestnut in vitro Allergic Reactivity Natividad De Las Cuevas, PhD¹, Diego Blanco, MD¹, Ruth Barranco, MD², Jesús Fernández-Crespo, MD, PhD³, and Maria Carmen Dieguez Pastor, MD, PhD¹, ¹Hospital Universitario 12 de

men Dieguez Pastor, MD, PhD¹, ¹Hospital Universitario 12 de Octubre, Madrid, Spain, ²Hospital Universitario 12 de Octubre., Madrid, Spain, ³Instituto de Salud Carlos III, Madrid, Spain

- Effect of anti-IgE antibody on anaphylaxis in a mouse model of wheat-gliadin allergy
 Hajime Arifuku, Kumiya Sugiyama, Shingo Tokita, Hirokuni Hirata and Yasutsugu Fukushima, Dokkyo Medical University Koshigaya Hospital, Koshigaya, Japan
- 804 Simultaneous Detection of Four Major Food Allergens Using a Multiplex Array Stephanie Filep, Bryan Smith, Kristina Reid Black and Martin D. Chapman, PhD FAAAAI, Indoor Biotechnologies, Inc., Charlottesville, VA
- 805 Cannabis Allergy: A Melting "Pot" of Clinical Manifestations Dennis D Wong, MD, PhD, University of Toronto, Toronto, ON, Khaldon F Abbas, York University, Toronto, Robyn Grunberg, University of Western Ontario, Toronto and Gordon Lloyd Sussman, MD, FAAAAI, University of Toronto, Toronto, ON, Canada
- 806 Determining optimal prioritization system for food oral immunotherapy in a tertiary care setting
 Beatrice Paradis¹, Noémie Paradis¹, Jonathan Lacombe Barrios, MD¹, Kathryn Samaan, MD¹, Louis P. Paradis, MD, FAAAAI², Jean Paradis, MD, FAAAAI², Francois Graham, MD², Anne M. Des Roches, MD, FAAAAI¹, and Philippe Begin, MD, PhD, FRCPC, FAAAAI³, ¹Department of Pediatrics, Service of Allergy and Clinical Immunology, Centre Hospitalier Universitaire Sainte-Justine, Montreal, QC, Canada, ²Department of Medicine, Service of Allergy and Clinical Immunology, Centre Hospitalier de l'Université de Montréal, Montreal, QC, Canada, ³Department of Medicine, Division of Allergy and Clinical Immunology, Centre Hospitalier de l'Université de Montréal, Montreal, QC, Canada
- 807 Physician Prescription Patterns of Epinephrine Autoinjectors in Oral Allergy Syndrome Gregory A. Rosner, MD and Luz S. Fonacier, MD, FAAAAI, NYU Winthrop Hospital, Mineola, NY
- 808 Yellow fever vaccine in egg-allergic patients: safety of a vaccination protocol

Gislane S. Juliao, MD¹, Pamela A. Barbosa, MD¹, Pryscilla F. Silva, MD¹, Myllena A. Cunha, MD¹, Caroline F. Formigari, MD¹, Antonio C. Pastorino, MD, PhD², Ana Paula C. Moschione, MD, PhD², Mayra B. Dorna, MD², and Cristiane N. Santos, MD², ¹University of Sao Paulo, São Paulo, Brazil, ²University of Sao Paulo, Sao Paulo, Brazil

809 A Buffer Against an Accidental Exposure is a Major Motivator for Entering a Child in Peanut Allergy Therapy Rebekah Marsh, MA, University of Colorado Denver School of Medicine, Aurura, CO, Hannah Gilbert, MS, Children's Hospital



Colorado, Aurora, CO, Megan Morris, PhD, University of Colorado Denver School of Medicine, Aurora, CO and Matthew J. Greenhawt, MD MBA MSc, Children's Hospital of Colorado, Aurora, CO

- 810 The limited utility of the double-blind food challenge in diagnosing non-IgE mediated cow's milk allergy in infants Kathleen G. Wallace, BA¹, Yamini V. Virkud, MD¹, Sarita U. Patil, MD^{1,2}, Joseph B. Leader, MD³, Caroline Southwick, BA¹, Aubrey J. Katz, MD¹, Wayne G. Shreffler, MD, PhD, FAAAAI^{1,2}, and Navneet K. Virk Hundal, MD¹, ¹Massachusetts General Hospital, Boston, MA, ²Harvard Medical School, Boston, MA, ³Woburn Pediatric Associates, Woburn, MA
- 811 Variability in Reports of Food Allergy-Related Bullying among Food Allergic Children and their Parents Katherine Balas¹, Todd David Green, MD, FAAAAI², Hemant P. Sharma, MD MHS FAAAAI¹, and Linda Herbert, PhD³, ¹Children's National Medical Center, Washington, DC, ²Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA, ³Children's National Health System, Washington, DC
- 812 Assessing the validity of an IRB approved REDCap web based clinical trials recruitment registry

Deanna K Hamilton, RN, University of North Carolina at Chapel Hill, Chapel Hill, NC, Edwin H. Kim, MD, University of North Carolina at Chapel Hill, Chapel Hill, Lauren Herlihy, RN MSN CPNP, UNC Chapel Hill, Chapel Hill, NC, Sarah A. Bennick, RN MSN CPNP, University of North Carolina, Chapel Hill, NC and Emily English, RN CPNP, Univerwsity of North Carolina at Chapel Hill, Chapel Hill, NC

813 The Value of Specific Nut Challenges in Patients with Nut Allergy

Jennifer A Dantzer, MD and Robert A. Wood, MD, FAAAAI, Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD

814 Nut Oral Immunotherapy (NOIT) Using Two or More Nuts Successfully Desensitizes Most Patients

Dena M. Pence, RRT¹, Richard L. Wasserman, MD, PhD, FAAAAI^{1,2}, Robert W. Sugerman, MD, FAAAAI^{1,2}, Qurat Ul Ain Kamili, MD^{1,2}, Angela R. Hague, PA-C¹, Joanna G. Rolen, PA-C¹, and Morley Herbert, PhD³, ¹Allergy Partners of North Texas, Dallas, TX, ²Medical City Children's Hospital, Dallas, TX, ³Medical City Hospital Dallas, Dallas, TX

- 815 Eosinophilic Esophagitis Like Oral Immunotherapy Related Syndrome (ELORS) Richard L. Wasserman, MD, PhD, FAAAAI¹, Robert W. Sugerman, MD, FAAAAI¹, Qurat Ul Ain Kamili, MD¹, Dena M. Pence, RRT², Angela R. Hague, PA-C², and Morley Herbert, PhD³, ¹Medical City Children's Hospital, Dallas, TX, ²Allergy Partners of North Texas, Dallas, TX, ³Medical City Hospital Dallas, Dallas, TX
- 817 The usefulness of tryptase formula for the diagnosis of shrimpinduced anaphylaxis

Thunyatorn Phisitbuntoon, MD¹, Patcharaporn Wongkaewpothong¹, Punchama Pacharn, MD¹, Nualanong Visitsunthorn, MD¹, Pakit Vichyanond, MD, FAAAAI², and Orathai Jirapongsananuruk, MD¹, ¹Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand, ²Samitivej Allergy Institute, Thonburi Hospital, Bangkok, Thailand

- 818 Tree Nut Cross-Reactivity Based on Clinical Allergy Testing Melissa L Robinson, DO, Neema Izadi, MD MS and Bruce J. Lanser, MD, National Jewish Health, Denver, CO
- 819 Extension of home-based induction of sustained unresponsiveness to children with tree nut allergy

Aida Gomez-Cardenosa, MD, Fundacion Jimenez Díaz, Madrid, Spain, Imelda Sexton, Cork University hospital, Cork, Ireland and Jonathan O'B. Hourihane, MD, FAAAAI, Cork University Hospital, Wilton, Ireland; University College Cork, Cork, Ireland 820 Limitations in Current Peanut Oral Immunotherapy (POIT) Practices in the U.S Michael S. Blaiss, MD, FAAAAI¹, Stephen A. Tilles, MD,

Michael S. Blaiss, MD, FAAAAF, Stephen A. Tilles, MD, FAAAAI², Jay A. Lieberman, MD, FAAAAI³, Marie Cassese⁴, Nicholas Georgitseas⁵, Aditya Venugopal, PhD⁴, Ellen Zigmont, PharmD⁶, Kristin Bennett⁶, and Daniel Petroni, MD, PhD⁷, ¹ACAAI Executive Director, Roswell, GA, ²University of Washington, Seattle, WA, ³The University of Tennessee - Memphis, Memphis, TN, ⁴Navigant, New York, NY, ⁵Navigant, London, ⁶Aimmune Therapeutics, San Francisco, ⁷Northwest Asthma Allergy Center, Seattle, WA

821 A Comparison of Food Allergy Research Priorities between the Researcher and Patient Communities

Lucy A Bilaver, PhD¹, Ruchi S. Gupta, MD MPH^{1,2}, Mary Jane Marchisotto³, Linda Herbert, PhD⁴, and Hemant P. Sharma, MD MHS FAAAAI⁵, ¹Northwestern University Feinberg School of Medicine, Chicago, IL, ²Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ³Food Allergy Research & Education (FARE), New York, NY, ⁴Children's National Health System, Washington, DC, ⁵Children's National Medical Center, Washington, DC

- 822 Fish Allergy Diagnosis by Pattern of IgE Sensitization to Different Allergens of Grass Carp in Hong Kong Children Agnes Sze Yin Leung, Ting Fan Leung, MD FRCPCH FAAAAI, Nicki Yat Hin Leung, Christine Yee Yan Wai and Gary Wing Kin Wong, Department of Pediatrics, The Chinese University of Hong Kong, Hong Kong, Hong Kong
- 823 Oral Food Challenges in the Outpatient Office Setting: Assessment of Risk Factors to Predict Best Clinical Outcomes Margo Stevenson, DO¹, Justin C. Greiwe, MD^{2,3}, Umesh Singh, MD, PhD¹, and Jonathan A. Bernstein, MD, FAAAAI^{1,4}, ¹University of Cincinnati, Cincinnati, OH, ²Bernstein Allergy Group, Inc., Cincinnati, OH, ³Division of Immunology, Allergy, and Rheumatology at University of Cincinnati, Cincinnati, OH
 824 Beauty Allergy Decomponent of the Pleasands
- Peanut Allergy Documentation in Electronic Medical Records Michelle G. Manious¹, Jasmyn E. Atalla², Elizabeth A. Erwin, MD³, David R. Stukus, MD, FAAAAI⁴, and Irene Mikhail, MD³, ¹The Ohio State University College of Medicine, Columbus, OH, ²Marshall University Joan C. Edwards School of Medicine, Huntington, WV, ³Nationwide Children's Hospital, Columbus, OH, ⁴Nationwide Children's Hospital, New Albany, OH
- 825 Barriers preventing Canadian parents of children with food allergy from participating in Oral Food Challenges and possible solutions

Elaine Hsu, MPH¹, Lianne Soller, PhD¹, Christopher Mill, MPH¹, Elissa Michele Abrams, MD FRCPC², and Edmond S. Chan, MD, FRCPC¹, ¹Division of Allergy and Immunology, Department of Pediatrics, University of British Columbia, BC Children's Hospital, Vancouver, BC, Canada, ²Section of Allergy and Immunology, Department of Pediatrics, University of Manitoba, Winnipeg, MB, Canada

826 Investigating Parents' Experiences in Re-introducing Baked Milk Foods in Children with Cow's Milk Allergy

Panagiota Athanasopoulou¹, Heather Mackenzie^{1,2}, Elena Deligianni³, Tara Dean¹, and Carina Venter^{1,4}, ¹School of Health Sciences and Social Work, University of Portsmouth, Portsmouth, ²Graduate School, University of Portsmouth, Portsmouth, ³Department of Medicine, Imperial College London, London, ⁴Section of Pediatric Allergy & Immunology, Children's Hospital Colorado, School of Medicine, University of Colorado, Colorado

827 YouTube and Eosinophilic Esophagitis: An Assessment of the Educational Quality of Information Apurva Bansal, MD¹, Keerthi Reddy, MD², Rufaat Mando, MD¹, Santiago Alvarez-Arango, MD³, Joseph Gabriel, MD¹, Sumana Reddy, MD⁴, Lyda Cuervo-Pardo, MD⁵, Anjali Malkani, MD⁶, Chakradhar Reddy, MD⁷, Claudia A. Kozinetz, PhD, MPH⁸, and

Alexei Gonzalez-Estrada, MD⁹, ¹Department of Internal Medicine, East Tennessee State University, Johnson City, TN, ²Department of Pediatrics, East Tennessee State University, Johnson City, TN, ³Department of Medicine, Jacobi Medical Center, New York, NY, ⁴Department of Internal Medicine, University of Alabama, Montgomery, AL, ⁵Suite 1000, Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ⁶Department of Pediatric Gastroenterology, East Tennessee State University, Johnson City, TN, ⁷Department of Gastroenterology, East Tennessee State University, Johnson City, TN, ⁸Department of Biostatistics and Epidemiology, East Tennessee State University, Johnson City, TN, ⁹Division of Allergy and Clinical Immunology, Department of Medicine, East Tennessee State University's Quillen College of Medicine, Johnson CIty, TN

828 Food Allergies Among Patients of South Asian Origin in the United States

Anita N. Wasan, MD, FAAAAI, Allergy and Asthma Center, Mc Lean, VA and Anil Nanda, MD, FAAAAI, University of Texas Southwestern Medical Center, Dallas, TX; Asthma and Allergy Center, Lewisville, TX

829 The Reliability of Self-reported Food Allergy in Thai Adults Thatchai Kampitak, MD, Samitivej Sukhumvit Hospital, Bangkok, Thailand

830 Sustained unresponsiveness is maintained despite erratic peanut consumption after home-based induction: telephone follow up Jonathan O'B. Hourihane, MD, FAAAAI, Cork University Hospital, Wilton, Ireland; University College Cork, Cork, Ireland, Aida Gomez-Cardenosa, MD, Fundacion Jimenez Díaz, Madrid, Spain and Imelda Sexton, Cork University hospital, Cork, Ireland

831 Characteristics of Preschool-Aged Children Currently Enrolled in a Phase II Double Blind Placebo Controlled Study of Peanut Sublingual Immunotherapy

Quindelyn Cook, MD, Ahmad Hamad, MD, Lauren Herlihy, RN MSN CPNP, A. Wesley Burks, MD, FAAAAI and Edwin H. Kim, MD, University of North Carolina at Chapel Hill, Chapel Hill, NC

- 832 Diagnostic utility of changes in egg-specific IgE in infants with atopic dermatitis Chiho Tatsumoto¹, Mizuho Nagao, MD, PhD², and Takao Fujisawa, MD, FAAAAI², ¹Aozora children's clinic, Kagoshima-city,
- Japan, ²Mie National Hospital, Mie, Japan
 Bioinformatics and Proteomics Evaluations to Consider IgE Binding Assays for Potential Cross-Reactivity Between House-Cricket (Aceta domesticus) Used in Food, Crustaceans and Cockroaches

Mohamed Abdelmoteleb, MS¹, Lee K. Palmer, MS¹, Natalia Pavlovikj, MS², Justin T. Marsh, PhD¹, Philip E. Johnson, PhD¹, and Richard E. Goodman, PhD FAAAAI¹, ¹Food Allergy Research and Resource Program, Dept. of Food Science & Technology, University of Nebraska-Lincoln, Lincoln, NE, ²University of Nebraska-Lincoln, Lincoln, NE

834 Safety and Effectiveness of Oral Food Challenge in Children with Cow's Milk Allergy: Clinical Experience from a Brazilian Reference Center

Ana Laura Mendes Becker Andrade, MD¹, Príscila da Silva Pereira, MD², Carla de Oliveira Parra Duarte, MD¹, Atila Lima da Silva, MD¹, Maria Marluce Dos Santos Vilela, MD, PhD¹, Marcos Tadeu Nolasco da Silva, MD, PhD¹, Maria Angela Bellomo Brandão, MD, PhD², and Adriana Gut Lopes Riccetto, MD, PhD¹, ¹Division of Allergy and Immunology, Department of Pediatrics, University of Campinas, Campinas, Brazil, ²Division of Gastroenterology, Department of Pediatrics, University of Campinas, Campinas, Brazil

835 The Role of Allergists in the Diagnosis and Management of Food Hypersensitivity

Julia Thorsen, MD, MPH¹, Elizabeth A. Erwin, MD¹, Irene Mikhail, MD¹, and Rebecca Scherzer, MD, FAAAAl², ¹Nationwide Children's Hospital, Columbus, OH, ²Division of Allergy & Immunology, Nationwide Children's Hospital, Columbus, OH

836 Early Immunologic Shifts Occurring in Cow's Milk (CM) Oral Immunotherapy (OIT) Jose Luiz Rios, MD, PhD^{1,2}, Alfredo Alves Neto³, Flávia de Carvalho Loyola⁴, Marilúcia Alves da Venda⁴, Amannda Oliveira Rodrigues Andrade⁴, and Carolina Oliveira Santos⁴, ¹Faculdade de Medicina de Petrópolis, Rio de Janeiro, Brazil, ²Policlinica Geral do Rio de Janeiro- Faculdade de Medicina de Petropólis, Rio de Janeiro, Brazil, ³Policlinica Geral do Rio de Janeiro- Faculdade De

Medicina De Petrópolis, Copacabana, Brazil, ⁴Policlinica Geral do Rio de Janeiro- Faculdade De Medicina De Petrópolis, Rio de Janeiro, Brazil

837 Prevalence of Peanut and Tree Nut Allergy and Sensitization in an Urban Clinic Population

Joyce E. Yu, MD, FAAAAI, Columbia University Medical Center, Division of Pediatric Allergy & Immunology, New York, NY

- 838 Analysis of Soy Allergy Using Molecular Component Testing Dallas C. Jones, Amanda L. Hays and Michelle L. Altrich, PhD, Viracor Eurofins, Lee's Summit, MO
- 839 Creating A Multi-Center Pediatric Food Allergy Database and Sample Repository

Alanna G. Wong, MD, University of Rochester School of Medicine and Dentistry, Rochester, NY, Lisa Guasp, RN, Department of Pediatrics, Division of Pediatric Allergy and Immunology, University of Rochester Medical Center, Rochester, NY, Kirsi M. Jarvinen-Seppo, MD, PhD, FAAAAI, University of Rochester, Rochester, NY and Stephanie A. Leonard, MD, University of California-San Diego/Rady Children's Hospital, San Diego, CA

Primary Immune Deficiency: QOL and New Therapies

HEDQ

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840 Determinants of health related quality of life (HRQoL) in adult patients with hereditary angioedema due to C1 inhibitor deficiency (C1-INH-HAE)

Marina Lluncor, MD¹, Donatella Lamacchia, MD², Adriana Hernanz, MS¹, Maria Pedrosa, MD, PhD¹, Ana Alvez, MD¹, Rosario Cabañas, MD, PhD¹, Nieves Prior, MD, PhD³, and Teresa Caballero, MD, PhD^{4,5}, ¹Department of Allergy, Hospital La Paz Institute for Health Research (IdiPaz), Madrid, Spain, ²Department of Translational Medical Sciences, Center of Basic and Clinical Immunology Research, University of Naples Federico II, Naples, Italy, ³Department of Allergy, Hospital Universitario Severo Ochoa, Leganés, Madrid, Spain, ⁴Biomedical Research Network on Rare Diseases (CIBERER, U754), Madrid, Spain, ⁵Allergy Department, Hospital La Paz Institute for Health Research (IdiPaz), Madrid, Spain

841 Pre-filled Syringes For Immunoglobulin Therapy: A Pragmatic Review Of Clinical Experience From Other Disease Settings Ayman R Kafal, PhD¹, Donald C Vinh, MD², and Mélanie J Langelier, MSc², ¹CSL Behring LLC, King of Prussia, PA, ²Research Institute - McGill University Health Centre, Montreal, QC, Canada

842 Real-world experience of a cohort of previously untreated PI patients on SCIG

Christopher Scalchunes, MPA¹, Rajiv Mallick, PhD², Jacob M. Romano, PharmD, RPh, BS², and Tiffany S. Henderson, PHD¹,



¹Immune Deficiency Foundation, Towson, MD, ²CSL Behring, King of Prussia, PA

- 843 Prevalence And Outcomes Of Primary Immunodeficiency In Hospitalized Children In The United States
 Zachary Rubin, MD, Andrea A. Pappalardo, MD, Alan Schwartz, PhD, and James W Antoon, MD, PhD, University of Illinois at Chicago, Chicago, IL
 844 High treatment satisfaction with Hizentra, a 20% subcutaneous
- immunoglobulin (SCIG): real-world survey data Jacob M. Romano, PharmD, RPh, BS and Rajiv Mallick, PhD, CSL Behring, King of Prussia, PA
- 845 Infusion Parameters and Adverse Events in Patients With Primary Immunodeficiency Diseases Who Switched to Subcutaneous Human Immune Globulin 20% (Ig20Gly) From Intravenous or Subcutaneous Immune Globulin

Iftikhar Hussain¹, Kenneth Paris², Amy Darter³, Lisa J. Kobrynski, MD, MPH⁴, Todd Berner⁵, Barbara McCoy⁶, Ping Wang⁶, Christopher J. Rabbat⁵, and Leman Yel⁶, ¹Allergy, Asthma, and Immunology Center, Tulsa, OK, ²LSU Health Sciences Center, Children's Hospital of New Orleans, New Orleans, LA, ³Oklahoma Institute of Allergy Asthma & Immunology, Oklahoma City, OK, ⁴Emory University, Atlanta, GA, ⁵Shire, Inc, Chicago, IL, ⁶Shire, Inc, Cambridge, MA

846 Onboarding Experience of Pediatric Patients With Primary Immunodeficiency Diseases With Subcutaneous Human Immune Globulin 20% (Ig20Gly)

Kenneth Paris¹, Iftikhar Hussain², Sudhir Gupta³, Ping Wang⁴, Barbara McCoy⁴, Christopher J. Rabbat⁵, and Leman Yel⁴, ¹LSU Health Sciences Center, Children's Hospital of New Orleans, New Orleans, LA, ²Allergy, Asthma, and Immunology Center, Tulsa, OK, ³University of California at Irvine, Irvine, CA, ⁴Shire, Cambridge, MA, ⁵Shire, Chicago, IL

847 Patient-reported experience on training associated with subcutaneous immunoglobulin (SCIG) therapy self-administration Tiffany S. Henderson, PHD¹, Rajiv Mallick, PhD², Jacob M. Romano², and Christopher Scalchunes, MPA¹, ¹Immune Deficiency Foundation, Towson, MD, ²CSL Behring, King of Prussia, PA

Individualized Medicine: From Genetics to EMR to Patient Satisfaction

HEDQ

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848 Increasing Provider Use of Patient-Centered EMR Behaviors in a Quality Improvement Project

Stefani Su, MD¹, Anu Mallapaty, DO², and Jennifer A. Shih, MD¹, ¹Emory University, Atlanta, GA, ²Emory School of Medicine, Atlanta, GA

849 Addressing Specific Patient Expectations in the Allergy/Immunology Outpatient Clinic is Associated with Increased Patient Satisfaction

Jaclyn Bjelac, MD, Cleveland Clinic, Cleveland, OH and Brian C. Schroer, MD, Cleveland Clinic Foundation, Cleveland, OH

850 Implications of population admixing and ancestry on allergic disease

Chan Ok Shin¹, Hwan Soo Kim^{1,2}, Yoon Hong Chun¹, Jong Seo Yoon³, Hyun Hee Kim⁴, and Jin-Tack Kim, MD, PhD⁵, ¹The Catholic University of Korea, Seoul, ²Seoul St. Mary's Hospital, Seoul, Korea, Republic of (South), ³⁵⁰⁵ Banpo-dong, The Cathololic

Univ.of Korea, Seocho-gu, Korea, ⁴271 Cheonbo-ro, Uijeongbusi, Dept. of Pediatrics, The Catholic University of Korea, Kyunggi-Do, Korea, ⁵Uijeongbu St. Mary's Hospital, Uijeongbu, Korea

851 miRNAs in breast milk may correlate with early onset of allergy Hiroki Murai, MD, PhD, University of Fukui, Department of Pediatrics, Fukui, Japan, Naohiro Itoh, University of Fukui, Eiheijicho, Japan, Akiko Kawasaki, University of fukui, Eiheiji-cho, Japan, Motoko Yasutomi, University of Fukui, Eiheiji-cho and Yusei Ohshima, University of Fukui, eiheiji-cho, Japan

852 The 10,000 Immunomes Project: A Resource for Human Immunology Matthew J. Kan, MD, PhD¹, Kelly Zalocusky, PhD¹, Zicheng Hu, PhD¹, Patrick Dunn², Elizabeth Thomson², Jeffrey Wiser², Sanchita Bhattacharya, PhD³, and Atul Butte, MD, PhD⁴, ¹University of California, San Francisco, San Francisco, CA, ²Northrop Grumman, Rockville, MD, ³UCSF, San Francisco, CA, ⁴UCSF School of Med-

853 Does pregnancy change the effect of methQTL on DNA methylation and alter the risk of eczema? Su Chen¹, Wilfried Karmaus, MD¹, Rumana Siddique¹, Nandini Mukherjee, PhD candidate¹, Vimala D Janjanam¹, Hasan Arshad, MD^{2,3}, Hongmei Zhang, PhD¹, and John W. Holloway, BSc PhD², ¹The University of Memphis, Memphis, TN, ²University of Southampton, Southampton, United Kingdom, ³University of Southampton, Isle of Wright, United Kingdom

icine, San Francisco, CA

Chronic Rhinosinusitis: With and Without Nasal Polyps

IRSO

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854 Sneezing and nasal itching: a potential risk factor for postoperative recurrence of chronic rhinosinusitis

Su Young Jung, MD¹, Myung Jin Park, MD¹, Jin Young Min, MD, PhD², and Sung Wan Kim, MD, PhD¹, ¹Department of Otorhinolaryngology-Head and Neck Surgery, School of Medicine, Kyung Hee University, Seoul, Korea, Seoul, Korea, Republic of (South), ²Department of Otorhinolaryngology-Head and Neck Surgery, School of Medicine, Kyung Hee University, Seoul, Korea, Republic of (South)

855 Efficacy of Reslizumab in Eosinophilic Chronic Sinusitis with Nasal Polyposis

Merin Elizabeth Kuruvilla, MD, Emory University School of Medicine, Atlanta, GA and Joshua Levy, Emory University, Atlanta, GA

856 Eosinophilic inflammation of the paranasal sinuses and reduced nasal nitric oxide levels in patients with chronic rhinosinusitis Kanako Yoshida, MD, Tetsuji Takabayashi, MD, Masafumi Sakashita, MD, Yoshimasa Imoto, MD, PhD, Norihiko Narita, MD, and Shigeharu Fujieda, MD, University of Fukui, Fukui, Japan

857 Vitamin D inhibits TGF-β1-induced myofibroblast differentiation and extracellular matrix production via Smad2/3 signaling pathway in nasal polyp-derived fibroblasts

Jae-Min Shin^{1,2}, Hyun-Woo Yang³, Seoung Ae Lee², Joo-Hoo Park³, Hwee-Jin Kim³, and Heung Man Lee^{1,2}, ¹Korea University Guro Hospital, Seoul, ²Institute for Medical Devices Translation Clinical Trial Support Center, Korea University Guro Hospital,



Seoul, ³Division of Brain Korea 21 Program for Biomedical Science, Korea University, College of Medicine, Seoul

858 Otologic Complications in Aspirin Exacerbated Respiratory Disease

Jyotsna Mullur, MD, Jing Cui, MD, PhD, Rachel Roditi, MD, and Katherine N. Cahill, MD, Brigham and Women's Hospital, Boston, MA

Allergic Rhinitis: Diagnosis and Treatment

IRSO

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- 859 Allergy in IgG4-related disease Shoko Matsui, Seisuke Okazawa, Kohtaro Tokui, Kenta Kambara, Shingo Imanishi, Chihiro Taka, Tohru Yamada, Minehiko Inomata, Toshiro Miwa and Ryuji Hayashi, University of Toyama, Toyama
- 860 Efficacy Of Nasal Allergen Provocation Test In The Diagnosis Of Dermatophagoides Pteronyssinus Allergic Rhinitis Jose S. Rodriguez Canosa, MSc¹, Sandy Stephanie Aguilar Gavilanes, MD², Raúl Lázaro Castro Almarales, MD³, Mirta Álvarez Castelló, MD⁴, Belkis Lopez Gonzalez, MD.², Mercedes Ronquillo Diaz, MSc¹, Mayda González León, MD⁵, Wendy Ramirez Gonzalez, MSc³, Bárbara Ivonne Navarro Viltre, MD⁶, Maivis Cabrera Quiala, MD⁷, Maytee Mateo Morejon, MSc⁸, Mary Carmen Reyes Zamora, MD3, and Alexis Labrada Rosado, PhD.9, 1"Calixto García Iñiguez" Hospital, Department of Allergy, Havana, Cuba, ²Calixto García University Hospital, Havana, Cuba, ³National Center of Bioproducts, Bejucal, Mayabeque, Cuba, ⁴General Calixto García University Hospital, Havana, Cuba, ⁵Pedro Fonseca Álvarez Docent Polyclinic, Cuba, ⁶Sanitary Hospital, Barcelona, Spain, ⁷Jorge Soberón, General Hospital, Iguala, Mexico, ⁸National Center of Bioproducts BioCen, Bejucal, Mayabeque, Cuba, ⁹National Center of Bioproducts, Bejucal, Cuba
- 861 The effect of standardized house-dust mite extract in subcutaneous immunotherapy

Yuya Tanaka, Ikuo Okafuji and Satoru Tsuruta, Kobe city general hospital medical center, Kobe-city, Japan

- 862 Systemic Reactions Occurring With Rapid Induction of Aeroallergen Immunotherapy at a Single Academic Center Margaret Huntwork, MD, Evan Atkinson, MD, and John C. Carlson, MD, PhD, Tulane University, New Orleans, LA
 862 Breid heider in Schemener Amerikansen June Margaret Huntwork
- 863 Rapid build-up in Subcutaneous Aeroallergen Immunotherapy (SCIT) refill dosing

Chandra S. Punch, MD¹, James Hughes, BA², and Taylor A. Banks, MD¹, ¹Walter Reed National Military Medical Center, Bethesda, MD, ²Uniformed Services University of Health Sciences, Bethesda, MD

864 The Effectiveness Of Immunotherapy For Allergic Asthma Among Different Weight Categories

Roshini Kuriakose, MD, Hofstra Northwell School of Medicine, Manhasset, NY, Nina Kohn, MBA, MA, Feinstein Institute for Medical Research, Department of Biostatistics, Manhasset, NY and Sherry Farzan, MD, Departments of Internal Medicine & Pediatrics, Division of Allergy & Immunology, Hofstra Northwell School of Medicine, Great Neck, NY

865 Changes of Regulatory T cells after Allergen-specific Subcutaneous Immunotherapy, Rush Protocol, in Children Tipyapa Rattanamanee, MD, Department of Pediatrics, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand and Wiparat Manuyakorn, MD, Rama 6 Rd., Ramathibodi Hospital, Bangkok, Thailand 866 Nasal allergen provocation tests in inner-city patients with perennial local allergic rhinitis

Denisa E. Ferastraoaru, MD¹, Nadeem Akbar, MD¹, Waleed M. Abuzeid, MD², Elina Jerschow, MD, FAAAAI¹, and David L. Rosenstreich, MD, FAAAAI², ¹Albert Einstein College of Medical Center, Bronx, NY, ²Albert Einstein College of Medicine/ Montefiore Medical Center, Bronx, NY

- 867 Exhalation Delivery Systems (EDS) Greatly Increase Topical Delivery to Target Sites for Chronic Rhinosinusitis (CRS) Compared to Nasal Sprays or Pressurized MDIs (pMDI) Per G. Djupesland, MD, PhD¹, John C. Messina Jr., PharmD², and Ramy A. Mahmoud, MD, MPH², ¹OptiNose AS, Oslo, Norway, ²Optinose US, Inc., Yardley, PA
- High consistency in allergen composition of SQ house dust mite (HDM) tablet for sublingual immunotherapy (SLIT)
 Helene Henmar, MSc¹, Andrew Mikles², Karin Grosch¹, and Jorgen N. Larsen, PhD¹, ¹ALK A/S, Horsholm, Denmark, ²ALK A/S, Post Falls, ID
- 869 Efficacy of the SQ HDM SLIT-tablet on House Dust Mite Induced Allergic Conjunctivitis

Hendrik Nolte, MD, PhD, ALK, US, Basking Ridge, NJ, Harold S. Nelson, MD, FAAAAI, National Jewish Health, Denver, CO, Pascal M. Demoly, MD, PhD, University Hospital of Montpellier, University Hospital of Montpellier, Paris, France, Ida M Smith, PhD, ALK, Horsholm, Denmark and David I. Bernstein, MD, FAAAAI, Bernstein Clinical Research Center, LLC, Cincinnati, OH; University of Cincinnati, Cincinnati, OH

Hyper Eosinophilic Syndrome, EoE and Mastocytocis

MAAI

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- 870 Systemic Mastocytosis (SM) and Mast Cell Activation Syndrome (MCAS); How Do They Differ?
 Catherine R Weiler, MD, PhD, FAAAAI, Rabe E Alhurani, MBBS, MS, Joseph H. Butterfield, MD, FAAAAI and Rohit Divekar, MBBS PhD, Mayo Clinic, Rochester, MN
- 871 Pediatric Mast Cell Activation Syndrome Anupama Ravi, MD, Jeffrey Meeusen, PhD, Rohit Divekar, MBBS PhD, Leslie Donato, PhD, Martha F. Hartz, MD, FAAAAI and Joseph H. Butterfield, MD, FAAAAI, Mayo Clinic, Rochester, MN
- 872 EFFECT OF TOFACITINIB ON IGE-MEDIATED DEGRAN-ULATION OF LAD2 HUMAN MAST CELLS AND PGD2 PRODUCTION

Arnold Kirshenbaum, MD, FAAAAI, Yun Bai, MS and Dean D. Metcalfe, MD, FAAAAI, NIH/NIAID/LAD, Bethesda, MD

- 873 Development of a Biomarker of Pre-existing IgE Crosslinking on Human Basophils Santiago Alvarez Arango, MD, Johns Hopkins University, Baltimore and Donald W. MacGlashan, MD, PhD, Johns Hopkins University, Baltimore, MD
- 874 Etiologies of Severe Hypereosinophilia Evaluated in Children Hospitalized at a Tertiary Care Center Nicholas L. Hartog, MD, Helen DeVos Children's Hospital, Rockford, MI; Spectrum Health, Grand Rapids, MI and Avraham Beigelman, MD, MSCI, FAAAAI, Washington University, Saint Louis, MO
- 875 Blood Eosinophil Beta1-Integrin Activation Correlates with Eosinophilic Esophagitis (EoE) Disease Activity



Mats W Johansson, PhD¹, Michael D Evans, MS², Elizabeth McKernan, BS³, Paul S Fichtinger, BS³, Evelyn L Angulo, MD³, Deane F Mosher, MD⁴, Shelly M Cook, MD⁵, Eric A Gaumnitz, MD³, and Sameer K Mathur, MD, PhD, FAAAAl³, ¹University of Wisconsin School of Medicine, Madison, WI, ²Department of Biostatistics and Medical Informatics, University of Wisconsin, Madison, WI, ³Department of Medicine, University of Wisconsin, Madison, WI, ⁴Departments of Biomolecular Chemistry and Medicine, University of Wisconsin, Madison, WI, ⁵Department of Pathology and Laboratory Medicine, University of Wisconsin, Madison, WI

876 Hyper-Eosinophilic Syndrome and Partial Duplication of Chromosome 21

> **Dikla Adir, MD¹**, Shira Benor², Dror Levin¹, and David Hagin, MD³, ¹Tel Aviv "Sourasky" medical center, Tel Aviv, Israel, ²Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, ³Tel-Aviv Sourasky Medical Center, Tel-Aviv University, Israel, Tel-Aviv, Israel

Soluble Siglec-8 Levels Are Detectable In Subjects With Myeloid Variant Hypereosinophilic Syndromes, But Not In Those With D816V KIT⁺ Systemic Mastocytosis
 Fanny Legrand, PhD PharmD¹, Yun Cao, MS², Dean D. Met-

calfe, MD, FAAAAI³, Paneez Khoury, MD, FAAAAI⁴, Bruce S. Bochner, MD, FAAAAI⁵, and Amy D. Klion, MD¹, ¹National Institutes of Health, Bethesda, MD, ²Northwestern University, Allergy Immunology, Chicago, IL, ³NIH/NIAID/LAD, Bethesda, MD, ⁴NIH/NIAID, Bethesda, MD, ⁵Northwestern University, Allergy and Immunology, Chicago, IL

- 878 Myeloproliferative Hypereosinophilic Syndrome: Retrospective Analysis of Cytogenetic and Molecular Features Thanai Pongdee, MD, FAAAAI, Mayo Clinic, Rochester, MN, Irina Maric, NIH, Bethesda, MD, Paneez Khoury, MD, FAAAAI, NIH/NIAID, Bethesda, MD, and Amy D. Klion, MD, National Institutes of Health, Bethesda, MD
 879 Pediatric hypereosinophilia: characteristics, clinical manifesta-
- 879 Pediatric hypereosinophilia: characteristics, clinical manifestations and diagnoses

Dara Burris, MPH, Chen E Rosenberg, MD, Justin T Schwartz, MD, PhD, Michael Eby, Juan Pablo Abonia, MD, and Patricia C. Fulkerson, MD, PhD, Division of Allergy and Immunology, Cincinnati Children's Hospital, Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH

880 Cardiac Manifestations of Idiopathic Hypereosinophilic Syndrome

Dayne H. Voelker, MD¹, Jay Jin, MD, PhD², and Thanai Pongdee, MD, FAAAAI², ¹Mayo Clinic School of Graduate Medical Education, Rochester, MN, ²Mayo Clinic, Rochester, MN

881 Mepolizumab as a successful steroid-sparing agent in two patients with idiopathic hypereosinophilic syndrome (iHES) Canting Guo, MD, Division of Allergy/Immunology, Department of Medicine, Northwestern University, Feinberg School of Medicine, Chicago, IL and Bruce S. Bochner, MD, FAAAAI, Northwestern University, Allergy and Immunology, Chicago, IL

Food Allergies: Microbiome and Allergic Disease

MAAI

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882 Role of anti-inflammatory cytokine IL-35 in the effects of sublingual immunotherapy

Hideaki Kouzaki, MD, Shiga University of Medical Science, Otsu, Shiga, Japan, Atsushi Yuta, MD, Yuta clinic, Tsu, Mie, Japan,

Masahiko Arikata, Arikata clinic, Ritto, Shiga, Japan and Takeshi Shimizu, Shiga Univaersity of Medical Science, Otsu, Shiga, Japan

- 883 Effect of adipose-derived stem cell and non-methylated CpG-ODN on Peripheral blood CD4+CD25+regulatory T cell in young mice of food allergy
 - Chengzhong Zheng Sr., 306 hospital of PLA, Beijing, China
- 884 Laboratory Animal Allergy and Pet Allergy among Korean Laboratory Animal Researchers

Sang Min Lee, Jeong Woo Shim, Hong Seok Park and Sang Pyo Lee, Gachon University Gil Medical Center, Incheon, Korea, Republic of (South)

885 Epigenome-wide Association Study of the Effect of Maternal Age on Offspring DNA Methylation John W. Holloway, BSc PhD¹, Cory H. White¹, Ahmad Alzahrani¹, Hongmei Zhang, PhD², Susan Ewart³, Linda S. Mansfield,

VMD, PhD³, Hasan Arshad, MD^{1,4}, Wilfried Karmaus, MD², and Faisal I Rezwan¹, ¹University of Southampton, Southampton, United Kingdom, ²The University of Memphis, Memphis, TN, ³Michigan State University, East Lansing, MI, ⁴University of Southampton, Isle of Wright, United Kingdom

886 Dysbiosis of intestinal microbiota increases mortality to a respiratory viral infection through elevated production of $IFN\gamma$ by innate lymphoid cells

Syed-Rehan A Hussain, PhD¹, Jennifer L Santoro¹, Michelle Rohlfing¹, Nita H. Salzman, MD, PhD², and Mitchell H. Grayson, MD, FAAAAl³, ¹Nationwide Children's Hospital, Columbus, OH, ²Medical College of Wisconsin, Milwaukee, WI, ³Nationwide Children's Hospital / The Ohio State University, Columbus, OH

887 Nasal Colonization with S. *aureus* is Associated with Allergic Sensitization in Children with Chronic Rhinitis

Gina T. Coscia, MD^{1,2}, Matthew Perzanowski, PhD^{3,4}, Hannah Smith, BS⁵, Chanelle Ryan, BS⁶, and Paul J Planet, MD, PhD^{6,7}, ¹Hofstra Northwell School of Medicine, Great Neck, NY, ²Department of Pediatrics, Division of Allergy and Immunology, Cohen Children's Medical Center, New Hyde Park, NY, ³Columbia University, New York, NY, ⁴Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY, ⁵Oregon Health and Science University, Portland, OR, ⁶Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA, ⁷Department of Pediatrics, Division of Pediatric Infectious Diseases, Children's Hospital of Philadelphia, Philadelphia, PA

889 Different clinical feature among asthmatics according to airway microbiome clusters

Young-Chan Kim¹, Boram Bae², Sungmi Choi³, Kyoung-Hee Sohn^{2,4}, Hye Jung Park⁵, Min-Gyu Kang⁶, Min-Suk Yang⁷, Jae-Woo Jung⁸, Sang Min Lee⁹, Sae-Hoon Kim¹⁰, Sang-Heon Cho^{2,11}, Hana Yi^{3,12}, and Hye-Ryun Kang^{2,11}, ¹Department of Internal Medicine, Seoul National University Hospital, Seoul, Korea, Republic of (South), ²Institute of Allergy and Clinical Immunology, Seoul National University Medical Research Center, Seoul National University College of Medicine, Seoul, ³Department of Public Health Sciences, Graduate School, Korea University, Seoul, ⁴Seoul National University Hospital Public Health Agency, Seoul, ⁵Department of Internal Medicine, Yonsei University College of Medicine, Yongin Severance Hospital, Yongin, ⁶Department of Internal Medicine, Chungbuk National University Hospital, Cheongju-si, Korea, ⁷Department of Internal Medicine, SMG-SNU Boramae Medical Center, Seoul, Korea, Republic of (South), ⁸Department of Internal Medicine, Chung-Ang University College of Medicine, Seoul, 9Department of Internal Medicine, Gachon University Gil Medical Center, Incheon, ¹⁰Department of Internal Medicine, Seoul National University Bundang Hospital, Seongnam, Korea, Republic of (South), 11Department of Internal Medicine, Seoul National University Hospital, Seoul, Korea, 12School of Biosystem and Biomedical Science, Korea University, Seoul



890 Allergic diseases in childhood: What allergic sensitization can teach us?

Carolina S. Aranda, MD¹, Renata Cocco, MD², Felipe Pierotti³, Marcia Carvalho Mallozi⁴, Neusa F Wandalsen⁵, Jackeline Motta Franco⁶, Lillian L. Moraes⁷, Ekaterine S. Goudouris⁸, Arnaldo Carlos Porto Neto, MD, FAAAAI9, Emanuel S. Sarinho, MD, PhD¹⁰, Nelson Augusto Rosario, MD, PhD, FAAAAI¹¹, Antonio Carlos Pastorino¹², Flavio Sano, MD¹³, Maria Letícia Freitas Silva Chavarria, MD MS14, Magnus Borres, MD, FAAAAI15, and Dirceu Sole, MD, PhD, FAAAAI², ¹Federal University of Sao Paulo, Sao Paulo, Brazil, ²Federal University of São Paulo, Sao Paulo, Brazil, ³Federal University of São Paulo, São Paulo, ⁴Federal University of São Paulo, Planalto Paulista, Brazil, ⁵Faculty of Medicine ABC, Santo Andre, Brazil, ⁶Federal University of Sergipe, Aracaju, Brazil, ⁷Federal University of Mato Grosso, Cuiaba, Brazil, ⁸UFRJ-IPPMG, Rio De Janeiro, Brazil, ⁹School of Medicine UPF, PASSO FUNDO, Brazil, ¹⁰University Federal of Pernambuco, Brazil, Recife, Brazil, ¹¹Federal University of Paraná, Curitiba, Brazil, 12 University of São Paulo, Santana, Brazil, ¹³Hospital Nipo Brasileiro, Sao Paulo, Brazil, ¹⁴Edificio de Clinicas, Goiania, Brazil, ¹⁵Uppsala University & ThermoFisher Scientific, Uppsala, Sweden

891 Exposure to Peanut Flour through Disturbed Skin Initiates Peanut Allergy via the T Follicular Helper T (Tfh) Cell-Dependent Pathway in Mice

Koji Iijima, PhD, Takao Kobayashi, PhD, James W. Krempski, Takayasu Nomura, MD, and Hirohito Kita, MD, Mayo Clinic, Rochester, MN

- **892** Administration of the CXCR2 inhibitor reparixin in sensitized mice inhibits allergen-challenge induced allergic inflammation Koa Hosoki, MD, PhD and Sanjiv Sur, MD, University of Texas Medical Branch, Galveston, TX
- 893 Relevance of N-terminus amino acids in CCL28 mediated murine airway hyper-reactivity Michelle Rohlfing¹, Jennifer L Santoro¹, Syed-Rehan A Hussain, PhD¹, Monica Thomas², Brian Volkman, PhD², and Mitchell H. Grayson, MD, FAAAAI³, ¹Nationwide Children's Hospital, Columbus, OH, ²Medical College of Wisconsin, Milwaukee, WI, ³Nation
- wide Children's Hospital / The Ohio State University, Columbus, OH
 894 Studies on the allergens of peach pollen in an area of high exposure to peach trees cultivars
 Miguel Blanca, MD, PhD, Hospital Infanta Leonor, Madrid,

Asthma and Airway Immunology

ADT

4601

Monday, March 5th, 2018, 2:00 PM - 3:15 PM

Testosterone decreases and ovarian hormones increase house dust mite-induced dual type 2 and IL-17A-mediated airway inflammation

Hubaida Fuseini^{1,2}, Jacqueline Cephus³, Jeffrey A Yung², Kasia Goleniewska^{4,5}, Stokes Peebles, MD, FAAAAI⁶, and Dawn C. Newcomb, PhD⁴, ¹Department of Pathology, Microbiology and Immunology, Vanderbilt University, Nashville, TN, ²Vanderbilt University, Nashville, TN, ²Vanderbilt University, Nashville, TN, ⁴Vanderbilt University Medical Center, Nashville, TN, ⁵Division of Allergy, Pulmonary, and Critical Care Medicine, Vanderbilt University, Nashville, TN, ⁶Vanderbilt Univ School of Medicine, Nashville, TN

896 Celastrol Alleviates Airway Hyperresponsiveness by Downregulating Th17 in Obese Asthmatic Mice Weixi Zhang, MD, PhD¹, Ze-Yu Zeng, MD¹, and Wei Zhao, MD,

Weixi Zhang, MD, PhD, Ze-Yu Zeng, MD, and Wei Zhao, MD, PhD, FAAAAI², ¹Department of Pediatrics, Yuying Children's Hospital, Wenzhou Medical U, Wenzhou, China, ²PO Box 980225, Virginia Commonwealth University, Richmond, VA

897 A Jagged1-Notch4 interaction between Alveolar Macrophages and Allergen-Specific T cells Mediates Airway Inflammation by Ultrafine Particles

Hani Harb¹, Mingcan Xia¹, Arian Saffari², Constantinos Sioutas³, and Talal A. Chatila, MD MSc⁴, ¹Boston Children's Hospital, Boston, MA, ²Department of Civil and Environmental Engineering, Los Angeles, CA, ³Department of Civil and Environmental Engineering, Los Angeles, CA, ⁴Division of Immunology, Boston Children's Hospital, Harvard Medical School, Boston, MA

- 898 Asthma associated transcriptomic profiles differ by tissue Debajyoti Ghosh, PhD¹, Jonathan A. Bernstein, MD, FAAAAI¹, Esmond Geh, MD, PhD², and Tesfaye B Mersha, PhD³, ¹University of Cincinnati College of Medicine, Cincinnati, OH, ²University of Cincinnati, Cincinnati, OH, ³Cincinnati Children's Hospital Medical Center, Cincinnati, OH
- 899 IL-5Rα expression on airway neutrophils in children with treatment-refractory asthma

Monica G. Lawrence, MD, MR4 Building, Room 5051a, Univ of Virginia Division of Asthma Allergy & Immunology, Charlottesville, VA, MarthaJoy M Spano, University of Virginia, Charlottesville, VA, Amy Hinkelman, PhD, Campbell University, Buies Creek, NC, John W. Steinke, PhD FAAAAI, Asthma and Allergic Diseases Center, Charlottesville, VA, Larry Borish, MD, FAAAAI, University of Virginia Health System, Charlottesville, VA, Thomas J. Braciale, MD, PhD, University of Virginia Hospital, Charlottesville, VA and W. Gerald Teague, MD, University of Virginia School of Medicine, Charlottesville, VA

The Role of Lymphocyte in Allergic and Immunologic Disease

BCI

4602

Monday, March 5th, 2018, 2:00 PM - 3:15 PM

900 High-Dimensional Phenotyping of B-Cells Responding to Rhinovirus Infection

Jacob D. Eccles, Ronald Turner, MD, and Judith A. Woodfolk, MBChB PhD FAAAAI, University of Virginia, Charlottesville, VA

901 Unique profiles of lesional T follicular helper cells in the pathogenesis of IgG4-related disease

Ryuta Kamekura^{1,2}, Hayato Yabe^{1,3}, Kenichi Takano², Motohisa Yamamoto⁴, Ippei Ikegami¹, Fumie Ito^{1,2}, Hiroki Takahashi⁴, Tetsuo Himi, MD, PhD², and Shingo Ichimiya¹, ¹Department of Human Immunology, Research Institute for Frontier Medicine, Sapporo Medical University School of Medicine, Sapporo, Japan, ²Department of Otolaryngology, Sapporo Medical University School of Medicine, Sapporo, Japan, ³Department of Respiratory Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁴Department of Rheumatology, Sapporo Medical University School of Medicine, Sapporo, Japan

902 Chronic Allergen Stimulation Yields T cell Dysfunction in Obese Asthmatics

Sarah E. Henrickson, MD/PhD^{1,2}, Bertram Bengsch, MD³, Sasikanth Manne, MA³, Kaitlin C O'Boyle, B.A.³, Ramin S. Herati, MD³, Laura A Vella, MD/PhD⁴, Scott E Hensley, PhD³, Joshua R Rabinowitz, MD/PhD⁵, Susan Coffin, MD⁴, and E. John Wherry,

MONDAY

895

Spain



PhD³, ¹Institute for Immunology, University of Pennsylvania, Philadelphia, PA, ²Division of Allergy and Clinical Immunology, Children's Hospital of Philadelphia, Philadelphia, PA, ³University of Pennsylvania, Philadelphia, PA, ⁴Division of Infectious Diseases, The Children's Hospital of Philadelphia, Philadelphia, PA, ⁵Princeton University, Princeton, NJ

903 Type 2 innate lymphoid cells expressing death receptor 3 are increased in airway of mild atopic asthmatic subject following allergen inhalation challenge

Kentaro Machida, MD, PhD^{1,2}, Adrian Baatjes, PhD¹, Richard Watson, BSc¹, Tara Scime, BSc¹, Gail M. Gauvreau, PhD¹, Paul M. O'Byrne, MB¹, and Roma Sehmi, PhD, FAAAAI¹, ¹McMaster University, Hamilton, ON, Canada, ²Kagoshima University, Kagoshima, Japan

904 Soluble Markers of B-cell Homing, Activation and Survival and Infection Risk in Rheumatoid Arthritis Maria L Cutiarreg, MD, Erika Darah, PhD, Laura Canpelli, MD,

Maria J. Gutierrez, MD, Erika Darrah, PhD, Laura Cappelli, MD, Michelle Jones, RN and Clifton O. Bingham III, MD, Johns Hopkins University School of Medicine, Baltimore, MD

Indoor Allergens

EORD

4603

Monday, March 5th, 2018, 2:00 PM - 3:15 PM

905 High-quality assembly of Dermatophagoides pteronyssinus genome and transcriptome reveals a wide range of novel allergens Angel Tsz-Yau Wan, BSc¹, Xiao-Yu Liu, PhD², Kevin Yi Yang, PhD^{1,3}, Mingqiang Wang, MPhil^{1,3}, Jamie Sui-Lam Kwok, PhD^{1,3}, Xi Zeng, MSc^{1,3}, Zhiyuan Yang, MPhil^{1,3}, Xiao-Jun Xiao, PhD², Carol Po-Ying Lau, PhD¹, Ying Li, PhD⁴, Zhi-ming Huang, BSc², Jin-ge Ba, BSc², Aldrin Kay-Yuen Yim, MPhil⁵, Chun-Yan Ouyang, BSc², Sai-Ming Ngai, PhD⁵, Ting-Fung Chan, PhD⁵, Elaine Lai-Han Leung, PhD⁴, Liang Liu, PhD⁴, Zhi-Gang Liu, MD², and Stephen Kwok-Wing Tsui, PhD^{1,3}, ¹School of Biomedical Sciences, the Chinese University of Hong Kong, Hong Kong, ²State Key Laboratory of Respiratory Disease for Allergy at Shenzhen University, School of Medicine, Shenzhen University, China, ³Hong Kong Bioinformatics Centre, the Chinese University of Hong Kong, Hong Kong, ⁴State Key Laboratory of Quality Research in Chinese Medicine, Macau Institute for Applied Research in Medicine and Health, Macau University of Science and Technology, Macau, 5School of Life Sciences, the Chinese University of Hong Kong, Hong Kong

906 Minor Allergens in Moderate-Severe Allergic Rhinitis: Group 4 Mite Amylasa (Blo t4) and Geographical Variations. Ruperto Gonzalez-Perez, MD, PhD¹, Fernando Pineda, PhD², Paloma Poza-Guedes, MD, PhD³, Victor Matheu, MD, PhD³, and Inmaculada Sanchez-Machin, MD, PhD³, ¹Hospital Universitario de Canarias, La Laguna, ²Diater Laboratorios, Madrid, Spain, ³Hospital Universitario de Canarias, La Laguna, Spain

907 Multiplex assay for high throughput potency and stability measurement of all known German cockroach (GCr) allergens: A step toward full characterization Samuel Mindaye, PhD, CBER/FDA, Silver Spring, MD, Ronald L. Babia MD, EAAAAL, DBBA/CVBB/CBEB/CDA, Silver Spring

Rabin, MD, FAAAAI, DBPAP/OVRR/CBER/FDA, Silver Spring, MD, and Jay E. Slater, MD, FDA/CBER/OVRR/DBPAP, Silver Spring, MD

908 Identification of fungal hazards associated with mold-contaminated homes in Atanta, Georgia

Angela R. Lemons, MS^1 , Edward A. Sobek, PhD², Tara L. Croston, PhD¹, and Brett J. Green, PhD FAAAAI¹, ¹Health Effects

Laboratory Division, National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Morgantown, WV, ²Assured Bio, Oak Ridge, TN

909 Perception of Aeroallergen Sensitization Versus Actual Aeroallergen Sensitization

Michele N. Pham, MD, Jade T. Andrade, BS, Michelle Mishoe, BA, Tricia D. Lee, MD, and Supinda Bunyavanich, MD MPH FAAAAI, Division of Allergy & Immunology, Department of Pediatrics, Icahn School of Medicine at Mount Sinai, New York, NY

Novel Mechanisms in Food Allergy

FADDA

4604

Monday, March 5th, 2018, 2:00 PM - 3:15 PM

910 Decrease in early basophil sensitivity to Ara h 2 correlates with sustained unresponsiveness in peanut oral immunotherapy Colby P. Rondeau, BA¹, Agustin Calatroni, MA MS², Neal Smith, BS¹, Huong Tang, BS¹, Yamini V. Virkud, MD³, Bert Ruiter, PhD³, Wayne G. Shreffler, MD, PhD, FAAAAI^{3,4}, and Sarita U. Patil, MD^{3,4}, ¹MASSACHUSETTS GENERAL HOSPITAL, Boston, MA, ²Rho Federal Systems Division, Inc., Chapel Hill, NC, ³Massachusetts General Hospital, Boston, MA, ⁴Harvard Medical School, Boston, MA

911 Administration of two doses of an oral, irreversible inhibitor of Bruton's tyrosine kinase (BTK) to food allergic adults abrogates skin test responses and eliminates IgE-mediated basophil activation *ex vivo*

Melanie C. Dispenza, MD, PhD¹, Jacqueline A. Pongracic, MD, FAAAAI², Anne Marie Singh, MD², and Bruce S. Bochner, MD, FAAAAI¹, ¹Northwestern University, Allergy and Immunology, Chicago, IL, ²Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL

912 Intestinal Microbial-Derived Sphingolipids Are Associated with Childhood Food Allergy

Kathleen Lee-Sarwar, MD¹, Rachel S Kelly, PhD², Jessica Lasky-Su, ScD², D. Branch Moody, MD³, Alex R Mola³, Tan-Yun Cheng, PhD3, Laurie E. Comstock, PhD4, Robert S. Zeiger, MD, PhD, FAAAAI⁵, George T. O'Connor, MD⁶, Megan Sandel, MD⁷, Leonard B. Bacharier, MD, FAAAAI8, Avraham Beigelman, MD MSCI FAAAAI9, Nancy Laranjo2, Diane R. Gold, MD, MPH10, Jessica Rabe Savage, MD MHS11, Scott T. Weiss, MD MS12, Augusto A. Litonjua, MD MPH13, and Patrick J. Brennan, MD, PhD¹⁴, ¹Brigham and Women's Hospital, Division of Rheumatology, Immunology and Allergy, Boston, MA, ²Channing Division of Network Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, ³Division of Rheumatology, Immunology and Allergy, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, ⁴Division of Infectious Diseases, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ⁵Kaiser Permanente Southern California, San Diego, CA, ⁶Boston University School of Medicine, Boston, MA, ⁷Boston University, Boston, MA, ⁸Washington University, Saint Louis, MO, ⁹Washington University School of Medicine, St. Louis, MO, ¹⁰Channing Division of Network Medicine, Boston, MA, ¹¹Current Affiliation: Vertex Pharmaceuticals, Boston, MA, ¹²Brigham and Women's Hospital, Boston, MA, ¹³University of Rochester, Rochester, NY, ¹⁴60 Fenwood Rd, Brigham & Women's Hospital, Boston, MA

913 A Role for CD1d-restricted Invariant Natural Killer T Cells and Glycolipids in Alpha-Gal Allergy

Onyinye I. Iweala, MD, PhD^{1,2}, Paul B. Savage, PhD³, and Scott P. Commins, MD, PhD¹, ¹University of North Carolina at Chapel Hill, Chapel Hill, NC, ²University of North Carolina, Chapel Hill, NC, ³Brigham Young University, Provo, UT





American Academy of Allergy Asthma & Immunology 914 A distinct T helper subset contributes to the pathogenesis of classical Th2-mediated food allergy disorders Nahir Garabatos, PhD, Veronique Bajzik, Hannah DeBerg, PhD, and Erik R. Wambre, PhD, MBE, Benaroya Research Institute, Seattle, WA

Adverse Drug Reactions: Individual and System-Based Approaches

HEDQ

4605

Monday, March 5th, 2018, 2:00 PM - 3:15 PM

- 915 Readmission rates following removal of penicillin allergy label after inpatient penicillin allergy testing Shyam R. Joshi, MD¹, Kristin Alvarez, Associate Director Pharmacy², Wenjing Wei, Clinical Pharmacy Specialist², Scott A. Tarver, PharmD², Kristy Vo, Clinical Staff Pharmacist², and David A. Khan, MD, FAAAAI³, ¹University of Texas - Southwestern, Dallas, TX, ²Parkland Medical Center, Dallas, TX, ³University Texas SW Medical Center, Dallas, TX
- 916 Characterizing the Prevalence of Reported Beta-Lactam Allergy in Pediatric Oncology Patients
 Stephannie Davies and Brian C. Schroer, MD, Cleveland Clinic Foundation, Cleveland, OH
 917 Is there a higher prevalence of methicillin-resistant Staphylo-
- Weyman Lam, MD¹, Mary L. Staicu, PharmD², Kelly M. Conn, PhD, MPH³, and Allison Ramsey, MD, FAAAAI², ¹University at Buffalo, Buffallo, NY, ²Rochester Regional Health, Rochester, NY, ³Wegmans School of Pharmacy, Rochester, NY
- **918** Risk Stratification for Outpatient Penicillin Allergy Evaluations Amy S Levin, MD, Aleena Banerji, Yu Li, MS and Kimberly G Blumenthal, MD MSc, Massachusetts General Hospital, Boston, MA
- 919 Elevations in IL-6 Correlate with Cytokine-Related Reactions as a Biomarker for Oxaliplatin Hypersensitivity Marlene Garcia-Neuer, MS¹, Jared Silver, MD, PhD², Donna-Marie Lynch, NP¹, Mariana C. Castells, MD, PhD, FAAAAI¹, and David E. Sloane, MD, EdM³, ¹Division of Rheumatology, Immunology and Allergy, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, ²Brigham and Women's Hospital, West Roxbury, MA, ³Brigham and Women's Hospital, Boston, MA

Rhinitis and Immunotherapy

IRSO

4606

Monday, March 5th, 2018, 2:00 PM - 3:15 PM

920 Increased Local IgE Production in Allergic Rhinitis (AR) During Rhinovirus (RV) Infection

DeVon C. Preston, MD¹, Ahmed B Hamed, B.S.¹, Alexander J Schuyler, B.S.², John W. Steinke, PhD FAAAAI³, Thomas A.E. Platts-Mills, MD, PhD, FAAAAI⁴, Peter W. Heymann, MD¹,

Monica G. Lawrence, MD⁵, and Larry Borish, MD, FAAAAI⁶, ¹University of Virginia, Charlottesville, VA, ²University of Pittsburgh School of Medicine, Pittsburgh, PA, ³Asthma and Allergic Diseases Center, Charlottesville, VA, ⁴Division of Asthma, Allergy & Immunology, University of Virginia Health System, Charlottesville, VA, ⁵MR4 Building, Room 5051a, Univ of Virginia Division of Asthma Allergy & Immunology, Charlottesville, VA, ⁶University of Virginia Health System, Charlottesville, VA

921 Association between prenatal vitamin D and child allergic rhinitis

Christina F. Ortiz, MD MPH¹, Sarah N. Adams, MD¹, and Kecia N. Carroll, MD², ¹Vanderbilt University Medical Center, Nashville, TN, ²Vanderbilt University School of Medicine, Nashville, TN

- 922 Quality of Life during the hay fever season after short-course subcutaneous immunotherapy with Lolium perenne peptides (LPP) in grass pollen related rhinoconjunctivitis: A RDBPCT Ralph Mosges, MD, FAAAAI¹, Claus Bachert, MD, PhD², Peter S. Creticos, MD, FAAAAI^{3,4}, Linda Cox, MD, FAAAAI⁵, Stephen R. Durham, MA MD FRCP^{6,7}, Sabine Pirotton⁸, Marie-Alix Bonny9, Thierry Legon8, Ludo Haazen8, and Mohamed H. Shamji, BSc MSc PhD FAAAAI^{10,11}, ¹CRI-Clinical Research International Ltd, Hamburg, Germany, ²Ghent University, Ghent, Belgium, ³Creticos Research Group & Clinical Practice, Crownsville, MD, 4Creticos Allergy Research, Crownsville, MD, ⁵Nova Southeastern University, Ft. Lauderdale, FL, 6Immunomodulation and Tolerance Group, Immune Tolerance Network (ITN) Distributed Centre of Excellence for Allergy & Asthma, Allergy & Clinical Immunology Inflammation, Repair and Development National Heart & Lung Institute, Imperial College London, London, United Kingdom, 7Allergy and Clinical Immunology, Inflammation, Repair and Development, and Immune Modulation and Tolerance Group, Allergy and Clinical Immunology, Inflammation, Repair and Development, National Heart and Lung Institute, Imperial College London, London, United Kingdom, ⁸ASIT biotech s.a., Brussels, Belgium, ⁹ASIT biotech s.a., Brussels, Belgium, ¹⁰MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, London, United Kingdom, London, ¹¹Immunomodulation and Tolerance Group, Immune Tolerance Network (ITN) Distributed Centre of Excellence for Allergy & Asthma, Allergy & Clinical Immunology Inflammation, Repair and Development National Heart & Lung Institute, Imperial College London., London, United Kingdom
- 923 Usefulness of saliva in predicting clinical effectiveness for sublingual immunotherapy in seasonal allergic rhinitis Mitsuhiro Okano, MD, International University of Health and Welfare, Narita, Japan, Atsushi Yuta, MD, Yuta clinic, Tsu, Mie, Japan, Tazuko Fujiwara, BS, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan and Shigefumi Takahishi, International University of Health and Welfare Mita Hospital, Tokyo, Japan

Update on Innate Immune Mechanism in Allergic Disease

MAAI

4607

Monday, March 5th, 2018, 2:00 PM - 3:15 PM

925 Monocyte Trafficking and Differentiation in Response to Allergen-Activated Peripheral Blood-Derived Mast Cells within an Allergy Tissue Model

Tahereh Derakhshan¹, Susan Kovats², Rudra Bhowmick¹, and Heather Gappa-Fahlenkamp¹, ¹Oklahoma State University, Still-



water, OK, ²Oklahoma Medical Research Foundation, Oklahoma City, OK

926 Human lung endothelial cells produce IL-33 and TSLP simultaneously after dsRNA stimulation

Maiko Emi-Sugie, PhD¹, Tetsuo Shoda, MD, PhD¹, Kyoko Futamura¹, Tomohiro Takeda, PhD², Hirohisa Saito, MD, PhD, FAAAAI³, Kenji Matsumoto, MD, PhD³, and Akio Matsuda, PhD.³, ¹National Research Institute for Child and Health and Development, Tokyo, Japan, ²Kansai university of health scienes, Osaka, Japan, ³National Research Institute for Child Health and Development, Tokyo, Japan

927 The D816V-KIT Mutation Causes IL-6 Upregulation In Human Mast Cells

Araceli Tobío¹, Pahul Hanjra¹, Geethani Bandara¹, Hirsh D. Komarow², Melody C. Carter, MD, FAAAAI¹, Daly Cantave¹, Dean D. Metcalfe, MD, FAAAAI¹, and Ana Olivera, PhD², ¹Laboratory of Allergic Diseases, NIAID, NIH, Bethesda, MD, ²NIAID/NIH, Bethesda, MD

- 928 MicroRNA-29 suppresses cytokine-mediated production of soluble IL-33 receptor, sST2, by bronchial epithelial cells Arisa Igarashi, PhD¹, Akio Matsuda, PhD.¹, and Kenji Matsumoto, MD, PhD², ¹Department of Allergy and Clinical Immunology, National Research Institute for Child Health and Development, Tokyo, Japan, ²National Research Institute for Child Health and Development, Tokyo, Japan
- 929 Type 2 Innate Lymphoid Cells and Eosinophil Progenitor Cells are Preferentially Increased in Lesional Skin of Subjects with Atopic Dermatitis

Sai Sakktee Krisna, BSc, Emma Price, BSc, Karen J. Howie, BSc, Suzanne Beaudin, BSc, Michael Aw, Mathew Patel, Paul M. O'Byrne, MB, Hermenio Lima, MD, PhD, Gail M. Gauvreau, PhD, and Roma Sehmi, PhD, FAAAAI, McMaster University, Hamilton, ON, Canada



SATURDAY

L7

Late Breaking Oral Abstract Session

Basic Science

2609

Saturday, March 3rd, 2018, 2:00 PM - 3:15 PM

- L1 Pediatric Patients with Allergic Comorbidities Exhibit Increased IL-9-Producing Mucosal Mast Cells in the Gut Dana Shik, Cincinnati Children's Hospital Medical Center, Cincinnati, OH
- L2 A High-Throughput Genetic Analysis of Common Drug Allergy Labels Using Data from a Large Biobank Elizabeth J. Phillips, MD, FAAAAI, FIDSA¹, Wei-Qi Wei², Christian Michael Shaffer³, QiPing Feng³, Cosby A Stone, MD MPH⁴, C. Michael Stein, MBChB³, Dan M Roden⁵ and Joshua C Denny², ¹A-2200 Medical Center North, Division of Infectious Diseases, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, ³Division of Clinical Pharmacology, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, ⁴Division of Allergy, Pulmonary and Critical Care Medicine, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN, ⁵Vanderbilt University Medical Center, Nashville, TN
- L3 IL-33, but Not TSLP, Augments Carbachol-Induced Bronchoconstriction and Attenuates Formoterol-Induced Bronchodilation of Human Small Airways Cynthia Koziol-White, PhD and Reynold A. Panettieri, MD,

Cynthia Koziol-White, PhD and Reynold A. Panettieri, MD, Rutgers University, New Brunswick, NJ

L4 Soy Isoflavones Improve Poor Asthma Control in Asthmatics with High PAI-1 Producing Genotypes Seong Ho Cho, MD, FAAAAI¹, Ara Jo, PhD¹, Thomas B. Casale, MD, FAAAAI¹, Hung Luu, MD, PhD², Rajesh Kumar, MD, FAAAAI³ and Lewis J. Smith, MD⁴, ¹University of South Florida Morsani College of Medicine, Tampa, FL, ²University of South Florida, Tampa, FL, ³Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, ⁴Northwestern University, Chicago, IL

L5 The Leukotriene E₄ Receptor, CysLT₃r Regulates Airway Chemosensory Brush Cell Expansion Lora Georgieva Bankova, MD, Eri Yoshimoto, Matthew P. Giannetti, MD, Yoshihide Kanaoka, K. Frank Austen, MD, FAAAAI and Nora A. Barrett, MD, FAAAAI, Brigham and Women's Hospital, Boston, MA

Clinical Science

3609

Sunday, March 4th, 2018, 2:00 PM - 3:15 PM

L6 Efficacy and Safety of AR101 in Peanut Allergy: Results from a Phase 3, Randomized, Double-Blind, Placebo-Controlled Trial (PALISADE)

Stacie M. Jones, MD, FAAAAI¹, Kirsten Beyer, MD², A. Wesley Burks, MD, FAAAAI³, Thomas B. Casale, MD, FAAAAI⁴, Jonathan O'B. Hourihane, MD, FAAAAI⁵, Annette Marcantonio⁶, Andrea Vereda, MD, PhD⁶, Brian P. Vickery, MD, FAAAAI^{3.6}, Rezi Zawadzki, DrPH⁶ and Daniel C. Adelman, MD, FAAAAI^{6.7}, ¹Department of Pediatrics, University of Arkansas for Medical Sciences and Arkansas Children's Hospital, Little Rock, AR, ²University Hospital Charité, Berlin, Germany, ³Department of Pediatrics, University of North Carolina, Chapel Hill, North Carolina, USA, Chapel Hill, ⁴University of South Florida Morsani College of Medicine, Tampa, FL, ⁵University College Cork, Cork, Ireland, ⁶Aimmune Therapeutics, Brisbane, CA, ⁷University of California, San Francisco, Redwood City, CA

 Recent Trends in Fatalities, Waiting Times, and Use of Epinephrine Auto-Injectors for Subcutaneous Allergen Immunotherapy (SCIT): AAAAI/ACAAI National Surveillance Study 2008-2016
 Tolly Epstein, MD, MS, FAAAAI¹, Gary M. Liss, MD, MS, FRCPC², Karen J. Murphy-Berendts, BS, RRT, CCRC³ and David I. Bernstein, MD, FAAAAI^{1,3}, ¹University of Cincinnati, Cincinnati, OH, ²University of Toronto, Toronto, ON, Canada,

³Bernstein Clinical Research Center, LLC, Cincinnati, OH
 Introduction of Allergen-Containing Foods: Feeding Infants and Toddlers Study (FITS) 2016
 Marion E. Groetch, MS RDN¹, Anna H. Nowak-Wegrzyn, MD, PhD, FAAAAI¹, Erin Quann, PhD, RD², Jami Boccella, RD, LD, CLC³, Laura Czerkies, MS, RD⁴, Sophie Nutten, PhD⁵ and Ryan Carvalho, MD², ¹Icahn School of Medicine, New York, NY, ²Nestlé Nutrition/Gerber Products Company, Florham Park, NJ, ³Gerber Products Company, Florham Park, NJ, ⁴Nestle Nutrition, Florham Park, NJ, ⁵Centre de Recherche Nestle, Lausanne, Switzerland
 L9 Sensitization and Exposure to Other Indoor Allergens May

Attenuate the Clinical Benefit of Mouse Allergen Reduction Among Mouse-Sensitized Urban Children with Asthma Sara C Sadreameli, MD, MHS¹, Jean Curtin-Brosnan, MA², Ammara G. Ahmed, DO³, Matthew Perzanowski, PhD⁴, Wanda Phipatanakul, MD, MS, FAAAAI⁵, Susan L. Balcer-Whaley, MPH², Adnan Divjan, BA⁴ and Elizabeth C Matsui, MD, MHS², ¹Division of Pediatric Pulmonology, Johns Hopkins University School of Medicine, Baltimore, MD, ²Division of Pediatric Allergy/Immunology, Johns Hopkins University School of Medicine, Baltimore, MD, ³Johns Hopkins University, Division of Pediatric Allergy/Immunology, Baltimore, MD, ⁴Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY, 5Division of Pediatric Allergy/ Immunology, Boston Children's Hospital, Harvard University Medical School, Boston, MA

L10 Associations between Total and Speciated Pollen Counts and Several Morbidity Measures in the Contiguous United States from 2008 to 2015

Jeremy J. Hess, MD, MPH¹, Fiona Lo, MS², Claudia L. Brown, MPH³, Kristie L. Ebi, PhD², Arie Manangan, MS³, George Luber, PhD³, Paul J. Schramm, MPH³, Lewis Ziska, PhD⁴, Cecilia Bitz, PhD² and Shubhayu Saha, PhD³, ¹Suite 2330, University of Washington, Seattle, WA, ²University of Washington, Seattle, WA, ³Centers for Disease Control and Prevention, Atlanta, GA, ⁴United States Department of Agriculture, Beltsville, MD



Late Breaking Poster Session

4215

Monday, March 5th, 2018, 9:45 AM - 10:45 AM

L11 Healthy Caregivers and Atopic Dermatitis Patients Share Similar Skin Microbiome

Chee Hsiong David Ng, Khoo Teck Puat-National University Children's Medical Institute, National University Health System, Singapore, SIngapore, Singapore

L12 Safety of 300IR 5-Grass Tablet in Children with Grass Pollen-Induced Allergic Rhinoconjunctivitis: Results of an Observational, Post-Marketing Safety Study

> Michael Gertslauer, MD¹, Zsolt Szepfalusi, MD², David B.K. Golden, MD, FAAAAI³, Agnès Viatte⁴, Michel Melac, MD⁴, Kathy Abiteboul, PharmD⁴ and Jacques de Blic, MD⁵, ¹Pediatric Pneumology and Allergology unit Klinikum Augsburg, Augsburg, Germany, ²Department of Pediatrics, Medizinische Universitat Wien, Wien, Austria, ³Allergy & Immunology, Medstar Franklin Square Medical Center, Baltimore, ⁴Stallergenes Greer, Antony, France, ⁵Pediatric Pneumology and Allergology unit, Necker-Enfants Malades Hospital, Paris, France

L13 Correlation between Overall Allergy Symptom Visual Analog Scale (VAS) Scores and Total Symptom Scores (TSS) in Subjects with Ragweed-Induced Allergic Rhinitis in an Environmental Exposure Chamber (EEC)

Anne Marie Salapatek, MSc, PhD, Cherrie Small, MSc, PhD, Holly Lorentz, PhD, Erin Beattie, MSc, PhD, Victoria Nelson, MSc and Peter R. Couroux, MD, Inflamax Research Limited, Mississauga, ON, Canada

- L14 Repeatability of Total Nasal Symptom Scores (TNSS) in Allergic Rhinitis Individuals Using an Electronic Diary during Environmental Exposure Chamber (EEC) Visits Erin Beattie, MSc, PhD, Cherrie Small, MSc, PhD, Holly Lorentz, PhD, Victoria Nelson, MSc, Peter R. Couroux, MD and Anne Marie Salapatek, MSc, PhD, Inflamax Research Limited, Mississauga, ON, Canada
- L15 A Randomized, Double-Blind, Placebo-Controlled, Ascending Dose Phase 1 Study of AK002, a Novel Siglec-8 Selective Monoclonal Antibody, in Healthy Subjects Henrik S Rasmussen, MD, PhD, Alan T Chang, Nenad Tomasevic,

PhD and Christopher Bebbington, PhD, Allakos, Inc., San Carlos, CA

- L16 Esophageal IgG4 and Eosinophilic Inflammation Correlate in Subjects Undergoing Peanut Oral Immunotherapy Benjamin L. Wright, MD^{1,2}, Matthew A. Rank, MD, FAAAAI¹, Kelly S. Shim, BS1,2, Alfred D. Doyle, PhD1, Elizabeth A. Jacobsen, PhD¹, Monali Manohar, PhD³, Bryan J. Bunning, BS³, R. Sharon Chinthrajah, MD³, Wenming Zhang, PhD³ and Kari C. Nadeau, MD, PhD, FAAAAI³, ¹Mayo Clinic, Scottsdale, AZ, ²Phoenix Children's Hospital, Phoenix, AZ, 3Stanford University, Stanford, CA
- L17 Fixed-Dose Combination Intranasal Azelastine-Fluticasone Propionate Versus Oral Loratadine with Intranasal Fluticasone Propionate: Assessment of Onset of Action in the Treatment of Allergen-Induced Allergic Rhinitis Symptoms Jean Bousquet, MD, PhD¹, David Price, MD^{2,3}, Eli O. Meltzer, MD⁴, Duc Tung Nguyen, PhD⁵, Hans-Christian Kuhl, PhD⁵, Arkady Koltun, MD, PhD⁶, Ferdinand Kopietz, PhD⁵ and Ullrich Munzel, PhD⁵, ¹MACVIA-LR EIP on AHA, Ocean, France, ²Observational & Pragmatic Research Institute Pte Ltd., Singapore, Singapore, ³University of Aberdeen, Aberdeen, Singapore, ⁴Allergy and Asthma Medical Group & Research Center, San Diego, CA, ⁵MEDA Pharma GmbH & Co. KG (A Mylan Company), Bad
- Homburg, Germany, ⁶Mylan Inc., Canonsburg, PA L18 Validation and Use of the Anaphylaxis Score Assisting Providers (ASAP)

Julie C. Brown, MDCM, MPH^{1,2}, Daniel Petroni, MD, PhD^{2,3}, Chuan Zhou, PhD^{2,4}, Nathan Deam, MHA¹, Jacquelyn R Morton, MLS¹, Holly Clifton, MPH¹ and Lori Rutman, MD, MPH^{1,2}, ¹Seattle Children's Hospital, Seattle, WA, ²University of Washington, Seattle, WA, ³Northwest Asthma Allergy Center, Seattle, WA, ⁴Seattle Children's Research Institute, Seattle, WA

Reactions to Peanut during a Double-Blind Placebo Controlled Food Challenge (DBPCFC) for Enrolment in a Randomized Trial

L19

Adriana Chebar Lozinsky¹, Paxton Loke, MBBS², Kuang-Chih Hsiao, MBChB, BHB, DipPaed, FR3, Christine Axerald4, Sigrid Pitkin¹, Marnie Robinson, MBBS, DRANZCOG, FRACP², EeLyn Su, MBBS, FRACP⁴, Anne-Louise Ponsonby⁵, Patrick Quinn, MBBS, FRACP⁶, Dean Tey, MBBS, FRACP^{7,8}, Michael O'Sullivan, MBBS, FRACP, FRCPA9, Michael S. Gold, MBChB, DCH, MD, FRACP, F¹⁰, Susan L. Prescott, BMedSc, MBBS, PhD, FRAC11,12, Katarina Jane Allen, MBBS, BMedSc, PhD, FRAC^{13,14}, Francesca Orsini¹, Mimi L. K. Tang, MBBS, PhD, FAAAAI4,15 and And PPOIT003 Study Group1, 1Murdoch Children's Research Institute, Melbourne, Australia, ²Royal Children's Hospital, Parkville, Australia, ³The Royal Children's Hospital, Pascoe Vale South, Australia, ⁴The Royal Children's Hospital, Melbourne, Australia, ⁵Murdoch Children's Reserach Institutte, Melbourne, Australia, ⁶The Women's and Children's Hospital, Adelaide, Australia, 7Royal Children's Hospital, Melbourne, Australia, 8Royal Children's Hospital, Melbourne, Victoria, Australia, ⁹Princess Margaret Hospital, East Fremantle, Australia, ¹⁰Women's & Children's Hospital, North Adelaide, Australia, ¹¹Princess Margaret Hospital, Perth, WA, Australia, ¹²University of Western Australia, Subiaco, Australia, ¹³Murdoch Childrens Research Institute, Melbourne, Australia, ¹⁴The Royal Children's Hospital, Parkville, Australia, ¹⁵Murdoch Childrens Research Institute and The University of Melbourne, Melbourne, Australia

L20 Impact Of Omalizumab On Patient Reported Outcomes In Chronic Idiopathic Urticaria: Results From XTEND-CIU, A 48-Week, Randomized, Placebo-Controlled Study Thomas B. Casale, MD, FAAAAI¹, Thomas R. Murphy, MD², Michael Holden, MD, MS³, Jamie A. Le, PhD³, Yamina Rajput, MSc³, Benjamin L. Trzaskoma, MS³ and Jonathan A. Bernstein, MD, FAAAAI⁴, ¹University of South Florida, Tampa, FL, ²Charleston ENT and Allergy, Charleston, SC, ³Genentech, Inc., South San Francisco, CA, ⁴Bernstein Clinical Research Center and University of Cincinnati, Cincinnati, OH

L21 Asian Migrants Have a Different Profile of Allergy and Anaphylaxis Than Australian-Born Children: A State-Wide Survey

> Yichao Wang^{1,2}, Katrina Jane Allen, MBBS, BMedSc, PhD FRACP^{1,2}, Jennifer Koplin, PhD¹ and Noor H.A. Suaini^{1,2}, ¹Murdoch Childrens Research Institute, Melbourne, Australia, ²Department of Paediatrics, The University of Melbourne, Melbourne, Australia

L22 Evaluation of the in Vitro Penetration of Fluticasone Propionate (FP) from Azelastine Hydrochloride-Fluticasone Propionate Nasal Spray (MP-AzeFlu) & Fluticasone Propionate Nasal Spray through Epiairway™606 Tissues Using Vertical **Diffusion Cells**

> William E. Berger, MD, MBA, FAAAAI¹, Alex D'Addio, PhD², Robert Allara², Bindu Upadhyay³, Arkady Koltun, MD, PhD⁴, Ferdinand Kopietz, PhD⁵ and Joachim Maus, MD⁵, ¹Allergy and Asthma Associates of SC, Mission Viejo, CA, ²Meda Pharmaceuticals, Somerset, NJ, 3Tergus Pharma LLC, Durham, NC, ⁴Mylan Inc., Canonsburg, PA, ⁵MEDA Pharma GmbH & Co. KG (A Mylan Company), Bad Homburg, Germany

L23 Predicting Peanut Allergy in an Unbiased Allergy Clinic Population Using Peanut Specific IgE Levels Measured in Two Independent Assays: Immunocap and Immulite 2000

Carah B. Santos, MD¹, Bruce J. Lanser, MD¹, Matthew J. Strand, PhD¹ and Erwin W. Gelfand, MD, FAAAAI², ¹National



Jewish Health, Denver, CO, ²National Jewish Medical and Research Center, Denver, CO

- L24 Implementing Health Care Research Technology to Improve Asthma Management Peter J. Cvietusa, MD, FAAAAI, Kaiser Permanente,
- Denver, CO
 L25 Feasibility Survey for a Food Allergy Control Tool
 Elizabeth Lippner, MD, Stanford University, Stanford, CA, Scott H. Sicherer, MD, FAAAAI, Department of Pediatrics, Icahn School of Medicine at Mount Sinai, New York, NY, New York, NY, Michael H. Land, MD, FAAAAI, Kaiser Permanente Allergy Department, UCSD Dept of Pediatrics, San Diego, CA, Michael Schatz, MD, MS, FAAAAI, Kaiser Permanente Medical Center, San Diego, CA and Chitra Dinakar, MD, FAAAAI, Allergy & Asthma Clinical Chief; Division of Pulmonary & Critical Care Medicine, Stanford University, Stanford, CA
- L26 A 10 Year Cost Comparison of Non-Penicillin Antibiotics to Treat Bacterial Rhinosinusitis, Group a Strep, and Otitis Media Versus Penicillin Skin Testing, Allergy Consultation and Penicillin Antibiotics

Whitney A Blackwell, MD and Miguel A. Park, MD, Mayo Clinic, Rochester, MN

- L27 Clinical Efficacy of a Recombinant Grass Pollen Vaccine One Year after a 4 Month Treatment Course Petra U. Zieglmayer, MD, Allergy Center Vienna West, Klosterneuburg, Austria
- L28 Effects of Reslizumab on Nasal Polyp Inflammation in Aspirin Exacerbated Respiratory Disease
 - Whitney W. Stevens, MD, PhD¹, Anna G. Staudacher, MS¹, Anju T. Peters, MD, FAAAAI¹, Lydia A Suh, BS¹, Roderick G. Carter, BS¹, Stephanie R. Fischer, BS¹, Kathryn E. Hulse, PhD¹, Julie A. Poposki, MS¹, James E Norton, MS¹, Atsushi Kato, PhD¹, Leslie C. Grammer, MD, FAAAAI¹, David B. Conley, MD², Robert C. Kern, MD², Stephanie Shintani-Smith, MD², Bruce K. Tan, MD, MS², Kevin C. Welch, MD² and Robert P. Schleimer, PhD, FAAAAI¹, ¹Division of Allergy and Immunology, Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ²Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL
- L29 Efficacy and Safety of Mepolizumab in Uncontrolled Patients with Severe Eosinophilic Asthma Following a Switch from Omalizumab (OSMO Study): Asthma Control, Quality of Life and Lung Function Outcomes

Frank C. Albers, MD, PhD¹, Mark C. Liu, MD, FAAAAI², Bradley E. Chipps, MD³, Kenneth R. Chapman, MD⁴, Xavier Muñoz, MD⁵, Miguel Angel Bergna, MD⁶, Jay Azmi, PhD⁷, Dalal Mouneimne, PhD⁸, Sandra Joksaite, MSc⁹ and Dmitry Galkin, MD, PhD¹, ¹GSK, Respiratory Medical Franchise, Durham, NC, ²Johns Hopkins Asthma and Allergy Center, Baltimore, MD, ³Capital Allergy and Respiratory Disease Center, Sacramento, CA, ⁴Asthma & Airway Centre, Toronto, ON, Canada, ⁵Hospital Universitari Vall d'Hebron, Barcelona, Spain, ⁶CEMER, Vicente Lopez, Buenos Aires, Argentina, ⁷Respiratory TAU, GSK, Stockley Park, Uxbridge, United Kingdom, ⁸GSK, Global Medical Affairs, GSK House, Brentwood, United Kingdom, ⁹Clinical Statistics, GSK, Stockley Park, Uxbridge, United Kingdom

L30 Efficacy and Safety of Mepolizumab in Uncontrolled Patients with Severe Eosinophilic Asthma Following a Switch from Omalizumab (OSMO Study): Exacerbation and Safety Outcomes

Dmitry Galkin, MD, PhD¹, Mark C. Liu, MD, FAAAAl², Bradley E. Chipps, MD³, Kenneth R. Chapman, MD⁴, Xavier Muñoz, MD⁵, Miguel Angel Bergna, MD⁶, Jay Azmi, PhD⁷, Dalal Mouneimne, PhD⁸, Sandra Joksaite, MSc⁹ and Frank C. Albers, MD, PhD¹, ¹GSK, Respiratory Medical Franchise, Durham, NC,

²Johns Hopkins Asthma and Allergy Center, Baltimore, MD, ³Capital Allergy and Respiratory Disease Center, Sacramento, CA, ⁴Asthma & Airway Centre, Toronto, ON, Canada, ⁵Hospital Universitari Vall d'Hebron, Barcelona, Spain, ⁶CEMER, Vicente Lopez, Buenos Aires, Argentina, ⁷Respiratory TAU, GSK, Stockley Park, Uxbridge, United Kingdom, ⁸GSK, Global Medical Affairs, GSK House, Brentwood, United Kingdom, ⁹Clinical Statistics, GSK, Stockley Park, Uxbridge, United Kingdom

L31 Best Practices in Recruitment of the First US-Based Atopic Dermatitis Cohort: The Mechanisms of Progression of Atopic Dermatitis to Asthma in Children (MPAACH). Asel Baatyrbek-kyzy, BS, Rosario Alarcon, BS, Alexandria Patterson, BS, Kristina Keidel, BA, John Kroner, MS, Gurjit K. Khurana Hershey, MD, PhD, FAAAAI and Jocelyn M. Biagini Myers, PhD, Cincinnati Children's Hospital Medical Center, Cincinnati, OH

L32 Effect of Epicutaneous Immunotherapy on Inducing Peanut Desensitization in Peanut-Allergic Children: Topline Peanut Epicutaneous Immunotherapy Efficacy and Safety (PE-PITES) Randomized Clinical Trial Results

> David M. Fleischer, MD, FAAAAI, Children's Hospital Colorado, University of Colorado School of Medicine, Aurora, CO, Gordon Lloyd Sussman, MD, FAAAAI, Gordon Sussman Clinical Research Inc, Toronto, Canada; University of Toronto, Toronto, ON, Canada, Philippe Begin, MD, PhD, FRCPC, FAAAAI, CHU Sainte-Justine, Montreal, QC, Canada, Anna H. Nowak-Wegrzyn, MD, PhD, FAAAAI, Icahn School of Medicine at Mount Sinai, New York, NY, Kirsten Beyer, MD, Charité Universitaesmedizin Berlin, Berlin, Germany, Stephen A. Tilles, MD, FAAAAI, Northgate Executive Center II, Northwest Asthma and Allergy Center, Seattle, WA, Terri F. Brown-Whitehorn, MD, FAAAAI, Children's Hospital of Philadelphia, Philadelphia, PA, Jacques Hébert, Clinique spécialisée en allergie de la Capitale, Quebec, QC, Canada, Jonathan O'B. Hourihane, MD, FAAAAI, University College Cork, Cork, Ireland, Dianne Campbell, MD, New South Wales, The Children's Hospital at Westmead, Westmead, Australia, Stephanie A. Leonard, MD, Rady Children's Hospital/UCSD, San Diego, CA, Sharon Chinthrajah, MD, Stanford University - Lucile Packard Children's Hospital, Palo Alto, CA, Jacqueline A. Pongracic, MD, FAAAAI, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, Stacie M. Jones, MD, FAAAAI, Arkansas Children's Hospital, Little Rock, AR, Lars Lange, St. Marien-Hospital, Bonn, Germany, Todd David Green, MD, FAAAAI, 4401 Penn Avenue, Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA, Robert A. Wood, MD, FAAAAI, Johns Hopkins University School Medicine, Baltimore, MD and Wayne G. Shreffler, MD, Massachusetts General Hospital, Boston, MA

L33 Omalizumab As Adjuvant Therapy in Chemotherapy Desensitization

David I. Hong, MD, FAAAAI, Brigham and Women's Hospital, Boston, MA

L34 Observational Study to Determine the Tolerability of Intravenous Immunoglobulin 5% for the Treatment of Patients Diagnosed with Primary Immunodeficiency Disorders Isaac Reuven Melamed, MD, Melinda Heffron and Ruth Dana, IMMUNOe Research Centers, Centennial, CO

L35 Improved Asthma Control in High-Utilizer Pediatric Population Delivered By Certified Asthma Educator in an Urban Clinic

MariaElena Alioto, AE-C, CRC¹, Tanya Stevenson, EdD, MPH¹, Makiko Yamaguchi, PhD¹ and Rebecca L Grant, BA², ¹Breathe California Golden Gate Public Health Partnership, San Francisco, CA, ²Columbia University, Mailman School of Public Health, New York, NY





ACGME Competency Index

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA UŚA

ACGME Competency Index

To contribute to the development of our members as lifelong learners and to enhance the effectiveness of the CME activities it provides, the AAAAI uses the six competencies defined by the Accreditation Council for Graduate Medical Education (ACGME) to guide its educational programming decisions. The six competencies are:

- Patient Care •
- Medical Knowledge •
- Practice-Based Learning and Improvement •
- Interpersonal and Communication Skills
- Professionalism •

Systems-Based Practice

All sessions at the Annual Meeting address the competencies of Patient Care and Medical Knowledge. Below is a list of sessions that address the other competencies:

Interpersonal and Communication Skills 1202, 1205, 2301, 3301, 3302

Practice-based Learning and Improvement 1202, 1502, 2301, 3008, 3301, 3302, 4703

Professionalism 1202, 1502, 2301, 3301, 3302

System-based Practice

0201, 0601, 1050, 1202, 2301, 3301, 3302

For more information about the ACGME's physician competencies, visit http://www.acgme.org.





Exhibits

Abbott

3300 Stelzer Road Columbus, OH 43219 (614) 624-7677 http://www.AbbottNutrition.com **Booth #538**

Other

Abbott is one of the world's leading authorities in science-based nutrition for all stages of life. As your nutrition partner, we invite you to explore our portfolio of products, including EleCare, PediaSure, PediaSure Peptide, Alimentum, and Similac to help your patients grow. Visit www.AbbottNutrition.com to find additional information.

Acclaim Allergy Solutions

975 Corbindale Road #100 Houston, TX 77024 (512) 364-4000 http://www.MyAllergySolutions.com

Booth #2906

Immunotherapy

Acclaim Allergy Solutions provides the highest quality pharmacotherapeutic solutions. Our organization is specialized and highly experienced in Allergy Immunotherapy treatment sets and utilizes one of the most highly regarded, PCAB Accredited, Licensed Sterile Compounding Pharmacies in the nation, to provide you with highest Quality Services and Products possible.

Accredo

1640 Century Center Parkway Memphis, TN 38134 (901) 381-5719 http://www.accredo.com Booth #435

Other

Accredo is a full-service specialty pharmacy dedicated to the treatment of rare and complex conditions. Our comprehensive therapy management programs engage trained pharmacists, nurses, reimbursement specialists, and patient care representatives who provide enhanced support services to patients, their families and healthcare professionals.

Aimmune Therapeutics

8000 Marina Boulevard Suite 200 Brisbane, CA 94005 (650) 614-5220 http://www.aimmune.com **Booth #2220**

Pharmaceuticals

Aimmune Therapeutics, Inc., is a biopharmaceutical company dedicated to improving the lives of the growing number of people with food allergies, who must practice constant vigilance to avoid the risk of potentially life-threatening anaphylaxis. Aimmune's Characterized Oral Desensitization Immunotherapy (CODIT™) system is a standardized approach to oral immunotherapy.

Aimmune Therapeutics

8000 Marina Boulevard Suite 200 Brisbane, CA 94005 (650) 614-5220 http://www.aimmune.com Booth #2022

Pharmaceuticals

Aimmune Therapeutics, Inc., is a biopharmaceutical company dedicated to improving the lives of the growing number of people with food allergies, who must practice constant vigilance to avoid the risk of potentially life-threatening anaphylaxis. Aimmune's Characterized Oral Desensitization Immunotherapy (CODITTM) system is a standardized approach to oral immunotherapy.

ALK, Inc.

135 Route 202/206 Bedminster, NJ 07921 (908) 672-1972 https://www.alk.net Booth #1924

Allergenic Extracts

ALK is a research driven, global pharmaceutical company focusing on allergy treatment, prevention and diagnosis. As the world leader in allergy immunotherapy, a treatment given to increase immunity to substances causing allergic symptoms, ALK is devoted to improving the quality of life for people with allergies by creating products that treat the cause of allergies.

Allergists for Israel

10464 Stablehand Drive Cincinnati, OH 45242 (513) 673-7420 http://www.allergists4israel.org

Booth #2725

Physician Education

AFI is an organization dedicated to promoting scholarly, academic and social programming with professionals worldwide, as well as supporting the field of Allergy, Asthma and Immunology in Israel through sponsorship of research grants, mini fellowships, conferences and exchange of speakers.

Allergy & Asthma Network

8229 Boone Boulevard Suite 260 Vienna, VA 22182 (703) 641-9595 http://www.allergyasthmanetwork.org **Booth #2721**

Patient/Public Education

Allergy & Asthma Network is the Nation's leading patient advocacy organization that works to connect the collaborative care team for people who suffer with allergies, asthma and related conditions. The Network's mission is to end needless death due allergies, asthma, food allergies and related conditions through outreach, education, advocacy and research.





Allergy and Asthma Proceedings

450 Veterans Memorial Parkway Building 15 East Providence, RI 02914 (401) 331-2510 https://www.allergyandasthmaproceedings.com

Booth #2426

Publications

Allergy & Asthma Proceedings publishes articles with the highest degree of clinical relevance for the practicing allergist/immunologist. Additionally the Proceedings encourages the submission of manuscripts by Allergy/Immunology FIT. The Proceedings has established a 38 year reputation as a NLM/Medline indexed journal. Print circulation: 5000; Impact factor: 2.614.

Allergy Partners

1978 Hendersonville Road Suite 130 Asheville, NC 28803 (828) 277-1300 http://www.allergypartners.com **Booth #218**

Physician Recruitment

Allergy Partners is the nation's largest allergy, asthma, and immunology practice. Our network spans 23 states and encompasses over 135 total locations of care. As our reputation continues to grow, we are committed to our vision and to bringing only the best physicians and practices into our network.

AllergyEHR

2233 Watt Avenue Suite 360 Sacramento, CA 95825 (530) 852-0306 http://allergyehr.com

Booth #2413

Computer Hardware/Software

Designed by Allergists—for Allergists, there is no other Allergy-specific solution that combines a certified, award-winning EHR, Practice Management and Billing tool with a comprehensive immunotherapy module on a single platform with mobile capabilities.

Alletess Medical Laboratory

14 Howard Street Rockland, MA 02370 (781) 871-4426 http://www.foodallergy.com

Booth #2329

Diagnostic Testing

Alletess Medical Laboratory has provided allergy and immunology testing services to healthcare practitioners worldwide since 1980. We offer food allergy/sensitivity testing, inhalant allergy testing and mold exposure profiles, as well as panels for autoimmune disorders. We use state of the art analyzers, offer a quick turnaround and maintain competitive pricing.

Alpha-1 Foundation

3300 Ponce de Leon Boulevard Miami, FL 33134 (305) 567-9888 x269 https://www.alpha1.org Booth #2626 Patient/Public Education

The Alpha-1 Foundation is committed to finding a cure for Alpha-1 Antitrypsin Deficiency and to improving the lives of people affected by Alpha-1 worldwide.

American Academy of Physician Assistants in Allergy, Asthma & Immunology

PO Box 90434 San Antonio, TX 78209 (844) 444-0575 https://www.aapaaai.org

Booth #2726

Physician Education

Our association was formed to promote the growth and development of physician assistants who have an active interest in the field of allergy, asthma, and immunology. We provide the general membership with a forum for informal assembly regarding the issues that relate to physician assistants in allergy, asthma, and immunology.

American Board of Allergy and Immunology

1835 Market Street Suite 1210 Philadelphia, PA 19103 (215) 592-9466 https://www.abai.org Booth #2623 Physician Education

The ABAI was established in 1971 as a Conjoint Board of the ABIM

and ABP. The internal medicine subspecialty existed from 1936-1971 and the pediatric subspecialty existed from 1944-1971. The ABAI is committed to working closely with its parent boards to maintain the highest educational and clinical standards in the specialty of allergy/ immunology.

American Partnership for Eosinophilic Disorders

PO Box 29545 Atlanta, GA 30359 (713) 493-7749 https://apfed.org **Booth #2627**

Patient/Public Education

APFED is a non-profit advocacy organization for those living with eosinophilic esophagitis, eosinophilic gastroenteritis, eosinophilic colitis, hypereosinophilic syndrome and other eosinophilic disorders. We are a resource for patients, their families, physicians and the medical community.





Aroma International Ltd. (Whirlpool Licensee)

8760A Research Boulevard Suite 386 Austin, TX 78758 (269) 849-5301 https://www.whirlpoolairpurifiers.com

Booth #2921

Equipment/Supplies

Whirlpool Brand Air Purifiers and air purifier replacement filters. Historically, for many years, the #1 rated air purifier by Consumer Reports. Highly recommended and highly regarded by allergists and immunologists.

Asia Pacific Association of Allergy, Asthma, and Clinical Immunology (APAAACI)

5 Amold Street, Box Hill, VIC Melbourne, 3128 Australia +61-3-9095-2415 http://www.apaaaci.org

Booth #2433 **Clinical Research Organizations**

The Asia Pacific Association of Allergy, Asthma and Clinical Immunology (APAAACI) is an association of national societies of Allergy and Clinical Immunology in the Asia Pacific region. The official journal is Asia Pacific Allergy. The Joint Congress of APAAACI-APAPARI 2018 will be held on Oct. 11-14, 2018 in Bangkok, Thailand.

Asthma and Allergy Foundation of America

8201 Corporate Drive Suite 1000 Landover, MD 20785 (202) 466-7643 http://www.aafa.org Booth #2622

Patient/Public Education

The Asthma and Allergy Foundation of America (AAFA) is the oldest and largest nonprofit patient organization dedicated to improving the quality of life for people with asthma, allergies and related conditions through education, advocacy and research. Visit aafa.org or kidswithfoodallergies.org to learn more.

AstraZeneca

1800 Concord Pike Wilmington, DE 19803 (800) 236-9933 https://www.astrazeneca-us.com

Booth #2402

Pharmaceuticals

Visit booth #2402 to explore AstraZeneca's interactive iWall, an augmented reality exhibit. Experience respiratory disease pathways in a new way and learn more about AstraZeneca's respiratory portfolio. For7 more information about AstraZeneca, please visit www. astrazeneca-us.com or follow us on Twitter @AstraZeneca.

Autoinflammatory Alliance

1786 34th Avenue San Francisco, CA 94122 (415) 831-8782 http://autoinflammatory.org Booth #2527

Patient/Public Education

The Autoinflammatory Alliance is a non-profit dedicated to promoting awareness, proper diagnosis, treatment, and improved care for people with autoinflammatory diseases. Our free autoinflammatory-search. org comparative chart database is a leading tool for doctors to learn and compare these conditions, plus our other printed materials on autoinflammatory diseases.

Belav

122 Willow Street Brooklyn, NY 11201 (416) 618-8615 http://www.WeBelay.com

Booth #2417

Patient/Public Education

Belay is a digital healthcare startup devoted to helping children and families manage life-threatening food allergies. Belay's mission is to make life easier for parents and keep children safe by bringing the best in design and technology to digital health.

Boehringer Ingelheim Pharmaceuticals, Inc.

900 Ridgebury Road Ridgefield, CT 06877 (203) 798-4047 http://us.boehringer-ingelheim.com Booth #2226

Pharmaceuticals

Boehringer Ingelheim is one of the world's 20 leading pharmaceutical companies. Headquartered in Germany, the company operates globally with more than 50,000 employees. The family-owned company has been committed to researching, developing, manufacturing and marketing novel treatments for human and veterinary medicine. Visit us at www.us.boehringer-ingelheim.com, or on Twitter @BoehringerUS.

Boston Scientific

100 Boston Scientific Way Marlborough, MA 01752 (888) 272-1001 http://www.btforasthma.com Booth #2935

Equipment/Supplies

Bronchial Thermoplasty, delivered by the Alair System, is a safe, one-time, non-drug intervention for adult patients with severe asthma - clinically proven to provide long-lasting reduction in exacerbations. Boston Scientific is dedicated to transforming lives through innovative medical solutions and multi-disciplinary approaches that improve the health of patients. Visit us at #2935 and www.BTforAsthma.com.



BriovaRx Infusion Services

15529 College Boulevard Lenexa, KS 66219 (913) 747-3700 http://www.briovarxinfusion.com **Booth #1830**

Immunotherapy

BriovaRx Infusion Services is a home infusion care provider with a national network of pharmacies. We specialize in Immune globulin (Ig), Parenteral Nutrition (PN), Anti-infectives, Hydration, Biologics and other specialty infusions. Our comprehensive services include specially trained on-staff nurses and pharmacists, around-the-clock clinical support, reimbursement specialists and on-going patient education.

BUHLMANN Diagnostics Corp

105 Route 101A Unit 1 Amherst, NH 03031 (844) 300-9799 https://buhlmannlabs.com Booth #133 Diagnostic Testing

BUHLMANN Diagnostics Corp (BDC), the North American affiliate of BÜHLMANN Laboratories AG, offers a broad range of quality controlled allergens and mixes which are standardized and validated for use in the cellular allergy assay Flow CAST[®] basophil activation test.

Carestream

1765 The Exchange Atlanta, GA 30339 (800) 944-6365 http://www.carestream.com Booth #2929

Diagnostic Equipment

For more than 100 years, Carestream has delivered medical imaging technology that improves your practice's workflow and bottom line. With over 4,000 point of-care CT system placements, Carestream is dedicated to providing solutions to improve patient care and treatment planning worldwide.

Cascade Survey Research, LLC

P0 Box 212 Virginia City, NV 89440 (775) 847-0796 http://www.cascade-research.com Booth #116

Other

For over 20 years, Cascade Survey Research and American Quantity Survey have conducted fast, easy, and fun SurveyStation Touchscreen Computer based Market Research intercept surveys at professional meetings and events. Our Surveys collect the valid and accurate data required for the effective development of marketing, sales, and new product development strategies in your dynamic markets.

Circassia Pharmaceuticals, Inc.

5151 McCrimmon Parkway Suite 260 Morrisville, NC 27560 (866) 275-6469 http://www.circassia.com Booth #316

Pharmaceuticals

Circassia is a specialty pharmaceutical company focused on respiratory diseases. Their growing commercial organization promotes $NIOX^{\oplus}$, an innovative diagnostic and monitoring tool to aid in asthma management, directly to healthcare providers. They also have a broad pipeline of asthma and COPD treatments in development.

Clinical Immunology Society

555 East Wells Street Suite 1100 Milwaukee, WI 53202 (414) 224-8095 https://www.clinimmsoc.org Booth #2523

Physician Education

The Clinical Immunology Society (CIS) is devoted to fostering developments in the science and practice of clinical immunology. CIS is an international professional organization with more than 800 members. Our mission is to facilitate education, research and novel approaches to therapy to promote excellent care for patients with immunologic/inflammatory disorders.

COMPEDIA

Montecito #38 Floor 25, Office 34 Colonia Napoles Mexico City, 03810 Mexico +52-55-9000-2008 http://www.compedia.org.mx

Booth #2432

Physician Education

To group Mexican pediatric allergists, experts in allergy issues that promote continuous medical education in pediatric allergy and immunology, with practical application of scientific evidence, through courses, congresses, symposia. To encourage research that contributes to a pediatric allergy problem that represents a public health problem.







Coram / CVS Specialty Infusion Services

1 CVS Drive Woonsocket, RI 02895 (401) 765-1500 https://www.coramhc.com Booth #110

Other

CVS Specialty and Coram provide personalized, compassionate, highquality infusion care to patients where they live, work or travel. With more than 30 years of experience and nearly 1,200 skilled clinicians, Coram CVS Specialty Infusion Services leads with commitment from the heart. The company maintains a 96 percent patient satisfaction rating.

CSL Behring

1020 1st Avenue King of Prussia, PA 19406-0901 (610) 878-4000 https://www.cslbehring.com

Booth #2210

Pharmaceuticals

CSL Behring is a global biotherapeutics leader driven by our promise to save lives. We meet patients' need using the latest technologies to develop and deliver innovative biotherapies that are used to treat serious and rare conditions such as coagulation disorders, primary immune deficiencies, hereditary angioedema and inherited respiratory disease.

CSL Behring

1020 1st Avenue King of Prussia, PA 19406-0901 (610) 878-4000 https://www.cslbehring.com **Booth #2017**

Pharmaceuticals

CSL Rehring is a lead

CSL Behring is a leading global biotherapeutics company with a broad range of innovative plasma-derived and recombinant therapies. For over a century, we have been driven by our promise to save lives. Today, our therapies include those to treat primary immune deficiencies, hereditary angioedema and coagulation disorders among others.

Cuban Society of Allergy, Asthma and Clinical Immunology

2 Entre 15 Y 17. Vedado Havana, 10400 Cuba (537) 831-1508 http://www.sld.cu/sitios/alergia **Booth #2333**

Other

The Cuban Society of Allergy, Asthma and Immunology, scientific organization, assembles all the Cuban allergists, who work at the different levels of the Health National System. Its priorities are education, scientific development and research, as well as specialized care to allergic patients and the continuous improvement of health population.

Daavlin

205 West Bement Street Bryan, OH 43506 (419) 633-3405 http://www.daavlin.com **Booth #2811**

Equipment/Supplies

Daavlin is a leading manufacturer of phototherapy medical devices, which are FDA cleared for a large array of treatment indications, including atopic dermatitis. Products include devices for use in clinical settings as well as home products for patient use. In addition to producing medical devices, Daavlin provides industry leading insurance reimbursement assistance and aftersale service.

DBV Technologies, Inc

25 Deforest Avenue Suite 203 Summit, NJ 07901 (908) 679-5200 https://www.dbv-technologies.com

Booth #533 Pharmaceuticals

DBV Technologies is a biopharmaceutical company focused on changing the field of immunotherapy. We are committed to finding safe, patient-friendly and effective therapies for food allergic patients, for whom there are no currently approved treatments. DBV is the creator of an innovative investigational patch technology based on epicutaneous immunotherapy (EPIT).

Dyson

600 West Chicago Avenue Suite 275 Chicago, IL 60654 (312) 469-5950 http://www.dyson.com

Booth #121 Environmental Products

Dyson is a global technology company that transforms every category it enters with iconic reinventions. Dyson is committed to educating consumers on the importance of a healthy home environment and, as experts in dust removal and filtration, has the largest range of certified Asthma and Allergy Friendly technology in America.

eClinicalWorks

2 Technology Drive Westborough, MA 01581 (508) 836-2700 http://www.eclinicalworks.com Booth #2516

Computer Hardware/Software

eClinicalWorks has the allergy and immunology functionality you need, with configurable worksheets for skin tests and treatments, automatic formulations, documentation, review, and patient-specific shot schedules.



Exhibits



EHRC Technologies

1835 East Hallandale Beach Boulevard Suite 201 Hallandale Beach, FL 33009 (786) 766-0828 https://elevareskin.com **Booth #2904**

Health/Body Care

Red light treatment is completely safe and has no reported side effects. Promotes skin rejuvenation and healing of human wounds. Benefits range from personal cosmetic use to arthritis, joint pain relief, sports injuries of athletes and more. And even reduce common side effect of chemotherapy and radiation treatments.

Elsevier

1600 John F. Kennedy Boulevard Suite 1800 Philadelphia, PA 19103 (215) 239-3900 http://www.elsevier.com **Booth #231**

Publications

Elsevier is a world-leading provider of information solutions that enhance the performance of science, health, and technology professionals, empowering them to make better decisions, and deliver better care.

EMED Technologies Corporation

1264 Hawks Flight Court Suite 200 El Dorado Hills, CA 95762 (916) 932-0071 https://www.emedtc.com **Booth #2023**

Immunotherapy

EMED Technologies, Inc., designs, develops and markets infusion therapy medical devices worldwide. Our FDA-cleared mechanical syringe pump infusion system for SCIg therapy includes the SCIg60 Infuser, a full line of patented Soft-Glide® needle sets and Infusets fixed-rate control sets, along with VersaRate® and VersaRate® Plus, patent-pending variable rate control sets.

European Academy of Allergy and Clinical Immunology

Hagenholzstrasse 111 3rd Floor Zurich, 8050 Switzerland +41-44-205-55-33 http://www.eaaci.org

Booth #2227

Other

EAACI is a non-profit organisation active in the field of allergic and immunologic diseases. With over 10,000 members from 122 countries, as well as 60 national and international member societies, EAACI is the largest medical association in Europe in the field of allergy and clinical immunology.

Food Allergy & Anaphylaxis Connection Team (FAACT)

PO Box 511 West Chester, OH 45071 (815) 276-3015 http://www.FoodAllergyAwareness.org Booth #2625

Patient/Public Education

FAACT's mission is to educate, advocate, and raise awareness for all individuals and families affected by food allergies and life-threatening anaphylaxis. Whether it's keeping children safe at school, responding to food allergy bullying, managing workplace issues, or dining out, FAACT can help you manage food allergies and stay healthy.

Food Allergy Research & Education

7925 Jones Branch Drive Suite 1100 McLean, VA 22102 (800) 929-4040 http://www.foodallergy.org **Booth #2525**

Patient/Public Education

Food Allergy Research & Education (FARE) works on behalf of the 15 million Americans with food allergies, including all those at risk for lifethreatening anaphylaxis. FARE's mission is to improve the quality of life and the health of individuals with food allergies, and to provide them hope through the promise of new treatments.

G.S. Innovations

2805 Klondike Court Las Vegas, NV 89117 (415) 374-4438 http://www.gsinnovationsinc.com

Booth #2328 Health/Body Care

G.S. Innovations provides a variety of healthcare solutions to many different industries. We work on developing and identifying the best medical care to help diverse professional groups overcome their challenges.

Genentech - Novartis

1 DNA Way South San Francisco, CA 94080 (650) 225-1000 http://www.gene.com Booth #731

Pharmaceuticals

For more than 40 years, we've been following the science, seeking solutions to unmet medical needs. As a proud member of the Roche Group, we make medicines to treat patients with serious medical conditions. We are headquartered in South San Francisco, California.





Georgian Association of Allergology and Clinical Immunology (GAACI)

6 Rustaveli Street Tskhaltubo, 5640 Georgia +799 (559) 923-4779 http://iaaci@mai.ru Booth #2233

Physician Education

Educational material

GlaxoSmithKline

184 Liberty Corner Road Warren, NJ 07059 (888) 825-5249 http://www.gsk.com

Booth #305

Health/Body Care

We are a science-led global healthcare company with a special purpose: to help people do more, feel better, live longer.

GlaxoSmithKline

5 Moore Drive Research Triangle Park, NC 27709 (888) 825-5249 http://www.gsk.com **Booth #2505**

Pharmaceuticals

GSK is a science-led global healthcare company with a mission to help people do more, feel better, live longer. We research, manufacture and make available a broad range of medicines, vaccines and consumer healthcare products. Visit our exhibit for information about our products and resources.

Healix Infusion Therapy, Inc.

14140 Southwest Freeway Suite 400 Sugar Land, TX 77478 (281) 295-4000 http://www.healix.net/immunology

Booth #2122

Office Management

Healix Infusion Therapy, Inc. provides clinical and business services to help you insource patient care and internalize all revenue from your subcutaneous immune globulin (SCIg) patients that is currently being lost to third-party providers. We offer pharmaceutical dispensing, clinical support, and revenue cycle services to optimize your resources and improve your efficiency.

Health Monitor Network

135 Chestnut Ridge Road Floor 2 Montvale, NJ 07645 (800) 422-4112 http://www.healthmonitornetwork.com

Booth #2513

Patient/Public Education

Health Monitor Network[®] is celebrating our 35th year as the nation's leading patient engagement company and your trusted source. Our mission is to facilitate dialogue between patients and healthcare professionals through the quality, independence of our content, and the strength of partnerships with dozens of Healthcare Associations and Advocacy Organizations.

Helen of Troy/Kaz USA, Inc.

400 Donald Lynch Boulevard Marlboro, MA 01752 (508) 490-7000 http://www.kaz.com **Booth #2931**

Environmental Products

Honeywell is the market leader in portable air purification products, offering True Hepa permanent filtration providing your patients with superior air cleaning products for over 25 years!

HollisterStier Allergy

3525 North Regal Street Spokane, WA 99207 (509) 482-4974 http://www.hsallergy.com

Booth #2918

Allergenic Extracts

HollisterStier Allergy is dedicated to being your partner in allergy management. Our complete line of high quality allergenic products and testing supplies allow allergy professionals to provide patients with the best possible care. Our product line includes extracts for diagnostic testing and immunotherapy, skin testing systems, and other ancillary supplies.

Horizon Pharma, Inc.

150 South Saunders Road Lake Forest, IL 60045 (224) 383-3000 http://www.horizonpharma.com Booth #126

Pharmaceuticals

Horizon Pharma plc is a biopharmaceutical company focused on improving patients' lives by identifying, developing, acquiring and commercializing differentiated and accessible medicines that address unmet medical needs. We market 11 medicines through our rare disease, rheumatology and primary care business units.



Exhibits



Hycor Biomedical

7272 Chapman Avenue Garden Grove, CA 92841 (714) 933-3000 http://www.hycorbiomedical.com Booth #212

Diagnostic Testing

Hycor Biomedical manufacturers high quality in vitro diagnostic kits and instruments for allergy and autoimmune disease testing. The HYTEC[®] 288 Plus automated system yields rapid, accurate results and is a cost-effective platform for clinical laboratories worldwide. Hycor is developing new diagnostic products designed to improve patient care and advance testing.

Immune Deficiency Foundation

110 West Road Suite 300 Towson, MD 21204 (443) 377-7449 http://www.primaryimmune.org Booth #2729 Other

The Immune Deficiency Foundation (IDF) is the national non-profit patient organization dedicated to improving the diagnosis, treatment and quality of life of persons with primary immunodeficiency diseases through advocacy, education and research.

Immune Epitope Database and Analysis Resource

9420 Athena Circle La Jolla, CA 92037 (858) 752-6959 http://www.iedb.org **Booth #2723**

Other

The IEDB is a freely available online resource for researchers to use to develop new vaccines, diagnostics, and therapeutics, and to better understand the immune system. It contains data related to antibody and T cell epitopes from infectious pathogens, allergens, and self-antigens. It hosts experimental epitope data for humans, non-human primates, rodents, and other animal species.

Immunoglobulin National Society

21550 Oxnard Street Suite 720 Woodland Hills, CA 91367 (888) 855-4443 https://www.ig-ns.org **Booth #2632**

Physician Education

Ig National Society is a professional organization dedicated to the advancement and sustaining of Ig therapy practice across clinical indications and areas of practice. IgNS reaches 45,000 healthcare professional subscribers, and has over 1,500 active members.

Impax Laboratories

602 Office Center Drive Suite 200 Fort Washington, PA 19034 (215) 558-4333 http://www.impaxlabs.com **Booth #2124**

Pharmaceuticals

The Impax Epinephrine Auto-Injector is a disposable, prefilled automatic injection device (auto-injector) used to treat life-threatening, allergic emergencies (Type I) including anaphylaxis in people who are at risk for or have a history of serious allergic emergencies.

Indoor Biotechnologies, Inc.

700 Harris Street Charlottesville, VA 22903 (434) 984-2304 https://www.inbio.com **Booth #2327**

Other

Indoor Biotechnologies specializes in allergens and immunoassay products/services for the food industry, indoor air quality and biopharmaceutical industries, academic and government researchers, and Fortune 500 companies. Our mission is to improve patient care through research, education and developing cutting edge technologies that serve our customers worldwide.

Innovus Pharmaceuticals, Inc.

8845 Rehco Road Suite 440 San Diego, CA 92121 (858) 249-7875 https://www.innovuspharma.com Booth #119

Pharmaceuticals

Innovus Pharmaceuticals is a leader in OTC consumer products for Men's & Women's health, vitality and respiratory disease. FlutiCare is the #1 prescribed nasal steroid active ingredient, the original strength Fluticasone Propionate nasal spray. AllerVarx is a patented dietary supplement that provides relief during allergy season.

International Eosinophil Society, Inc.

555 East Wells Street Suite 1100 Milwaukee, WI 53202 (414) 276-6445 http://www.eosinophil-society.org Booth #2529

Clinical Research Organizations

The International Eosinophil Society, Inc. (IES, Inc.) has been established to bring together scientists around the world who are engaged in research in the field of Eosinophil Biology and Eosinophil Disorders with a view to facilitating exchange of ideas and information about this fascinating inflammatory cell type and its role in diseases.





International FPIES Association (I-FPIES)

319 Richmond Avenue Point Pleasant Beach, NJ 08742 (908) 910-4419 https://www.fpies.org Booth #2629

Patient/Public Education

The International FPIES Association (I-FPIES) is a recognized 501(c)3 nonprofit corporation and organization that provides education, support, and advocacy for individuals with Food Protein-Induced Enterocolitis Syndrome (FPIES) and their families, spearheading the efforts to establish an ICD-10 code, consensus guidelines on the diagnosis and treatment of FPIES and expanding literature and research.

International Institute for the Advancement of Medicine

125 May Street Edison, NJ 08837 (800) 486-4426 http://www.iiam.org Booth #2517

Other

IIAM is the world-leading provider of non-transplantable, healthy and diseased, human organs and tissues for medical research, education and development. These tissues are recovered with minimal ischemia, stored in preservation and delivered in 12-24 hours to qualified researchers, scientists, healthcare and biotech professionals for medical advancement. Visit our website, www.iiam.org.

Japanese Society of Allergology

MY Building 4F 1-13-3 Ueno Taito Tokyo, 110-0005 Japan +81-3-5807-1701 http://www.jsaweb.jp/modules/en/index.php?content_id=1

Booth #2232

Other

Japanese Society of Allergology (JSA) was founded in October 1952. Membership, now stands at 11,166. JSA publishes a peer reviewed journal "Allergology International". JSA will host the JSA-WAO Joint Congress 2020, September 17-20, 2020, Kyoto, Japan.

Johnson & Johnson Consumer Inc.

7050 Camp Hill Road Fort Washington, PA 19034 (866) 948-6883 http://www.zyrtecprofessional.com **Booth #1927**

Pharmaceuticals

Johnson & Johnson Consumer Inc. markets a broad range of wellknown and trusted over-the-counter (OTC) products. Johnson & Johnson Consumer Inc. brands include TYLENOL[®] and MOTRIN[®] pain relievers and fever reducers; BENADRYL[®], RHINOCORT[®], ZYRTEC[®] and ZYRTEC[®]-D allergy medicines; IMODIUM[®] anti-diarrheal products; and SUDAFED[®] and SUDAFED PE[®] nasal decongestants.

Kaiser Permanente - Southern California Permanente Medical Group

393 East Walnut Street Pasadena, CA 91188 (800) 541-7946 http://scpmgphysiciancareers.com **Booth #2807**

Physician Recruitment

Southern California Permanente Medical Group is fortunate to have more than 60 years of stability and experience in delivering highquality, innovative health care centered around the patients. With subspecialists in virtually every area of medical and surgical practice, it's home to more than 9,000 physicians serving over 4.3 million members.

Kaléo

111 Virginia Street Suite 300 Richmond, VA 23219 (804) 545-6360 https://www.kaleopharma.com **Booth #223**

Pharmaceuticals

Kaléo is a pharmaceutical company dedicated to building innovative solutions that can help empower patients with certain serious, life-threatening medical conditions and their caregivers. Kaléo products combine established drugs with innovative delivery platforms, with the goal of achieving safety, efficacy and cost effectiveness. Kaléo is privately-held, and headquartered in Richmond, Virginia. www. kaleopharma.com.

Karger Publishers

26 West Avon Road P0 Box 529 Unionville, CT 06085 (860) 675-7834 https://www.karger.com Booth #214

Publications

Publications include the book series Chemical Immunology and Allergy and Progress in Respiratory Research; and the journals Dermatology, International Archives of Allergy and Immunology, Journal of Innate Immunity, Neuroimmunomodulation, and Respiration.



Exhibits



Lincoln Diagnostics, Inc.

240 East Hickory Point Road Decatur, IL 62526 (800) 537-1336 http://www.lincoIndiagnostics.com Booth #211

Diagnostic Testing

Lincoln Diagnostics is displaying state-of-the-art, safety-engineered skin testing devices manufactured under ISO 13485 quality standards; Multi-Test PC (Pain Control), UniTest PC, Multi-Test II, Multi-Test, Duotip-Test II, and Duotip-Test. Lincoln's devices are the most widely used and most extensively published on devices available.

Medical College of Wisconsin

8701 Watertown Plank Road MFRC 5072 Milwaukee, WI 53226 (414) 955-4165 http://mcw.edu/cirl Booth #2925

Diagnostic Testing

The Clinical Immunodiagnostic and Research Laboratory (CIRL) performs testing for the screening and diagnosis of primary immunodeficiencies using flow cytometric-based assays and the Allergy Immunology Diagnostic Lab (AIDLC) utilizes serologic assays for the diagnosis of hypersensitivity pneumonitis, APBA, latex allergy, and responses to the polysaccharide Salmonella typhi vaccine.

Methapharm

81 Sinclair Boulevard Brantford, ON N3S 7X6 Canada (519) 751-3602 http://provocholine.com

Booth #2927

Diagnostic Testing

Methapharm is a Specialty Pharmaceutical Company promoting Provocholine, the leader and only FDA approved Methacholine Chloride for the diagnosis of Bronchial Airway Hyperresponsiveness in patients who are suspected of having asthma. Methapharm is committed to educating Healthcare Professionals on the Importance of Objective Testing.

Micro Direct. Inc.

803 Webster Street Lewiston, ME 04240 (800) 588-3381 https://mdspiro.com

Booth #115 Spirometry

Micro Direct offers Total Spirometry Solutions with six models priced from \$650 to \$2,295 each with your choice of inexpensive cardboard mouthpieces, one-way mouthpieces or full protection pulmonary filters. Micro Direct also offers screening spirometers for home and office use

and an inexpensive peak flow meter.

Mission: Allergy, Inc.

28 Hawleyville Road PO Box 45 Hawleyville, CT 06440 (203) 364-1570 https://missionallergy.com Booth #310

Environmental Products

Leading allergists and allergy divisions recommend Mission: Allergy for its scientific accuracy and high quality products for allergen avoidance, including our Premium Microfiber pillow and mattress encasings. Please stop by our booth to view live Dust Mites in 4K Ultra-Hi-Definition, and to see the one and only MITEMOBILE.

ModuleMD

8359 Office Park Drive Grand Blanc, MI 48439 (877) 347-7978 http://www.modulemd.com

Booth #328

Computer Hardware/Software

ModuleMD has enhanced the clinical, operational and financial performance of Allergy Practices for over 17 years. ModuleMD streamlines practice processes with our integrated ONC-Certified EHR, Skin Testing, Immunotherapy, Practice Management, Revenue Management, and Patient Engagement software. In addition to technology, ModuleMD offers comprehensive billing and revenue management services. For more information: info@modulemd.com

Molekule

1184 Harrison Street San Francisco, CA 94103 (407) 490-2758 https://molekule.com Booth #2809

Environmental Products

Meet Molekule, the world's first molecular air purifier. Molekule uses nanotechnology to break down and completely eliminate pollutants on a molecular level, while current air purifiers try to catch pollutants in filters. Allergens, mold, bacteria, viruses, and airborne chemicals are completely destroyed by breaking them down.

Morgan Scientific, Inc.

151 Essex Street Suite 8 Haverhill, MA 01832 (978) 521-4440 http://www.morgansci.com

Booth #2914

Spirometry

Morgan Scientific provides the leading technological solution for spirometry and full pulmonary testing. Our ComPAS software paired with the Pneumotrac spirometer is easy to use, provides instant feedback to ensure high quality test results, and seamlessly integrates with any EMR. Plus our dragon incentive will blow you away!







MotherToBaby Pregnancy Studies conducted by OTIS

9500 Gilman Drive Mail Code 0828 La Jolla, CA 92093 (877) 311-8972 https://mothertobaby.org

Booth #2628

Patient/Public Education

MotherToBaby, a non-profit service of the Organization of Teratology Information Specialists (OTIS), provides evidence-based information to healthcare professionals, and the public about exposures during pregnancy and breastfeeding. MotherToBaby is conducting an observational research study to evaluate the effects from asthma, and the safety of medications and vaccinations, on pregnancy outcome.

MyAllergyDetective - Air Care Companies

1320 Ellsworth Industrial Boulevard Building B, Suite 2400 Atlanta, GA 30318 (404) 844-4200 https://www.myallergydetective.com Booth #2923 Environmental Products

Allergen Testing Kit

Mylan Inc.

1000 Mylan Boulevard Canonsbury, PA 15317 (724) 514-1800 http://www.mylan.com

Booth #2924

Pharmaceuticals

Mylan is one of the world's leading global pharmaceutical companies. Our portfolio of more than 7,500 marketed products includes generic, brand name and over-the-counter medicines. Our Specialty business focuses on the development, manufacturing and marketing of prescription drug products for respiratory diseases, life-threatening allergic reactions, general anesthesia and psychiatric disorders.

National Allergy / Allergy Control Products

1620 Satellite Boulevard Suite D Duluth, GA 30097 (770) 495-3353 http://www.nationalallergy.com **Booth #2813**

Environmental Products

Welcome to National Allergy and Allergy Control Products, we are one of the nation's largest asthma, sinus and allergy products suppliers. Doctor's Trust us -with over 5,000 referring physicians and literally hundreds of thousands of patient referrals from them, we know what it means to partner with healthcare professionals.

National Institute of Environmental Health Sciences

111 TW Alexander Drive Research Triangle Park, NC 27709-0043 (919) 541-3345 https://www.niehs.nih.gov Booth #2722

Other

The National Institute of Environmental Health Sciences (NIEHS), part of the National Institutes of Health, is located in Research Triangle Park, North Carolina. Our mission is to discover how the environment affects people, in order to promote healthier lives. NIEHS is home to the National Toxicology Program (NTP).

National Jewish Health

1400 Jackson Street Denver, C0 80206 (303) 398-1669 http://njlabs.org Booth #2024

Diagnostic Testing

National Jewish Health Advanced Diagnostic Laboratories are CAP, CLIA and CAP15189 certified with decades of experience developing immunology, complement, infectious disease and molecular diagnostic tests. We provide unparalleled clinical expertise and diagnostic testing in immune deficiency, respiratory disease, allergy and autoimmunity to improve patient care.

ndd Medical Technologies

300 Brickstone Square Suite 604 Andover, MA 01810 (978) 470-0923 https://www.nddmed.com **Booth #2428**

Diagnostic Equipment

ndd is helping to improve the quality of life for millions of people living with lung disease. Built around the company's patented TrueFlow[™] technology, ndd's innovative, EasyOne products help clinicians diagnose and treat COPD, asthma and other chronic lung diseases earlier. For more information on ndd, please visit www.nddmed.com.

NeilMed Pharmaceuticals

601 Aviation Boulevard Santa Rosa, CA 95403 (707) 525-3784 https://www.neilmed.com Booth #235

Pharmaceuticals

Our mission is to create and maintain safe, affordable and effective products to sustain long-term growth and create drug free and effective sinus, ear and wound care devices for millions of consumers worldwide. Please visit www.neilmed.com for more details.



Exhibits



Nestlé Health Science

1007 US Highway 202/206 Building JR2 Bridgewater, NJ 08807 (952) 848-6115 http://www.nestlehealthscience.com **Booth #2519**

Other

Nestlé Health Science, a wholly owned subsidiary of Nestlé S.A., is engaged in advancing the role of nutritional therapy in healthcare. Through investing in innovation and leveraging leading edge science, we bring forward innovative nutritional solutions with clinical, health economic value and quality of life benefits. (www.nestlehealthscience. us)

NOVARTIS

One Health Plaza East Hanover, NJ 07936 (862) 778-2964 http://www.pharma.us.novartis.com Booth #934 Pharmaceuticals

Novartis provides innovative healthcare solutions that address the evolving needs of patients and societies. Headquartered in Basel, Switzerland, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, eye care and cost-saving generic pharmaceuticals. Novartis is the only global company with leading positions in these areas.

Novartis Alcon Pharmaceuticals

One Health Plaza East Hanover, NJ 07936 (862) 778-2100 http://www.novartis.com

Booth #941

Pharmaceuticals

Novartis provides innovative healthcare solutions that address the evolving needs of patients and societies. Novartis products are available in more than 180 countries around the world.

nSpire Health

1830 Lefthand Circle Longmont, CO 80501 (800) 574-7374 http://www.nspirehealth.com

Booth #236

Spirometry

nSpire Health[™] is a global respiratory information systems software developer and medical device manufacturing company. We are the exclusive provider and developer of Iris[™], the world's first Integrated Respiratory Information System; and KoKo[®] pulmonary function testing, diagnostic spirometry, and respiratory home monitoring devices.

Nutricia North America

9900 Belward Campus Drive Suite 100 Rockville, MD 20850 (301) 503-1457 http://www.Neocate.com **Booth #217**

Other

Nutricia is a global leader in advanced medical nutrition for specialized care. Neocate[®], brought to you by Nutricia, is a range of amino acidbased products, proven effective in the nutritional management of gastrointestinal (GI) and food allergy-related conditions, such as SBS, CMA, MFPI, EoE, FPIES and GER.

Officite

3010 Highland Parkway Suite 625 Downers Grove, IL 60515 (888) 817-4010 http://www.officite.com Booth #536

Office Management

Officite helps physicians grow their practices through effective, efficient online marketing. Their websites are attractive, responsive, and easy to launch. Visit Officite.com or call 888-203-5055 for a free consultation on responsive website designs, search engine marketing (SEO & PPC), reputation tracking, social media, patient education, and more.

OptiNose US, Inc.

1020 Stony Hill Road Suite 300 Yardley, PA 19067 (267) 364-3529 http://www.optinose.com

Booth #2714

Pharmaceuticals

Optinose is a specialty pharmaceutical company on a mission to improve lives with a focus on patients cared for directly by, or in consultation with, otolaryngology (ENT) or allergy specialists.

P&M Harmony LLC

3280 West Hacienda Avenue Suite 206 Las Vegas, NV 89118 (888) 630-5702 https://www.pmharmonyllc.com https://www.zerogravityskin.com

Booth #2133 Health/Body Care

Organic skincare, medical infrared lights device, blue light therapy medical device.





Panatrex, Inc.

1648 Sierra Madre Circle Placentia, CA 92870-6626 (714) 630-5582 http://panatrex.com

Booth #2029

Equipment/Supplies

Quanti-Test System providing depth control ensures reproducible result more accurate. The well will wipe out the excessive allergens.

Pfizer

235 East 42nd Street New York, NY 10017 (212) 733-2323 http://www.pfizer.com

Booth #2512

Pharmaceuticals

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time.

Pharming Healthcare, Inc.

685 Route 202/206 Suite 202 Bridgewater, NJ 08807 (908) 524-0294 https://www.pharming.com **Booth #633**

Pharmaceuticals

Pharming Healthcare, Inc. is dedicated to providing life-changing solutions to patients. Pharming is currently involved in the development of drugs for the treatment of hereditary angioedema and has marketing operations in the United States, Israel, all 28 European Union countries plus Norway, Iceland, and Liechtenstein.

Polish Society of Allergology

Kopcinskiego 22 Street Lodz, 90-153 Poland +48-42-677-69-48 https://www.pta.med.pl/en/home/

Booth #2330

Other

Polish Society of Allergology is the largest allergological organization in Poland, with over 1400 physicians grouped in 13 branches. For almost 40 years, Polish Society of Allergology has represented Polish allergology at a national level (e.g. before government institutions, such as the Ministry of Health) and at an international level (WHO, WAO and EAACI).

Probionase Therapies Inc.

1151 Mount Royal Montreal, QC H2V 2H6 Canada (514) 245-9700 http://www.probiorinse.com **Booth #2805**

Health/Body Care

Probionase Therapies Inc.[™] manufacture and distribute Probiorinse[™], a buffered saline nasal and irrigation solution which contains the probiotic bacteria Lactococcus lactis W136. This innovative product is the first of its kind and will be of interest to anyone who manages patients with nasal and sinus conditions.

PulmOne

2711 Centerville Road Suite 400 Wilmington, DE 19808 (844) 785-6663 https://www.pulm-one.com Booth #220

Diagnostic Equipment

MiniBox+ is the world's first Complete Pulmonary Function Testing (PFT) device designed for use in any clinical setting. Desktop, cabinless and gasless Lung Volume Measurements, as well as Spirometry and DLCO testing. Clinically proven. In widespread use by US physicians. Live demos at Pulmone's booth.

Rabbit Air

125 North Raymond Avenue Suite 308 Pasadena, CA 91103 (626) 396-9197 http://www.rabbitair.com

Booth #330

Environmental Products

Los Angeles-based air purifier company that is dedicated to improving quality of life through clean air. Rabbit Air's purifiers have a HEPA filter so advanced that it not only traps but also reduces buildup of common allergens for optimum efficiency and performance.

RB

399 Interpace Parkway Parsippany, NJ 07054 (973) 404-2529 http://rb.com Booth #120

Health/Body Care

As the world's leading consumer health and hygiene company, RB provides trusted, innovative solutions that help people live healthier, more fulfilling lives.



Exhibits

Red Maple Trials Inc.

2935 Conroy Road Unit 110 Ottawa, ON K1G 6C6 Canada (613) 368-4320 http://www.redmapletrials.com

Booth #434 Clinical Research Organizations

Red Maple Trials provides specialty services in allergy, asthma and immunology clinical research, highlighted by our next generation Allergen Challenge Theatre (environmental exposure chamber). Our clinical trial facilities are capable of executing on Phase I through IV studies, and our experienced team provides site management services for our biopharmaceutical partners.

Regeneron/Sanofi Genzyme - DUPIXENT

777 Old Saw Mill River Road Tarrytown, NY 10591 (914) 847-7600 http://www.regeneron.com http://www.sanofigenzyme.com

Booth #323

Pharmaceuticals

DUPIXENT is now approved by the FDA. Come learn about clinical efficacy, safety information, MOA, and dosing and administration, and how DUPIXENT may help your patients.

Regeneron/Sanofi Genzyme - Dupilumab

777 Old Saw Mill River Road Tarrytown, NY 10591 (914) 847-7600 http://www.regeneron.com http://www.sanofigenzyme.com

Booth #2414

Pharmaceuticals

Regeneron is a leading science-based biopharmaceutical company that discovers, invents, develops, manufactures and commercializes medicines for the treatment of serious medical conditions. Sanofi Genzyme, focuses on rare diseases, multiple sclerosis, oncology, and immunology. Since 2007, Sanofi and Regeneron have collaborated to develop and commercialize fully human monoclonal antibodies utilizing proprietary technologies.

Rosch Visionary Systems, Inc.

501 Howard Avenue Suite A204 Altoona, PA 16601 (800) 307-3320 http://www.roschvisionary.com

Booth #2939

Computer Hardware/Software

Rosch Visionary Systems is the leading provider of allergy software, designed to safely and effectively manage allergy skin testing, vial mixing, injections and reactions. Use as a standalone system or interface with your existing PM / EMR. Stop by our booth to see a demonstration of our skin testing, immunotherapy, and patient notification modules.

Sanofi Consumer Healthcare (Formerly Chattem, Inc.)

55 Corporate Drive Bridgewater, NJ 08807 (800) 981-2491 http://www.sanofi.us Booth #232

Pharmaceuticals

Sanofi is dedicated to supporting people through their health challenges. We are a global biopharmaceutical company focused on human health. We prevent illness with vaccines, provide innovative treatments to fight pain and ease suffering. We stand by the few who suffer from rare diseases and the millions with long-term chronic conditions. Sanofi, Empowering Life.

SCIREQ Inc.

6600 St Urbain Suite 300 Montreal, QC H2S 3G8 Canada (514) 286-1429 https://www.scireq.com Booth #229

Equipment/Supplies

emka TECHNOLOGIES and SCIREQ offer in vivo and ex vivo research instruments & telemetry hardware for physiology, pharmacology, and toxicology. Our solutions provide unparalleled accuracy and reproducibility for cardiovascular, respiratory and neurology studies, as cited in over 1,000 scientific publications. Visit our booth to discuss your research application!

Shire

300 Shire Way Lexington, MA 02421 (781) 482-6579 https://www.shire.com

Booth #311 Pharmaceuticals

Shire is the leading global biotechnology company focused on serving people with rare diseases and other highly specialized conditions. We strive to develop best-in-class products across our core therapeutic areas including Hematology, Immunology, Neuroscience, Ophthalmics, Lysosomal Storage Disorders, Gastrointestinal/Internal Medicine/

Endocrine, Hereditary Angioedema, and Oncology.

Simply Peanut by Allergenic Solutions

P0 Box 72 Draper, UT 84020 (801) 573-6774 https://www.simply-peanut.com **Booth #2515**

Pharmaceuticals

Simply Peanut is an organic and nutritious portion-controlled early peanut introduction product perfect for babies starting at 4-6 months of age.





Exhibits



SmartPractice

3400 East McDowell Road Phoenix, AZ 85008 (800) 878-3837 http://smartpractice.com/dermatology Booth #108 Equipment/Supplies SmartPractice - Because all patients deserve a diagnosis.

Smith Medical Partners

195 East Elk Trail Carol Stream, IL 60188 (800) 292-9653 https://www.smpspecialty.com **Booth #2128**

Immunotherapy

A company of H. D. Smith, Smith Medical Partners is a national distributor of specialty pharmaceuticals. At Smith Medical Partners, we approach each customer engagement individually — responsively. We take a consultative tact and combine it with a personal touch — backed by expert knowledge of the products and services we offer.

Sociedad Latinoamericana de Alergia, Asma e Inmunologia

Juan de Salazar 1780 Asuncion, 1441 Paraguay +595-212-0558 http://www.slaai.org

Booth #2530

Other

SLaai-SAVE THE DATE for coming next Congress and meeting's Cientifics Meetings in Latin America 2018-2019.

Springer

233 Spring Street New York, NY 10013 (212) 726-9367 http://www.springer.com/us Booth #2229

Publications

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Stallergenes Greer

639 Nuway Circle NE PO Box 800 Lenoir, NC 28645 (828) 754-5327 http://www.stallergenesgreerus.com

Booth #128

Immunotherapy

Headquartered in London, and with offices and locations in the US, Stallergenes Greer is a global company specializing in the development and commercialization of allergy immunotherapy products and services for use in the diagnosis and treatment of allergies. Additional information is available at www.stallergenesgreerus.com.

Stallergenes Greer

639 Nuway Circle NE P0 Box 800 Lenoir, NC 28645 (828) 754-5327 http://stallergenesgreerus.com Booth #114

Immunotherapy

Headquartered in London, and with offices and locations in the US, Stallergenes Greer is a global company specializing in the development and commercialization of allergy immunotherapy products and services for use in the diagnosis and treatment of allergies. Additional information is available at www.stallergenesgreerus.com.

Teva Respiratory

41 Moores Road Frazer, PA 19355 (816) 718-1624 https://tevausa.com Booth #521

Pharmaceuticals

Teva Respiratory develops and delivers high-quality treatment options for respiratory conditions, including asthma, COPD and allergic rhinitis. Our portfolio of products is centered on optimizing respiratory treatment for patients and healthcare providers through the development of novel delivery systems and therapies that help address unmet needs.

The Korean Academy of Asthma, Allergy, and Clinical Immunology (KAAACI)

#1705 Kumho Palace B/D 327-2 Changsin-dong, Jongno-gu, Seoul, 03121 Korea +82-02-747-0528 http://www.allergy.or.kr Booth #2430 Other

Founded in 1972, the Korean Academy of Asthma, Allergy and Clinical Immunology (KAAACI) has been devoted to improve the treatment and the understanding of asthma and allergic diseases (the official journal, AAIR, IF=2.957). The Spring Congress will be held with EAAS and SERIN ASIA in Seoul, Korea, May 10-12 2018.





The Mastocytosis Society, Inc.

P0 Box 416 Sterling, MA 01564 (508) 842-3080 http://tmsforacure.org Booth #2727

Physician Education

The Mastocytosis Society is a 501(c)3 non-profit organization dedicated to supporting patients affected by Mastocytosis and Mast Cell Activation Disorders as well as their families, caregivers and physicians through research, education and advocacy. Come visit our booth for a flashdrive of educational material for physicians and patients!

Thermo Fisher Scientific

4169 Commercial Avenue

Portage, MI 49002 (800) 346-4364 http://www.thermofisher.com

Booth #1923

Diagnostic Testing

Thermo Fisher Scientific Inc. (NYSE: TMO) is the world leader in serving science, with revenues of \$17 billion and approximately 50,000 employees in 50 countries. Our mission is to enable our customers to make the world healthier, cleaner and safer.

TS Medical

8255 Las Vegas Boulevard Las Vegas, NV 89123 (702) 782-3553 http://www.tsmedicalusa.com **Booth #2028**

Health/Body Care Medical device by FDA

Uneva Health, Inc.

290 Donald Lynch Boulevard Suite 100 Marlborough, MA 01752 (617) 331-8808 http://unevahealth.com **Booth #2026**

Other

Uneva Health wants to help patients avoid problems associated with improper inhaler use by giving them guidance when most needed - when patients use their inhalers. Uneva Health is developing a snap-on inhaler accessory that talks patients through proper inhaler use with drug-product specific voice guidance. Booth #2026.

Ursatec Verpackung GmbH

Schillerstrasse 4 St. Wendel, 66606 Germany +49-6851-8026 http://www.ursatec.com Booth #335

Equipment/Supplies

URSATEC stands for innovative developments in preservative-free pharmaceutical, medical device and cosmetic products such as oral and nasal sprays. Safe protection against contamination by microorganisms, even after the opening of a package, is guaranteed by the dual microbiological protection of the patented dosing systems 3K[®] and COMFORT[®].

US Bioservices

3101 Gaylord Parkway Frisco, TX 75034 (888) 518-7246 http://www.usbioservices.com Booth #210

Pharmaceuticals

Providing trusted support for over 20 years, US Bioservices is AmerisourceBergen's specialty pharmacy offering nationwide dispensing and home infusion nursing services. Our comprehensive approach improves the patient experience while increasing transparency and collaboration with the practice. Focused on clinical integration, we partner with physicians to help patients realize the best outcomes.

US Hereditary Angioedema Association

10560 Main Street Suite PS40 Fairfax City, VA 22030 (866) 798-5598 http://www.haea.org **Booth #2724**

Patient/Public Education

The US HAEA is a non-profit patient advocacy organization serving Hereditary Angioedema patients. Our Association was founded and staffed by HAE patients and caregivers. We provide the HAE community with a personalized support network and a wide range of services to help them lead a normal life.

USIDNE

110 West Road Suite 300 Towson, MD 21204 (866) 939-7568 https://usidnet.org

Booth #2732

Physician Education The United States Immunodeficiency Network (USIDNET) is an NIHfunded research program of the Immune Deficiency Foundation (IDF). It was established to advance scientific research in primary immune deficiency diseases (PI).





Exhibits

Viracor Eurofins

1001 NW Technology Drive Lee's Summit, MO 64086 (816) 554-5171 https://www.viracor-eurofins.com Booth #111

Diagnostic Testing

With over 30 years of specialized expertise in infectious disease,

immunology and allergy testing, Viracor Eurofins is committed to helping you get results faster, when it matters most. We never lose sight of the connection between the testing we perform and the patients you serve. Learn more at Viracor-Eurofins.com.

Vitalograph, Inc.

13310 West 99th Street Lenexa, KS 66215 (913) 730-3216 http://www.vitalograph.com

Booth #534

Spirometry

Vitalograph is a pulmonary device manufacturer and clinical trial provider. Our respiratory range includes spirometers, asthma/COPD monitors, PFM, inhaler trainers. Spirotrac software offers spirometry, SP02, BP, ECG, audiometry, EHR interface. Micro spirometer provides accuracy of a pneumotachometer in a small package and price. Vitalograph stands for innovation and enduring quality.

Wiley

101 Stations Landing Suite 300 Medford, MA 02155 (781) 388-8200 https://www.wiley.com Booth #113

Publications

Wiley, a global company, helps people and organizations develop the skills and knowledge they need to succeed. Our online scientific, technical, medical, and scholarly journals, combined with our digital learning, assessment and certification solutions help universities, societies, businesses, governments, and individuals increase the academic and professional impact of their work.

World Immunopathology Organization

4 Ostrovityanova Street Moscow, 117513 Russia +7-495-735-1414 http://www.wipocis.org **Booth #2728**

Physician Education

WIPO global mission to promote through education and research activities worldwide in allergy, asthma, immunology. In 2018 WIPO will organize: XII World COPD, Asthma and Respiratory Allergy(Dubai, February 2-5, 2018) XI World Asthma, Allergy and COPD Forum (Barcelona, Spain, April 20-23,2018) VI European Congress on Asthma, COPD and Respiratory Allergy (Tbilisi, Georgia, June 15-19, 2018) www.wipocis.org.

Xtract Solutions

9954 SW Arctic Drive Beaverton, OR 97005 (503) 379-0110 https://xtractsolutions.com Booth #2326

DUUUI #2320 Domenistan Ulandu

Computer Hardware/Software Xtract Solutions provides software applications for allergen immunotherapy. We work with clinics who are frustrated that their allergy shot practice is technologically behind the times. Whatever the issues might be, Xtract Solutions has the experience necessary to solve most problems that modern allergy shot practices face daily.

ZERO GRAVITY SKIN

940 Lincoln Road #307 Miami Beach, FL 33139 (704) 774-2577 https://www.zerogravityskin.com

Booth #337

Health/Body Care

Zero Gravity Skin specializes in a unique medical device called Perfectio, which is FDA approved and based on NASA science used for LED therapy facial treatments at home.





Exhibit Quick Reference Guide



Allergenic Extracts

ALK, Inc	
HollisterStier Allergy	

Clinical Research Organizations

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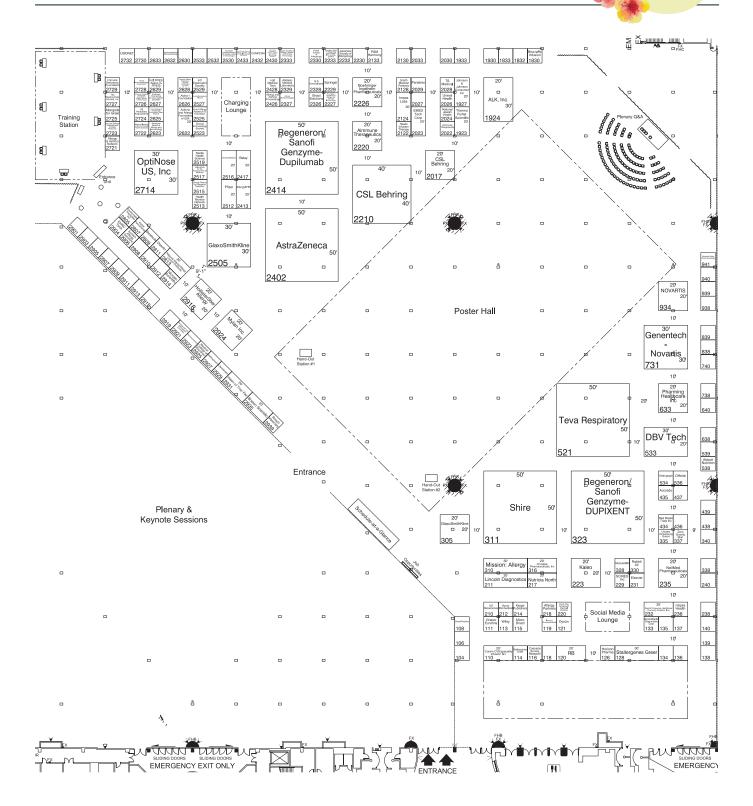
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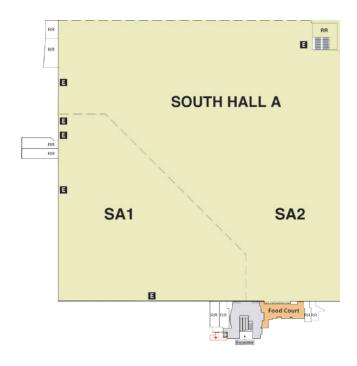


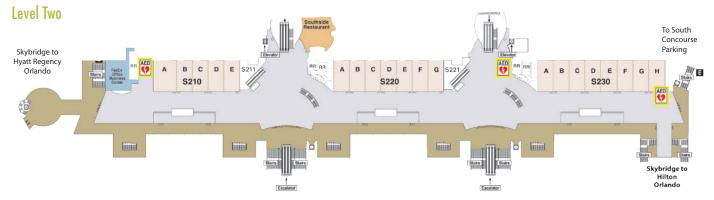


AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

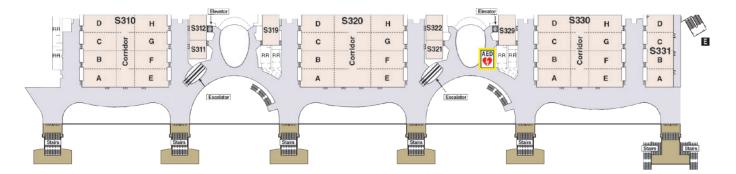
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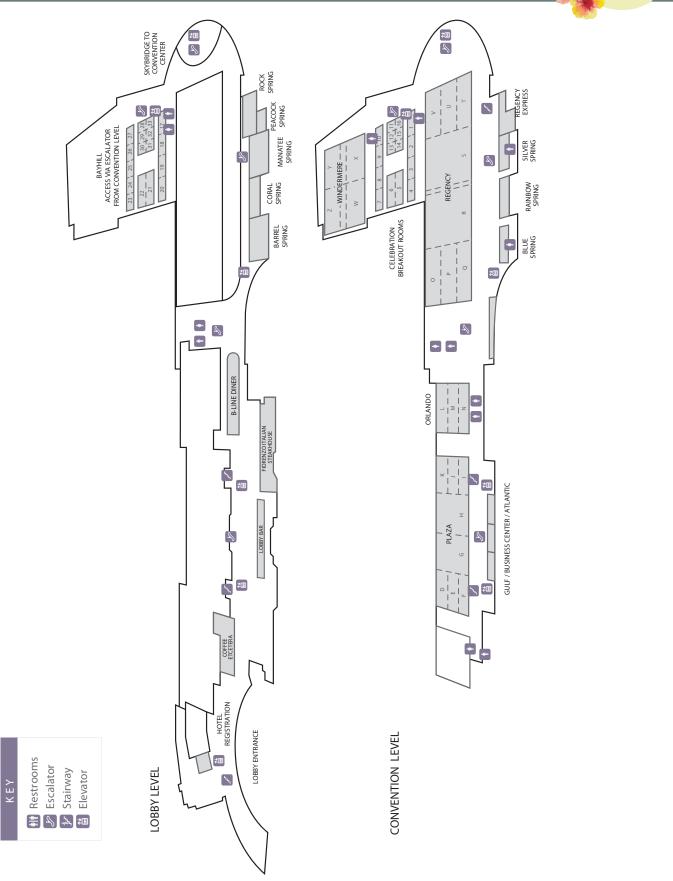
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Hyatt Regency Orlando Floor Plan

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA







I•RIDE Trolley Map

AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA UŚA

I•RIDE Trolley Info!

HRIDE Tralleys operate daily, 8:00 am to 10: Single Cash Fare \$2:00 per ride. Kids Cash Fare \$1:00 per ride. (ages 3 to 9) Senior Cash Fare \$0:25 per ride. (S and very HDrive Employee Fare \$0:25 (I.D. required) Exact Fare is Required. Drivers do not carry cash.

ers do not carry cash. mited Ride Passes: • 1 Day \$ 5.00 per person • 3 Day \$ 7.00 per person • 5 Day \$ 9.00 per person • 7 Day \$12.00 per person • 14 Day \$18.00 per person

Passes not sold on Trolleys, sold at over 100 locations within the I•Drive Resort Area fers are free. Transfer between lines signated transfer stops, nated transfer stops nted as stars. a transfer ticket fro

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DINING Johnny Rockets 🕫 🚳 KFC 👩 🚳 Adobe Gila's 🔞 🚳 Aublee Giu's a the Applebee's [7] [1] Bahama Breeze [16] B.B. King's Blues Club [16] B.B. King's Ice Cream [26] [27] [26] BJ's Restaurant & Brewhouse [1] Ben & Jenry is teo treatment in the second s Cici Firzza (1) 10 10 Cod Stare Cramery 11 Cooper Canyon Grill (1) (1) Coper Canyon Grill (1) (1) Dairy Queen (2) Del Fricco I Double Eagle Steckhouse (2) Del Fricco I Double Eagle Steckhouse (2) Delmonico 1; Italian Steak House (2) Denny 1; (1) (1) (2) (2) (2) Dunkin Donuts With Baskin Robbins (1) (2) Dunkin Donuts With Baskin Robbins (1) (2) Dunkin Donuts With Baskin Robbins (1) (2) Domino's 17 Fat Fish Blue 18 💷 Firehouse Subs 30 FishBones 10 Frikbones (***) Five Goys (***) Flipper's Pizzario (***) Flipper's Pizzario (***) Foddy fizzario (***) Friendly's (***) Fundry Monkey Bitro & Bar (***) Giordances (***) Giordanc's (***) Golden Corral (***) Hanamizuki Japanese Restourcant (***) Hanamizuki Japanese Restourcant (***) (***) Hash House A Go Go 3 Hooters 16 Hooters 16 Hurricane Grill & Wings 3 IHOP 10 23 33 (1) Ichiban Buffet 4

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KFC Kobe Japanese Steakhouse Kobe Japanese Steakhouse Lafayette's Music Room Orlando (a) Lighthouse Lobster Feast Lighthouse Lobster Feast LongHorn Steakhouse LongHorn Steakhouse Mango's Tropical Café Mardow's Taven Margiano's Little Indy (b) Margiano's Little Indy (c) Przza fru file Pondersca Stackhouse [] Popeys's Fomous Fried Chicken 10 The Pub 10 Rad Lobater 10 Red Robin Gournet Burgers 11 Sohke Shack 11 Sohke Shack 11 Sonic, America's Driven 12 Sonic, America's Driven 13 Sushiology ? ** Sweet Tomotos : I.G.I. Friday's : ? ? ? ? ? ? ? ? ? ? Table Indian Chinese & Thai @ Tace Bell : ? ? ? Tare Table Indian Chinese & Thai @ Tare Table Indian Chinese & Thai @ Tare of & Parce ? ? Tare of the Park & Tare Park Timbed Kill Park & Tare Park Twin Peaks : UNO Pizzeria & Grill ? Vinlege Inn Family Restaurant ? Vincenzo Curica Indiano ? Vincenzo Curica Indiano ? Vince Ristorante : Vinci & Chap House : @ Wandy & Hamburgars : Yard House Orlando :

Itta Bena 18 1 Joe's Crab Shack 13 ACCOMMODATIONS

Home's Duites by Hilton Homewood Suites by Hilton Homewood Suites by Hilton E Homewood Suites by Hilton Livieral Homewood Suites by Hitton Livieral Hyatt Place Orlando Livieral Hyatt Place Orlando Livieral Hyatt Reserv Orlando Li-Drive Grand Resort & Suites Drawn Suites I-Drive Grand Resort & Suites 😭 InTown Suites @ La Quinta Inn & Suites Conv Ctr @ La Quinta Inn - I-Drive North 😭 La Quinta Inn - I Universal Studios @ The M Hotel 🛐 Marriott Vacation Club Harbour Lake Marriott's Cypress Harbour 65 Marriott's Grande Vista 32 Metropolitan Resort Orlando 13 Monumental Hotel Orlando 34 Monumental Movieland Hotel 6 Monumental Movieland Hatel Matel & Orlando Universal Studios Orlando Continental Plaza Hatel Orlando Roirdian Express Orlando International Resort Club Orlando Sunshine Resort Parc Corriche De Point Orlando Resort Quality Inn & Suites gen Corro Crut Rosen Inn at Pointe Orlando 18 Rosen Inn at Pointe Orlando 18 Rosen Inn International 10 Rosen Plaza Hotel 20 Nosen Ricz Hotel

V/ACO WORLD ALLERGY ORGANIZATION

AAAAI FOUNDATION 🔗 📝 🔊 🖄

The AAAAI Foundation is pleased to announce our 2018 Faculty Development Award Recipients:

Lori Broderick, MD PhD

University of California at San Diego Project Title: *Molecular Mechanisms of Immunodysregulatory Disorders*

Sarah E. Henrickson, MD PhD

University of Pennsylvania/Children's Hospital of Philadelphia Project Title: *Defining Exhaustion and Immunometabolic Alterations in Primary Immunodeficiency*

Adora A. Lin, MD PhD

George Washington University/ Children's National Medical Center

Project Title: *Elucidation of the Role of B Cells in Food Allergy, Sensitization, and Tolerance*



AAAAI/WAO Joint Congress 2-5 March 2018 ORLANDO, FLORIDA USA

A

Abonia, Juan Pablo, MD, Cincinnati, OH, USA - 1006 Aceves, Seema S., MD PhD FAAAAI, La Jolla, CA, USA - 0101, 2304 Adams, Karla E., MD, JBSA Lackland AFB, TX, USA - 3503 Adelman, Daniel C., MD FAAAAI, Brisbane, CA, USA - 1050 Adinoff, Allen D., MD FAAAAI, Highlands Ranch, CO, USA - 1150, 1516 Agache, Ioana Octavia, MD PhD, Brasov, Romania - 3302 Akdis, Cezmi A., MD FAAAAI, Davos, Switzerland - 1808, 2803, 3521 Akdis, Mubeccel, MD PhD, Davos, Switzerland - 1514, 3308, 3707 Akin, Cem, MD PhD FAAAAI, Ann Arbor, MI, USA - 2511, 3607, 3707, 4703 Akuthota, Praveen, MD, San Diego, CA, USA - 3008 Al-Tamemi, Salem, MD, Muscat, Oman - 3509 Alam, Rafeul, MD PhD FAAAAI, Denver, CO, USA - 1513 Ali, Aishah, MD, Baltimore, MD, USA - 4713 Alkhammash, Salma Salim, MD, Montreal, QC, Canada - 3557 Allakhverdi, Zoulfia, PhD FAAAAI, Montreal, QC, Canada - 4008 Anderson, William C., MD, Aurora, CO, USA - 4003 Annesi-Maesano, Isabella, MD PhD DSc, Paris, France - 1511, 2101, 2601 Annunziato, Francesco, PhD, Florence, Italy - 3304 Ansotequi, Ignacio J., MD PhD, Erandio - Bilbao, Spain - 1601, 1801, 2002, 2302, 2810, 3306 Apter, Andrea J., MD MA MSc FAAAAI, Philadelphia, PA, USA - 1205, 3705 Arneson, Amy, RN, Dallas, TX, USA - 3401 Askenase, Philip W., MD FAAAAI, New Haven, CT, USA - 2722 Assa'ad, Amal H., MD FAAAAI, Cincinnati, OH, USA - 2604, 3704 Atkinson, T. Prescott, MD PhD FAAAAI, Birmingham, AL, USA - 2557 B Bacharier, Leonard B., MD FAAAAI, Saint Louis, MO, USA - 1519, 2310, 3701 Bachert, Claus, MD PhD, Stockholm, Sweden - 1005, 1805, 2607, 3521 Balcer-Whaley, Susan L., MPH, Baltimore, MD, USA - 2401 Ballas, Zuhair K., MD FAAAAI, Iowa City, IA, USA - 2803, 3521 Ballow, Mark, MD FAAAAI, St. Petersburg, FL, USA - 3004 Banerji, Aleena, MD, Boston, MA, USA - 2308 Banks, Taylor A., MD, Potomac, MD, USA - 0001 Barnes, Charles S., PhD FAAAAI, Kansas City, MO, USA - 2401, 3501. 4701 Barrett, Nora A., MD FAAAAI, Boston, MA, USA - 1004, 2809, 4715 Beauregard, Alexia K., MS RD CSP LD, Greer, SC, USA - 1151, 3311 Beck, Andrew, MD, Cincinnati, OH, USA - 1511 Beck, Lisa A., MD FAAAAI, Rochester, NY, USA - 1518, 2608, 3305 Beigelman, Avraham, MD MSCI FAAAAI, St. Louis, MO, USA - 1204, 2003, 2306 Bekkering, Siroon, PhD, Nijmegen, Netherlands - 3101 Ben-Shoshan, Moshe, MD, Montreal, QC, Canada - 1208, 2552 Bender, Bruce G., PhD FAAAAI, Denver, USA - 2305 Bernstein, Cheryl K., RN BSN CCRC, Cincinnati, OH, USA - 2610 Bernstein, David I., MD FAAAAI, Cincinnati, OH, USA - 1802, 2610, 3306 3552 Bernstein, Jonathan A., MD FAAAAI, Cincinnati, OH, USA - 2505, 2813 Bielory, Leonard, MD FAAAAI, Springfield, NJ, USA - 2007 Bird, J. Andrew, MD FAAAAI, Dallas, TX, USA - 3401

Birnbaum, Linda S., PhD, NC, USA - 2701 Bisgaard, Hans, MD DMSc, Gentofte, Denmark - 1512 Blumenthal, Kimberly G., MD MSc, Boston, MA, USA - 1050, 2807, 3604 Bock, S. Allan, MD FAAAAI, Boulder, CO, USA - 3401 Boguniewicz, Mark, MD FAAAAI, Denver, CO, USA - 1551 Bonadonna, Patrizia, MD, Verona, Italy - 1207 Bonini, Matteo, MD PhD, London, United Kingdom - 2802 Bonini, Sergio, MD, Rome, Italy - 1510, 2007 Book, Wendy, MD, Atlanta, GA, USA - 0101 Borgmeyer, Anne E., DNP RN CPNP AE-C, St. Louis, MO, USA - 2310, 2411.2611 Borish, Larry, MD FAAAAI, Charlottesville, VA, USA - 1005 Bousquet, Jean Julien, MD PhD, Montpellier, France - 1519, 2307 Boyce, Joshua A., MD FAAAAI, Boston, MA, USA - 2012, 2804, 3521 Brennan, Taryn, RD, Aurora, CO, USA - 3401 Breslin, Moira E., MD, Durham, NC, USA - 1201 Brockman, Karin J., MD, Tacoma, WA, USA - 0001 Brodin, Petter, MD PhD, Stockholm, Sweden - 3304 Broesby-Olsen, Sigurd, Odense, Denmark - 1207 Broide, David H., MB ChB FAAAAI, San Diego, CA, USA - 1804 Brown-Whitehorn, Terri F., MD FAAAAI, Philadelphia, PA, USA - 2504, 4704 Broyles, Ana Dioun, MD FAAAAI, Boston, MA, USA - 1501, 2308 Bryant-Stephens, Tyra, MD, Philadelphia, PA, USA - 4307 Bunvavanich, Supinda, MD MPH FAAAAI, New York, NY, USA - 1004. 1512, 3510 Burchard, Esteban G., MD MPH, San Francisco, CA, USA - 1003 Burks, A. Wesley, MD FAAAAI, Chapel Hill, USA - 1050 Busse, Paula J., MD FAAAAI, New York, NY, USA - 1805 Busse, William W., MD FAAAAI, Madison, WI, USA - 2306 Butte, Atul, MD PhD, San Francisco, CA, USA - 3101 Butterfield, Joseph H., MD FAAAAI, Rochester, MN, USA - 1503

C

Caballero, Fonseca, Fernan M., MD, Miami, FL, USA - 3306 Caballero, Teresa, MD PhD, Madrid, Spain - 2302, 2505 Cahill, Katherine N., MD, Boston, MA, USA - 1521, 2811, 4715 Calabria, Christopher W., MD FAAAAI, Helotes, TX, USA - 2507, 3552 Calderon, Moises A., MD PhD, London, United Kingdom - 1803, 3506 Caminati, Marco, MD, Verona, Italy - 1001, 2812 Campo, Paloma, MD PhD FAAAAI, Malaga, Spain - 1516 Canonica, Giorgio Walter, MD, Rozzano (Milano), Italy - 1801, 3601, 4305 Capers, Quinn, MD, Columbus, OH, USA - 1205 Capriles, Sonia, RN, Alexandria, VA, USA - 3310 Capriles Hulett, Arnaldo L., MD FAAAAI, Caracas, Venezuela (Bolivarian Republic of) - 1806 Capucilli, Peter, MD, Philadelphia, PA, USA - 3557 Caraballo, Luis, MD PhD, Cartagena, Colombia - 3301 Cardona, Victoria, MD PhD, Barcelona, Spain - 2006, 2810 Carnes Sanchez, Jeronimo, PhD, Madrid, Spain - 1802 Carter, Melody C., MD FAAAAI, Bethesda, MD, USA - 2511, 3009 Casale, Thomas B., MD FAAAAI, Tampa, FL, USA - 1510, 1805, 2811

Casillas, Adrian, MD FAAAAI, El Paso, TX, USA - 1205



Castells, Mariana C., MD PhD FAAAAI, Boston, MA, USA - 1001, 1207. 2308 Castro, Mario, MD MPH, St. Louis, MO, USA - 1209 Caubet, Jean-Christoph, MD, Geneva, Switzerland - 1006, 2005, 2504 Cecchi, Lorenzo, MD, Firenze, Italy - 3509, 4303 Celedon, Juan C., MD DrPH FAAAAI, Pittsburgh, PA, USA - 1002 Celik, Gulfem E., MD, Ankara, Turkey - 2301 Cepeda, Alfonso M., MD, Barranguilla, Colombia - 2813 Chambers, Christina D., PhD MPH, La Jolla, CA, USA - 4714 Chan, Alice, MD PhD, San Francisco, CA, USA - 4304 Chaplin, David D., MD PhD FAAAAI, Birmingham, AL, USA - 2722, 3304 Chapman, Martin D., PhD FAAAAI, Charlottesville, VA, USA - 2401 Chatila, Talal A., MD MSc, Boston, MA, USA - 1517, 4101 Chaudhry, Sofia, MD, Chevy Chase, MD, USA - 4710 Chehade, Mirna, MD MPH, New York, NY, USA - 0101, 1101, 3311 Chen, Meng, MD, San Francisco, CA, USA - 3557 Cheng, Edaire, MD, Dallas, TX, USA - 0101 Chinn, Ivan K., MD, Houston, TX, USA - 4711 Chipps, Bradley E., MD FAAAAI, Sacramento, CA, USA - 0602, 2503 Chiu, Asriani M., MD FAAAAI, Milwaukee, WI, USA - 3705 Cho, Seong Ho, MD FAAAAI, Tampa, FL, USA - 2607 Chowdhury, Badrul A., MD PhD FAAAAI, Potomac, MD, USA - 4710 Chruszcz, Maksymilian, PhD, Columbia, SC, USA - 1002 Chupp, Geoffrey, MD, New Haven, CT, USA - 3307 Ciaccio, Christina E., MD FAAAAI, Chicago, IL, USA - 1102, 4713 Cianferoni, Antonella, MD PhD FAAAAI, Philadelphia, PA, USA - 0101, 2806, 3609, 4602, 4704 Cimino, Linda M., EdD CPNP ANP CCRC CHSE, Stony Brook, NY, USA -1552, 2611 Clark, April, RDN CSP, Dallas, TX, USA - 1515, 3401 Codispoti, Christopher D., MD PhD FAAAAI, Chicago, IL, USA - 3303 Coffey, Kara, MD, Pittsburgh, PA, USA - 2557 Cohen, Noam A., MD PhD, Philadelphia, PA, USA - 2809 Cole Johnson, Christine, PhD MPH FAAAAI, Detroit, MI, USA - 1203 Collins, Limone C., MD, Falls Church, VA, USA - 0001 Collins, Margaret H., MD, Cincinnati, OH, USA - 0101 Combs, Helen, Severna Park, MD, USA - 1202 Commins, Scott P., MD PhD, Chapel Hill, NC, USA - 2311 Constantine, Gregory M., MD, Bethesda, MD, USA - 2557 Corry, David B., MD, Houston, TX, USA - 1204 Cosmi, Lorenzo, Firenze, Italy - 1517 Covington, Cleavon J., MD, Galveston, TX, USA - 3557 Crain, Maria, CPNP AE-C, Dallas, TX, USA - 3401 Creticos, Peter S., MD FAAAAI, Crownsville, MD, USA - 1807 Cruz, Alvaro, MD, Salvador, Brazil - 1001 Cunningham, Amparito, MD MPH, Boston, MA, USA - 2401 Custovic, Adnan, MD PhD FAAAAI, London, United Kingdom - 3502, 3703, 4603

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D'Amato, Gennaro, MD FAAAAI, Napoli, Italy - 2101, 4303 Dahlen, Sven-Erik K., MD PhD, Stockholm, Sweden - 3307 Darlenski, Razvigor B., MD PhD, Sofia, Bulgaria - 1001, 1201, 2812 Davidson, Wendy F., PhD, Rockville, MD, USA - 4308 Davila Gonzalez, Ignacio Jesus, MD PhD, Salamanca, Spain - 1505 Davis, Carla M., MD FAAAAI, Houston, TX, USA - 2801 Davis, Rav S., MD FAAAAI, Saint Louis, MO, USA - 1209 De Benedetto, Anna, MD, Rochester, NY, USA - 3504 De La Morena, M. Teresa, MD, Dallas, TX, USA - 3511 Dellon, Evan S., MD MPH, Chapel Hill, NC, USA - 0101 Demain, Jeffrey G., MD FAAAAI, Anchorage, AK, USA - 2002 Demoly, Pascal M., MD PhD, Paris, France - 1520, 2308, 2508 DiPrimio-Kalman, Denise A., DO FAAAAI, Wilmington, DE, USA - 0602, 1301 Doherty, Taylor Alan, MD FAAAAI, La Jolla, CA, USA - 4306, 4715 Dorsev, Morna J., MD MMSc FAAAAI, San Francisco, CA, USA - 1007 Dowling, Paul J., MD FAAAAI, Kansas City, MO, USA - 3557 Dreyfus, David H., MD PhD FAAAAI, New Haven, CT, USA - 1208 Druey, Kirk M., MD, Bethesda, MD, USA - 4711 Duffey, Hannah, MD, Denver, CO, USA - 2557 Durban, Raguel, MS RD CSP LDN, Charlotte, NC, USA - 1151, 2013, 3015 Durham, Stephen R., MA MD FRCP, London, United Kingdom - 4305 Dykewicz, Mark S., MD FAAAAI, St. Louis, MO, USA - 1807

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Ebisawa, Motohiro, MD PhD FAAAAI, Kanagawa, Japan - 4101, 4301 Ebo, Didier G., MD PhD FAAAAI, Antwerp, Belgium - 2810 Edgar, David M, Belfast, United Kingdom - 3004 Eigenmann, Philippe, MD FAAAAI, Geneve 14, Switzerland - 3005 El-Sayed, Zeinab Awad, MD, Cairo, Egypt - 2003, 4007 Ellis, Alysa G., MD FAAAAI, St. Louis, MO, USA - 3601 Elverson, Wendy, RD LDN, Boston, MA, USA - 1810, 2506 Ensina, Luis Felipe C., MD, Sao Paulo, Brazil - 2522 Epstein, Tolly, MD MS FAAAAI, Carmel, IN, USA - 3007, 3506 Erle, David, MD, San Francisco, CA, USA - 3308 Evans, Martin O., DO, Silver Spring, MD, USA - 0001

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Farooqui, Nabeel, MD FAAAAI, Indianapolis, IN, USA - 2009 Fernandez Rivas, Montserrat, MD PhD, Madrid, Spain - 3302 Ferrer, Marta M., MD PhD FAAAAI, Pamplona, Spain - 3504 Fineman, Stanley M., MD MBA FAAAAI, Atlanta, GA, USA - 1806 Fiocchi, Alessandro, MD, Rome, Italy - 2307, 2506, 2803, 3704 Fiscus, Cindy, RN BSN AE-C, Brownsburg, IN, USA - 2611 Fishman, Jennifer, RN, Nanuet, NY, USA - 2311 Fleischer, David M., MD FAAAAI, Aurora, CO, USA - 1515 Fleisher, Thomas A., MD FAAAAI, Bethesda, MD, USA - 1007, 1050 Fonacier, Luz S., MD FAAAAI, Mineola, NY, USA - 1012, 1518 Freeman, Alexandra F., MD, Bethesda, MD, USA - 1208 Freeman, Theodore M., MD FAAAAI, Helotes, TX, USA - 2521 Freiler, John, MD FAAAAI, San Antonio, TX, USA - 0001 Friedlander, Joel, DO, Aurora, CO, USA - 0101 Fritz, Patricia Mason, M. Eng., Albany, NY, USA - 2401, 2813 Fujisawa, Takao, MD FAAAAI, Mie, Japan - 3008 Fuleihan, Ramsay L., MD FAAAAI, Chicago, IL, USA - 2554 Fulkerson, Patricia C., MD PhD, Cincinnati, OH, USA - 0101, 3507

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Gagen-Hursey, Terri, NP, Baltimore, MD, USA - 3310 Galli, Stephen J., MD, Stanford, CA, USA - 2804 Gambineri, Eleonora, MD, Florence, Italy - 4711 Garcia Abujeta, Jose Luis, PhD, Villajoiosa, Spain - 2812 Geha, Raif S., MD FAAAAI, Boston, MA, USA - 2307, 3702







Gelincik, Asli, MD, Istanbul, Turkey - 2301 Geller-Bernstein, Carmi, MD, Bat-Yam, Israel - 2813 Gennery, Andrew R., MD, Newcastle upon Tyne, United Kingdom - 2512 George, Maureen, PhD RN AE-C, New York, NY, USA - 1205, 2014 Gern, James E., MD FAAAAI, Madison, WI, USA - 1003, 1203, 2304, 4308 Giavina-Bianchi, Pedro, MD PhD FAAAAI, São Paulo, Brazil - 3505 Gleason, Melanie C., MS PA-C, Aurora, CO, USA - 1301 Golden, David B.K., MD FAAAAI, Baltimore, MD, USA - 3010 Goldsobel, Alan B., MD FAAAAI, Palo Alto, CA - 2503 Goldstein, Stanley, MD FAAAAI, Rockville Centre, NY, USA - 1552 Gomez, R Maximiliano, MD PhD, Salta, Argentina - 2305 Gonsalves, Nirmala, MD, Chicago, IL, USA - 0101 González- Diaz, Sandra Nora, MD PhD FAAAAI, Monterrey, Mexico -3301, 4302 Gorska, Magdalena M., MD PhD FAAAAI, Denver, CO, USA - 1513 Graham, Emily, RHIA CCS-P, Washington DC, USA - 2805 Green, Brett J., PhD FAAAAI, Morgantown, WV, USA - 1802, 4701 Greenberger, Paul A., MD FAAAAI, Chicago, IL, USA - 1808, 2006, 3603, 4710 Greenhawt, Matthew J., MD MBA MSc, Aurora, CO, USA - 1006, 3005 Gregory, Karen L., DNP APRN-BC RRT AE-C, Edmond, OK, USA - 2321, 2411 Greiwe, Justin C., MD, Cincinnati, OH, USA - 2610, 3401, 4011 Groetch, Marion E., MS RDN, New York, NY, USA - 0101, 2021 Guglielmo, Claudia, MPA AE-C, Hauppauge, NY, USA - 1151 Guidos, Guillermo A., MD,, MSc, Coyoacan, Mexico - 4603 Gupta, Malika, MD, Ann Arbor, MI, USA - 1001 Gupta, Ruchi S., MD MPH, Chicago, IL, USA - 1006, 3311 Guttman-Yassky, Emma, MD PhD, New York, NY, USA - 3305 Н Haczku, Angela, MD PhD FAAAAI, Davis, CA, USA - 4008 Haddad, Elie, MD, Montreal, Canada - 2512, 4304 Hagan, John B., MD FAAAAI, Rochester, MN, USA - 2508

Hamann, Curt, MD, Phoenix, AZ, USA - 2812 Hamilos, Daniel L., MD FAAAAI, Boston, MA, USA - 2008 Hamilton, Matthew, MD, Boston, MA, USA - 1207 Happel, Corinne Savides, MD, Mount Airy, MD, USA - 1208, 2605, 4713 Hare, Nathaniel D., MD FAAAAI, Lewisburg, PA, USA - 2802 Hartert, Tina V., MD MPH, Nashville, TN, USA - 1203, 3701, 4308 Hartmann, Karin, MD, Luebeck, Germany - 1207 Hawrylowicz, Catherine M., PhD, London, United Kingdom - 1517 Heffler, Enrico, MD PhD, Milano, Italy - 4012 Heimall, Jennifer, MD, Philadelphia, PA, USA - 2554 Heisser, Anna H., MD, San Antonio, TX, Aland Islands, USA - 0001 Hellings, Peter W., MD, Leuven, Belgium - 1005 Herbert, Linda, PhD, Washington, DC, USA - 3512 Herlihy, Lauren, RN MSN CPNP, Durham, NC, USA - 2611 Hernandez, Michelle L., MD FAAAAI, Chapel Hill, NC, USA - 1007, 4007 Hernandez-Trujillo, Vivian P., MD FAAAAI, Davie, FL, USA - 2004, 2612, 2801 Herr, Sarah E., RN, Los Angeles, CA, USA - 2611

Herr, Sarah E., RN, LUS Angeles, CA, USA - 2011 Hirano, Ikuo, MD, Chicago, IL, USA - 0101 Hoffman, Mark A., PhD, Kansas City, MO, USA - 1511 Hogan, Simon P., PhD, Cincinnati, OH, USA - 2011 Holgate, Stephen T., MD DSc FAAAAI, Southampton, United Kingdom - 1808, 4012

Holloway, John W., BSc PhD, Southampton, United Kingdom - 1804 Holness, Linn, MD, Toronto, ON, Canada - 4712 Honda, Tetsuya, MD, Kyoto, Japan - 4301 Horner, Caroline C., MD FAAAAI, Saint Louis, MO, USA - 2015, 2310 Horner, W. Elliot, PhD LEED AP FAAAAI, Marietta, GA, USA - 0601 Hossny, Elham M., MD PhD FAAAAI, Cairo, Egypt - 1208, 4303 Hourihane, Jonathan O'B., MD FAAAAI, Cork, Ireland - 2808 Huang, Yvonne, MD, Ann Arbor, MI, USA - 1204 Huerta-Hernandez, Rosa, MD, Pachuca, Hidago, Mexico - 2806 Hulse, Kathryn E., PhD, Chicago, IL, USA - 1003 Huston, David P., MD FAAAAI, Houston, TX, USA - 3001

Idunate, Fernando, MD, Durango, Mexico - 1519 Ivancevich, Juan Carlos, MD, Ciudad De Buenos Aires, Argentina - 2009

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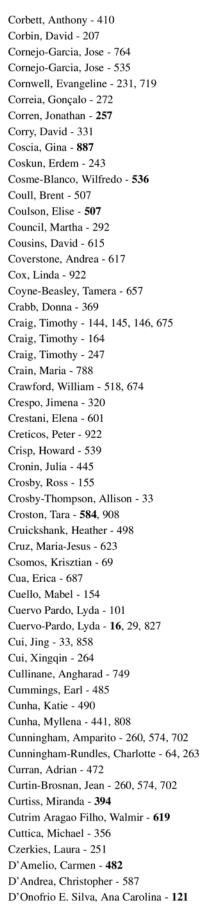
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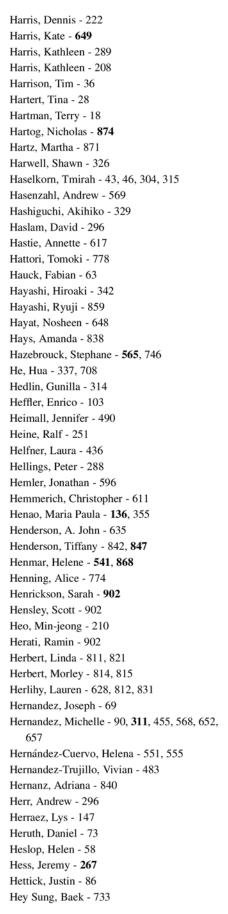
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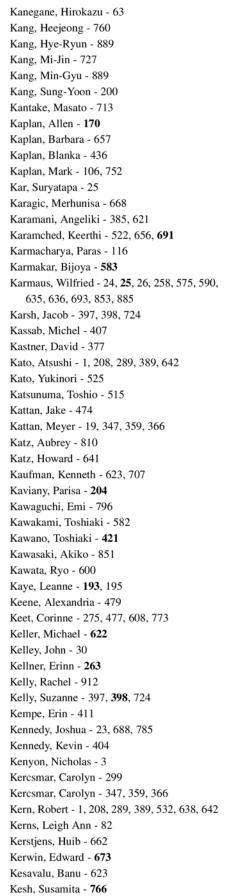
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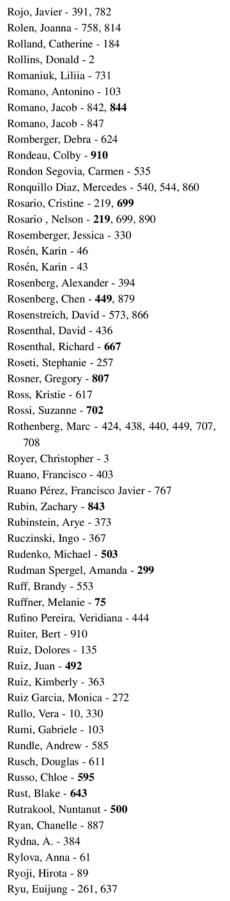
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Notes

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Notes

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See the evidence of CONTINUOUS CONTROL

Illustrations represent an EASI-75 response. See DUPIXENT clinical study responses on adjacent page. Individual patient responses may vary.

The **FIRST BIOLOGIC** for adults with uncontrolled moderate-to-severe atopic dermatitis

INDICATION

DUPIXENT is indicated for the treatment of adult patients with moderate-to-severe atopic dermatitis whose disease is not adequately controlled with topical prescription therapies or when those therapies are not advisable. DUPIXENT can be used with or without topical corticosteroids.

IMPORTANT SAFETY INFORMATION

CONTRAINDICATION: DUPIXENT is contraindicated in patients with known hypersensitivity to dupilumab or any of its excipients.

WARNINGS AND PRECAUTIONS

Hypersensitivity: Hypersensitivity reactions, including generalized urticaria and serum sickness or serum sickness-like reactions, were reported in <1% of subjects who received DUPIXENT. If a clinically significant hypersensitivity reaction occurs, institute appropriate therapy and discontinue DUPIXENT.

SIGNIFICANTLY CLEARER SKIN AND IMPROVEMENT IN DISEASE EXTENT AND SEVERITY

- 38% and 36% of DUPIXENT patients^a in 2 pivotal studies (Trials 1 and 2) achieved clear or almost-clear skin (IGA 0 or 1) at Week 16 vs 10% and 9% with placebo^a (*P*<0.001)^{1,2,b}
- **39%** and **36%** of patients achieved clear or almost-clear skin with DUPIXENT + TCS^a at 16 weeks and 52 weeks vs **12%** and **13%** with placebo + TCS^a in Trial 3 (*P*<0.0001)^{1,3,b}
- 51% and 44% of patients treated with DUPIXENT experienced at least 75% improvement in EASI (EASI-75) in 2 pivotal studies (Trials 1 and 2) at Week 16 vs 15% and 12% with placebo (*P*<0.001). Similar results were seen in Trial 3 (concomitant use with TCS)^{1.2.a}
- Significant 72% improvement from baseline in disease extent and severity (EASI) at Week 16 with DUPIXENT^a vs 38% with placebo^a in Trial 1 (P<0.001). A similar difference from placebo was seen in Trials 2 and 3^{2,3,c}

RAPID AND SUSTAINED ITCH REDUCTION

• **51%** of patients experienced long-term itch reduction (≥4-point improvement in the peak pruritus NRS) at Week 52 with DUPIXENT + TCS^a vs **13%** with placebo + TCS^a (*P*<0.0001) in Trial 3. Significant reduction of itch occurred as early as Week 2^{1,3}

SAFETY PROFILE AT WEEK 52 WAS GENERALLY CONSISTENT WITH WEEK 161

 The most common adverse reactions (incidence ≥1%) at Week 16 are injection site reactions, conjunctivitis, blepharitis, oral herpes, keratitis, eye pruritus, other herpes simplex virus infection, and dry eye¹

TRIAL DESIGNS: A total of 917 adult patients in Trials 1 and 2 (16-week trials) and 421 adult patients in Trial 3 (52-week trial) with moderate-to-severe atopic dermatitis not adequately controlled with topical treatments were randomized to DUPIXENT 300 mg Q2W or placebo. For all patients in Trial 3, lesions were treated with concomitant topical TCS. Eligible patients had an IGA score \geq 3 (overall atopic dermatitis lesion severity scale of 0 to 4), and EASI score \geq 16 on a scale of 0 to 72, and body surface area involvement of \geq 10%. At baseline, 52% of subjects had an IGA score of 3 (moderate atopic dermatitis), 48% of subjects had an IGA of 4 (severe atopic dermatitis), mean EASI score was 33 and weekly averaged peak pruritus NRS was 7 on a scale of 0 to 10. The primary endpoint was the change from baseline in the proportion of subjects with an IGA 0 (clear) or 1 (almost clear) and \geq 2-point improvement. Other endpoints included the change from baseline in the peak pruritus NRS.¹

Visit DUPIXENTHCP.com to learn more

Conjunctivitis and Keratitis: Conjunctivitis and keratitis occurred more frequently in subjects who received DUPIXENT. Conjunctivitis was the most frequently reported eye disorder. Advise patients to report new onset or worsening eye symptoms to their healthcare provider.

Please see additional Important Safety Information on next page and brief summary of full Prescribing Information on the following page.

EASI, Eczema Area and Severity Index; IGA, Investigator's Global Assessment; NRS, numerical rating scale; Q2W, once every 2 weeks; TCS, topical corticosteroids.

^a Emollient background regimen/therapy was required.

^bResponder was defined as a subject with IGA 0 or 1 (clear or almost clear) with a reduction of ≥ 2 points on a 0-4 IGA scale at Week 16 in all trials (primary efficacy outcome) and at Week 52 in CHRONOS (other endpoint).

^cLSM (least-squares mean) percent change from baseline in EASI score.



The **FIRST BIOLOGIC** for adults with uncontrolled moderate-to-severe atopic dermatitis

IMPORTANT SAFETY INFORMATION (cont'd)

WARNINGS AND PRECAUTIONS (cont'd)

Comorbid Asthma: Safety and efficacy of DUPIXENT have not been established in the treatment of asthma. Advise patients with comorbid asthma not to adjust or stop their asthma treatments without consultation with their healthcare provider.

Parasitic (Helminth) Infections: Patients with known helminth infections were excluded from participation in clinical studies. It is unknown if DUPIXENT will influence the immune response against helminth infections.

ADVERSE REACTIONS: The most common adverse reactions (incidence \geq 1%) are injection site reactions, conjunctivitis, blepharitis, oral herpes, keratitis, eye pruritus, other herpes simplex virus infection, and dry eye.

DRUG INTERACTIONS

- Live Vaccines: Avoid use of live vaccines in patients treated with DUPIXENT.
- Interactions with CYP450 Substrates: DUPIXENT could modulate the formation of CYP450 enzymes. Upon initiation or discontinuation of DUPIXENT in patients receiving concomitant drugs which are CYP450 substrates, particularly those with a narrow therapeutic index, consider monitoring for effect (e.g., for warfarin) or drug concentration (e.g., for cyclosporine) and consider dosage modification of the CYP450 substrate.

USE IN SPECIFIC POPULATIONS

- **Pregnancy:** There are no available data on DUPIXENT use in pregnant women to inform any drug associated risk. Human IgG antibodies are known to cross the placental barrier; therefore, DUPIXENT may be transmitted from the mother to the developing fetus.
- Lactation: There are no data on the presence of DUPIXENT in human milk, the effects on the breastfed infant, or the effects on milk production. Human IgG is known to be present in human milk. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for DUPIXENT and any potential adverse effects on the breastfed child from DUPIXENT or from the underlying maternal condition.

Please see brief summary of full Prescribing Information on the following page.

References: 1. DUPIXENT Prescribing Information. March 2017. 2. Simpson EL, Bieber T, Guttman-Yassky E, et al. Two phase 3 trials of dupilumab versus placebo in atopic dermatitis. N Engl J Med. 2016;375(24):2335-2348. 3. Data on file, Regeneron Pharmaceuticals, Inc.







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DUPIXENT® (dupilumab) injection, for subcutaneous use Brief Summary of Prescribing Information

1 INDICATIONS AND USAGE DUPIXENT is indicated for the treatment of adult patients with moderate-to-severe atopic dermatitis whose disease is not adequately controlled with topical prescription therapies or when those therapies are not advisable. DUPIXENT can be used with or without topical corticosteroids

CONTRAINDICATIONS

DUPIXENT is contraindicated in patients who have known hypersensitivity to dupilumab or any of its excipients [see Warnings and Precautions (5.1)].
 WARNINGS AND PRECAUTIONS

Sexciplent's peev warming's and recourtors (5.1).
 WARNINGSAND PRECAUTIONS
 1 Hypersensitivity
 Hypersensitivity reactions, including generalized urticaria and serum sickness or serum sickness-like reactions, where reported in less than 1% of subjects who received DUPIXENT in clinical trials. Two subjects experienced serum sickness or serum sickness-like reactions (6.2).
 If a clinically significant hypersensitivity reaction occurs, institute appropriate therapy and discontinue DUPIXENT.
 Conjunctivitis and Keratitis
 Conjunctivitis and keratitis occurred more frequently in subjects who received DUPIXENT.
 Conjunctivitis and keratitis occurred more frequently in subjects with conjunctivitis recovered or were recovering during the treatment period [see Adverse Reactions (6.1)].
 Keratitis was reported in (1% of the DUPIXENT group (1 per 100 subject-years) of 6.1)].
 Keratitis was reported in Controstoreriods (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticosteroids (TCS) trial, keratitis was reported in 4% of the DUPIXENT + topical corticostero

Isee Adverse Reactions (o. 1).
 Advise patients to report new onset or worsening eye symptoms to their healthcare provider.
 Comorbid Asthma
 Safety and efficacy of DUPIXENT have not been established in the treatment of asthma.
 Advise patients with comorbid asthma not to adjust or stop their asthma treatments without consultation with their physicians.
 Parasitic (Helminth) Infections

5.4 Parasitic (Helminth) Infections
 Patients with known helminth infections were excluded from participation in clinical studies.
 It is unknown if DUPNENT will influence the immune response against helminth infections.
 ADVERSE REACTIONS

6 ADVERSE REACTIONS The following adverse reactions are discussed in greater detail elsewhere in the labeling: • Hypersensitivity [see Warnings and Precautions (5.1)] • Conjunctivitis and Keratitis [see Warnings and Precautions (5.2)]

Hypersensitivity [see Warnings and Precautions [5.1]]
 Conjunctivitis and Keratitis [see Warnings and Precautions [5.2]]
 Conjuncitivitis and Keratitis [see Warnings and Precautions [5.2]]
 Clinical Triats Experience
 Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials stepperience
 There randomized, double-blind, placebo-controlled, multicenter trials (Trials 1, 2, and 3) and one dose-ranging trial (Trial 4) evaluated the safety of DUPIXENT in subjects with moderate-to-severe atopic dermatitis. The safety population had a mean age of 38 years; 41% of subjects were female, 67% were white, 24% were Asian, and 6% were black; in terms of comorbid conditions, 48% of the subjects had asthma, 49% had allergic rhinitis, 37% had food allergy, and 27% had allergic conjunctivitis. In these 4 trials, 1,472 subjects were treated with DUPIXENT for at least 1 year in the development program for moderate-to-severe atopic dematitis.
 Trials 1, 2, and 4 compared the safety of DUPIXENT monotherapy to placebo through Week 16. Trial 3 compared the safety of DUPIXENT monotherapy to placebo through Week 16. Trials 3 compared the safety of DUPIXENT by laws CS to placebo plus TCS through Week 15.
 In DUPIXENT monotherapy trials (Trials 1, 2, and 4) through Week 16, the proportion of subjects who discontinued treatment because of adverse events was 1.9% in both the DUPIXENT 300 mg Q2W and placebo groups.
 Table 1 summarizes the adverse reactions that occurred at a rate of at least 1% in the DUPIXENT 300 mg Q2W monotherapy groups, and in the DUPIXENT TrCS group, all at a higher rate than in their respective comparator groups during the first 16 weeks of treatment.
 Table 1 Sufwarse Reactions Occurring in 21% of the DUPIXENT monotherapy Group or the DUPIXENT + TCS Group in the Atopic Dermatitis Trials through Week 16.

	DUPIXENT Monotherapy ^a		DUPIXENT + TCS ^b	
Adverse Reaction	DUPIXENT 300 mg Q2W ^c N=529 n(%)	Placebo N=517 n(%)	DUPIXENT 300 mg Q2W ^c + TCS N=110 n(%)	Placebo + TCS N=315 n(%)
Injection site reactions	51 (10)	28 (5)	11 (10)	18 (6)
Conjunctivitis ^d	51 (10)	12 (2)	10 (9)	15 (5)
Blepharitis	2 (<1)	1 (<1)	5 (5)	2 (1)
Oral herpes	20 (4)	8 (2)	3 (3)	5 (2)
Keratitis ^e	1 (<1)	0	4 (4)	0
Eye pruritus	3 (1)	1 (<1)	2 (2)	2 (1)
Other herpes simplex virus infection ^f	10 (2)	6 (1)	1 (1)	1 (<1)
Dry eye	1 (<1)	0	2 (2)	1 (<1)

 Dry eye
 1 (<1)</th>
 0
 2 (2)
 1 (<1)</th>

 ^a pooled analysis of Trials 1, 2, and 4
 ^b analysis of Trial 3 where subjects were on background TCS therapy
 ^c DVPIKENT 600 mg at Week 0, followed by 300 mg every two weeks

 ^d Conjunctivitis cluster includes conjunctivitis, allergic conjunctivitis, bacterial conjunctivitis, viral conjunctivitis, glant papillary conjunctivitis, eye irritation, and eye inflammation.
 ^e Keratitis cluster includes keratitis, ulcerative keratitis, allergic keratitis, atopic keratoconjunctivitis, and ophthalmic herpes simplex.

 ^r Other herpes simplex virus infection cluster includes herpes simplex, genital herpes, herpes simplex otitis externa, and herpes virus infection, but excludes eczema herpeticum.

 Safety through Week 52 (Trial 3):

 In the DUPIKENT with concomitant TCS trial (Trial 3) through Week 52, the proportion of subjects who discontinued treatment because of adverse events was 1.8% in DUPIKENT 300 mg Q2W + TCS group and 7.6% in the placebo + TCS group. Two subjects discontinued DUPIKENT because of adverse reactions: atopic dermatitis (1 subject) and exfoliative dermatitis (1 subject). The safety profile observed at Week 16.

 Specific Adverse Reactions:

Specific Adverse Reactions: Conjunctivitis

Conjunctivitis During the 52-week treatment period of concomitant therapy trial (Trial 3), conjunctivitis was reported in 16% of the DUPIXENT + TCS group (20 per 100 subject-years) and in 9% of the placebo + TCS group (10 per 100 subject-years) [see Warnings and Precautions (5.2)]. Eczema Herpeticum and Herpes Zoster

Eczema Herpeticum and Herpes Zoster The rate of eczema herpeticum was similar in the placebo and DUPIXENT groups. Herpes zoster was reported in < 0.1% of the DUPIXENT groups (< 1 per 100 subject-years) and in < 1% of the placebo group (1 per 100 subject-years) in the 16-week monotherapy trials. In the 52-week DUPIXENT + TCS trial, herpes zoster was reported in 1% of the DUPIXENT + TCS group (1 per 100 subject-years) and 2% of the placebo + TCS group (2 per 100 subject-years).

Hypersensitivity Reactions

 Hypersensitivity Reactions

 Hypersensitivity reactions were reported in <1% of DUPIXENT-treated subjects. These included serum sickness reactions, serum sickness-like reaction, and generalized urticaria [see Contraindications (4), Warnings and Precautions (5.1), and Adverse Reactions (6.2)]. Easinophils</td>

 DUPIXENT-treated subjects had a greater mean initial increase from baseline in eosinophil counts declined to near baseline levels by Week 16. The initial increase in eosinophils was not observed in the 52-week DUPIXENT + TCS trial.

 In Trials 1, 2, and 3, the incidence of treatment-emergent eosinophilia (≥500 cells/mcL) was similar in DUPIXENT and placebo group. In Trials 1, 2, and 3, treatment-emergent eosinophilia (≥500 cells/mcL) was similar in DUPIXENT and placebo group. In Trials 1, 2, and 3, treatment-emergent eosinophilia (≥500 cells/mcL) was similar of DUPIXENT treated patients and none in placebo-treated patients. In most cases eosinophil counts declined to near baseline during study treatment.

 6.2
 Immunogenicity

 As with all therapeutic proteins, there is a potential for immunogenicit. The detection of antibody formation is highly dependent on the sensitivity and specificity of the assay. Additionally, the observed incidence of antibody (including neutralizing antibody) positivity in an assay may be influenced by several factors, including assay methodology, sample handling, timing of subjects with atopic dermatitis who received DUPIXENT 300 mg Q2W for 16 weeks developed antibodies to dupilumab. Of the subjects who developed antibodies to dupilumab. The studies of the subjects who developed antibodies to dupilumab. The subjects who developed antibodies to dupilumab and approximately 7% of subjects that were classified as neutralizing. In thevelse developed antibodies to dupilumab and approxima

7.1 Live Vaccines Avoid use of live vaccines in patients treated with DUPIXENT. 7.2 Non-Live Vaccines

Avoid Use of IVe Vacches in patients treated with DUPIXENT. **7.2** Non-Live Vacches Immune responses to vaccination were assessed in a study in which subjects with atopic dermatitis were treated once weekly for 16 weeks with 300 mg of dupilumab (twice the recommended dosing frequency). After 12 weeks of DUPIXENT administration, subjects were vaccinated with a Tdap vaccine (Adacel®) and a meningococcal polysaccharide vaccine (Menomune®). Antibody responses to tetanus toxoid and serogroup C meningococcal polysaccharide were assessed 4 weeks later. Antibody responses to both tetanus vaccine and meningococcal polysaccharide vaccine were similar in dupilumab-treated and placebo-treated subjects. Immune responses to the other active components of the Adacel and Menomune vaccines were not assessed. **7.3 Interactions with CYP450 Substrates** The formation of CYP450 enzymes can be altered by increased levels of certain cytokines (e.g., IL-1, IL-4, IL-6, IL-13, TNFca, and IFN) during chronic inflammation. Thus, DUPIXENT, an antagonist of IL-4 receptor alpha, could modulate the formation of CYP450 enzymes. Therefore, upon initiation or discontinuation of DUPIXENT in patients who are receiving concomitant drugs which are CYP450 substrates, particularly those with a narrow therapeutic index, consider monitoring for effect (e.g., for warfarin) or drug concentration (e.g., for cyclosporine) and consider dosage modification of the CYP450 substrate. **8.10 Pregnancy**

8.1 Pregnancy

8.1 Pregnancy <u>Risk Summary</u> There are no available data on DUPIXENT use in pregnant women to inform any drug associated risk. Human IgG antibodies are known to cross the placental barrier; therefore, DUPIXENT may be transmitted from the mother to the developing fetus. In an enhanced pre- and post-natal developmental study, no adverse developmental effects were observed in offspring born to pregnant monkeys after subcutaneous administration of a homologous antibody against interleukin-4-receptor alpha (IL-4Ra) during organogenesis through parturition at doses up to 10-times the maximum recommended human dose (MRHD) [see Data]. The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively. Data Data

Animal Data

Animal Data In an enhanced pre- and post-natal development toxicity study, pregnant cynomolgus monkeys were administered weekly subcutaneous doses of homologous antibody against IL-4Rα up to 10 times the MRHD (on a mg/kg basis of 100 mg/kg/week) from the beginning of organogenesis to parturition. No treatment-related adverse effects on embryofetal toxicity or malformations, or on morphological, functional, or immunological development were observed in the infants from birth through 6 months of age. 8.2 Lactation Risk Summary

birth through 6 months of age. 8.2 Lactation <u>Risk Summary</u> There are no data on the presence of dupilumab in human milk, the effects on the breastfed infant, or the effects on milk production. Human IgG is known to be present in human milk. The effects of local gastrointestinal and limited systemic exposure to dupilumab on the breastfed infant are unknown. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for DUPIXENT and any potential adverse effects on the breastfed child from DUPIXENT or from the underlying maternal condition.

8.4 Pediatric Use Safety and efficacy in pediatric patients (<18 years of age) have not been established. 8.5 Geriatric Use

Safety and enclosed in period in particular (softwars) of age have not been established.
8.5 Geriatric Use
Of the 1472 subjects with atopic dermatitis exposed to DUPIXENT in a dose-ranging study and placebo-controlled trials, 67 subjects were 65 years or older. Although no differences in safety or efficacy were observed between older and younger subjects, the number of subjects aged 65 and over is not sufficient to determine whether they respond differently from younger subjects. 10 OVERDOSE

10 OVERDOSE There is no specific treatment for DUPIXENT overdose. In the event of overdosage, monitor the patient for any signs or symptoms of adverse reactions and institute appropriate symptomatic treatment immediately. 17 PATIENT COUNSELING INFORMATION

Advise the patients and/or caregivers to read the FDA-approved patient labeling (Patient Information and Instructions for Use) before the patient starts using DUPIXENT and each time the prescription is renewed as there may be new information they need to know.

the prescription is renewed as there may be new information they need to know. Administration Instructions Provide proper training to patients and/or caregivers on proper subcutaneous injection technique, including aseptic technique, and the preparation and administration of DUPIXENT prior to use. Advise patients to follow sharps disposal recommendations. <u>Hypersensitivity</u> Advise patients to discontinue DUPIXENT and to seek immediate medical attention if they experience any symptoms of systemic hypersensitivity reactions [see Warnings and Precautions [5:1]].

Preclations (5...), <u>Conjunctivitis and Keratitis</u> Advise patients to consult their healthcare provider if new onset or worsening eye symptoms develop [see Warnings and Precautions (5.2)].

Comorbid Asthma Advise patients with comorbid asthma not to adjust or stop their asthma treatment without talking to their physicians [see Warnings and Precautions [5.3]].

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DUPIXENT (dupilumab)

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