

AAAAI American Academy of
Allergy Asthma & Immunology

ANNUAL MEETING

SAN FRANCISCO, CA · FEBRUARY 22-25, 2019



#AAAAI19

FINAL PROGRAM

Food Allergy: Advances in Prevention and Treatment



Revitalize, Refresh, Reimagine Your Practice



American Academy of
Allergy Asthma
& Immunology

2019 Practice Management Workshop

July 12-14, 2019
Cincinnati, OH

Because **Practice Matters!** to the AAAAI

Welcome



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

Dear Colleagues,

We are excited to have you here at the 2019 AAAAI Annual Meeting in San Francisco, California. A great deal of planning went into the educational program you will experience over the next few days. It begins with our theme, Food Allergy: Advances in Prevention and Treatment, which reflects the increasingly important role food allergy is playing in our specialty. This role will only continue to increase as the disease becomes more prevalent and treatments become available. Thus it is crucial to keep up to date on the ever changing world of food allergy—and the theme sessions we have programmed will allow you to do that.

We want to remind you that while the theme covers about 20% of our sessions, the remaining 80% were developed through member submissions. Please look for the labels and keys inside this program to help you determine which sessions relate to the theme or to our other various session tracks.

See You at the Plenary and Keynote Sessions

Join us at the Presidential Plenary, “Optimal Care of the Food Allergic Patient,” on Friday from 2:15 to 3:45 pm in Moscone Center South, Exhibition Level, Hall A. You will learn about optimal diagnostic and testing strategies to confirm food allergies, optimal use of emerging treatments, and novel therapies in development. Our plenary sessions continue Saturday morning with “Outcomes, Education and Healthcare Delivery in Allergic Diseases.” Sunday morning offers our plenary on “Systemic Regulation of Susceptibility and Pathogenesis of Allergic Inflammation, and we wrap up Monday morning with Atopic Dermatitis: Bench to Bedside and Back.”

Saturday afternoon also offers our Keynote presented by Eric Schadt, PhD, Dean for Precision Medicine at Icahn School of Medicine at Mount Sinai. His talk is titled, “Constructing Individualized Health Course Trajectories to Construct Better Models of Asthma and Other Immune/Inflammation Disorders.”

Download the Annual Meeting App and Join the Social Media Conversation by Using #AAAAI19

We hope you packed your smartphone or tablet. Remember to download the official 2019 Annual Meeting app, which allows you to: interact with other attendees; access session handouts, abstracts and evaluations; search by speakers and add their sessions to your schedule; learn about last minute program changes and navigate Moscone Center South with interactive maps and exhibitor information. Keep in mind that the app offers the only way to complete session evaluations, and we need your feedback to make future programming improvements. You can download the app from the App Store or Play Store on your device.

We know many of you are active on social media, so make sure to use #AAAAI19 when you tweet during the meeting to start conversations and share what you’re learning with your patients as well as your colleagues who could not be here.

Save Time for Some Fun at the AAAAI Foundation Benefit and 5K Run/Walk

Of course, we also hope you make time for camaraderie with your fellow attendees at the AAAAI Foundation’s two events: Saturday evening’s AAAAI Foundation Benefit at the Park Central San Francisco Hotel and Sunday’s 5K Run/Walk at AT&T Park. By registering and attending, you are showing your support for allergy/immunology dedicated research.

Enjoy your educational and networking experience here in San Francisco, and we hope to see you next year at the 2020 Annual Meeting in Philadelphia.

Sincerely,

Robert A. Wood, MD FAAAAI
AAAAI President

David D. Chaplin, MD PhD FAAAAI
Chair, Annual Meeting Program Committee

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The AAAAI Annual Meeting is not a public event. Programs presented at the Annual Meeting are for the education of attendees and purchasers of recorded presentations as authorized by the AAAAI. Any use of program content, the name of a speaker and/or program title, or the name of the AAAAI without the written consent of the AAAAI is prohibited. The “program content” includes, but is not limited to, oral presentations, audio visual materials used by the speakers and program handouts. This rule applies before, during and/or after the meeting.

The AAAAI endorses only those activities described in this printed program. Any other events occurring in the city of San Francisco, California during the AAAAI Annual Meeting are not sanctioned by the AAAAI.



Annual Meeting Program Committee

Leadership

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Leonard B. Bacharier, MD FAAAAI, Vice Chair

Interest Section Chairs, Vice Chairs and Secretaries

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Sharmilee M. Nyenhuis, MD FAAAAI, ADT Vice Chair
Thanai Pongdee, MD FAAAAI, ADT Secretary

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Antonella Cianferoni, MD PhD FAAAAI, BCI Vice Chair
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Cem Akin, MD PhD FAAAAI, MAAI Vice Chair
Roma Sehmi, PhD FAAAAI, MAAI Secretary

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Kara J. Wada, MD

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



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An Educational Connection



2019 Virtual Annual Meeting

Food Allergy: Advances in
Prevention and Treatment



Don't worry about missing sessions at this year's Annual Meeting—the Virtual Annual Meeting has you covered!

The Virtual Annual Meeting includes:

- Keynote
- Plenaries
- Select workshops, symposia and pro/con debates

The recordings can also be used to satisfy some MOC requirements, and can serve as a training resource for:

- Students
- Residents
- Fellows-in-training
- Medical office staff

Accessible in two options:

- Online streaming
- Downloadable files for any device

**Early bird pricing available until
February 25th at the Registration Desk.
Member pricing \$185
Non-Member pricing \$250*




Abstracts

Abstracts programmed at the 2019 Annual Meeting 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.

Admission to Sessions

Admission to Annual Meeting 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 an additional fee. All educational sessions requiring such fees will be noted in the sessions by day schedule. Please visit the registration desk to register for ticketed sessions. In consideration of state fire codes and as a courtesy to others, those without tickets will not be allowed access into ticketed sessions.

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

Moscone Center South, Exhibition Level, Hall A Lobby

Visit the AAAAI Foundation desk to pick up your Benefit tickets, 5K Run/Walk race packet, Friend of the President and New Allergist/Immunologist Assembly Ribbons.

You can make a donation to the AAAAI Foundation's GAIN Campaign at any time during the meeting by pressing the STAR icon on the Annual Meeting app. Click the STAR now to support young researchers in our field!

Annual Meeting Mobile App

Sponsored by Teva.

The AAAAI has a mobile app dedicated to the 2019 Annual Meeting. This app features tools allowing you to search by speaker or session type, organize your schedule, evaluate speakers and sessions, respond to polls and ask questions in sessions, stay current with changes as they occur during the meeting and navigate the Moscone Center with floor plans and exhibitor information. Download the 2019 Annual Meeting app from the App Store or Play Store on your mobile device.

Associates to the AAAAI

See Hospitality Suite.

ATMs

Moscone Center has two onsite ATMs located in the South lobby near the entrance at 3rd and Howard.

Business Center

The Moscone Center Business Center is located in the South lobby near the entrance to Hall C. Services include photocopying, office supplies, email receipt and UPS services. The Business Center will be open during exhibit hours. The Moscone Center Business Center uses UPS for shipping. Visa, MasterCard, American Express and business checks are accepted.

The Marriott Business Center is located on the B2 Level near the escalators. Services include photocopying, office supplies, and FedEx services. The Business Center is open from 7:00 am to 7:00 pm daily.

Career Fair

Saturday, February 23 9:45 am to 2:30 pm

Sunday, February 24 9:45 am to 2:30 pm

Moscone Center South, Exhibition Level, Hall B

Delegates attending the Annual Meeting 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

Moscone Center South, Exhibition Level, Hall B Lobby

The case report poster sessions are open on Saturday, February 23, Sunday, February 24 and Monday, February 25 from 9:45 to 10:45 am daily.

Charging Lounges

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

Concourse

Sponsored by Sanofi Genzyme and Regeneron.

Moscone Center South, Lobby Level

Sponsored by Shire, now part of Takeda.

Moscone Center South, Lobby Level

Sponsored by AstraZeneca.

Moscone Center South, Upper Mezzanine Level

Exhibit Hall

Sponsored by Shire, now part of Takeda.

Moscone Center South, Exhibition Level, Hall B – 200 Aisle

Sponsored by Sanofi Genzyme and Regeneron.

Moscone Center South, Exhibition Level, Hall B – 400 Aisle

Meeting Information



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Allergy Asthma & Immunology
ANNUAL MEETING
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Children and Guests

The AAAAI asks delegates to refrain from taking children, spouses or guests to any educational session offered at the 2019 Annual Meeting. 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 San Francisco 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

Moscone Center South, Exhibition Level, Hall B Lobby

Visit the AAAAI Education Station to:

- Learn about online educational opportunities
- Register for live courses beyond the Annual Meeting
- Share clinical challenges you have experienced to help shape future activities

Education Station Hours

Friday, February 22	7:30 am to 5:00 pm
Saturday, February 23	7:30 am to 5:00 pm
Sunday, February 24	7:30 am to 4:00 pm
Monday, February 25	7:30 am to 3:00 pm

Emergency

In the event of an emergency, please use one of the house telephones available in all Moscone Center meeting rooms and dial 511. At the Marriott, dial 0 from any house phone. House phones are located in all foyers.

Evaluations

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

Participants will be asked to provide input on the educational program of the 2019 Annual Meeting through the online CME Claim System when claiming credit for participation.

Delegates can provide feedback on Annual Meeting faculty members and the sessions they attend by using the mobile app.

Exhibits

Moscone Center South, Exhibition Level, Hall B

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 92 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 Moscone Center. Take time to speak with representatives of companies that provide services or market products directly related to your professional interests.

Exhibit Hours

Saturday, February 23	9:45 am to 3:15 pm
Sunday, February 24	9:45 am to 3:15 pm
Monday, February 25	9:45 am to 2:00 pm

First Aid

Moscone Center South, Upper Mezzanine Level, Esplanade Ballroom Hallway

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

Food Outlets

There are coffee, food and beverage vendors located throughout the Moscone Center. There are also two restaurants in the Marriott.

Handouts

Handouts at the 2019 Annual Meeting will be available in two ways:

• Online Handouts

The most up to date versions of the 2019 Annual Meeting handouts are available to meeting delegates online at annualmeeting.aaaai.org during and after the Annual Meeting and in the sessions listings in the mobile app. 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.

• Handout Printing Stations

Sponsored by AstraZeneca.

Moscone Center South, Exhibition Level, Hall B

Moscone Center South, Level 2, Foyer

Marriott, Lower B2 Level, Yerba Buena Foyer

Hospitality Suite

Marriott, Level 2, Foothill D

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, February 22	8:00 am to 12:00 pm
Saturday, February 23	8:00 am to 12:00 pm
Sunday, February 24	8:00 am to 12:00 pm
Monday, February 25	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 *The Journal of Allergy and Clinical Immunology: In Practice* (JACI: In Practice) will again be stationed 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 registration desk in the Moscone Center South, Lobby Level to either turn in or report a lost item. Please be prepared to provide a detailed description of your missing article.

Luggage Storage

February 25 from 7:00 am to 5:00 pm

Moscone Center South, Lobby Level

Complimentary storage for luggage and coats will be available on Monday.



Member Resource Center

Moscone Center South, Exhibition Level, Hall A Lobby

Visit the AAAAI Member Resource Center to:

- Take advantage of Annual Meeting 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 (JACI: In Practice)* about your subscription or submissions.

Member Resource Center Hours

Thursday, February 21	12:00 to 7:00 pm
Friday, February 22	7:00 am to 5:00 pm
Saturday, February 23	7:00 am to 5:00 pm
Sunday, February 24	7:00 am to 5:00 pm
Monday, February 25	7:00 am to 4:00 pm

Morning Yoga

Marriott, Level 2, Foothill C

Start your day off right with a morning yoga session.

Friday, February 22	6:00 – 7:00 am
Saturday, February 23	6:00 – 7:00 am
Sunday, February 24	6:00 – 7:00 am
Monday, February 25	6:00 – 7:00 am

Name Badges

All registered attendees at the 2019 Annual Meeting 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/sponsor to scan your badge, you are authorizing them to contact you and send you materials via postal mail, fax and/or email. The AAAAI cannot be responsible for the use of your contact information once you have given it to an exhibitor/sponsor.

Networking Lounge

Moscone Center South, Exhibition Level, Hall B – 900 Aisle

Relax between sessions and connect with colleagues. Enjoy the iconic photo op located adjacent.

Nursing/Lactation Room

Moscone Center South, Upper Mezzanine Level

There are dedicated rooms available for nursing mothers located on the Upper Mezzanine Level.

Photography

Personal photography is permitted within the educational sessions and the Poster Hall, unless the speaker or poster presenter explicitly states otherwise. A camera icon with a black circle and slash on posters or slides indicates that picture taking is not allowed. Delegates are also welcome to take photographs at all other AAAAI functions and activities. Please be mindful to turn off your flash during a presentation. A professional photographer will be onsite to document the event. By registering for and taking part in the Annual Meeting, your photo may be taken and used in future promotional materials. If you do not want your photo used, please inform the staff photographer at the time the photograph is taken.

Plenary Q&A

Moscone Center South, Exhibition Level, Hall A

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:

Friday, February 22	3:45 to 4:15 pm
Saturday, February 23	9:45 to 10:15 am
Sunday, February 24	9:45 to 10:15 am
Monday, February 25	9:45 to 10:15 am

Poster Hall

Moscone Center South, Exhibition Level, Hall B

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, February 23	7:00 am to 6:00 pm
Sunday, February 24	7:00 am to 6:00 pm
Monday, February 25	7:00 am to 2:00 pm

Practice Management Hub

Moscone Center South, Exhibition Level, Hall A Lobby

Visit the Practice Management Hub to obtain guidance about office operations, coding and promoting your practice.

Press Room

Moscone Center South, Lower Mezzanine Level, Room 70

Members of the press representing print, broadcast and electronic consumer media, as well as healthcare trade media, are invited to attend the 2019 Annual Meeting 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.

Meeting Information



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

The AAAAI does not issue press passes to: a publication's advertising, marketing, public relations or sales representatives; publishers, editors or reporters from manufacturers' in-house 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

Moscone Center South, Lower Mezzanine Level, Room 56

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

Recording of Sessions

Many of the scientific sessions will be recorded as part of the Virtual Annual Meeting and available for purchase onsite at the registration desk and after the meeting at the AAAAI Continuing Education Center (education.aaaai.org). Individual recording of educational sessions is not permitted.

Registration Desk

Moscone Center South, Lobby Level

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, February 21	12:00 to 7:00 pm
Friday, February 22	6:30 am to 5:00 pm
Saturday, February 23	6:30 am to 5:00 pm
Sunday, February 24	6:30 am to 5:00 pm
Monday, February 25	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 assisted 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 2019 Annual Meeting sessions and events.

Speaker Disclosures

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

Speaker Resource Room

Moscone Center South, Lobby Level, Room 102

All speakers are asked to report to the Speaker Resource Room immediately upon arrival in San Francisco 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, February 21	12:00 to 7:00 pm
Friday, February 22	6:30 am to 6:00 pm
Saturday, February 23	6:30 am to 6:00 pm
Sunday, February 24	6:30 am to 6:00 pm
Monday, February 25	6:30 am to 4:00 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 staff member at the registration desk to ensure arrangements are made. Special arrangements require at least 24 hours advance notice. Vegetarian 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

Moscone Center South, Exhibition Level, Hall B Lobby

Saturday, February 23 and Sunday, February 24 12:00 pm to 2:00 pm

Training stations provide Annual Meeting delegates the opportunity to get hands-on practice with allergy/immunology devices and procedures as well as 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 for time spent in the training stations. The 2019 stations will feature three options:

Saturday 2401: Practical Approaches to Adjunctive Management of Primary Immunodeficiency Diseases

This session will provide a hands-on approach to the use of IgG replacement products. The participants will receive instruction on when to start IgG replacement and different routes that can be used to infuse the medication including both IV and SC products. The instructors will review the different types of products available for both IV and SC infusions. They will also work through different scenarios to determine the appropriate starting dose and maintenance schedule for the medication in both adults and children. The experts will review the best practice schedule of monitoring labs required for patients who are on IgG replacement therapy. See page 64 for details.

Meeting Information



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Saturday 2402 and Sunday 3402: Oral Food Challenges: Practical Tips for Preparation in the Office Setting

These sessions will address the preparation for and administration of oral food challenges in the office setting. The sessions will include hands-on demonstrations and training, and will also allow participants to ask their personal and individualized questions. Session faculty are prepared to discuss the administration of oral food challenges to different age groups, as well as more practical aspects including office preparation and billing. See page 64 and 76 for details.

Sunday 3401: Asthma Medication Delivery Devices: How to Use Them and How to Teach Them

Many practices educate patients about asthma medication delivery devices but lack standard demonstration techniques for teaching device use. This training station will allow participants to learn about proper techniques for device use and the best ways to teach patients to use them. See page 76 for details.


Tweet Up

Saturday, February 23, 5:00 to 6:00 pm

Tabletop Tap House, 175 4th Street, San Francisco, CA 94103

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 Annual Meeting Recordings

Pre-purchase the 2019 Virtual Annual Meeting at the onsite registration desk located in the Moscone Center South, Lobby Level. The Virtual Annual Meeting 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 Annual Meeting are indicated with a  icon in this program.

Wellness Lounge

Moscone Center South, Exhibit Level, Hall B – 1600 Aisle

Take a moment to recharge your mind & body with one of these wellness sessions:

Saturday, February 23

Meditation for Stress Relief	12:00 to 12:30 pm
Breathing for Energy	1:30 to 2:00 pm

Sunday, February 24

Meditation for Stress Relief	1:30 to 2:00 pm
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Monday, February 25

10 Easy & Effective Poses	12:00 to 12:30 pm
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WiFi

Complimentary WiFi access is available at the Moscone Center South and in all meeting spaces throughout the Marriott.

Moscone Center South

Sponsored by Sanofi Genzyme and Regeneron.

Wireless Network: DUPIXENT (dupilumab)

Marriott

Wireless Network: AAAAI

Password: AnnualMeeting

Password is case sensitive.

Friend of the President

Ribbon

Thank AAAAI President Robert A. Wood, MD, FAAAAI for his year of service to the AAAAI with the \$100 purchase of a Friend of the President Ribbon.

This ribbon honors Dr. Wood 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.



Purchase or pick up your ribbon at the AAAAI Foundation booth located in the Moscone Center South, Exhibition Level, Plenary Hall Foyer

Spending time researching patient conditions and treatments? *You should get credit for that.*

With the new AAAAI Internet Point-of-Care Learning program, now you can.



Allergist/immunologists can earn .50 AMA PRA Category 1 Credit™ for each search performed in JACI or JACI: In Practice, with no limit to the number of searches that can be claimed each year. In addition, this program is offered free of charge to AAAAI members, who already have free access to the journals as a member benefit.*

Earn credit where credit is due. Log in at education.aaaai.org/IPOC2019 and submit your first internet point-of-care learning search today!



*Non-members will be charged a \$10 fee for each search completed. Journal access is limited to paid subscribers, so non-members may also be required to pay a fee for access to articles if they do not have institutional access via a medical school or hospital.

Business and Committee Meetings



AAAAI American Academy of
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AAAAI Annual Business Meeting

Monday, February 25, 12:30 to 1:30 pm
Moscone Center South, Level 2, Room 203

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

Associates to the AAAAI Breakfast and Business Meeting

Saturday, February 23, 9:00 to 11:00 am
Marriott, B2 Level, Golden Gate A

Interest Section Forums

Sunday, February 24, 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. Fellows and members may designate their interest section affiliation, while non-members may inquire about AAAAI membership opportunities. Continuing education credits are available for these activities. See page 33 for more information.

AAAAI Assembly/Board/Division Committee Meetings (Invitation Only)

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 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 info@aaaai.org.

A/I Division Directors Committee

Saturday, February 23, 7:00 to 8:00 am
Marriott, B2 Level, Golden Gate A

Advocacy Committee

Sunday, February 24, 12:30 to 1:30 pm
Marriott, Lower B2 Level, Yerba Buena Salon 14

Allied Health Education Committee

Sunday, February 24, 2:00 to 3:00 pm
Marriott, B2 Level, Willow

Allied Health Professionals Assembly Business Meeting and Oral Abstract Session

Saturday, February 23, 12:15 to 1:45 pm
Moscone Center South, Exhibition Level, Hall D8

Allied Health Professionals Assembly Leadership Meeting

Sunday, February 24, 3:00 to 4:00 pm
Marriott, B2 Level, Willow

Annual Meeting Award Committee

Friday, February 22, 4:00 to 5:30 pm
Marriott, B2 Level, Golden Gate C1

Annual Meeting Program Committee

Monday, February 25, 10:00 am to 12:00 pm
Moscone Center South, Lobby Level, Room 101

Clinical Rotation Curriculum Committee

Sunday, February 24, 12:30 to 1:30 pm
Marriott, Lower B2 Level, Nob Hill C

CME/MOC Committee (Invitation Only)

Saturday, February 23, 5:00 to 6:00 pm
Moscone Center South, Lower Mezzanine Level, Room 50

New Allergist/Immunologist Assembly (NAIA) Business Meeting and Reception

Sponsored by DBV Technologies.

Saturday, February 23, 4:45 to 6:15 pm
Marriott, Lower B2 Level, Yerba Buena Salon 10

Program Directors Assembly Business Meeting and Forum

Friday, February 22, 12:00 to 2:00 pm
Moscone Center South, Exhibition Level, Hall D7

Federation of RSLAAIS Assembly Forum, Business Meeting and Reception

Friday, February 22, 4:45 to 6:15 pm
Moscone Center South, Exhibition Level, Hall D7

Core Curriculum, Education & Residency Review Subcommittee

Sunday, February 24, 12:30 to 1:30 pm
Marriott, Lower B2 Level, Nob Hill A

Federation of RSLAAIS Governors Meeting

Saturday, February 23, 2:00 to 3:15 pm
Moscone Center South, Lower Mezzanine Level, Room 50

Fellows-In-Training Committee

Saturday, February 23, 7:00 to 8:00 am
Moscone Center South, Upper Mezzanine Level, Esplanade 160

Grant Review Committee

Sunday, February 24, 8:00 to 9:00 am
Moscone Center South, Lower Mezzanine Level, Room 50

Interest Section Coordinating Committee (ISCC)

Saturday, February 23, 10:45 to 11:45 am
Moscone Center South, Lobby Level, Room 104

In-Training Examination Committee

Saturday, February 23, 12:30 to 2:30 pm
Marriott, Lower B2 Level, Yerba Buena Salon 15

Leadership Institute Steering Committee

Sunday, February 24, 10:45 to 11:45 am
Marriott, B2 Level, Willow

Measures Stewardship Committee

Saturday, February 23, 7:00 to 8:00 am
Marriott, B2 Level, Golden Gate C1

New Allergist/Immunologist Assembly Leadership Team Meeting

Sunday, February 24, 12:30 to 1:45 pm
Moscone Center South, Lobby Level, Room 104

Business and Committee Meetings



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Office of Medical Education Committee

Saturday, February 23, 7:00 to 8:00 am
Marriott, Lower B2 Level, Nob Hill D

Office of Practice Management

Friday, February 22, 12:30 to 1:30 pm
Marriott, B2 Level, Golden Gate C2

Office of School-Based Management of Asthma

Saturday, February 23, 7:00 to 8:00 am
Marriott, B2 Level, Golden Gate C2

Practice Management Committee

Sunday, February 24, 12:30 to 1:30 pm
Moscone Center South, Exhibition Level, Hall D4

Program Directors Assembly Executive Committee

Sunday, February 24, 7:00 to 8:00 am
Marriott, B2 Level, Golden Gate C2

Veteran's Health Administration Allergists Committee

Saturday, February 23, 9:45 to 10:45 am
Moscone Center South, Lower Mezzanine Level, Room 50

AAAAI Interest Section Committee Meetings

Committee meetings are held during the Annual Meeting 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 and Latex Committee

Saturday, February 23, 12:15 to 1:45 pm
Moscone Center South, Exhibition Level, Hall D7

Adverse Reactions to Food Committee

Saturday, February 23, 6:00 to 7:30 am
Moscone Center South, Exhibition Level, Hall D7

Aerobiology Committee

Sunday, February 24, 6:30 to 7:45 am
Moscone Center South, Lobby Level, Room 101

Allergic Fungal Respiratory Diseases Committee

Sunday, February 24, 6:45 to 7:45 am
Marriott, Lower B2 Level, Nob Hill C

Allergic Skin Diseases Committee

Saturday, February 23, 7:00 to 8:00 am
Moscone Center South, Lobby Level, Room 101

Anaphylaxis Committee

Sunday, February 24, 7:00 to 8:00 am
Moscone Center South, Exhibition Level, Hall D4

Asthma & Allergic Diseases in the Elderly Committee

Saturday, February 23, 12:30 to 1:30 pm
Marriott, Lower B2 Level, Yerba Buena Salon 14

Asthma, Cough, Diagnosis and Treatment Committee

Saturday, February 23, 12:30 to 1:30 pm
Marriott, Lower B2 Level, Yerba Buena Salon 13

Autoimmunity and Altered Immune Response Committee

Saturday, February 23, 12:30 to 1:30 pm
Marriott, B2 Level, Golden Gate C1

Cells and Mediators of Allergic Inflammation Committee

Sunday, February 24, 12:30 to 1:30 pm
Moscone Center South, Lobby Level, Room 101

Committee on the Underserved

Saturday, February 23, 1:45 to 2:45 pm
Moscone Center South, Lobby Level, Room 104

Environmental Exposure and Respiratory Health Committee

Saturday, February 23, 12:30 to 1:30 pm
Moscone Center South, Lobby Level, Room 101

Eosinophilic Gastrointestinal Disorders Committee

Saturday, February 23, 12:30 to 1:30 pm
Marriott, B2 Level, Golden Gate C2

Genetics, Molecular Biology and Epidemiology Committee

Saturday, February 23, 7:00 to 8:00 am
Marriott, Lower B2 Level, Yerba Buena Salon 15

Health Informatics, Technology & Education Committee

Saturday, February 23, 12:30 to 1:30 pm
Moscone Center South, Exhibition Level, Hall D4

Immunotherapy, Allergen Standardization & Allergy Diagnostics Committee

Saturday, February 23, 7:00 to 8:00 am
Moscone Center South, Lobby Level, Room 104

Integrative Medicine Committee

Saturday, February 23, 1:00 to 2:00 pm
Marriott, Lower B2 Level, Nob Hill A

Mast Cells Disorders Committee

Sunday, February 24, 7:00 to 8:00 am
Moscone Center South, Lobby Level, Room 104

Microbes in Allergy and Asthma Committee

Monday, February 25, 7:00 to 8:00 am
Marriott, Lower B2 Level, Nob Hill D

Occupational Diseases Committee

Saturday, February 23, 7:00 to 8:00 am
Moscone Center South, Lower Mezzanine Level, Room 50

Practice, Diagnostics and Therapeutics Committee

Sunday, February 24, 7:00 to 8:00 am
Marriott, Lower B2 Level, Nob Hill D

Primary Immunodeficiency Diseases Committee

Sunday, February 24, 7:00 to 8:00 am
Moscone Center South, Exhibition Level, Hall D7

Other Meetings and Events



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Quality, Adherence and Outcomes Committee

Saturday, February 23, 12:30 to 1:30 pm
Marriott, B2 Level, Willow

Rhinitis, Rhinosinusitis and Ocular Allergy Committee

Saturday, February 23, 6:45 to 7:45 am
Marriott, Lower B2 Level, Nob Hill A

Sports, Exercise and Fitness Committee

Saturday, February 23, 12:30 to 1:30 pm
Marriott, Lower B2 Level, Nob Hill D

Vaccines Committee

Friday, February 22, 5:45 to 6:45 pm
Marriott, B2 Level, Golden Gate C2

Other AAAAI Meetings (Invitation Only)

AAAAI Leadership Institute Course

Friday, February 22, 8:00 am to 12:00 pm
Marriott, Lower B2 Level, Yerba Buena Salon 10

AAAAI Foundation Council Meeting

Monday, February 25, 10:00 to 11:30 am
Moscone Center South, Lower Mezzanine Level, Room 50

AAAAI Past Presidents & Honorary Award Recipients Luncheon

Saturday, February 23, 12:15 to 1:30 pm
Marriott, B2 Level, Golden Gate B

AAAAI Allied Health Wine and Cheese Reception

Sponsored by Aimmune Therapeutics.

Friday, February 22, 5:30 to 6:45 pm
Moscone Center South, Exhibition Level, Hall D8

Chrysalis Project Participant Registration

Thursday, February 21, 6:00 to 7:00 pm
Moscone Center South, Lobby Level, Room 101

2019 Chrysalis Project Program

Friday, February 22, 7:30 am to 1:45 pm
Marriott, Lower B2 Level, Yerba Buena Salon 6

Chrysalis Project Reception with FIT Mentors and Faculty

Saturday, February 23, 6:00 to 7:00 pm
Marriott, Lower B2 Level, Yerba Buena Salon 6

FIT Reception

Sponsored by Teva.

Friday, February 22, 5:00 to 6:00 pm
Marriott, Lower B2 Level, Yerba Buena Salon 10

FIT Symposium

Friday, February 22, 7:00 am to 1:30 pm
Marriott, Lower B2 Level, Yerba Buena Salon 9

JACI Associate Editors Meeting

Sunday, February 24, 12:30 to 1:45 pm
Marriott, Lower B2 Level, Golden Gate C2

JACI Editorial Board Meeting

Friday, February 22, 12:30 to 1:45 pm
Moscone Center South, Lobby Level, Room 104

JACI International Advisory Board

Sunday, February 24, 6:30 to 8:00 am
Marriott, Lower B2 Level, Nob Hill A

JACI Journals' Reviewers Forum and Reception

Sunday, February 24, 4:45 to 6:30 pm
Moscone Center South, Exhibition Level, Hall D8

JACI: In Practice Editorial Board Meeting

Saturday, February 23, 7:00 to 8:00 am
Moscone Center South, Exhibition Level, Hall D4

National Allergy Bureau (NAB) Counters Meeting

Friday, February 22, 5:45 to 6:45 pm
Marriott, Level 5, Sierra J

Tweet Up

Saturday, February 23, 5:00 to 6:00 pm
Tabletop Tap House, 175 4th Street, San Francisco, CA 94103

Other Meetings and Events

Allergists for Israel Board Meeting

Sunday, February 24, 8:30 to 9:30 am
Marriott, Level 4, Pacific H

Allergists for Israel Religious Service

Friday, February 22, 4:30 to 6:30 pm
Marriott, Lower B2 Level, Nob Hill A

Allergists for Israel Religious Service

Saturday, February 23, 6:00 to 9:00 am
Marriott, Level 4, Pacific C

Allergists for Israel Religious Service

Saturday, February 23, 5:00 to 8:00 pm
Marriott, Level 4, Pacific C

Allergists for Israel Religious Service

Sunday, February 24, 6:00 to 8:00 am
Marriott, Level 4, Pacific C

Allergists for Israel Religious Service

Monday, February 25, 6:00 to 8:30 am
Marriott, Level 4, Pacific C

Allergists for Israel Welcome Kiddush Reception

Friday, February 22, 6:00 to 10:00 pm
Marriott, Lower B2 Level, Yerba Buena Salon 6

Kaiser Permanente Allergy National Meeting

Saturday, February 23, 6:00 to 8:00 pm
Marriott, Lower B2 Level, Nob Hill A

New York State Allergy Asthma and Immunology Society Meeting

Friday, February 22, 5:00 to 6:00 pm
Marriott, Level 4, Pacific H

Saint Louis University Alumni Reception

Saturday, February 24, 7:00 to 9:00 pm
Marriott, B2 Level, Golden Gate C1

Other Meetings and Events



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Non-CME Educational Programs

Thursday

These programs are not sponsored or programmed by the AAAAI.

Reimagine the Management of Hereditary Angioedema

Thursday, February 21, 6:30 to 8:30 pm

Marriott, B2 Level, Golden Gate B

Sponsored by Shire, now part of Takeda. No CME/CE credit can be claimed.

Faculty: John Anderson, MD, William Lumry, MD, Daniel Soteres, MD, MPH, and a Patient Ambassador

Join us for an interactive session to learn more about the innovative advances in the treatment of hereditary angioedema (HAE). Thought leaders will share insights on preventive and acute treatment options including an injection that can be self-administered subcutaneously to help prevent HAE attacks. A patient ambassador will present their story about how they have been able to reimagine the management of HAE.

Complimentary dinner and drinks will be served.

Follow the AAAAI
Annual Meeting
on Twitter



While you're in
San Francisco, use #AAAAI19
when you tweet to participate
in onsite conversations and
share what you're learning
with your colleagues.



AAAAI-1218-136

Friday

These programs are not sponsored or programmed by the AAAAI.

The Future of Food Allergy: Demystifying Oral Immunotherapy

Friday, February 22, 6:30 to 8:30 pm

Marriott, Lower B2 Level, Yerba Buena Salon 9

Sponsored by Aimmune Therapeutics.

Aimmune Therapeutics will host 3 joint presentations on peanut allergy: the need for standardized terminology in food allergy clinical trials, the importance of protection from accidental exposure, and the aims of oral immunotherapy. Donations of \$50 will be made to the AAAAI Foundation for each participant completing a passport for attending all 3 presentations. Speakers include:

J. Andrew Bird, MD

University of Texas Southwestern Medical Center

Christina Ciaccio, MD

The University of Chicago Medicine

David Stukus, MD

Nationwide Children's Hospital & The Ohio State University College of Medicine

Target Treatment in Eosinophilic Disease

Friday, February 22, 6:30 to 8:30 pm

Marriott, B2 Level, Golden Gate A

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.

Clearing the Air in Severe Asthma Management: Improving Patient Outcomes Through Shared Clinical Decision Making

Friday, February 22, 6:30 to 8:30 pm (Dinner will be provided)

Marriott, Lower B2 Level, Yerba Buena Salon 7

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

Faculty: Jonathan Corren, MD; John J. Oppenheimer, MD (Virtual Professor); Reynold A. Panettieri, Jr, MD; Sally E. Wenzel, MD

This *Interactive Exchange™* educational program focuses on identification and long-term management of patients with severe asthma. Expert faculty will provide interpretive insights into the role of biomarkers, comorbidity management, and use of targeted biologic therapies, including their own clinical experience with personalizing therapy and engaging patients in shared decision making. Brief video segments will be shown throughout the program to highlight key aspects of severe asthma pathophysiology and the clinical implications for targeted therapies. In the last segment of the program, attendees will choose a final representative case study for discussion. Please join us for this informative and engaging session.

Register now: www.ExchangeCME.com/2019AsthmaSF



Non-CME Educational Programs (continued)

Navigating PI Management Over a Lifetime

Friday, February 22, 8:30 to 10:30 pm

Marriott, Lower B2 Level, Yerba Buena Salon 8

Sponsored by CSL Behring.

Successful management of PI requires physicians to adapt their approaches over the patient's lifetime—addressing age-specific considerations and evaluating new diagnostic and treatment modalities. This interactive symposium presents information to support physicians as they navigate shifts in the clinical and managed care setting and evaluate options for optimizing outcomes throughout the patient's lifelong journey with PI.

Attendees will enjoy complimentary refreshments while rotating through a series of stations where they will have the opportunity to dialogue with experts on:

- Age-specific dynamics that influence care
- Impact of comorbid conditions
- Managing access and resources
- Navigating individual patient transitions across these domains

Saturday

These programs are not sponsored or programmed by the AAAAI.

Phenotyping Airway Disease: The Role of Eosinophils and their Potential Heterogeneity in Personalizing Therapy for Asthma and COPD

Saturday, February 23, 6:00 to 8:00 am

Marriott, Lower B2 Level, Yerba Buena Salon 9

Sponsored by GlaxoSmithKline.

Speakers: Prescott Woodruff, MD, MPH and Nestor Molfino, MD, MSc

Eosinophils have been recognized as playing an important role in airways inflammation. They are associated with proposed phenotypes, or as a “treatable trait,” in both asthma and COPD. This program will review the biology of eosinophils and compare eosinophilic airway disease to other cellular mediated mechanisms of airway inflammation. Evidence for the use of eosinophils to identify subpopulations of airways disease as well as guideline recommendation for incorporation of phenotyping into clinical practice to guide treatment decisions will be highlighted.

AIRWAY PATHOPHYSIOLOGY: Type 2 Inflammation in Uncontrolled Asthma

Saturday, February 23, 6:00 to 8:00 am

Marriott, Lower B2 Level, Yerba Buena Salon 7

Sponsored by Sanofi Genzyme and Regeneron.

Presented by: William W. Busse, MD

Our expert faculty will review our understanding of uncontrolled Type 2 inflammation as a broad, underlying disease process that contributes to multiple, often comorbid conditions including allergic rhinitis, chronic rhinosinusitis with nasal polyps, asthma, AERD, atopic dermatitis, food allergies and eosinophilic esophagitis.

Next, we will discuss research supporting the contributory roles IL-4 and IL-13 in of the pathological manifestations of Type 2 inflammation that occur across epithelial surfaces in the upper and lower airways, skin and GI tract. Finally, using an interactive patient case-based approach we will discuss how comorbidities might magnify patient burdens of disease and complicate patient management.

Finding a Balance: Important Considerations for Investigational Peanut Allergy Immunotherapies

Saturday, February 23, 6:30 to 8:30 pm

Marriott, Lower B2 Level, Yerba Buena Salon 9

Sponsored by DBV Technologies.

The management of peanut allergy continues to evolve as we develop a greater understanding of both the condition as well as the impact on patients and caregivers.

As investigational immunotherapies are being evaluated for peanut allergy, it is important to consider the balance between safety, efficacy, and practicality and their contribution to treatment effectiveness. In addition, a greater understanding of the goals for treatment among allergy health care specialists, patients, and families is needed.

Please join DBV Technologies and a panel of experts at a non-CME dinner program to discuss the management of peanut allergy.

Faculty:

Hugh A. Sampson, MD (Chair)

David M. Fleischer, MD

Matthew Greenhawt, MD, MBA, MSc

Ray S. Davis, MD (Facilitator)

Edmond S. Chan, MD, FRCPC

Ruchi S. Gupta, MD, MPH

Michael Manning, MD

S. Shahzad Mustafa, MD

Manav Singla, MD



Non-CME Educational Programs (continued)

The Allergic Asthma Challenge

Saturday, February 23, 6:30 to 8:30 pm

Marriott, B2 Level, Golden Gate A

Sponsored by Genentech, Inc. and Novartis Pharmaceuticals Corporation.

Test your knowledge of allergic asthma! Doctors Jonathan Corren and Reynold Panettieri will host a live educational event using a game show format – “The Allergic Asthma Challenge” – where dinner attendees have the opportunity to participate. The highest scoring teams from the first round will move on to compete on the main stage in the final round. Questions will focus on the following topics: asthma phenotypes and endotypes, the role of biomarkers in diagnosis, asthma-related comorbidities, and the pathology of asthma. The program will conclude with a Q&A session with our two hosts.

DUPIXENT® (dupilumab)

Saturday, February 23, 6:30 to 8:30 pm

Marriott, Lower B2 Level, Yerba Buena Salon 7

Sponsored by Regeneron and Sanofi Genzyme.

Speaker: Raffi Tachdjian, MD, MPH

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.

Molecular Allergen Components – Practical Applications for Improving Diagnostic Precision

Saturday, February 23, 6:30 to 8:30 pm

Marriott, B2 Level, Golden Gate B

Sponsored by Thermo Fisher Scientific.

Co-Chairs: Thomas Platts-Mills, MD and Magnus Borres, MD

Join us for an informative and interactive educational program in which expert faculty with extensive expertise in molecular allergy and component resolved diagnosis will discuss a series of topics including:

Peanut Allergy: Filling the gaps with additional components

Barbara Ballmer-Weber, MD, PhD

Associate Professor of Allergy and Dermatology, University Hospital, Zürich, Switzerland

Venom Allergy: The Case for Component Resolved Diagnosis

Markus Ollert, MD, PhD

Director of Department of Infection and Immunity, Luxembourg Institute of Health

Furry Animal Allergy: Increasing diagnostic precision through molecular allergology

Magnus Borres, MD, PhD

Professor of Pediatrics, Uppsala University, Sweden

Global Medical Director Allergy, Thermo Fisher Scientific

Alpha-gal: The evolving understanding of this unusual allergen

Thomas Platts-Mills, MD, PhD

Professor of Medicine and Microbiology, University of Virginia School of Medicine

The Many Faces of Severe Asthma: Patient-Centered Perspectives and Evolving Evidence on Asthma Heterogeneity

Saturday, February 23, 8:30 to 10:30 pm

Marriott, Lower B2 Level, Yerba Buena Salon 8

Sponsored by PRIME through independent medical education grant support from Genentech.

Renowned asthma experts unravel the underlying mechanisms in asthma to characterize the complex evidence around phenotypes, endotypes, and genotypes that are shifting the way we understand and treat severe asthma. Engaging video interviews of patients with severe asthma offer a window into the spectrum of daily burdens, challenges, and strategies for self-care and resiliency faced by patients, and serve as a platform for expert discussions on applications of current evidence and patient-reported experiences to achieve personalized treatment decisions.

Register now: <https://primeinc.org/aaaaai>

Sunday

These programs are not sponsored or programmed by the AAAAI.

Oral Corticosteroid (OCS) Stewardship: A Closer look at OCS Overuse in Severe Asthma

Sunday, February 24, 6:00 to 8:00 am

Marriott, Lower B2 Level, Yerba Buena Salon 9

Sponsored by AstraZeneca.

Please join a panel of experts that will engage and challenge the audience to think differently about oral corticosteroid (OCS) use in severe asthma by reviewing the cumulative burden and impact of OCS exposure, and highlighting the importance of appropriate OCS use in the management of severe asthma. This interactive presentation will introduce the concept of OCS stewardship, with the goal of reducing the potential overexposure of asthma patients to OCS therapy.

A Virtual View: Long-Term Management of Atopic Dermatitis: New and Emerging Targeted Systemic Therapies

Sunday, February 24, 6:45 to 8:00 am

Marriott, Lower B2 Level, Yerba Buena Salon 7

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

While guidelines regarding the management of AD in children have been published, variability persists in practice. Treatment inconsistencies and the chronic and relapsing nature of AD can lead to frustration for patients, family, and caregivers when managing AD. This program will focus on providing AD caregivers an update on recent pathophysiological findings that drive new therapeutic targets; reviewing severity and diagnosis of AD; and discussing the clinical profiles of existing and emerging agents, with focus on treatment individualization.

Virtual reality headsets will be provided to all attendees for viewing this presentation only.

Register now: www.MLG-AD.com

Registration begins at 6:45 am

Food and beverage will be served



Non-CME Educational Programs (continued)

Eosinophilic Asthma: Patient Identification & A Targeted Treatment Approach

Sunday, February 24, 6:30 to 8:30 pm

Marriott, B2 Level, Golden Gate B

Sponsored by AstraZeneca.

Eosinophilic asthma is a common type of severe asthma in adult patients. Eosinophils can contribute to exacerbations and lung function decline in patients with allergic or non-allergic severe asthma. This complimentary symposium will highlight the growing body of literature on eosinophils and severe asthma. The presenters will use a case-based approach to help clinicians identify eosinophilic asthma in clinical practice and will discuss a targeted approach to the management of severe eosinophilic asthma. Attendees should leave being able to translate the growing science of eosinophils into real-world applications for severe asthma patients in the clinic.

Through the Allergist Lens: Achieving Optimal Outcomes in Patients with Mild-to-Moderate Atopic Dermatitis

Sunday, February 24, 6:30 to 8:30 pm

Marriott, B2 Level, Golden Gate A

Provided by Integrity Continuing Education and supported by an educational grant from Pfizer.

Faculty: Mark Boguniewicz, MD

Peck Ong, MD

Myron Zitt, MD

Join our panel of internationally recognized allergy and clinical immunology experts for a complimentary dinner symposium focused on mild-to-moderate atopic dermatitis. Our panel of experts will highlight recent clinical guidelines and current recommendations for diagnostic strategies, severity assessment, and up-to-date safety and efficacy data of established and emerging therapies for mild-to-moderate AD. Faculty will provide insight regarding patient evaluation, treatment strategies, and guidance on how to facilitate treatment adherence. This engaging program will feature a series of animated white-board case-study videos and interactive iPad technology that will leave attendees with clinically relevant information to implement in your practice.

Register Now: www.practitionersedge.com/aaaai

Personalized Approach in the Management of Patients with Moderate-to-Severe Asthma

Sunday, February 24, 6:30 to 8:30 pm

Marriott, Lower B2 Level, Yerba Buena Salon 7

Sponsored by Sanofi Genzyme and Regeneron.

Faculty: Dr. Jonathan Corren

Dr. Geoffrey Chupp

This program will help raise awareness of recent scientific and clinical developments in the management of patients with moderate-to-severe asthma that involves targeted inhibition of select cytokines important in inflammation in asthma. Our expert faculty panel will lead an interactive workshop to review some of the key issues that may be involved in the management of hypothetical patients with asthma, each having unique manifestations of uncontrolled inflammation.

Chronic Idiopathic Urticaria: Improving Treatment with a Focus on Patient Outcomes

Sunday, February 24, 8:30 to 10:30 pm

Marriott, Lower B2 Level, Yerba Buena Salon 8

This non-CME educational program is provided by Vindico Medical Education and supported by an educational grant from Genentech, Inc.

Urticaria is a common skin condition characterized by transient pruritic wheals. Patients who experience symptom recurrence for a duration over 6 weeks may be diagnosed as having chronic idiopathic urticaria (CIU). A US practice guideline and an updated international guideline are available to guide diagnosis and treatment of urticaria. This activity will assess the impact of CIU on quality of life, particularly its impact on sleep, psychological functioning, work, and activity. Current guideline approaches to the management of CIU will be evaluated, as well as treatment options for patients with CIU who fail to achieve complete symptom control.

Monday

These programs are not sponsored or programmed by the AAAAI.

Coffee and Conversation with the Experts: Delve into the current issues on allergic asthma in expert-led small group sessions

Monday, February 25, 6:00 to 8:00 am

Marriott, Lower B2 Level, Yerba Buena Salon 9

Sponsored by Genentech, Inc. and Novartis Pharmaceuticals Corporation.

Join our four experts in allergic asthma, doctors Thomas Casale, William Busse, Geoffrey Chupp, and William Calhoun, for a dynamic discussion-based educational program. Attendees will be seated at small tables with one of our experts for a short interactive discussion on a key topic in the field of allergic asthma. Experts will rotate through tables for discussions with attendees on the following topics: asthma phenotypes and endotypes, the use of biomarkers in patient classification, the allergic asthma cascade, and comorbidities associated with allergic asthma. The program will conclude with a Q&A session with our panel of faculty.

Chronic Rhinosinusitis with Nasal Polyps (CRSwNP): Understanding Mechanisms of Disease and the Role of Type 2 Inflammation

Monday, February 25, 6:00 to 8:00 am

Marriott, Lower B2 Level, Yerba Buena Salon 7

Sponsored by Regeneron and Sanofi Genzyme.

Speaker: Stella Lee, MD

The pathophysiology of chronic rhinosinusitis with nasal polyps (CRSwNP) is multifactorial, involving Type 2 inflammation in the majority of cases in Western societies. This program presents an overview of CRSwNP, discussing its pathophysiology, its association with comorbidities such as asthma and increased disease burden, and current unmet needs.

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

Using biologics to treat your severe asthma patients of childbearing age? 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 #1528 to find out how you can refer your pregnant asthma patients for this important study.



www.aaaai.org/VAMPSS

AAAAI American Academy of
Allergy Asthma & Immunology

Join us for an evening of fine food,
great music and the presentation of our
2019 Faculty Development Awards.

A stylized orange graphic of a suspension bridge, likely the Golden Gate Bridge, spanning the width of the central text box.

2019 AAAAI Foundation Benefit

SATURDAY, FEBRUARY 23
PARK CENTRAL SAN FRANCISCO

7:00 pm - 10:00 pm

Cocktail Attire

TICKET PRICES:

\$300 – Patron

\$3,000 – Table of 10

\$125 – NAIA/Allied Health

\$100 – Student

To purchase tickets, visit the AAAAI Foundation booth located in
Moscone Center South, Exhibition Level, Plenary Hall Foyer.

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 **NOVARTIS**

Only \$50 to register onsite
visit the Foundation booth located in Moscone
Center South, Exhibition Level, Plenary Hall Foyer.



*To Benefit Allergy
& Asthma Research*



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

Sunday, February 24, 2019

Starting Line @ Lefty O'Doul Plaza, AT&T Park

Race Start: 5:30 pm

Transportation provided from Moscone Center to AT&T Park
via motorized cable car.

NEW four-person team competition - register onsite at the
booth!

Proudly sponsored by 



Associates (Spouses & Friends) to the AAAAI

For over 35 years, the Associates (Spouses & Friends) to the AAAAI have provided networking opportunities and events 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 and a chance to participate in future programming for the Associates.

Associates (Spouses & Friends) to the AAAAI Hospitality Suite

Friday, February 22 to Monday February 25

8:00 am to 12:00 pm

Marriott, Level 2, Foothill D

Make sure to visit the Associates hospitality suite, which is open each morning of the Annual Meeting. 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, learn more about the city of San Francisco and things to do and learn how you can get involved and help the A/I specialty!

Associates Breakfast and Business Meeting

Saturday, February 23, 9:00 to 11:00 am

Marriott, B2 Level, Golden Gate A

Pre-registration and ticket required.

The Associates Steering Committee would like to invite you to begin your Annual Meeting experience by joining us for the Associates Celebration at the Marriott Marquis San Francisco. This breakfast event is open only to spouse/guest attendees (those displaying a delegate or exhibitor badge will 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 age of 6 are complimentary.



NAMED LECTURESHIP AND AWARD

The AAAAI Foundation announces these newly funded Named Lectureships and Named Awards:

These Lectureships and Awards will be presented at the 2020 AAAAI Annual Meeting in Philadelphia.



Richard F. Lockey, MD MS FAAAAI & University of South Florida Lectureship and Faculty Development Award
Term: 2020-2034



Bench to Bedside:
K. Frank Austen, MD FAAAAI &
Albert L. Sheffer, MD FAAAAI Lectureship
Term: 2020-2024



Michael M. Frank, MD FAAAAI Lectureship
Term: 2020-2024



Allen P. Kaplan, MD FAAAAI Lectureship:
Creating Knowledge for Our Future
Term: 2020-2024



Harold S. Nelson, MD FAAAAI Lectureship:
Investing Together in Our Future
Term: 2020-2024



David S. Pearlman, MD FAAAAI Lectureship:
Contributing to Discovery and Education
Term: 2020-2022



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 2019 AAAAI Annual Meeting. Biographies and photographs are available at annualmeeting.aaaai.org.

The Isil Berat Barlan Memorial Lectureship: 3rd Year

Lecturer: Raif S. Geha, MD FAAAAI

Award presentation at Plenary 3101: Systemic Regulation of Susceptibility and Pathogenesis of Allergic Inflammation on Sunday, February 24, 8:15 to 9:45 am

The Rebecca Buckley Lectureship: 8th Year

Lecturer: Donata Vercelli, MD

Award presentation at Symposium Session 2306: Innate Immunity in Allergic Responses on Saturday, February 23, 10:45 am to 12:00 pm

The Robert A. Cooke Memorial Lectureship: 57th Year

Lecturer: Eric Schadt, PhD

Award presentation at Keynote Session 2701: Inching Towards the Construction of Individualized Health Course Trajectories of Disease and Wellness on Saturday, February 23, 3:30 to 4:30 pm

The Elliot F. Ellis Memorial Lectureship: 21st Year

Lecturer: Julie Wang, MD FAAAAI

Award presentation at Plenary Session 1810: Allied Health Plenary: Food Allergy Update on Friday, February 22, 4:15 to 5:30 pm

The Hugh A. Sampson Lectureship in Food Allergy: 4th Year

Lecturer: Robert A. Wood, MD FAAAAI

Award presentation at Plenary Session 1601: Optimal Care of the Food Allergic Patient on Friday, February 22, 2:15 to 4:15 pm

The Robert G. Townley Memorial Lectureship: 5th Year

Lecturer: Kim E. Mudd, RN MSN CCRP

Award presentation at Plenary Session 1810: Allied Health Plenary: Food Allergy Update on Friday, February 22, 4:15 to 5:30 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 2019 AAAAI Annual Meeting. Biographies and photographs are available at annualmeeting.aaaai.org.

AAAAI Foundation and I. Leonard Bernstein, MD FAAAAI Memorial Lectureship: 3rd Year

Lecturer: Jonathan I. Silverberg, MD PhD MPH

Award presentation at Plenary Session 4101: Atopic Dermatitis: Bench to Bedside and Back on Monday, February 25, 8:15 to 9:45 am

AAAAI Foundation and Bettina C. Hilman, MD FAAAAI Lectureship: 2nd Year

Lecturer: Emma Guttman-Yassky, MD PhD

Award presentation at Plenary Session 4101: Atopic Dermatitis: Bench to Bedside and Back on Monday, February 25, 8:15 to 9:45 am

AAAAI Foundation and Phillip E. Korenblat, MD FAAAAI Lectureship: Investing Together in Our Future: 2nd Year

Lecturer: A. Wesley Burks, MD FAAAAI

Award presentation at Plenary Session 1601: Optimal Care of the Food Allergic Patient on Friday, February 22, 2:15 to 3:45 pm

AAAAI Foundation and Donald Y. M. Leung, MD PhD FAAAAI-JACI Lecture: Investing Together in Our Future: 7th Year

Lecturer: Lisa A. Beck, MD FAAAAI

Award presentation at Plenary Session 4101: Atopic Dermatitis: Bench to Bedside and Back on Monday, February 25, 8:15 to 9:45 am

AAAAI Foundation and Phil and Barbara Lieberman and Friends Lecture: Investing Together in Our Future: 5th Year

Lecturer: Cecilia Berin, PhD

Award presentation at Plenary Session 1601: Optimal Care of the Food Allergic Patient on Friday, February 22, 2:15 to 3:45 pm

AAAAI Foundation and Louis Mendelson Lectureship: Investing Together in Our Future: 3rd Year

Lecturer: Cathryn Nagler, PhD

Award presentation at Plenary Session 3101: Systemic Regulation of Susceptibility and Pathogenesis of Allergic Inflammation on Sunday, February 24, 8:15 to 9:45 am

AAAAI Foundation and Gary S. Rachelefsky, MD FAAAAI Lectureship: Investing Together in Our Future: 2nd Year

Lecturer: Anuradha Ray, PhD

Award Presentation at Symposium Session 3555: Interferons Contribute to Allergic Disease: Lessons Learned from the Asthma and Allergic Diseases Cooperative Research Center on Sunday, February 24, 12:30 to 1:45 pm

The American Academy of Allergy, Asthma & Immunology Foundation presents the

2019 Named Lectureship Series



Featuring Lectures at AAAAI Annual Meeting Plenary and Keynote Sessions In Honor Of:

I. Leonard Bernstein, MD FAAAAI
Bettina C. Hilman, MD
Phillip E. Korenblat, MD FAAAAI
Dennis K. Ledford, MD FAAAAI
Donald Y.M. Leung, MD PhD FAAAAI and JACI Editors
Phil and Barbara Lieberman and Friends
Louis M. Mendelson, MD FAAAAI

Gary S. Rachelefsky, MD FAAAAI
Gail G. Shapiro, MD FAAAAI
William T. Shearer and Lynn Des Prez
Sheldon L. Spector, MD FAAAAI
The Heritage Lectureship (Honoring Drs. Robert Becker,
Jerry Dolovich, Elliot Middleton, John Salvaggio and
Burton Zweiman)

*The 2019 Named Lectureship Series
is proudly sponsored by*

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AAAAI Foundation and William T. Shearer and Lynn Des Prez Lecture: Investing Together in Our Future: 5th Year

Lecturer: Carla Davis, MD FAAAAI

Award presentation at Plenary Session 2101: Outcomes, Education and Healthcare Delivery in Allergic Diseases on Saturday, February 23, 8:15 to 9:45 am

AAAAI Foundation and Sheldon L. Spector, MD FAAAAI Memorial Lectureship: 2nd Year

Lecturer: Maureen George, PhD RN AE-C

Award presentation at Plenary Session 2101: Outcomes, Education and Healthcare Delivery in Allergic Diseases on Saturday, February 23, 8:15 to 9:45 am

AAAAI Foundation and Gail G. Shapiro, MD FAAAAI Memorial Lectureship: Inaugural Year

Lecturer: David R. Stukus, MD FAAAAI

Award presentation at Plenary Session 2101: Outcomes, Education and Healthcare Delivery in Allergic Diseases on Saturday, February 23, 8:15 to 9:45 am

AAAAI Foundation and Dennis K. Ledford & University of South Florida Allergy & Immunology Division Lectureship: Inaugural Year

Lecturer: Sergejs Berdnikovs, PhD

Award presentation at Plenary Session 3101: Systemic Regulation of Susceptibility and Pathogenesis of Allergic Inflammation on Sunday, February 24, 8:15 to 9:45 am

AAAAI Foundation Heritage Lectureship: Inaugural Year

Lecturer: Linda Herbert, PhD

Award presentation at Plenary Session 1810: Allied Health Plenary: Food Allergy Update on Friday, February 22, 4:15 to 5:30 pm

Coding Questions?

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AAAAI Allied Health Professionals Assembly Travel Scholarship Awards (\$750)

Sarah A. Bennick, RN MSN CPNP
University of North Carolina-Chapel Hill
"Development of an Emergency Action Plan
for Food Allergic Patients"

Caeden Dempsey, MSN MPH RN
National Institutes of Health
"Examination of How Food Allergies Impact
Quality of Life"

Jennifer Ashley Hershfield, PhD
*Children's Hospital of Los Angeles, Division of
Clinical Immunology and Allergy*
"Feeding Difficulties and Food Allergy:
Development of a Workshop to Improve
Caregiver Feeding Behaviors"

Lila C. Kertz, MSN RN CPNP
Washington University School Medicine
"Creation of the Washington University School
of Medicine Severe Asthma Clinic for Kids"

Marjohn M. Rasooly, MSN APRN FNP-C
National Institutes of Health
"Impact of Food Allergy on the Growth
of Children with Moderate-Severe Atopic
Dermatitis"

Sara H. Roebuck, MPH RN BSN CPPS
Dartmouth Hitchcock Medical Center
"Improving the Safety and Quality of Care in
the Allergy and Immunology Clinic"

Allison M. Schaible, RDN
Icahn School of Medicine at Mt Sinai
"Development of a Meal Plan/Cookbook for
Food Allergic Patients"

Kelley Stoltz, RN BSN CPN
Nationwide Children's Hospital
"Guidelines for Introduction of Solid Foods in
Allergic Patients"

Allied Health Abstract Travel Award Recipients:

Nancy L. Ross, RN BN CAE
Children's Allergy & Asthma Education Centre
"Impact of Food Allergy on School-Age
Students: Perceptions of Winnipeg Parents,
Teachers and School Staff"

Jodi Shroba, MSN APRN CPNP
Children's Mercy Hospital
"Assessment of school preparedness in the
school-aged child with a food allergy"

Nicole Cascone, RN
*University of Pittsburgh Medical Center,
Presbyterian*
"The Impact of Allergic Disease in Adults with
Chronic Idiopathic Urticaria"

Daisy Tran, RN
Texas Children's Hospital
"School Personnel Apprehension Related To
Stock Epinephrine In Greater Houston Area"

AAAAI/APFED Best Abstract on EGIDs Award

Basil M. Kahwash, MD
The Ohio State University
"Peripheral Blood Microarray Analysis
in Pediatric Patients with Eosinophilic
Esophagitis"

Catherine Sonaly Ferreira Martins, MD
University of São Paulo
"EoE, OIT and Anaphylaxis: An Unsolved
Puzzle"

*The award is funded by APFED and provides
\$750.*

2019 Bernard B. Siegel Memorial Abstract Award

Yuval Tal
Hadassah Medical Center
"Anaphylaxis-related posttraumatic stress
disorder"

American Academy of Pediatrics Section on Allergy and Immunology Pediatric Abstract Awards

FIT Award Recipients - \$750

David Pelozo, MD
University of Wisconsin-Madison
"Early Life Risk Factors for Asthma at Early
Adulthood"

Watcharoot Kanchongkittiphon, MD PhD
Washington University School of Medicine
"Characterization of Gut Microbiome in Infants
with Severe Respiratory Syncytial Virus
Bronchiolitis"

Katie Kennedy, MD
The Children's Hospital of Philadelphia
"Replacement immunoglobulin trends
amongst patients with CVID and concurrent
autoimmunity: A report from the USIDNet
registry"

Junior Faculty - \$1000

Sima Ramratnam, MD MPH
University of Madison Wisconsin
"Spirometry and Impulse Oscillometry
Trajectories in an Inner-City Longitudinal Birth
Cohort at High Risk for Asthma"

Eric M. Schauburger, DO PhD
University of Wisconsin
"The Pediatric Asthma Risk Score (PARS)
Predicts Atopic and Non-atopic Asthma Better
than the Asthma Predictive Index"



AAAAI Interest Section Fellow-in-Training Abstract Award Recipients

Asthma Diagnosis and Treatment

Jamie A. Rosenthal, MD

University of Washington

"Type-1 Interferon and Th2-Type Gene Expression Responses and Childhood Asthma"

Basic and Clinical Immunology

Anna Lang, MD PhD

University of Wisconsin

"Distinct Innate Immune Cell Maturation during the First Year of Life is Associated with Farm Exposure"

Environmental and Occupational

Respiratory Diseases

Nicole Akar-Ghibril, MD

Boston Children's Hospital

"Mouse Allergen Levels in Schools in Two Inner City Asthma Studies: Past versus Present"

Food allergy, Anaphylaxis, Dermatology and Drug Allergy

Emily H. Liang, MD

Southern California Permanente Medical Group

"Penicillin and Clindamycin Associated Anaphylaxis and Serious Cutaneous Adverse Reactions"

Health outcomes, Education, Delivery and Quality

Jason Kwah, MD

Northwestern University Feinberg School of Medicine

"Respiratory Virus Detection in Nasal Lavage Fluid of Chronic Rhinosinusitis Patients During Acute Exacerbation"

Immunotherapy, Rhinitis, Sinusitis and Ocular diseases

Rory Nicolaides, MD

University of Texas Southwestern Medical Center

"Experience with Pharmacist Prepared Pre-filled SCIT Dosing in an Urban Allergy Clinic"

Mechanisms of Asthma and Allergic Inflammation

Katherine L. Tuttle, MD

Brigham and Women's Hospital

"Pathogenic effector Th2 lymphocytes in human nasal polyposis"

2019 International Travel Scholarship Recipients

The following international in-training members have been awarded International Travel Scholarships to attend the Annual Meeting. The 2019 International Travel Scholarships are selected by an ad hoc panel of International Fellows.

East Asia

Thitima Kantachatvanich, MD

Chulalongkorn Hospital

Thansinee Saetae, MD

King Chulalongkorn Memorial Hospital

Yee Yan Christine Wai, PhD

The Chinese University of Hong Kong

Dong Keon Yon, MD

Bundang CHA Medical Center

Wassamon Phattarapongdilok, MD

Songklanagarind Hospital

Europe

Adriana Ariza Veguillas, PhD

University of Malaga

Mexico

Rosalaura Villarreal-Gonzalez, MD

University Hospital Jose Eleuterio Gonzalez

South America

Claudia Leiko Yonekura Anagusko, MD

University of São Paulo

Patricia Bastos, MD

Federal University of São Paulo

Barbara Cancado, MD

Federal University of São Paulo

Wagner Campos, PhD

School of Medicine of Ribeirão Preto

Isabella Manhaes, MD

Federal University of São Paulo

Luiza Marino, MD

Federal University of São Paulo

Marilia Moraes, MD

Federal University of São Paulo

Orlando Trevisan Neto, MD

School of Medicine of Ribeirão Preto

2019 Medical Student and Resident Travel Scholarships

The Medical Student and Resident Scholarships are open to Medical Students and Residents in the United States and Canada.

Awarded Amount: \$1100

Babak Aberumand, MD

Morgan A. Amigo

Abhilasha Banerjee, MD

Felix Chan

Brian T. Cheng

Alanna Chomyn, MD

Sue Dong

Jocelyn Jia

Darya Koenig, MD

Monica T. Kraft, MD

Abigail Lang, MD

Hannah N. Neuhaus, MD

Yitzchok M. Norowitz

Jordan D. Pitt, MD

Benjamin Rahoy, DO

Kathryn A. Rentfro

Shaunah S. Ritter, DO

Cale J. Roberts, MD

Pragya Shrestha, MD

Ashley N. Stoner, MD

Lulu Tsao, MD

Garen S. Wolff, MD

Elizabeth A. Yakaboski, MD

Cindy X. Zhang



2019 Domestic Fellow-in-Training Travel Scholarships

The FIT Travel Scholarships are open to Fellows-in-Training in the United States and Canada.

Awarded Amount: \$1100

Amanda Agyemang, MD
 Hassan A. Ahmad, MD
 Ammara G. Ahmed, DO
 Nicole Akar-Ghibril, MD
 Ayobami Akenroye, MD MPH
 Fadi Alkhatib, DO
 Taha Al-Shaikhly, MD MBChB
 Evelyn Angulo, MD
 Niloofar Anooshiravani, MD
 Karen M. Anstey, MD
 Anna Arroyo, MD MPH
 Mary Grace Baker, MD
 Carolyn H. Baloh, MD
 Rachel Bean, MD
 Peter S. Capucilli, MD
 Erica C. Chen, MD
 Sheeba K. Cherian, MD
 Sun Mi Choi, MD PhD
 Madeleine B. Chollet, MD
 Dara Cohn, MD
 Quindelyn Cook, MD
 Cleavon J. Covington, MD
 Aparna S. Daley, MD
 Elizabeth Daniel, MD
 Christin Deal, MD
 Ashley Devonshire, MD MPH
 Hannah Duffey, MD
 Joan Dunlop, MD
 Amy Eapen, MD
 Stephanie C. Erdle, MD
 Julie Flom, MD PhD MPH
 Kourtney Gardner, MD
 Christopher Gordon, DO
 Mariam W. Guenther, MD
 Canting Guo, MD
 Monica Gupta, MD
 Shikha Gupta, MD
 Maria Paula Henao, MD
 Allison Hicks, MD
 Bryce C. Hoffman, MD
 Jenny Y. Huang, MD
 Edward Iglesia, MD
 Gavin H. Imperato, MD
 Melissa Itsara, MD
 Kirti Johal, MD
 Basil M. Kahwash, MD
 Watcharoot Kanchongkittiphon, MD PhD
 Merhunisa Karagic, MD
 Katie Kennedy, MD
 Samantha Knox, MD
 Jason Kwah, MD
 Anna Lang, MD PhD

Katherine Larabee Tuttle, MD
 Yoomie J. Lee, MD
 Kathleen Lee-Sarwar, MD
 Maya P. Lele, MD
 Maria G. Lennox, MD
 Amy Levin, MD
 Lily Li, MD
 Rung-chi Li, DO PhD
 Emily H. Liang, MD
 Mona Liu, MD
 Shazia Lutfeali, MD
 Kristen Lutzkanin, MD
 Amarilla Bernadett Mandola, MD
 Katherine McCormack, MD
 Gordon Myers, MD
 Stacy M. Nassau, MD
 Kathryn Neupert, MD
 Diana X. Nichols-Vinueza, MD
 Rory Nicolaides, MD
 Irum Noor, DO
 Nneoma Obiejemba, MD
 Nurcicek Padem, MD
 Aarti Pandya, MD
 Gargi Patel, MD
 Gayatri Patel, MD
 Priya J. Patel, MD
 David Pelozo, MD
 Carla Perez, MD
 Neelam A. Phadke, MD
 Jennifer Pier, MD
 Nicole Ramsey, MD PhD
 Niharika Rath, MD
 Cali Reynolds, MD
 Lacey Robinson, MD
 Daniel L. Rosenberg, MD
 Jamie A. Rosenthal, MD
 Daniel A. Rosloff, MD
 Lauren Rothstein, MD
 Christine Rukasin, MD
 Zeinab Saleh, MD
 Charles Schuler, MD
 Justin Schwartz, MD PhD
 Sara Seghezze, MD
 Ruchi Shah, MD
 Kirk V. Shepard, II, MD
 Travis M. Sifers, MD
 Jennifer C. Simonaire, DO
 Ruchi Singla, MD
 Claire Smigiel, MD
 Julia Sohn, MD
 Amika Sood, MD
 Cheryl A. Steiman, MD
 Heather H. Stern, DO

Lindsey Stoltz, MD
 Cosby Stone, MD MPH
 Di Sun, MD MPH
 Robert J. Szalewski, MD
 Robert Tamayev, MD PhD
 Monica Tang, MD
 David E. Tapke, MD MPH
 Julia Thorsen, MD
 Nalin U.G., DO
 Anusha Vadlamudi, MD
 Sofija Volertas, MD
 Jamie L. Waldron, MD
 Vivian Wang, MD
 Jeffrey Wilson, MD PhD
 Alanna Wong, MD
 Albert Wu, MD
 Luanna Yang, MD

Awarded Amount: \$800

Eliane Abou-Jaoude, MD
 Yuliya Afinogenova, MD
 Neha Agnihotri, MD
 Rhonda Alkatib, MD
 Sasha A. Alvarado, DO
 Santiago Alvarez Arango, MD
 John Anthonypillai, MD
 Amarilla Bernadett Mandola, MD
 Nathan A. Boggs, MD
 Ana-Maria Bosonea, MD
 David Brauer, MD
 Joseph Cafone, MD
 Annette Carlisle, MD
 Alice S. Chau, MD
 Melanie Conway, MD
 Elise Coulson, MD
 Alma Cruz, MD
 Vincent P. Devlin, Jr., DO
 Rashmi D'mello, MD
 Jessica R. Durkee-Shock, MD
 Marwa El-Bohy, MD
 Arfa Faiz, MD MBBS
 Lara Farhat, DO
 Dinah Foer, MD
 Shannon French, MD
 Claudia L. Gaefke, MD
 Melissa D. Gans, MD
 Meghan Farrell Garcia, MD
 August J. Generoso, MD
 Bailee H. Gilchrist
 Saul Moshe Greenbaum, MD
 Lily Grobman, MD
 Joshua Grossman, MD
 Olga Hardin, MD
 Yasmin Hassoun, MD



Jessica W. Hui, MD
Baruch Jakubovic, MD
Warit Jithpratuck, MD
Rebin Kader, DO
Anita Kallepalli, MD
Micah Karasov, DO
Bani Preet Kaur, MD
Jeffrey Kepes, MD
Farah N. Khan, MD
Suzanne R. Kochis, MD
Lisa A. Kohn, MD PhD
Hasan Kular, MD
Jason Lam, DO
Weyman Lam, MD
Ivan Lee, MD PhD
Dawn K. Lei, MD
Elise Liu, MD
Rachelle Lo, MD
Hannah Martin, MD
Victoria Menashy, MD
Jennifer Miller, MD
Pavle S. Milutinovic, MD PhD
Sanju Mishra, MD
Diana Munoz-Mendoza, MD
Anh P. Nguyen, MD
Johnny Nguyen, DO

Nora Odisho Domit, DO
Chirag Patel, MD
Nilam D. Patel, DO
Shiven Patel, MD
Mohini Pathria, MD
Megan Patterson, MD
Ryan Paulk, MD
Michael Polcari, MD
Erica K. Ridley, MD
Christopher Rigell, MD
Zachary Rubin, MD
Juan C. Ruiz, MD
Keith A. Sacco, MD
Rebecca Saenz, MD PhD
Trisha Saha, MD
Miriam Samstein, MD PhD
Neha Sanan, DO
Parteet Sandhu, MD
Tara Sarin, MD
Amanda Schneider, MD
Ori Scott, MD
Aminaa Siddiqi, MD
Elizabeth R. Smith, MD
Erin C. Steinbach, MD PhD
Hiral P. Thakrar, MD

Monica Tsai, MD
Linh-An C. Tuong, MD
Lorelei Vandiver, MD
Kateryna Vostretsova, MD
Helen T. Wang, MD
Kathleen Wang, MD
Melissa M. Watts, MD
Alissa Welsh, MD
Laura J. West, MD
Alicia Widge, MD MS
Shan Shan Wu, DO
Barbara Yang, MD
Tyler R. Yates, MD
Ofer Zimmerman, MD

Awarded Amount: \$650
Jennifer L. Barnas, MD PhD
Pascale Dupuis, MD
Jocelyn Farmer, MD PhD
Anna Ferguson, MD
Paria Kashani, MD
Ravdeep Kaur, MD
Zhen Ren, MD
Savannah L. Sommerhalder, MD
Alberta L. Wang, MD

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2019 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 topics with an affiliated A/I program in the US or Canada.

Awarded Amount: \$1100

Matthew G. Brewer, PhD
Casey G. Cohen, DO
Anh N. Do, MSPH PhD
Danh C. Do, PhD
Cameron H. Flayer, PhD
Tammy Gonzalez
Jennifer A. Hoang, PhD
Koa Hosoki, MD PhD
Mark D. Ihrle, PhD
Ara Jo, PhD
Hemanth Kumar Kandikattu, PhD
Lyndsey M. Muehling, PhD
Manali Mukherjee, PhD
Jun Nagai, PhD
Allison E. Norlander, PhD

Ashley Ramos, PhD
Piper A. Robida, PhD
Sachin Samuchiwal, PhD
Kapil Sirohi, PhD
Johanna Smeekens, PhD
Lianne Soller, PhD
Jada Suber
Wei Zhao

Awarded Amount: \$800

Behnam Keshavarz, PhD
Daniel Lozano-Ojalvo, PhD
Mary C. Moran
Rachael E. Rush
Shadia Khan Sunny, PhD MPH
Scott Tyler, PhD
William Zhao

2019 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.

Alessandra Arcolaci, MD
University of Cagliari, Italy
Peter Valentin Tomazic, MD
Medical University of Graz, Austria

AAAAI Payer Relations

Reviewing policy updates and initiating correspondence to protect patient access to care and provider compensation.

- ✓ Evaluating payer revisions to policies; more than 750 allergy testing and immunotherapy policies reviewed in 2018.
- ✓ Impacting policies ranging from compensation for drug allergy and venom immunotherapy services to treatment access for allergic rhinitis and asthma.
- ✓ Engaging with payers across the country, including Blue Cross Blue Shield, Humana, Anthem, AmeriHealth, Caritas Northeast, Pacific South and many more.

- ✓ Advocating for Change: more than 250 letters to payers issued in 2018.
- ✓ Getting Results: "Concerning the medical policy addressing Mepolizumab (i.e., Nucala), we agree with your recommendation. That policy document needs to specify that asthma is considered severe if ANY ONE of the components of severity are met, not all. We'll revise that wording today. We appreciate you sending that suggestion to us."

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AAAAI FOUNDATION



FACULTY DEVELOPMENT AWARD

THE AAAAI FOUNDATION IS PLEASED TO ANNOUNCE THE
RECIPIENTS OF OUR 2019 FACULTY DEVELOPMENT AWARDS



Matthew C. Altman, MD, MPhil

University of Washington

*Regulatory Circuits Between Antiviral Type I Interferon
and Th2-Type Inflammation in Pediatric Asthma*



Maria J. Gutierrez, MD

Johns Hopkins University

*Antibody Secreting Cell Dysfunction and Infection Risk
in Rheumatoid Arthritis*



Paul J. Maglione, MD, PhD

Boston University School of Medicine

*How B Cell Developmental Defects Shape
Manifestations of Common Variable Immunodeficiency*



Caroline L. Sokol, MD, PhD

The AAAAI Foundation & Dr. Donald Y. M. Leung/
JACI Editors Faculty Development Award

Massachusetts General Hospital Allergy Associates
Innate Immune Control of Th2 Differentiation

Thank you, AAAAI Foundation Donors, for making FOUR
awards possible this year! Your generosity will have a huge
impact on the careers of these young investigators.

Congratulations, Award Recipients! We are pleased to
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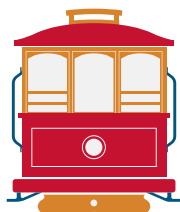


Complete evaluation and select sessions you have attended



Click **Save Sessions and Go Forward** after selecting all sessions

Deadline: December 31, 2019



AAAAI American Academy of
Allergy Asthma & Immunology

ANNUAL MEETING

SAN FRANCISCO, CA · FEBRUARY 22-25, 2019

Continuing Education & Accreditation



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

Two types of continuing education credit will be available at the 2019 AAAAI Annual Meeting: *AMA PRA Category 1 CME Credits™* for physicians and Continuing Education (CE) contact hours for nurses. Not all Annual Meeting 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 46. Attendance certificates are available to all delegates.

Credit Claiming: Continuing education credits and attendance certificates can be claimed at the Registration Desk, located at Moscone Center South, Lobby Level, beginning Thursday, February 21. Credits can also be claimed through the mobile app or online at annualmeeting.aaaai.org beginning Thursday, February 21 and ending December 31, 2019.

Physicians – Continuing Medical Education (CME) Credits

Accreditation Statement

The American Academy of Allergy, Asthma & Immunology (AAAAI) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Credit Designation Statements

The AAAAI designates this live activity for a maximum of 39.25 *AMA PRA Category 1 Credits™*. 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 Credits™*.

Target Audience

The AAAAI Annual Meeting 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 AAAAI Annual Meeting, participants should be able to discuss the latest advances in the research, diagnosis and treatment of allergic and immunologic disease. Learning objectives for individual sessions can be reviewed in the online program and the mobile app.

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 CME 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 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 39.25 Contact Hours.

Medical Administrators

Practice administrators who attend the Annual Meeting may apply for credit through the American College of Medical Practice Executives (ACMPE). For additional information, please contact the Medical Group Management Association at 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™* 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 2019 AAAAI Annual Meeting 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 Annual Meeting, 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. Learning objectives for individual sessions can be reviewed in the online program and the mobile app.



Sessions Tracked by Topic

To help you navigate the 150+ sessions in the Annual Meeting program, the index on the following pages lists all of the education sessions by topic. The topic categories include:

Allergens/Allergy Testing/Allergy Therapeutics

Allergic and Immunologic Skin Diseases

Allergy Office Practice

Anaphylaxis/Urticaria/Angioedema

Asthma

Autoimmune/Autoinflammatory Disorders

Drug/Insect Allergy/Vaccines

Food Allergy

Immune Mechanisms

Immunodeficiency

Lung Diseases Other than Asthma

Mast Cell/Eosinophilic Disorders

Research Principles

Rhinosinusitis/Ocular Allergy

These categories are included in the session descriptions in the online program as well. Use this index to tailor your Annual Meeting agenda to best meet your learning needs and answer your questions about your practice.

2019 Clinical Theme:

Food Allergy: Advances in Prevention and Treatment

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

The AAAAI Foundation achieved Platinum Level of Transparency from GuideStar.



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NEW Four-Person Team Competition



To create your team of four, visit the Foundation booth and complete a Team Registration form.

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The Foundation booth is located in Moscone Center South, Exhibition Level, Plenary Hall Foyer.

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Allergens/Allergy Testing/Allergy Therapeutics

Thursday, February 21, 2019

Session 201: Basic Aeroallergen Course

Session 601: 2019 Literature Review: ABAI Continuous Assessment Study Course

Friday, February 22, 2019

Session 1201: Difficult Cases 1 and Difficult Cases 2

Session 1302: Allied Health: Hot Topics in Allergy: What You May Have Missed in the Literature

Session 1803: Generation of Antigen-Specific Immunoglobulin E: A Revolution in Novel Therapies for Allergic Diseases

Session 1804: An Update on the Efficacy and Safety of Subcutaneous (SCIT) and Sublingual (SLIT) Immunotherapy

Session 1805: Environmental Yeasts: An Overlooked Exposure and Potential Aeroallergen Source in the United States

Saturday, February 23, 2018

Session 2005: How to Best Use Component Testing for Food Allergy in Clinical Practice

Session 2009: How to Apply Component Based Testing in Your Practice: A Case-Based Presentation

Session 2305: World Allergy Forum: New Advances in Allergen Immunotherapy

Session 2307: Stories from the AAAAI Foundation

Session 2309: Implementation of Food Immunotherapy into Clinical Practice

Session 2506: Cannabis Sativa: Marijuana as Medicine and Allergen?

Session 2612: Allied Health: Update on Allergen Extract Compounding: Immunotherapy Survey Results and Coding

Session 2801: Hot Topics in Pediatric Allergy and Immunology

Session 2807: A Review of Cross-Reactivity Patterns, Extract Stability, Optimal Dosing and Mixing for Subcutaneous Allergen Immunotherapy: A Case-Based Immunotherapy Prescription Mixing Workshop

Sunday, February 24, 2019

Session 3004: Toxic Mold: Health Effects and Home Assessment

Monday, February 25, 2019

Session 4001: Cross-Reactivity Patterns, Extract Stability, Optimal Dosing and Mixing for Subcutaneous Immunotherapy: A Case-Based Review of Immunotherapy Prescription Mixing

Allergic and Immunologic Skin Diseases

Friday, February 22, 2019

Session 1506: Allied Health: Hands on Eczema: Trying Out the Toolbox

Session 1511: Problem-Based Learning: Severe Atopic Dermatitis

Session 1802: Environment and Allergic Disease: A Global Phenomenon with Particular Consequences for At-Risk Populations

Session 1807: The New International Urticaria Guidelines: Are They of Practical Use to the Clinical Allergist?

Sunday, February 24, 2019

Session 3501: Should I Test My Patient with Atopic Dermatitis for Food Allergies?

Session 3509: Diagnosis and Management of Contact Dermatitis in Patients

Session 3510: Detergents in Allergic Sensitization

Monday, February 25, 2019

Session 4005: Diagnosis and Treatment of Common Skin Conditions and Cutaneous Drug Allergy in Older Adults

Session 4101: Atopic Dermatitis: Bench to Bedside and Back

Session 4305: Targeting the Outside: Moving in on Atopic Dermatitis

Monday, February 25, 2019

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

Allergy Office Practice

Friday, February 22, 2019

Session 1001: 2019 FIT Symposium

Session 1050: 2019 Chrysalis Project Program

Session 1101: Allied Health: Advanced Practice Update

Session 1110: Boot Camp for Program Directors and Clinical Faculty: How to Develop and Maintain Excellence in Allergy/Immunology Fellowships

Session 1204: Best of Practice Management Workshop: Expanding the Scope of Practice

Session 1207: Hands-On Workshop: IT Counts: Interactive Patient Cases

Session 1208: Improving Your Merit-Based Incentive Payment System Score by Promoting Adherence to Asthma Therapy

Session 1510: JACI: In Practice Year-in-Review Workshop



Saturday, February 23, 2019

Session 2007: New Solutions for Old Problems: Can Technology Improve Medication Adherence?

Session 2010: Overcoming Barriers to Change: Relationship Centered Communication Skills to Help with Asthma Control

Session 2101: Outcomes, Education and Healthcare Delivery in Allergic Diseases

Session 2303: Growing Your Practice While Earning MOC Credit with the AAAAI Clinical Rotation Curriculum

Session 2405: Career Paths in Allergy and Immunology

Session 2501: There's an App for That: The Use of Mobile Technology in Clinical Practice

Session 2557: Interesting Cases Part I

Session 2614: Allied Health: Perspectives from the Allied Health Travel Scholarship Recipients

Session 2802: ABAI Continuous Assessment Program (CAP) Pilot: One Year Later

Session 2806: JACI Year-in-Review Workshop

Sunday, February 24, 2019

Session 3003: Making QI Work for You: How to Begin, Complete and Publish Your Ideas in Quality Improvement

Session 3009: Update on Health Care Reform, Registries, Measures and Guidelines

Session 3305: Physician Health and Wellness: "We Need to Talk"

Session 3705: HEDQ: Effect the Change You Wish to See in the Allergy Clinic

Monday, February 25, 2019

Session 4303: Schools and Tools: How We Can Advance the Management of Asthma, Food Allergies and Anaphylaxis

Session 4712: Telemedicine in Practice: From Contemplation to Implementation

Anaphylaxis/Urticaria/Angioedema

Saturday, February 23, 2019

Session 2006: Evaluation and Treatment of Angioedema: An Approach to Difficult Cases

Sunday, February 24, 2019

Session 3704: FADDA: Hereditary Angioedema and Eosinophilic Esophagitis: Management in 2019

Monday, February 25, 2019

Session 4008: Idiopathic Anaphylaxis: The Overlap with Chronic Idiopathic Urticaria/Angioedema and Magnetic Cell Sorting and Approach to Patient Care

Asthma

Friday, February 22, 2019

Session 1103: Allied Health: Improving Asthma Control through Telemedicine

Session 1505: Asthma Over the Age of 65: All's Well That Ends Well

Session 1515: What is the Best Treatment Strategy for the Prevention and/or Treatment of Asthma Exacerbations in Children?

Saturday, February 23, 2019

Session 2008: Asthma and Allergy Health Disparities throughout the Lifespan

Session 2301: Asthma Care in the Era of Precision Medicine

Session 2503: Asthma in Preschool Children: Primary and Secondary Prevention and Management of Exacerbations

Session 2507: Biologic Therapies and Occupational Asthma

Session 2551: Antibiotics are Effective Therapy for the Management of Acute Episodic Wheeze in Preschool Children

Session 2555: National Heart, Lung and Blood Institute: Precision Medicine in Asthma

Session 2803: Asthma and the Athlete: Insights from an Ironman Legend

Session 2804: Gender Disparities in Asthma: Are Hormones to Blame?

Sunday, February 24, 2019

Session 3006: Introducing the New 2017 ATS Updates to the 2005 ATS/ERS Guidelines: How to Perform, Interpret and Report Spirometry

Session 3304: Biologics for Severe Asthma: Treatment-Specific Effects Important in Choosing a Specific Agent

Session 3310: Allied Health: Multidisciplinary Approach to Treating the Severe Pediatric Asthma Patient

Session 3401: Asthma Medication Delivery Devices: How to Use Them and How to Teach Them

Session 3504: Anti-Eosinophil Therapies for Severe Asthma and Beyond

Session 3551: The Severe Asthma Patient with Eosinophilic Phenotype Should Be Treated with Anti-Interleukin 5 Therapies

Session 3701: ADT: Asthma Education, Asthma Action Plans and Peak Flow Meters: Which Strategies Actually Work?

Session 3703: EORD: Microbiome, Metabolome and Asthma: Clues for Treatment and Prevention

Monday, February 25, 2019

Session 4004: Up-to-Date Perspectives on Exercise-Induced Bronchoconstriction

Session 4301: Asthma Development: The Environment and Prevention in Early Life

Session 4302: Difficulties in the Management of Older Patients with Asthma

Session 4702: Evaluating Systemic Side Effects in Children Receiving Inhaled Corticosteroids



Autoimmune/Autoinflammatory Disorders

Friday, February 22, 2019

Session 1503: Understanding the Link between Immunodeficiency and Autoinflammation

Sunday, February 24, 2019

Session 3507: Autoimmune Mimics of Allergic Disease

Drug/Insect Allergy/Vaccines

Friday, February 22, 2019

Session 1212: Approach to Delayed Drug-Allergic Reactions

Saturday, February 23, 2019

Session 2001: Aspirin and Non-Steroidal Antiinflammatory Drug Challenges in the Office

Session 2004: Skin Testing to Drugs in the Outpatient Clinic

Session 2810: Taking a Closer Look at Venom Immunotherapy from Several Angles

Sunday, February 24, 2019

Session 3308: Translational Drug Allergy

Session 3508: Approach to the Patient with Multiple Drug Allergies

Session 3553: Skin Testing is Necessary Prior to Oral Penicillin Challenge in all Patients

Monday, February 25, 2019

Session 4714: Pathways to Approval for New or Novel Hymenoptera Venom Allergenics

Food Allergy

Friday, February 22, 2019

Session 1102: Allied Health: Food Protein-Induced Enterocolitis Syndrome: Diagnosis and Management

Session 1206: The Circus Surrounding Peanuts: The Genetic and Molecular Mechanisms Driving Peanut Allergy

Session 1210: Can There Be a Universal Approach to Food Allergy Prevention Guidelines?

Session 1301: Allied Health: Management Dilemmas and Strategies in Pediatric Food Challenges

Session 1513: Clinical Management of Psychosocial Concerns among Pediatric Patients with Food Allergy and Their Caregivers

Session 1514: Advancing Care for Anaphylaxis and Food Allergy in Schools: Devil in the Details

Session 1601: Optimal Care of the Food Allergic Patient

Session 1806: Food Allergy Prevention: To Screen or Not to Screen, That is the Question

Saturday, February 23, 2019

Session 2308: The Microbiome in Food Allergy

Session 2402: Oral Food Challenges I

Session 2505: Case-Based Learning: Challenges in Food Protein-Induced Enterocolitis Syndrome Management

Session 2613: Allied Health: Tree Nut Allergy: Clinical Update

Sunday, February 24, 2019

Session 3001: Non-Immunoglobulin IgE Mediated Food Allergy: A Practical Approach for Recognition and Treatment

Session 3005: Nutritional Concerns in Children with IgE-Mediated Food Allergies

Session 3302: Allied Health: Words Will Never Hurt Me: Empowering Food Allergic Patients to Handle Bullying and School-Related Problems

Session 3402: Oral Food Challenges II

Session 3511: Allied Health: Where Are We With Allergy Prevention?

Session 3550: Oral Immunotherapy is Essential for Food Allergy Management

Monday, February 25, 2019

Session 4003: Management of Food Allergy in Breastfed Infant

Session 4304: Emerging Food Allergy Therapies



Immune Mechanisms

Friday, February 22, 2019

- Session 1205:** How Microbes Affect Allergic Illnesses
- Session 1209:** An Old Topic Gets Hot: Lipid Control of Type 2 Immunity
- Session 1211:** Single Cell Analysis in Human Disease: Lessons Learned from the Asthma and Allergic Diseases Cooperative Research Center
- Session 1516:** Early Life Environmental Exposures Regulate Host Allergic Immune Responses: Lessons Learned from the Asthma and Allergic Diseases Cooperative Research Center Birth Cohorts
- Session 1517:** Regulatory RNA in Allergic Diseases
- Session 1801:** Gene Therapy, Gene Silencing and Gene Editing for the Clinical Allergist/Immunologist

Saturday, February 23, 2019

- Session 2306:** Innate Immunity in Allergic Responses
- Session 2553:** Interleukin-33, and Not Thymic Stromal Lymphopoietin, is the Primary Driver of the Innate Allergic Immune Response
- Session 2556:** National Institute of Allergy and Infectious Diseases: Allergic Sensitization and the March of Allergic Diseases
- Session 2701:** Inching Towards the Construction of Individualized Health Course Trajectories of Disease and Wellness
- Session 2808:** Sputum Transcriptomics of Neutrophilic Asthma

Sunday, February 24, 2019

- Session 3007:** Big Data Approaches in the Allergy Field
- Session 3101:** Systemic Regulation of Susceptibility and Pathogenesis of Allergic Inflammation
- Session 3307:** Neuroimmune Interactions in the Allergic Immune Response
- Session 3309:** Genetic and Environmental Impact on Immune System Variability and Disease
- Session 3554:** National Institute of Environmental Health Services: Novel Pathways Involved in Regulation of Airway Inflammation
- Session 3555:** Interferons Contribute to Allergic Disease: Lessons Learned from the Asthma and Allergic Diseases Cooperative Research Center
- Session 3702:** BCI: What's New in Vaccines

Monday, February 25, 2019

- Session 4009:** Genetics 101 for the Practicing Immunologist
- Session 4307:** The Initiation of Allergic Immunity: From Innate Sensors to Initiation of Adaptive Immune Responses

Immunodeficiency

Saturday, February 23, 2019

- Session 2302:** Primary Immunodeficiency Disease Outcomes: Are They Improving?
- Session 2401:** Practical Approaches to Adjunctive Management of Primary Immunodeficiency Diseases
- Session 2509:** Adult Primary Immunodeficiencies
- Session 2611:** Allied Health: Recurrent Infections, Severe Eczema or Failure to Thrive: Is it Allergy or Immunodeficiency?

Sunday, February 24, 2019

- Session 3010:** Caring for Your Severe Combined Immunodeficiency Patient Post-Transplant
- Session 3301:** Precision Medicine in the Era of Primary Immunodysregulatory Diseases

Monday, February 25, 2019

- Session 4006:** Writing Orders for Immunoglobulin Therapy
- Session 4701:** A Nuts and Bolts Approach to the Workup of Immunodeficiency Disorders in Children

Lung Diseases Other than Asthma

Friday, February 22, 2019

- Session 1202:** Problem-Based Learning: A Patient with Chronic Obstructive Pulmonary Disease, Severe Asthma or Both?

Saturday, February 23, 2019

- Session 2003:** E-Cigarettes: The Arc of the Evidence: Smoking Cessation to Harm Reduction to Harm Production
- Session 2021:** Allied Health: Take Your Spirometry Interpretation to the Next Level
- Session 2508:** The Mechanic's Guide to Nanoparticles in the Airways

Monday, February 25, 2019

- Session 4002:** Asthma/Chronic Obstructive Pulmonary Disease Overlap Syndrome (ACOS) with and without Occupational Causes
- Session 4703:** Biomarkers in Occupational Lung Disease
- Session 4713:** Laryngeal Syndromes Presenting as Asthma at Home and in the Workplace



Mast Cell/Eosinophilic Disorders

Friday, February 22, 2019

Session 1502: Mast Cell Activation Syndrome: Navigating the Information Maze with Your Patient

Session 1504: Approach to the Patient with Irritable Bowel Syndrome

Saturday, February 23, 2019

Session 2002: Inflammation in Eosinophilic Esophagitis: Beyond Eosinophils

Session 2011: Mast Cell and Eosinophilic Disease: The Value of a Hematology Consult

Session 2022: Allied Health: Eosinophilic Esophagitis: Diagnosis and Management

Session 2502: Venom Allergy: When to Suspect Mastocytosis

Session 2504: Hypereosinophilic Syndrome: Evaluation and Management Options

Sunday, February 24, 2019

Session 3008: Multi-Organ Involvement in Systemic Mastocytosis

Session 3306: Is Eosinophilic Esophagitis a Primary Barrier Defect?

Session 3503: Eosinophil Phenotypes: Location Matters

Session 3506: The Role of the Practicing Allergist in the Management of Eosinophilic Esophagitis

Session 3707: MAAI: New Directions in Mast Cell Research

Monday, February 25, 2019

Session 4007: Mast Cell Tryptases and Alpha-Trypsinemia

Research Principles

Friday, February 22, 2019

Session 1512: How to Use Online Genomics Tools and Datasets in Your Allergy and Immunology Research

Saturday, February 23, 2019

Session 2510: Demystifying the National Institutes of Health Grant Submission/Peer Review Process

Session 2805: Quality Reporting and the Quality Clinical Data Registry: A 2019 Update

Session 2809: The Effect of Health Disparities on Allergy and Immunology Practice

Sunday, February 24, 2019

Session 3505: Innovative Methods to Improve the Collection of Patient-Reported Outcomes (PROs)

Monday, February 25, 2019

Session 4711: Update from the US Food and Drug Administration

Rhinosinusitis/Ocular Allergy

Thursday, February 21, 2019

Session 0001: 33rd Annual Harold S. Nelson Military Allergy/Immunology Symposium

Friday, February 22, 2019

Session 1203: Introductory Course in Rhinolaryngoscopy with Hands-on Instruction

Session 1501: Interaction of Irritants and Allergens in Allergic Rhinitis

Saturday, February 23, 2019

Session 2023: Allied Health: Chronic Rhinosinusitis: Beyond the Basics

Session 2304: Does Chronic Rhinosinusitis Without Nasal Polyps Need a Different Approach?

Sunday, February 24, 2019

Session 3002: Refractory Chronic Rhinosinusitis: When Does My Patient Need Surgery?

Session 3303: EAACI: Novel Developments in Endotype-Driven Approach for Allergic Disease

Session 3502: What to Do with a Patient with Severe Chronic Rhinosinusitis

Session 3552: Injectable Epinephrine for Subcutaneous Immunotherapy: To Prescribe or Not?

Session 3706: IRSO: Update in Rhinitis and Rhinosinusitis

Monday, February 25, 2019

Session 4010: Current and Future Directions in Rhinitis and Sinusitis in Children

Session 4306: Hot Topics in Immunotherapy

**A podcast series
featuring thought
leaders from the
world of allergy
and immunology.**



Conversations from the World of Allergy is a new podcast series from the American Academy of Allergy, Asthma & Immunology (AAAAI).

It is the easiest way for busy healthcare providers and the general public to keep updated on medical topics in the A/I specialty. Subscribe today to make sure you never miss an episode.



**Conversations from the
World of Allergy**

Available now on iTunes, Google Play and aaaai.org.




Thursday, February 21, 2019

Chrysalis Project Registration (Invite Only)

6:00 to 7:00 pm
Moscone Center South, Lobby Level, Room 101
Registration restricted to selected participants of award program.


Friday, February 22, 2019

Course

- 1050 2019 Chrysalis Project Program (Invite Only)** 
7:30 am to 1:45 pm
Marriott, Lower B2 Level, Yerba Buena, Salon 6
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
Moderator: Rebecca Saff, MD PhD FAAAAI
- 7:30 Breakfast**
- 8:00 Welcome from the Chrysalis Project Chairs**
A. Wesley Burks, MD FAAAAI
- 8:10 Welcome from the AAAAI President**
Robert A. Wood, MD FAAAAI
- 8:15 Immunodeficiency**
Thomas A. Fleisher, MD FAAAAI
- 8:45 Eosinophilic Disorders**
Amy D. Klion, MD
- 9:15 Food Allergy**
A. Wesley Burks, MD FAAAAI
- 9:45 Asthma**
Rohit Katial, MD FAAAAI
- 10:15 Break**
- 10:25 Atopic Dermatitis**
Mark Boguniewicz, MD FAAAAI
- 10:55 Drug Allergy**
Kimberly G. Blumenthal, MD MSc FAAAAI
- 11:25 Hot Topics Discussion Session: Drug Allergy**
Kimberly G. Blumenthal, MD MSc FAAAAI and Amy M. Dowden, MD FAAAAI
- 11:45 Hot Topics Discussion Session: Food Allergy**
Emily C. McGowan, MD PhD and Sarita U. Patil, MD
- 12:05 Hot Topics Discussion Session: Asthma**
Katherine N. Cahill, MD and Timothy P. Moran, MD PhD
- 12:25 Class Photo**
- 12:35 Luncheon with FIT Mentors and Chrysalis Faculty**

Saturday, February 23, 2019

Course

- 2405 Career Paths in Allergy and Immunology** 
12:00 to 1:45 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 160
Pre-registration and ticket required. Attendance restricted to selected participants of the Chrysalis Project program and other medical student/resident meeting attendees. No fee. Box lunch included.
Credit: No CME/CE
Moderator: Rebecca Saff, MD PhD FAAAAI
- 12:00 Lunch**
- 12:15 Welcome and Introduction**
Rebecca Saff, MD PhD FAAAAI
- 12:20 Academia: Clinical**
Amy M. Scurlock, MD
- 12:30 Academia: Research**
Mitchell H. Grayson, MD FAAAAI
- 12:40 Industry**
Dorothy S. Cheung, MD FAAAAI
- 12:50 Government**
Melody C. Carter, MD FAAAAI
- 1:00 Private Practice**
Andrew W. Murphy, MD FAAAAI
- 1:10 Summary**
Rebecca Saff, MD PhD FAAAAI
- 1:15 Breakout/Question & Answer**

Chrysalis Project Reception (Invite Only)

6:00 to 7:00 pm
Marriott, Lower B2 Level, Yerba Buena Salon 6
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



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Friday, February 22, 2019

Course

- 1001 2019 FIT Symposium**  
7:00 am to 1:30 pm
Marriott, Lower B2 Level, Yerba Buena Salon 9
Pre-registration and ticket required. Attendance restricted to current allergy/immunology Fellows-in-Training only. No fee. Continental breakfast and box lunch included.
Credit: No CME/CE
Moderator: Eric M. Schaubberger, DO PhD
- 7:00 Networking Breakfast**
- 7:45 Introductions**
Eric M. Schaubberger, DO PhD
- 7:50 Networking Organizations**
- 8:05 American Board of Allergy and Immunology**
- 8:15 Speaker-Facilitated Small Group Discussion: Pregnancy and Allergic Disease**
Michael Schatz, MD MS FAAAAI
- 8:45 Break**
- 9:00 Welcome from AAAAI President**
Robert A. Wood, MD FAAAAI
- 9:15 Optimal Care of the Food Allergic Patient**
Robert A. Wood, MD FAAAAI
- 9:45 The Latest on Biologics and Allergy**
Monica Kraft, MD FAAAAI
- 10:15 Break**
- 10:30 Career Panel: Industry**
Kari R. Brown, MD
- 10:45 Career Panel: Government**
Kelly D. Stone, MD PhD FAAAAI
- 11:00 Career Panel: Private**
Toral A. Kamdar, MD
- 11:15 Career Panel: Academia**
Vivian P. Hernandez-Trujillo, MD FAAAAI
- 11:30 Speaker-Facilitated Small Group Discussion: Interactive Contract Negotiations Session**
Weily Soong, MD FAAAAI
- 12:30 Networking Lunch**

FIT Reception

5:00 to 6:00 pm
Marriott, Lower B2 Level, Yerba Buena Salon 10
Sponsored by Teva.
Private reception open to current allergy/immunology Fellows-in-Training only.

Saturday, February 23, 2019

Workshop

- 2557 Interesting Cases Part I**
12:30 to 1:45 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 159
Credit: 1.25 CME/CE
*Moderators: Paul J. Dowling, MD FAAAAI
Eric M. Schaubberger, DO PhD*
- 12:30 Eosinophilic Mastitis: A Diagnostic and Therapeutic Conundrum**
Alegra Grieb, MD
- 12:40 Question & Answer**
- 12:45 Making Repeat Aspirin Desensitizations “Water Under the Bridge”: Making a Case for Ibuprofen Bridge Therapy**
Cali M Reynolds, MD
- 12:55 Question & Answer**
- 1:00 Hereditary Angioedema and Cholinergic Urticaria: Not Mutually Exclusive**
Rachel Bean
- 1:10 Question & Answer**
- 1:15 Long Term Outcomes of an Infant with Food-Induced Pulmonary Hemosiderosis: Is Eoe a Late Manifestation of Heiner’s Syndrome**
Kathryn Neupert, MD
- 1:25 Question & Answer**
- 1:30 A Novel WAS Mutation Presenting As Severe Combined Immune Deficiency**
Katie Kennedy, MD
- 1:40 Question & Answer**

Fellows-in-Training (FIT) Programming



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SAN FRANCISCO, CA · FEBRUARY 22-25, 2019

Sunday, February 24, 2019

Workshop

3557 Interesting Cases Part II

12:30 to 1:45 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 159

Credit: 1.25 CME/CE

Moderators: Princess U. Ogbogu, MD FAAAAI

Canting Guo, MD

12:30 Bruton Agammaglobulinemia in a Child Masquerading as Cystic Fibrosis-Related Metabolic Syndrome

Daniel A Rosloff, MD

12:40 Question & Answer

12:45 Ataxia Telangiectasia Diagnosed on Newborn Screening: Case Cohort of 4 years Experience

Amarilla Bernadett Mandola, MD

12:55 Question & Answer

1:00 A Case of Hyper-IgM Immunodeficiency Presenting Initially as a Novel Syndromic Disorder

Amy Eapen, MD

1:10 Question & Answer

1:15 Autoimmune Enteropathy and Hypogammaglobulinemia in an Infant with Inducible Co-Stimulator (ICOS) Deficiency

Abduarahman Almutairi

1:25 Question & Answer

1:30 47 Year Follow-Up of Post-Transplant SCID Patient

Christin Deal, MD

1:40 Question & Answer

AAAAI Advocacy: 2019 Priorities



- **Protect** in-office compounding of allergen extracts
- **Promote** penicillin allergy testing as a component of antibiotic stewardship
- **Educate** members of Congress on the practice of allergy, asthma and immunology
- **Advocate** for fair and equitable reimbursement of allergy and immunology services
- **Encourage** ongoing federal investment in allergy and immunology research
- **Enact** Asthma in Schools Legislation

Because
Practice Matters!
to the AAAAI

Thursday At-A-Glance



AAAAI American Academy of
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ANNUAL MEETING
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Thursday, February 21

6:00 AM	
7:00 AM	
8:00 AM	Military Allergy/Immunology Symposium 7:20 am - 3:15 pm
9:00 AM	
10:00 AM	
11:00 AM	
12:00 PM	
01:00 PM	Basic Aeroallergen Course 9:00 am - 5:00 pm
02:00 PM	
03:00 PM	
04:00 PM	
05:00 PM	
06:00 PM	ABAI Study Course 2:00 - 4:30 pm
07:00 PM	

Registration 12:00 - 7:00 pm



Symposium

- 0001 33rd Annual Harold S. Nelson Military Allergy/Immunology Symposium**  
 7:20 am to 3:15 pm
Moscone Center South, Exhibition Level, Hall D7
 Pre-registration and ticket required. Fee: \$60. Continental breakfast and box lunch included.
 Credit: 6.50 CME/CE
Moderator: Camellia Hernandez, MD
- 7:20 Registration and Breakfast**
- 7:50 Welcome and Overview**
Camellia Hernandez, MD
- 8:00 Morning Address: Biologics in the Treatment of Asthma**
William W Busse, MD FAAAAI
- 9:00 Break**
- 9:15 Case Reports**
- 10:30 Original Research**
- 11:15 Defense Health Agency: Immunization Healthcare Branch Update**
Limone C. Collins, MD
- 11:25 Military Aeroallergen Extract Laboratory Updates**
Satyen Manilal Gada, MD FAAAAI
- 11:35 Lunch**
- 11:55 Bruton Lecture: Exercise-Induced Vocal Cord Dysfunction in Adolescents**
Stephen A. Tilles, MD FAAAAI
- 12:55 Consultants to the Surgeon General Updates**
- 1:00 VHA Allergy Committee**
Joseph S. Yustin, MD FAAAAI
- 1:15 Air Force**
John F. Freiler, MD FAAAAI
- 1:30 Army**
Kirk H. Waibel, MD FAAAAI
- 1:45 Navy**
Rachel Umi Lee, MD FAAAAI
- 2:00 Interactive Small Group Discussion**
- 2:25 Life After Active Duty**
- 2:40 US Air Force Reservist**
Hans F. Otto, MD MBA FAAAAI
- 2:45 US Air Force Reservist**
Laura M. Moore, MD FAAAAI
- 2:50 US Air Force Reservist**
Mark S. La Shell, MD FAAAAI
- 2:55 Business Meeting and Award Selection**

Courses

- 0201 Basic Aeroallergen Course**  
 9:00 am to 5:00 pm
Moscone Center South, Exhibition Level, Hall D8
 Pre-registration and ticket required. Fee: \$250. Box lunch included.
 Credit: 7.00 CME/CE
Moderator: Estelle Levetin, PhD FAAAAI
- 9:00 Welcome and Introduction to Course**
- 9:05 Introduction to Fungal Aerobiology**
W. Elliott Horner, PhD LEED AP FAAAAI
- 9:45 Fungal Spore Morphology**
Estelle Levetin, PhD FAAAAI
- 10:25 Hands-On Instruction/Question and Answer**
- 12:00 Lunch Break**
- 1:00 Value of Air Sampling for Your Practice and for the AAAAAI**
Kraig W. Jacobson, MD
- 1:15 Setting up a Sampling Station/Hands-On Sampler Demonstration**
Estelle Levetin, PhD FAAAAI
- 2:00 Introduction to Pollen Aerobiology**
Peter K. Van De Water, PhD
- 2:30 Pollen Morphology**
Richard W. Weber, MD FAAAAI
- 3:10 Hands-On Instruction/Question and Answer**
- 0601 2019 Literature Review: ABAI Continuous Assessment Program Study Course**   
 2:00 to 4:30 pm
Moscone Center South, Level 2, Room 203
 Pre-registration and ticket required.
 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
- 2:35 Mast Cell Disorders/Eosinophilic Disorders/Anaphylaxis/Drug-Insect-Vaccine Allergy**
Carla M. Davis, MD FAAAAI
- 3:10 Asthma & Other Lung Diseases/Allergy Testing & Therapeutics/Rhinosinusitis/Ocular Allergy**
John Oppenheimer, MD FAAAAI
- 3:45 Food Allergy/Allergic & Immunologic Skin Disorders/Urticaria-Angioedema**
John M. Kelso, MD FAAAAI

Treat our virtual patients.

“The Making IT Count courses encouraged our clinic to increase discussions about long-term outcomes with immunotherapy patients.”

Ensure you are up-to-date with best practices. **Effective allergen immunotherapy** (AIT) has been shown to improve asthma symptoms, quality of life and FEV1 scores.

Key topics include:

- Core Concepts in AIT
- AIT in Pregnant Patients
- Venom IT
- Dosing
- AIT in Pediatric Patients
- Rapid Buildup
- Patient Selection

Making
IT
COUNT

Access the courses at:

<https://education.aaaai.org/MakingITCount>

Making IT Count is funded through an educational grant from Merck & Co., Inc.

Friday At-A-Glance



Friday, February 22

6:00 AM				
7:00 AM				
8:00 AM				
9:00 AM			Allied Health Workshops 8:00 - 9:15 am	
10:00 AM				
11:00 AM		Courses 9:00 am - 12:00 pm	Allied Health Advance Practice 8:00 am - 12:30 pm	Allied Health Workshops 9:30 - 10:45 am
12:00 PM				
01:00 PM		Seminars 12:30 - 1:30 pm		Allied Health Seminars 12:30 - 1:30 pm
02:00 PM			Workshops 12:45 - 2:00 pm	
03:00 PM		Plenary Session 2:15 - 3:45 pm		
04:00 PM		Plenary Q&A 3:45 - 4:15 pm		
05:00 PM			Symposia 4:15 - 5:30 pm	Allied Health Plenary 4:15 - 5:30 pm
06:00 PM				

Registration 6:30 am - 5:00 pm

FIT Symposium
7:00 am - 1:30 pm

Friday Scientific Program



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Courses

- 1001 2019 FIT Symposium**
7:00 am to 1:30 pm
Marriott, Lower B2 Level, Yerba Buena Salon 9
Pre-registration and ticket required. Attendance restricted to current allergy/immunology Fellows-in-Training only. No fee. Continental breakfast and box lunch included.
Credit: No CME/CE
Moderator: Eric M. Schaubberger, DO PhD
- 7:00 Networking Breakfast**
- 7:45 Introductions**
Eric M. Schaubberger, DO PhD
- 7:50 Networking Organizations**
- 8:05 American Board of Allergy and Immunology**
- 8:15 Speaker-Facilitated Small Group Discussion: Pregnancy and Allergic Disease**
Michael Schatz, MD MS FAAAAI
- 8:45 Break**
- 9:00 Welcome from AAAAI President**
Robert A. Wood, MD FAAAAI
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- 11:00 Career Panel: Private**
Toral A. Kamdar, MD
- 11:15 Career Panel: Academia**
Vivian P. Hernandez-Trujillo, MD FAAAAI
- 11:30 Speaker-Facilitated Small Group Discussion: Interactive Contract Negotiations Session**
Weily Soong, MD FAAAAI
- 12:30 Networking Lunch**


Course

- 1050 2019 Chrysalis Project Program (Invite Only)**
7:30 am to 1:45 pm
Marriott, Lower B2 Level, Yerba Buena Salon 6
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
Moderator: Rebecca Saff, MD PhD FAAAAI
- 7:30 Breakfast**
- 8:00 Welcome from the Chrysalis Project Chairs**
A. Wesley Burks, MD FAAAAI
- 8:10 Welcome from the AAAAI President**
Robert A. Wood, MD FAAAAI
- 8:15 Immunodeficiency**
Thomas A. Fleisher, MD FAAAAI
- 8:45 Eosinophilic Disorders**
Amy D. Klion, MD
- 9:15 Food Allergy**
A. Wesley Burks, MD FAAAAI
- 9:45 Asthma**
Rohit Katial, MD FAAAAI
- 10:15 Break**
- 10:25 Atopic Dermatitis**
Mark Boguniewicz, MD FAAAAI
- 10:55 Drug Allergy**
Kimberly G. Blumenthal, MD MSc FAAAAI
- 11:25 Hot Topics Discussion Session: Drug Allergy**
Kimberly G. Blumenthal, MD MSc FAAAAI and Amy M. Dowden, MD FAAAAI
- 11:45 Hot Topics Discussion Session: Food Allergy**
Emily C. McGowan, MD PhD and Sarita U. Patil, MD
- 12:05 Hot Topics Discussion Session: Asthma**
Katherine N. Cahill, MD and Timothy P. Moran, MD PhD
- 12:25 Class Photo**
- 12:35 Luncheon with FIT Mentors and Chrysalis Faculty**

Friday, February 22



Courses (continued)

- 1101 Allied Health: Advanced Practice Course** 
8:00 am to 12:30 pm
Moscone Center South, Exhibition Level, Hall D8
Credit: 4.00 CME/CE
Moderator: Karen L. Gregory, DNP APRN-BC RRT AE-C
- 8:00 Introductory Remarks**
- 8:05 Asthma-COPD Overlap**
Monica Kraft, MD FAAAAI
- 8:40 Question & Answer**
- 8:55 Stinging Insect Hypersensitivity**
Amanda S. Troger, BSN RN CPN
- 9:30 Question & Answer**
- 9:45 Break**
- 10:00 Accelerated Immunotherapy Options**
Cheryl K. Bernstein, RN BSN CCRC
- 10:35 Question & Answer**
- 10:50 When to Use and How to Choose a Substitute Formula or Milk**
Marion E. Groetch, MS RDN
- 11:25 Question & Answer**
- 11:40 Medication Update in Atopic Dermatitis**
Karol G. Timmons, RN MS CPNP
- 12:15 Question & Answer**

Allied Health Workshops

- 1102 Allied Health: Food Protein-Induced Enterocolitis Syndrome: Diagnosis and Management**
8:00 to 9:15 am
Moscone Center South, Exhibition Level, Hall D10
Credit: 1.25 CME/CE
Moderator: Amy Arneson, RN
- 8:00 FPIES: Impact on the Family**
Fallon Matney, MSW LCSW CAM
- 8:20 Question & Answer**
- 8:25 Oral Food Challenges for FPIES**
Jennifer Fishman, RN
- 8:45 Question & Answer**
- 8:50 Overview and Current Research in FPIES**
Anna H. Nowak-Wegrzyn, MD PhD FAAAAI
- 9:10 Question & Answer**

- 1103 Allied Health: Improving Asthma Control Through Telemedicine**
8:00 to 9:15 am
Moscone Center South, Exhibition Level, Hall D9
Credit: 1.25 CME/CE
Moderator: Nathaniel D. Hare, MD FAAAAI
- 8:00 Telemedicine: Implementation and Evidence-Based Decision Making**
Jennifer A. Shih, MD
- 8:20 Question & Answer**
- 8:25 Telemedicine in the Allergy and Asthma Clinic**
Michelle R. Dickens, MSN FNP-C AE-C
- 8:45 Question & Answer**
- 8:50 The Cost: Billing and Coding for Telemedicine**
Teresa Thompson, CPC CMSCS CCC
- 9:10 Question & Answer**

Courses

- 1110 Boot Camp for Program Directors and Clinical Faculty: How to Develop and Maintain Excellence in Allergy/Immunology Fellowships**
8:45 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 160
Credit: No CME/CE
Moderator: David A. Khan, MD FAAAAI
- 8:45 The Nuts & Bolts of Building an A/I Fellowship Program: The Present and New 2019 ACGME Requirements**
Javed Sheikh, MD FAAAAI
- 9:15 Taking the Next Step: Teaching and Leadership Roles in Fellowship Training**
Mary Beth Fasano, MD FAAAAI
- 9:45 Dates, Deadlines and Developing a Fellowship Year Calendar**
Christopher D. Miller, MD
- 10:15 Coffee Break**
- 10:30 Tools for Assessing Procedural Competency**
Paul J. Dowling, MD FAAAAI
- 11:00 Enhancing Teaching: Using the New AAAAI Toolbox**
Christopher Chang, MD PhD MBA FAAAAI
- 11:30 Directing an A/I Fellowship Program: Ask the Expert Panel Discussion**

Friday Scientific Program



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Courses (continued)

- 1201 Difficult Cases**
9:00 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 3.00 CME/CE
Moderator: Ashwini Reddy, MD
- 9:00 FPIES/Non-IgE Mediated Food Allergy**
Junior Presenter: Gita Ram, MD
Senior Presenter: Matthew J. Greenhawt, MD MBA MSc
- 9:25 Question & Answer**
- 9:30 Very Early Onset Irritable Bowel Disorder/Immunodeficiency Overlap**
Junior Presenter: Margaret Redmond, MD
Senior Presenter: Kathleen E. Sullivan, MD PhD FAAAAI
- 9:55 Question & Answer**
- 10:00 Peanut Oral Immunotherapy for IgE-Mediated Food Allergy (Indications and Potential Complications)**
Junior Presenter: Justin C. Greiwe, MD FAAAAI
Senior Presenter: Brian P. Vickery, MD FAAAAI
- 10:25 Question & Answer**
- 10:30 Unusual Anaphylaxis**
Junior Presenter: Edith Schussler, MD
Senior Presenter: Phillip L. Lieberman, MD FAAAAI
- 10:55 Question & Answer**
- 11:00 Severe Asthma/Severe Exercise Induced Asthma**
Junior Presenter: Margee Louisias, MD MPH
Senior Presenter: Elizabeth C. Matsui, MD MHS
- 11:25 Question & Answer**
- 11:30 Immunodeficiency Masqueraders**
Junior Presenter: Cullen M. Dutmer, MD
Senior Presenter: Neil D. Romberg, MD
- 12:55 Question & Answer**
- 1202 Problem-Based Learning: A Patient with Chronic Obstructive Pulmonary Disease, Severe Asthma or Both?**
9:00 am to 12:00 pm
Moscone Center South, Exhibition Level, Hall D12
Pre-registration and ticket required. Fee: \$20.
Credit: 3.00 CME/CE
Moderator: Don A. Bukstein, MD
- 9:00 Patient with COPD, Severe Asthma or Both: PBL Case Presentation**
Don A. Bukstein, MD
- 9:50 Question & Answer**
- 9:55 Is It COPD vs. Asthma vs. Overlap Syndrome?**
Juan Carlos Cardet, MD MPH
- 10:15 Question & Answer**
- 10:20 Update on Diagnosis for Asthma/COPD Overlap Syndrome**
Elliot Israel, MD FAAAAI
- 10:40 Question & Answer**
- 10:45 Optimal Therapies for Asthma/COPD Overlap Syndrome**
John Oppenheimer, MD FAAAAI
- 11:05 Panel Discussion**

- 1203 Introductory Course in Rhinology with Hands-On Instruction**
9:00 am to 12:00 pm
Moscone Center South, Exhibition Level, Hall D4
Pre-registration and ticket required. Fee: \$50.
Credit: 3.00 CME/CE
Moderator: Jerald W. Koepke, MD FAAAAI
- 9:00 Introductory Course in Rhinology with Hands-On Instruction**
Jerald W. Koepke, MD FAAAAI
- 10:00 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
- 1204 Best of the Practice Management Workshop: Expanding the Scope of Practice**
9:00 am to 12:00 pm
Moscone Center South, Level 2, Room 205
Credit: 3.00 CME/CE
Moderator: A. Sean McKnight, MD FAAAAI
- 9:00 Biologics**
Weily Soong, MD FAAAAI
- 9:25 Question & Answer**
- 9:30 Telehealth**
Jennifer A. Shih, MD
- 9:55 Question & Answer**
- 10:00 Hereditary Angioedema and Intravenous Immune Globulin Therapies**
Michael R. Rupp, MD FAAAAI
- 10:25 Question & Answer**
- 10:30 Food Challenge and Oral Immunotherapy**
Mohamed S. Yassin, MD FAAAAI
- 10:55 Question & Answer**
- 11:00 Proper Coding and Billing Procedures**
Teresa Thompson, CPC CMSCS CCC
- 11:25 Question & Answer**
- 11:30 Managing Conflicts in Your Practice**
Priya J. Bansal, MD FAAAAI
- 11:55 Question & Answer**

Friday, February 22



Courses (continued)

- 1205 How Microbes Affect Allergic Illnesses**
9:00 am to 12:00 pm
Moscone Center South, Level 3, Room 301
Credit: 3.00 CME/CE
Moderator: David I. Bernstein, MD FAAAAI
- 9:00 Environmental Exposures: The Gut Microbiome and the Development of Allergic Diseases**
Yvonne Huang, MD
- 9:20 Question & Answer**
- 9:25 The Respiratory Virome in Preschool Asthma**
Nikolaos G. Papadopoulos, MD PhD FAAAAI
- 9:45 Question & Answer**
- 9:50 Lung Function and the Airway Microbiome in Early Life**
Kirsten M Kloepper, MD MS
- 10:10 Question & Answer**
- 10:15 Virus-Bacterial Interactions and the Onset of Childhood Asthma**
James E. Gern, MD FAAAAI
- 10:35 Question & Answer**
- 10:40 Hot Topics in Viruses and Asthma**
Joshua L. Kennedy, MD
- 11:00 Question & Answer**
- 11:05 Hot Topics in the Microbiome and Food Allergy**
Christina E. Ciaccio, MD FAAAAI
- 11:25 Panel Discussion**

- 1206 The Circus Surrounding Peanuts: The Genetic and Molecular Mechanisms Driving Peanut Allergy**
9:00 am to 12:00 pm
Moscone Center South, Level 2, Room 203
Credit: 3.00 CME/CE
Moderator: Dawn C. Newcomb, PhD
- 9:00 The Importance of a Well-Characterized Patient Cohort for Food Allergy Research**
Leah Claire Nesbitt Kottyan, PhD
- 9:20 Discussion**
- 9:30 Skin Barrier Mutations and Food Allergy**
Joan Cook-Mills, PhD
- 9:50 Discussion**
- 10:00 Transcriptomic Analysis of Peanut Allergy**
Supinda Bunyavanich, MD MPH FAAAAI
- 10:20 Discussion**
- 10:30 Immunologic Tolerance to Foods**
Sarita U. Patil, MD
- 10:50 Discussion**
- 11:00 Epigenetics and Food Allergy**
Kari C. Nadeau, MD PhD FAAAAI
- 11:20 Discussion**
- 11:30 Immunodeficiency and Food Allergy**
Amal H. Assa'ad, MD FAAAAI
- 11:50 Discussion**

- 1207 Hands-On Workshop: IT Counts: Interactive Patient Cases**
9:00 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 159
Pre-registration and ticket required. Fee: \$20.
Credit: 3.00 CME/CE
*Moderators: Peter S. Creticos, MD FAAAAI
Linda S. Cox, MD FAAAAI*
- 9:00 Welcoming Remarks**
- 9:15 Virtual Patient Discussions:** Attendees work through each virtual patient with a dedicated discussion leader. 20 minutes will be allotted for each patient.
- Immunotherapy in the Pregnant Patient**
Tolly Epstein, MD FAAAAI
- Immunotherapy in a Peanut-Allergic Child**
Anna H. Nowak-Wegrzyn, MD PhD FAAAAI
- Immunotherapy in the Venom-Allergic Patient**
Mike Tankersley, MD MBA FAAAAI
- Safety of Rapid Immunotherapy**
Christopher W. Calabria, MD FAAAAI
- Immunotherapy in the Pediatric Patient**
Andrew Abreo, MD
- SLIT: Drops and Tablets**
Oliver Pfaar, MD
- 11:45 Concluding Remarks**
- 1208 Improving Your Merit-Based Incentive Payment System Score by Promoting Adherence to Asthma Therapy**
9:00 am to 12:00 pm
Moscone Center South, Level 2, Room 201
Credit: 3.00 CME/CE
Moderator: Asriani M. Chiu, MD FAAAAI
- 9:00 Understanding the Relationship between Scoring High in MIPS and Achieving Adherence for Your Asthma Population**
Gary C. Steven, MD PhD FAAAAI
- 9:20 Question & Answer**
- 9:25 Evaluating Methods to Measure Asthma Patient Adherence**
Andrea J. Apter, MD MA MSc FAAAAI
- 9:45 Question & Answer**
- 9:50 Barriers and Behaviors Responsible for Non-Adherence**
John B. Hagan, MD FAAAAI
- 10:10 Question & Answer**
- 10:15 Effective Strategies to Reverse Non-Adherence and Promote Adherence to Asthma Therapy**
Cynthia S. Rand, PhD
- 10:35 Question & Answer**
- 10:40 Improving Adherence Using Shared Decision Making Communication Skills**
Hazel Tapp, PhD
- 11:00 Question & Answer**
- 11:05 Motivational Interviewing Improves Adherence to Asthma Therapy**
Andrew G. Weinstein, MD FAAAAI
- 11:25 Question & Answer**
- 11:30 Think/Pair/Share: Practicing Motivational Interviewing Skills**



Courses (continued)

- 1209 An Old Topic Gets Hot: Lipid Control of Type 2 Immunity** ▼
9:00 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 151
Credit: 3.00 CME/CE
Moderator: Joshua A. Boyce, MD
- 9:00 Prostaglandin D2 in the Transcriptional Control of Th2 Development**
Erik R. Wambre, PhD MBE
- 9:25 Question & Answer**
- 9:35 Lipid Mediator-Dependent Homeostasis of Innate Lymphoid Cells**
Taylor A. Doherty, MD FAAAAI
- 10:00 Question & Answer**
- 10:10 Leukotriene-Dependent Regulation of Epithelial-Dependent Innate Type 2 Immunity**
Lora Bankova, MD
- 10:35 Question & Answer**
- 10:45 Pro-Resolving Lipids Control Type 2 Immunopathology**
Stokes Peebles, Jr., MD FAAAAI
- 11:10 Question & Answer**
- 11:20 The Role of COX-1-Derived Prostanoids in the Control of Innate Mast Cell Function**
Dingxin Pan, PhD
- 11:45 Question & Answer**

- 1210 Can There Be a Universal Approach to Food Allergy Prevention Guidelines?** 📱 ▼
9:00 am to 12:00 pm
Moscone Center South, Level 3, Room 305
Credit: 3.00 CME/CE
Moderator: David M. Fleischer, MD FAAAAI
- 9:00 What Foods Should We Be Introducing Early for Protection Against the Development of Food Allergy?**
Edmond S. Chan, MD FAAAAI
- 9:20 Question & Answer**
- 9:25 When Should We Start Early Introduction, and How Do We Balance this Within the Developmental Trajectories of Infants and WHO Breastfeeding Recommendations?**
Debra J. Palmer, BSc BND PhD
- 9:45 Question & Answer**
- 9:50 Should Implementation Strategies for Screening and the Role of Primary Care Differ Among Countries?**
Anne K. Ellis, MD FRCPC FAAAAI
- 10:10 Question & Answer**
- 10:15 Has the Voice of the Stakeholder Been Heard in Understanding How to Implement Early Introduction Recommendations?**
Jonathan O'B. Hourihane, MD FAAAAI
- 10:35 Question & Answer**
- 10:40 What Can We Offer the Family with a Child Who Fails Early Introduction?**
Scott H. Sicherer, MD FAAAAI
- 11:00 Question & Answer**
- 11:05 Where Do We Go from Here? What Is the Next Leap in Food Allergy Prevention?**
Katrina Allen, MD PhD FAAAAI
- 11:25 Panel Discussion**

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AAAAI1218241



1211 Single Cell Analysis in Human Disease: Lessons Learned from the Asthma and Allergic Diseases Cooperative Research Centers ▼

9:00 am to 12:00 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 155

Credit: 3.00 CME/CE

Moderator: Christine M. Seroogy, MD FAAAAI

9:00 Introductory Remarks

9:10 Single Cell Analysis in Nasal Polyposis

Nora A. Barrett, MD

9:30 Question & Answer

9:35 Single Cell Analysis as a Window to Airway Epithelium Cell Function and Diversity

Walter Eckalbar, PhD

9:55 Question & Answer

10:00 Single Cell Analysis Reveals Immune Cell Heterogeneity

Kathleen M. Buchheit, MD

10:20 Question & Answer

10:25 Discovery of Th2A Cells By Single Cell Analysis

Erik R. Wambre, PhD MBE

10:45 Question & Answer

10:50 Transcriptional Profiling of Eosinophilic Esophagitis

Marc E. Rothenberg, MD PhD FAAAAI

11:10 Question & Answer

11:15 Single Cell RNA Profiling of Human Lung and Immune Cells in Health and Disease

Mark Krasnow, MD PhD

11:35 Question & Answer

11:40 Panel Discussion

1212 Approach to Delayed Drug Allergic Reactions ☐ ▼

9:00 am to 12:00 pm

Moscone Center South, Level 2, Room 207

Credit: 3.00 CME/CE

Moderator: Ana Dioun Broyles, MD FAAAAI

9:00 Overview of Delayed Drug Reactions: Classification, Mechanisms and Clinical Approaches

Andreas J. Bircher, MD

9:20 Question & Answer

9:30 Approaches to Delayed Drug Reactions to Antibiotics: The Role of In Vivo Testing (Skin Testing and Oral Challenge)

Antonino Gaetano Romano, MD

9:50 Question & Answer

10:00 Management of Delayed Drug Reactions in Complex Treatment Populations

Michael Roger Arderm-Jones, MD PhD

10:20 Question & Answer

10:30 Case Based Illustration of Approaches to Delayed Drug Hypersensitivity

Paul L. Bigliardi, MD

10:50 Question & Answer

11:00 Approaches to Delayed Drug Reactions: The Role of Biomarkers, Genetics, Ex Vivo and In Vitro Laboratory Approaches

Elizabeth J. Phillips, MD FAAAAI

11:20 Panel Discussion

1301 Allied Health: Management Dilemmas and Strategies in Pediatric Food Challenges

9:30 to 10:45 am

Moscone Center South, Exhibition Level, Hall D10

Credit: 1.25 CME/CE

Moderator: Jodi A. Shroba, MSN APRN CPNP

9:30 Diagnostic Challenges in a Child with Multiple Food Allergies

Nicolette De Jong, PhD

9:50 Question & Answer

9:55 Safe Introduction after a Negative Food Challenge

Berber Vlieg-Boerstra, PhD RD

10:15 Question & Answer

10:20 Early Introduction of Allergens in the High Atopic Child

April Clark, RDN LD

10:40 Question & Answer

1302 Allied Health: Hot Topics in Allergy: What You May Have Missed in the Literature ☐

9:30 to 10:45 am

Moscone Center South, Exhibition Level, Hall D9

Credit: 1.25 CME/CE

Moderator: Maria Crain, CPNP

9:30 What's New in Allergic Rhinitis

Elisa C. Thompson, APRN CNP AE-C

9:50 Question & Answer

9:55 What's New in Asthma

Brooke I. Polk, MD

10:15 Question & Answer

10:20 What's New in Atopic Dermatitis

Megan Ott Lewis, MSN CRNP

10:40 Question & Answer

Friday Scientific Program



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

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

1501 Interaction of Irritants and Allergens in Allergic Rhinitis
Marriott, Lower B2 Level, Yerba Buena Salon 1
Discussion Leaders: David Diaz Sanchez, PhD
David B. Peden, MD MS FAAAAI

1502 Mast Cell Activation Syndrome: Navigating the Information Maze with Your Patient
Marriott, Lower B2 Level, Yerba Buena Salon 14
Discussion Leaders: Charity C. Fox, MD FAAAAI
Melody C. Carter, MD FAAAAI


1503 Understanding the Link between Immunodeficiency and Autoinflammation
Marriott, Lower B2 Level, Yerba Buena Salon 15
Discussion Leaders: Peter Arkwright, MD PhD FAAAAI
Joshua D. Milner, MD

1504 Approach to the Patient with Irritable Bowel Syndrome
Marriott, Lower B2 Level, Nob Hill A
Discussion Leaders: Anne Marie Ditto, MD FAAAAI
Mary C. Tobin, MD FAAAAI

1505 Asthma Over the Age of 65: All's Well That Ends Well
Marriott, Lower B2 Level, Nob Hill C
Discussion Leaders: Alan P. Baptist, MD MPH FAAAAI
Paula J. Busse, MD FAAAAI

1506 Allied Health: Hands on Eczema: Trying Out the Toolbox
Moscone Center South, Exhibition Level, Hall D11
Discussion Leaders: Megan Ott Lewis, MSN CRNP
Karol G. Timmons, RN MS CPNP

Workshops

1510 JACI: In Practice Year-in-Review Workshop 
12:45 to 2:00 pm
Moscone Center South, Level 3, Room 305
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 and Anaphylaxis
Scott H. Sicherer, MD FAAAAI

1:30 Question & Answer

1:35 Drug Allergy and Urticaria/Angioedema
David A. Khan, MD FAAAAI

1:55 Question & Answer

1511 Problem-Based Learning: Severe Atopic Dermatitis

12:45 to 2:00 pm
Moscone Center South, Exhibition Level, Hall D12
Pre-registration and ticket required. Fee: \$40.
Credit: 1.25 CME/CE
Moderator: Ray S. Davis, MD FAAAAI

12:45 Interactive Problem-Based Learning Case Discussion

1:15 Pathophysiology and Differential Diagnosis of Severe Atopic Dermatitis
Anna De Benedetto, MD

1:30 Intense Skin Care Protocol for Severe Atopic Dermatitis
Kanwaljit K. Brar, MD

1:45 Question & Answer

1512 How to Use Online Genomics Tools and Datasets in Your Allergy and Immunology Research

12:45 to 2:00 pm
Moscone Center South, Level 3, Room 301
Credit: 1.25 CME/CE
Moderator: Melanie A. Ruffner, MD PhD

12:45 Data Sets Available for Your Clinical Research
Supinda Bunyavanich, MD MPH FAAAAI

1:05 Question & Answer

1:10 Using Public Data to Find Gene Expression and Modulators of Gene Expression
Leah Claire Nesbitt Kottyan, PhD

1:30 Question & Answer

1:35 Integrating Functional Genomic Data Starting with a Genomic Position
Matthew T. Weirauch, PhD

1:55 Question & Answer

1513 Clinical Management of Psychosocial Concerns Among Pediatric Patients with Food Allergy and Their Caregivers

12:45 to 2:00 pm
Moscone Center South, Level 2, Room 203
Credit: 1.25 CME/CE
Moderator: Todd David Green, MD FAAAAI

12:45 Mental Health Assessment for Patients with Food Allergy and Their Families
Linda Herbert, PhD

1:05 Question & Answer

1:10 Mental Health Interventions for Patients with Food Allergy and Their Families
Eyal Shemesh, MD

1:30 Question & Answer

1:35 Collaboration among Allergists and Mental Health Professionals to Address Mental Health Concerns among Patients with Food Allergy
Hemant P. Sharma, MD MHS FAAAAI

1:55 Question & Answer

Friday, February 22



Courses (continued)

- 1514 Advancing Care for Anaphylaxis and Food Allergy in Schools: Devil in the Details**
12:45 to 2:00 pm
Moscone Center South, Level 2, Room 205
Credit: 1.25 CME/CE
Moderator: Susan Waserman, MD MSc FAAAAI
- 12:45 Understanding School Management of Anaphylaxis and Food Allergy: What Does Research Show?**
Julie Wang, MD FAAAAI
- 1:05 Question & Answer**
- 1:10 Using Research to Drive Policy**
Carla M. Davis, MD FAAAAI
- 1:30 Question & Answer**
- 1:35 Advocating for Improved Care in Schools: The Role of the Allergist**
Michael Pistiner, MD MMSc
- 1:55 Question & Answer**
- 1515 What is the Best Treatment Strategy for the Prevention and/or Treatment of Asthma Exacerbations in Children?**

12:45 to 2:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 155
Credit: 1.25 CME/CE
Moderator: Kirsten M. Kloepper, MD MS
- 12:45 Oral Glucocorticoids in Preschool Children to Treat Asthma Exacerbations (Red Zone)**
Anne M. Fitzpatrick, PhD
- 1:00 Question & Answer**
- 1:05 Antibiotic Treatment When Children Enter the Yellow Zone**
Avraham Beigelman, MD MSCI FAAAAI
- 1:20 Question & Answer**
- 1:25 Intermittent Therapy with High Doses of Inhaled Glucocorticoids When Children Enter into the Yellow Zone and are Not Receiving Maintenance Inhaled Glucocorticoids**
William J. Sheehan, MD
- 1:40 Question & Answer**
- 1:45 Inhaled Glucocorticoid Initiation or Escalation in Children Entering the Yellow Zone**
Daniel J. Jackson, MD FAAAAI
- 2:00 Question & Answer**


- 1516 Early Life Environmental Exposures Regulate Host Allergic Immune Responses: Lessons Learned from the Asthma and Allergic Diseases Cooperative Research Center Birth Cohorts**
12:45 to 2:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 1.25 CME/CE
Moderator: Alkis Togias, MD FAAAAI
- 12:45 Effects of the Farming Environment on Immune Development and Childhood Respiratory Illnesses: Lessons from the MESA Study**
Christine M. Seroogy, MD FAAAAI
- 1:05 Question & Answer**
- 1:10 Identifying Asthma-Causing RSV Strains and Elucidating the Mechanisms of Respiratory Syncytial Virus Mediated Asthma Development: Lessons Learned from the Inspire Cohort**
Tina V. Hartert, MD MPH
- 1:30 Question & Answer**
- 1:35 Traffic Related Air Pollution and Childhood Asthma: Lessons from the CCAAPS Birth Cohort**
Patrick H. Ryan, PhD
- 1:55 Question & Answer**
- 1517 Regulatory RNA in Allergic Diseases**
12:45 to 2:00 pm
Moscone Center South, Level 2, Room 201
Credit: 1.25 CME/CE
Moderator: David D. Chaplin, MD PhD FAAAAI
- 12:45 Regulation of Type-2 Immunity by Long Non-Coding RNAs**
Thomas M. Aune, PhD
- 1:05 Question & Answer**
- 1:10 MicroRNA Regulation of Lymphocytes in Allergic Diseases**
Madeleine Radinger, PhD
- 1:30 Question & Answer**
- 1:35 MicroRNAs as Biomarkers in Allergic Diseases**
Tania Maes, PhD
- 1:55 Question & Answer**





Basic Science Poster Discussion

- 1521 What's New in ILC2**
12:45 to 2:00 pm
Moscone Center South, Exhibition Level, Hall D10
Credit: 1.25 CME/CE
Moderators: *Stokes Peebles, Jr., MD FAAAAI*
Atsushi Kato, PhD
- 12:45 Poster Viewing**
1:25 Discussion of Following Posters
- 1 Sex Differences in Type 2 Innate Lymphoid Cells in Adult Asthmatics**
Michael J. Aw, BHSc
 - 2 Topical Application of the Quaternary Ammonium Compound Didecylidimethylammonium Chloride Activates Type 2 Innate Lymphoid Cells and Initiates a Mixed-type Allergic Response**
Hillary L. Shane, PhD
 - 3 TNF Induces the Production of Type 2 Cytokines in Human Group 2 Innate Lymphoid Cells**
Atsushi Kato, PhD
 - 4 Unconventional ST2- and CD127-negative lung ILC2 populations are induced by Alternaria**
Kellen J. Cavagnero
 - 5 Estrogen receptor alpha signaling increases ILC2-mediated allergic airway inflammation**
Jacqueline Cephus, MS

Presidential Plenary

- 1601 Optimal Care of the Food Allergic Patient** 
2:15 to 3:45 pm
Moscone Center South, Exhibition Level, Hall A
Credit: 1.50 CME/CE
Moderator: *Robert A. Wood, MD FAAAAI*
- 2:15 Introduction**
2:20 Optimal Diagnostic and Testing Strategies to Confirm Food Allergies
Robert A. Wood, MD FAAAAI
- 2:45 Introduction**
2:50 Optimal Use of Emerging Treatments for Food Allergy
A. Wesley Burks, MD FAAAAI
- 3:15 Introduction**
3:20 Novel Therapies in Development
Cecilia Berin, PhD
- 3:45 Plenary Q&A**

Symposia

- 1801 Gene Therapy, Gene Silencing and Gene Editing for the Clinical Allergist/Immunologist**
4:15 to 5:30 pm
Moscone Center South, Level 2, Room 205
Credit: 1.25 CME/CE
Moderator: *Neil D. Romberg, MD*
- 4:15 Clinical Trials of Gene Silencing with Anti-Sense DNazymes for Asthma**
Harald E. Renz, MD FAAAAI
- 4:35 Question & Answer**
4:40 Gene Therapy Technology in Clinical Trials for Hereditary and Acquired Immune Deficiency
Jolan E. Walter, MD
- 5:00 Question & Answer**
5:05 Gene Silencing and Gene Editing Technology in Development
David H. Dreyfus, MD PhD FAAAAI
- 5:25 Question & Answer**
- 1802 Environment and Allergic Disease: A Global Phenomenon with Particular Consequences for At-Risk Populations** 
4:15 to 5:30 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 155
Credit: 1.25 CME/CE
Moderator: *Anil Nanda, MD FAAAAI*
- 4:15 The Association Between Environment and Asthma in the Inner City in Both the United States and Worldwide**
William J. Sheehan, MD
- 4:35 Question & Answer**
4:40 Environmental Controls in the Treatment of Allergic Diseases in Pediatric, Adult and Older Adult Populations
Elizabeth C. Matsui, MD MHS
- 5:00 Question & Answer**
5:05 The Interaction Between Climate and Allergic Diseases, including Asthma, on a Worldwide Basis, with Specific Consequences for Pediatric, Adult and Older Adult Populations
Jill A. Poole, MD FAAAAI
- 5:25 Question & Answer**
- 1803 Generation of Antigen-Specific Immunoglobulin E: A Revolution in Novel Therapies for Allergic Diseases** 
4:15 to 5:30 pm
Moscone Center South, Level 2, Room 203
Credit: 1.25 CME/CE
Moderator: *Rob C. Aalberse, PhD*
- 4:15 What Makes IgE Producing B-Cells Different**
Duane R. Wesemann, MD PhD
- 4:35 Question & Answer**
4:40 Molecular Characterization of Naturally-Occurring Human Antigen-Specific IgE
Scott A. Smith, MD PhD
- 5:00 Question & Answer**
5:05 Molecular Profiling of Human Serum Allergen-Specific IgE
Robert Anthony, PhD
- 5:25 Question & Answer**



Symposia (continued)

1804 An Update on the Efficacy and Safety of Subcutaneous (SCIT) and Sublingual (SLIT) Immunotherapy ▼

4:15 to 5:30 pm

Moscone Center South, Level 3, Room 305

Credit: 1.25 CME/CE

Moderator: Peter S. Creticos, MD FAAAAI

4:15 An Update on the Efficacy of Subcutaneous and Sublingual Allergen Immunotherapy

Linda S. Cox, MD FAAAAI

4:35 Question & Answer

4:40 Immune Alteration and Clinical Response with SLIT and SCIT

Stephen R. Durham, MD MA

5:00 Question & Answer

5:05 Practical Advice Regarding Protocols That Will Improve Tolerability and Adherence for Subcutaneous and Sublingual Allergen Immunotherapy

David I. Bernstein, MD FAAAAI

5:25 Question & Answer

1805 Environmental Yeasts: An Overlooked Exposure and Potential Aeroallergen Source in the United States

4:15 to 5:30 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 156

Credit: 1.25 CME/CE

Moderator: W. Elliott Horner, PhD LEED AP FAAAAI

4:15 The Biology and Structure of Environmentally Sourced Yeast Species

Estelle Levetin, PhD FAAAAI

4:35 Question & Answer

4:40 What Have Culture Independent Studies Revealed about the Diversity of Yeast Species within U.S. Indoor, Outdoor and Occupational Environments?

Brett J. Green, PhD FAAAAI

5:00 Question & Answer

5:05 Health Hazards of Yeast Exposure: What Have We Learned from Epidemiological and Clinical Studies?

Karen C. Dannemiller, PhD

5:25 Question & Answer

1806 Food Allergy Prevention: To Screen or Not to Screen, that is the Question ▼

4:15 to 5:30 pm

Moscone Center South, Exhibition Level, Hall A

Credit: 1.25 CME/CE

Moderator: Jonathan M. Spergel, MD PhD FAAAAI

4:15 Who is Really High Risk for the Development of Food Allergy?

Elissa M. Abrams, MD

4:35 Question & Answer

4:40 Implementation of the US Peanut Allergy Prevention Guidelines By Allergists and Pediatricians

Corinne Keet, MD MS PhD

5:00 Question & Answer

5:05 Is Screening for Food Allergy Cost Effective?

Marcus S. Shaker, MD MS FAAAAI

5:25 Question & Answer

1807 The New International Urticaria Guidelines: Are They of Practical Use to the Clinical Allergist? ■ ▼

4:15 to 5:30 pm

Moscone Center South, Level 2, Room 207

Credit: 1.25 CME/CE

Moderator: Sarbjit S. Saini, MD FAAAAI

4:15 An Update on the New International Urticaria Guidelines: What's New, What's Not

Marcus Maurer, MD

4:35 Question & Answer

4:40 Similarities and Differences Between the International Urticaria Guidelines and the Joint Task Force Guidelines

Thomas B. Casale, MD FAAAAI

5:00 Question & Answer

5:05 Best Practice for Evaluation and Treatment of a Chronic Urticaria Patient: Should Allergists be Adherent to Guidelines?

David M. Lang, MD FAAAAI

5:25 Question & Answer

1810 Allied Health Plenary: Food Allergy Update

4:15 to 5:30 pm

Moscone Center South, Exhibition Level, Hall D8

Credit: 1.25 CME/CE

Moderator: Karen L. Gregory, DNP APRN-BC RRT AE-C

4:15 Food Allergy Diagnosis and Management

Julie Wang, MD FAAAAI

4:35 Question & Answer

4:40 Food Allergy Research: OIT, EPIT, SLIT and Early Introduction

Kim E. Mudd, RN MSN

5:00 Question & Answer

5:05 Psychosocial Concerns in Food Allergy Families

Linda Herbert, PhD

5:25 Question & Answer

Friday Scientific Program



AAAAI American Academy of
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Federation of RSLAAIS Assembly Forum, Business Meeting & Reception

4:45 to 6:30 pm

Moscone Center South, Exhibition Level, Hall D7

No CME/CE

4:45 Wine and Cheese Reception/Meet the RSLAAIS Governors Networking

5:05 RSLAAIS Assembly Business Meeting

Moderator: Denise DiPrimio-Kalman, DO FAAAAI

Special Guest: Robert Wood, MD FAAAAI

5:30 Overcoming Barriers to Optimal Patient Care

Moderator: Weily Soong, MD FAAAAI

Panelists:

Stuart L. Abramson, MD PhD FAAAAI

Susan Rudd Bailey, MD FAAAAI

Michael Rupp, MD FAAAAI

Paul V. Williams, MD FAAAAI

Program Directors Assembly (PDA) Business Meeting and Forum

12:00 to 2:00 pm

Moscone Center South, Exhibition Level, Hall D7

12:00 Lunch

12:15 Program Directors Assembly Business Meeting

Paul J. Dowling, MD FAAAAI

12:25 30th Anniversary of the Program Directors Assembly

Robert A. Wood, MD FAAAAI

12:35 WAO Centers of Excellence

Lanny J. Rosenwasser, MD FAAAAI

12:40 Physician Wellness in Allergy & Immunology: Where We Are and Where We Are Going

Moderator: Giselle Mosnaim, MD MS FAAAAI

Theresa A. Bingemann, MD FAAAAI, Anil Nanda, MD FAAAAI and

Hemant P. Sharma, MD MHS FAAAAI

1:40 Other Business

Paul J. Dowling, MD FAAAAI

2:00 Adjourn

Friday, February 22

Because
Practice Matters!
to the AAAAI

Come see us at the Practice Management Hub

At the Moscone Center South,
Exhibition Level, Hall A Lobby

Compounding: Learn more about what to expect in the Updated USP Chapter <797>

Coding: Ask us your questions

Advocacy: Learn more and get involved in AAAAI priorities

Payer Relations: Talk with us about coverage

Practice Management Workshop: Register now to learn how to "Revitalize, Refresh and Reimagine your Practice"

Visit us during Expert Office Hours and Learn More about our Featured Questions:

Saturday, February 23: How does "Buy and Bill" work with biologics?

Sunday, February 24: What do you need to do to prepare for the USP compounding rule changes?

Monday, February 25: How can we make penicillin allergy testing work, financially as well as to benefit our patients?

AAAAI-1218-414

Saturday Scientific Program



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SAN FRANCISCO, CA · FEBRUARY 22-25, 2019

Saturday, February 23

6:00 AM									
7:00 AM									
8:00 AM			Seminars 7:00 - 8:00 am		Allied Health Workshops 6:45 - 8:00 am				
9:00 AM			Plenary Session 8:15 - 9:45 am						
10:00 AM			Plenary Q&A 9:45 - 10:15 am		Poster Presentations & Case Study Posters 9:45 - 10:45 am				
11:00 AM									
12:00 PM			Symposia 10:45 am - 12:00 pm						
01:00 PM			Seminars & Pro/Con Debates 12:30 - 1:30 pm		Symposia 12:30 - 1:45 pm	Allied Health Business Meeting & Oral Abstracts 12:15 - 1:45 pm	Interesting Cases Part 1 12:30 - 1:45 pm		
02:00 PM									
03:00 PM					Oral Abstracts & Allied Health Workshops 2:00 - 3:15 pm				
04:00 PM					Keynote Speaker 3:30 - 4:30 pm				
05:00 PM									
06:00 PM					Workshops 4:45 - 6:00 pm				

Registration 6:30 am - 5:00 pm

Poster Hall 7:00 am - 6:00 pm

Exhibit Hall 9:45 am - 3:15 pm

Saturday Scientific Program



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

Seminars

7:00 to 8:00am

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

Credit: 1.00 CME/CE

2001 Aspirin and Nonsteroidal Anti-Inflammatory Drug Challenges in the Office

Marriott, Lower B2 Level, Yerba Buena Salon 1

Discussion Leaders: James L. Baldwin, MD FAAAAI
Whitney W. Stevens, MD PhD

2002 Inflammation in Eosinophilic Esophagitis: Beyond Eosinophils

Marriott, Lower B2 Level, Yerba Buena Salon 2

Discussion Leaders: Antonella Cianferoni, MD PhD FAAAAI
Seema S. Aceves, MD PhD

2003 E-Cigarettes: The Arc of the Evidence: Smoking Cessation to Harm Reduction to Harm Production

Marriott, Lower B2 Level, Yerba Buena Salon 3

Discussion Leaders: Neil Alexis, PhD
Andrew S. Nickels, MD

2004 Skin Testing to Drugs in the Outpatient Clinic

Marriott, Lower B2 Level, Yerba Buena Salon 4

Discussion Leaders: Roland Solensky, MD FAAAAI
Paige G. Wickner, MD MPH

2005 How to Best Use Component Testing For Food Allergy in Clinical Practice

Marriott, Lower B2 Level, Yerba Buena Salon 5

Discussion Leaders: Jacob D. Kattan, MD
Motohiro Ebisawa, MD PhD FAAAAI

2006 Evaluation and Treatment of Angioedema: An Approach to Difficult Cases

Marriott, Lower B2 Level, Yerba Buena Salon 6

Discussion Leaders: Aleena Banerji, MD FAAAAI
Paula J. Busse, MD FAAAAI

2007 New Solutions for Old Problems: Can Technology Improve Medication Adherence?

Marriott, Lower B2 Level, Yerba Buena Salon 10

Discussion Leaders: William C. Anderson III, MD FAAAAI
Giselle Mosnaim, MD MS FAAAAI

2008 Asthma and Allergy Health Disparities throughout the Lifespan

Marriott, Lower B2 Level, Yerba Buena Salon 11

Discussion Leaders: Alan P. Baptist, MD MPH FAAAAI
Carla M. Davis, MD FAAAAI

2009 How to Apply Component Based Testing in Your Practice: A Case-Based Presentation

Marriott, Lower B2 Level, Yerba Buena Salon 12

Discussion Leaders: Anne Marie Singh, MD
Jörg R. Kleine-Tebbe, MD FAAAAI

2010 Overcoming Barriers to Change: Relationship Centered Communication Skills to Help with Asthma Control

Marriott, Lower B2 Level, Yerba Buena Salon 13

Discussion Leaders: Brian C. Schroer, MD
Jaclyn Bjelac, MD

2011 Mast Cell and Eosinophilic Disease: The Value of a Hematology Consult

Marriott, Lower B2 Level, Yerba Buena Salon 14

Discussion Leaders: Melody C. Carter, MD FAAAAI
Dean D. Metcalfe, MD FAAAAI

Workshops

2021 Allied Health: Take Your Spirometry Interpretation to the Next Level

6:45 to 8:00 am

Moscone Center South, Exhibition Level, Hall D9

Credit: 1.25 CME/CE

Moderator: Gregory M. Metz, MD FAAAAI

6:45 Remember the Ratio: The Key to Spirometry Interpretation in Asthma

Michelle R. Dickens, MSN FNP-C AE-C

7:05 Question & Answer

7:10 Beyond Asthma and COPD: Identifying Other Obstructive Patterns in the Airways

Karen L. Gregory, DNP APRN-BC RRT AE-C

7:30 Question & Answer

7:35 When Spirometry Is Normal: How to Choose the Right Bronchoprovocation Test for Your Patient

Marcia Rose Winston, MSN CPNP AE-C

7:55 Question & Answer

2022 Allied Health: Eosinophilic Esophagitis: Diagnosis and Management

6:45 to 8:00 am

Moscone Center South, Exhibition Level, Hall D10

Credit: 1.25 CME/CE

Moderator: Sally A. Noone, RN MSN

6:45 EoE: Diagnosis and Treatment

Mirna Chehade, MD MPH

7:05 Question & Answer

7:10 Dietary Management for EoE Patients

Raquel Z. Durban, MS RD CSP LDN

7:30 Question & Answer

7:35 Feeding Problems in EoE

April Clark, MS RD CSP LDN

7:55 Question & Answer

Allied Health Seminars

2023 Allied Health: Chronic Rhinosinusitis: Beyond the Basics

7:00 to 8:00 am

Moscone Center South, Exhibition Level, Hall D11

Discussion Leaders: Mahboobeh Mahdavinia, MD PhD
Joseph K. Han, MD FAAAAI

Saturday, February 23



Plenary

- 2101 Outcomes, Education and Healthcare Delivery in Allergic Diseases ▼**
 8:15 to 9:45 am
Moscone Center South, Exhibition Level, Hall A
 Credit: 1.50 CME/CE
Moderator: Asriani M. Chiu, MD FAAAAI
- 8:15 Introduction**
- 8:20 Patient-Centered Outcomes in Allergic Diseases: Accounting for Quality of Life and Healthcare Disparities**
Carla M. Davis, MD FAAAAI
- 8:45 Introduction**
- 8:50 Educating Colleagues, Patients and their Families about Allergic Diseases**
David R. Stukus, MD FAAAAI
- 9:15 Introduction**
- 9:20 Shared Decision Making in Allergic Diseases**
Maureen George, PhD RN AE-C
- 9:45 Saturday Plenary Q&A**

Saturday Poster Sessions


- 9:45 to 10:45 am
Moscone Center South, Exhibition Level, Hall B
 Credit: No CME/CE
Please refer to the 2019 AAAAI Annual Meeting Mobile App or www.jacionline.org for abstract details.
- 2201 Asthma Pathogenesis and Inflammation**
- 2202 Asthma Diagnosis**
- 2203 Humoral Immunodeficiency Disorders**
- 2204 Insights in Basic and Clinical Immunology**
- 2205 Effect of Exposure to Aeroallergens**
- 2206 Particulates and Health**
- 2207 Drug Allergy**
- 2208 Insect Venom Allergy**
- 2209 Urticaria and Angioedema**
- 2210 Programs to Help Evaluate Asthma and Chronic Cough Outcomes**
- 2211 Food Allergy and Quality of Life**
- 2212 Skin Testing and Immunotherapy**
- 2213 Allergic Rhinitis and Rhinosinusitis**
- 2214 Markers of Disease in Inflammatory Skin Conditions**
- 2215 Immune Mechanisms in Food Allergy**
- 2216 Allied Health Saturday Poster Session**

Symposia

- 2301 Asthma Care in the Era of Precision Medicine ▼**
 10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 207
 Credit: 1.25 CME/CE
Moderator: Leonard B. Bacharier, MD FAAAAI
- 10:45 Available and Emerging Biomarkers as Tools to Identify Asthma Phenotypes**
Matthew C. Altman, MD MPhil
- 11:05 Question & Answer**
- 11:10 Asthma Phenotypes and Endotypes: Insights into Disease Causation and Mechanisms**
Sally E. Wenzel, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Personalized Medicine at the Patient and Population Levels**
Stanley J. Szefler, MD FAAAAI
- 11:55 Question & Answer**
- 2302 Primary Immunodeficiency Disease Outcomes: Are They Improving? ▼**
 10:45 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 155
 Credit: 1.25 CME/CE
Moderator: Elena E. Perez, MD PhD FAAAAI
- 10:45 Classic Diseases: SCID, CVID, CGD, XLA and X-HlgM**
Kathleen E. Sullivan, MD PhD FAAAAI
- 11:05 Question & Answer**
- 11:10 Quality of Life**
Jordan Orange, MD PhD FAAAAI
- 11:30 Question & Answer**
- 11:35 Healthcare Utilization**
Mark Ballow, MD FAAAAI
- 11:55 Question & Answer**
- 2303 Growing Your Practice while Earning MOC Credit with the AAAAI Clinical Rotation Curriculum**
 10:45 am to 12:00 pm
Moscone Center South, Level 3, Room 303
 Credit: 1.25 CME/CE
Moderator: Gerald B. Lee, MD
- 10:45 How to Run an Allergy Elective in a Busy Allergy/Immunology Practice**
Jeffrey G. Demain, MD FAAAAI
- 11:05 Question & Answer**
- 11:10 Tips and Tricks on Teaching a New Generation of Learner**
Edwin Kim, MD MS
- 11:30 Question & Answer**
- 11:35 How to Earn ABAI Part IV MOC Credit Through Medical Education**
Luz S. Fonacier, MD FAAAAI
- 11:55 Question & Answer**




Symposia (continued)

- 2304 Does Chronic Rhinosinusitis without Nasal Polyps Need a Different Approach?** ▼
10:45 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 1.25 CME/CE
Moderator: Patricia Takach, MD FAAAAI
- 10:45 Pathogenesis of CRS without NP: Neutrophilic vs. Eosinophilic?**
Mahboobeh Mahdavinia, MD PhD
- 11:05 Question & Answer**
- 11:10 Are Clinical Presentations of CRS without NP Different from CRS with NP?**
Seong Ho Cho, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Is the Medical or Surgical Management of CRS without NP Different from CRS with NP?**
Martin Wagenmann, MD FAAAAI
- 11:55 Question & Answer**
- 2305 World Allergy Forum: New Advances in Allergen Immunotherapy** ▼ 
10:45 am to 12:00 pm
Moscone Center South, Level 3, Room 305
Credit: 1.25 CME/CE
Moderators: Ignacio J. Ansotegui, MD PhD
Robert A. Wood, MD FAAAAI
- 10:45 Current Knowledge of Allergen Immunotherapy Mechanisms**
Mübeccel Akdis, MD PhD
- 11:05 Question & Answer**
- 11:10 Current Evidence of Allergen Immunotherapy in Asthma**
Victoria Cardona, MD PhD
- 11:30 Question & Answer**
- 11:35 Food Immunotherapy**
Motohiro Ebisawa, MD PhD FAAAAI
- 11:55 Question & Answer**

- 2306 Innate Immunity in Allergic Responses**
10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 201
Credit: 1.25 CME/CE
Moderator: Christina L. Nance, PhD MA FAAAAI
- 10:45 Type 2 Innate Lymphoid Cells in Allergic Inflammation**
Donata Vercelli, MD
- 11:05 Question & Answer**
- 11:10 Dendritic Cell Regulation in Allergic Responses**
Michelle A. Gill, MD PhD
- 11:30 Question & Answer**
- 11:35 Impact of Epithelial-Derived Cytokines in Allergic Inflammation**
Erik R. Wambre, PhD MBE
- 11:55 Question & Answer**
- 2307 Stories from the AAAAI Foundation** ▼
10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 203
Credit: 1.25 CME/CE
Moderator: William W. Busse, MD FAAAAI
- 10:45 Esophageal Remodeling in Eosinophilic Esophagitis**
Seema S. Aceves, MD PhD
- 11:05 Question & Answer**
- 11:10 IgE Receptor Signaling in Food Allergy Pathogenesis**
Hans C. Oettgen, MD PhD FAAAAI
- 11:30 Question & Answer**
- 11:35 Immune Mechanisms Regulating Food Allergy Pathogenesis**
Kari C. Nadeau, MD PhD FAAAAI
- 11:55 Question & Answer**
- 2308 The Microbiome in Food Allergy**
10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 205
Credit: 1.25 CME/CE
Moderator: Diane R. Gold, MD MPH
- 10:45 The Microbiome and Food Allergy: Lessons Learned from Human Cohort Studies**
Supinda Bunyavanich, MD MPH FAAAAI
- 11:05 Question & Answer**
- 11:10 The Microbiome and Food Allergy: Lessons Learned from Murine Models**
Talal A. Chatila, MD MSc
- 11:30 Question & Answer**
- 11:35 Microbially-Derived Metabolites and Their Role in Food Allergy**
Liam O'Mahony, PhD
- 11:55 Question & Answer**





Symposia (continued)

- 2309 Implementation of Food Immunotherapy into Clinical Practice** 
10:45 am to 12:00 pm
Moscone Center South, Exhibition Level, Hall A
Credit: 1.25 CME/CE
Moderator: Stacie M. Jones, MD
- 10:45 What Are Risks and Benefits, Advantages and Disadvantages of Each Food Immunotherapy?**
David M. Fleischer, MD FAAAAI
- 11:05 Question & Answer**
- 11:10 Decision Making: Which Patients for Which Therapy?**
Matthew J. Greenhawt, MD MBA MSc
- 11:30 Question & Answer**
- 11:35 Practical Implementation of Food IT Into Your Clinical Practice**
Hugh H. Windom, MD FAAAAI
- 11:55 Question & Answer**

Workshops

- 2401 Practical Approaches to Adjunctive Management of Primary Immunodeficiency Diseases**
12:00 to 2:00 pm
Moscone Center South, Exhibition Level, Hall B Lobby
Credit: 0.25 CME/CE
- 12:00 Hands-on Training Station**
Faculty
Elena E. Perez, MD PhD FAAAAI
Mark Ballow, MD FAAAAI
Benjamin T. Prince, MD MSCI
Maria A. Slack, MD
William R. Blouin, ARNP
Kenneth Paris, MD MPH
Charlotte Cunningham-Rundles, MD PhD FAAAAI
Francisco A. Bonilla, MD PhD FAAAAI
- 2402 Oral Food Challenges I**
12:00 to 2:00 pm
Moscone Center South, Exhibition Level, Hall B Lobby
Credit: 0.25 CME/CE
- 12:00 Hands-on Training Station**
J. Andrew Bird, MD FAAAAI
R. Sharon Chinthrajah, MD
Gita Ram, MD
Jacob D. Kattan, MD
Lauren Kronisch, RD LD
Megan Ott Lewis, MSN CRNP
Marion E. Groetch, MS RDN
Kim E. Mudd, RN MSN
Amanda Louise Cox, MD FAAAAI
Malika Gupta, MD
S. Allan Bock, MD FAAAAI

Course

- 2405 Career Paths in Allergy and Immunology**  
12:00 to 1:45 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 160
Pre-registration and ticket required. Attendance restricted to current allergy/immunology Fellows-in-Training only. No fee. Continental breakfast and box lunch included.
Credit: No CME/CE
Moderator: Rebecca Saff, MD PhD FAAAAI
- 12:00 Lunch**
- 12:15 Welcome and Introduction**
Rebecca Saff, MD PhD FAAAAI
- 12:20 Academia: Clinical**
Amy M. Scurlock, MD
- 12:30 Academia: Research**
Mitchell H. Grayson, MD FAAAAI
- 12:40 Industry**
Dorothy S. Cheung, MD FAAAAI
- 12:50 Government**
Melody C. Carter, MD FAAAAI
- 1:00 Private Practice**
Andrew W. Murphy, MD FAAAAI
- 1:10 Summary**
Rebecca Saff, MD PhD FAAAAI
- 1:15 Breakout/Question & Answer**

ATTEND THE AAAAI CAREER CONNECTIONS JOB FAIR

Saturday, February 23:
9:45 am to 2:30 pm
Sunday, February 24:
9:45 am to 2:30 pm
**Moscone Center South
Exhibition Level, Hall B**

Saturday Scientific Program



AAAAI American Academy of
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2411 Allied Health Professional Assembly Business Meeting and Oral Abstract Session

12:15 to 1:45 pm

Moscone Center South, Exhibition Level, Hall D8

Credit: 1.25 CME/CE

Moderators: Kim E. Mudd, RN MSN

Cheryl K. Bernstein, RN BSN CCRC

12:15 Business Meeting

12:30 The Impact of Allergic Disease in Adults with Chronic Idiopathic Urticaria

Nicolas Cascone, RN

12:45 High Prevalence of Drug Allergy in Patients with Urticaria and Angioedema

Theresa L. Nee, RN

1:00 School Personnel Apprehension Related To Stock Epinephrine In Greater Houston Area

Daisy Tran, RN BSN

1:15 Hypertensive Disorders of Pregnancy and Recurrent Wheezing: 12 Month Follow-up of a Birth Cohort Study

Mariana Abduch Rahal

1:30 Wahoo Cool for School: Bridging the Clinic to the Classroom to Update Student-Specific Food Allergy Recommendations

Jesse B. Persily, BA

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

2501 There's an App for That: The Use of Mobile Technology in Clinical Practice

Marriott, Lower B2 Level, Yerba Buena Salon 1

Discussion Leaders: Melinda M. Rathkopf, MD FAAAAI

Nabeel Farooqui, MD FAAAAI

2502 Venom Allergy: When to Suspect Mastocytosis

Marriott, Lower B2 Level, Yerba Buena Salon 2

Discussion Leaders: David B.K. Golden, MD FAAAAI

Cem Akin, MD PhD FAAAAI

2503 Asthma in Preschool Children: Primary and Secondary Prevention and Management of Exacerbations

Marriott, Lower B2 Level, Yerba Buena Salon 3

Discussion Leaders: Avraham Beigelman, MD MSCI FAAAAI

William J. Sheehan, MD

2504 Hypereosinophilic Syndrome: Evaluation and Management Options

Marriott, Lower B2 Level, Yerba Buena Salon 4

Discussion Leaders: Sameer K. Mathur, MD PhD FAAAAI

Amy D. Klion, MD

2505 Case-Based Learning: Challenges in Food Protein-Induced Enterocolitis Syndrome Management

Marriott, Lower B2 Level, Yerba Buena Salon 5

Discussion Leaders: Qian Yuan, MD PhD

Elizabeth J. Feuille, MD

2506 Cannabis Sativa: Marijuana as Medicine and Allergen?

Marriott, Lower B2 Level, Yerba Buena Salon 6

Discussion Leaders: Ajay P. Nayak, PhD

William S. Silvers, MD FAAAAI

Saturday, February 23



2507 Biologic Therapies and Occupational Asthma

Marriott, Lower B2 Level, Yerba Buena Salon 10

*Discussion Leaders: Santiago Quirce, MD PhD
Joaquin Sastre, MD PhD FAAAAI*

2508 The Mechanic's Guide to Nanoparticles in the Airways

Marriott, Lower B2 Level, Yerba Buena Salon 11

*Discussion Leaders: Peter J. Pityn, PhD
W. Elliott Horner, PhD LEED AP FAAAAI*

2509 Adult Primary Immunodeficiencies

Marriott, Lower B2 Level, Yerba Buena Salon 12

*Discussion Leaders: Jolan E. Walter, MD
Manish J. Butte, MD PhD*

Workshop

2510 Demystifying the National Institutes of Health Grant Submission/Peer Review Process

Moscone Center South, Upper Mezzanine Level, Esplanade 151

*Discussion Leaders: Alok Muly, PhD
David P. Huston, MD FAAAAI*

Pro/Con Debates

2551 Antibiotics are Effective Therapy for the Management of Acute Episodic Wheeze in Preschool Children ▼

12:30 to 1:30 pm

Moscone Center South, Level 2, Room 207

Credit: 1.00 CME/CE

*Moderator: Stokes Peebles Jr., MD FAAAAI
Pro Speaker: Leonard B. Bacharier, MD FAAAAI
Con Speaker: Jay M. Portnoy, MD FAAAAI*

2552 Mast Cell Activation Syndrome is Over-Recognized ▼

12:30 to 1:30 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 156

Credit: 1.00 CME/CE

*Moderator: Mariana C. Castells, MD PhD FAAAAI
Pro Speaker: Catherine Randa Weiler, MD PhD FAAAAI
Con Speaker: Patrizia Bonadonna, MD*

2553 Interleukin-33, and Not Thymic Stromal Lymphopoietin, is the Primary Driver of the Innate Allergic Immune Response

12:30 to 1:30 pm

Moscone Center South, Level 3, Room 303

Credit: 1.00 CME/CE

*Moderator: Taylor A. Doherty, MD FAAAAI
Pro Speaker: Hirohito Kita, MD
Con Speaker: Atsushi Kato, PhD*

Symposia

2555 National Heart, Lung, and Blood Institute: Precision Medicine in Asthma ▼

12:30 to 1:45 pm

Moscone Center South, Level 3, Room 305

Credit: 1.25 CME/CE

Moderator: Rosalind J. Wright, MD MPH

12:30 Precision Medicine in Asthma Therapy and the PrecISE Network

Rosalind J. Wright, MD MPH

12:50 Question & Answer

12:55 Statistical Considerations for Precision Adaptive Trials in Asthma

Lisa LaVange, PhD

1:15 Question & Answer

1:20 Protocol Design and Implementation in the PrecISE Network

Loren Denlinger, MD PhD

1:40 Question & Answer

2556 National Institute of Allergy and Infectious Diseases: Allergic Sensitization and the March to Allergic Diseases ▼

12:30 to 1:45 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 155

Credit: 1.25 CME/CE

Moderator: Peter J. Gergen, MD MPH

12:30 Phenotypes of Specific Allergic Sensitization: Do They Matter?

Christine Cole Johnson, PhD MPH FAAAAI

12:50 Question & Answer

12:55 Allergic Sensitization and the Development of Allergic Disease in the First 10 Years of Life

James E. Gern, MD FAAAAI

1:15 Question & Answer

1:20 Sensitization to Allergen Components and Its Relationship to the Phenotype of Allergic Disease

Anna Pomés, PhD FAAAAI

1:40 Question & Answer



Workshops

- 2557 Interesting Cases Part I** ▼
12:30 to 1:45 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 159
Credit: 1.25 CME/CE
Moderators: *Paul J. Dowling, MD FAAAAI*
Eric M. Schaubberger, DO PhD
- 12:30 Eosinophilic Mastitis: A Diagnostic and Therapeutic Conundrum**
Alegra Grieb, MD
- 12:40 Question & Answer**
- 12:45 Making Repeat Aspirin Desensitizations “Water Under the Bridge”: Making a Case for Ibuprofen Bridge Therapy**
Cali M. Reynolds, MD
- 12:55 Question & Answer**
- 1:00 Hereditary Angioedema and Inducible Urticaria: Not Mutually Exclusive**
Rachel Bean, MD
- 1:10 Question & Answer**
- 1:15 Long Term Outcomes of an Infant with Food-Induced Pulmonary Hemosiderosis: Is EoE a Late Manifestation of Heiner’s Syndrome**
Kathryn Neupert, MD
- 1:25 Question & Answer**
- 1:30 A Novel WAS Mutation Presenting As Severe Combined Immune Deficiency**
Katie Kennedy, MD
- 1:40 Question & Answer**

Oral Abstract Sessions

- 2601 Asthma Epidemiology and Risk Factors**
2:00 to 3:15 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 1.25 CME/CE
Moderators: *Caroline C. Horner, MD FAAAAI*
Bridgette L. Jones, MD FAAAAI
- 2:00 Preferred Medication Changes in High Risk Asthma Patients Leads to Increased ED Visits and Hospitalizations**
Christina M. Thomas, MD
- 2:15 Elevated Testosterone is Associated with Decreased Likelihood of Current Asthma Regardless of Gender**
Kirk V. Shepard II, MD
- 2:30 Prenatal exposure to acid suppressant medications and the risk of recurrent wheeze at 3 years of age in children with a history of severe bronchiolitis**
Lacey B. Robinson, MD
- 2:45 Identification of Two Early Life Eczema and Non-Eczema Phenotypes With High Risk For Asthma Development**
Elisabet Johansson, PhD
- 3:00 Early Life Risk Factors for Asthma at Early Adulthood**
David Pelloza, MD

- 2602 Updates on Common Variable Immune Deficiency Syndrome and Humoral Immune Deficiency**
2:00 to 3:15 pm
Moscone Center South, Level 3, Room 301
Credit: 1.25 CME/CE
Moderators: *Elena E. Perez, MD PhD FAAAAI*
Kenneth Paris, MD MPH
- 2:00 Replacement immunoglobulin trends amongst patients with CVID and concurrent autoimmunity: A report from the USIDNet registry**
Katie Kennedy, MD
- 2:15 B Cell Activation in Specific Polysaccharide Antibody Deficiency**
Stephen J. McGeady, MD FAAAAI
- 2:30 A study of cancer incidence in the most common immunodeficiency, common variable immunodeficiency (CVID)**
Carolyn H. Baloh, MD
- 2:45 Lymphoproliferative Disease in CVID: A Report of Types and Prevalence from a United States Patient Registry**
Elizabeth Yakaboski, MD
- 3:00 A Milder Variant of Transient Hypogammaglobulinemia of Infancy in Moderate to Severe Atopic Dermatitis**
Carolyn Kwiat, MD MPH
- 2603 Air Pollutants and Toxicants**
2:00 to 3:15 pm
Moscone Center South, Level 3, Room 303
Credit: 1.25 CME/CE
Moderators: *Elizabeth C. Matsui, MD MHS*
Cullen M. Dutmer, MD
- 2:00 Effect of Air Cleaners (Intense Pure Air® XL) on Early and Late Asthmatic Response in Asthmatic Subjects Sensitized to Cat in ALYATEC’s Environmental Exposure Chamber (EEC)**
Frederic J. De Blay, MD
- 2:15 Wood Smoke Particles Increase Markers of Systemic Inflammation in Healthy Volunteers**
Anusha Vadlamudi, MD
- 2:30 The Impact of a Prescribed Burn versus a Wildfire on the Immune and Cardiovascular Systems of Children**
Mary Prunicki, MD PhD
- 2:45 Report of prenatal exposure to pesticide predicts infant rhinitis and watery eyes without a cold**
Matthew S. Perzanowski, PhD
- 3:00 Effect of prenatal particulate matter exposure on atopic dermatitis in preschool children modified by cord blood vitamin D: COCOA study**
Song-I Yang, MD



Oral Abstract Sessions (continued)

2604 Oral Immunotherapy Outcomes and Markers of Response

2:00 to 3:15 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 155

Credit: 1.25 CME/CE

Moderators: Amal H. Assa'ad, MD FAAAAI

Susan Waserman, MD MSc FAAAAI

2:00 A 5-year Summary of Real-life Dietary Egg Consumption after Completion of a 4-year Egg OIT Protocol

Edwin Kim, MD MS

2:15 Successful Desensitisation and Sustained Unresponsiveness Using Modified Peanut: Results from the BOPI Study

Nandinee Patel, MD

2:30 Differential Gene Expression among Infants at High-Risk for Peanut Allergy

Ashley L. Devonshire, MD MPH

2:45 TCR Repertoire Analysis Reveals Public Motifs with High Probability for Allergen Epitope Specificity

Neal P. Smith

3:00 IgEhi Endophenotype in Those with Transient Desensitization after Peanut Oral Immunotherapy

Alexander R. Eaton, BS

2605 Healthcare Delivery for Patients with Food Allergy

2:00 to 3:15 pm

Moscone Center South, Level 2, Room 205

Credit: 1.25 CME/CE

Moderators: Julie Wang, MD FAAAAI

Benjamin T. Prince, MD MSCI

2:00 Family History of Atopy in Food Allergy Development

Justin M. Zaslavsky

2:15 Characterization of Epinephrine Utilization in Michigan Public Schools 2014-17

Harvey L. Leo, MD FAAAAI

2:30 Implementation, Practices, and Barriers to the 2017 Peanut Allergy Prevention Guidelines Among Pediatricians

Ruchi S. Gupta, MD MPH

2:45 Improvement in Quality of Life (QOL) in Pediatric Patients with Food Allergy Associated Disease After Initial Clinic Evaluation

Vibha Szafron, MD

3:00 Factors Associated with Increased Food Allergy-associated Anxiety in Parents of Food-allergic Children

Lianne Soller, PhD

2606 Update in Rhinitis and Rhinosinusitis

2:00 to 3:15 pm

Moscone Center South, Level 2, Room 201

Credit: 1.25 CME/CE

Moderators: Patricia Takach, MD FAAAAI

Mahboobeh Mahdavinia, MD PhD

2:00 Blocking Histone Deacetylase Activity as a Novel Target for Epithelial Barrier Defects in Allergic Rhinitis

Brecht Steelant, PhD

2:15 Age-related Endotype in Patients with Chronic Rhinosinusitis

Gwanghui Ryu

2:30 Expression and Functional Analysis of CST1 in Intractable Nasal Polyps

Yukinori Kato, MD PhD

2:45 Respiratory Virus Detection in Nasal Lavage Fluid of Chronic Rhinosinusitis Patients During Acute Exacerbations

Jason Kwah, MD

3:00 A Biomarker for Obstructive Sleep Apnea in Chronic Rhinosinusitis

Navid Salahi, MD

2607 Immune Pathways in the Development of Food Allergy

2:00 to 3:15 pm

Moscone Center South, Level 2, Room 203

Credit: 1.25 CME/CE

Moderator: Stephen R. Durham, MD MA

Katrina Allen, MD PhD FAAAAI

2:00 A Low Prevalence of Pediatric Food Allergy (FA) Among Older Order Mennonites (OOM) Is Related to Robust IgA Production in Early Life

Kirsi M. Jarvinen-Seppo, MD PhD FAAAAI

2:15 Gastrointestinal Staphylococcus Aureus: Immune Responses to its Enterotoxins and Regulatory T Cell Dysfunction in Childhood Food Allergy

Kristin A. Erickson

2:30 Peanut Allergy is Induced by Distinct Immunologic Pathways Dependent on the Routes of Allergen Exposure in Mice

Koji Iijima, PhD

2:45 Immune Progression Within the Memory CD4+ T Cell Compartment is a Marker of Heightened Clinical Sensitivity for Patients with Peanut Allergy

Bert Ruiter, PhD

3:00 Identification of an Antigenic Region involved in IgE Cross-reactivity Between Fatty Acid Binding Proteins (FABP) from Shrimp and Human

Marlon Munera, MSc

Saturday Scientific Program




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Oral Abstract Sessions (continued)

- 2608 Late Breaking Oral Abstract: Clinical Focus**
2:00 to 3:15 pm
Moscone Center South, Level 2, Room 207
Credit: 1.25 CME/CE
*Moderators: Thanai Pongdee, MD FAAAAI
David M. Fleisher, MD FAAAAI*
- 2:00 Implementation of the 2017 Addendum Guidelines for Peanut Allergy Prevention Among AAAAI Allergists and Immunologists**
Jacqueline Johnson, DrPH
- 2:15 The Natural History of Peanut and Egg Allergy and Predictors of Persistence: The Healthnuts Longitudinal Study, 6-Year-Old Follow-up**
Rachel Peters, PhD
- 2:30 Earlier Ingestion of Peanuts Following Change to Infant Feeding Guidelines in Australia**
Victoria Soriano
- 2:45 Efficacy and Safety of Dupilumab in Patients with Chronic Rhinosinusitis with Nasal Polyps: Results from the Randomized Phase 3 Sinus-24 Study**
Joseph K. Han, MD FAAAAI
- 3:00 Fetal Outcomes Among Women with Asthma during Pregnancy: Evidence from a Large Healthcare Database in the United States**
Jennifer J. Yland, MS

Allied Health Workshops

- 2611 Allied Health: Recurrent Infections, Severe Eczema, or Failure to Thrive: Is it Allergy or Immunodeficiency?** 
2:00 to 3:15 pm
Moscone Center South, Exhibition Level, Hall D9
Credit: 1.25 CME/CE
Moderator: Vivian P. Hernandez-Trujillo, MD FAAAAI
- 2:00 Is it Allergy?**
William R. Blouin, ARNP
- 2:20 Question & Answer**
- 2:25 Is it Immunodeficiency?**
Carla M. Duff, CPNP MSN IgCN
- 2:45 Question & Answer**
- 2:50 There is a Diagnosis: Now What?**
M. Elizabeth M. Younger, CRNP PhD
- 3:10 Question & Answer**
- 2612 Allied Health: Update on Allergen Extract Compounding: Immunotherapy Survey Results and Coding**
2:00 to 3:15 pm
Moscone Center South, Exhibition Level, Hall D12
Credit: 1.25 CME/CE
Moderator: Cheryl K. Bernstein, RN BSN CCRC
- 2:00 FDA Update on Allergen Extract Compounding**
Andrew W. Murphy, MD FAAAAI
- 2:20 Question & Answer**
- 2:25 Immunotherapy Survey Results**
David I. Bernstein, MD FAAAAI
- 2:45 Question & Answer**
- 2:50 Immunotherapy Coding: Problem Solving**
Teresa Thompson, CPC CMSCS CCC
- 3:10 Question & Answer**

- 2613 Allied Health: Tree Nut Allergy: Clinical Update** 
2:00 to 3:15 pm
Moscone Center South, Exhibition Level, Hall D10
Credit: 1.25 CME/CE
Moderator: Terri Gagen-Hursey, NP
- 2:00 Component Testing for Tree Nuts: What's Useful? What's New? What's Coming?**
Jennifer A. Dantzer, MD
- 2:20 Question & Answer**
- 2:25 Tree Nut Oral Food Challenges: Logistics and Procedures: Are We All Doing This the Same Way?**
Jodi A. Shroba, MSN APRN CPNP
- 2:45 Question & Answer**
- 2:50 How Do We Convince Patients to Integrate Tree Nuts into Their Diets After a Successful Challenge?**
Isabel J. Skypala, PhD RD
- 3:10 Question & Answer**
- 2614 Allied Health: Perspectives from the Allied Health Travel Scholarship Recipients**
2:00 to 3:15 pm
Moscone Center South, Exhibition Level, Hall D8
Credit: 1.25 CME/CE
Moderator: Kim E. Mudd, RN MSN

Keynote

- 2701 Inching Towards the Construction of Individualized Health Course Trajectories of Disease and Wellness** 
3:30 to 4:30 pm
Moscone Center South, Exhibition Level, Hall A
Credit: 1.00 CME/CE
Moderator: Robert A. Wood, MD FAAAAI
Speaker: Eric Schadt, PhD

Saturday, February 23



Basic Science Poster Discussion

- 2721 Innate Immunity Regulates Allergic Disease**
4:30 to 6:00 pm
Moscone Center South, Exhibition Level, Hall D10
Credit: 1.50 CME/CE
*Moderators: Magdalena M. Gorska, MD PhD FAAAAI
Jill A. Poole, MD FAAAAI*
- 4:30 Poster Viewing**
- 5:10 Discussion of Following Posters**
- 271 IL33 Contributes to Diesel Pollution-Induced Increase in Experimental Asthma Severity**
Eric Brandt, PhD FAAAAI
- 272 Nasal Epithelial Brush Cells Generate Cysteinyl Leukotrienes in Response to Aeroallergens and Stress Signals**
Saltanat Ualiyeva, MD
- 273 An Innate Adaptor Protein CARD9 Inhibits Type 2 Immune Responses in the Airways**
Rinna Tei, MD
- 274 Disease-Associated KIF3A Genetic Variants Alter Gene Methylation and Expression Resulting in Skin Barrier Dysfunction and Increased Risk for Atopic Dermatitis**
Mariana L. Stevens, PhD
- 275 Mast Cell-Dependent Adjuvant Activity is a Key Component of the Respiratory Immune Response to Inhaled Alternaria**
Sachin K. Samuchiwal, PhD

Workshops

- 2801 Hot Topics in Pediatric Allergy & Immunology** ▼
4:45 to 6:00 pm
Moscone Center South, Level 2, Room 207
Credit: 1.25 CME/CE
Moderator: Elizabeth C. Matsui, MD MHS
- 4:45 Food Allergy**
Pooja Varshney, MD
- 5:05 Question & Answer**
- 5:10 Primary Immune Deficiency**
Lisa R. Forbes, MD
- 5:30 Question & Answer**
- 5:35 Asthma**
Tamara T. Perry, MD
- 5:55 Question & Answer**

- 2802 ABAI Continuous Assessment Program (CAP) Pilot: One Year Later** ▼
4:45 to 6:00 pm
Moscone Center South, Level 3, Room 303
Credit: 1.25 CME/CE
Moderator: Theodore M. Freeman, MD FAAAAI
- 4:45 ABAI's CAP Pilot Program Description: The Article-Based Open-Book Examination**
Theodore M. Freeman, MD FAAAAI
- 5:05 What the ABAI and Its Diplomates Have Learned after the First Year of CAP**
Kathleen R. May, MD FAAAAI
- 5:25 Current and Proposed Changes to MOC Part IV Requirements**
Mitchell H. Grayson, MD FAAAAI
- 5:45 Question & Answer**
- 2803 Asthma and the Athlete: Insights from an Ironman Legend** ■
4:45 to 6:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 1.25 CME/CE
Moderator: Justin C. Greiwe, MD FAAAAI
- 4:45 Asthma and the Athlete: Insights from an Ironman Legend**
Joanna Zeiger, MS PhD
- 4:55 Question & Answer**
- 5:00 Nuts and Bolts of Evaluating the Athlete with Dyspnea**
Louis-Philippe Boulet, MD
- 5:20 Question & Answer**
- 5:25 Guidelines of Treating the Athlete with EIB**
Christopher C. Randolph, MD FAAAAI
- 5:45 Athletes and Asthma: Expert Panel Discussion and Audience Feedback**
- 2804 Gender Disparities in Asthma: Are Hormones to Blame?** ▼
4:45 to 6:00 pm
Moscone Center South, Level 2, Room 205
Credit: 1.25 CME/CE
Moderator: Kathryn E. Hulse, PhD
- 4:45 Sex Differences in AERD: Lipid Mediator Biology and Beyond**
Katherine N. Cahill, MD
- 5:05 Question & Answer**
- 5:10 Sex Hormone Regulation of Inflammation in Asthma**
Dawn C. Newcomb, PhD
- 5:30 Question & Answer**
- 5:35 Hormonal Programming of Epithelium in Asthma Phenotypes**
Sergejs Berdnikovs, PhD
- 5:55 Question & Answer**
- 2805 Quality Reporting and the Quality Clinical Data Registry: A 2019 Update**
4:45 to 6:00 pm
Moscone Center South, Level 2, Room 203
Credit: 1.25 CME/CE
Moderator: Andrew W. Murphy, MD FAAAAI
- 4:45 Merit-Based Incentive Payment System and Quality Reports: Where Are We Now?**
Emily L. Graham, RHIA CCS-P



Workshops (continued)

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| <p> 5:05 Question & Answer
 5:10 Alternative Payment Models for A/I Practice
 <i>Cindy H. Moon, MPP MPH</i>
 5:30 Question & Answer
 5:35 What Is a Quality Clinical Data Registry and How Can It Help You?
 <i>Gary C. Steven, MD PhD FAAAAI</i>
 5:55 Question & Answer

 2806 JACI Year-in-Review Workshop ▼
 4:45 to 6:00 pm
 Moscone Center South, Level 3, Room 305
 Credit: 1.25 CME/CE
 <i>Moderator: Zuhair K. Ballas, MD FAAAAI</i>

 4:45 Food Allergy
 <i>Corinne Keet, MD MS PhD</i>

 5:05 Question & Answer
 5:10 Atopic Dermatitis
 <i>Emma Guttman-Yassky, MD PhD</i>

 5:30 Question & Answer
 5:35 Biologics in Asthma
 <i>Stokes Peebles, Jr., MD FAAAAI</i>

 5:55 Question & Answer

 2807 A Review of Cross-Reactivity Patterns, Extract Stability, Optimal Dosing and Mixing for Subcutaneous Allergen Immunotherapy: A Case-Based Immunotherapy Prescription Mixing Workshop ▼
 4:45 to 6:00 pm
 Moscone Center South, Level 2, Room 201
 Credit: 1.25 CME/CE
 <i>Moderator: Mike Tankersley, MD MBA FAAAAI</i>

 4:45 Cross-Reactivity Patterns and Allergen Stability Relevant to Prescribing Allergen Immunotherapy
 <i>Tolly Epstein, MD FAAAAI</i>

 5:05 Question & Answer
 5:10 Updated Math-Free Guidelines for Allergen Immunotherapy Doses and Glycerin Concentrations
 <i>Punita Ponda, MD FAAAAI</i>

 5:30 Question & Answer
 5:35 An Open Discussion of Case Scenarios that Will Augment Your Existing Immunotherapy Prescribing Patterns
 <i>Christopher W. Calabria, MD FAAAAI</i>

 5:55 Question & Answer </p> | <p> 2808 Sputum Transcriptomics of Neutrophilic Asthma
 4:45 to 6:00 pm
 Moscone Center South, Upper Mezzanine Level, Esplanade 151
 Credit: 1.25 CME/CE
 <i>Moderator: Sanjiv Sur, MD</i>

 4:45 Multi-Tissue Transcriptomic Analysis of Neutrophilic Asthma
 <i>Timothy S.C. Hinks, MD PhD</i>

 5:05 Question & Answer
 5:10 Sputum Transcriptomics of Neutrophilic Asthma
 <i>Ian M. Adcock, PhD</i>

 5:30 Question & Answer
 5:35 Bronchoalveolar Lavage (BAL) and Serum Proteomic-Based Mechanistic Insights into Airway Neutrophilic Inflammation in Refractory Asthma
 <i>Rafeul Alam, MD PhD FAAAAI</i>

 5:55 Question & Answer

 2809 The Effect of Health Disparities on Allergy and Immunology Practice ▼
 4:45 to 6:00 pm
 Moscone Center South, Level 3, Room 301
 Credit: 1.25 CME/CE
 <i>Moderator: Julie Wang, MD FAAAAI</i>

 4:45 What Are Health Disparities and Why Do They Occur?
 <i>Princess U. Ogbogu, MD FAAAAI</i>

 5:05 Question & Answer
 5:10 Recognizing Health Disparities in Allergy and Immunology
 <i>Carla M. Davis, MD FAAAAI</i>

 5:30 Question & Answer
 5:35 Bridging the Disparity Gap to Improve Health Outcomes
 <i>Andrea J. Apter, MD MA MSc FAAAAI</i>

 5:55 Question & Answer

 2810 Taking a Closer Look at Venom Immunotherapy from Several Angles
 4:45 to 6:00 pm
 Moscone Center South, Upper Mezzanine Level, Esplanade 155
 Credit: 1.25 CME/CE
 <i>Moderator: Desiree E.S. Larenas Linnemann, MD FAAAAI</i>

 4:45 Who Really Need VIT?
 <i>Hanneke Oude Elberink, MD PhD</i>

 5:05 Question & Answer
 5:10 VIT in Highly Reactive Patients and in Patients with Special Medical Conditions
 <i>James M. Tracy, DO FAAAAI</i>

 5:30 Question & Answer
 5:35 VIT: Classic and Alternative Administration Schedules
 <i>David B.K. Golden, MD FAAAAI</i>

 5:55 Question & Answer </p> |
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European Academy of Allergy
and Clinical Immunology
1 – 5 June 2019
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Sunday At-A-Glance



AAA American Academy of
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ANNUAL MEETING
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6:00 AM									
7:00 AM									
8:00 AM									
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06:00 PM									

Registration 6:30 am - 5:00 pm

Poster Hall 7:00 am - 6:00 pm

Exhibit Hall 9:45 am - 3:15 pm

Seminars 7:00 - 8:00 am

Plenary Session 8:15 - 9:45 am

Plenary Q&A 9:45 - 10:15 am

Poster Presentations & Case Study Posters 9:45 - 10:45 am

Symposia 10:45 am - 12:00 pm

Seminars & Pro/Con Debates 12:30 - 1:30 pm

Workshops 12:30 - 1:45 pm

Interesting Cases Part 2 12:30 - 1:45 pm

Training Stations 12:00 - 2:00 pm

Oral Abstracts 2:00 - 3:15 pm

Interest Section Forums 3:30 - 4:30 pm

Featured Posters 4:35 - 6:00 pm

Sunday, February 24



Seminars

7:00 to 8:00am

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

Credit: 1.00 CME/CE

3001 Non-immunoglobulin E-Mediated Food Allergy: A Practical Approach for Recognition and Treatment

Marriott, Lower B2 Level, Yerba Buena Salon 10

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

Antonella Cianferoni, MD PhD FAAAAI

3002 Refractory Chronic Rhinosinusitis: When Does My Patient Need Surgery?

Marriott, Lower B2 Level, Yerba Buena Salon 2

Discussion Leaders: Robert C. Kern, MD

Joseph K. Han, MD FAAAAI

3003 Making QI Work for You: How to Begin, Complete and Publish Your Ideas in Quality Improvement

Marriott, Lower B2 Level, Yerba Buena Salon 3

Discussion Leaders: Sujani Kakumanu, MD FAAAAI

Paige G. Wickner, MD MPH

3004 Toxic Mold: Health Effects and Home Assessment

Marriott, Lower B2 Level, Yerba Buena Salon 4

Discussion Leaders: Jay M. Portnoy, MD FAAAAI

James J. Anderson, MLT

3005 Nutritional Concerns in Children with IgE-Mediated Food Allergies

Marriott, Lower B2 Level, Yerba Buena Salon 5

Discussion Leaders: Kristin C. Sokol, MD MS MPH

Lauren Kronisch, RD LD

3006: Introducing the New 2017 ATS Updates to the 2005 ATS/ERS Guidelines: How to Perform, Interpret and Report Spirometry

Marriott, Lower B2 Level, Yerba Buena Salon 6

Discussion Leaders: James M. Quinn, MD FAAAAI

Karla E. Adams, MD

3007 Big Data Approaches in the Allergy Field

Marriott, Lower B2 Level, Yerba Buena Salon 1

Discussion Leaders: Ting Wen, PhD

Leah Claire Nesbitt Kottyan, PhD

3008 Multi-Organ Involvement in Systemic Mastocytosis

Marriott, Lower B2 Level, Yerba Buena Salon 11

Discussion Leaders: Jonathan A. Bernstein, MD FAAAAI

Mariana C. Castells, MD PhD FAAAAI

3009 Update on Health Care Reform, Registries, Measures and Guidelines

Marriott, Lower B2 Level, Yerba Buena Salon 12

Discussion Leaders: Gary C. Steven, MD PhD FAAAAI

Emily L. Graham, RHIA CCS-P

3010 Caring for Your Severe Combined Immunodeficiency Patient Post-Transplant

Marriott, Lower B2 Level, Yerba Buena Salon 13

Discussion Leaders: Jennifer Heimall, MD

Morton J. Cowan, MD

Plenary

3101 Systemic Regulation of Susceptibility and Pathogenesis of Allergic Inflammation

8:15 to 9:45am

Moscone Center South, Exhibition Level, Hall A

Credit: 1.50 CME/CE

Moderator: Marsha Wills-Karp, PhD

8:15 Introduction

8:20 Skin Exposure Drives Allergen Sensitization

Raif S. Geha, MD FAAAAI

8:45 Introduction

8:50 Systemically Available Gut Microbiome Derived Products as Modifiers of Allergic Inflammation

Cathryn R. Nagler, PhD

9:15 Introduction

9:20 Systemic Hormones and the Unified Barrier Hypothesis of Allergy

Sergejs Berdnikovs, PhD

9:45 Saturday Plenary Q&A

Sunday Poster Sessions

9:45 to 10:45 am

Moscone Center South, Exhibition Level, Hall B

Credit: No CME/CE

Please refer to the 2019 AAAAI Annual Meeting Mobile App or www.jacionline.org for abstract details.

3201 Asthma Therapy

3202 Asthma Epidemiology

3203 Insights in Basic and Clinical Immunology 2

3204 The Spectrum of Immunodeficiency Disorders

3205 Occupational and Immunologic Mechanisms

3206 Consequences of Environmental Triggers

3207 Atopic Dermatitis

3208 Eosinophilic GI Diseases

3209 Anaphylaxis

3210 Epidemiology of FADDA Disorders

3211 Food Challenges

3212 Digital Programs to Help Evaluate Asthma and Chronic Cough Outcomes

3213 Anaphylaxis and Angioedema

3214 Rhinitis and Conjunctivitis

3215 Rhinitis and Sinusitis

3216 Role and Regulation of Mast Cells in Disease

3217 Immune Players in the Development of Allergy



Symposia

- 3301 Precision Medicine in the Era of Primary Immunodysregulatory Diseases** 
10:45 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 155
Credit: 1.25 CME/CE
Moderator: Karin Chen, MD
- 10:45 Clinical Manifestations of Primary Immunodysregulatory Diseases**
Megan A. Cooper, MD PhD
- 11:05 Question & Answer**
- 11:10 Therapy in the Treatment of Primary Immunodysregulatory Diseases: Has the Era of Precision Medicine Arrived Yet?**
Joshua D. Milner, MD
- 11:30 Question & Answer**
- 11:35 Strategy and Outcomes of Hematopoietic Stem Cell Transplantation for Primary Immunodysregulatory Diseases**
Lisa R. Forbes, MD
- 11:55 Question & Answer**
- 3302 Allied Health: Words Will Never Hurt Me: Empowering Food Allergic Patients to Handle Bullying and School Related Problems**
10:45 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 1.25 CME/CE
Moderator: Karol G. Timmons, RN MS CPNP
- 10:45 Bullying at School**
Jodi A. Shroba, MSN APRN CPNP
- 11:05 Question & Answer**
- 11:10 Food Allergy Management in Schools**
Megan Ott Lewis, MSN CRNP
- 11:30 Question & Answer**
- 11:35 Coping Strategies and Techniques to Handle Bullying**
Maria Crain, CPNP
- 11:55 Question & Answer**
- 3303 EAACI: Novel Developments in Endotype-Driven Approach for Allergic Diseases** 
10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 207
Credit: 1.25 CME/CE
Moderator: Ioana O. Agache, MD PhD
- 10:45 Nasal Hypersensitivity: A Special Endotype**
Peter W. Hellings, MD PhD
- 11:05 Question & Answer**
- 11:10 Biomarkers for Monitoring the Efficacy of Allergen Immunotherapy**
Mohamed H. Shamji, BSc MSc PhD FAAAAI
- 11:30 Question & Answer**
- 11:35 Atopic Dermatitis Endotypes: Ready for the Clinics?**
Peter Schmid-Grendelmeier, MD
- 11:55 Question & Answer**

- 3304 Biologics for Severe Asthma: Treatment-Specific Effects Important in Choosing a Specific Agent** 
10:45 am to 12:00 pm
Moscone Center South, Exhibition Level, Hall A
Credit: 1.25 CME/CE
Moderator: Thomas B. Casale, MD FAAAAI
- 10:45 Exacerbation Prone Patients**
Loren Denlinger, MD PhD
- 11:05 Question & Answer**
- 11:10 Fixed Airway Obstructed Patients Including COPD**
Jonathan Corren, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Corticosteroid-Dependent Patients**
Elliot Israel, MD FAAAAI
- 11:55 Question & Answer**
- 3305 Physician Health and Wellness: "We Need to Talk"**
10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 203
Credit: 1.25 CME/CE
Moderator: Sharon B. Markovics, MD FAAAAI
- 10:45 The Individual Physician's Guide to Resiliency in the Current Healthcare Climate**
Anil Nanda, MD FAAAAI
- 11:05 Question & Answer**
- 11:10 Evidence-Based Strategies to Improve Professional Satisfaction Through Efficiencies of Practice**
Hemant P. Sharma, MD MHS FAAAAI
- 11:30 Question & Answer**
- 11:35 Utilizing Support from the Greater Medical Community at Large to Further Enhance Wellness**
Theresa A. Bingemann, MD FAAAAI
- 11:55 Question & Answer**
- 3306 Is Eosinophilic Esophagitis a Primary Barrier Defect?**  
10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 205
Credit: 1.25 CME/CE
Moderator: Antonella Cianferoni, MD PhD FAAAAI
- 10:45 Epitheliome in Eosinophilic Esophagitis**
Carine Blanchard, PhD
- 11:05 Question & Answer**
- 11:10 Barrier Dysfunction in Eosinophilic Esophagitis**
Hans-Uwe Simon, MD PhD FAAAAI
- 11:30 Question & Answer**
- 11:35 Can the Epithelium Shape the Immune Response in Eosinophilic Esophagitis?**
Jonathan M. Spergel, MD PhD FAAAAI
- 11:55 Question & Answer**



Symposia (continued)

- 3307 Neuroimmune Interactions in the Allergic Immune Response** ▼
10:45 am to 12:00 pm
Moscone Center South, Level 3, Room 303
Credit: 1.25 CME/CE
Moderator: Caroline L. Sokol, MD PhD
- 10:45 Neuron-ILC2 Interactions as Triggers of Allergic Inflammation**
Antonia Wallrapp
- 11:05 Question & Answer**
- 11:10 Sensory Neurons Promote the Allergic Immune Response**
Sebastien Talbot, PhD
- 11:30 Question & Answer**
- 11:35 MRGPR Receptors in Allergic Reactions**
Ethan A. Lerner, MD PhD
- 11:55 Question & Answer**
- 3308 Translational Drug Allergy** □
10:45 am to 12:00 pm
Moscone Center South, Level 3, Room 305
Credit: 1.25 CME/CE
Moderator: Allison Ramsey, MD FAAAAI
- 10:45 Novel Approaches in the Management of the Complex Drug Allergic Patient**
Jonathan G. Peter, MD PhD
- 11:05 Question & Answer**
- 11:10 Defining the Risk of Delayed Reactions: HLA and Beyond**
Elizabeth J. Phillips, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Antibiotic Allergy: Is Cross-Reactivity a Clinical Concern?**
Jason A. Trubiano, MD PhD
- 11:55 Question & Answer**
- 3309 Genetic and Environmental Impact on Immune System Variability and Disease** ▼
10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 201
Credit: 1.25 CME/CE
Moderator: Christine M. Seroogy, MD FAAAAI
- 10:45 Development of Tissue Resident Memory CD4 T-Cells**
Donna L. Farber, PhD
- 11:05 Question & Answer**
- 11:10 Immunophenotype Mapping of Human Dendritic Cells in the Context of Respiratory Virus Exposure**
Michelle A. Gill, MD PhD
- 11:30 Question & Answer**
- 11:35 Environmental and Genetic Influences on Innate Immune Cell Phenotypes**
Matthew Albert, PhD
- 11:55 Question & Answer**

- 3310 Allied Health: Multidisciplinary Approach to Treating the Severe Pediatric Asthma Patient**
10:45 am to 12:00 pm
Moscone Center South, Exhibition Level, Hall D8
Credit: 1.25 CME/CE
Moderator: Pooja Varshney, MD
- 10:45 Multidisciplinary Approach with Severe Pediatric Asthma: Psychosocial Challenges**
Melissa T. Korenblat-Hanin, ACSW LCSW
- 11:05 Question & Answer**
- 11:10 Evaluation of the Pediatric Patient with Severe Asthma**
Leonard B. Bacharier, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Advanced Therapies, including Biologics, for Severe Asthma**
Lila C. Kertz, MSN RN CPNP
- 11:55 Question & Answer**

Workshops

- 3401 Asthma Medication Delivery Devices: How to Use Them and How to Teach Them**
12:00 to 2:00 pm
Moscone Center South, Exhibition Level, Hall B Lobby
Credit: 0.25 CME/CE
- 12:00 Hands-on Training Station**
Sharmilee M. Nyenhuis, MD FAAAAI
Caroline C. Horner, MD FAAAAI
Brooke I. Polk, MD
Evelyn L. Angulo, MD
Anne E. Borgmeyer, DNP RN CPNP AE-C
Lila C. Kertz, MSN RN CPNP
Marc L. Rubin, BScPharm, RPh
- 3402 Oral Food Challenges II**
12:00 to 2:00 pm
Moscone Center South, Exhibition Level, Hall B Lobby
Credit: 0.25 CME/CE
- 12:00 Hands-On Training Station**
Faculty
J. Andrew Bird, MD FAAAAI
Rushani W. Saltzman, MD
Sara Anvari, MD MSc
Anne M. Hiegel, APRN
S. Shahzad Mustafa, MD FAAAAI
Amy M. Scurlock, MD
Roxanne C. Oriel, MD
S. Allan Bock, MD FAAAAI

Sunday Scientific Program



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

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

3501 Should I Test My Patient with Atopic Dermatitis for Food Allergies?

Marriott, Lower B2 Level, Yerba Buena Salon 2

Discussion Leaders: Irene Mikhail, MD

Anne Marie Singh, MD

3502 What to Do with a Patient with Severe Chronic Rhinosinusitis

Marriott, Lower B2 Level, Yerba Buena Salon 3

Discussion Leaders: Robert C. Kern, MD

Anju T. Peters, MD FAAAAI

3503 Eosinophil Phenotypes: Location Matters

Marriott, Lower B2 Level, Yerba Buena Salon 4

Discussion Leaders: Patricia C. Fulkerson, MD PhD

Lisa A. Spencer, PhD FAAAAI

3504 Anti-Eosinophil Therapies for Severe Asthma and Beyond

Marriott, Lower B2 Level, Yerba Buena Salon 5

Discussion Leaders: Sameer K. Mathur, MD PhD FAAAAI

Praveen Akuthota, MD

3505 Innovative Methods to Improve the Collection of Patient-Reported Outcomes (PROs)

Marriott, Lower B2 Level, Yerba Buena Salon 1

Discussion Leaders: Sunit P. Jariwala, MD FAAAAI

Christopher D. Codispoti, MD PhD FAAAAI

3506 The Role of the Practicing Allergist in the Management of Eosinophilic Esophagitis

Marriott, Lower B2 Level, Yerba Buena Salon 6

Discussion Leaders: Ellen R. Sher, MD FAAAAI

Douglas T. Johnston, DO FAAAAI

3507 Autoimmune Mimics of Allergic Disease

Marriott, Lower B2 Level, Yerba Buena Salon 10

Discussion Leaders: Mildred Kwan, MD PhD

Teresa K. Tarrant, MD FAAAAI

3508 Approach to the Patient with Multiple Drug Allergies

Marriott, Lower B2 Level, Yerba Buena Salon 11

Discussion Leaders: Allison Ramsey, MD FAAAAI

Elizabeth J. Phillips, MD FAAAAI

3509 Diagnosis and Management of Contact Dermatitis in Patients

Marriott, Lower B2 Level, Yerba Buena Salon 12

Discussion Leaders: Jonathan I. Silverberg, MD PhD MPH

Marcella R. Aquino, MD FAAAAI

3510 Detergents in Allergic Sensitization

Marriott, Lower B2 Level, Yerba Buena Salon 13

Discussion Leaders: Cezmi A. Akdis, MD FAAAAI

Joan Cook-Mills, PhD

3511 Allied Health: Where Are We with Allergy Prevention?

Moscone Center South, Exhibition Level, Hall D11

Discussion Leaders: David R. Stukus, MD FAAAAI

Carina Venter, PhD RD

Pro/Con Debate

3550 Oral Immunotherapy is Essential for Food Allergy Management

12:30 to 1:30 pm

Moscone Center South, Exhibition Level, Hall A

Credit: 1.00 CME/CE

Moderator: Stacie M. Jones, MD

Pro Speaker: Richard L. Wasserman, MD PhD FAAAAI

Con Speaker: Robert A. Wood, MD FAAAAI

3551 The Severe Asthma Patient with Eosinophilic Phenotype Should Always Be Treated with Anti-Interleukin-5 Therapies

12:30 to 1:30 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 156

Credit: 1.00 CME/CE

Moderator: Mario Castro, MD MPH

Pro Speaker: Sally E. Wenzel, MD FAAAAI

Con Speaker: Thomas B. Casale, MD FAAAAI

3552 Injectable Epinephrine for Subcutaneous Immunotherapy: To Prescribe or Not?

12:30 to 1:30 pm

Moscone Center South, Level 2, Room 207

Credit: 1.00 CME/CE

Moderator: Desiree E.S. Larenas Linnemann, MD FAAAAI

Pro Speaker: David I. Bernstein, MD FAAAAI

Con Speaker: Mike Tankersley, MD MBA FAAAAI

3553 Skin Testing is Necessary Prior to Oral Penicillin Challenge in all Patients

12:30 to 1:30 pm

Moscone Center South, Level 3, Room 305

Credit: 1.00 CME/CE

Moderator: Kimberly G. Blumenthal, MD MSc FAAAAI

Pro Speaker: Kimberly A. Risma, MD PhD FAAAAI

Con Speaker: Moshe Ben-Shoshan, MD FAAAAI

Sunday, February 24



Symposia

- 3554 National Institute of Environmental Health Sciences: Novel Pathways Involved in Regulation of Airway Inflammation** ▼
12:30 to 1:45 pm
Moscone Center South, Level 2, Room 203
Credit: 1.25 CME/CE
Moderator: Donald Cook, PhD
- 12:30 Role of Pulmonary Macrophages in Regulating Asthma Pathogenesis**
John W. Christman, MD
- 12:50 Question & Answer**
- 12:55 Role of Innate Lymphoid Cells in Allergic Inflammation**
Alison A. Humbles, PhD
- 1:15 Question & Answer**
- 1:20 Regulation of Allergic Inflammation through CD4+ T Cell Plasticity**
Donald Cook, PhD
- 1:40 Question & Answer**
- 3555 Interferons Contribute to Allergic Disease: Lessons Learned from the Asthma and Allergic Diseases Cooperative Research Center** ▼
12:30 to 1:45 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 155
Credit: 1.25 CME/CE
Moderator: Wendy F. Davidson, PhD
- 12:30 High Interferon-Gamma Marks Severe Asthma**
Anuradha Ray, PhD
- 12:50 Question & Answer**
- 12:55 Interferon Responses by Bronchial Epithelial Cells Contribute to Airway Disease**
Jason S. Debley, MD MPH
- 1:15 Question & Answer**
- 1:20 Regulation of Interferon-Gamma Production by Innate and Adaptive Lymphocytes**
Patrick J. Brennan, MD PhD
- 1:40 Question & Answer**

Workshop

- 3557 Interesting Cases Part II** ▼
12:30 to 1:45 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 159
Credit: 1.25 CME/CE
*Moderators: Princess U. Ogbogu, MD FAAAAI
Canting Guo, MD*
- 12:30 Bruton Agammaglobulinemia in a Child Masquerading as Cystic Fibrosis-Related Metabolic Syndrome**
Daniel A. Rosloff, MD
- 12:40 Question & Answer**
- 12:45 Ataxia Telangiectasia Diagnosed on Newborn Screening: Case Cohort of 4 years Experience**
Amarilla Bernadett Mandola, MD
- 12:55 Question & Answer**
- 1:00 A Case of Hyper-IgM Immunodeficiency Presenting Initially as a Novel Syndromic Disorder**
Amy Eapen, MD
- 1:10 Question & Answer**
- 1:15 Autoimmune Enteropathy and Hypogammaglobulinemia in an Infant with Inducible Co-Stimulator (ICOS) Deficiency**
Abduarahman Almutairi
- 1:25 Question & Answer**
- 1:30 47 Year Follow-Up of Post-Transplant SCID Patient**
Christin Deal, MD
- 1:40 Question & Answer**

Oral Abstract Sessions

- 3601 Asthma and Airway Immunology**
2:00 to 3:15 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 1.25 CME/CE
*Moderators: Timothy J. Craig, DO FAAAAI
Tolly Epstein, MD FAAAAI*
- 2:00 Mixed cellular inflammation is increased in adult asthma with severe chronic rhinosinusitis**
Tomoko Nishio, MD
- 2:15 Sputum autoantibody-mediated macrophage dysfunction in severe eosinophilic asthmatics with recurrent infections**
Manali Mukherjee, MSc PhD
- 2:30 Systemic Neutrophilic Responses Do Not Correlate With LPS-induced Neutrophilic Airway Inflammation**
Amika K. Sood, MD
- 2:45 Clara Cell 10-kd Protein (CC10) Modulates Superoxide Generation and Arachidonic Acid Metabolism via Formyl Peptide Receptor-Like 1 (FPRL1)**
Li-Chen Chen, MD
- 3:00 Elevation of Th17 and Th17/ Treg Ratio is Associated with Airway Hyperresponsiveness in Asthmatic Children**
Rong-Ying Zheng, MD



Oral Abstract Sessions (continued)

3602 The Best of Basic Immunology

2:00 to 3:15 pm

Moscone Center South, Level 3, Room 303

Credit: 1.25 CME/CE

Moderators: Neil D. Romberg, MD

Maria A. Slack, MD

2:00 Nanoemulsion adjuvant augments retinaldehyde dehydrogenase activity in dendritic cells via MyD88 pathway

Mohammed Farazuddin

2:15 Prostaglandin I2 signaling promotes Treg function during allergic inflammation

Allison E. Norlander

2:30 In vivo tracking of rhesus macaque eosinophils to assess migration in response to glucocorticoids

Fanny Legrand, PhD PharmD

2:45 Rhinovirus-Specific B-Cells Display Signature and Functionality Consistent With Age-Associated B-Cells

Jacob D. Eccles, BA

3:00 Surfactant Protein D (SP-D) Inhibits Neutrophil Extracellular DNA Trap Formation: Effects of S-nitrosylation

Shida Yousefi, PhD

3603 Airborne Aeroallergens

2:00 to 3:15 pm

Moscone Center South, Level 2, Room 205

Credit: 1.25 CME/CE

Moderators: William J. Sheehan, MD

Daniel A. Searing, MD

2:00 Report on Understanding the National Allergy Bureau as a Public Health Surveillance System

Audrey F. Pennington, PhD MPH

2:15 Investigating discordance between diagnostic tests for laboratory animal allergy

Jennifer Canizales

2:30 A Volumetric Survey of Aeroallergens in San Antonio, Texas From 2012-2017: Not All Allergens Fit The Mold

Priya Nath, MD

2:45 In-Vitro Setup to Test Hydroxy-Propyl-Methyl-Cellulose as Allergen Barrier over a Span of 360 Minutes

Todor A. Popov, MD PhD

3:00 Mouse Allergen Levels in Schools in Two Inner City Asthma Studies: Past versus Present

Nicole Akar-Ghibril, MD

3604 Drug Allergy: Different Agents, Different Populations

2:00 to 3:15 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 155

Credit: 1.25 CME/CE

Moderators: Kimberly A. Risma, MD PhD FAAAAI

Allison Ramsey, MD FAAAAI

2:00 Novel strategy for the prevention of recurrent hypersensitivity reactions to radiocontrast media based on skin testing

Ji-Hyang Lee, MD

2:15 Multiple Interventions Can Reduce Rates of False Penicillin "Allergy" Relabeling after Negative Testing

Shazia Lutfeali, MD

2:30 Diagnosis of Cephalosporin Allergy Through Graded Oral Challenge

Zahia Attari

2:45 Clinical impact of reported non-steroidal anti-inflammatory drug allergy on opioid use disorder in patients with osteoarthritis or low back pain

Lily Li, MD

3:00 Penicillin and clindamycin associated anaphylaxis and serious cutaneous adverse reactions

Emily H. Liang, MD

3605 Economics, Medications, and Outcomes in Asthma

2:00 to 3:15 pm

Moscone Center South, Level 2, Room 201

Credit: 1.25 CME/CE

Moderators: Bruce G. Bender, PhD FAAAAI

Kristin C. Sokol, MD MS MPH

2:00 Assessing Asthma Management Knowledge in Caregivers of Children with Moderate-to-Severe Asthma

Madeleine K. Kanaley, BA

2:15 Evaluating Proper Inhaler Technique in Children with Moderate-to-Severe Asthma

Alexandria Bozen, BS

2:30 Housing-Based Socioeconomic Status (HOUSES) Index as a Recruitment Tool for Integrating Under-represented Populations in Clinical Research

Chung-II Wi, MD

2:45 Can the morbidly obese asthmatic child be well controlled? The Breathmobile program

Stanley P. Galant, MD FAAAAI

3:00 A Short Acting Beta-Agonist Reduction Program and Its Effects on Asthma Care in a Large Cohort

Melissa Itsara, MD



Oral Abstract Sessions (continued)

- 3606 Allergic Rhinitis and Sublingual Immunotherapy**
 2:00 to 3:15 pm
Moscone Center South, Level 2, Room 203
 Credit: 1.25 CME/CE
*Moderators: Mike Tankersley, MD MBA FAAAAI
 Jay M. Portnoy, MD FAAAAI*
- 2:00 Vocal Cord Dysfunction in Patients with Predominant Upper Airway Symptoms**
Russell S. Traister, MD PhD
- 2:15 Early Life Sensitization Patterns and Risk for Allergic Rhinitis in the WHEALS Birth Cohort**
Zeinab Saleh, MD
- 2:30 Enhanced chemosensory sensitivity in idiopathic rhinitis patients and its reversal by nasal capsaicin treatment.**
Laura H. Van Gerven, MD PhD
- 2:45 Safety Of 300IR 5-Grass Tablet In Grass Pollen-Allergic Children With or Without Controlled Asthma: Further Data from a Post-Marketing Observational Study**
David B.K. Golden, MD FAAAAI
- 3:00 Efficacy of House Dust Mite Sublingual Immunotherapy-Tablet in Tree and/or Grass Poly-Sensitized Subjects**
David I. Bernstein, MD
- 3607 Modulation of Innate Immunity**
 2:00 to 3:15 pm
Moscone Center South, Level 3, Room 301
 Credit: 1.25 CME/CE
*Moderators: Roma Sehmi, PhD FAAAAI
 Hirohito Kita, MD*
- 2:00 Complement component 3 modulates cockroach allergen-induced allergic inflammation**
Danh C. Do, PhD
- 2:15 Innate Lymphoid Cells (ILCs) Generate Memory for Pathogen-Associated Molecular Patterns (PAMPs) of Allergens, Which Contributes to Asthma**
Mukesh Verma, PhD
- 2:30 The role of NADPH oxidase on the production of epithelial-derived cytokine (IL-25, IL-33, TSLP)**
Hideaki Kouzaki, MD PhD
- 2:45 17 β -estradiol promotes a DUOX-1-mediated release of IL-33 from human airway epithelial cells**
Ruchi Shah, MD
- 3:00 Inflammasome Modulation Ameliorates Neonatal RSV-induced Immunopathology**
Charles Schuler, MD

- 3608 Novel Issues in the Management of Food Allergy**
 2:00 to 3:15 pm
Moscone Center South, Level 2, Room 207
 Credit: 1.25 CME/CE
*Moderators: Carla M. Davis, MD FAAAAI
 Antonella Cianferoni, MD PhD FAAAAI*
- 2:00 Anaphylaxis-related posttraumatic stress disorder**
Yuval Tal, MD PhD
- 2:15 An Analysis of Value-Based Costs of Undesignated, Stock School Epinephrine Policies**
Matthew J. Greenhawt, MD MBA MSc
- 2:30 Food-Protein Induced Allergic Proctocolitis is Prospectively Associated with IgE-Mediated Milk and Egg Allergies by Age 3**
Neelam A. Phadke, MD
- 2:45 Reaction thresholds in peanut-allergic adults and the influence of exercise and sleep deprivation: a randomised controlled trial**
Shelley Dua, PhD
- 3:00 Epidemiology of Sesame Allergy in the United States**
Avneet S. Chadha, BS
- 3609 Late Breaking Oral Abstract Session: Basic Focus**
 2:00 to 3:15 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 151
 Credit: 1.25 CME/CE
*Moderators: Christine L. Nance, PhD MA FAAAAI
 Dawn C. Newcomb, PhD*
- 2:00 Biomarkers and Outcomes in Omalizumab-Treated Patients with Allergic Asthma: A Real-World Study in a Large Allergy Practice in the United States (US)**
Benjamin Ortiz, MD
- 2:15 Changes in Whole Blood Transcriptome during Peanut-Induced Anaphylaxis and Correlation with Symptoms**
Paul J. Turner, FRACP PhD
- 2:30 Immunoglobulin Concentrations Differ According to Sex, Race and Age**
Tyler Harkness, BS
- 2:45 Utilizing Members of the CD300 Multigene Family to Inhibit Mast Cell Degranulation in Peanut Allergy**
Jada Suber
- 3:00 Selective Deletion of Group V Phospholipase a2 in Macrophages Reduces Alternaria-Induced Pulmonary Inflammation**
Sachin K. Samuchiwal, PhD

Interest Section Forums

- 3701 ADT: Asthma Education, Asthma Action Plans, and Peak Flow Meters: Which Strategies Actually Work? ▼**
 3:30 to 4:30 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 155
 Credit: 0.50 CME/CE
Moderator: Caroline C. Horner, MD FAAAAI
- 3:30 Business Meeting**
Caroline C. Horner, MD FAAAAI
- 4:00 Asthma Education, Asthma Action Plans and Peak Flow Meters: Which Strategies Actually Work?**
Valerie G. Press, MD MPH
- 4:25 Question & Answer**



Interest Section Forum (continued)

- 3702 BCI: What's New In Vaccines** ▼
3:30 to 4:30 pm
Moscone Center South, Level 3, Room 303
Credit: 0.50 CME/CE
Moderator: Elena E. Perez, MD PhD FAAAAI
- 3:30 Business Meeting**
Elena E. Perez, MD PhD FAAAAI
- 3:55 Communicating Risk: Counseling the Vaccine Hesitant Patient**
Jay R. Montgomery, MD FAAAAI
- 4:25 Question & Answer**
- 3703 EORD: Microbiome, Metabolome and Asthma: Clues for Treatment and Prevention** ▼
3:30 to 4:30 pm
Moscone Center South, Level 2, Room 203
Credit: 0.50 CME/CE
Moderator: Wanda Phipatanakul, MD MS FAAAAI
- 3:30 Business Meeting**
Wanda Phipatanakul, MD MS FAAAAI
- 4:00 Presenter**
Susan V. Lynch, PhD
- 4:25 Question & Answer**
- 3704 FADDA: Hereditary Angioedema and Eosinophilic Esophagitis: Management in 2019** ▼
3:30 to 4:30 pm
Moscone Center South, Level 2, Room 207
Credit: 0.50 CME/CE
Moderator: Lynda C. Schneider, MD FAAAAI
- 3:30 Business Meeting**
Lynda C. Schneider, MD FAAAAI
- 3:55 New Medications for HAE**
Aleena Banerji, MD FAAAAI
- 4:10 EoE Therapies**
Jonathan M. Spergel, MD PhD FAAAAI
- 4:25 Question & Answer**
- 3705 HEDQ: Effect the Change You Wish to See in the Allergy Clinic** ▼
3:30 to 4:30 pm
Moscone Center South, Level 3, Room 301
Credit: 0.50 CME/CE
Moderator: Asriani M. Chiu, MD FAAAAI
- 3:30 Business Meeting**
Asriani M. Chiu, MD FAAAAI
- 3:55 Changing Provider Behaviors**
Lily Pien, MD MHPE FAAAAI
- 4:10 Changing Patient Behaviors**
Gerald B. Lee, MD
- 4:25 Question & Answer**

- 3706 IRSO: Update in Rhinitis and Rhinosinusitis** ▼
3:30 to 4:30 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 0.50 CME/CE
Moderator: Anju T. Peters, MD FAAAAI
- 3:30 Business Meeting**
Anju T. Peters, MD FAAAAI
- 3:55 Nasal Epithelial Behavior and Innate Immune Dysregulation in Rhinovirus-Induced Asthma Exacerbations**
Larry Borish, MD FAAAAI
- 4:10 Update on Aspirin Exacerbated Respiratory Disease**
Tanya M. Laidlaw, MD FAAAAI
- 4:25 Question & Answer**
- 3707 MAAI: New Directions in Mast Cell Research** ▼
3:30 to 4:30 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 151
Credit: 0.50 CME/CE
Moderator: Kari C. Nadeau, MD PhD
- 3:30 Business Meeting**
Kari C. Nadeau, MD PhD FAAAAI
- 4:00 Mast Cell Diversity and Implications for Allergic Disease Mechanisms and Therapy**
K. Frank Austen, MD FAAAAI and Daniel F. Dwyer, PhD
- 4:25 Question & Answer**

Featured Poster Session and Reception

- 4:30 to 6:00 pm
Moscone Center South, Lobby Level
Credit: No CME/CE
- 3801 New Insights in Asthma Genomics**
- 3802 Top Topics in Basic and Clinical Immunology**
- 3803 Mechanisms of Adverse Responses to Environment**
- 3804 Best of FADDA**
- 3805 Management Assessment Tools for Asthma: From Home to Inpatient**
- 3806 The Best of Rhinitis and Rhinosinusitis**
- 3807 Highlights from Research in MAAI**
- 3811 Food Allergy at School**

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Monday At-A-Glance



AAA^{AI} American Academy of
Allergy Asthma & Immunology
ANNUAL MEETING
SAN FRANCISCO, CA · FEBRUARY 22-25, 2019

6:00 AM			
7:00 AM			
8:00 AM		Seminars 7:00 - 8:00 am	
9:00 AM			
10:00 AM		Plenary Session 8:15 - 9:45 am	
11:00 AM		Plenary Q&A 9:45 - 10:15 am	Poster Presentations & Case Study Posters 9:45 - 10:45 am
12:00 PM		Symposia 10:45 am - 12:00 pm	
01:00 PM		AAAAI Business Meeting 12:30 - 1:30 pm	
02:00 PM			
03:00 PM		Oral Abstracts 2:00 - 3:15 pm	
04:00 PM		Seminars 3:30 - 4:30 pm	Workshops 3:30 - 4:45 pm
05:00 PM			
06:00 PM			

Registration 6:30 am - 4:00 pm
Poster Hall 7:00 am - 2:00 pm
Exhibit Hall 9:45 am - 2:00 pm

Monday, February 25

Monday Scientific Program



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

Seminars

7:00 to 8:00am

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

Credit: 1.00 CME/CE

4001 **Cross-Reactivity Patterns, Extract Stability, Optimal Dosing and Mixing for Subcutaneous Immunotherapy: A Case-Based Review of Immunotherapy Prescription Mixing**

Marriott, Lower B2 Level, Yerba Buena Salon 2

Discussion Leaders: Olga Luengo, MD PhD

Tolly Epstein, MD FAAAAI

4002 **Asthma/Chronic Obstructive Pulmonary Disease Overlap Syndrome (ACOS) with and without Occupational Causes**

Marriott, Lower B2 Level, Yerba Buena Salon 3

Discussion Leaders: Bryan L. Martin, DO FAAAAI

John Oppenheimer, MD FAAAAI

4003 **Management of Food Allergy in a Breastfed Infant**

Marriott, Lower B2 Level, Yerba Buena Salon 4

Discussion Leaders: Puja Sood Rajani, MD

Marion E. Groetch, MS RDN

4004 **Up-to-Date Perspectives on Exercise Induced Bronchoconstriction**

Marriott, Lower B2 Level, Yerba Buena Salon 5

Discussion Leaders: Justin C. Greiwe, MD FAAAAI

John M. Weiler, MD FAAAAI

4005 **Diagnosis and Treatment of Common Skin Conditions and Cutaneous Drug Allergy in Older Adults**

Marriott, Lower B2 Level, Yerba Buena Salon 1

Discussion Leaders: Anil Nanda, MD FAAAAI

David R. Weldon, MD FAAAAI

4006 **Writing Orders for Immunoglobulin Therapy**

Marriott, Lower B2 Level, Yerba Buena Salon 6

Discussion Leaders: Elena E. Perez, MD PhD FAAAAI

Kenneth Paris, MD MPH

4007 **Mast Cell Tryptases and Alpha-Tryptasemia**

Marriott, Lower B2 Level, Yerba Buena Salon 10

Discussion Leaders: Jonathan J. Lyons, MD

Dean D. Metcalfe, MD FAAAAI

4008 **Idiopathic Anaphylaxis: The Overlap with Chronic Idiopathic Urticaria/Angioedema and Approach to Patient Care**

Marriott, Lower B2 Level, Yerba Buena Salon 11

Discussion Leaders: Anne Marie Ditto, MD FAAAAI

Mariana C. Castells, MD PhD FAAAAI

4009 **Genetics 101 for the Practicing Immunologist**

Marriott, Lower B2 Level, Yerba Buena Salon 12

Discussion Leaders: Manish J. Butte, MD PhD

Attila Kumanovics, MD

4010 **Current and Future Directions in Rhinitis and Sinusitis in Children**

Marriott, Lower B2 Level, Yerba Buena Salon 13

Discussion Leaders: Fuad M. Baroody, MD FAAAAI

Daniel L. Hamilos, MD FAAAAI

Plenary

4101 **Atopic Dermatitis: Bench to Bedside and Back**

8:15 to 9:45 am

Moscone Center South, Exhibition Level, Hall A

Credit: 1.50 CME/CE

Moderator: Mark Boguniewicz, MD FAAAAI

8:15 **Introduction**

8:20 **Atopic Dermatitis: Diagnosis, Heterogeneity, and Comorbidities**

Jonathan I. Silverberg, MD PhD MPH

8:45 **Introduction**

8:50 **Underlying Mechanisms of Atopic Dermatitis**

Lisa A. Beck, MD FAAAAI

9:15 **Introduction**

9:20 **Emerging Therapies and Potential for Personalized Medicine Approaches**

Emma Guttman-Yassky, MD PhD

Monday Poster Sessions

9:45 to 10:45 am

Moscone Center South, Exhibition Level, Hall B

Credit: No CME/CE

Please refer to the 2019 AAAAI Annual Meeting Mobile App or www.jacionline.org for abstract details.

4201 **Asthma and Airway Immunology**

4202 **Asthma Control, Intervention, and Public Health**

4203 **The Immunology of Allergic Disease**

4204 **Topics in Basic and Clinical Immunology**

4205 **Environmental Exposure**

4206 **Mechanisms of Environmental Effects**

4207 **Food Allergen Structures**

4208 **Food Immunotherapy**

4209 **Food Allergy and Treatment**

4210 **Allergic Rhinitis, Drug Allergy and Allergic Risk**

4211 **Allergy/Immunology Outreach, Electives and Career Development**

4212 **Rhinosinusitis**

4213 **Rhinitis and Immunotherapy**

4214 **Advances in Eosinophil Biology**

4215 **Update on Immune Mechanisms in Type 2 Inflammatory Responses**

4216 **Late Breaking Poster Session**



Symposia

- 4301 Asthma Development: The Environment and Prevention in Early Life**
10:45 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 155
Credit: 1.25 CME/CE
Moderator: Andrew H. Liu, MD FAAAAI
- 10:45 Asthma Inception: Children's Respiratory and Environmental Workgroup (CREW) and Environmental Influences on Child Health Outcomes (ECHO) Programs**
James E. Gern, MD FAAAAI
- 11:05 Question & Answer**
- 11:10 Asthma Development in Early Life: Urban Environment and Childhood Asthma (URECA)**
Leonard B. Bacharier, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Asthma Prevention: Moving the Needle Towards Preventing and Modifying Disease Expression**
Wanda Phipatanakul, MD MS FAAAAI
- 11:55 Question & Answer**
- 4302 Difficulties in the Management of Older Patients with Asthma**
10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 201
Credit: 1.25 CME/CE
Moderator: Sharmilee M. Nyenhuis, MD FAAAAI
- 10:45 Asthma Self-Management: Addressing Barriers in Older Patients with Asthma**
Alex Federman, MD MPH
- 11:05 Question & Answer**
- 11:10 Inflammatory Pathways in Older Patients with Asthma: Implications for Management**
Paula J. Busse, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Diagnostic Challenges in the Aged Patient with Asthma**
Carol A. Saltoun, MD FAAAAI
- 11:55 Question & Answer**

- 4303 Schools and Tools: How We Can Advance the Management of Asthma, Food Allergies and Anaphylaxis**
10:45 am to 12:00 pm
Moscone Center South, Upper Mezzanine Level, Esplanade 156
Credit: 1.25 CME/CE
*Moderators: Stanley J. Szefler, MD FAAAAI
Robert F. Lemanske, Jr., MD FAAAAI*
- 10:45 Policy and Partnerships: How Community Partnerships and Federal/State Legislation Are Advancing Implementation**
Andrea A. Pappalardo, MD FAAAAI
- 11:05 Question & Answer**
- 11:10 Food Allergies: Improving Our Tools to Manage Food Allergies and Anaphylaxis in Schools**
Julie Wang, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Digital Health: How Digital Tools Can Improve Data Sharing and Disease Management in Schools**
Sujani Kakumanu, MD FAAAAI
- 11:55 Question & Answer**
- 4304 Emerging Food Allergy Therapies**
10:45 am to 12:00 pm
Moscone Center South, Exhibition Level, Hall A
Credit: 1.25 CME/CE
Moderator: Rima A. Rachid, MD FAAAAI
- 10:45 Oral Immunotherapy: Efficacy and Patient Selection**
Brian P. Vickery, MD FAAAAI
- 11:05 Epicutaneous Immunotherapy: Efficacy and Patient Selection**
Jacqueline A. Pongracic, MD FAAAAI
- 11:25 Sublingual Immunotherapy: Efficacy and Patient Selection**
Edwin Kim, MD MS
- 11:45 Panel Discussion**
- 4305 Targeting the Outside: Moving in on Atopic Dermatitis**
10:45 am to 12:00 pm
Moscone Center South, Level 3, Room 305
Credit: 1.25 CME/CE
Moderator: Anil Nanda, MD FAAAAI
- 10:45 My Patient Is not Eligible for Biologics: Current Non-Biologic Therapies for Atopic Dermatitis**
Mark Boguniewicz, MD FAAAAI
- 11:05 Question & Answer**
- 11:10 My Patient Is Eligible for Biologics: What Is Available Now for Atopic Dermatitis?**
Lisa A. Beck, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 What Is Upcoming in the Pipeline for Atopic Dermatitis?**
Michael D. Howell, PhD
- 11:55 Question & Answer**



Symposia (continued)

- 4306 Hot Topics in Immunotherapy** ▼
 10:45 am to 12:00 pm
Moscone Center South, Level 2, Room 207
 Credit: 1.25 CME/CE
Moderator: Punita Ponda, MD FAAAAI
- 10:45 Cluster Immunotherapy: The Benefits and Risks and How to Implement It in Your Practice**
Linda S. Cox, MD FAAAAI
- 11:05 Question & Answer**
- 11:10 Changes in USP Guidelines and What It Means for Your Office**
Andrew W. Murphy, MD FAAAAI
- 11:30 Question & Answer**
- 11:35 Evidence Based Use of Oral Sublingual Immunotherapy**
Anne K. Ellis, MD FAAAAI
- 11:55 Question & Answer**
- 4307 The Initiation of Allergic Immunity: From Innate Sensors to Initiation of Adaptive Immune Responses** ▼
 10:45 am to 12:00 pm
Moscone Center South, Level 3, Room 303
 Credit: 1.25 CME/CE
Moderator: Sarah E. Henrickson, MD PhD
- 10:45 Dendritic Cell Control of Type-2 Immunity**
Caroline L. Sokol, MD PhD
- 11:05 Question & Answer**
- 11:10 The Role of Gut Tuft Cells in Type 2 Immune Initiation**
Jakob von Moltke, PhD
- 11:30 Question & Answer**
- 11:35 Type 2 Immunity Elicited by Airway Allergens**
Nora A. Barrett, MD
- 11:55 Question & Answer**

Oral Abstract Sessions

- 4601 Asthma Epidemiology and Outcomes**
 2:00 to 3:15 pm
Moscone Center South, Level 3, Room 301
 Credit: 1.25 CME/CE
*Moderators: Sharmilee M. Nyenhuis, MD FAAAAI
 Justin C. Greiwe, MD FAAAAI*
- 2:00 Location of Pulmonary Mast Cells Predicts Asthma Outcomes**
Merritt L. Fajt, MD
- 2:15 Association study in African-admixed populations across the Americas recapitulates asthma risk loci in non-African populations**
Michelle Daya, PhD
- 2:30 Spirometry and Impulse Oscillometry Trajectories in an Inner-City Longitudinal Birth Cohort at High Risk for Asthma**
Sima Ramratnam, MD MPH
- 2:45 Characterization of Allergen Sensitization Patterns in Canadian Preschool Children with Severe Wheezing**
Jennifer A. Hoang
- 3:00 Novel Plasma Metabolite Markers From Arachidonic Acid Pathway For Distinguishing Refractory Asthma**
JiHyun Oh
- 4602 The Role of Environmental Exposures on the Immune System**
 2:00 to 3:15 pm
Moscone Center South, Level 2, Room 205
 Credit: 1.25 CME/CE
*Moderators: Alessandro G. Fiocchi, MD FAAAAI
 Wanda Phipatanakul, MD MS FAAAAI*
- 2:00 Administration of anti-IgE to pregnant mice caused IgE-class-specific immunosuppression in offspring**
Hideaki Morita, MD PhD
- 2:15 Distinct innate immune cell maturation during the first year of life is associated with farm exposure**
Anna Lang, MD PhD
- 2:30 Evaluating the Effects of Farm Exposure on Infant Gut Microbiome**
Julia Thorsen, MD MPH
- 2:45 Distinct patterns of bacterial vertical transmission from the maternal vaginal tract to infant gut microbiota**
Kathryn McCauley, MPH
- 3:00 Can Obesity Alter the Immune Response to Childhood Vaccinations?**
Jenny Y. Huang, MD

Attend the 2019 AAAAI

**Annual
Business
Meeting**

*to include the induction of all
new Fellows and members
approved in 2018*

Monday, February 25, 2019
 12:30 to 1:30 pm
**Moscone Center South, Level 2,
Room 203**

AAAAI-1218-423



Oral Abstract Sessions (continued)

4603 Mechanisms of Environmental Exposures

2:00 to 3:15 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 151

Credit: 1.25 CME/CE

Moderator: Nathan Rabinovitch, MD

2:00 A game of cat and mouse: cat ownership and the relationship between mouse exposure and respiratory outcomes among dual-sensitized inner-city children with asthma

Meghan F. Davis, PhD DVM MPH

2:15 Rhinovirus Infection Does Not Alter Bronchodilation in Human Precision Cut Lung Slices from Asthma Donors

Katherine Caid, BS

2:30 Climate Change Impact on Grass Pollens in SW Ontario "Undetectable"

James J. Anderson, MLT

2:45 Relationship of serological reactivity to cytoplasmic extracts from spores of *Ganoderma applanatum* and commercial extracts of indoor, mitosporic fungi, and farm animal allergens among Puerto Rican subjects

Felix E. Rivera-Mariani

3:00 A Combined Epidemiologic and Mechanistic Study of Endotoxin and Food Allergen Sensitization

Angela Tsuang, MD MSc

4604 Urticaria and Eczema Pathogenesis and Management

2:00 to 3:15 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 155

Credit: 1.25 CME/CE

Moderators: Anne Marie Ditto, MD FAAAAI

Christina E. Ciaccio, MD FAAAAI

2:00 Management of Chronic Urticaria in a Pediatric Population

Sofianne Gabrielli, MSc

2:15 Strategies for Discontinuing Omalizumab in Patients with Chronic Urticaria: Real-World Findings

Sara Seghezze, MD

2:30 Deciphering the microbiome and virome composition of patients with Atopic Dermatitis and Eczema Herpeticum (ADEH+)

Liva S. Zaramela, PhD

2:45 IL-17A and IL-4/IL-13 Exert Distinct Changes in Skin Lipids

Elena Goleva, PhD

3:00 Nonlesional Atopic Dermatitis Skin Shows Alterations in Langerhans Cells in Close Proximity to Tight Junction Fragmentation

Takeshi Yoshida, PhD

4605 Harnessing the Power of Secondary Database Analysis

2:00 to 3:15 pm

Moscone Center South, Level 3, Room 303

Credit: 1.25 CME/CE

Moderators: John B. Hagan, MD FAAAAI

Christopher D. Codispoti, MD PhD FAAAAI

2:00 The Protective Effects of Eosinophilia and High IgE on Cancer Diagnoses in the National Health and Nutrition Examination Surveys (2005-2016)

Sairaman Nagarajan, MD MPH

2:15 Incidence of Hypersensitivity to Cetuximab

Saira Q. Zafar, MD

2:30 Re-Evaluation of Need and Tapering of Omalizumab in Chronic Idiopathic Urticaria

Juliana Regan, RN

2:45 Optimizing Approaches to Drug Allergies in the Pediatric Inpatient Setting

Nessy Dahan, MD

3:00 Impact of electronic health record transition on drug allergy labels: gains, losses, alterations and learning opportunities

Christine Rukasin, MD

4606 Update on Rhinitis and Immunotherapy

2:00 to 3:15 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 156

Credit: 1.25 CME/CE

Moderators: Anil Nanda, MD FAAAAI

Mohamed H. Shamji, BSc MSc PhD FAAAAI

2:00 Sublingual Immunotherapy Tablets Do Not Alter Skin Prick Responses During Treatment

Jennifer C. Simonaire, DO

2:15 Long-Term Clinical Effect Of Grass-Allergen Immunotherapy In Local Allergic Rhinitis, And Its Capacity to Modify The Natural Course Of The Disease.

Ibon Eguiluz-Gracia, MD PhD

2:30 Improved Tolerance Of Subcutaneous Immunotherapy In Pediatric Patients Through The Use Of Comfort Devices: A Quality Improvement Project

Mollie Alpren, MD

2:45 Strong Dose-response On Immunoglobulin Makers During a Phase II Allergen Immunotherapy Study With Subcutaneously Administered Tyrosine Adsorbed Modified Grass Allergen + MPL

Sabine Lassmann

3:00 Experience with Pharmacist Prepared Pre-filled SCIT Dosing in an Urban Allergy Clinic

Rory Nicolaides, MD



Oral Abstract Sessions (continued)

4607 Effects of Obesity on Immune Function in Asthma

2:00 to 3:15 pm

Moscone Center South, Level 2, Room 201

Credit: 1.25 CME/CE

Moderators: Cem Akin, MD PhD FAAAAI

Angela Haczku, MD PhD FAAAAI

2:00 Obesity Dysregulates Immunometabolic Status in Asthma and Impacts Vaccine Responses

Sarah E. Henrickson, MD PhD

2:15 Sleeve gastrectomy surgery reduces airway resistance and inflammation in chronically allergen-challenged obese mice

Mark Ihrie, PhD

2:30 Therapeutic effects of pravastatin on asthmatic airway inflammation in high fat diet induced obese mouse asthma model

Hwayoung Lee, MD PhD

2:45 Glucose metabolism dictates murine eosinophil differentiation, chemotaxis, and IL-4 expression

Maria Andreina Marques-Mejias, MD

3:00 Eosinophils Display Subtype-specific Metabolic Profiles

Sergei I. Ochkur, PhD

4608 Eosinophilic Esophagitis

2:00 to 3:15 pm

Moscone Center South, Level 2, Room 207

Credit: 1.25 CME/CE

Moderators: Melanie A. Ruffner, MD PhD

Seema S. Aceves, MD PhD

2:00 Efficacy of RPC4046, an Anti-Interleukin-13 Monoclonal Antibody, in Patients With Active Eosinophilic Esophagitis: Analysis of the Steroid-Refractory Subgroup From the HEROES Study

Ikuo Hirano, MD

2:15 The 1-Hour Esophageal String Test: A Non-Endoscopic Minimally Invasive Test to Accurately Detect Disease Activity in Eosinophilic Esophagitis

Steven J. Ackerman, PhD

2:30 Effect of a 4-Food Elimination Diet and Omeprazole in Children with Eosinophilic Esophagitis – A Randomized, Controlled Trial

Ralf G. Heine, MD FRACP

2:45 Esophageal Eosinophilia is Present in Some Peanut Allergic Patients

R. Sharon Chinthrajah, MD

3:00 Image Analysis of Esophageal Biopsies and Cytosponge Specimens Stained for Eosinophil Peroxidase Identifies Subjects with Eosinophilic Esophagitis

Suzanne M. Barshow, MD

FOCUS ON FOOD ALLERGY

An Online Course Series for Continuing Education Credit

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Review the latest evidence-based recommendations for diagnosing and treating patients with food allergy:

- Peanut Allergy
- Atopic Dermatitis
- Eosinophilic Esophagitis
- Non-IgE Adverse Reactions to Foods
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- Food-Dependent Exercise-Induced Anaphylaxis
- Component Testing
- Oral Immunotherapy
- Risks of Elimination Diets
- Food Allergen Labeling

Courses authored by the AAAAI Adverse Reactions to Foods Committee

Monday Scientific Program



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

Seminars

3:30 to 4:30pm

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

4701 A Nuts and Bolts Approach to the Workup of Immunodeficiency Disorders in Children

Marriott, Level 2, Foothill F

Discussion Leaders: Kimberly A. Risma, MD PhD FAAAAI
M. Teresa De La Morena, MD

4702 Evaluating Systemic Side Effects in Children Receiving Inhaled Corticosteroids

Marriott, Level 2, Foothill G

Discussion Leaders: Heather K. Lehman, MD FAAAAI
Nelson Augusto Rosario, MD PhD FAAAAI

4703 Biomarkers in Occupational Lung Disease

Marriott, Level 2, Foothill E

Discussion Leaders: Susan M. Tarlo, MBBS FAAAAI
David I. Bernstein, MD FAAAAI

Workshops

4711 Update from the US Food and Drug Administration

3:30 to 4:45 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 151

Credit: 1.25 CME/CE

Moderator: Paul A. Greenberger, MD FAAAAI

3:30 Challenges in Clinical Trials: Expanding the Range of Data in Support of Licensure of New Allergen Immunotherapy Products

Joohee Lee, MD

3:50 Question & Answer

3:55 Update on HAE Therapies

Stacy Chin, MD

4:15 Question & Answer

4:20 Use of Real World Evidence in Drug Development

Miya O. Paterniti, MD

4:40 Question & Answer

4712 Telemedicine in Practice: From Contemplation to Implementation

3:30 to 4:45 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 152

Credit: 1.25 CME/CE

Moderator: Evan Atkinson, MD MS

3:30 Introduction to Telemedicine

Reena S. Mehta, MD

3:50 Question & Answer

3:55 Telemedicine Pearls and Pitfalls: Practical Advice from an Experienced Provider

Jay M. Portnoy, MD FAAAAI

4:15 Question & Answer

4:20 Hands On Demo: Live Demonstration of a Synchronous Telemedicine Visit

Sakina S. Bajowala, MD FAAAAI

4:40 Question & Answer

4713 Laryngeal Syndromes Presenting as Asthma at Home and in the Workplace

3:30 to 4:45 pm

Moscone Center South, Upper Mezzanine Level, Esplanade 159

Credit: 1.25 CME/CE

Moderator: Karin A. Pacheco, MD MSPH FAAAAI

3:30 When to Suspect a Laryngeal Cause for Respiratory Symptoms and How Common Is This?

Ryan F. Hoy, MBBS MOCcEnvHlth

3:50 Question & Answer

3:55 Diagnostic Approaches for Laryngeal Syndromes for the Allergist

Jennifer Anderson, MD MSC

4:15 Question & Answer

4:20 How to Manage Laryngeal Syndromes and Associated Outcomes

Marta de Luca, MCISc SLP(c)

4:40 Question & Answer

4714 Pathways to Approval for New or Novel Hymenoptera Venom Allergens

3:30 to 4:45 pm

Moscone Center South, Level 2, Room 201

Credit: 1.25 CME/CE

Moderator: Jay E. Slater, MD

3:30 Clinical Use and Outcome Measures for Hymenoptera Venoms

David B.K. Golden, MD FAAAAI

3:45 Approval of New and Novel Venom AIT Products: Efficacy Assessments

Anubha Tripathi, MD

4:00 Sting Challenge in the Potential Assessment of Venom AIT in Europe

Jörg R. Kleine-Tebbe, MD FAAAAI

4:15 Biomarkers in the Assessment of Venom AIT

Markus W. Ollert, MD

4:30 Question & Answer



Translate what you learn
into new ideas to take home.



AAAAI American Academy of
Allergy Asthma & Immunology
ANNUAL MEETING
PHILADELPHIA, PA · MARCH 13-16, 2020

annualmeeting.aaaai.org
#AAAAI20





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

1204, 1208, 1513, 2007, 2010, 2101, 3302, 3305

Professionalism

1001, 1110, 1204, 1208, 2303, 2510, 2802, 3003, 3305, 4303

Systems-Based Practice

2101, 2805, 2809, 3003, 3009, 3505, 3705, 4303, 4712

For more information about the ACGME's physician competencies, visit <http://www.acgme.org>.



Abbott Nutrition

3300 Stelzer Road
Columbus, OH 43219
(614) 624-7677
<https://abbottnutrition.com>

Booth #1008

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 Harvest, PediaSure Peptide, Alimentum, and Similac to help your patients grow. Visit www.AbbottNutrition.com to find additional information.

AbbVie

26525 North Riverwoods Boulevard
Mettawa, IL 60045
(847) 772-8810
<https://www.abbvie.com/>

Booth #1518

Pharmaceuticals

AbbVie, a global, research-based biopharmaceutical company, is committed to addressing some of today's toughest health challenges. Our novel treatments and compelling pipeline in Immunology are designed to target complex, unmet medical needs for patients suffering from difficult-to-treat autoimmune or immune-mediated inflammatory diseases.

Absolute Allergy Products

3164 Medinah Circle East
Lake Worth, FL 33467
(561) 629-5618 / 1-833-NOMITES
<http://www.absoluteallergyproducts.com>

Booth #1118

Environmental Products

Absolute Allergy Products patient catalogs and website serving the USA/ Canada includes the highest quality 100 percent sealed HEPA air purifiers, HEPA vacuum cleaners, dust mite proof bedding, nebulizer compressors, air filters and more! Free USA shipping, great prices, deals with unequaled customer service! Allergy product industry leaders since 1989.

Accredo

1640 Century Center Parkway
Memphis, TN 38134
(901) 381-5719
<https://www.accredo.com>

Booth #1218

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
Floor 3
Brisbane, CA 94005
(650) 614-5220
<https://www.aimmune.com>

Booth #815

Pharmaceuticals

Aimmune Therapeutics is a biopharmaceutical company developing treatments for life-threatening food allergies. The company's approach is intended to provide meaningful levels of protection against allergic reactions resulting from accidental exposure to food allergens by desensitizing patients with defined, precise amounts of key allergens. For more information, please see www.aimmune.com.

ALK, Inc.

135 US Highway 202/206
Suite 3
Bedminster, NJ 07921
(908) 842-8359
<https://www.alk.net/us>

Booth #723

Allergenic Extracts

ALK, Inc. is the world leader in Allergy Immunotherapy and is devoted to improving the quality of life for people with allergies. Our goal is to build an effective future growth platform to engage with allergic patients and connect them with allergy specialists earlier in the disease progression.

Allergy & Asthma Network

8229 Boone Boulevard
Suite 260
Vienna, VA 22182
(703) 641-9595
<http://www.allergyasthmanetwork.org>

Booth #1531

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 to 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
<http://allergyandasthmaproceedings.com>

Booth #1019

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 39 year reputation as an NLM/Medline indexed journal. Print circulation: 5,000; Impact factor: 2.213.

Allergy Partners

1978 Hendersonville Road
Suite 130
Asheville, NC 28803
(828) 277-1300
<http://www.allergypartners.com>

Booth #1029

Physician Recruitment

Allergy Partners is the nation's largest allergy, asthma, and immunology practice. Our network spans 21 states and encompasses over 137 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
<https://allergyehr.com>

Booth #1214

Computer Hardware/Software

AllergyEHR is an all-inclusive system for allergists that integrates powerful immunotherapy features into a customizable EMR and Practice Management solution. Created by medical professionals with allergists in mind, the mobile-friendly solution offers several notable features such as a skin test module, a shot module, shot schedule templates and automated immunotherapy billing.

American Board of Allergy and Immunology

1835 Market Street
Suite 1210
Philadelphia, PA 19103
(215) 592-9466
<https://www.abai.org/>

Booth #1525

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://www.apfed.org>

Booth #1533

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.

Association of PAs in Allergy, Asthma & Immunology

PO Box 90434
San Antonio, TX 78209
(844) 444-0575
<https://www.aapaaai.org>

Booth #1539

Other

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.

Asthma and Allergy Foundation of America

8201 Corporate Drive
Suite 1000
Landover, MD 20785
(202) 466-7643
<http://www.aafa.org>

Booth #1423

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 www.aafa.org or www.kidswithfoodallergies.org to learn more.



AstraZeneca

1800 Concord Pike
Wilmington, DE 19803
(800) 236-9933
<https://www.astrazeneca-us.com>

Booth #110

Pharmaceuticals

Visit booth #110 for a boost in our cafe while exploring AstraZeneca's respiratory portfolio. For more information about AstraZeneca, please visit www.astrazeneca-us.com or follow us on Twitter @AstraZeneca.

Autoinflammatory Alliance

PO Box 590354
San Francisco, CA 94159
(415) 831-8782
<http://autoinflammatory.org>

Booth #1541

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.

Belay

122 Willow Street
Brooklyn, NY 11201
(416) 618-8615
<http://www.WeBelay.com>

Booth #1135

Patient/Public Education

Belay is a free mobile app 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.

BriovaRx Infusion Services

15529 College Boulevard
Lenexa, KS 66219
(913) 747-3700
<http://briovarxinfusion.com/>

Booth #1422

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.

Circassia Pharmaceuticals, Inc.

5151 McCrimmon Parkway
Suite 260
Morrisville, NC 27560
(866) 275-6469
<https://www.circassia.com>

Booth #528

Diagnostic Testing

Circassia is a specialty pharmaceutical company focused on respiratory disease. Their growing commercial organization promotes NIOX[®], an innovative diagnostic and monitoring tool to aid in asthma management, directly to healthcare providers. They also market the chronic obstructive pulmonary disease (COPD) product Tudorza[®] in the United States.

Clinical Immunology Society

555 East Wells Street
Suite 1100
Milwaukee, WI 53202
(414) 224-8095
<https://clinimmsoc.org/CIS.htm>

Booth #1523

Other

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.

Covis Pharma

Grafenauweg 12
CH-6300 Zug
Switzerland
(502) 640-5682
<https://www.covispharma.com/>

Booth #1131

Pharmaceuticals

Covis Pharma is a global specialty pharmaceutical company. Our patients are our paramount concern. We market therapeutic solutions for patients with life-threatening conditions and chronic illnesses.

CSL Behring

1020 1st Avenue
King of Prussia, PA 19406-0901
(610) 878-4000
<https://www.cslbehring.com>

Booth #526

Pharmaceuticals

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 hereditary angioedema, primary immune deficiencies and coagulation disorders among others.



CSL Behring

1020 1st Avenue
King of Prussia, PA 19406-0901
(610) 878-4000
<https://www.cslbehring.com>

Booth #523

Pharmaceuticals

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 hereditary angioedema, primary immune deficiencies, and coagulation disorders among others.

CVS Specialty

1 CVS Drive
Woonsocket, RI 02895
(800) 237-2767
<https://www.cvsspecialty.com>

Booth #1010

Other

CVS Specialty and Coram provide personalized, compassionate, high-quality 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.

DBV Technologies

25 Deforest Avenue
Suite 203
Summit, NJ 07901
(484) 357-7850
<https://www.dbv-technologies.com/>

Booth #429

Immunotherapy

DBV Technologies is a clinical-stage biopharmaceutical company focused on changing the field of immunotherapy. We are committed to developing safe and effective therapies for food allergic patients. DBV is currently developing epicutaneous immunotherapy, or EPIT[®], which delivers biologically active compounds to the immune system through intact skin.

Dove Medical Press Ltd.

Beechfield House
Winterton Way
Macclesfield, SK11 0LP
United Kingdom
+44 1625 509147
<https://www.dovepress.com>

Booth #1208

Publications

Dove Medical Press (www.dovepress.com) is an open access Publisher of 90+ peer reviewed biomedical and scientific journals, which focus on medicine, drug treatment, clinical risk management, outcomes research and adherence across a breadth of disease states and technologies, biology and basic sciences.

DrChrono, Inc.

328 Gibraltar Drive
Sunnyvale, CA 94089
(844) 569-8628
<https://www.drchrono.com>

Booth #1009

Computer Hardware/Software

DrChrono is a medical practice platform company. Our technology integrates EHR, practice management, Revenue Cycle Management and medical billing into one seamless platform. We design essential technology to make care more informed, more personalized, more interactive, and more adaptable.

EAACI

Hagenholzstrasse 111
3rd Floor
Zurich, 8050
Switzerland
+41 44 205 55 33
<https://www.eaaci.org>

Booth #1522

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 focusing on allergy and clinical immunology.



eClinicalWorks

2 Technology Drive
Westborough, MA 01581
(508) 836-2700
<http://www.eclinicalworks.com>

Booth #1122

Computer Hardware/Software

The eClinicalWorks EHR/PM is a complete solution for your healthcare IT needs, including everything providers need for the testing and treatment of allergies. Allergy module contains configurable worksheets for the antigen tests needed to document wheal/flare or impression. Once skin tests are complete, providers can write formulations for the vials to be prepared.

Edge Pharmaceuticals

7264 Northwest 63rd Terrace
Parkland, FL 33067
(877) 580-3343
<http://www.edgepharmaceuticals.com>

Booth #932

Immunotherapy

We specialize in sublingual (SLIT) metered dose delivery systems, allergy testing and treatment materials and specialty pharmacy compounding services. We look forward to meeting with you. Please stop by our booth to see us.

Elsevier

1600 John F. Kennedy Boulevard
Suite 1600
Philadelphia, PA 19103
(215) 239-3900
<http://www.elsevierhealth.com>

Booth #436

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.

Enjoy Life Foods

8770 West Bryn Mawr Avenue
Suite 1100
Chicago, IL 60631
(773) 632-1987
<http://www.enjoylifefoods.com>

Booth #1115

Other

Enjoy Life Foods, the leading brand in the Free-From food category, features over 70 products that are Certified Gluten Free, Non-GMO Project Verified and free-from 14 allergens. All products are manufactured in a dedicated nut free and certified gluten free facility. Over 20 products have been recently certified FODMAP Friendly.

Food Allergy & Anaphylaxis Connection Team (FAACT)

PO Box 511
West Chester, OH 45071
(815) 276-3015
<https://www.foodallergyawareness.org/>

Booth #1537

Other

FAACT's mission is to educate, advocate, and raise awareness for all individuals and families affected by food allergies and life-threatening anaphylaxis. FAACT has all the facts you need to manage food allergies at school, dining out, issues in the workplace, as well as preparing for college, bullying and traveling.

Food Allergy Research & Education

7901 Jones Branch Drive
Suite 240
McLean, VA 22102
(800) 929-4040
<https://www.foodallergy.org/>

Booth #1527

Patient/Public Education

Food Allergy Research & Education (FARE) works on behalf of the 15 million Americans with food allergies, including those at risk for 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.

Genentech - Novartis

1 DNA Way
South San Francisco, CA 94080
(650) 225-1000
<https://www.gene.com/>

Booth #413

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.

Glenmark Therapeutics

461 From Road
Paramus, NJ 07652
(201) 331-4218
<http://www.glenmarkpharma-us.com>

Booth #1412

Pharmaceuticals

Glenmark Therapeutics Inc., USA (GTI), a wholly-owned subsidiary of Glenmark Holding SA, is dedicated to building a branded portfolio for Glenmark Pharmaceuticals. GTI will initially focus on commercializing assets in dermatology and respiratory. GTI also has a robust pipeline of investigational medicines intended to meet the needs of patients.



Global Food Therapy

792 South 2325 West
Syracuse, UT 84075-7189
(631) 645-1104
<http://gft4you.com>

Booth #1330

Physician Education

Are you afraid to start OIT in your practice? The Founders of GFT are board certified allergists who have combined experience of 10 years of doing Food OIT. The GFT resources will help you to save time and energy needed to implement OIT in your practice.

GSK

5 Moore Drive
Research Triangle Park, NC 27709
(888) 825-5249
<http://www.gsk.com>

Booth #511

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.

GSK

5 Moore Drive
Research Triangle Park, NC 27709
(888) 825-5249
<https://www.gsk.com/>

Booth #435

Other

We are a science-led global healthcare company with a special purpose: to help people do more, feel better, live longer. Our strategy is to bring differentiated, high-quality and needed healthcare products to as many people as possible, with our three global businesses, scientific and technical know-how and talented people.

Helen of Troy/Kaz USA, Inc.

400 Donald Lynch Boulevard
Suite 300
Marlboro, MA 01752
(508) 490-7322
<http://www.honeywellpluggedin.com>

Booth #829

Other

Offering affordable, reliable, high quality HEPA filtration products for over 25 years, Honeywell Air Purifiers are frequently recommended by Allergists as part of a patient's overall treatment plan.

Hitachi Chemical Diagnostics

630 Clyde Court
Mountain View, CA 94043
(650) 961-5501
<http://www.hcdiagnostics.com>

Booth #1325

Diagnostic Equipment

Hitachi Chemical Diagnostics is a global leader of in vitro allergy diagnostics with a legacy of innovation. The company holds many in vitro allergy testing technology patents and continues to pioneer advancements in the field.

HollisterStier Allergy

3525 North Regal Street
Spokane, WA 99207
(509) 482-4974
<http://www.hsallergy.com>

Booth #923

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
<https://www.horizonpharma.com/>

Booth #1025

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.

Hudson Scientific, LLC

103 West Main Street
Hudson, MI 49247
(888) 292-8080
<http://www.alzair.com>

Booth #1419

Pharmaceuticals

Drug free, prescription allergy relief has finally arrived! Introducing, ALZAIR Allergy Blocker. A clinically proven nasal powder spray that works to strengthen resistance to airborne allergens. Visit www.Alzair.com for more information.



Hycor Biomedical

7272 Chapman Avenue
Garden Grove, CA 92841
(714) 933-3119
<http://www.hycorbiomedical.com>

Booth #1117

Diagnostic Testing

Hycor is a global manufacturer of in vitro diagnostics products. Hycor markets the HYTEC® products and the NOVEOS™ system which received FDA clearance in the United States. The company is focused on delivering quality products that provide the highest value through innovation, reliability and customer service.

Immune Deficiency Foundation

110 West Road
Suite 300
Towson, MD 21204
(443) 377-7449
<https://primaryimmune.org>

Booth #1543

Patient/Public Education

The Immune Deficiency Foundation is dedicated to improving the diagnosis, treatment and quality of life of persons with primary immunodeficiencies.

Immune Epitope Database and Analysis Resource

9420 Athena Circle
La Jolla, CA 92037
(858) 752-6959
<https://www.iedb.org/>

Booth #1530

Computer Hardware/Software

The IEDB is an NIH-supported, freely available resource that provides access to published data related to antibody and T cell epitopes, as well as online tools for prediction and further analysis of immune epitopes. The IEDB has data for infectious and autoimmune diseases, allergens, and alloantigens. Stand-alone tools also available upon request.

Indoor Biotechnologies, Inc.

700 Harris Street
Charlottesville, VA 22903
(434) 984-2304
<https://inbio.com>

Booth #1116

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.

Integrity Continuing Education

106 Apple Street
Suite 300
Tinton Falls, NJ 07724
(855) 835-4004
<http://integrityce.com>

Booth #1317

Physician Education

Integrity CE is a full-service, ACCME-accredited provider of CME, with years of experience in the continuing medical education industry. The goal of our program is to provide busy healthcare providers with CME activities in order to affect change in clinical practice by improving competence, performance, and ultimately, patient outcomes.

International Eosinophil Society, Inc.

555 East Wells Street
Suite 1100
Milwaukee, WI 53202
(414) 276-6445
<http://www.eosinophil-society.org>

Booth #1532

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 the 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
<http://www.fpies.org>

Booth #1535

Patient/Public Education

The International FPIES Association (I-FPIES) is a 501(c)(3) patient organization dedicated to improving the diagnosis, treatment and quality of life for those with Food Protein-Induced Enterocolitis Syndrome (FPIES) through advocacy, education, support, and research.

International Institute for the Advancement of Medicine

125 May Street
Edison, NJ 08837
(800) 486-4426
<http://www.iiam.org/>

Booth #1232

Clinical Research Organizations

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.



Invitae

1400 16th Street
San Francisco, CA 94103
(415) 374-7782
<http://invitae.com>

Booth #1210

Diagnostic Testing

Invitae's mission is to bring comprehensive genetic information into mainstream medical practice to improve the quality of healthcare for billions of people. Our goal is to aggregate most of the world's genetic tests into a single service with higher quality, faster turnaround time and lower prices. Visit www.invitae.com.

Johnson & Johnson Consumer Inc.

7050 Camp Hill Road
Fort Washington, PA 19034
(866) 948-6883
<https://www.rhinocortprofessional.com/>

Booth #1110

Pharmaceuticals

Johnson & Johnson Consumer Inc. markets a broad range of well-known 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.

Kaléo

111 Virginia Street
Suite 300
Richmond, VA 23219
(804) 545-6360
<https://kaleo.com/>

Booth #709

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
PO Box 529
Unionville, CT 06085
(860) 675-7834
<https://www.karger.com>

Booth #909

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*.

Kedrion Biopharma Inc.

400 Kelby Street
11th Floor
Fort Lee, NJ 07024
(610) 909-7862
<https://www.kedrion.us/>

Booth #933

Pharmaceuticals

Kedrion Biopharma, an international biopharmaceutical company with corporate headquarters in Tuscany, Italy, specializes in the production of plasma-derived therapies for rare diseases and conditions such as hemophilia and primary immunodeficiency. Kedrion Biopharma's US headquarters are in Fort Lee, New Jersey with a global presence in about 100 countries.

Latitude Food Allergy Care

570 Price Avenue
Suite 400
Redwood City, CA 94063
(650) 466-6224
<http://www.latitudefac.com>

Booth #1418

Other

Latitude Food Allergy Care is a specialty clinic solely focused on food allergy. We are committed to changing the lives of families living with food allergies by creating access to exceptional care from diagnosis to lifesaving treatments to long-term support.

Leadiant Biosciences, Inc.

9841 Washingtonian Boulevard
Suite 500
Gaithersburg, MD 20878
(800) 447-0169
<http://leadiant.com>

Booth #1318

Pharmaceuticals

Leadiant Biosciences, Inc. is a rare corporation dedicated to creating novel medicines for the unmet needs of patients with rare diseases. Truly unique in its field, Leadiant Biosciences places its considerable scientific resources behind the discovery of compounds that benefit the few; simply because it's the right thing to do.

Lincoln Diagnostics, Inc.

240 East Hickory Point Road
Decatur, IL 62526
(800) 537-1336
<http://lincolndiagnostics.com>

Booth #423

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**, **Duotip-Test II**, **Multi-Test II**, **Multi-Test**, and **Duotip-Test**. Lincoln's devices are the most widely used and most extensively published on devices available.



Low Derma Technology

PT 7836, Jalan Haji Abdul Manan/ KU8,
Kawasan Perindustrian Meru Selatan,
Selangor Darul Ehsan, Malaysia.
Klang, 41050
Malaysia
+60 33392 3013
<https://www.lowderma.com>

Booth #1430

Equipment/Supplies

LOW DERMA™ patented Technology is an innovation breakthrough accentuating the fundamental needs for CLEAN and SAFE protection. - No natural rubber latex (cause of Type I Hypersensitivity) - No chemical accelerators such as Thiurams, Thiazoles & Carbamates (common cause of Type IV Hypersensitivity) - No Sulphur Added.

Mead Johnson Nutrition

2400 West Lloyd Expressway
Evansville, IN 47721
(812) 429-5514
<https://www.meadjohnson.com/pediatrics>

Booth #1128

Other

The Mead Johnson name has been associated with science-based pediatric nutrition products for over 100 years. Visit booth #1128 or meadjohnson.com/pediatrics to learn more about our Enfamil portfolio of products and our professional educational programs. Our representatives look forward to meeting you.

Med Care Pharmaceuticals

8383 Wilshire Boulevard
Beverly Hills, CA 90211
(858) 260-7075
<http://medcarepharmaceuticals.com>

Booth #1323

Pharmaceuticals

We are a research-based biopharmaceutical company dedicated to finding innovative, safe and affordable prescription medications and OTC (over-the-counter) solutions for our clients. Led by compassion, expertise, dedication and resolve, our team works tirelessly to improve health and wellness worldwide with an unwavering focus on changing the future of medicine and humanity.

Med Care Pharmaceuticals

8383 Wilshire Boulevard
Beverly Hills, CA 90211
(858) 260-7075
<https://medcarepharmaceuticals.com/skin-allergy-medicines>

Booth #1108

Pharmaceuticals

Med Care Pharmaceuticals is a research-based bio pharmaceutical company that discovers, and develops OTC (over the counter) innovative safe medication and medicated creams for skin allergy symptoms around the world.

Medi Lazer

1110 Brickell Avenue
Suite 430
Miami, FL 33131
(305) 847-9044
<https://medilazer.net/>

Booth #1311

Equipment/Supplies

Medi Laser 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.

Medical College of Wisconsin - Clinical Immunodiagnostic Research Laboratory

8701 West Watertown Plank Road
MFRC 5072
Milwaukee, WI 53226
(414) 955-4165
<http://www.mcw.edu/CIRL>

Booth #1327

Diagnostic Testing

The Clinical Immunodiagnostic and Research Laboratory (CIRL) provides a comprehensive panel of diagnostic services to aid in the screening and diagnosis of primary immunodeficiencies using flow cytometric-based assays. 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.

Medical Practice Purchasing Group (MPPG)

29525 Canwood Street
Suite 250
Agoura Hills, CA 91301
(714) 469-5296
<http://www.mppg.net>

Booth #1332

Office Management

An Allergy & Asthma Physician Buying Group on a mission to improve medical practices' bottom line profitability through cost reduction. Obtains discounts for practices purchasing directly from Stallergenes/Greer, Circassia-Niox Vero, Sanofi Pasteur and more!



Methapharm, Inc.

11772 West Sample Road
Coral Springs, FL 33065
(519) 751-3602
<http://www.provocholine.com>

Booth #930

Diagnostic Testing

Provocholine is the leader and only FDA Approved methacholine chloride for the diagnosis of bronchial airway hyper responsiveness in patients who are suspected of having asthma.

Micro Direct, Inc.

803 Webster Street
Lewiston, ME 04240
(800) 588-3381
<https://mdspiro.com/>

Booth #934

Spirometry

Micro Direct is pleased to offer Total Spirometry Solutions with models priced from \$695 to \$2,495, all designed to meet your needs; and each with your choice of inexpensive cardboard mouthpieces, one-way mouthpieces or full protection pulmonary filters. Micro Direct also offers an inexpensive peak flow meter and screening spirometers.

MIR-Medical International Research

5462 South Westridge Drive
New Berlin, WI 53151
(844) 464-7872
<https://www.spirometry.com>

Booth #1322

Diagnostic Equipment

MIR - Medical International Research is an Italian company founded in 1993 that today is a leader in the field of design, production and international sales of diagnostic spirometry devices and applications for the analysis of lung function. In particular MIR specializes in: Spirometry, Oximetry, Telemedicine and Connected Devices for Clinical Trials and/or third parties integrators.

Mission: Allergy, Inc.

28 Hawleyville Road
PO Box 45
Hawleyville, CT 06440
(203) 364-1570 x 2000
<https://www.missionallergy.com>

Booth #823

Environmental Products

Leading allergists recommend Mission: Allergy for its scientific accuracy and its highest quality microfiber pillow and mattress encasings and other products for allergen avoidance. Please stop by our booth to request your free supply of our informative allergy self-help guide for patients, and to view live dust mites in High-Definition.

ModuleMD

8359 Office Park Drive
Grand Blanc, MI 48439
(877) 347-7978
<http://www.modulemd.com>

Booth #809

Computer Hardware/Software

ModuleMD enhances clinical, operational and financial performance of Allergy Practices. The ModuleMD WISE™ suite includes a Certified EHR, Skin Testing, Immunotherapy, Practice Management, Revenue Management, ePrescribe, Telehealth and Patient Engagement software. In addition to technology, ModuleMD offers comprehensive billing and RCM services. Providing solutions...not just software. Contact us: info@modulemd.com.

Molekule

1184 Harrison Street
San Francisco, CA 94103
(407) 490-2758
<https://molekule.com>

Booth #1313

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 #1314

Spirometry

Morgan Scientific provides top line hardware for pulmonary function diagnostic testing and the corresponding ComPAS software for testing at the click of a space bar. We offer incentives for top patient efforts, and customized reports and workflow enhancements for quick and paperless interpretations. Come by for a demo of our Pneumotrac spirometer and meet our dragon!



MotherToBaby Pregnancy Studies conducted by OTIS

9500 Gilman Drive
Mail Code 0828
La Jolla, CA 92093
(877) 311-8972
<http://www.mothersbaby.org>

Booth #1528

Patient/Public Education

MotherToBaby is the nation's leading authority and most trusted source of evidence-based information on the safety of medications and other exposures during pregnancy and while breastfeeding. MotherToBaby Pregnancy Studies is evaluating the effects of Asthma and Atopic Dermatitis along with the medications used to treat these diseases during pregnancy.

MY Biomedical

7698 Pyrenees Park Drive
Las Vegas, NV 89113
(702) 302-8853
<http://mybiomedical.info/>

Booth #1107

Skincare

MY Biomedical is the premier healthcare company focused on delivering the highest quality care. We offer a range of services and products for skin allergies. These include facials, the best collagen treatment and LED Light Therapy.

National Allergy / Allergy Control Products

3575 Koger Boulevard
Suite 240
Duluth, GA 30096
(770) 495-3353
<http://www.NationalAllergy.com>

Booth #1334

Equipment/Supplies

National Allergy and Allergy Control Products is one of the nation's largest asthma, sinus and allergy products suppliers and physician educational partners. Our goal is to help make your environment allergen free.

National Death Index

3311 Toledo Road
Room 5292
Hyattsville, MD 20782
(301) 458-4240
<http://www.cdc.gov/nchs/ndi/index.htm>

Booth #1312

Other

The NDI is a resource to aid epidemiologists and other health and medical investigators with mortality ascertainment.

National Eczema Association

4460 Redwood Highway
Suite 16-D
San Rafael, CA 94903-1953
(415) 499-3474
<https://nationaleczema.org/>

Booth #1529

Other

The National Eczema Association (NEA) is a non-profit, 501(c)(3) organization with a mission to improve the health and quality of life for individuals with eczema through research, support, and education.

NeilMed Pharmaceuticals

601 Aviation Boulevard
Santa Rosa, CA 95403
(707) 525-3784
<https://www.neilmed.com>

Booth #533

Pharmaceuticals

The mission of the company is to create and maintain safe, affordable and effective products to sustain long-term growth and create drug-free and effective nasal/sinus, ear and wound care devices for millions of consumers worldwide. Please visit the website www.neilmed.com for more details.

Nestle Health Science

1007 US Highway 202/206
Building JR2
Bridgewater, NJ 08807
(952) 848-6115
<http://www.nestlehealthscience.com>

Booth #1213

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 Pharmaceuticals

One Health Plaza
East Hanover, NJ 07936
(862) 778-2100
<https://www.pharma.us.novartis.com/>

Booth #833

Pharmaceuticals

Novartis Pharmaceuticals Corporation (NPC) offers a broad range of medicines for cancer, cardiovascular disease, endocrine disease, eye care, inflammatory disease, infectious disease, neurological disease, organ transplantation, psychiatric disease, respiratory disease and skin conditions. The company's mission is to improve people's lives by pioneering novel healthcare solutions.



Novartis Pharmaceuticals Corporation

One Health Plaza
East Hanover, NJ 07936
(862) 778-8300
<https://www.novartis.com>

Booth #633

Pharmaceuticals

Novartis Pharmaceuticals Corporation (NPC) offers a broad range of medicines for cancer, cardiovascular disease, endocrine disease, eye care, inflammatory disease, infectious disease, neurological disease, organ transplantation, psychiatric disease, respiratory disease and skin conditions. The company's mission is to improve people's lives by pioneering novel healthcare solutions. For more information, visit <https://www.pharma.us.novartis.com/>

Novartis Pharmaceuticals Corporation

One Health Plaza
434/1330F
East Hanover, NJ 07936
(862) 309-1708
<https://www.novartis.com>

Booth #733

Pharmaceuticals

Novartis Pharmaceuticals Corporation (NPC) offers a broad range of medicines for cancer, cardiovascular disease, endocrine disease, eye care, inflammatory disease, infectious disease, neurological disease, organ transplantation, psychiatric disease, respiratory disease and skin conditions. The company's mission is to improve people's lives by pioneering novel healthcare solutions. For more information, visit <https://www.pharma.us.novartis.com/>

nSpire Health

1830 Lefthand Circle
Longmont, CO 80501
(800) 574-7374
<http://www.nspirehealth.com>

Booth #811

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
<https://www.neocate.com/>

Booth #922

Other

Neocate®, brought to you by Nutricia, is a range of amino acid-based 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 200
Downers Grove, IL 60515
(888) 817-4010
<http://www.Officite.com>

Booth #1109

Office Management

Officite helps physicians grow their practices and generate more new patient referrals through efficient online marketing. Their websites are powerful and backed by unlimited support of a Web Presence Advisor. Visit Officite.com to see all they have to offer, including responsive mobile designs, search engine marketing (SEO & PPC), reputation tracking, social media, and more.

OptiNose US, Inc.

1020 Stony Hill Road
Suite 300
Yardley, PA 19067
(267) 364-3505
<https://xhance.com>

Booth #1123

Pharmaceuticals

XHANCE® (fluticasone propionate) nasal spray is a corticosteroid indicated for the treatment of nasal polyps in adults 18 years of age or older. XHANCE uses an Optinose® Exhalation Delivery System that is designed to deliver medication high and deep in the nasal passages to regions where nasal polyps originate and sinuses drain and ventilate.

Panatrex, Inc.

1648 Sierra Madre Circle
Placentia, CA 92870-6626
(714) 630-5582
<http://panatrexinc.com>

Booth #1111

Equipment/Supplies

Quanti-Test System: Quick-Test Applicators, Quanti-Wells, and Quanti-Trayboxes.



Pfizer

235 East 42nd Street
New York, NY 10017
(212) 733-2323
<http://www.pfizer.com>

Booth #1414

Pharmaceuticals

Pfizer Inc.: Working together for a healthier world.® At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products.

Phadia AB

Rapsgatan 7P
P. O. Box 6460
Thermo Fisher Scientific
Uppsala, SE-751 37
Sweden
+46 721421262
<https://www.thermofisher.com>

Booth #911

Diagnostic Testing

As the ImmunoDiagnostics experts within Thermo Fisher Scientific, we develop, manufacture and market complete blood systems to support the clinical diagnosis and monitoring of allergy, asthma and autoimmune diseases.

Pharming Healthcare Inc.

685 Route 202/206
Suite 202
Bridgewater, NJ 08807
(908) 524-0294
<https://www.pharming.com/aboutus/>

Booth #715

Pharmaceuticals

Pharming Healthcare, Inc. is dedicated to providing life-changing solutions to patients. Pharming is currently involved in the development of drugs for rare diseases, including hereditary angioedema, through a validated technology platform capable of producing industrial quantities of pure recombinant human proteins. Pharming's lead product is approved in the United States, Europe, South America, and South Korea.

Propeller Health

47 Maiden Lane
Third Floor
San Francisco, CA 94108
(877) 251-5451
<https://www.propellerhealth.com/>

Booth #1219

Other

Propeller is an FDA-cleared solution helping people with asthma or COPD maximize symptom-free days. Propeller makes sensors that attach to inhalers and track medication use. Inhaler information is sent to the Propeller app where robust analytics and easy-to-use tools provide members personalized insight and support.

PulmOne USA

2711 Centerville Road
Suite 400
Wilmington, DE 19808
(844) 785-6663
<https://www.pulm-one.com/>

Booth #1319

Diagnostic Equipment

Learn more about the MiniBox+: Complete Pulmonary Function Testing (PFT) in your office practice or hospital clinic: Desktop, Cabinless and Gasless Lung Volume Measurements, as well as Spirometry and DLCO testing. Clinically proven, fully reimbursable, used by physicians in 30+ states. Live demos at our booth during exhibition hours.

Quidel Corporation

10165 McKellar Court
San Diego, CA 92009
(619) 552-7984
<https://www.quidel.com/>

Booth #1230

Other

Quidel SPG is the option for your research, biosafety, and cytotoxicity testing needs. Quidel MicroVue products are well-established in immune system monitoring and assays for the assessment of Complement activation. Quidel offers products such as ELISA assays, depleted sera, proteins, monoclonal and polyclonal antibodies, antisera, antigens, controls, and special reagents.



Rabbit Air

125 North Raymond Avenue
Suite 308
Pasadena, CA 91103
(626) 396-9197
<https://www.rabbitair.com>

Booth #1023

Environmental Products

Rabbit Air is an innovative, Los Angeles-based air purifying company that develops stylish yet inconspicuous air purifiers to target airborne pollutants and improve the indoor environment. One of the most customer-centric companies in the industry, Rabbit Air offers customer service around the clock, and handles everything from product design to after-sales assistance.

RB

399 Interpace Parkway
Parsippany, NJ 07054
(973) 404-2529
<https://www.rb.com/>

Booth #1234

Pharmaceuticals

RB, a global force in health, hygiene and home products, will be exhibiting cough and cold over-the-counter products including Mucinex, the #1 doctor recommended cough and cold brand.

Red Maple Trials Inc.

2935 Conroy Road
Unit 110
Ottawa, ON K1G 6C6
Canada
(613) 368-4320
<http://www.redmapletrials.com/>

Booth #1126

Clinical Research Organizations

Red Maple Trials provides specialty services in allergy, asthma and immunology clinical research, highlighted by our Allergen Challenge Theatre and Naturalistic Exposure Chamber. Our experienced team provides leading CRO services on Phase I through IV studies in order to fulfill the challenging demands of our biopharmaceutical partners.

Regeneron and Sanofi Genzyme

777 Old Saw Mill River Road
Tarrytown, NY 10591
(914) 847-7600
<http://www.regeneron.com>
<http://www.sanofi.com>

Booth #122

Pharmaceuticals

Regeneron Pharmaceuticals is a leading biotechnology company that invents life-transforming medicines for people with serious diseases. Sanofi is dedicated to supporting people through their health challenges. We are a global biopharmaceutical company focused on human health. Since 2007, Sanofi and Regeneron have collaborated to develop and commercialize fully human monoclonal antibodies utilizing proprietary technologies..

Regeneron and Sanofi Genzyme

777 Old Saw Mill River Road
Tarrytown, NY 10591
(914) 847-7600
<http://sanofi.com>

Booth #522

Pharmaceuticals

Regeneron Pharmaceuticals is a leading biotechnology company that invents life-transforming medicines for people with serious diseases. Sanofi is dedicated to supporting people through their health challenges. We are a global biopharmaceutical company focused on human health. Since 2007, Sanofi and Regeneron have collaborated to develop and commercialize fully human monoclonal antibodies utilizing proprietary technologies.

Rosch Visionary Systems, Inc.

1601 11th Avenue
Suite 102
Altoona, PA 16601
(800) 307-3320
<http://www.roschvisionary.com>

Booth #1315

Computer Hardware/Software

Rosch Visionary Systems is the leading provider of allergy software. Rosch Immunotherapy is designed to manage allergy extract mixing, injections and reactions. Rosch Skin Testing records prick and intradermal using the results to build the immunotherapy prescription. Visionary Allergy Tracker will remind patients when they are due for their injection(s) via text and email notifications.



Sanofi Consumer Healthcare (Formerly Chattem, Inc)

55 Corporate Drive
Bridgewater, NJ 08807
(800) 981-2491
<https://www.sanofi.us>

Booth #1011

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.

Shire, Now Part of Takeda

300 Shire Way
Lexington, MA 02421
(617) 349-0200
<https://www.shire.com>

Booth #223

Pharmaceuticals

Shire is the global biotechnology leader serving patients with rare diseases and specialized conditions. We seek to push boundaries through discovering and delivering new possibilities for patient's communities across our portfolio of therapeutic areas including Immunology, Hematology, Genetic Diseases, Internal Medicine, Ophthalmics, Oncology, and neuropsychiatry disorders.

Simply Peanut by Allergic Solutions

PO Box 72
Draper, UT 84020
(801) 573-6774
<https://www.simply-peanut.com>

Booth #1217

Pharmaceuticals

Simply Peanut is a worry-free way to introduce a baby to peanuts while avoiding the choking hazards of peanuts and peanut butter. Developed following the methodologies of the LEAP study, Simply Peanut is an evidence-based product created to reduce a baby's chance of developing a peanut allergy.

SmartPractice

3400 East McDowell Road
Phoenix, AZ 85008
(800) 878-3837
<http://smartpractice.com>

Booth #908

Patient/Public Education

SmartPractice® is committed to providing your practice innovative products to help diagnose allergic contact dermatitis and find solutions to help your patients live healthier, happier lives. Our Why: Because Patients Deserve a Diagnosis™

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Headquartered in London (UK), Stallergenes Greer plc is a global healthcare company specializing in the diagnosis and treatment of allergies through the development and commercialization of allergy diagnostic and immunotherapy products and services. Stallergenes Greer plc is the parent company of GREER Laboratories, Inc.

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Booth #211

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.

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Booth #1206

Clinical Research Organizations

A full service CRO, Emmes is a valued strategic collaborator for planning and conducting clinical trials and bioinformatics research. Over our 40 year history, we have supported numerous trials in allergy and asthma including trials with SLIT, EPIT, single and multi OIT, and combination therapies for treatment of food allergies.

The Mastocytosis Society, Inc.

P.O. Box 416
Sterling, MA 01564
(617) 285-6156
<http://www.tmsforacure.org>

Booth #1526

Patient/Public Education

The Mastocytosis Society is a non-profit dedicated to supporting patients affected by Mastocytosis or Mast Cell Activation Disorders as well as their families, caregivers, and physicians through research, education, and advocacy. Please visit our booth for the latest information on mast cell diseases including treatments, diagnostic criteria, and contact information for our MAB. <http://www.tmsforacure.org>

Thorasys Thoracic Medical Systems Inc.

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US Hereditary Angioedema Association

10560 Main Street
Suite PS40
Fairfax City, VA 22030
(866) 798-5598
<https://www.haea.org>

Booth #1524

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.

USIDNET

110 West Road
Suite 300
Towson, MD 21204
(800) 296-4433
<https://usidnet.org/>

Booth #1540

Clinical Research Organizations

The United States Immunodeficiency Network (USIDNET) is a research consortium established to advance scientific research in the field of primary immunodeficiency diseases (PI).



Vitalograph, Inc.

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World Allergy Organization

555 East Wells Street
Suite 1100
Milwaukee, WI 53202-3823
(414) 276-1791
<http://www.worldallergy.org/>

Booth #1536

Physician Education

WAO is an international umbrella organization whose members consist of 99 regional and national allergology and clinical immunology societies from around the world. For more information on educational programs and upcoming meetings, visit WorldAllergy.org.

Xtract Solutions

9954 Southwest Arctic Drive
Beaverton, OR 97005
(503) 379-0110
<http://xtractsolutions.com>

Booth #1331

Computer Hardware/Software

Xtract Solutions allergy software helps clinics manage allergy injections, patient flow, and all details involving testing, ordering, preparation, labeling, filing and delivering immunotherapy. Our solutions save multiple hours per week of nursing and doctor time, and reduces the potentially life-threatening human errors that are unfortunately inherent to allergy injection administration.

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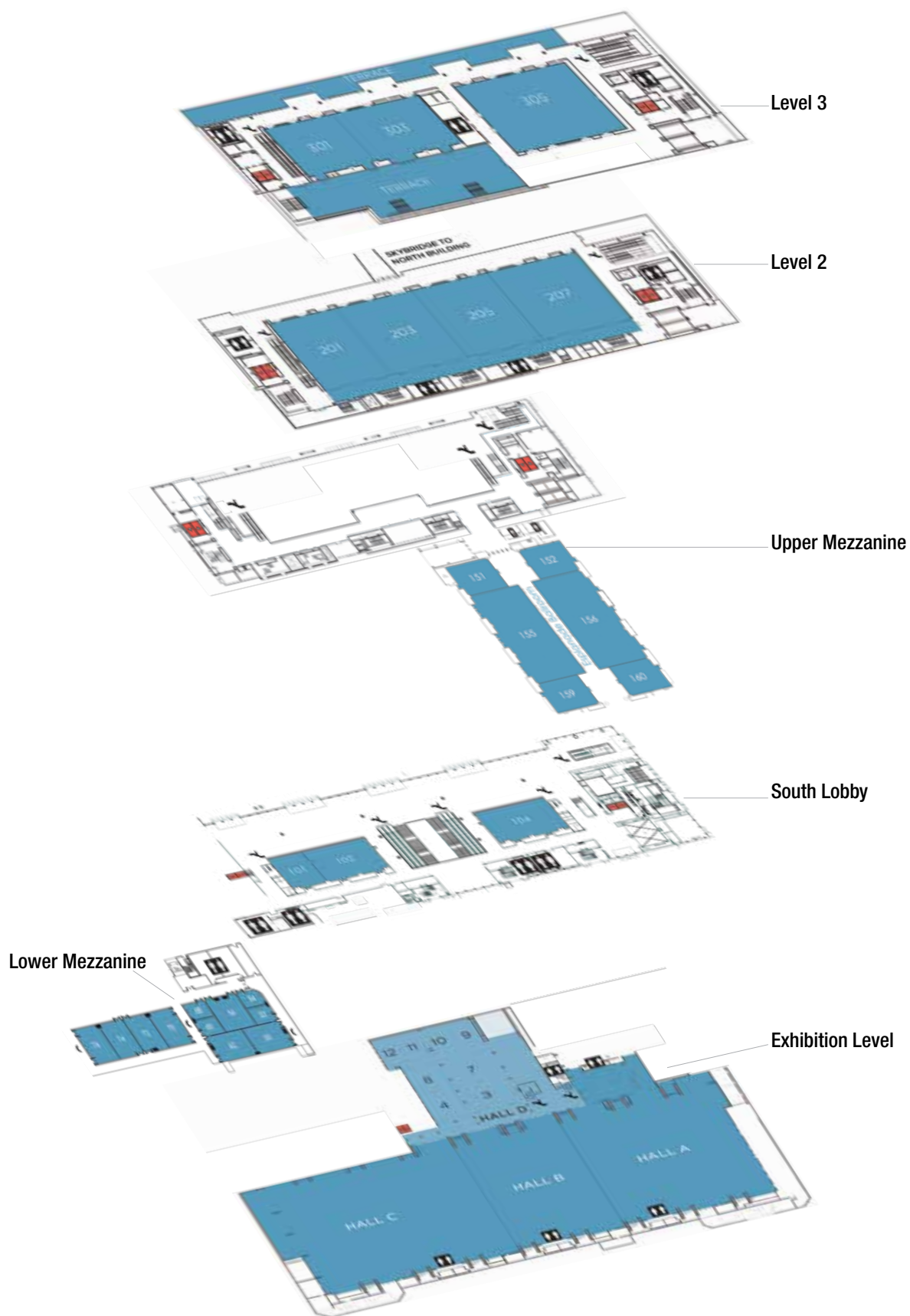
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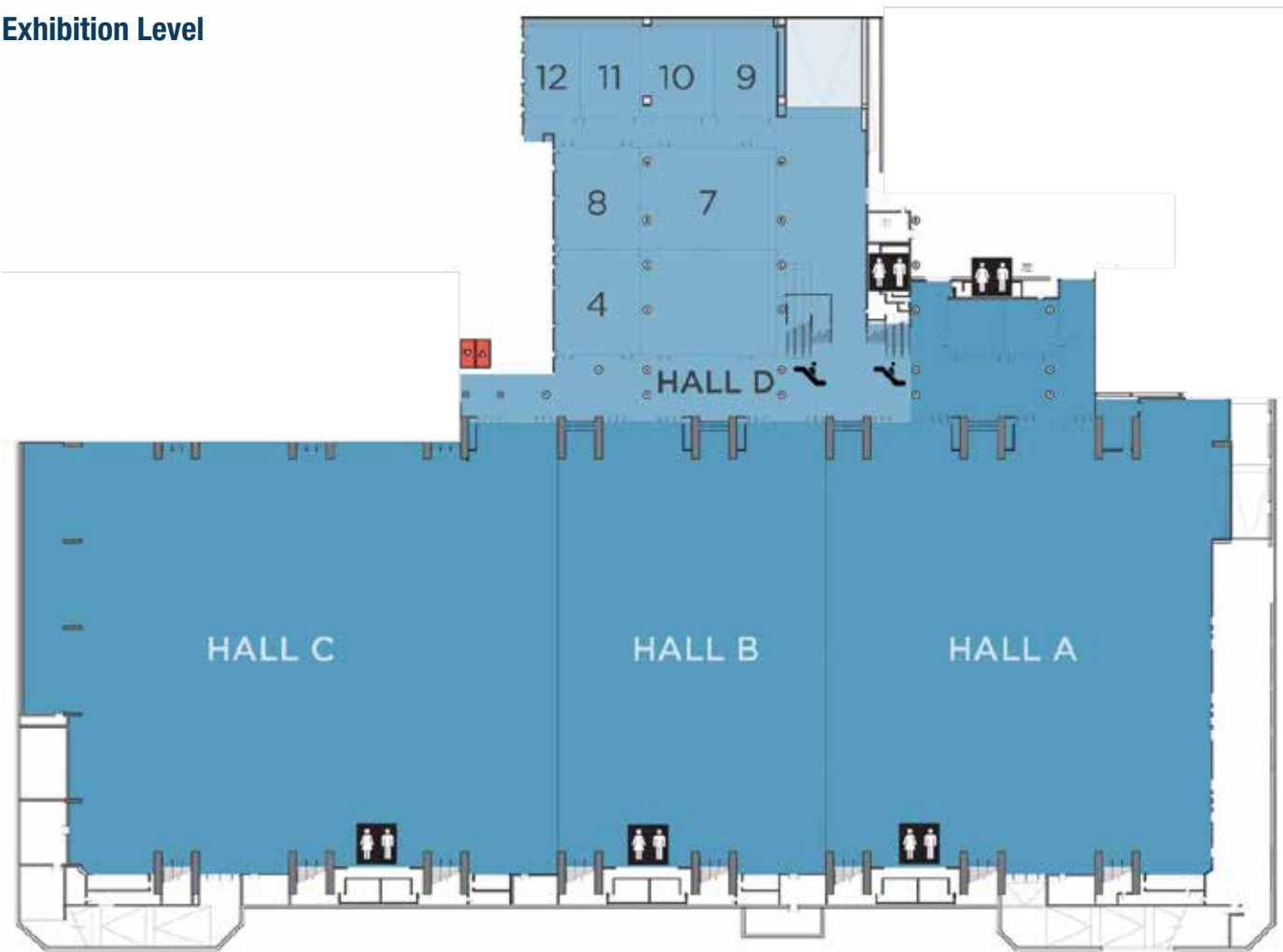


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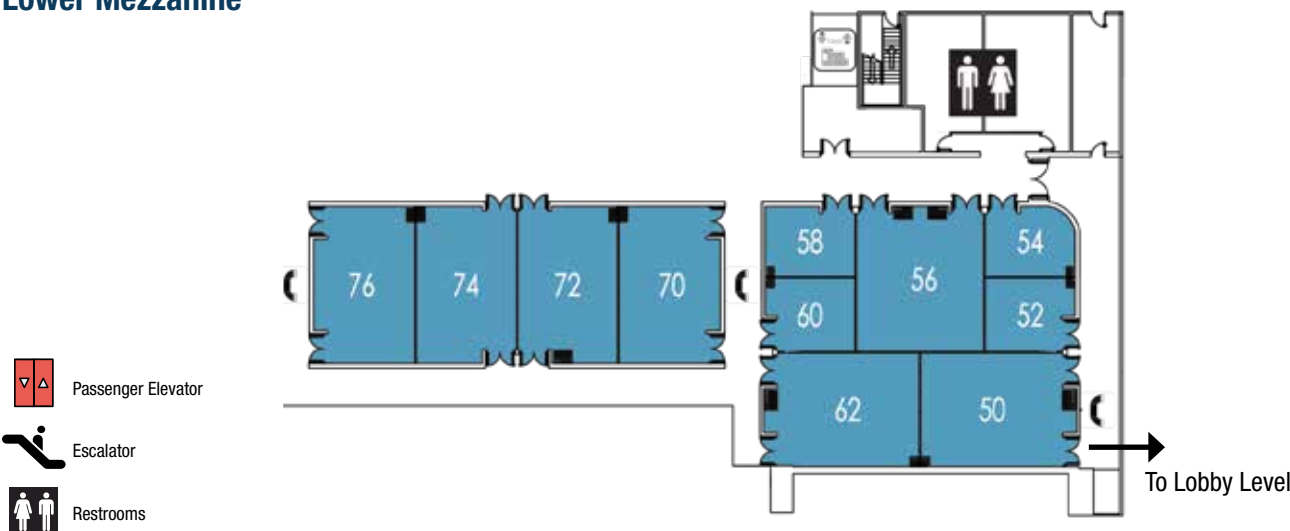


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Exhibition Level



Lower Mezzanine

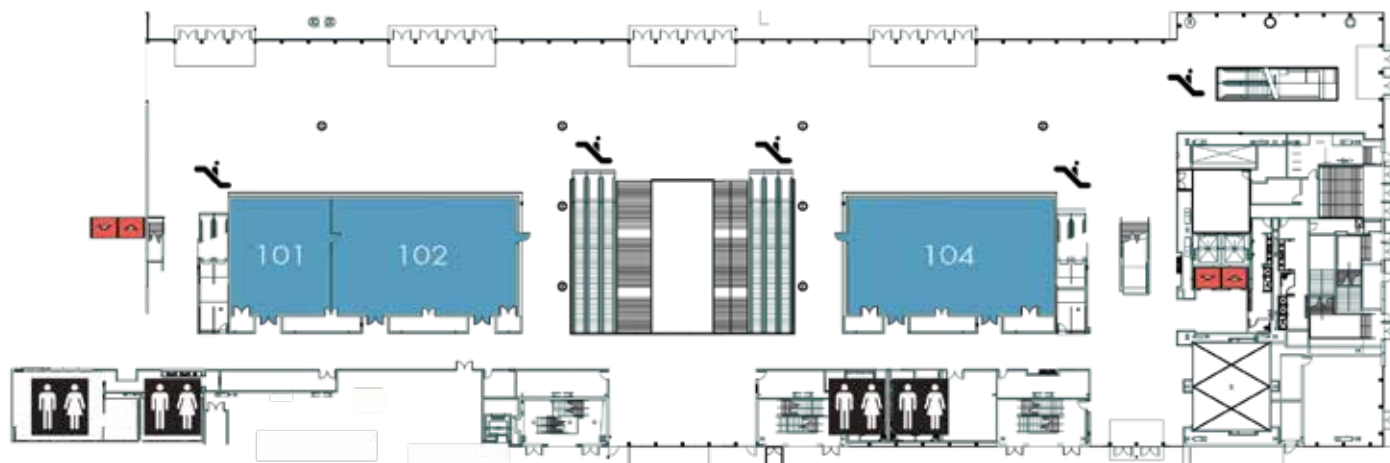


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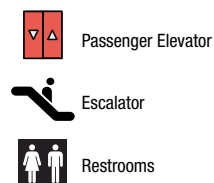
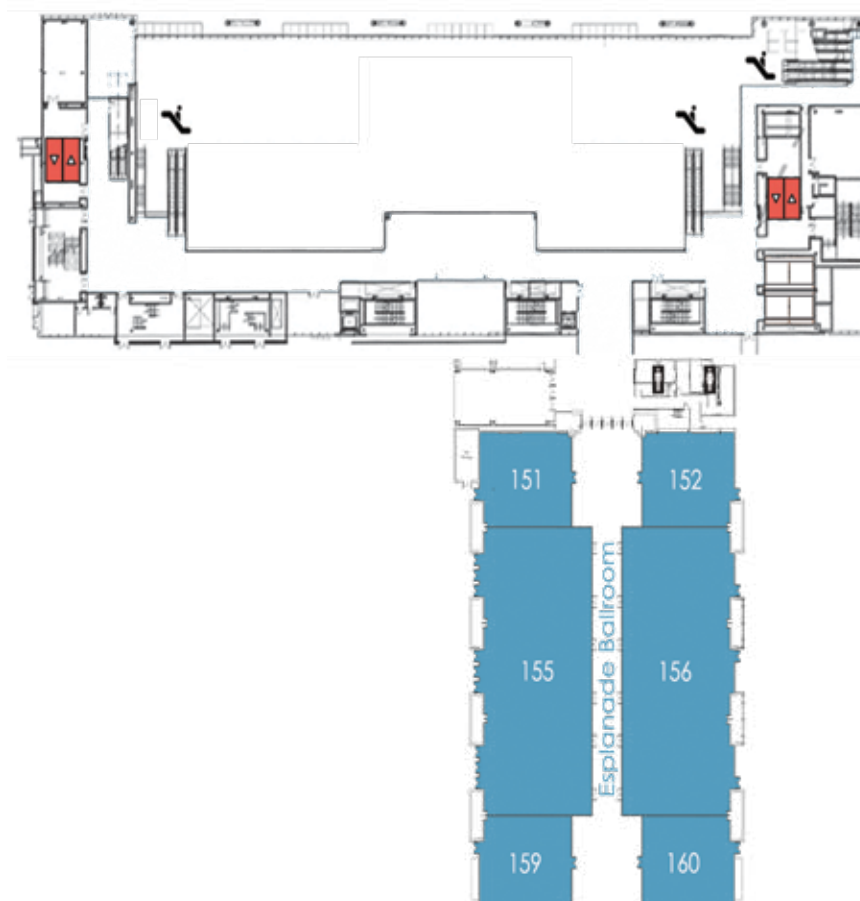


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Lobby Level



Upper Mezzanine

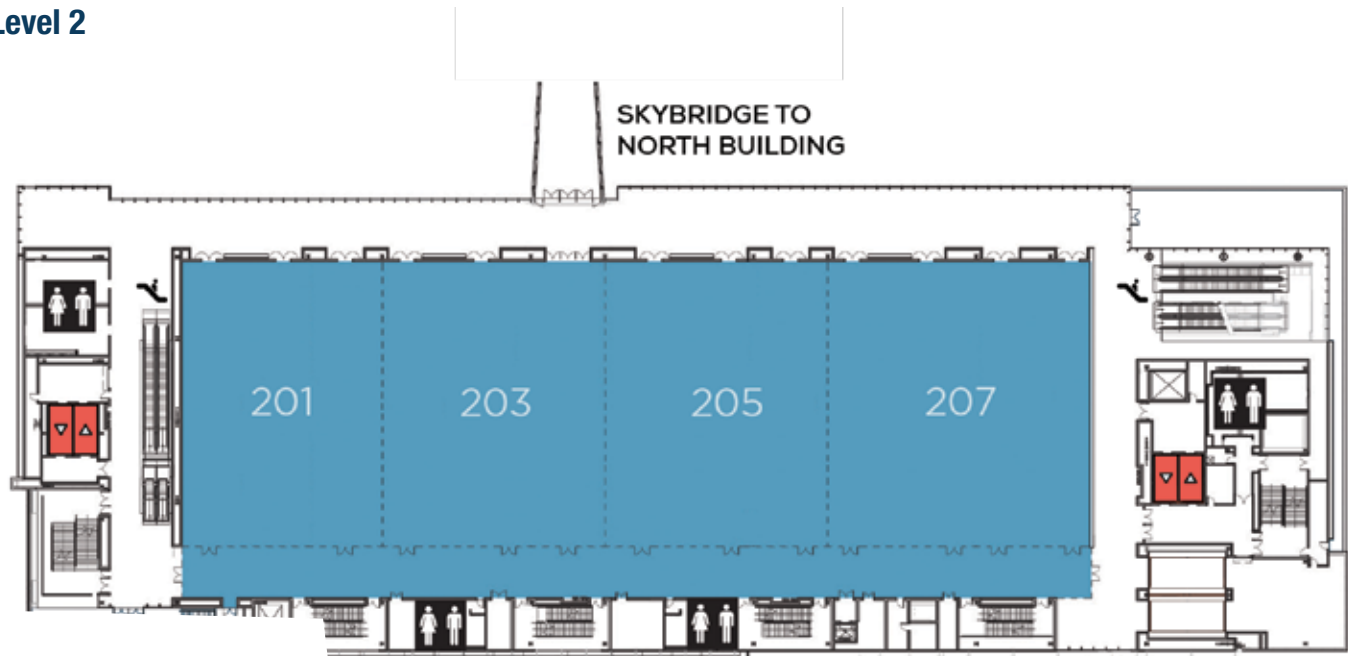


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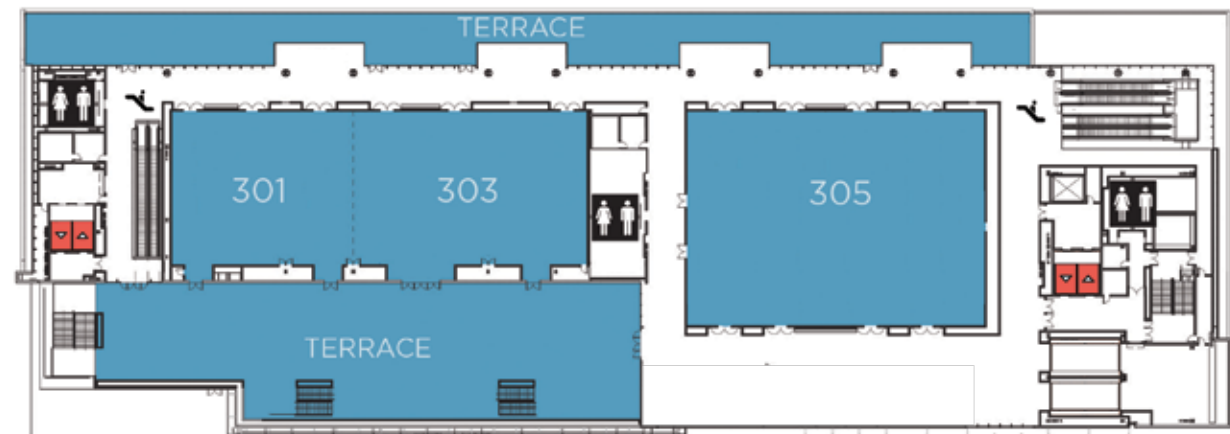


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Level 2



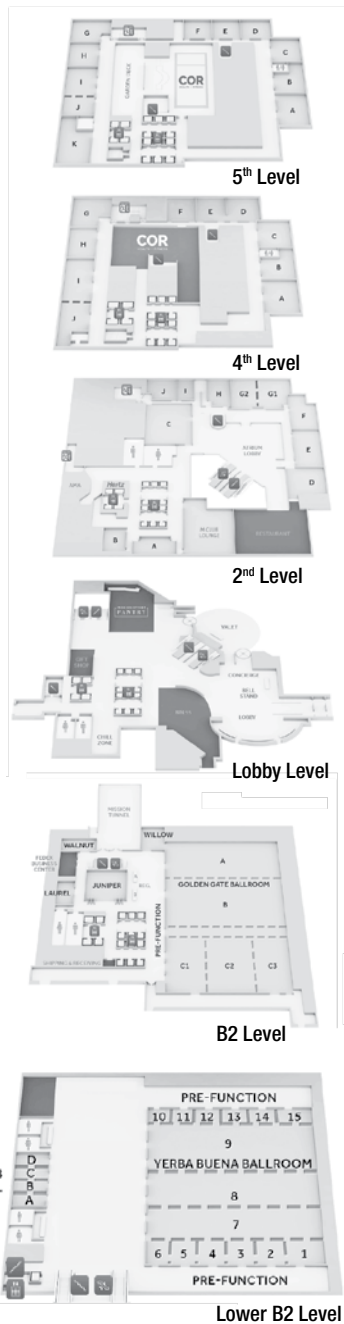
Level 3



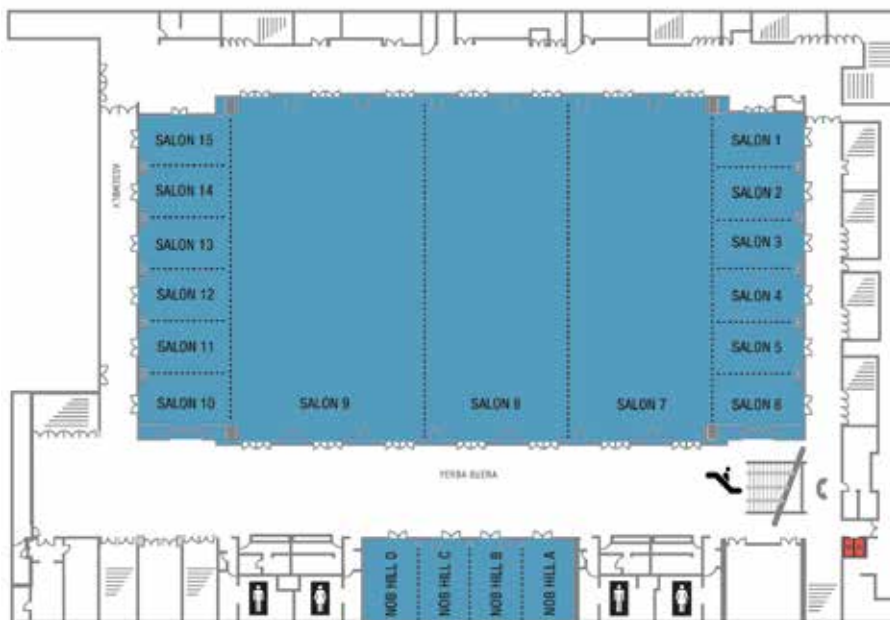
San Francisco Marriott Marquis Floor Plan



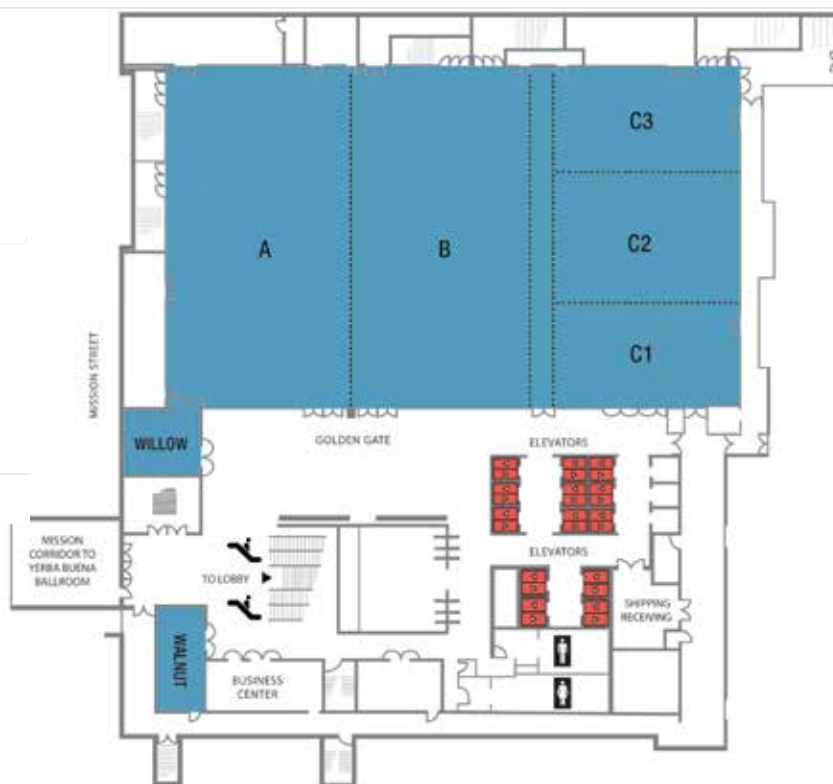
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Lower B2 Level



B2 Level

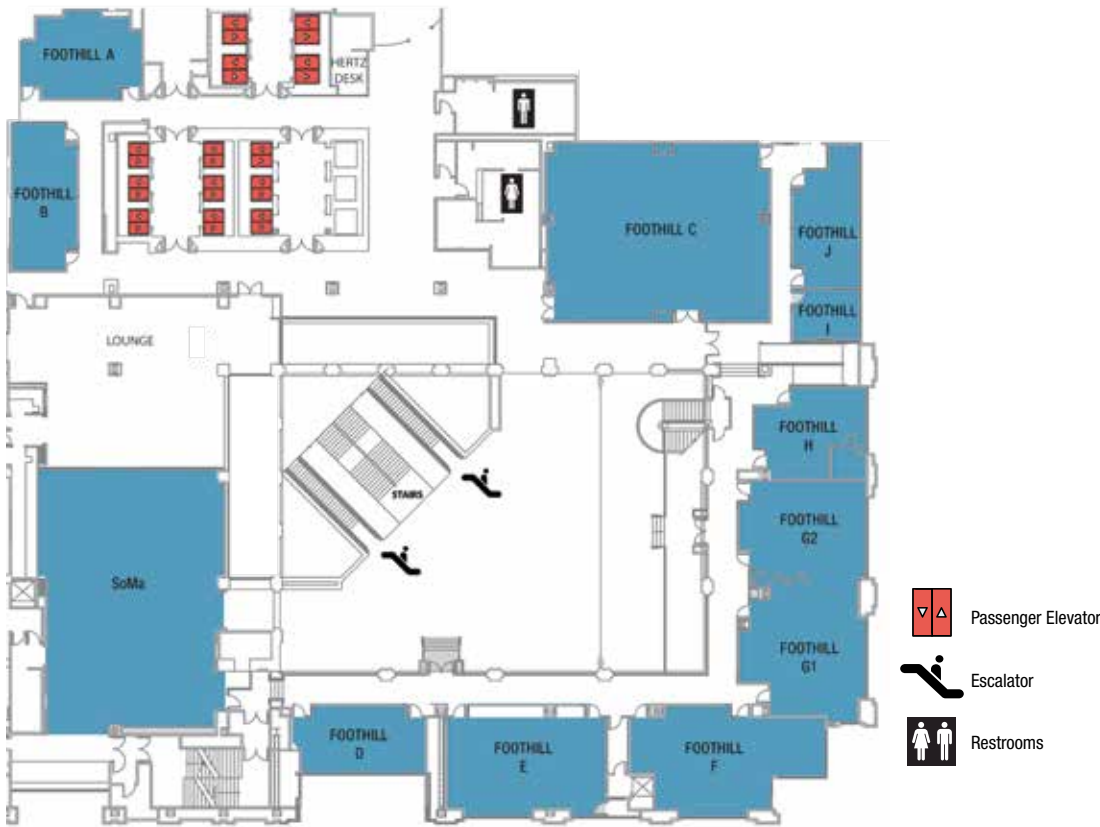


San Francisco Marriott Marquis Floor Plan



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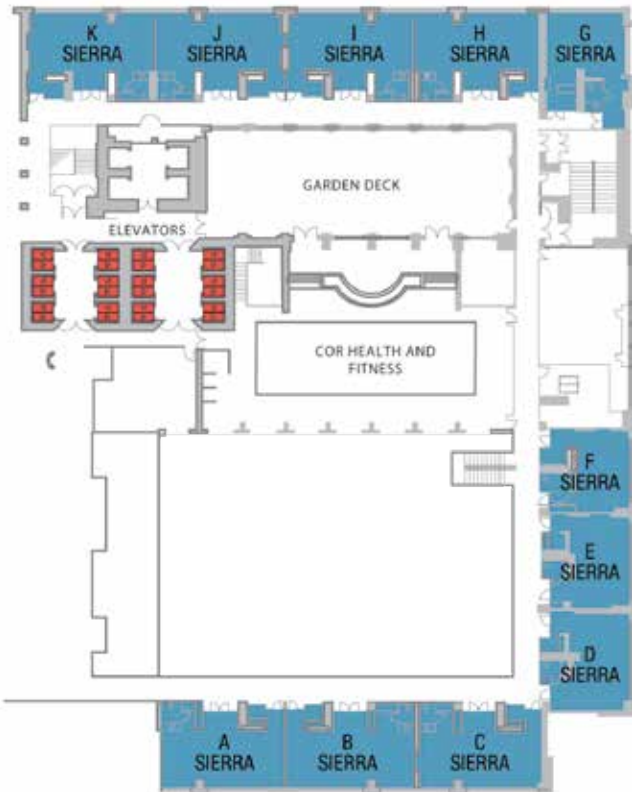
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Level 4



Level 5



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E

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 Epstein, Tolly, MD FAAAAI, Indianapolis, IN, USA - 1207, 2807, 3601, 4001
 Erickson, Kristin A., Chicago, IL, USA - 2607

F

Farber, Donna L., PhD, New York, NY, USA - 3309
 Farooqui, Nabeel, MD FAAAAI, Indianapolis, IN, USA - 2501
 Fasano, Mary Beth, MD FAAAAI, Iowa City, IA, USA - 1110
 Federman, Alex, MD MPH, New York, NY, USA - 4302
 Feuille, Elizabeth J., MD, New York, NY, USA - 2505
 Fiocchi, Alessandro G., MD FAAAAI, Cassano, D'Adda, Italy - 4602
 Fishman, Jennifer, RN, New York, NY, USA - 1102
 Fitzpatrick, Anne M., PhD, Atlanta, GA, USA - 1515
 Fleischer, David M., MD FAAAAI, Aurora, CO, USA - 1210, 2309
 Fleisher, Thomas A., MD FAAAAI, Washington, USA - 1050
 Fonacier, Luz S., MD FAAAAI, Mineola, NY, USA - 2303
 Forbes, Lisa R., MD, Houston, TX - 2801, 3301
 Fox, Charity C., MD FAAAAI, Columbus, OH, USA - 1502
 Freeman, Theodore, M., MD FAAAAI, Helotes, TX - 2802
 Freiler, John F., MD FAAAAI, Lackland AFB, TX, USA - 0001
 Fulkerson, Patricia C., MD PhD, Cincinnati, OH, USA - 3503

G

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 Gagen-Hursey, Terri, NP, Baltimore, MD, USA - 2613
 Geha, Raif S., MD FAAAAI, Boston, MA, USA - 3101
 George, Maureen, PhD RN AE-C, New York, NY, USA - 2101
 Gergen, Peter J., MD MPH, Rockville, MD, USA - 2556
 Gern, James E., MD FAAAAI, Madison, WI, USA - 1205, 2556, 4301
 Gill, Michelle A., MD PhD, Dallas, TX, USA - 2306, 3309
 Gold, Diane R., MD MPH, Boston, MA, USA - 2308
 Golden, David BK, MD FAAAAI, Baltimore, MD, USA - 2502, 2810, 4714
 Gorska, Magdalena M., MD PhD FAAAAI, Denver, CO, USA - 2721
 Graham, Emily L., RHIA CCS-P, Washington, DC, USA - 2805, 3009
 Grayson, Mitchell H., MD FAAAAI, Columbus, OH, USA - 2405, 2802
 Green, Brett J., PhD FAAAAI, Morgantown, WV, USA - 1805
 Green, Todd David, MD FAAAAI, Summit, NJ, USA - 1513
 Greenberger, Paul A., MD FAAAAI, Chicago, IL, USA - 4711
 Greenhawt, Matthew J., MD MBA MSc, Aurora, CO, USA - 1201, 2309
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Grieb, Alegra, MD, New Orleans, LA, USA - 2557
 Groetch, Marion E., MS RDN, New York, NY, USA - 1101, 2402, 4003
 Guo, Canting, MD, Chicago, IL, USA - 3557
 Gupta, Malika, MD, Ann Arbor, MI, USA - 2402
 Gupta, Ruchi S., MD MPH, Chicago, IL - 2605
 Guttman-Yassky, Emma, MD PhD, New York, NY, USA - 2806, 4101

H

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 Hagan, John B., MD FAAAAI, Rochester, MN, USA - 1208, 4605
 Hamilos, Daniel L., MD FAAAAI, Boston, MA, USA - 4010
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 Heimall, Jennifer, MD, Philadelphia, PA, USA - 3010
 Hellings, Peter W., MD PhD, Leuven, Belgium - 3303
 Henrickson, Sarah E., MD PhD, Philadelphia, PA, USA - 4307
 Herbert, Linda, PhD, Washington, DC, USA - 1513, 1810
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 Hernandez-Trujillo, Vivian P., MD FAAAAI, Pembroke Pines, FL - 1001, 2611
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 Hinks, Timothy SC, MD PhD, Oxford, United Kingdom - 2808
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 Hourihane, Jonathan O'B., MD FAAAAI, Cork, Ireland - 1210
 Howell, Michael D., PhD, Wilmington, DE, USA - 4305
 Hoy, Ryan F., MBBS MOCEnvHlth, Malvern, Australia - 4713
 Huang, Yvonne, MD, Ann Arbor, MI, USA - 1205
 Hulse, Kathryn E., PhD, Chicago, IL, USA - 2804
 Humbles, Alison A., PhD, Cambridge, United Kingdom - 3554
 Huston, David P., MD FAAAAI, Houston, TX, USA - 2510

I

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 Johnson, Christine Cole, PhD MPH FAAAAI - 2556
 Johnson, Jacqueline, DrPH - 2608
 Johnston, Douglas T., DO FAAAAI, Charlotte, NC, USA - 3506
 Jones, Bridgette L., MD FAAAAI, Kansas City, MO, USA - 2601
 Jones, Stacie M., MD, Little Rock, AR, USA - 2309, 3550

K

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 Kato, Atsushi, PhD, Chicago, IL, USA - 1521, 2553
 Kato, Yukinori, MD PhD, Fukui, Japan - 2606

Kattan, Jacob D., MD, New York, NY, USA - 2005, 2402
 Keet, Corinne, MD MS PhD, Baltimore, MD, USA - 1806, 2806
 Kelso, John M., MD FAAAAI, San Diego, CA, USA - 0601
 Kennedy, Joshua L., MD, Little Rock, AR, USA - 1205
 Kennedy, Katie, MD, Philadelphia, PA, USA - 2557, 2602
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 Kita, Hirohito, MD, Rochester, MN, USA - 2553, 3607
 Kleine-Tebbe, Jörg R., MD FAAAAI, Berlin, Germany - 2009, 4714
 Klion, Amy D., MD, Bethesda, MD, USA - 1050, 2504
 Kloepper, Kirsten M., MD MS, Indianapolis, IN, USA - 1205, 1515
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 Korenblat-Hanin, Melissa T., ACSW LCSW, Saint Louis, MO, USA - 3310
 Kottyan, Leah Claire Nesbitt, PhD, Cincinnati, OH, USA - 1206, 1512, 3007
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 Kronisch, Lauren, RD LD, Houston, TX, USA - 2402, 3005
 Kumanovics, Attila, MD, Salt Lake City, UT, USA - 4009
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 Kwiat, Carolyn, MD MPH, Sunfield, CT, USA - 2602

L

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 Lang, David M., MD FAAAAI, Cleveland, OH - 1807
 Larenas Linnemann, Desiree E.S., MD FAAAAI, Mexico D.F., Mexico - 2810, 3552
 LaVange, Lisa, PhD, Chapel Hill, NC, USA - 2555
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 Lee, Joohee, MD, Silver Spring, MD, USA - 4711
 Lee, Rachel Umi, MD FAAAAI, San Diego, CA, USA - 0001
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 Lemanske, Jr., Robert F., MD FAAAAI, Madison, WI, USA - 4303
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 Lieberman, Phillip L., MD FAAAAI, Memphis, TN, USA - 1201
 Liu, Andrew H., MD FAAAAI, Aurora, CO - 4301
 Louisias, Margee, MD MPH, Jamaica Plain, MA, USA - 1201
 Luengo, Olga, MD PhD, Barcelona, Spain - 4001
 Lyons, Jonathan J., MD, Bethesda, MD, USA - 4007
 Lynch, Susan V., PhD, San Francisco, CA, USA - 3703

M

Maes, Tania, PhD, Ghent, Belgium - 1517
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Mudd, Kim E., RN MSN, Baltimore, MD, USA - 1810, 2402, 2411, 2614
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Oude Elberink, Hanneke, MD PhD, Groningen, Netherlands - 2810

P

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Persily, Jesse B., BA, New York, NY, USA - 2411
Perzanowski, Matthew S., PhD, New York, NY, USA - 2603
Peter, Jonathan G., MD PhD, Cape Town, South Africa - 3308
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Peters, Rachel, PhD, Parkville, Australia - 2608
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Pongdee, Thanai, MD FAAAAI, Rochester, MN, USA - 2608
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Poole, Jill A., MD FAAAAI, Omaha, NE, USA - 1802, 2721
Portnoy, Jay M., MD FAAAAI, Kansas City, MO, USA - 2551, 3004, 3606, 4712
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Quirce, Santiago, MD PhD, Madrid, Spain - 2507

R

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Rachid, Rima A., MD FAAAAI, Boston, MA, USA - 4304
Radinger, Madeleine, PhD, Gothenburg, Sweden - 1517
Rajani, Puja Sood, MD, Rochester, NY, USA - 4003
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Rand, Cynthia S., PhD, Baltimore, MD, USA - 1208
Randolph, Christopher C., MD FAAAAI, Waterbury, CT, USA - 2803



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 Risma, Kimberly A., MD PhD FAAAAI, Cincinnati, OH, USA - 3553, 3604
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 Ryu, Gwanghui - 2606

S

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 Schroer, Brian C., MD, Cleveland, OH, USA - 2010
 Schussler, Edith, MD, New York, NY - 1201
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 Shepard, Kirk V., MD, Tampa, FL, USA - 2601
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 Smith, Neal P., Boston, MA, USA - 2604
 Smith, Scott A., MD PhD, Nashville, TN, USA - 1803
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 Solensky, Roland, MD FAAAAI, Corvallis, OR - 2004
 Soller, Lianne, PhD, Vancouver, BC, Canada - 2605
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W

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Waibel, Kirk H., MD FAAAAI, San Antonio, TX, USA - 0001
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Wambre, Erik R., PhD MBE, Seattle, WA, USA - 1209, 1211, 2306
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Waserman, Susan, MD MSc FAAAAI, Hamilton, ON, Canada - 1514, 2604
Wasserman, Richard L., MD PhD FAAAAI, Dallas, TX, USA - 3550
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Weiler, Catherine Randa, MD PhD FAAAAI - 2552
Weiler, John M., MD FAAAAI, Iowa City, IA, USA - 4004
Weinstein, Andrew G., MD FAAAAI, Wilmington, DE, USA - 1208
Weirauch, Matthew T., PhD, Cincinnati, OH, USA - 1512
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Wright, Rosalind J., MD MPH, New York, NY, USA - 2555

Y

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Adherence: 2804, 3007

Aerobiology: 0201, 0601

Airborne Allergens, Environmental Exposure Assessment and Abatement/ Environmental Controls/ Environmental Issues/ Allergen Avoidance: 4809

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DUPIXENT[®] 
(dupilumab) Injection 300mg

**WHEN TOPICAL
Rx THERAPIES
ARE NOT ENOUGH...**

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, rash, erythema nodosum, anaphylaxis and serum sickness or serum sickness-like reactions, were reported in <1% of subjects who received DUPIXENT in clinical trials. If a clinically significant hypersensitivity reaction occurs, institute appropriate therapy and discontinue DUPIXENT.

Conjunctivitis and Keratitis: Conjunctivitis and keratitis occurred more frequently in atopic dermatitis subjects who received DUPIXENT. Conjunctivitis was the most frequently reported eye disorder in these patients. Advise patients to report new onset or worsening eye symptoms to their healthcare provider.

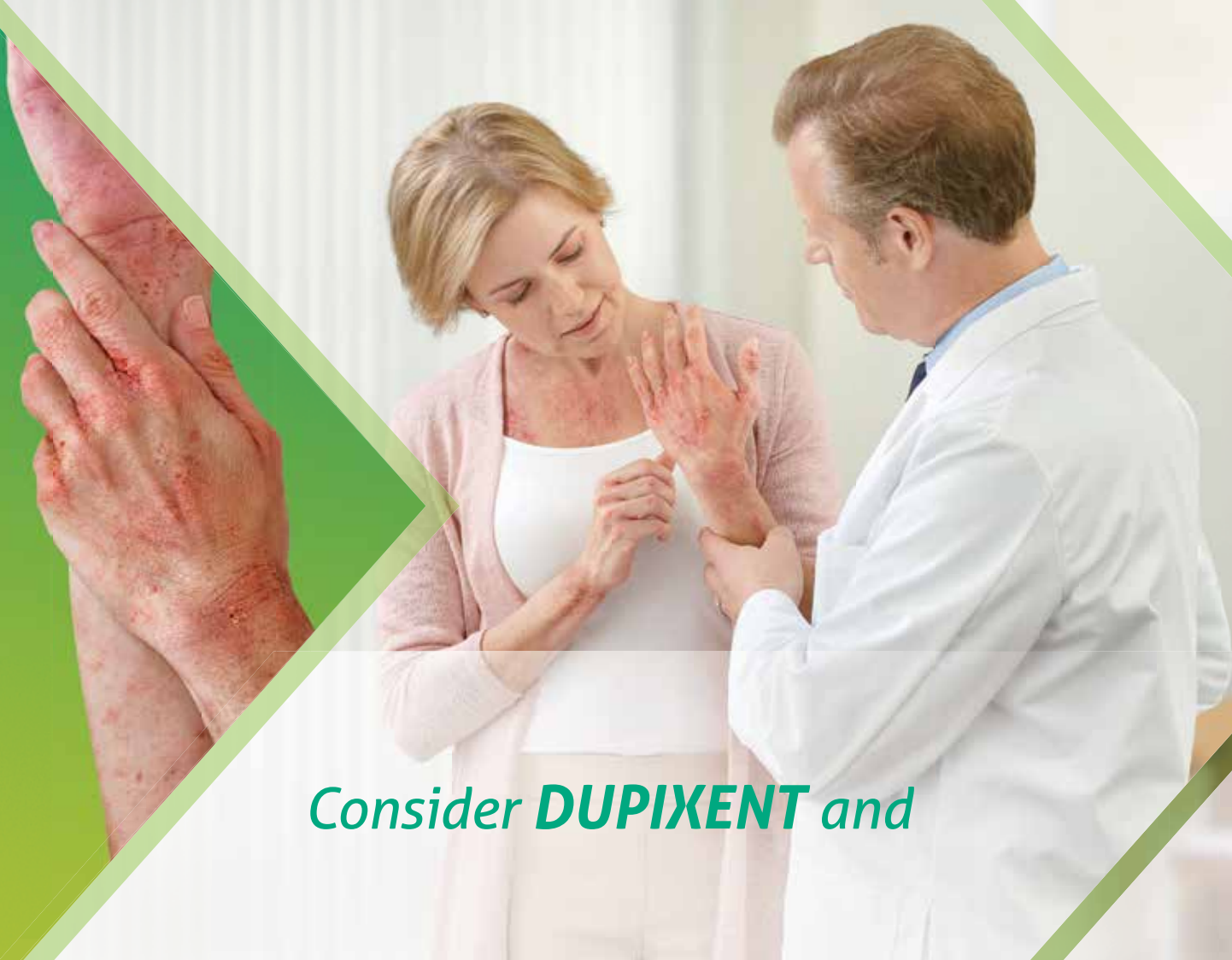
Reduction of Corticosteroid Dosage: Do not discontinue systemic, topical or inhaled corticosteroids abruptly upon initiation with DUPIXENT. Reductions in corticosteroid dose, if appropriate, should be gradual and performed under the direct supervision of a physician. Reduction in corticosteroid dose may be associated with systemic withdrawal symptoms and/or unmask conditions previously suppressed by systemic corticosteroid therapy.

Atopic Dermatitis Patients with Comorbid Asthma: Advise patients not to adjust or stop their asthma treatments without consultation with their physicians.

Parasitic (Helminth) Infections: It is unknown if DUPIXENT will influence the immune response against helminth infections. Treat patients with pre-existing helminth infections before initiating therapy with DUPIXENT. If patients become infected while receiving treatment with DUPIXENT and do not respond to anti-helminth treatment, discontinue treatment with DUPIXENT until the infection resolves.

ADVERSE REACTIONS: The most common adverse reactions (incidence >1%) in atopic dermatitis patients are injection site reactions, conjunctivitis, blepharitis, oral herpes, keratitis, eye pruritus, other herpes simplex virus infection, and dry eye.

Please see additional Important Safety Information and brief summary of full Prescribing Information on the following pages.



Consider **DUPIXENT** and

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 prescription treatments were randomized to DUPIXENT 300 mg Q2W or placebo. For all patients in Trial 3, lesions were treated with concomitant TCS. Eligible patients had an IGA score ≥ 3 (overall atopic dermatitis lesion severity scale of 0 to 4), an EASI score ≥ 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 10.¹

The primary endpoint was the change from baseline in the proportion of subjects with an IGA 0 (clear) or 1 (almost clear) and ≥ 2 -point improvement at Week 16 (38% and 36% with DUPIXENT vs 10% and 9% with placebo in Trials 1 and 2, respectively, $P < 0.001$; 39% with DUPIXENT + TCS vs 12% with placebo + TCS in Trial 3, $P < 0.0001$). Other endpoints included the proportion of subjects with an IGA 0 or 1 and ≥ 2 -point improvement from baseline at Week 52 in Trial 3 (36% with DUPIXENT + TCS vs 13% with placebo + TCS, $P < 0.0001$), change from baseline in the proportion of subjects with EASI-75 at Week 16 (improvement of $\geq 75\%$; 51% and 44% with DUPIXENT vs 15% and 12% with placebo in Trials 1 and 2, respectively, $P < 0.001$), and reduction in itch as defined by ≥ 4 -point improvement in the peak pruritus NRS (51% with DUPIXENT + TCS vs 13% with placebo + TCS in Trial 3 at Week 52, $P < 0.0001$).¹⁻⁴

EASI, Eczema Area and Severity Index; IGA, Investigator's Global Assessment; NRS, numerical rating scale; Q2W, once every 2 weeks; TCS, topical corticosteroids.

IMPORTANT SAFETY INFORMATION

DRUG INTERACTIONS: Avoid use of live vaccines in patients treated with DUPIXENT.

USE IN SPECIFIC POPULATIONS

- **Pregnancy:** Available data from case reports and case series with DUPIXENT use in pregnant women have not identified a drug-associated risk of major birth defects, miscarriage or adverse maternal or fetal outcomes. Human IgG antibodies are known to cross the placental barrier; therefore, DUPIXENT may be transmitted from the mother to the developing fetus.



see the evidence of continuous

CONTROL

Not a clinical trial patient. Images represent an EASI-75 response.

See DUPIXENT clinical study responses in the full Prescribing Information. Individual patient responses may vary.

» Itch relief¹

» Improvement in lesion extent and severity¹

» Clear or almost-clear skin¹

» No requirement for initial lab testing or ongoing lab monitoring, according to the full Prescribing Information¹

IMPORTANT SAFETY INFORMATION

USE IN SPECIFIC POPULATIONS (cont'd)

- **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. Maternal 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.

VISIT [DUIXENTHCP.COM/ATOPICDERMATITIS](https://www.dupilumab.com/atopicdermatitis) TO LEARN MORE

References: 1. DUPIXENT Prescribing Information. October 2018. 2. Simpson EL, Bieber T, Guttman-Yassky E, et al; SOLO 1 and SOLO 2 Investigators. Two phase 3 trials of dupilumab versus placebo in atopic dermatitis. *N Engl J Med.* 2016;375(24):2335-2348. 3. Blauvelt A, de Bruin-Weller M, Gooderham M, et al. Long-term management of moderate-to-severe atopic dermatitis with dupilumab and concomitant topical corticosteroids (Liberty AD Chronos): a 1-year, randomised, double-blinded, placebo-controlled, phase 3 trial. *Lancet.* 2017;389(10086):2287-2303. 4. Data on file, Regeneron Pharmaceuticals, Inc.

DUPIXENT[®] 
(dupilumab) Injection 300mg
CONTINUOUS CONTROL

1 INDICATIONS AND USAGE

1.1 Atopic Dermatitis

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. DUXIPENT can be used with or without topical corticosteroids.

1.2 Asthma

DUPIXENT is indicated as an add-on maintenance treatment in patients with moderate-to-severe asthma aged 12 years and older with an eosinophilic phenotype or with oral corticosteroid dependent asthma.

Limitation of Use

DUPIXENT is not indicated for the relief of acute bronchospasm or status asthmaticus.

4 CONTRAINDICATIONS

DUPIXENT is contraindicated in patients who have known hypersensitivity to dupilumab or any of its excipients [see *Warnings and Precautions* (5.1)].

5 WARNINGS AND PRECAUTIONS

5.1 Hypersensitivity

Hypersensitivity reactions, including generalized urticaria, rash, erythema nodosum and serum sickness or serum sickness-like reactions, were reported in less than 1% of subjects who received DUXIPENT in clinical trials. Two subjects in the atopic dermatitis development program experienced serum sickness or serum sickness-like reactions that were associated with high titers of antibodies to dupilumab. One subject in the asthma development program experienced anaphylaxis [see *Adverse Reactions* (6.2)]. If a clinically significant hypersensitivity reaction occurs, institute appropriate therapy and discontinue DUXIPENT [see *Adverse Reactions* (6.1, 6.2)].

5.2 Conjunctivitis and Keratitis

Conjunctivitis and keratitis occurred more frequently in atopic dermatitis subjects who received DUXIPENT. Conjunctivitis was the most frequently reported eye disorder. Most subjects with conjunctivitis recovered or were recovering during the treatment period. Among asthma subjects the frequency of conjunctivitis was similar between DUXIPENT and placebo [see *Adverse Reactions* (6.1)]. Keratitis was reported in <1% of the DUXIPENT group (1 per 100 subject-years) and in 0% of the placebo group (0 per 100 subject-years) in the 16-week atopic dermatitis monotherapy trials. In the 52-week DUXIPENT + topical corticosteroids (TCS) atopic dermatitis trial, keratitis was reported in 4% of the DUXIPENT + TCS group (12 per 100 subject-years) and in 0% of the placebo + TCS group (0 per 100 subject-years). Most subjects with keratitis recovered or were recovering during the treatment period. Among asthma subjects the frequency of keratitis was similar between DUXIPENT and placebo [see *Adverse Reactions* (6.1)]. Advise patients to report new onset or worsening eye symptoms to their healthcare provider.

5.3 Eosinophilic Conditions

Patients being treated for asthma may present with serious systemic eosinophilia sometimes presenting with clinical features of eosinophilic pneumonia or vasculitis consistent with eosinophilic granulomatosis with polyangiitis, conditions which are often treated with systemic corticosteroid therapy. These events may be associated with the reduction of oral corticosteroid therapy. Physicians should be alert to vasculitic rash, worsening pulmonary symptoms, cardiac complications, and/or neuropathy presenting in their patients with eosinophilia. Cases of eosinophilic pneumonia and cases of vasculitis consistent with eosinophilic granulomatosis with polyangiitis have been reported with DUXIPENT in adult patients who participated in the asthma development program. A causal association between DUXIPENT and these conditions has not been established.

5.4 Acute Asthma Symptoms or Deteriorating Disease

DUPIXENT should not be used to treat acute asthma symptoms or acute exacerbations. Do not use DUXIPENT to treat acute bronchospasm or status asthmaticus. Patients should seek medical advice if their asthma remains uncontrolled or worsens after initiation of treatment with DUXIPENT.

5.5 Reduction of Corticosteroid Dosage

Do not discontinue systemic, topical, or inhaled corticosteroids abruptly upon initiation of therapy with DUXIPENT. Reductions in corticosteroid dose, if appropriate, should be gradual and performed under the direct supervision of a physician. Reduction in corticosteroid dose may be associated with systemic withdrawal symptoms and/or unmask conditions previously suppressed by systemic corticosteroid therapy.

5.6 Atopic Dermatitis Patients with Comorbid Asthma

Advise atopic dermatitis patients with comorbid asthma not to adjust or stop their asthma treatments without consultation with their physicians.

5.7 Parasitic (Helminth) Infections

Patients with known helminth infections were excluded from participation in clinical studies. It is unknown if DUXIPENT will influence the immune response against helminth infections. Treat patients with pre-existing helminth infections before initiating therapy with DUXIPENT. If patients become infected while receiving treatment with DUXIPENT and do not respond to antihelminth treatment, discontinue treatment with DUXIPENT until the infection resolves.

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)]

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

Atopic Dermatitis

Three randomized, double-blind, placebo-controlled, multicenter trials (Trials 1, 2, and 3) and one dose-ranging trial (Trial 4) evaluated the safety of DUXIPENT 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, 1472 subjects were treated with subcutaneous injections of DUXIPENT, with or without concomitant topical corticosteroids (TCS).

A total of 739 subjects were treated with DUXIPENT for at least 1 year in the development program for moderate-to-severe atopic dermatitis.

Trials 1, 2, and 4 compared the safety of DUXIPENT monotherapy to placebo through Week 16. Trial 3 compared the safety of DUXIPENT plus TCS to placebo plus TCS through Week 52.

Weeks 0 to 16 (Trials 1 to 4):

In DUXIPENT 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 DUXIPENT 300 mg Q2W and placebo groups.

Table 1 summarizes the adverse reactions that occurred at a rate of at least 1% in the DUXIPENT 300 mg Q2W monotherapy groups, and in the DUXIPENT + TCS group, all at a higher rate than in their respective comparator groups during the first 16 weeks of treatment.

Table 1: Adverse Reactions Occurring in ≥1% of the DUXIPENT Monotherapy Group or the DUXIPENT + TCS Group in the Atopic Dermatitis Trials through Week 16

Adverse Reaction	DUPIXENT Monotherapy ^a		DUPIXENT + TCS ^b	
	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)

^aPooled analysis of Trials 1, 2, and 4

^bAnalysis of Trial 3 where subjects were on background TCS therapy

^cDUPIXENT 600 mg at Week 0, followed by 300 mg every two weeks

^dConjunctivitis cluster includes conjunctivitis, allergic conjunctivitis, bacterial conjunctivitis, viral conjunctivitis, giant papillary conjunctivitis, eye irritation, and eye inflammation.

^eKeratitis cluster includes keratitis, ulcerative keratitis, allergic keratitis, atopic keratoconjunctivitis, and ophthalmic herpes simplex.

^fOther 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 DUXIPENT with concomitant TCS trial (Trial 3) through Week 52, the proportion of subjects who discontinued treatment because of adverse events was 1.8% in DUXIPENT 300 mg Q2W + TCS group and 7.6% in the placebo + TCS group. Two subjects discontinued DUXIPENT because of adverse reactions: atopic dermatitis (1 subject) and exfoliative dermatitis (1 subject). The safety profile of DUXIPENT + TCS through Week 52 was generally consistent with the safety profile observed at Week 16.

Asthma

A total of 2888 adult and adolescent subjects with moderate-to-severe asthma (AS) were evaluated in 3 randomized, placebo-controlled, multicenter trials of 24 to 52 weeks duration (AS Trials 1, 2, and 3). Of these, 2678 had a history of 1 or more severe exacerbations in the year prior to enrollment despite regular use of medium- to high-dose inhaled corticosteroids plus an additional controller(s) (AS Trials 1 and 2). A total of 210 subjects with oral corticosteroid-dependent asthma receiving high-dose inhaled corticosteroids plus up to two additional controllers were enrolled (AS Trial 3). The safety population (AS Trials 1 and 2) was 12-87 years of age, of which 63% were female, and 82% were white. DUXIPENT 200 mg or 300 mg was administered subcutaneously Q2W, following an initial dose of 400 mg or 600 mg, respectively.

In AS Trials 1 and 2, the proportion of subjects who discontinued treatment due to adverse events was 4% of the placebo group, 3% of the DUXIPENT 200 mg Q2W group, and 6% of the DUXIPENT 300 mg Q2W group.

Table 2 summarizes the adverse reactions that occurred at a rate of at least 1% in subjects treated with DUXIPENT and at a higher rate than in their respective comparator groups in Asthma Trials 1 and 2.

Table 2: Adverse Reactions Occurring in ≥1% of the DUXIPENT Groups in Asthma Trials 1 and 2 and Greater than Placebo (6-Month Safety Pool)

Adverse Reaction	AS Trials 1 and 2		
	DUPIXENT 200 mg Q2W N=779 n (%)	DUPIXENT 300 mg Q2W N=788 n (%)	Placebo N=792 n (%)
Injection site reactions ^a	111 (14%)	144 (18%)	50 (6%)
Oropharyngeal pain	13 (2%)	19 (2%)	7 (1%)
Eosinophilia ^b	17 (2%)	16 (2%)	2 (<1%)

^aInjection site reactions cluster includes erythema, edema, pruritus, pain, and inflammation

^bEosinophilia = blood eosinophils ≥3,000 cells/mcL, or deemed by the investigator to be an adverse event. None met the criteria for serious eosinophilic conditions [see *Section 5.3 Warnings and Precautions*]

Injection site reactions were most common with the loading (initial) dose. The safety profile of DUXIPENT through Week 52 was generally consistent with the safety profile observed at Week 24.

Specific Adverse Reactions:

Conjunctivitis

During the 52-week treatment period of concomitant therapy trial (Trial 3), conjunctivitis was reported in 16% of the DUXIPENT + TCS group (20 per 100 subject-years) and in 9% of the placebo + TCS group (10 per 100 subject-years). Among asthma subjects, the frequency of conjunctivitis was similar between DUXIPENT and placebo [see *Warnings and Precautions* (5.2)].

Eczema Herpeticum and Herpes Zoster

The rate of eczema herpeticum was similar in the placebo and DUXIPENT groups in the atopic dermatitis trials. Herpes zoster was reported in <0.1% of the DUXIPENT groups (<1 per 100 subject-years) and in <1% of the placebo group (1 per 100 subject-years) in the 16-week atopic dermatitis monotherapy trials. In the 52-week DUXIPENT + TCS atopic dermatitis trial, herpes zoster was reported in 1% of the DUXIPENT + TCS group (1 per 100 subject-years) and 2% of the placebo + TCS group (2 per 100 subject-years). Among asthma subjects the frequency of herpes zoster was similar between DUXIPENT and placebo.

Hypersensitivity Reactions

Hypersensitivity reactions were reported in <1% of DUXIPENT-treated subjects. These included serum sickness reaction, serum sickness-like reaction, generalized urticaria, rash, erythema nodosum, and anaphylaxis [see *Contraindications* (4), *Warnings and Precautions* (5.1), and *Adverse Reactions* (6.2)].

Eosinophils

DUXIPENT-treated subjects had a greater initial increase from baseline in blood eosinophil count compared to subjects treated with placebo. In subjects with atopic dermatitis, the mean and median increases in blood eosinophils from baseline to Week 4 were 100 and 0 cells/mcL respectively. In subjects with asthma, the mean and median

increases in blood eosinophils from baseline to Week 4 were 130 and 10 cells/mcL respectively. The incidence of treatment-emergent eosinophilia (≥ 500 cells/mcL) was similar in DUPIXENT and placebo groups. Treatment-emergent eosinophilia ($\geq 5,000$ cells/mcL) was reported in <2% of DUPIXENT-treated patients and <0.5% in placebo-treated patients. Blood eosinophil counts declined to near baseline levels during study treatment [see *Warnings and Precautions* (5.3)].

Cardiovascular (CV)

In the 1-year placebo controlled trial in subjects with asthma (AS Trial 2), CV thromboembolic events (CV deaths, non-fatal myocardial infarctions [MI], and non-fatal strokes) were reported in 1 (0.2%) of the DUPIXENT 200 mg Q2W group, 4 (0.6%) of the DUPIXENT 300 mg Q2W group, and 2 (0.3%) of the placebo group.

In the 1-year placebo controlled trial in subjects with atopic dermatitis (Trial 3), CV thromboembolic events (CV deaths, non-fatal MIs, and non-fatal strokes) were reported in 1 (0.9%) of the DUPIXENT + TCS 300 mg Q2W group, 0 (0.0%) of the DUPIXENT + TCS 300 mg QW group, and 1 (0.3%) of the placebo + TCS group.

6.2 Immunogenicity

As with all therapeutic proteins, there is a potential for immunogenicity. 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 sample collection, concomitant medications, and underlying disease. For these reasons, comparison of the incidence of antibodies to dupilumab in the studies described below with the incidence of antibodies in other studies or to other products may be misleading.

Approximately 6% of subjects with atopic dermatitis or asthma who received DUPIXENT 300 mg Q2W for 52 weeks developed antibodies to dupilumab; ~2% exhibited persistent ADA responses and ~2% had neutralizing antibodies.

Approximately 9% of subjects with asthma who received DUPIXENT 200 mg Q2W for 52 weeks developed antibodies to dupilumab; ~4% exhibited persistent ADA responses, and ~4% had neutralizing antibodies.

Approximately 5% of subjects in the placebo groups in the 52-week studies were positive for antibodies to DUPIXENT; ~2% exhibited persistent ADA responses, and ~1% had neutralizing antibodies.

The antibody titers detected in both DUPIXENT and placebo subjects were mostly low. In subjects who received DUPIXENT, development of high titer antibodies to dupilumab was associated with lower serum dupilumab concentrations [see *Clinical Pharmacology* (12.3)].

Two subjects who experienced high titer antibody responses developed serum sickness or serum sickness-like reactions during DUPIXENT therapy [see *Warnings and Precautions* (5.1)].

7 DRUG INTERACTIONS

7.1 Live Vaccines

Avoid use of live vaccines in patients treated with DUPIXENT.

7.2 Non-Live Vaccines

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.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

Available data from case reports and case series with DUPIXENT use in pregnant women have not identified a drug-associated risk of major birth defects, miscarriage, or adverse maternal or fetal outcomes. Human IgG antibodies are known to cross the placental barrier; therefore, DUPIXENT may be transmitted from the mother to the developing fetus. There are adverse effects on maternal and fetal outcomes associated with asthma in pregnancy (see *Clinical Considerations*). 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-4R α) 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 populations are 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.

Clinical Considerations

Disease-Associated Maternal and/or Embryo-fetal Risk

In women with poorly or moderately controlled asthma, evidence demonstrates that there is an increased risk of preeclampsia in the mother and prematurity, low birth weight, and small for gestational age in the neonate. The level of asthma control should be closely monitored in pregnant women and treatment adjusted as necessary to maintain optimal control.

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-4R α 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

There are no data on the presence of dupilumab in human milk, the effects on the breastfed infant, or the effects on milk production. Maternal 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

Atopic Dermatitis

Safety and efficacy in pediatric patients (<18 years of age) with atopic dermatitis have not been established.

Asthma

A total of 107 adolescents aged 12 to 17 years with moderate to severe asthma were enrolled in AS Trial 2 and received either 200 mg (N=21) or 300 mg (N=18) DUPIXENT (or matching placebo either 200 mg [N=34] or 300 mg [N=34]) Q2W. Asthma exacerbations and lung function were assessed in both adolescents and adults. For both the 200 mg and 300 mg Q2W doses, improvements in FEV₁ (LS mean change from baseline at Week 12) were observed (0.36 L and 0.27 L, respectively). For the 200 mg Q2W dose, subjects had a reduction in the rate of severe exacerbations that was consistent with adults.

Safety and efficacy in pediatric patients (<12 years of age) with asthma have not been established. Dupilumab exposure was higher in adolescent patients than that in adults at the respective dose level which was mainly accounted for by difference in body weight [see *Clinical Pharmacology* (12.3)].

The adverse event profile in adolescents was generally similar to the adults [see *Adverse Reactions* (6.1)].

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.

Of the 1977 subjects with asthma exposed to DUPIXENT, a total of 240 subjects were 65 years or older. Efficacy and safety in this age group was similar to the overall study population.

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.

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.

Hypersensitivity

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)].

Conjunctivitis and Keratitis

Advise patients to consult their healthcare provider if new onset or worsening eye symptoms develop [see *Warnings and Precautions* (5.2)].

Eosinophilic Conditions

Advise patients to notify their healthcare provider if they present with clinical features of eosinophilic pneumonia or vasculitis consistent with eosinophilic granulomatosis with polyangiitis [see *Warnings and Precautions* (5.3)].

Not for Acute Asthma Symptoms or Deteriorating Disease

Inform patients that DUPIXENT does not treat acute asthma symptoms or acute exacerbations. Inform patients to seek medical advice if their asthma remains uncontrolled or worsens after initiation of treatment with DUPIXENT [see *Warnings and Precautions* (5.4)].

Reduction in Corticosteroid Dosage

Inform patients to not discontinue systemic or inhaled corticosteroids except under the direct supervision of a physician. Inform patients that reduction in corticosteroid dose may be associated with systemic withdrawal symptoms and/or unmask conditions previously suppressed by systemic corticosteroid therapy [see *Warnings and Precautions* (5.5)].

Atopic Dermatitis Patients with Comorbid Asthma

Advise atopic dermatitis patients with comorbid asthma not to adjust or stop their asthma treatment without talking to their physicians [see *Warnings and Precautions* (5.6)].

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