### Thursday, February 21

**Military Allergy Program**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00</td>
<td>Registration and Breakfast</td>
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<tr>
<td>7:30</td>
<td>Welcome and Overview</td>
</tr>
</tbody>
</table>
| 8:00  | **Morning Address: Update in Mast Cell Biology and Mast Cell Disorders**  
          Todd Wilson, DO                                                  |
| 9:00  | Break                                                                |
| 9:15  | Fellow Research and Clinical Case Presentations                      |
| 11:00 | Vaccine Healthcare Center Update                                      |
| 11:30 | Lunch and Bruton Lecture: VA Disability and Allergic Disease         |
          Chester R. Zeiss, MD FAAAAI                                    |
| 1:00  | Fellow Case Reports                                                  |
| 2:45  | Break                                                                |
| 3:00  | **Military Aeroallergen Extract Laboratory Updates**                |
          Susan E. Kosisky, BS MHA                                     |
| 3:30  | VHA Allergy Committee                                                 |
          Joseph S. Yusin, MD FAAAAI                                   |
| 3:45  | Air Force                                                             |
          Stephen E. Scranton, MD                                       |
| 4:00  | Army                                                                  |
          Michael R. Nelson, MD PhD FAAAAI                              |
| 4:15  | Navy                                                                  |
| 4:30  | Business Meeting and Awards Presentation                             |

Upon completion of this session, participants should be able to: Describe current concepts in mast cell biology; identify, evaluate and treat conditions along the spectrum of mast cell activation syndromes; identify the VA disability evaluation process as it relates to those conditions commonly managed by the allergist.

### Friday, February 22

**Fellows-in-Training Program**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00</td>
<td>Networking Breakfast Begins</td>
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<tr>
<td>8:00</td>
<td>Introductory Remarks</td>
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<tr>
<td>8:05</td>
<td>Networking Organizations</td>
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<tr>
<td>8:15</td>
<td><strong>American Board of Allergy and Immunology</strong></td>
</tr>
</tbody>
</table>
          Stephen I. Wasserman, MD FAAAAI                                 |
| 8:20  | Atopic Dermatitis and Food Allergy                                    |
          Jacqueline Pongracic, MD FAAAAI                                 |
| 8:50  | **Gastrointestinal Food Allergy**                                     |
          Robert A. Wood, MD FAAAAI                                       |
| 9:20  | Break                                                                |
| 9:35  | Welcome from the AAAAI President                                      |
          A. Wesley Burks, MD FAAAAI                                      |
| 9:45  | **Mechanisms of Food Allergy and Immune Tolerance**                  |
          A. Wesley Burks, MD FAAAAI                                      |
| 10:15 | **Pollen-Food Allergy Syndrome**                                      |
          Thomas A.E. Platts-Mills, MD PhD FAAAAI                         |
| 10:45 | **Food Allergy Evaluation: Oral Food Challenges in the Office Setting** |
          Anna H. Nowak-Wegrzyn, MD FAAAAI                                |
| 11:15 | Oral Immunotherapy for Food Allergy                                   |
          Kari Nadeau, MD PhD FAAAAI                                      |
| 11:45 | **Putting it Together: NIAID-Sponsored 2010 Guidelines for Managing Food Allergy** |
          Scott H. Sicherer, MD FAAAAI                                    |
| 12:15 | Networking Lunch                                                      |

Upon completion of this session, participants should be able to: Describe the pathophysiology, initial evaluation and management of patients with food allergy including gastrointestinal food allergy, oral allergy syndrome and type I food allergy; identify recent advances in the field of food allergy and have some familiarity with published guidelines for managing food allergy; Outline current and emerging treatment modalities for food allergic patients.
### Allied Health Course

**1101 Advanced Practice Course**

7:00 am to 3:30 pm  
Marriott Rivercenter, Third Floor, Grand Ballroom Salon H  
Pre-registration and ticket required. No fee. Box lunch included.  
Credit: 6.50 CME / 7.80 CE  
Moderators: Edward O. Corazalla, MS RPFT  
Debra A. Sedlak, MSN CPNP  
Nina A. Zimmerman, MSN RN ANP-BC AE-C  

#### Session Schedule

- **7:00** Introduction  
- **7:15** Update on Rhinosinusitis  
  - Nina A. Zimmerman, MSN RN ANP-BC AE-C  
- **8:00** Update on Anaphylaxis  
  - Gabriel Ortiz, MPAS PA-C DFAAPA  
- **8:45** Update on Immunology  
  - Mitchell H. Grayson, MD FAAAAI  
- **9:30** Question & Answer  
- **9:45** Break  
- **10:00** Beyond the Basics: Desensitization Protocols in Office  
  - Ashley Marie Hall, MD  
- **10:45** Stinging Insect Hypersensitivity  
  - Dewey F. Habibohm, PA-C AE-C  
- **11:30** Question & Answer  
- **11:45** Lunch Break  
- **12:30** Changes in Pulmonary Function in World Trade Center Rescue Workers After 9/11  
  - Edward O. Corazalla, MS RPFT  
- **1:15** Stress Management and Asthma Care: Why Should it Matter?  
  - Gailen D. Marshall, Jr., MD PhD FAAAAI  
- **2:00** Workshops (Attendees will choose one of the following sessions.)  
  - Pre-registration and ticket required. Fee: $20.  
  - Credit: 1.50 CME / 1.80 CE  
  - **1101A: Punch Biopsy: Indications and Techniques**  
    - Marriott Rivercenter, Third Floor, Grand Ballroom I  
    - Jeanette Arnold, MSN RN C-FNP  
    - Don Cui, PA-C AE-C  
  - **1101B: Patch Testing**  
    - Marriott Rivercenter, Third Floor, Grand Ballroom Salon K  
    - Karol G. Timmons, RN MS CPNP  
  - **1101C: Guidelines for IVIG and SCIG Infusions**  
    - Marriott Rivercenter, Third Floor, Grand Ballroom Salon J  
    - Carla M. Duff, CPNP MSN  
    - Debra A. Sedlak, MSN CPNP  
  - **1101D: Advanced Spirometry**  
    - Marriott Rivercenter, Third Floor, Grand Ballroom Salon H  
    - Edward O. Corazalla, MS RPFT  
    - Maureen George, PhD RN AE-C  

Upon completion of this session, participants should be able to: Discuss concepts of asthma and clinical immunology including: Evidence-based practice concepts and application of the diagnosis and treatment of rhinosinusitis, anaphylaxis and stinging insect hypersensitivity; Discuss desensitization protocols for the office, stress management and asthma and PFT changes in 9/11 rescue workers.

### Medical Administrator Workshop

**1102 Human Resources: Essentials of Employee Handbooks**

8:00 to 9:15 am  
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M  
Credit: 1.25 CME / 1.50 CE  
Moderator: Jeanette Booker  

**8:00** Essentials of Employee Handbooks  
- Denise C. Yarbrough, Esq.  

Upon completion of this session, participants should be able to: Recognize how to write or update your employee handbook; Describe the legal ramifications of a poorly written handbook; Discuss how to keep your handbook fresh and up to date.

### Clinical Research Workshop

**1103 Who Needs a Monitoring Plan? You Do!**

8:00 to 9:15 am  
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L  
Credit: 1.25 CME / 1.50 CE  
Moderator: Sally A. Noone, RN MSN CCRC  
Pamela H. Steele, MSN CPNP AE-C  

Upon completion of this session, participants should be able to: Discuss the regulatory concerns in clinical research; Describe the components of a monitoring plan; Recognize the need for internal monitoring of all research projects.

### Chrysalis Project

**1111 2013 Chrysalis Project Program**

8:00 am to 12:00 pm  
Marriott Riverwalk, Second Floor, Alamo Ballroom Salon C  
Pre-registration and ticket required. No fee. Continental breakfast and box lunch included.  
Credit: No CME / No CE  

- **7:30** Breakfast  
- **8:00** Welcome and Introduction to A/I Training  
  - Kimberly A. Risma, MD PhD FAAAAI  
- **8:15** Welcome from the AAAAI President  
  - A. Wesley Burks, MD FAAAAI  
- **8:30** Food Allergy  
  - A. Wesley Burks, MD FAAAAI  
- **9:00** Immunodeficiency  
  - Thomas A. Fleisher, MD FAAAAI  
- **9:30** Eosinophilic Disorders  
  - Amy D. Klon, MD  
- **10:00** Break  
- **10:15** Asthma  
  - Rohit Katial, MD FAAAAI  
- **10:45** Atopic Dermatitis  
  - Donald Y.M. Leung, MD, PhD  
- **11:15** Academic Career Paths  
  - Kimberly A. Risma, MD PhD FAAAAI  
- **11:30** Industry Career Paths  
  - Daniel C. Adelman, MD FAAAAI  
- **11:45** Private Practice Career Paths  
  - Adina Kay Knight, MD FAAAAI  

### Annual Meeting Allied Health Sessions

Programmed by the AAAAI. Allied Health Sessions funded through an educational grant from Merck.
### TIGERS Program

#### 1201 The 4th International Gastrointestinal Eosinophil Research Symposium (TIGERS)

8:00 am to 6:00 pm  
Programmed by the AAAAI. Funded in part through educational grants from Abbott Nutrition, American Partnership for Eosinophilic Disorders (APFED), Campaign Urging Research for Eosinophilic Disease (CURED Foundation) and Meritage Pharma, Inc.

**Convention Center, Grand Ballroom Level, Ballroom C1**

Pre-registration and ticket required. Fee varies.  
Credit: 6.25 CME / 7.40 CE

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Overview of Consensus Recommendations: The Structure of Controversy</td>
<td>Chris A. Liacouras, MD</td>
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<tr>
<td>8:20</td>
<td>Molecular Factors and Cells</td>
<td>Marc E. Rothenberg, MD PhD FAAAAAI</td>
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<td>8:35</td>
<td>Genetics</td>
<td>Jonathan M. Spergel, MD PhD FAAAAAI</td>
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<td>8:50</td>
<td>Fibrosis and Remodeling</td>
<td>Seema Sharma Aceves, MD PhD FAAAAAI</td>
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<td>9:05</td>
<td>Measurement of Histology</td>
<td>Margaret Collins, MD</td>
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<tr>
<td>9:20</td>
<td>New Modalities to Survey the Esophagus and Eosinophils</td>
<td>Glenn Furuta, MD</td>
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<tr>
<td>9:35</td>
<td>QOL and Practicalities of EoE in Adults</td>
<td>Nirmala Gonsalves, MD</td>
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<tr>
<td>9:50</td>
<td>QOL and Practicalities of EoE in Pediatrics</td>
<td>James Franciosi, MD</td>
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<tr>
<td>10:05</td>
<td>Break</td>
<td>Seven Talks on Cutting-Edge Research</td>
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<tr>
<td>10:25</td>
<td>Therapeutics</td>
<td>Alex Straumann, MD</td>
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<td>10:39</td>
<td>Tissue Remodeling</td>
<td>Steven J. Ackerman, PhD</td>
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<td>10:53</td>
<td>EoE Phenotypes</td>
<td>Juan Pablo Abonia, MD</td>
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<td>11:07</td>
<td>Endoscopic Modalities</td>
<td>Ikuo Hirano, MD</td>
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<tr>
<td>11:21</td>
<td>Clinical Research</td>
<td>John Leung, MD</td>
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<tr>
<td>11:34</td>
<td>Basic Research</td>
<td>Julie M. Caldwell, PhD</td>
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<td>11:47</td>
<td>Translational Research</td>
<td>Arjun Andrew Anilkumar, BS</td>
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<tr>
<td>2:00</td>
<td>Finding EoE Triggers: To Test or Not?</td>
<td>Terri F. Brown-Whitehorn, MD</td>
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<td>2:30</td>
<td>Biopsy vs. Symptoms</td>
<td>Amir F. Kagalwalla, MD</td>
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<tr>
<td>3:00</td>
<td>What is the Best Therapy? Diet or Swallowed CS</td>
<td>Fred (Dan) McDaniel Atkins, MD FAAAAAI</td>
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<tr>
<td>3:15</td>
<td>Is Eosinophil the Beginning or the End?</td>
<td>Matthew J. Greenhawt, MD MBA MSc</td>
</tr>
<tr>
<td>4:15</td>
<td>Session Summary and Concluding Remarks: EoE: Where are We and Where Do We Need to Go?</td>
<td>Bruce S. Bochner, MD FAAAAAI</td>
</tr>
<tr>
<td>4:45</td>
<td>Break</td>
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<tr>
<td>5:00</td>
<td>Wine &amp; Cheese Poster Session</td>
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<tr>
<td>12:30</td>
<td>TIGERS Program Lunch Breakout Sessions (Attendees can choose one of the following one-hour sessions.)</td>
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#### 1201A: Diagnostic Tools I Can Use: What is the Best For EoE and How to Best Monitor Remission

**Marriott Rivercenter, Third Floor, Conference Room 11**

Ikuo Hirano, MD  
Javed Sheikh, MD FAAAAI

#### 1201B: BYOP: The Difficult EoE Patient

**Marriott Rivercenter, Third Floor, Conference Room 12**

Mark Holbreich, MD FAAAAI  
Fred (Dan) McDaniel Atkins, MD FAAAAI

#### 1201C: How Do I Choose What Treatment to Use? Diet vs. Steroids, Pros and Cons

**Marriott Rivercenter, Third Floor, Conference Room 13**

Carla M. Davis, MD  
Glenn Furuta, MD

#### 1201D: The Ins and Outs of Managing Dietary and Corticosteroid Therapy Over Time: Maintenance, Dosing, Mixing and Dietary Advancement

**Convention Center, Concourse Level, Room 211**

Juan Pablo Abonia, MD  
Nirmala Gonsalves, MD  
Alex Straumann, MD

#### 1201E: Basic to Translating the Bench to the Bedside: Do Animal

1201E continued on next page.
Friday, February 22

Course

**1204 The Development of the Immune System: When Does Allergy Begin?**
9:00 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C2
Credit: 2.75 CME / 3.30 CE
Moderator: Alkis Togias, MD FAAAAI

9:00 Development of Innate Immunity
Tobias Kollmann, MD PhD

9:25 Development of Adaptive Immunity
Charlotte Cunningham-Rundles, MD FAAAAI

9:50 Early Signs of Immune Deviation Toward Allergy
Patrick Holt, DSc

10:15 Break

10:30 Development of Innate and Adaptive Immune Responses in U.S. Children Living in the Inner City
James Gern, MD FAAAAI

10:55 The Role of the Environmental Microbiome in the Development of Allergy
Susan V. Lynch, PhD

11:20 The Role of Airway and Gut Microbiome in the Development of Allergy
Maria C. Jenmalm, PhD

11:45 Question & Answer

Upon completion of this session, participants should be able to: List stages of the innate and adaptive immune system development in humans and identify potential targets for immunologic interventions; List early events in the development of allergic immune responses; Discuss the possible roles of microbial exposure in the development or prevention of allergic diseases.

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**Course**

**1203 Drug Hypersensitivity and Allergy: From Diagnosis to Treatment**
9:00 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C3
Credit: 2.75 CME / 3.30 CE
Moderator: Anahita Dioun, MD FAAAAI

9:00 Diagnostic Skin Testing
Miguel Blanca, MD PhD

9:30 Basophil Activation Test
Marta M. Ferrer, MD PhD FAAAAI

10:00 Drug Challenges
Antonino G. Romano, MD PhD

10:30 Break

10:45 Antibiotic Reactions
Anahita Dioun, MD FAAAAI

11:15 Chemotherapy Reaction
Joana Calado, MD

11:45 Question & Answer

Upon completion of this session, participants should be able to: Discuss the clinical presentation of drug allergy and hypersensitivity; Describe the use of skin testing and drug challenges; Interpret algorithms for the treatment and management of drug hypersensitivity.
Course 1205  **Aspirin Exacerbated Respiratory Disease (AERD): From Observation to Pathophysiology to Treatment (Part 1)**
Clinical/Pathological Observations
(In Memory of Professor Andrew Szczeklik, 1938-2012)
9:00 am to 12:00 pm
Convention Center, Concourse Level, Room 214A
Credit: 2.75 CME / 3.30 CE
Moderator: Donald D. Stevenson, MD FAAAAI
9:00 Overview of AERD: Clinical, Physiologic and Pharmacologic Characteristics
Andrew A. White, MD FAAAAI
9:25 Sub-Phenotypes of Aspirin-Exacerbated Respiratory Disease (AERD)
Ewa Nizankowska-Mogilnicka, MD PhD
9:50 Pathophysiologic Lessons: Studies from Aspirin Tolerant and Intolerant Rhinosinusitis with Nasal Polyps
Robert P. Schleimer, PhD FAAAAI
10:15 Break
10:30 Pathophysiologic Lessons: Immunohistochemical Analyses of Biopsies and Tissues
Chris J. Corrigan, MD PhD FAAAAI
10:55 Pathophysiologic Lessons: Mediator Measurements and Idiosyncrasies of Arachidonic Acid Metabolism
Marek L. Kowalski, MD PhD
11:20 Desensitization to Aspirin: Mechanisms of Efficacy
Katherine M. Woessner, MD FAAAAI
11:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss the natural history of AERD; Describe the potential microbial pathogenesis of AERD; Recognize the potential for lipid mediator-directed therapy in AERD.

Course 1206  **Developing Clinical Skills to Promote Adherence and Maximize Asthma Outcomes (Part 1)**
9:00 am to 12:00 pm
Convention Center, Concourse Level, Room 210AB
Credit: 2.75 CME / 3.30 CE
Moderator: Marcus S. Shaker, MD MS FAAAAI
9:00 Overview: Why are Patients Non-Adherent?
Bruce G. Bender, PhD FAAAAI
9:30 Clinical Management Strategies to Promote Adherence of Pediatric Asthma Patients and Families
Cynthia S. Rand, PhD
10:00 Methods to Diagnose Adherence Status
Andrew G. Weinstein, MD FAAAAI
10:30 Break
10:45 Shared Decision Making: A Communication Practice Proven to Enhance Adult Asthma Patients’ Adherence and Outcomes
Sandra Wilson, PhD
11:15 The Role of Motivational Interviewing to Help Guide Patients to Favorable Asthma Management Actions
Belinda Borrelli, PhD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Identify the reasons why patients are non-adherent with health care providers’ plans; List objective means to diagnose adherence status; Demonstrate motivational interviewing and other patient-centered techniques to help patients and families follow asthma treatment plans.

Course 1207  **Diagnosis and Treatment of Angioedema Without Urticaria**
9:00 am to 12:00 pm
Convention Center, Concourse Level, Room 217AB
Credit: 2.75 CME / 3.30 CE
Moderator: Marco Cicardi, MD
9:00 Treatment of Angioedema
Bruce L. Zuraw, MD
9:30 Kinin Generation in Angioedema
Allen P. Kaplan, MD FAAAAI
10:00 Break
10:15 Mechanisms of Histamine Release in Angioedema
Massimo Triggiani, MD
10:45 Sporadic Angioedema
Marco Cicardi, MD
11:15 Hereditary Angioedema
Konrad Bork, MD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Differentiate angioedema without urticaria; Derive correct therapy out of the different clinical presentations; List laboratory tests to be used in patients with angioedema.
Course

1208 COFSTER: Community-Based Forum for Systematic Team Evaluation Aimed at Remission of Cough
9:00 am to 5:00 pm
Convention Center, Concourse Level, Room 217CD
Credit: 6.75 CME / 8.20 CE
Moderator: Arvind Madan, MD FAAAAI

9:00 Cough Pathophysiology: Recent Advances in Understanding of Cough Receptors and Pathways
Brendan J. Canning, PhD

9:40 Evolutionary Basis of Cough Reflex
Stuart Brooks, MD

10:20 Break

10:30 Cough Pathophysiology: Upper Airway Perspective (Including Idiopathic Cough): Is it Laryngeal Hypersensitivity?
Ronald C. Balkissoon, MD MSc

11:10 Cough Pathophysiology: Lower Airway Perspective (Including Mechanics of Cough Variant Asthma)
Diane Lougheed, MD MSc

11:50 Question & Answer

12:10 Lunch Break

1:10 Current and Emerging Diagnostics in Chronic Cough
Ronald C. Balkissoon, MD MSc

1:50 Chronic Cough: Overview of Management
Peter Dicpinigaitis, MD

2:30 Break

2:45 Cough Center Experience in Private Practice
Mandel R. Sher, MD FAAAAI

3:25 Cough Center Experience in an Academic Center
Ronald C. Balkissoon, MD MSc

4:05 Seeing is Believing: Why Visualization Matters in Chronic Cough
Gary J. Stadtmauer, MD FAAAAI

4:45 Question & Answer

Upon completion of this session, participants should be able to:
- Present state-of-the-art understanding of cough pathophysiology;
- Discuss appropriate use of available and investigational diagnostic tools;
- Encourage use of direct visualization (rhinolaryngoscopy) by allergists who can be positioned as community cough experts.

Course

1209 Difficult Cases (Part 1)
9:00 am to 12:00 pm
Convention Center, River Level, Room 006
Pre-registration and ticket required. Fee: $10.
Credit: 2.75 CME / 3.20 CE
Moderators: Dorothy S. Cheung, MD FAAAAI
Pramod S. Kelkar, MD FAAAAI

9:00 Contact Dermatitis
Luz S. Fonacier, MD FAAAAI
Druhan Howell, MD

9:35 Ocular Allergy
Leonard Bielory, MD FAAAAI
Paige G. Wickner, MD

10:10 Break

10:30 Drug Desensitization
Mariana C. Castells, MD PhD FAAAAI
David R. Stukus, MD FAAAAI

11:05 Vaccines: Reactions or Responses
Renata J.M. Engler, MD FAAAAI
Wan-Yin Chan, MD

11:40 Question & Answer

Upon completion of this session, participants should be able to:
- Identify and address difficulties in the clinical management of contact dermatitis, ocular allergy and drug desensitization.

Course

1210 Advances and Novel Approaches in the Genetics of Allergic Disease: 21st Century (Part 1)
9:00 am to 12:00 pm
Convention Center, River Level, Room 007
Credit: 2.75 CME / 3.30 CE
Moderator: Ulus Atasoy, MD FAAAAI

9:00 Keeping Pace with Technology: What the Allergy Researcher Should Know
Gurjit K. Khurana Hershey, MD PhD FAAAAI

9:25 Making Sense of Genome-Wide Association Studies: Insights from a Meta-Analysis Study
Dan L. Nicolae

9:50 The Filaggrin Story: A Tale of Gene Discovery and Function
Sara Brown, MBCNB MD

10:15 Break

10:30 Genome Sequencing and Rare Variants
Kathleen C. Barnes, PhD FAAAAI

10:55 Studying Missing Heritability in Asthma
Carol Ober, PhD

11:20 Integrating Genetics and Asthma Heterogeneity: Personalized Medicine and Translational Research
Eugene R. Bleecker, MD FAAAAI

11:45 Question & Answer

Upon completion of this session, participants should be able to:
- Recognize recent technologic advances and future directions in genetics approaches, including experimental platforms, database resources and data integration strategies;
- Analyze the limitations and successes of genome-wide association studies (the applications of whole genome sequencing to identify rare variants, and the concept of “missing heritability”);
- Describe how genetic approaches provide insight into asthma phenotypes and contribute to personalized treatment.
Course 1211  Allergy Diagnostics and Immunotherapy: The Nuts, the Bolts, the Science and the Art (Part 1)

9:00 am to 12:00 pm
Convention Center, River Level, Room 008
Pre-registration and ticket required. No fee.
Credit: 1.00 CME / 1.20 CE
Moderator: Ira Finegold, MD FAAAAI
Michael S. Tankersley, MD FAAAAI

9:00 Molecular Allergy Diagnostic: Who, Why, When and What
Robert G. Hamilton, PhD D.ABMLI FAAAAI

9:30 Accelerated Immunotherapy Schedules: More Convenient? Just as Safe?
David A. Khan, MD FAAAAI

10:00 Hands-On Workshops (Attendees will rotate between two workshops.)
Pre-registration and ticket required. Fee: $25.
Credit: 2.00 CME / 2.40 CE
1211A/C: Allergen Extract Preparation and Take the Media Fill Test
Convention Center, River Level, Room 004
Michael S. Blaiss, MD FAAAAI
Susan E. Kosisky, MHA
Bryan L. Martin, DO FAAAAI
Cecilia Mikita, MD MPH FAAAAI
Michael R. Nelson, MD PhD FAAAAI

1211B/D: Practical Aspects of Allergen Immunotherapy: Prescription Writing
Convention Center, River Level, Room 005
Christopher W. Calabria, MD
Jose E. Jereda, MD
Richard W. Weber, MD FAAAAI

Upon completion of this session, participants should be able to:
- Discuss the different options and application possibilities in U.S. of the new in vitro diagnostic techniques;
- Discuss rush and cluster immunotherapy schedules, premedication and patient selection;
- Propose immunotherapy schedule adjustments after a gap in administration, adverse reactions and switching from one manufacturer to another.

Course 1212 Technology in the Clinical Practice Made Ridiculously Simple

9:00 am to 12:00 pm
Convention Center, Concourse Level, Room 214BC
Credit: 3.00 CME / 3.40 CE
Moderator: Tao Le, MD MHS FAAAAI

9:00 What Can Technology Do for Your Practice
Tao Le, MD MHS FAAAAI

9:20 Making the Technology Work and Pay Off
David J. Shulan, MD FAAAAI

9:40 EHRs and the Meaningful Use of Life
Russell B. Leftwich, MD FAAAAI

10:10 Break

10:20 iPhones, iPads and Androids, Oh My!
Melinda M. Rathkopf, MD FAAAAI

10:50 Social Media Tools for Marketing and Communications
Vesselin Dimov, MD

11:20 Practice Management Systems and Other Office Automation Tools
Linda D. Green, MD FAAAAI

11:50 Question & Answer

Upon completion of this session, participants should be able to:
- Describe EHRs, practice management systems and office automation technologies appropriate for the clinical practice;
- Explain the role of mobile technologies in the practice;
- List web and social media tools for practice marketing and communications.

Course 1213 NHLBI: Beyond FEV1: Lung Function Measures in Assessment of Asthma

9:00 am to 12:00 pm
Convention Center, Concourse Level, Room 213AB
Credit: 2.75 CME / 3.30 CE
Moderator: Leonard B. Bacharier, MD FAAAAI
James P. Kiley, PhD

9:00 Beyond FEV1: Lung Function Tests to Diagnose Adult and Pediatric Asthma: Diagnostic Pulmonary Function Testing: Spirometry (FEV1, FVC), Airway Hyper-Responsiveness, Challenge Testing and Plethysmography
Wayne Joseph Morgan, MD

9:20 What Measurements to Use When Monitoring and Managing Adult and Pediatric Asthma and Why: What to Do if There is Discordance of Asthma Symptoms and Lung Function Testing
Leonard Bacharier, MD FAAAAI
Anne L. Fuhlbrigge, MD MS

10:10 Break

10:25 Measures of Airways Disease in the Diagnosis and Management of the Wheezy Preschooler: Can Asthma be Predicted?
Theresa W. Guilbert, MD

11:15 Question & Answer

Upon completion of this session, participants should be able to:
- Describe the role of lung function testing in the diagnosis of asthma, and the differential diagnosis in difficult-to-treat wheezing;
- Discuss the role of lung function testing in young children (infants/preschoolers).
Medical Administrator Workshop  
1301  Coding Audit  
9:30 to 10:45 am  
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M  
Credit: 1.25 CME / 1.50 CE  
Teresa Thompson, CPC CMSCS CCC  
Upon completion of this session, participants should be able to: Integrate knowledge regarding coding audits; Describe options for responding to a negative audit report.

Clinical Research Workshop  
1302  FDA Audit: What’s Involved and How Do You Prepare?  
9:30 to 10:45 am  
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L  
Credit: 1.25 CME / 1.50 CE  
Moderator: Kathy L. Pinzone, RN AE-C CCRC  
Kim E. Mudd, MSN CCRP  
Upon completion of this session, participants should be able to: Discuss the various types of FDA audits; Discuss what is included in an FDA audit; Describe methods to keep a clinical trial site prepared for an FDA audit.

Medical Administrator Workshop  
1401  Financial: How Do We Use Information Applicable to Operations, Benchmarks and RVUs, etc.  
11:00 am to 12:15 pm  
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M  
Credit: 1.25 CME / 1.50 CE  
Larry Armor, PA MHA  
Upon completion of this session, participants should be able to: Interpret financial data; Recognize where to find benchmarking data; Discuss how to calculate RVUs.

Clinical Research Workshop  
1402  Environmental Control Measures  
11:00 am to 12:15 pm  
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L  
Credit: 1.25 CME / 1.50 CE  
Moderator: James L. Sublett, MD FAAAAI  
James L. Sublett, MD FAAAAI  
Upon completion of this session, participants should be able to: Implement evidence-based research when discussing specific targeted interventions to reduce allergen exposure.

Clinical Research Workshop  
1403  Managing Atopic Dermatitis  
11:00 am to 12:15 pm  
Marriott Rivercenter, Third Floor, Grand Ballroom Salon K  
Credit: 1.25 CME / 1.50 CE  
Moderator: Lynda C. Schneider, MD FAAAAI  
Karol G. Timmons, RN MS CPNP  
Upon completion of this session, participants should be able to: Interpret pathophysiology, causes and management of atopic dermatitis (AD); Discuss common treatments and therapies for AD; List common issues in family management of atopic dermatitis.

Medical Administrator Workshop  
1501  Ask the Experts Roundtable Luncheon  
12:30 to 1:45 pm  
Marriott Riverwalk, Second Floor, Alamo Ballroom Salon AB  
Pre-registration and ticket required. Fee: $40.  
Credit: 1.25 CME / 1.50 CE  
Moderator: Jeanette Booker  
Teresa Thompson, CPC CMSCS CCC  
Denise C. Yarbrough, Esq.  
Upon completion of this session, participants should be able to: Describe skills of a strong administrator; Recognize practice problems and develop solutions; Identify practice issues that they are facing.

Program Directors’ Business Meeting  
2:00 to 4:00 pm  
Convention Center, Concourse Level, Room 213AB  
All Program Directors and Co-Directors are invited to attend this business meeting.

Course  
1601  Career Development for the Junior Investigator  
2:00 to 5:00 pm  
Convention Center, Concourse Level, Room 210AB  
Credit: 2.75 CME / 3.20 CE  
Moderator: Nora A. Barrett, MD  
2:00  Identifying and Developing Great Mentors and Great Projects  
Susan M. MacDonald, MD FAAAAI  
Wayne G. Shreffler, MD PhD FAAAAI  
2:35  Grantsmanship and the NIH  
Priti Mehrotra, MD  
Aleks Togias, MD FAAAAI  
3:10  Break  
3:30  Preparing a K Award Application: Avoiding Common Pitfalls  
David H. Broide, MBChB FAAAAI  
R. Stokes Peebles, Jr., MD FAAAAI  
Marsha A. Wills-Karp, PhD  
4:05  Transitioning to Independence: You Got Your K, Now What?  
Gurjit K. Khurana Hershey, MD PhD FAAAAI  
Thomas A.E. Platts-Mills, MD PhD FAAAAI  
Sally E. Wenzel, MD FAAAAI  
4:40  Question & Answer  
Upon completion of this session, participants should be able to: Describe how to identify, secure, and develop productive mentoring relationships; Identify NIH funding priorities; Describe the process of grant review, and common pitfalls in preparing K08, K23, and R01 applications.
Course 1602  Update on Drug Allergy: Penicillin and Beyond
2:00 to 5:00 pm
Convention Center, Ballroom Level, Ballroom C2
Credit: 2.75 CME / 3.30 CE
Moderator: Antonio G. Romano, MD PhD
2:00 Overview of Penicillin and Beta-Lactam Allergy: Epidemiology, Cross-Reactivity, Costs and Utility of Penicillin Skin Testing
Roland Solorsny, MD FAAAAI
Miguel A. Park, MD
2:50 Challenging Cases of Beta-Lactam Hypersensitivity
Eric M. Macy, MD FAAAAI
3:15 Break
3:30 Update on Hypersensitivity Reactions to RCM
Paul A. Greenberger, MD FAAAAI
3:55 Evaluation and Management of Hypersensitivity Reactions to Monoclonal Antibodies
David Slone, MD
4:20 ASA/NSAID Hypersensitivity Without AERD
Katharine M. Woessner, MD FAAAAI
4:45 Question & Answer
Upon completion of this session, participants should be able to: Evaluate various aspects of penicillin allergy, including diagnostic testing, cross-reactivity with other beta-lactams, and utility of penicillin skin testing; Discuss recent advances in diagnosis and management of immediate and delayed reactions to RCM; Analyze different types of reactions to monoclonal antibodies, and the role of skin testing and desensitization.

Course 1603  Food Allergy and Its Relation to Anaphylaxis
2:00 to 5:00 pm
Convention Center, Concourse Level, Room 217AB
Credit: 2.75 CME / 3.30 CE
Moderators: Motohiro Ebisawa, MD PhD FAAAAAI
Anne-Marie A. Irani, MD FAAAAAI
Mario Geller, MD FAAAAI
Nelson A. Rosario, MD PhD FAAAAA
2:00 Changing Concepts of Food Allergy in the Past Three Decades
Hugh A. Sampson, MD FAAAAI
2:25 Early Dietary Exposure to Food Allergens
Mona I. Kidon, MD
2:50 Food Allergen Sensitization and Its Relation to Atopic Eczema
George Du Toit, MD FAAAAI
3:15 Break
3:30 Oral vs. Sublingual Immunotherapy for Food Allergy
A. Wesley Burks, MD FAAAAAI
3:55 Oral Immunotherapy for Anaphylactic Food Allergies
Motohiro Ebisawa, MD PhD FAAAAAI
4:20 Oral Mite Anaphylaxis
Mario Sanchez-Borges, MD FAAAAAI
4:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss concept change on food allergy in the past three decades; Explain onset of food allergy and importance of dietary exposure; Describe food associated anaphylaxis and its countermeasures.

Course 1604  NIAID Clinical Research: Advances in Food Allergy, Asthma and Atopic Dermatitis
2:00 to 5:00 pm
Convention Center, Ballroom Level, Ballroom C3
Credit: 2.75 CME / 3.30 CE
Moderator: Marshall Plaut, MD FAAAAAI
2:00 Food Allergen Immunotherapy and Tolerance Induction
Stacie M. Jones, MD
2:25 Future Directions in Food Allergen Immunotherapy
Wayne G. Shreffler, MD PhD FAAAAAI
2:50 Abnormalities in Arachidonic Acid Products in Patients with Aspirin-Exacerbated Respiratory Disease
Joshua A. Boyce, MD FAAAAI
3:15 Break
3:30 Phenotypic Analyses of Inner City Children with Asthma Symptoms
William W. Busse, MD FAAAAAI
3:55 Atopic Dermatitis and Reduced Cutaneous Immune Responses
Donald Y.M. Leung, MD PhD FAAAAAI
4:20 Atopic Dermatitis, Vitamin D and Antimicrobial Responses
Lynda C. Schneider, MD FAAAAAI
4:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss current and future approaches to immunotherapy to treat food allergy; Discuss emerging concepts of asthma phenotypes in children and the systemic immunologic effects of airway allergen exposure; List cutaneous immune response abnormalities that have been identified in patients with atopic dermatitis.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Date and Time</th>
<th>Location</th>
<th>Credit</th>
<th>Moderators</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1605</td>
<td>Aspirin Exacerbated Respiratory Disease (AERD): From Observation to Pathophysiology to Treatment (Part 2): Basic Mechanisms of AERD: From Mouse to Man to Novel Treatment (In Memory of Professor Andrew Szczeklik, 1938-2012)</td>
<td>Friday, February 22</td>
<td>2:00 to 5:00 pm</td>
<td>2.75 CME / 3.30 CE</td>
<td>Larry Borish, MD FAAAAI</td>
<td>- Identification of New Leukotriene Receptors as Molecular Targets by Yoshinide Kanaoka, MD PhD. - Convergence of the Leukotriene and Prostaglandin Pathways at the Platelet/Leukocyte Complex by Tanya M. Laidlaw, MD. - Mechanism-Based Interventions by Tanya M. Laidlaw, MD. Upon completion of this session, participants should be able to: Explain the natural history of AERD; Describe the potential genetic pathogenesis of AERD; Recognize the potential for lipid mediator-directed therapy in AERD.</td>
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<tr>
<td>1606</td>
<td>Developing Clinical Skills to Promote Adherence and Maximize Asthma Outcomes (Part 2)</td>
<td>Friday, February 22</td>
<td>2:00 to 5:00 pm</td>
<td>3.00 CME / 3.60 CE</td>
<td>Belinda Borrelli, PhD</td>
<td>- Hands-On Instruction by Belinda Borrelli, PhD. Upon completion of this session, participants should be able to describe medication adherence strategies such as cueing, diaries, reinforcement and tailoring.</td>
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<tr>
<td>1607</td>
<td>Finding a Job and Getting Started in Practice</td>
<td>Friday, February 22</td>
<td>2:00 to 5:00 pm</td>
<td>3.00 CME / 3.40 CE</td>
<td>Tao Le, MD MHS FAAAAI, Brian A. Smart, MD FAAAAI</td>
<td>- Overview and Introductions by Tao Le, MD MHS FAAAAI. - Finding a Job and Negotiating the Agreement by Tao Le, MD MHS FAAAAI. - Getting Licensed and Transitioning into Practice by Brian A. Smart, MD FAAAAI. - Secrets of an Efficient Allergy Practice by David L. Patterson, MD MBA FAAAAI. - Practice Finances 101 by Marshall P. Grodofsky, MD FAAAAI. - Marketing Your Practice and Referral Development by Stanley M. Fineman, MD MBA FAAAAI. Upon completion of this session, participants should be able to: Explain how to identify and join the right practice opportunity; Discuss the fundamentals of office management; Identify strategies for marketing a practice and building a patient base.</td>
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<tr>
<td>1608</td>
<td>Endoscopic Evaluation and Management of Chronic Rhinosinusitis (Pre- and Post-Surgery) Including Cultures</td>
<td>Friday, February 22</td>
<td>2:00 to 5:00 pm</td>
<td>2.75 CME / 3.30 CE</td>
<td>Wellington S. Tichenor, MD FAAAAI</td>
<td>- Anatomy of the Sinuses: Surgical Evaluation by Robert Kern, MD. - Radiology of the Sinuses by S. James Zinreich, MD. - Endoscopic Evaluation of the Sinuses by Wellington S. Tichenor, MD FAAAAI. Upon completion of this session, participants should be able to: Describe the anatomy of the sinuses and related structures and identify pathology on CT scan; Perform endoscopy in patients with CRS as well as cultures of middle meatus and/or sinuses; Recall indications for surgery and complications of surgery.</td>
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</tbody>
</table>
Course 1609 Difficult Cases (Part 2)
2:00 to 5:00 pm
Convention Center, River Level, Room 006
Pre-registration and ticket required. Fee: $10.
Credit: 2.75 CME / 3.20 CE
Moderators: David W. Hauswirth, MD FAAAAI
Michael H. Land, MD, FAAAAI
2:00 Chronic Sinusitis
Jonathan Corren, MD
David R. Naimi, DO
2:35 Oral Food Challenges
Edwin Kim, MD, MS
Jennifer S. Kim, MD FAAAAI
3:10 Break
3:30 Immunosuppressive Therapy
Ivan Chinn, MD
Lanny Rosenwasser, MD FAAAAI
4:05 Mystery Difficult Cases
Jason W. Caldwell, DO
Kevin J. Kelley, MD FAAAAI
4:40 Question & Answer
Upon completion of this session, participants should be able to: Identify and address difficulties in the clinical management of chronic sinusitis, oral food challenges and immunosuppressive therapy.

Course 1610 Advances and Novel Approaches in the Genetics of Allergic Disease: 21st Century (Part 2)
2:00 to 5:00 pm
Convention Center, River Level, Room 007
Credit: 2.75 CME / 3.30 CE
Moderator: Kathleen C. Barnes, PhD FAAAAI
2:00 Introduction to Gene-Environment Interactions in Asthma:
Nuisance or Opportunity?
Donata Vercelli, MD
2:25 Environmental Exposures in Asthma: Regulation of Gene Expression by Micro RNAs
Avrum Spira, MD MSc
2:50 The Epigenome and Asthma: Interactions Between Imprinted Genes and Environmental Exposures
Rachel L. Miller, MD FAAAAI
3:15 Break
3:30 The Microbiome and Inflammation
Gary B. Huffnagle, PhD
3:55 The Future of Environmental Genomics and Allergic Disease
David Schwartz, MD
4:20 Genetics of Host/Virus Interactions and Asthma
James E. Gem, MD FAAAAI
4:45 Question & Answer
Upon completion of this session, participants should be able to: Describe current knowledge of how gene-environment interactions impact transcriptional and post-transcriptional events that regulate gene expression and functional outcomes relevant to allergic disease. Discuss how the genetics of the airway and gut microbiome contribute to inflammatory processes; Analyze future directions in environmental epigenomics and the feasibility of using systems-based genetics approaches to study environmental exposures in humans.

Course 1611 Allergy Diagnostics and Immunotherapy: The Nuts, the Bolts, the Science and the Art (Part 2)
2:00 to 5:00 pm
Convention Center, River Level, Room 008
Pre-registration and ticket required. No fee.
Credit: 1.00 CME / 1.20 CE
Moderators: Désirée E.S. Larenas Linnemann, MD FAAAAI
Punita Ponda, MD FAAAAI
2:00 Immunotherapy for Food Allergy
Kari Nadeau, MD PhD FAAAAI
2:30 Future of Inhalant Allergen Immunotherapy: Intralymphatic, Epicutaneous and Peptide Fragments: Are We Just Scratching the Surface?
Thomas M. Kundig, MD
Upon completion of this session, participants should be able to: Expose several new forms of allergen immunotherapy; Discuss positive and negative findings of their use in clinical trials and argue if they might become available in the future; Discuss the usefulness of immunotherapy in food allergy and the current status of these investigations.
3:00 Hands-On Workshops (Attendees will rotate between two workshops.)
Pre-registration and ticket required. Fee: $25.
Credit: 2.00 CME / 2.40 CE
1611A/C: Allergy Skin Testing
Convention Center, River Level, Room 004
Moderators: Warner Carr, MD FAAAAI
Linda Cox, MD FAAAAI
This session will have three 10-minute lectures followed by 30-minutes of hands-on instruction. Attendees will choose one of the three hands-on activities.
Skin Prick/Puncture Tests and Devices
John Oppenheimer, MD FAAAAI
Skin Prick/Puncture Tests, Allergen and Proficiency Testing
Sten K.G. Dreborg, MD PhD FAAAAI
Skin Tests in Research
Peter Creticos, MD FAAAAI
Upon completion of this session, participants should be able to: Compare the different devices and other equipment and their characteristics; Explain the importance of standardized allergen extracts for the test result; Demonstrate the importance of standardized testing technique and its control by proficiency testing.
1611B/D: Coding, Documentation and ABCs of Regulatory Guidelines
Convention Center, River Level, Room 005
Donald W. Aaronson, MD FAAAAI
David A. Brown, MD
Gary N. Gross, MD FAAAAI
Upon completion of this session, participants should be able to: Apply adequately the coding, documentation and regulatory guidelines for immunotherapy.
Friday, February 22

Course 1612 Interpretation of Pulmonary Function Tests
2:00 to 5:00 pm
Convention Center, Concourse Level, Room 212AB
Pre-registration and ticket required. Fee: $40.
Credit: 3.00 CME / 3.50 CE
Moderator: Mark F. Sands, MD FAAAAI

2:00 Introductory Remarks
2:05 Audience Response System Pre-Test
2:10 Lung Pathophysiology and the PFT
Mark F. Sands, MD FAAAAI
2:35 Performing PFT Video Demonstration
John M. Weiler, MD FAAAAI
2:45 Putting It All Together: From Physiology to Interpretation
Donald P. Tashkin, MD
3:15 Audience Response System Post-Test
3:20 Question & Answer
3:25 Break
3:30 Hands-On Workshop
Donald Cockcroft, MD FAAAAI
Meredith C. McCormack, MD
Riccardo Polosa, MD PhD FAAAAI
Mark F. Sands, MD FAAAAI
Donald P. Tashkin, MD
John M. Weiler, MD FAAAAI

Upon completion of this session, participants should be able to: Describe the physiology of restrictive and obstructive pulmonary function abnormalities; Recognize simple and complex pulmonary dysfunction findings on pulmonary function tests; Demonstrate ability to independently interpret PFTs including flow-volume loop pattern recognition and technical flaws therein.

Medical Administrator Workshop 1711 Evaluation and Management Coding Essentials
2:00 to 3:15 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M
Credit: 1.25 CME / 1.50 CE
Teresa Thompson, CPC CMCS CCS

Upon completion of this session, participants should be able to: Discuss the various levels for E&M Codes; Interpret and review physician orders for coding; Apply an understanding of E&M guidelines.

Clinical Research Symposium 1712 FDA Guidance of Clinical Research: Risk Based Monitoring Plans
2:00 to 3:15 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L
Credit: 1.25 CME / 1.50 CE
Moderator: Kim E. Mudd, RN MSN CCRP
2:00 Clinical Research Monitoring: How to Integrate Risk-Based Methods
Sarah D. Knorr, RN MPH CCRP

Kathy L. Pinzone, RN AE-C CCRC
2:50 Clinical Research Monitoring
Pamela H. Steele, MSN CPNP AE-C

Upon completion of this session, participants should be able to: Describe existing monitoring methods and their application; Discuss the differences between risk-based monitoring and traditional monitoring methods; Discuss ways to integrate risk-based monitoring methods.

Allied Health Plenary 1801 Technology in the Office: Improving Outcomes While Containing Cost
4:00 to 5:15 pm
Marriott Riverwalk, Second Floor, Alamo Ballroom Salon ABC
Credit: 1.25 CME / 1.50 CE
Moderator: Maureen George, PhD RN AE-C

4:00 Opening Remarks
Maureen George, PhD RN AE-C
4:15 Benefits and Risks of Technology
Denise C. Yarborough, Esq.
4:45 How Technology Can Meet the Needs of the Geriatric Patient
Sameer K. Mathur, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Describe the impact technology can have on enhancing the patient/practice interaction; Recognize the impact technology can have on the geriatric population.

AAAAI Federation of RSLAAIS Assembly Forum and Business Meeting
4:45 to 6:30 pm
Convention Center, River Level, Room 008
The Federation of Regional, State and Local Allergy, Asthma and Immunology Societies invites all AAAAI members and delegates to attend this meeting. No fee. No pre-registration required.

4:45 Wine and Cheese Reception
5:10 Official RSLAAIS Assembly Business Meeting
James M. Tracy, DO FAAAAI
Sharon Markovics, MD FAAAAI
A. Wesley Burks, MD FAAAAI
5:20 “A How-to Guide for Advocating for our Patients”
Lynn Morrison
Other Members of the AAAAI Advocacy Committee

5:35 Building Bridges- Experience with Allergy, Asthma and Immunology related Lay (Patient-based) Organizations
Frank Twarog, MD PhD FAAAAI

James M. Tracy, DO FAAAAI
Andrew “Drew” Murphy, MD FAAAAI

5:45 Experience from the Field: Local Issues- National Impact!
James H. Sussman, DO FAAAAI
Andrew “Drew” Murphy, MD FAAAAI

6:05 Open “Mic” Q & A
RSLAAIS Chair, RSLAAIS Vice Chair, Governors; JCAAI Representative

6:20 Where do we go in 2013 and beyond?-Stay Tuned
Sharon Markovics, MD FAAAAI
James M. Tracy, DO FAAAAI

Annual Meeting Allied Health Sessions
Programmed by the AAAAI. Allied Health Sessions funded through an educational grant from Merck.
Seminars

5:15 to 6:15 pm
Programmed by the AAAAI. Seminars funded through an educational grant from Merck.
Pre-registration and ticket required. Fee: $40. Refreshments included. Sessions and refreshments limited to 30 people.
Credit: 1.00 CME / 1.20 CE

1811 Patients with Antibody Deficiency: Non-Infectious Complications
Charlotte Cunningham-Rundles, MD PhD FAAAAI
Francisco J. Espinosa-Rosales, MD
Marriott Rivercenter, Third Floor, Conference Room 11
Upon completion of this session, participants should be able to: Identify the complications which occur in patients with primary antibody disorders; Describe clinical elements and laboratory tests for surveillance of these non-infectious complications; Appreciate therapeutic approaches to non-infectious complications in primary immunodeficiency.

1812 Challenges of Managing Multiple Food Allergies
Julie Wang, MD FAAAAI
Michael C. Young, MD FAAAAA
Marriott Rivercenter, Third Floor, Conference Room 12
Upon completion of this session, participants should be able to: Identify the diagnostic and management challenges of multiple food allergies; Recognize the nutritional, feeding and social risk factors; Develop and implement a feeding plan for adequate nutrition, feeding skill and social development of children with multiple food allergies.

1813 SLIT vs. SCIT in Children
Giovanni Passalacqua, MD
David P. Skoner, MD
Marriott Rivercenter, Third Floor, Conference Room 13
Upon completion of this session, participants should be able to: Summarize experience with SLIT and compare and contrast its safety/efficacy vs. SCIT; Appreciate recent data describing SLIT; Appreciate methodologic variation in SLIT.

1814 Approach to the Evaluation of Immunodeficiency in Adults
Zuhaier K. Ballas, MD FAAAAI
Joyce E. Yu, MD
Marriott Rivercenter, Third Floor, Conference Room 14
Upon completion of this session, participants should be able to: Discuss the workup and management of adults with suspected immunodeficiency; Compare and contrast the differential diagnosis for hypogammaglobulinemia in adult patients; List key differences between the immunodeficiency diagnostic spectrum in adults vs. adolescents and children.

1815 Exercise-Induced Anaphylaxis and Food-Dependent Exercise-Induced Anaphylaxis
Anna M. Feldweg, MD
Kirsi M. Jarvinen-Seppo, MD PhD
Marriott Rivercenter, Third Floor, Conference Room 15
Upon completion of this session, participants should be able to: Review the most common clinical presentations of EIAn and typical foods that can trigger FD-EIAn; Discuss recent publications relevant to EIAn and FD-EIAn; Describe treatment options for EIAn and FD-EIAn.

1816 Vitamin D in Allergic and Immune Disorders
Audreesh Banerjee, MD
Marianne Frieri, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 17
Upon completion of this session, participants should be able to: Discuss the results of the NHANES survey related to vitamin D; Explain the role vitamin D on various allergic and immune conditions, the science of the immune response, findings in asthmatic children and steroid resistance; Discuss the importance of both the clinical and basic science of vitamin D.

1817 Let’s Take the Myth-stery Out of Mold
James J. Anderson, MLT
Charles S. Barnes, PhD
Peter J. Pitkin, MD
Marriott Rivercenter, Third Floor, Conference Room 18
Upon completion of this session, participants should be able to: Provide evidence that the risk of mold is often overstated; Describe the proven risk presented by mold; Explore challenges of workplace mold investigations.

1818 Immunodeficiencies Discovered in the Last Five Years
Thomas A. Fleisher, MD FAAAAI
Gulbu Uzel, MD
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M
Upon completion of this session, participants should be able to: Discuss the new primary immunodeficiency Diseases, with a focus on those described during the past five years; Appreciate the newer technologies used for discovery of these and future disorders; Appreciate the expanding overlap between immunodeficiency and inflammatory disorders.

1819 Allergic Reactions to Vaccines
Amanda L. Cox, MD
John M. Kelso, MD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L
Upon completion of this session, participants should be able to: Review allergies which present a risk of reaction to certain vaccines; Describe the current data on the safety of the influenza vaccination for egg-allergic individuals; Discuss approaches to testing or appropriate administration of vaccines where there is a concern about vaccine allergy.

1820 Management of Children and Adult Patients with Atopic Dermatitis
Mark Boguniewicz, MD FAAAAI
Dagmar Simon, MD
Marriott Rivercenter, Third Floor, Grand Ballroom Salon J
Upon completion of this session, participants should be able to: Describe the presentation, pathophysiology and complications of atopic dermatitis; Discuss the management of these patients, including their education; Discuss possible therapeutic consequences due to new insights into the pathogenesis of atopic dermatitis.

International Assembly Business Meeting and Reception
5:15 to 7:15 pm
Convention Center, Concourse Level, Room 210AB
All international members and delegates are invited to attend this business meeting and reception. No fee. No pre-registration required.

Allied Health Wine and Cheese Reception
5:30 to 6:30 pm
Marriott Riverwalk, Floor P1, Riverview
All allied health members and their guests are invited to attend this reception for an evening of networking with other allied health professionals.
Seminars

7:00 to 8:00 am
Programmed by the AAAAI. Seminars funded through an educational grant from Merck.
Pre-registration and ticket required. Fee: $40. Continental breakfast included. Sessions and meals limited to 30 people.
Credit: 1.00 CME / 1.20 CE

2001 Problem-Based Learning: If I Care for Asthma I Need to Know About Alpha-1-Antitrypsin Deficiency
Timothy J. Craig, DO FAAAAI
Laura H. Fisher, MD
Marriott Rivercenter, Third Floor, Grand Ballroom Salon B
Upon completion of this session, participants should be able to: Describe the presentation of alpha-1 deficiency; Diagnose alpha-1; Improve outcomes by successfully diagnosing and treating alpha-1 deficiency.

2002 Understanding Modern Flow Cytometry Testing in Clinical Allergy and Immunology
Kimberly A. Risma, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon C
Upon completion of this session, participants should be able to: Recognize the technical and technological advances and limitations of standard multicolor flow cytometry; Discuss major advances in flow cytometry technologies and applications to clinical research; Review the potential clinical applications of new and emerging cytometry technology.

2003 Problem-Based Learning: Effective Tools in Making the Diagnosis of Occupational Asthma
André Carter, MD FAAAAI
Karín A. Pacheco, MD MSPH FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 13
Upon completion of this session, participants should be able to: Recognize the history clues pointing to potential work-related asthma; Develop familiarity with the approach needed to establish the diagnosis of occupational asthma; Discuss the strengths and weaknesses of the tools available to establish work-relatedness.

2004 Physical Urticarias
Mario Geller, MD FAAAAI
Paul A. Greenberger, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 2
Upon completion of this session, participants should be able to: Identify physical urticarias; Evaluate and educate patients with physical allergies; Manage and treat physical urticarias with the recent data.

2005 Selection and Implementation of an Electronic Medical Record
David J. Shulman, MD FAAAAI
Richard L. Wasserman, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 3
Upon completion of this session, participants should be able to: Discuss methods to utilize in EMR selection; Discuss best practices to implement your EMR 3; Discuss aspects of EMR selection unique to the allergist.

2006 Evaluating Experimental Models of Allergic Rhinitis
Anne K. Ellis, MD MSc FAAAAI
Martin Wagenmann, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 4
Upon completion of this session, participants should be able to: Describe the most commonly used methodologies for experimental nasal allergen challenge in the investigation of allergic rhinitis; Describe the commonly used methodologies utilized in environmental exposure unit type studies of allergic rhinitis; Describe the advantages and disadvantages of both experimental models pertaining to the study of allergic rhinitis.

2007 Siglecs and Their Role in Immune Responses
Bruce S. Bochner, MD FAAAAI
Nives Zimmermann, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 14
Upon completion of this session, participants should be able to: Provide examples of siglecs and their function in immune responses relevant to the allergist and immunologist; Summarize existing and future therapies involving siglecs and their glycan ligands.

2008 Pulmonary Function Testing in Infants and Children
Howard Eigen, MD
Amy G. Filbrun, MD MS
Marriott Rivercenter, Third Floor, Conference Room 8
Upon completion of this session, participants should be able to: Identify different pulmonary function techniques used with infants and small children; Discuss the reliability and predictive values for infant and small child PFTs; Review the indications for performing PFTs on this population.

2009 When to Suspect and How to Diagnose and Treat Pediatric Cutaneous and Systemic Mastocytosis
Melody C. Carter, MD
Dean D. Metcalfe, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 9
Upon completion of this session, participants should be able to: Review the diagnosis of cutaneous vs. systemic disease; Restate how to treat pediatric mastocytosis; Describe how to identify those whose disease may persist.

2010 Rethinking Allergen Avoidance
Elizabeth Matsui, MD
Euan Tovey, PhD
Marriott Rivercenter, Third Floor, Conference Room 10
Upon completion of this session, participants should be able to: Define current guidelines for allergen avoidance in asthma management; Describe methods of reducing allergen exposure and evidence based studies of their effectiveness; Discuss new strategies for allergen avoidance that take into account the complex interactions between allergens, the innate immune system and genetic markers.

2011 Perioperative Anaphylaxis: Which Tests and How to Interpret
Pascal M. Demoly, MD PhD
Gerald W. Volcheck, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 11
Upon completion of this session, participants should be able to: Explain to patients the meaning of allergy tests performed for perioperative anaphylaxis.

2012 Achieving Expertise in Asthma Adherence
Andrea J. Apter, MD MA MSc FAAAAI
Bruce G. Bender, PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 12
Upon completion of this session, participants should be able to: Appreciate the prevalence and implications of suboptimal adherence in asthma; Recognize clues which may suggest suboptimal adherence; Develop strategies to facilitate optimal controller use in specific asthmatic patients.

2013 Mechanisms and Biomarkers Related to Sublingual and Subcutaneous Immunotherapy
Carsten B. Schmidt-Weber, PhD
Mohamed H. Shamji, BSc MSc PhD
Marriott Rivercenter, Third Floor, Conference Room 1
Upon completion of this session, participants should be able to: Discuss humoral mechanisms of SCIT and SLIT; Discuss cellular mechanisms of SCIT and SLIT; Discuss novel biomarkers of successful SCIT and SLIT.
2014 **Advanced Seminar: Quantifying Th2 Immunomodulation in Clinical Trials and Drug Discovery**
William W. Kwok, PhD
Calman Prussin, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 7
Upon completion of this session, participants should be able to: Discuss the utility of measuring Th2 responses as a surrogate marker for immunotherapy and drug discovery; Explain the different techniques available to measure total and allergen specific IgE; Apply these techniques to clinical trials of allergen immunotherapy and immunomodulator therapy.

2015 **Update on Neutrophils in Asthma and Allergic Diseases**
Dorothy S. Cheung, MD FAAAAI
Larry L. Thomas, PhD
Marriott Rivercenter, Third Floor, Conference Room 15
Upon completion of this session, participants should be able to: Discuss the expression and function of the high affinity IgE receptor on neutrophils; Discuss how different subsets of neutrophils may influence both the innate and adaptive responses; Explain the role of neutrophils to both initiating and resolving the inflammatory response.

**Medical Administrator Workshop**

2021 **Cybersecurity: Technology in Practice**
6:45 to 8:00 am
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M
Credit: 1.25 CME / 1.50 CE
Moderator: Jeannette Booker
Speaker to be announced.
Upon completion of this session, participants should be able to: Recognize how to detect and protect hardware and software; Implement security measures to protect a practice; Discuss how to set up emergency plans in case of a breach.

2022 **Motivational Interviewing: Motivating Behavior Change in Patients with Asthma**
6:45 to 8:00 am
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L
Credit: 1.25 CME / 1.50 CE
Moderator: Michael S. Tankersley, MD FAAAAI
Beth A. Allison, NP
Upon completion of this session, participants should be able to: Discuss motivation and confidence about health behavior change; Apply negotiating strategies based on a patient’s readiness to consider change; Address patient resistance without confronting or persuading.

**Allied Health Workshop**

2023 **‘Healthy’ Diet and Allergy Development: Evidence and Interpretation for Allergy Practice**
6:45 to 8:00 am
Marriott Rivercenter, Third Floor, Grand Ballroom Salon K
Credit: 1.25 CME / 1.50 CE
Moderator: G. Lynn Christie, MS RD
Kathryn E. Grimshaw, RD
Upon completion of this session, participants should be able to: Develop an appreciation of the literature concerning the immunomodulatory effect of individual nutrients and the diet as a whole; List the main constituents of an ‘allergy healthy’ diet; Discuss how to give general ‘allergy healthy’ dietary advice and when referral to a dietitian for specific dietary advice is needed.

**Presidential Plenary**

2101 **Sensitization and Tolerance in Allergic Disease**
8:15 to 9:45 am
Convention Center, Street Level, Exhibit Hall D
Credit: 1.50 CME / 1.80 CE
Moderator: A. Wesley Burks, MD FAAAAI
8:15 Role of Filaggrin Mutations in Human Disease and Allergic Sensitization
Alan David Irvine, MD
8:45 Early Life Environmental Influences on Development in Allergic Diseases
Susan Prescott, MD PhD
9:15 Immune Tolerance and Allergy: Can We Produce True Tolerance?
A. Wesley Burks, MD FAAAAI
Upon completion of this session, participants should be able to: Describe the role of filaggrin mutations in allergic disease; Identify environmental factors that may impact the development of allergic disease; Debate the question of whether or not tolerance can be induced in patients with allergic disease.

**Annual Meeting Allied Health Sessions**
Programmed by the AAAAI. Allied Health Sessions funded through an educational grant from Merck.
Posters
9:45 to 10:45 am
Convention Center, Street Level, Exhibit Hall C
Credit: No CME / No CE
Refer to pages 86-139 for abstracts and authors.

2201 Emerging Asthma Therapeutics
2202 Pattern Recognition Receptor, T Cells, B Cells and Dendritic Cells
2203 Biologic Therapies, Vaccines, HIV
2204 Occupational and Environmental Exposures
2205 Allergens and Epitopes
2206 Food Allergens/Food Disease Epi/Insect Hypersensitivity
2207 Urticaria/Angioedema
2208 Provider Education, Knowledge and Specialty
2209 Treatment of Allergic and Immune Disorders
2210 Immunotherapy I
2211 Rhinitis I
2212 Allergic Inflammation
2213 Allied Health Saturday Poster 1

Symposium

2301 Management of Early Loss of Asthma Control or What to Do When Your Patient Reaches the Yellow Zone
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C1
Credit: 1.25 CME / 1.50 CE
Moderator: John Oppenheimer, MD FAAAAI
10:45 Our Understanding of Asthma Exacerbations
Pedro C. Avila, MD FAAAAI
11:05 Definition of Early Loss of Asthma Control and Present Recommended Interventions
Chitra Dinakar, MD FAAAAI
11:25 Role of the Maintenance and Reliever Approach in Early Loss of Asthma Exacerbation
Daniel J. Jackson, MD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Examine our understanding of the causes and pathophysiology of asthma exacerbations; Stratify level of asthma exacerbations, stressing determinants of early loss of asthma control; Discuss the evidence regarding therapeutic interventions following the early loss of asthma control.

2302 Biome and Immune Interactions
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C2
Credit: 1.25 CME / 1.50 CE
Moderator: Mitchell H. Grayson, MD FAAAAI
10:45 Sorting Out Microbiota, Diet, and Immune Interactions: Lessons from Malnutrition
Andrew Kau, MD PhD
11:05 The Biome in Atopic Disease Development
Harald E. Renz, MD
11:25 The Gut Microbiome’s Role in the Lung Immune Response
Mitchell H. Grayson, MD FAAAAI
11:40 Question & Answer
Upon completion of this session, participants should be able to: Appreciate the interaction between bacterial members of the biome; Discuss how the biome modulates the immune system; Discover how atopic disease development is affected by the biome.

2303 EAACI: Allergen Specific Immunotherapy From Bench to Bedside
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C3
Credit: 1.25 CME / 1.50 CE
Moderators: Cezmi A. Akdis, MD FAAAAI
A. Wesley Burks, MD FAAAAI
10:45 The Difference Between Perceptions and Facts in Allergen Immunotherapy
Pascal M. Demoly, MD PhD
11:05 Recent Big Clinical Trials in SCIT and SLIT
Moises A. Calderon, MD PhD
11:25 Recombinant Allergen Immunotherapy Vaccines
Marek Jutel, MD PhD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Comprehend the common perceptions and public knowledge compared to scientific evidence for the clinical usage of allergen immunotherapy; Describe the results of recent big clinical trials in subcutaneous and sublingual immunotherapy; Discuss novel developments in recombinant immunotherapy vaccines.
Symposium ▼

2304 Primary Immunodeficiency Diseases on the Horizon: An International CONSensus Symposium
10:45 am to 12:00 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Moderator: Kathleen E. Sullivan, MD PhD FAAAAI

10:45 Induced Pluripotent Stem Cells and Human Primary Immunodeficiencies
Luigi D. Notarangelo, MD

11:05 How Many Immunodeficiencies are Out There?
Francisco A. Bonilla, MD PhD FAAAAI

11:25 Use of Genomic Technologies to Diagnose Primary Immunodeficiency Diseases
John M. Routes, MD FAAAAI

11:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss induced pluripotent stem cells and their role in evaluating primary immune defects; Describe how new sequencing technologies may lead to an explosion in the identification of immunologically important mutations; Recognize how gene chips may be used as future diagnostic tools.

Symposium ▼

2305 Immunity of Air Pollution and Organic Particulate Airway Disease
10:45 am to 12:00 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Neil Alexis, PhD

10:45 Particles and Oxidative Stress: Good or Bad?
Steve N. Georas, MD

11:05 Ozone Injury and Airway Disease: Mechanistic Focus
John W. Hollingsworth, MD

11:25 Innate Immunity of Occupational Organic Dust Exposures
Jill A. Poole, MD FAAAAI

11:45 Question & Answer
Upon completion of this session, participants should be able to: Outline new and updated knowledge in the area of air pollutants and organic dust from urban and rural areas leading to airway diseases; Recognize the innate immune response to complex organic dusts and air pollutants; Discuss how different environmental exposures activate the lung’s innate immune system, leading to susceptibility to allergic airway inflammation.

Symposium ▼

2306 Chronic Rhinosinusitis: Surgical Perspectives from the American Rhinological Society
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 217AB
Credit: 1.25 CME / 1.50 CE
Moderator: Robert M. Naclerio, MD FAAAAI

10:45 The Indications for Sinus Surgery in CRS Management
Robert Kern, MD

11:05 Surgical Treatment Outcomes for CRS
Timothy L. Smith, MD MPH

11:25 Management of CRS in Special Cases: CF, AFS and ASA Triad
Rodney J. Schlosser, MD

11:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss indications for sinus surgery; Describe the goals of sinus surgery for CRS; Review the definition of surgical success.

Symposium ▼

2307 Accountable Care and Population Management for the Asthma Patient in 2013 and Beyond
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 217CD
Credit: 1.25 CME / 1.50 CE
Moderator: Daniel G. Steinberg, MD FAAAAI

10:45 Accountable Care, Risk Adjustment and the Future of Allergy/Asthma Care
Jonathan Niloff, MD

11:05 Principles for Management of a Population of Asthma Patients
Barry Lachman, MD MPH

11:25 Utilizing Technology to Optimize Disease State Management for an Asthma Population
Andrew G. Weinstein, MD FAAAAI

11:45 Question & Answer
Upon completion of this session, participants should be able to: Describe the organization of ACOs and reimbursement strategies; Review the methods of managing populations; List the types of technology that can be used to manage a population of asthma patients.

Symposium ▼

2308 Food Allergy Prevention and Treatment: How Does it Start and How Can it Be Stopped?
10:45 am to 12:00 pm
Convention Center, Street Level, Exhibit Hall D
Credit: 1.25 CME / 1.50 CE
Moderator: Anna H. Nowak-Wegrzyn, MD FAAAAI

10:45 Prevention of Food Allergy: Is it Possible?
Susan Prescott, MD PhD

11:05 The Role of Food Allergy in EGID
Seema Sharma Aceves, MD PhD FAAAAI

11:25 Treatment for Food Allergy
J. Andrew Bird, MD

11:45 Question & Answer
Upon completion of this session, participants should be able to: Outline the current international guidelines for the prevention of food allergy; Discuss the role of food allergy in EGID and the appropriate diagnostic testing; Review the latest studies and the safety of the new studies on immunotherapy for food allergy.
Medical Administrator Workshop

2311 Patient Centered Medical Home (PCMH)
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M
Credit: 1.25 CME / 1.50 CE
Moderator: Jeannette Booker
Richard W. Horsinger, MD ACP FAAAAI

Upon completion of this session, participants should be able to: Interpret how to network with primary care to establish PCMH cells; Discuss how to understand your role in this emerging modality of patient care; Describe the responsibilities of allergist/immunologists.

Clinical Research Workshop

2312 The Anatomy of the Clinical Research Contract, Budget and Successful Negotiation
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L
Credit: 1.25 CME / 1.50 CE
Moderator: Donna W. Mitchell, RN MSN NP
Cheryl Koff Bernstein, RN BSN CCRC

Upon completion of this session, participants should be able to: Identify and discuss the language used in reciprocal or crossed indemnification and offer alternative indemnification language; Identify and discuss adherence protocol language that is acceptable to the research center; Discuss successful methods and techniques used during contract and budget negotiation with the sponsor and CRO.

Allied Health Workshop

2313 Review of Experience Performing Baked Milk and Baked Egg Food Challenges
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon K
Credit: 1.25 CME / 1.50 CE
Moderator: Teri Holbrook, CRNP
Kim E. Mudd, RN MSN CCRP

Upon completion of this session, participants should be able to: Identify which children can be considered for a food challenge to baked milk and baked egg; Describe a protocol to use in your practice to conduct a baked milk and baked egg food challenge; Describe how children who pass a baked milk and baked egg food challenge go home and increase the food in their diet.

Allied Health Workshop

2314 2012 NIOSH Report: Is Your Office Meeting Spirometry Quality Assurance Standards?
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon D
Credit: 1.25 CME / 1.50 CE
Moderator: Stephen J. McGeady, MD FAAAAI

10:45 Standards for a Valid Normal Test
Maureen George, PhD RN AE-C

11:10 Common Errors: Part I
Concettina Tolomeo, DNP APRN FNP-BC AE-C

11:35 Common Errors: Part II
Mary Kay Bossard, BS RRT AE-C

Upon completion of this session, participants should be able to: Describe the impact of comorbid conditions on asthma diagnosis; Discuss the effects of comorbid conditions on asthma severity; Review the effects of specific therapies on asthma outcomes.

Allied Health Symposium

2315 The A Team: A Multidisciplinary Approach to Asthma Education
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon A
Credit: 1.25 CME / 1.50 CE
Moderator: Antonina G. Evans, BSPharm AE-C

10:45 Respiratory Therapists: Making a Difference in Asthma Education and Management
Jeanette Arnold, MSN RN C-FNP

11:10 Pharmacist's Role on the A Team
Antonina G. Evans, BSPharm AE-C

11:35 Nurse Practitioners on the A Team: Measuring and Reporting Outcomes
Nina A. Zimmermann, MSN RN ANP-BC AE-C

Upon completion of this session, participants should be able to: Discuss the components of an effective multidisciplinary asthma education program; Recognize the roles and responsibilities of each member of the multidisciplinary asthma education team; Apply and report on asthma education outcome measures.

Allied Health Workshop

2316 IC and FVC: The “How To” for Reliable Results
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon J
Credit: 1.25 CME / 1.50 CE
Moderator: Karen L. Gregory, DNP APRN-BC RRT AE-C
James M. Quinn, MD FAAAAI

Upon completion of this session, participants should be able to: Identify the ATS/ERS criteria for SVC, IC and FVC maneuvers; Demonstrate proper FVC and IC maneuvers; Discuss basic interpretation schemas.

Allied Health Professional Assembly Forum

12:30 to 1:30 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon G

All allied health professionals are invited to attend this forum. Box lunches included.

Annual Meeting Allied Health Sessions

Programmed by the AAAAI. Allied Health Sessions funded through an educational grant from Merck.

Seminars

12:30 to 1:30 pm
Programmed by the AAAAI. Seminars funded through an educational grant from Merck.
Pre-registration and ticket required. Fee: $40. Box lunch included.
Sessions and meals limited to 30 people.
Credit: 1.00 CME / 1.20 CE

2501 Comorbidities in Asthma: Which Matter Most?
Jonathan Corren, MD
Eli O. Meltzer, MD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon B

Upon completion of this session, participants should be able to: Describe the impact of comorbid conditions on asthma diagnosis; Discuss the effects of comorbid conditions on asthma severity; Review the effects of specific therapies on asthma outcomes.
2502 An Update on Neutrophil Disorders: Diagnosis and Treatment
Steven M. Holland, MD
Gulbu Uzel, MD
Marriott Rivercenter, Third Floor, Grand Ballroom Salon C
Upon completion of this session, participants should be able to: List current diagnostic tests, including genetic, for different neutrophil disorders; Review treatment options for patients with neutrophil disorders including CGD.

2503 Occupational Disease: New Agents, New Diseases, Prevention and Epidemiology
Wanda Phipatanakul, MD MS FAAAAI
Santiago Quirce, MD PhD
Marriott Rivercenter, Third Floor, Conference Room 1
Upon completion of this session, participants should be able to: Apply new and updated knowledge in the areas discussed; Review updated strategies for diagnosis and treatment of occupational diseases.

2504 Problem-Based Learning: So the Patient Has Eosinophilia: What Next?
Amy D. Killon, MD
Catherine R. Weiler, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 2
Upon completion of this session, participants should be able to: Review diagnosis of variants of hypereosinophilic syndrome; Describe identification of secondary eosinophilia; Discuss therapeutic approaches to hypereosinophilic syndrome.

2505 Advanced Coding for the Allergist
Noga Askenazi, MD FAAAAI
Teresa Thompson, CPC CMSCS CCC
Marriott Rivercenter, Third Floor, Conference Room 3
Upon completion of this session, participants should be able to: Discuss the use of codes pertinent to A/I practice; Describe details of coding for patients’ allergy testing and immunotherapy.

2506 CRD in Clinical Allergy Practice
Jean-Christoph Cautet, MD
Peter Schmid-Grendelmeier, MD PD
Marriott Rivercenter, Third Floor, Conference Room 13
Upon completion of this session, participants should be able to: Review evidence-based clinical use of CRD; Describe molecular allergens with highest clinical significance.

2507 Regulation of Allergic Inflammation by Airway Epithelium
Zoufia Allakverdi, PhD FAAAAI
Angela Haczku, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 7
Upon completion of this session, participants should be able to: Describe how epithelial cells play an active role in the initiation, regulation and resolution of immune responses; Discuss the role of epithelial cell-derived cytokines/immune modulators in chronic airway inflammation; Describe the activity of epithelial cell-derived cytokines/immune modulators on cells of the innate immune system and allergic airways changes.

2508 Exhaled NO: Time to Clear the Air!
Chitra Dinakar, MD FAAAAI
Stanley Szefler, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 8
Upon completion of this session, participants should be able to: Discuss the application of eNO in the context of ATS guidelines and AAAAI/ACAAI position statements; Recognize the relationship between the levels of evidence and practice guidelines for clinical eNO use; Explain potential weaknesses/strengths of eNO for managing asthmatics.

2509 When is an Elevated IgE Level a Sign of Immunodeficiency?
Alexandra F. Freeman, MD
Hans D. Ochs, MD
Marriott Rivercenter, Third Floor, Conference Room 9
Upon completion of this session, participants should be able to: Review the differential diagnosis of an elevated IgE level; Discuss the work up necessary in patients with elevated IgE levels; Review the hyper IgE syndromes.

2510 Principles of Healthy Homes
Carl Grimes, HHS CIEC
Kevin Kennedy, MPH CIEC
Marriott Rivercenter, Third Floor, Conference Room 10
Upon completion of this session, participants should be able to: Identify and describe the 7 principles of healthy homes; Describe the healthy home movement and the comprehensive approach to housing hazards it represents.

2511 Office Evaluation of Patients with Multiple Antibiotic Allergies
Rebecca S. Gruchalla, MD PhD FAAAAI
Roland Solensky, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 11
Upon completion of this session, participants should be able to: Describe how to approach patients with multiple antibiotic allergies with appropriate diagnostic testing and challenge procedures.

2512 Efficacy vs. Effectiveness in Asthma
Andrea J. Apted, MD MA MSc FAAAAI
Anne L. Fuhlbrigge, MD MS
Marriott Rivercenter, Third Floor, Conference Room 12
Upon completion of this session, participants should be able to: Distinguish between the concepts of treatment efficacy and treatment effectiveness; Explain how controlled trials and pragmatic trials measure effectiveness differently; Discuss how to design a pragmatic trial for asthma treatment.

2513 Problem-Based Learning: The Allergist and Sleep Disorders
Samuel L. Friedlander, MD
Bernard Silverman, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 4
Upon completion of this session, participants should be able to: Describe the relationship between allergic rhinitis, rhinosinusitis and sleep disorders; Discuss the impact of rhinitis-disturbed sleep; Identify the role of an allergy specialist in the treatment of rhinitis-disturbed sleep and obstructive sleep apnea.

2514 Mechanism of Anaphylaxis
Mary Beth Hogan, MD FAAAAI
Wei Zhao, MD PhD
Marriott Rivercenter, Third Floor, Conference Room 15
Upon completion of this session, participants should be able to: Describe the role of basophils and neutrophils in the pathogenesis of anaphylaxis; Distinguish IgE from IgG mediated anaphylaxis.

2515 Managing Stress as a Therapeutic Option for Allergy Patients
Renata J.M. Engler, MD FAAAAI
Gailen D. Marshall, Jr., MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 14
Upon completion of this session, participants should be able to: Describe the accurate definition of psychological stress as it applies to allergy immunology pathophysiology and care; Describe evidence-based approach to modalities that reduce/manage stress for allergy, asthma and immunologically diseased patients; Discuss approach to intercaring/advising patients who use stress reduction/management techniques that are not evidenced-based.
### Pro/Con Debate

#### 2521 Multiallergen SCIT is Better Than Monoallergen SLIT
- **12:30 to 1:30 pm**
- **Convention Center, Ballroom Level, Ballroom C1**
- **Credit:** 1.00 CME / 1.20 CE
- **Moderator:** B. Lauren Charous, MD FAAAAI
  
  **Pro**
  - Linda Cox, MD FAAAAI
  - Moses A. Calderon, MD PhD
  
  **Con**
  - Upon completion of this session, participants should be able to: Discuss the benefits of single allergen IT; Review the benefits of multi-allergen IT; Describe the different expected benefits of the two methods described above.

#### 2522 Maintenance Steroids Should be Used for Preschool Wheezers
- **12:30 to 1:30 pm**
- **Convention Center, Ballroom Level, Ballroom C2**
- **Credit:** 1.00 CME / 1.20 CE
- **Moderator:** Dorothy S. Cheung, MD FAAAAI
  
  **Pro**
  - Theresa W. Guilbert, MD
  - Leonard B. Bacharier, MD FAAAAI
  
  **Con**
  - Upon completion of this session, participants should be able to: Review the safety of continuous administration of low dose ICS; Appreciate the effectiveness of intermittent treatment of preschool asthma; Identify predictors of persistent asthma in children who present with intermittent preschool wheeze.

#### 2523 Pets Prevent Allergies
- **12:30 to 1:30 pm**
- **Convention Center, River Level, Room 006**
- **Credit:** 1.00 CME / 1.20 CE
- **Moderator:** Diane R. Gold, MD
  
  **Pro**
  - Dennis R. Ownby, MD FAAAAI
  
  **Con**
  - Matthew S. Perzanowski, PhD
  
  Upon completion of this session, participants should be able to: Describe the settings where pet exposure could be recommended vs. where it should be avoided; Develop tools to counsel parents on keeping or getting rid of a pet; Summarize the public debate on pets in the home.

#### 2524 Chronic Urticaria is an Autoimmune Disorder
- **12:30 to 1:30 pm**
- **Convention Center, River Level, Room 007**
- **Credit:** 1.00 CME / 1.20 CE
- **Moderator:** Sarbjit S. Saini
  
  **Pro**
  - Allen P. Kaplan, MD FAAAAI
  
  **Con**
  - Jonathan A. Bernstein, MD FAAAAI
  
  Upon completion of this session, participants should be able to: Increase understanding of the pathogenic factors in urticaria; Examine the evidence for autoimmune testing in urticaria.

#### 2525 Genetic Testing is Useful to the Practicing Allergist
- **12:30 to 1:30 pm**
- **Convention Center, Concourse Level, Room 217AB**
- **Credit:** 1.00 CME / 1.20 CE
- **Moderator:** John W. Steinke, PhD FAAAAI
  
  **Pro**
  - Scott T. Weiss, MD MS
  
  **Con**
  - Larry Borish, MD FAAAAI
  
  Upon completion of this session, participants should be able to: Determine whether or not the money spent to find allergy genes will lead to clinical diagnostics.

#### 2526 Airborne Exposure to Aeroallergens Has a Role in the Disease Process of EoE
- **12:30 to 1:30 pm**
- **Convention Center, Concourse Level, Room 217CD**
- **Credit:** 1.00 CME / 1.20 CE
- **Moderator:** John Jhe-Yun Lee, MD
  
  **Pro**
  - Jonathan M. Spergel, MD PhD FAAAAI
  
  **Con**
  - Chris A. Liacouras, MD
  
  Upon completion of this session, participants should be able to: Recognize the epidemiology of food and aeroallergen sensitivity in EoE; Outline the data on aeroallergen sensitivity and EoE; Discuss the current controversy on whether aeroallergens can trigger the disease process of EoE.

#### 2527 Accountable Care Organizations (ACOs) are Good for the Practicing Allergist
- **12:30 to 1:30 pm**
- **Convention Center, Concourse Level, Room 214BC**
- **Credit:** 1.00 CME / 1.20 CE
- **Moderator:** Robert J. Holzhauer, MD MBA FAAAAI
  
  **Pro**
  - Michael B. Foggs, MD FAAAAI
  
  **Con**
  - Daniel Ein, MD FAAAAI
  
  Upon completion of this session, participants should be able to: Describe ACOs in the greater context of health care reform; Review what an ACO is and how it may affect the practice of allergy; Develop strategies toward integrating with ACOs if necessary.
Oral Abstract

2601 Asthma and the Environment
2:00 to 3:15 pm
Convention Center, Ballroom Level, Ballroom C1
Credit: 1.25 CME / 1.50 CE
Heather K. Lehman, MD
Stephen P. Peters, MD PhD FAAAAI

2:00 Contributing and Protective Risk Factors for Asthma Exacerbation in Latinos (GALA-II Study)
Ulysses W. Burley III

2:15 Aeroallergen Sensitization Is Associated with Asthma Severity in Latinos (GALA-II Study)
S. Joy Hsu, MD

2:30 Influence of Cigarette Smoking On Airway Inflammation and Inhaled Corticosteroid Treatment in Asthmatic Patients
Terufumi Schimoda, MD

2:45 Correlation Between Aeroallergen Sensitization and Pediatric Asthma Severity - Data From the Severe Asthma Research Program (SARP)
Marc D. Ikeda, MD

3:00 House Dust Mite Sensitization Is the Main Risk Factor for the Increase in Prevalence of Wheeze in 13-14 Year Old Schoolchildren in Guangzhou City, China
Jin Li, MD MSc

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

Oral Abstract

2602 Immunogenetics
2:00 to 3:15 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Christina L. Nance, PhD

2:00 Next Generation Sequencing May Be More Efficient and Economical Than Targeted Gene Testing in Patients with Primary Immune Deficiency (PID)
Talal Mousallem

2:15 Interactions Between SLC22A5, IL13 and SMAD3 Modulate Spirometric Indices in Chinese Children
Tin Fan Leung, MD FAAAAI

2:30 Effects of Maternal Allergy On Umbilical Cord Blood Regulatory T Cell Forkhead Box Protein 3 (FOXP3) DNA Methylation
Michelle North, PhD

2:45 Sequencing of the ST2 Gene Reveals a Haplotype That Determines Serum Total ST2 Levels in Individuals of African Ancestry
Lili Huang, MPH

3:00 Whole Genome Sequence Reveals a Haplotype Conferring Protection From Asthma Common to Subjects of European and African Ancestry
Abdellah Hedjoudje

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

Oral Abstract

2603 How Inner-City Exposures Lead to Disparities in Children’s Asthma
2:00 to 3:15 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Jonathen A. Bernstein, MD FAAAAI

2:00 Classroom Fungal Spore Exposure and Asthma Morbidity in Inner-City School Children
Sachin N. Baxi, MD

2:15 Exposure to Polycyclic Aromatic Hydrocarbons Is Associated with Higher Levels of Total IgE, Decreased Function of T Regulatory Cells and an Increase of Asthma Occurrence in Children
Annett I. Walker, MD

2:30 Association Between Asthma-Related Emergency Department Visits and Pollen Concentration in the Bronx, 2001-2008
Sayantani B. Sinderer, MD

2:45 Report of Exercise-Induced Wheeze Predicts Urgent Medical Visits for Asthma Among Inner-City Children
Matthew S. Perzanowski, PhD

3:00 Allergen Exposure Influences the Relationship Between Community Violence and Asthma Morbidity: The Inner City Asthma Study
Michelle L. Sever, PhD

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

Oral Abstract

2604 Urticaria/Angioedema
2:00 to 3:15 pm
Convention Center, Grand Ballroom Level, Ballroom C3
Credit: 1.25 CME / 1.50 CE
David A. Khan, MD FAAAAI

2:00 Pediatric Presentation of Hereditary Angioedema (HAE) Due to C1 Inhibitor Deficiency
Annett I. Walker, MD

2:15 High Serum Levels of Mast Cell Chymase and Carboxypeptidase in Mastocytosis
Xiaoying Zhou, MD

2:30 Overexpression of Epidermal Filaggrin in Patients with Chronic Idiopathic Urticaria Correlates with Urticaria Severity
Young-Min Yee, MD

2:45 Genetic Analysis and Etiology of Angioedema
Jonathan Levy

3:00 Hereditary Angioedema Type III: Mutation in Factor XII Gene in Brazilian Families
Adriana S. Moreno, PhD

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

2605 New Insights in Food Allergy Treatment
2:00 to 3:15 pm
Convention Center, Concourse Level, Room 217AB
Credit: 1.25 CME / 1.50 CE
Moderator: Sani L. Bahna, MD DrPH FAAAAI
Sakina S. Bajowala, MD FAAAAI
2:00 Oral Food Challenge and Food Allergy Quality of Life in Caregivers of Food Allergic Children
Timothy J. Fraxman, MD
2:15 Racial and Ethnic Disparity in Food Allergy in the United States: A Systematic Review
Matthew J. Greenhawt, MD MBA
2:30 Multi-Allergen Oral Immunotherapy Improves Quality of Life in Subjects with Food Allergies
Iris Otani, MD
2:45 Is Molecular Allergology Cost-Effective and Cost Saving in Children with Suspected Peanut Allergy Compared to Double Blind Placebo Controlled Food Challenge (DBPCFC) and Skin Prick Test in US, Europe and Asia?
Lisse-Lotte Hermansson
3:00 Question & Answer

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

Oral Abstract

2606 Rhinosinusitis and Nasal Polyposis: Pathophysiology
2:00 to 3:15 pm
Convention Center, Ballroom Level, Ballroom C2
Credit: 1.25 CME / 1.50 CE
Moderator: Martin Wagenmann, MD FAAAAI
2:00 Excessive Fibrin Deposition Caused by a Fibrinolytic Disorder Associated with Reduction of Tissue Plasminogen Activator Expression in Nasal Polyps
Tetsuji Takabayashi, MD PhD
2:15 A Proposed Model to Study Immunologic Changes During Chronic Rhinosinusitis Exacerbations: Data From a Pilot Study
Shefali Samant, MD
2:30 The Impact and Nature of Inflammation in the Olfactory Cleft On Olfaction in Patients with Chronic Rhinosinusitis
Jennifer Lavin
2:45 Effect of Prostaglandin E2 On VEGF Production Through the E-Prostanoid 4 Receptor in Nasal Polyp-Derived Fibroblasts
Byoung Joan Baek
3:00 Elevated Presence of Dendritic Cell Subsets in Chronic Rhinosinusitis
Sarah Peterson, MD

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

Oral Abstract

2607 Mechanisms in the Control of Asthma
2:00 to 3:15 pm
Convention Center, Concourse Level, Room 217CD
Credit: 1.25 CME / 1.50 CE
Moderator: Anthony A. Horner, MD FAAAAI
2:00 Elevation of Plasminogen Activator Inhibitor-1 Levels in Sputum and Nasal Lavage Fluids of Asthmatics with Common Colds
Seong Ho Cho, MD
2:15 Human Mast Cells and Neutrophils Activate Gene Expression and Mucus Secretion in Primary Mucociliary Differentiated Human Bronchial Epithelial Cells Via IL-13
Deepti Nagarkar
2:30 Effects of Cigarette Smoke Exposure On RGS2 Expression and Airway Hyperresponsiveness
Ningxi Zhu, MD
2:45 Exposure to Cigarette Smoke Impacts Myeloid-Derived Regulatory Cell Function and Exacerbates Airway Hyper-Responsiveness
Jessy Deshane, PhD
3:00 Antagonistic Roles of Thymic Stromal Lymphopoietin (TSLP) and Surfactant Protein-D (SP-D) In Dendritic Cell Regulation During Ozone-Induced Exacerbation of Allergic Airway Inflammation in Mice
Angela Haczku, MD PhD FAAAAI

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

Allied Health Workshop

2621 Oral Food Challenges: What, Where, When and Why
2:00 to 3:15 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M
Credit: 1.25 CME / 1.50 CE
Moderator: Sally A. Noone, RN MSN CCRC
Beth D. Strong, RN CCRC

Upon completion of this session, participants should be able to: Identify types of oral food challenges and when and why to use each; Discuss how patients are referred for food challenges.

Allied Health Workshop

2622 An Update in the Diagnosis and Management of the 0-4 Year Old Asthmatic
2:00 to 3:15 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon K
Credit: 1.25 CME / 1.50 CE
Moderator: Donna R. Oberkfell, RN MSN CPNP
Lila C. Kertz, MSN RN CPNP

Upon completion of this session, participants should be able to discuss the evidence for diagnosis and treatment of the 0-4 year old asthmatic.
Allied Health Workshop

2623 Immunotherapy Guideline Update: Third Edition and USP 797 Compliance
2:00 to 3:15 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon A
Credit: 1.25 CME / 1.50 CE
Moderator: Cheryl Koff Bernstein, RN BSN CCRC
Sheelagh Stewart, MPH RN AE-C
Upon completion of this session, participants should be able to: Describe the compliance requirements for allergen extract preparation according to the USP chapter 797 and immunotherapy practice parameters guidelines third edition update; Discuss the practical applications of the guidelines in the private practice and identify practical approaches for implementation of the guidelines.

Allied Health Workshop

2624 Smoking Cessation: Helping Our Patients Quit
2:00 to 3:15 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon D
Credit: 1.25 CME / 1.50 CE
Moderator: Michael Tankersley, MD FAAAAI
Beth A. Allison, NP
Upon completion of this session, participants should be able to: Describe how to educate patients about the process of quitting including those who are resistant to quitting; Discuss evidence-based use of smoking cessation medications; Describe nicotine dependence and nicotine withdrawal.

Clinical Research Symposium

2625 Psychoneuroimmunology in Atopic Disease
2:00 to 3:15 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L
Credit: 1.25 CME / 1.50 CE
Moderator: Stephen J. McGeady, MD FAAAAI

2:00 The Physiology of Stress, the Human Immune System and Atopic Disease
Gerald B. Lee, MD

2:25 Mental Health Issues in Primary Care and the Allergy Office: Opening Pandora’s Box
David Wayne Unkle, MSN APN FCCM
Upon completion of this session, participants should be able to: Discuss the interrelationship between the immune system and the psychoneuroimmunune system; Recognize the role of psychopathology and personality factors in the management of atopic disease; Describe the relationship between depression, suicidality and atopic disease.

Keynote

2701 Dining in with Trillions of Fascinating Friends: The Microbiome in Health and Disease
3:30 to 4:30 pm
Convention Center, Street Level, Exhibit Hall D
Credit: 1.00 CME / 1.20 CE
Moderator: Stuart Abramson, MD FAAAAI
Jeffrey Gordon, MD
Dr. Robert J. Glaser Distinguished University Professor and Director of the Center for Genome Sciences & Systems Biology, Washington University School of Medicine
Upon completion of this session, participants should be able to describe the impact of the microbiome on human health and the development of disease.

Problem-Based Learning Workshop

2801 An Adult with Chronic Cough
4:45 to 6:00 pm
Convention Center, River Level, Room 004
Pre-registration and ticket required. Fee: $50.
Credit: 1.25 CME / 1.50 CE
Moderator: Steven F. Weinstein, MD FAAAAI
John Oppenheimer, MD FAAAAI
Upon completion of this session, participants should be able to: Discuss an adult who presents with a chronic cough; Review in depth the differential diagnoses of an adult with a chronic cough and the appropriate diagnostic evaluation; Debate therapeutic options for an adult with a chronic cough.

Hands-On Workshop

2802 Contact Dermatitis and Patch Testing: An Update for the Allergist
4:45 to 6:00 pm
Convention Center, River Level, Room 005
Pre-registration and ticket required. Fee: $50.
Credit: 1.25 CME / 1.50 CE
Moderator: Mary Ann Michelis, MD FAAAAI
Instructors: Luz S. Fonacier, MD FAAAAI
Karin A. Pacheco, MD MSPH FAAAAI
Upon completion of this session, participants should be able to: Discuss the clinical correlation of the patch test results to the patient’s condition; Develop a current understanding of allergic contact dermatitis and patch testing to cosmetics, medical devices and other allergens; Demonstrate the technique of application and interpretation of non-standardized allergens as in personal products.

Annual Meeting Allied Health Sessions
Programmed by the AAAAI. Allied Health Sessions funded through an educational grant from Merck.
Q & A Workshop

2803 The Diagnosis and Management of Autoimmunity in Primary Immunodeficiency (PI) Disorders
4:45 to 6:00 pm
Convention Center, River Level, Room 007
Moderator: Charlotte Cunningham-Rundles, MD PhD FAAAAI

Use of Immunosuppressants in Primary Immunodeficiencies
John M. Routes, MD FAAAAI

5:00 Autoimmunity in CVID
Arnold I. Levinson, MD FAAAAI

5:15 Autoimmunity in Other Forms of PID (APECED, ALPS, SCID)
Luigi D. Notarangelo, MD

5:30 Question & Answer

Upon completion of this session, participants should be able to: Provide a mechanistic framework on which to think about autoimmunity in the setting of immune deficiency; Discuss diagnostic and treatment guidelines for common autoimmune features of immune deficiency for the practicing allergist/immunologist.

Panel Discussion Workshop

2804 IgG Therapy: The Nuts and Bolts of Gamma Globulin Treatment
4:45 to 6:00 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Moderator: Itai Pessach, MD PhD
Panelists: Vincent R. Bonagura, MD FAAAAI
Francisco A. Bonilla, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Understand the factors to consider in choosing a dose of IgG for PIDD patients; Discuss the different types of adverse reaction to immunoglobulin therapy; Discuss the strategies to prevent and treat adverse reactions to immunoglobulin infusion.

Panel Discussion Workshop

2805 The Safety of Allergy and Asthma Medications During Pregnancy: Principles and Practice
4:45 to 6:00 pm
Convention Center, River Level, Room 008
Credit: 1.25 CME / 1.50 CE
Moderator: Nancy K. Ostrem, MD FAAAAI
Panelists: Christina Chambers, PhD MPH
Carol Louik, ScD
Jennifer A. Namazy, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the strengths and limitations of cohort methodology in the study of medication safety during pregnancy; Review the strengths and limitations of case-control methodology in the study of medication safety during pregnancy; Apply current information on the gestational safety of allergy and asthma medications to the clinical care of pregnant patients.

Hands-On Workshop

2806 ABAI: How to Use the Web Portal for Maintenance of Certification (MOC) Activities
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 210AB
Pre-registration and ticket required. Fee: $50.
Credit: 1.25 CME / 1.50 CE
Moderator: Mary Beth Fasano, MD FAAAAI
Instructors: John James, MD FAAAAI
Sarah Johnson
Stephen J. Wasserman, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss the four major components of the ABAI MOC program; Discuss how to successfully report MOC activities to the ABAI using the web portal; Demonstrate how to access, navigate and utilize the ABAI web portal for tracking and documenting personal progress through the MOC program.

Q & A Workshop

2807 Introductory Course in Rhinolaryngoscopy
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 211
Pre-registration and ticket required. No fee.
Credit: 1.25 CME / 1.50 CE
Moderator: Jerald W. Koepke, MD FAAAAI

Upon completion of this session, participants should be able to: Describe the surgical anatomy of the upper airway, including the nasal cavity, pharynx and larynx; Identify examples of normal and abnormal anatomy, as well as disease presentations and post operative changes found with endoscopic examination of the upper airway; Review the indications for and the use of the fiberoptic rhinoscope in the allergist’s office.

BYOP Workshop

2808 Mast Cell Disorders
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 212AB
Pre-registration and ticket required. No fee.
Credit: 1.25 CME / 1.50 CE
Moderator: Cem Akin, MD PhD FAAAAI

4:45 Mastocytosis
Mariana C. Castells, MD PhD FAAAAI

5:00 Pediatric Mastocytosis
Melody Carter, MD

5:15 Venom Allergy and Mastocytosis
Patrizia Bonadonna, MD

5:30 Question & Answer

Upon completion of this session, participants should be able to: Recognize the patients with high diagnostic possibility for having mastocytosis; List diagnostic criteria for clonal and non clonal mast cell disorders.
**Q & A Workshop**

**2809 Cellular Players in Asthma/Allergy**
4:45 to 6:00 pm  
Convention Center, Concourse Level, Room 213AB  
Credit: 1.25 CME / 1.50 CE  
Moderator: Joshua A. Boyce, MD FAAAAI

- **4:45**  
  T Cell Interaction with Epithelial Cells  
  Cezmi Akdis, MD FAAAAI

- **5:00**  
  Dendritic Cell and T Cell Responses in Food Allergy  
  Pamela A. Frischmeyer-Guerrerio, MD PhD

- **5:15**  
  Th9 Cells: In Front and Beyond Th2  
  Paul S. Foster, PhD DSc

**Panel Discussion Workshop**

**2812 Asthma Guidelines, P4P and the Medical Home: Notes from an Urban Allergist and a Health Insurance Payer**
4:45 to 6:00 pm  
Convention Center, Concourse Level, Room 214D  
Credit: 1.25 CME / 1.50 CE  
Moderator: Michael A. LeNoir, MD FAAAAI  
Panelists: Andrea J. Apter, MD MA MSc FAAAAI  
Michael B. Foggs, MD FAAAAI  
Michael A. LeNoir, MD FAAAAI

Upon completion of this session, participants should be able to: Describe the barriers to optimal care of asthma and its role in disparities of urban asthmatics; Review the growing model of health care delivery of the patient centered home in the diagnosis and management of asthma; Discuss strategies to increase the role of allergists/immunologists in the patient centered medical home.

**Problem-Based Learning Workshop**

**2813 Atopic Dermatitis**
4:45 to 6:00 pm  
Convention Center, Concourse Level, Room 214A  
Credit: 1.25 CME / 1.50 CE  
Moderator: Monica Vasudev, MD

- **4:45**  
  T and B Regulatory Cells  
  Mubeccel Akdis, MD PhD

- **5:00**  
  Mucosal Tolerance Mechanisms  
  Liam O'Mahony, MD

- **5:15**  
  Dendritic Cells, T Reg and Asthma Protection  
  Ian P. Lewkowich, PhD

- **5:30**  
  Question & Answer

**Problem-Based Learning Workshop**

**2814 A Child with Suspected Peanut Allergy**
4:45 to 6:00 pm  
Convention Center, Concourse Level, Room 216A  
Credit: 1.25 CME / 1.50 CE  
Moderator: Ray S. Davis, MD FAAAAI  
Hugh A. Sampson, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss a child who presents with suspected food allergy; Evaluate and make recommendations for a patient with suspected food allergy; Discuss food challenges in an office-based practice and potential use of oral food desensitization by clinical allergists.

**Panel Discussion Workshop**

**2811 HAE Treatment: Guideline-Based Approaches**
4:45 to 6:00 pm  
Convention Center, Concourse Level, Room 214BC  
Credit: 1.25 CME / 1.50 CE  
Moderators: Henriette Farkas, MD  
Henry H. Li, MD PhD  
Panelists: Marco Cicardi, MD  
Timothy J. Craig, DO FAAAAI  
Bruce L. Zuraw, MD

Upon completion of this session, participants should be able to: Discuss the major HAE treatment guidelines; Outline the similarities and differences in different HAE treatment guidelines; Describe the practical impact of these guidelines in clinical practice.

**Annual Meeting Workshops**

Programmed by the AAAAI. Annual Meeting Workshops funded through an educational grant from Merck.
<table>
<thead>
<tr>
<th>Q &amp; A Workshop</th>
<th>BYOP Workshop</th>
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<tbody>
<tr>
<td><strong>2815</strong> Eating Issues in Eosinophilic Esophagitis (EoE): Nutritional Concerns and Feeding Dysfunction</td>
<td><strong>2818</strong> Pediatric Dilemmas: Allergy and Beyond</td>
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<tr>
<td>4:45 to 6:00 pm</td>
<td>4:45 to 6:00 pm</td>
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<tr>
<td>Convention Center, Concourse Level, Room 217AB</td>
<td>Convention Center, Ballroom Level, Ballroom C2</td>
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<tr>
<td>Credit: 1.25 CME / 1.50 CE</td>
<td>Pre-registration and ticket required. No fee.</td>
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<tr>
<td>Moderator: Maya D. Srivastava, MD PhD AAAAI</td>
<td>Credit: 1.25 CME / 1.50 CE</td>
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<tr>
<td>4:45 Nutritional Issues in EoE</td>
<td>Moderator: Paul V. Williams, MD AAAAI</td>
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<tr>
<td>Marion E. Groetch, MS RD</td>
<td>4:45 The Pediatric Patient with Hypogammaglobulinemia</td>
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<tr>
<td>5:00 Feeding Dysfunction in Children with EoE</td>
<td>Vivian P. Hernandez-Trujillo, MD AAAAI</td>
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<tr>
<td>Sherri Cohen, MD MPH</td>
<td>5:00 Idiopathic Anaphylaxis in Children</td>
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<tr>
<td>5:15 When to Refer to Specialty Services</td>
<td>Scott P. Commins, MD PhD</td>
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<tr>
<td>David Mark Fleischer, MD AAAAI</td>
<td>5:15 The Child with Recalitrant Atopic Dermatitis</td>
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<tr>
<td>5:30 Question &amp; Answer</td>
<td>Mark Boguniewicz, MD AAAAI</td>
</tr>
<tr>
<td><strong>Q &amp; A Workshop</strong></td>
<td>5:30 Question &amp; Answer</td>
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<tr>
<td><strong>2816</strong> FDA: Update From the U.S. Food and Drug Administration (FDA)</td>
<td>Upon completion of this session, participants should be able to: List the common nutritional deficiencies in patients presenting with EoE and those that might occur as a result of dietary management using elimination diets; Describe the important aspects of monitoring dietary nutritional adequacy longitudinally in patients with EoE; Describe the aberrant feeding behaviors observed in young children with EoE who have feeding dysfunction and when referral to a feeding therapist is indicated.</td>
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<tr>
<td>4:45 to 6:00 pm</td>
<td>Upon completion of this session, participants should be able to: Address diagnostic and treatment challenges in the care of pediatric patients.</td>
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<tr>
<td>Convention Center, Concourse Level, Room 217CD</td>
<td><strong>Q &amp; A Workshop</strong></td>
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<tr>
<td>Credit: 1.25 CME / 1.50 CE</td>
<td><strong>2819</strong> Immunotherapy Preparation for Allergists</td>
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<tr>
<td>Moderator: F. Estelle R. Simons, MD AAAAI</td>
<td>4:45 to 6:00 pm</td>
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<tr>
<td>4:45 Year-in-Review at the FDA</td>
<td>Convention Center, Ballroom Level, Ballroom C3</td>
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<tr>
<td>Badrul A. Chowdhury, MD PhD AAAAI</td>
<td>Credit: 1.25 CME / 1.50 CE</td>
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<tr>
<td>5:00 Immunotherapeutic Lessons for the Allergist from Rheumatology</td>
<td>Moderator: John E. Duplantier, MD AAAAI</td>
</tr>
<tr>
<td>Keith Hull, MD PhD</td>
<td>4:45 Guide to Immunotherapy Administration and Enhancing Safety in the Office Setting</td>
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<tr>
<td>5:15 Issues in Drug Product Development for Allergic Rhinitis</td>
<td>Dana V. Wallace, MD AAAAI</td>
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<tr>
<td>Susan Lee Limb, MD AAAAI</td>
<td>5:00 Immunotherapy Dosing: Facts and Open Questions</td>
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<tr>
<td>5:30 Question &amp; Answer</td>
<td>Désirée E.S. Larenas Linnemann, MD AAAAI</td>
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<tr>
<td>Upon completion of this session, participants should be able to: Recognize recent issues of scientific importance at FDA and their regulatory implications; Review the scientific importance of potential differences among TNF inhibitors and explore the anaphylactic potential of immunotherapeutic drugs; Discuss issues in the clinical development of drug products for allergic rhinitis.</td>
<td>5:15 Optimal Duration of Immunotherapy</td>
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<tr>
<td><strong>Q &amp; A Workshop</strong></td>
<td>Stephen R. Durham, MA MD FRCP</td>
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<tr>
<td><strong>2817</strong> Is it SLIT? Understanding the Role, Mechanisms and Appropriate Use of SLIT</td>
<td>5:30 Question &amp; Answer</td>
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<tr>
<td>4:45 to 6:00 pm</td>
<td>Upon completion of this session, participants should be able to: Achieve competency in immunotherapy preparation; Discuss the office setting and precautions to ensure safety; Discuss evidence for duration of immunotherapy and adequate dosing regimens.</td>
</tr>
<tr>
<td>Convention Center, Ballroom Level, Ballroom C1</td>
<td><strong>Clinical Research Workshop</strong></td>
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<tr>
<td>Credit: 1.25 CME / 1.50 CE</td>
<td><strong>2821</strong> Anaphylaxis: Advancing Proficiency in Clinical Practice</td>
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<tr>
<td>Moderator: Deborah A. Gentile, MD</td>
<td>4:45 to 6:00 pm</td>
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<tr>
<td>4:45 Update on Safety and Efficacy of SLIT</td>
<td>Marriott Rivercenter, Third Floor, Grand Ballroom Salon J</td>
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<tr>
<td>David P. Skoner, MD</td>
<td>Credit: 1.25 CME / 1.50 CE</td>
</tr>
<tr>
<td>5:00 Practical Considerations of SLIT</td>
<td>Moderator: Dee Mollam, RN AE-C</td>
</tr>
<tr>
<td>Peter Creticos, MD AAAAI</td>
<td>Karen L. Gregory, DNP APRN-BC RRT AE-C</td>
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<tr>
<td>5:15 Hurdles of Bringing SLIT to the United States</td>
<td>Gregory M. Metz, MD</td>
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<tr>
<td>Gary N. Gross, MD AAAAI</td>
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<tr>
<td>5:30 Question &amp; Answer</td>
<td>Upon completion of this session, participants should be able to: Describe criteria for anaphylaxis; Identify signs and symptoms of anaphylaxis; Apply in a simulated environment appropriate treatment for anaphylaxis.</td>
</tr>
</tbody>
</table>

**Annual Meeting Workshops**
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Clinical Research Workshop

2822 Bring Your Own Pediatric Food Challenge Experience
4:45 to 6:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M
Credit: 1.25 CME / 1.50 CE
Moderator: Kim E. Mudd, RN MSN CCRP
Teri Holbrook, CRNP

Upon completion of this session, participants should be able to: Discuss solutions to common problems experienced by health care providers conducting pediatric food challenges; Identify other health care providers performing similar clinical activities and network with them as needed throughout the year.

Allied Health Workshop

2823 A Walk Through Mast Cell Activation Disorders for the Allied Health Provider
4:45 to 6:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon K
Credit: 1.25 CME / 1.50 CE
Moderator: Kristin E. Olson Koos, RN
Catherine R. Welker, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Identify diagnostic criteria of systemic mastocytosis according to WHO; Identify the major triggers for mast cell activation disorders; Discuss the treatment plan and resources for the patients with mast cell disorders.

Allied Health Workshop

2824 Hands-On Spirometry Training for the Office
4:45 to 6:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon D
Pre-registration and ticket required. $20
Credit: 1.25 CME / 1.50 CE
Moderator: Mary Kay Bossard, BS RRT AE-C

4:45 Spirometry Basics
Rosemary Stinson, RN MSN CRNP

5:10 Obtaining Good Quality Tests
Mary Kay Bossard, BS RRT AE-C

5:35 Data Entry
Concettina Tolomeo, DNP APRN FNP-BC AE-C

Upon completion of this session, participants should be able to demonstrate basic skills in the performance of office spirometry.

Allied Health Workshop

2825 IgG Testing: Is it All It’s Cracked Up to Be?
4:45 to 6:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L
Credit: 1.25 CME / 1.50 CE
Moderator: Kathy L. Pinzone, RN AE-C CCRC
David R. Naimi, DO
Megan T. Ott, MSN CRNP

Upon completion of this session, participants should be able to: Recognize advertisements and community claims in regards to benefits of IgG testing for foods; Discuss literature review regarding efficacy and interpretation of IgG testing for foods.

Allied Health Workshop

2826 Hereditary Angioedema: Update in Classification and Management
4:45 to 6:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon A
Credit: 1.25 CME / 1.50 CE
Moderator: Debra A. Sedlak, MSN CPNP

4:45 Overview of Types of HAE and Diagnostic Evaluation
Michael Frank, MD FAAAAI

5:05 Overview of Management and Resources Available for Patients
William R. Blouin, ARNP

Upon completion of this session, participants should be able to: Develop understanding of HAE classifications; Develop understanding of HAE evaluation; Recognize the management and resources available to patients.

Q & A Workshop

2827 Reviewing and Publishing Workshop: Getting Involved in the JACI and JACI: In Practice
4:45 to 5:45 pm
Marriott Riverwalk, Second Floor, Alamo Ballroom Salon AB
Credit: 1.25 CME / 1.50 CE
Moderator: Donald Y.M. Leung, MD MS FAAAAI

4:45 JACI: In Practice-Desired Contents
Michael Schatz, MD MS FAAAAI

5:00 An Editor’s Tip for Reviewers 1
Stanley J. Szefler, MD FAAAAI

5:15 An Editor’s Tip for Reviewers 2
Scott Sicherer, MD FAAAAI

Upon completion of this session, participants should be able to: Review and evaluate a scientific journal article; Describe strategies used to identify findings in medical literature that can be used to improve the practice of allergy/immunology; Compare and contrast the aims, scope and missions of the two AAAAI journals.

New Allergist/Immunologist Assembly Business Meeting and Reception
4:45 to 6:15 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon F

The AAAAI invites all new allergy/immunology specialists to attend this business meeting and reception. No fee. No pre-registration required.

Chrysalis Reception
6:00 to 7:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon I

Chrysalis participants are encouraged to attend this closing reception along with their FIT mentors.

Allergy, Asthma & Immunology Education and Research Trust Event “Lights, Camera, Auction!”
7:00 to 10:00 pm
Convention Center, Street Level, Lila Cockrell Theatre

All AAAAI members, delegates and guests are invited to attend this Saturday evening event. The auction, hosted by Steve and Nancy Carell, will take place at the beautiful Lila Cockrell Theatre. Admission by ticket only. See page 13 for more details.
Seminars

7:00 to 8:00 am
Programmed by the AAAAI. Seminars funded through an educational grant from Merck.
Pre-registration and ticket required. Fee: $40. Continental breakfast included. Sessions and meals limited to 30 people.
Credit: 1.00 CME / 1.20 CE

3001 Mechanisms of Corticosteroid Insensitivity in Asthma
Elena Goleva, PhD
Faud I. Ishmael, MD PhD
Marriott Rivercenter, Third Floor, Conference Room 10
Upon completion of this session, participants should be able to: Review current approaches for clinical evaluation of potential insensitivity to oral and inhaled CS; Discuss management of patients with suspected CS insensitivity and alternative therapeutic strategies for these patients; Describe glucocorticoid receptor function and current understanding of the molecular pathways that lead to CS insensitivity.

3002 Problem-Based Learning: Evaluating and Managing the Patient with Recurrent Infections
Kenneth Paris, MD MPH
Richard L. Wasserman, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon B
Upon completion of this session, participants should be able to: Recognize which patients with recurrent infection should be evaluated for primary immunodeficiency; Review which laboratory studies to perform based on the patient’s infection history; Explain the options for managing recurrent infection.

3003 Biodiversity, Environmental Change and Allergy
Christina E. Ciaccio, MD
Jeffrey G. Demain, MD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon C
Upon completion of this session, participants should be able to: Discuss current research on how climate variability is impacting allergies; Describe the biodiversity hypothesis in the context of the effects of changes in our internal and external environment; Describe how the interaction between our innate immunity and microbes promote allergic disease.

3004 Novel Therapies for Chronic Urticaria and Angioedema
W. A. Carrock Sewell, MD PhD FAAAAI
David H. Dreyfus, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon D
Upon completion of this session, participants should be able to: Discuss novel therapy for chronic urticaria and angioedema; List novel diagnostic testing for chronic urticaria and angioedema; Review practical considerations for application of novel therapy and diagnosis.

3005 Motivational Interviewing to Improve Adherence and Outcomes
Andrew G. Weinstein, MD FAAAAI
Sandra Wilson, PhD
Marriott Rivercenter, Third Floor, Conference Room 1
Upon completion of this session, participants should be able to: Assess a patient’s readiness and confidence to accept an asthma treatment recommendation; Help patients with their ambivalence to change; Diffuse patient resistance.

3006 Chronic Rhinosinusitis Subtypes and Implications For Treatment
Joseph K. Han, MD
Amber U. Luong, MD PhD
Marriott Rivercenter, Third Floor, Conference Room 2
Upon completion of this session, participants should be able to: Describe the classification of sinusitis; Describe the clinical subtypes of chronic rhinosinusitis; Explain the different non-surgical treatment options for the different chronic rhinosinusitis subtypes.
3013 What to Do with a Patient Who Cannot Smell
Joaquim Mullol, MD PhD FAAAAI
Jayant M. Pinto, MD
Marriott Rivercenter, Third Floor, Conference Room 11
Upon completion of this session, participants should be able to: Review the importance of the sense of smell in patients with sinonasal and broncho-pulmonary diseases; List which diagnostic tools should be used and in which order; Discuss treatment approaches for patients with loss of smell.

3014 Effect of Structural Biology of Allergens, IgE and IgE Receptors on Mechanism of Allergic Disease
Rob C. Aalberse, PhD
Martin D. Chapman, PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 12
Upon completion of this session, participants should be able to: Review the present knowledge of mechanisms of allergic disease; Recognize how the structural biology of molecules involved in disease defines molecular interactions and therefore mechanisms of disease; Describe how molecular interactions determine allergic and/or immunologic disease and new possible therapies.

3015 RCM Reactions: Myths, Mechanisms, Prevention and Treatment
Vivian P. Hernandez-Trujillo, MD FAAAAI
Suzanne S. Teuber, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 16
Upon completion of this session, participants should be able to: List the risk factors for immediate RCM adverse reactions; Describe the types of delayed cutaneous reactions to RCM; Write a protocol for initiation of treatment of anaphylaxis in a radiology suite.

3043 Providing Asthma and Allergy Care to Patients with Autistic Spectrum Disorders: Meeting the Challenge
Jennifer M. Darr, MSW LCSW
Melissa T. Korenblat-Hanin, ACSW LCSW
Marriott Rivercenter, Third Floor, Grand Ballroom Salon K
Upon completion of this session, participants should be able to: Identify various autistic spectrum disorders and the corresponding challenges of managing asthma/allergy within this population; Apply helpful techniques to improve cooperation during testing/evaluation.

3044 Management of Food Allergy: What is New at the Table?
Suzanne K. Carlisle, RN BSN CCRP
Sally A. Noone, RN MSN CCRC
Marriott Rivercenter, Third Floor, Grand Ballroom Salon J
Upon completion of this session, participants should be able to: Describe the process for integrating clinical history and laboratory test results to determine when it is appropriate to offer an open graded food challenge to patients.

Plenary

3101 Epigenetics: How the Environment Affects Gene Expression and the Development of Asthma and Allergic Disease
8:15 to 9:45 am
Convention Center, Street Level, Exhibit Hall D
Credit: 1.50 CME / 1.80 CE
Moderator: Rachel L. Miller, MD FAAAAI

9:15 Environmental Exposures and Epigenetics
Ian A. Yang, MBBS FRACP PhD Grad Dip Clin Epid

Posters

7:00 am to 5:30 pm
Conventions Center, Street Level, Exhibit Hall C
Authors present from 9:45 to 10:45 am.
Credit: No CME / No CE
Refer to pages 86-139 for abstracts and authors.
Symposium ▼

**3301 Dermatology for the Allergist**
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C1
Credit: 1.25 CME / 1.50 CE
Moderator: David A. Khan, MD FAAAI

10:45 **The Latest in Contact Dermatitis**
John Browning, PhD

11:05 **Atopic Dermatitis and the Skin Barrier**
Donald Y.M. Leung, MD PhD FAAAI

11:25 **Autoimmune Progesterone Dermatitis**
Jonathan A. Bernstein, MD FAAAI

**Question & Answer**
Upon completion of this session, participants should be able to: Discuss common dermatological diseases; Review perspectives from both specialties on treatment of common dermatologic problems; Describe advances in the understanding of the mechanisms of dermatologic allergy problems such as contact dermatitis, atopic dermatitis and drug rashes.

Symposium ▼

**3302 Asthma Guidelines: Do They Need Modification and are Physicians and Patients Accepting Them?**
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C2
Credit: 1.25 CME / 1.50 CE
Moderator: Nora A. Barrett, MD

10:45 **Where Do the Current Asthma Guidelines Need ‘Tweaking’?**
Stephen P. Peters, MD PhD FAAAI

11:05 **Incorporating Newer Pharmacologic Agents into Existing Asthma Guidelines**
William W. Busse, MD FAAAI

11:25 **Should Guidelines or Individualized Care be Utilized by Specialists?**
Robert Wise, MD

11:45 **Question & Answer**
Upon completion of this session, participants should be able to: Describe the clinical efficacy of subcutaneous and sublingual immunotherapy in treating allergic rhinitis, sinusitis and atopic dermatitis; Define the relative safety of subcutaneous vs. sublingual immunotherapy; Synthesize available data regarding clinical outcomes and adherence patterns in order to develop evidence-based prescribing patterns for subcutaneous and sublingual immunotherapy.

Symposium ▼

**3303 An Update on the Efficacy and Safety of Subcutaneous (SCIT) vs. Sublingual (SLIT) Allergen Immunotherapy for the Practicing Allergist**
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C3
Credit: 1.25 CME / 1.50 CE
Moderator: Désirée E.S. Larenas Linnemann, MD FAAAI

10:45 **How Does the Efficacy of Sublingual Allergen Immunotherapy Compare with Subcutaneous Immunotherapy?**
Ana Isabel Tabar Purroy, MD

11:05 **Assessing the Relative Risks of Subcutaneous and Sublingual Allergen Immunotherapy**
Tolly Epstein, MD MS

11:25 **How Can We Measure Adherence and Outcomes with Allergen Immunotherapy? A Guide for the Practicing Allergist**
Cheryl S. Hankin, PhD

11:45 **Question & Answer**
Upon completion of this session, participants should be able to: Describe the clinical efficacy of subcutaneous and sublingual immunotherapy in treating allergic rhinitis, sinusitis and atopic dermatitis; Define the relative safety of subcutaneous vs. sublingual immunotherapy; Synthesize available data regarding clinical outcomes and adherence patterns in order to develop evidence-based prescribing patterns for subcutaneous and sublingual immunotherapy.

Symposium ▼

**3304 Advances in the Understanding of Common Variable Immunodeficiency: An International CONsensus Symposium**
10:45 am to 12:00 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Moderator: Francisco A. Bonilla, MD PhD FAAAI

10:45 **Morbidity and Mortality: Four Decades of CVID**
Charlotte Cunningham-Rundles, MD PhD FAAAI

11:05 **B Cell Patterns: What They Tell Us About CVID Pathophysiology**
Klaus Warrat, MD PhD

11:25 **Calcium Signaling Defects in CVID Disorders**
Annick van de Ven, MD PhD

11:45 **Question & Answer**
Upon completion of this session, participants should be able to: Recognize how B cell pattern analysis contributes to a better understanding of CVID pathogenesis; Discuss the presence of calcium channel signaling defects in some patients with CVID; Identify common complications that increase morbidity and mortality in patients with CVID.
Symposium

3305 Mechanisms of Respiratory Infections Driving Th2 Immunity: Highlights from the Work of the Asthma and Allergic Diseases Cooperative Research Centers
10:45 am to 12:00 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Tina V. Hartert, MD MPH
10:45 Viruses and the Innate IL-13 Axis in Asthma
R. Stokes Peebles, Jr., MD FAAAAI
11:05 Mechanisms by Which RSV Induces Th2 Immune Responses
Martin L. Moore, PhD
11:25 The Role of Mycoplasma Pneumonia CARD5 Toxin in the Induction and Exacerbation of Th2 Inflammation
Peter Dube, PhD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Describe the mechanisms by which viral infections induce IgE receptor expression on dendritic cells; Define the mutations in the respiratory syncytial virus genome that induce Th2 immune responses; Outline the mechanisms behind bacterial induced Th2 inflammation.

Symposium

3306 World Allergy Forum: Advances in Tolerance Induction to Allergens
10:45 am to 12:00 pm
Programmed by the AAAAI and WAO. Funded through an educational grant from Novartis.
Convention Center, Concourse Level, Room 217AB
Credit: 1.25 CME / 1.50 CE
Moderators: A. Wesley Burks, MD FAAAAI, Ruby U. Pawankar, MD PhD FAAAAI
10:45 New Frontiers in the Mechanisms of Tolerance Induction to Allergens
Paul Bryce, PhD
11:05 Early Intervention for Primary Tolerance to Allergens
Katrina Jane Allen, MD PhD
11:25 Update on the Role of SLIT in Tolerance Induction to Allergens: Safety and Efficacy
Giovanni Passalacqua, MD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss the mechanisms of tolerance induction at many levels from molecules to cells and individual subjects; Identify the role of tolerance in primary prevention in food allergy; Review the practical role of tolerance in immunotherapy including SLIT.

Symposium

3307 Practice Parameters on Environment Assessment and Exposure Reduction
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 217CD
Credit: 1.25 CME / 1.50 CE
Moderator: James L. Sublett, MD FAAAAI
10:45 Practice Parameter on Household Pets
Wanda Phipatanakul, MD MS FAAAAI
11:05 Practice Parameter on Rodents
Elizabeth Matsui, MD
11:25 Practice Parameter on Cockroaches
Giovanni Passalacqua, MD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Recommend measures to reduce exposure to furry animal allergens even if the animal continues to live in the house; Identify evidence of a rodent or cockroach infestation; Implement an integrated pest management program.

Symposium

3308 Asthma Quality Markers: What Should We Be Measuring?
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 214BC
Credit: 1.25 CME / 1.50 CE
Moderator: Chitra Dinakar, MD FAAAAI
10:45 Quality Markers for Asthma Care in the Emergency Department
Speaker to be announced.
11:05 Asthma Quality Markers: Rationale and Interpretation
Sami L. Bahna, MD DrPH FAAAAI
11:25 How Do Asthma Quality Markers Correlate with Asthma Morbidity Markers?
Michael Schatz, MD MS FAAAAI
11:45 Question & Answer
Upon completion of this session, participants should be able to: Outline the selection process for asthma quality markers; Describe the evidence base that is used to determine asthma quality markers; List how quality measures relate to real world outcomes.

Allied Health Symposium

3311 C.A.R.E. of Patients with Primary Immune Deficiency
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon M
Credit: 1.25 CME / 1.50 CE
Moderator: William R. Blouin, ARNP
10:45 Clinical Care of PIDD Patients
M. Elizabeth M. Younger, CRNP PhD
11:10 The Impact of Genetic Discoveries at the Bedside
Karin Chen, MD
11:35 Advocacy Strategies to Improve Quality of Life
Margaret R. Dodds, RN MS CPNP
Upon completion of this session, participants should be able to: Describe the impact genetic testing can have on clinical care of patients with PIDD; Discuss strategies to apply resources to facilitate improvement in the quality of care and life for patients with PIDD; Apply strategies to optimize clinical outcomes for patients with PIDD.
**Allied Health Symposium**

**3312 Vitamin D Update: Implications for Allergy and Asthma Clinical Practice**
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon L
Credit: 1.25 CME / 1.50 CE
Moderator: Carla M. Duff, CPNP MSN

**10:45 A Literature Review**
Nicolette De Jong, PhD

**11:10** Its Emerging Role in Asthma and Allergy
Karen L. Gregory, DNP APRN-BC RRT AE-C

**11:35** Clinical Pearls: Patient Education and Dosing/Administration
Marciarose Winston, MSN CPNP AE-C

Upon completion of this session, participants should be able to: Discuss vitamin D and its major forms, as well as the recommended daily intake; Describe the four proposed actions of vitamin D and how skin types affect its synthesis; Discuss the most recent research on vitamin D and its implications for allergy and asthma clinical practice.

**Allied Health Workshop**

**3313 Chronic Urticaria: Causes, Clinical Manifestations and Treatment**
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon K
Credit: 1.25 CME / 1.50 CE
Moderator: Pinkus Goldberg, MD FAAAAI
Karen Rance, DNP RN CPNP AE-C
Pinkus Goldberg, MD FAAAAI

Upon completion of this session, participants should be able to: Identify common causes of urticaria; Discuss the clinical manifestations of urticaria; Discuss the various treatment approaches for urticaria.

**Allied Health Workshop**

**3314 The Asthma Toolbox: New Concepts to Think Outside of the Box**
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon J
Credit: 1.25 CME / 1.50 CE
Moderator: Stephen J. McGeady, MD FAAAAI
Ginger G. LaBelle, CPNP
Amy Polen Stallings, MD

Upon completion of this session, participants should be able to: Discuss the impact recent studies on rhinovirus can have on the management of atopic asthmatics.

**Allied Health Workshop**

**3315 The Psychosocial Dynamics of Living with Food Allergies**
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon D
Credit: 1.25 CME / 1.50 CE
Moderator: Melissa T. Korenblat-Hanin, ACSW LCSW
Jennifer M. Darr, MSW LCSW
Melissa T. Korenblat-Hanin, ACSW LCSW

Upon completion of this session, participants should be able to: Explore the psychosocial dynamics of living with food allergies: challenges, emotions and accomplishments; Discuss approaches that build and enhance stability, security, and sensibility; Identify successful resources for assisting the food allergic patient and family.

**Allied Health Workshop**

**3316 Skin Testing for the Allied Health Professional**
10:45 am to 12:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon C
Pre-registration and ticket required. No fee.
Credit: 1.25 CME / 1.50 CE
Moderator: Debra A. Sedlak, MSN CPNP

**10:45** Minor Details that Can Improve Your Skin Prick Testing Accuracy
John Oppenheimer, MD FAAAAI

**10:55** Extracts and Devices
Jeanette Arnold, MSN RN C-FNP

**11:05** Documentation of Skin Test Results
Sheelagh Stewart, MPH, RN, AE-C

**11:15** Hands-On Instruction
Upon completion of this session, participants should be able to: Identify proper technique for skin testing; Identify how to take a proficiency test; Experiment with different SPT devices (mono and multitest).

**Allied Health Oral Abstract Session**

**3520 Allied Health Oral Abstract Session**
12:15 to 1:30 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon I
Pre-registration and ticket required. Fee: $40. Box lunch included.
Credit: 1.25 CME / 1.50 CE
Moderator: Maureen George, PhD RN AE-C

**12:15** Effect of Sensitization and Exposure to Mold On Asthma Morbidity in Inner-City Children
Jean Curtin-Brosnan, MA

**12:30** Evaluation of the Animated Cartoon-Aided Teaching of Intranasal Corticosteroid Administration Technique Among Thai Children with Allergic Rhinitis
Somying Indradat, MD

**12:45** Change in Food Allergy Attitudes Among Urban Public School Nurses After a Standardized Educational Curriculum
Humaira Robinson, RN, BSN

**1:00** Both Bronchodilator Reversibility and FEV1/FVC, but Neither FEV1 Nor FEF25-75, Are Predictors of Future Acute Visits Among Urban Children and Adolescents with Persistent Asthma
Mary Jane C. Ong

**1:15** Circumstances of Medically Unadvised Purposeful Exposure to Food Allergens in an Observational Study (Consortium of Food Allergy Research, COFAR)
Kim E. Mudd, RN MSN CORP

Upon completion of this session, participants should be able to discuss the diversity in care provided to the allergy and immunology patient population.

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**Annual Meeting Allied Health Sessions**

Programmed by the AAAAI. Allied Health Sessions funded through an educational grant from Merck.
Interest Section Forum

3521 ADT: American Lung Association: Asthma Clinical Research Centers Research Reports
12:30 to 2:30 pm
Convention Center, Ballroom Level, Ballroom C3
Pre-registration and ticket required. No fee. Box lunch included.
Credit: 1.25 CME / 1.50 CE
Moderator: Stephen I. Wasserman, MD FAAAAI
12:30 Lunch
12:35 Business Meeting
1:05 Question & Answer
1:15 ALA-ACRC Overview and Ongoing Studies
Robert Wise, MD
1:45 Highlights of Completed Studies: SIIVA, LODO, LOCCS, SARA and SARCA
Stephen P. Peters, MD PhD FAAAAI
2:15 Question & Answer
Upon completion of this session, participants should be able to: Be aware of the latest research findings in asthma; Describe ongoing research studies conducted by the ALA-ACRC network.

Interest Section Forum

3522 BCI: Advances in Basic and Clinical Immunology
12:30 to 2:30 pm
Convention Center, River Level, Room 007
Pre-registration and ticket required. No fee. Box lunch included.
Credit: 1.25 CME / 1.50 CE
Moderator: Francisco A. Bonilla, MD PhD FAAAAI
12:30 Lunch
12:35 Business Meeting
1:05 Question & Answer
1:15 Biologic Therapies for Allergic and Immunologic Disease: Mechanisms and Applications
William W. Busse, MD FAAAAI
1:45 Natural Killer Cell Defects: At the Crossroads of Innate and Adaptive Immunity
Jordan Orange, MD PhD FAAAAI
2:15 Question & Answer
Upon completion of this session, participants should be able to: Describe with NK cell biology and the implications of NK dysfunction for human disease; Recognize the mechanisms and applications of new biologic therapies for allergic and immunologic disorders.

Interest Section Forum

3523 EORD: Sampling the Secrets of Immunity Through the Skin: Patch Testing Pearls in Adults and Children
12:30 to 2:30 pm
Convention Center, River Level, Room 006
Pre-registration and ticket required. No fee. Box lunch included.
Credit: 1.25 CME / 1.50 CE
Moderator: Karin A. Pacheco, MD MSPH FAAAAI
12:30 Lunch
12:35 Business Meeting
1:05 Question & Answer

1:15 Patch Testing in Adults: Environmental and Occupational Exposures and Sources of Allergen Panels
Dorothy Linn Holness, MD
1:45 Patch Testing in Children: Common Environmental Causes and the Use of Atopy Patch Testing
Luz S. Fonacier, MD FAAAAI
2:15 Question & Answer
Upon completion of this session, participants should be able to: Identify skin exposures and allergens specific to different occupations and jobs; Recognize common environmental causes of contact dermatitis in children; Distinguish the differences in appearance between positive, negative, irritant, and angry back responses to patch testing.

Interest Section Forum

3524 FADDA: Primer on Mast Cell Diseases and Hypersensitivity to Drugs
12:30 to 2:30 pm
Convention Center, Ballroom Level, Ballroom C1
Pre-registration and ticket required. No fee. Box lunch included.
Credit: 1.25 CME / 1.50 CE
Moderator: Sarbjit S. Saini
12:30 Lunch
12:35 Business Meeting
1:05 Question & Answer
1:15 Mast Cell Activation Syndromes: Anaphylaxis and Mastocytosis in the 21st Century
Mariana C. Castells, MD PhD FAAAAI
1:45 Hypersensitivity to Drugs: From Skin Testing to Desensitizations
David A. Khan, MD FAAAAI
2:15 Question & Answer
Upon completion of this session, participants should be able to discuss recent research development in the field of allergy/immunology.

Interest Section Forum

3525 HEDQ: Where Does the Allergist Reside in the Patient-Centered Medical Home/Neighborhood?
12:30 to 2:30 pm
Convention Center, Concourse Level, Room 217AB
Pre-registration and ticket required. No fee. Box lunch included.
Credit: 1.25 CME / 1.50 CE
Moderator: Giselle Mosnaim, MD MS FAAAAI
12:30 Lunch
12:35 Business Meeting
1:05 Question & Answer
1:15 What is a Patient Centered Medical Home? How Do I Get Invited into the Building?
M. Carol Greenlee, MD
1:45 What is the Role of the Allergist/Immunologist Caring for Asthma Patients in the Patient Centered Medical Home?
Richard W. Honsinger, MD MACP FAAAAI
2:15 Question & Answer
Upon completion of this session, participants should be able to: Discuss the key elements of a successful PCMH and PCMH-N relationship which include: 1) effective communication, coordination, and integration with PCMH practices in a bidirectional manner to provide high-quality and efficient care; 2) appropriate and timely consultations and referrals that complement the aims of the PCMH practice; and 3) efficient, appropriate, and effective flow of necessary patient and care information.
Sunday, February 24

Interest Section Forum

3526 IRSOC: Updates on Ocular Allergy and Cough
12:30 to 2:30 pm
Convention Center, Ballroom Level, Ballroom C2
Pre-registration and ticket required. No fee. Box lunch included.
Credit: 1.25 CME / 1.50 CE
Moderator: Fuad Baroody, MD FAAAAI

12:30 Lunch
12:35 Business Meeting
1:05 Question & Answer
1:15 Overview of Ocular Allergy: Pathophysiology and Treatment Options
Leonard Bielory, MD FAAAAI
1:45 The Role of the Allergist in Cough Management
Arvind Madaan, MD FAAAAI
2:15 Question & Answer
Upon completion of this session, participants should be able to: Review the latest practice parameters related to ocular allergy; Discuss the management of cough by the allergist.

Interest Section Forum

3527 MAAI: Recent Advances in Understanding the Mechanisms of Allergic Disease
12:30 to 2:30 pm
Convention Center, Concourse Level, Room 214BC
Pre-registration and ticket required. No fee. Box lunch included.
Credit: 1.25 CME / 1.50 CE
Moderator: Mitchell H. Grayson, MD FAAAAI

12:30 Lunch
12:35 Business Meeting
1:05 Question & Answer
1:15 Allergy and the Microbiome
Gary B. Huftnagle, PhD
1:45 The Complexity of HRF: Not Just for Allergies Anymore!
Adam Telerman, MD
2:15 Question & Answer
Upon completion of this session, participants should be able to: Describe how the intestinal microbiome regulates basophil responses; Describe novel discoveries in mechanisms of allergic disease over the past year.

Allied Health Course

3551 Association of Asthma Educators National Asthma Educator Certification and Re-Certification Review Course
12:30 to 5:00 pm
Marriott Rivercenter, Third Floor, Grand Ballroom Salon G
Pre-registration and ticket required. Fee varies. Refreshments included.
Credit: 4.00 CME / 4.80 CE

12:30 Registration
1:00 Asthma Epidemiology/Pathophysiology
Karen L. Gregory, DNP APRN-BC RRT AE-C
2:00 History, Physical Exam and Assessment of Severity/Control
MarciaRose Winston, MSN CPNP AE-C
3:30 Co-Morbidities and Treatment Interventions: Behavioral, Environmental and Pharmacological
MarciaRose Winston, MSN CPNP AE-C
4:30 Cultural Sensitive Approaches to Asthma
Karen L. Gregory, DNP APRN-BC RRT AE-C

Upon completion of this session, participants should be able to: Describe trends in asthma prevalence; Determine individual patient’s levels of severity and control; Interpret barriers to adherence as they apply to self-assessment and self-management of asthma.

Oral Abstract

3601 Asthma Epidemiology
3:00 to 4:15 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Mark F. Sands, MD FAAAAI

3:00 United States Asthma Hospitalization Rates in the 21st Century Show a Peak Female Predominance in the 5th and 6th Decades of Life
Robert Yao-wen Lin, MD FAAAAI
3:15 Comparison of Prepubertal Gender Differences in Pulmonary Physiologic Outcome Measures
Amy Lynn O’Brien, MD
3:30 Estimated Prevalence and Economic Burden of Severe, Uncontrolled Asthma in the United States
Cheryl S. Hankin, PhD
3:45 Factors Associated with Asthma Readmissions in Children in Rural Wisconsin
Ejaz Yousef, MD
4:00 Older Adults with Asthma: Comparisons of Those with Long-Standing Asthma to Those with Late Onset Asthma
Alan P. Baptist, MD MPH FAAAAI

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

3602 Dendritic Cells
3:00 to 4:15 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Angela Haczku, MD PhD FAAAAI
Wayne G. Shreffler, MD PhD FAAAAI
3:00 Dendritic Cells From X-Linked Hyper-IgM Patients Present Impaired Responses to Candida Albicans and Paracoccidioides Brasiliensis That Can Be Reversed by Exogenous Soluble CD40L
Otavio C. Marques
3:15 Molecular Mechanisms Involved in Dendritic Cell-Dependent Regulatory T Cell Generation During Immunotherapy
Marco A. Garcia
3:30 Human Dendritic Cells Stimulated with a Novel Peanut Protein Express High Levels of RALDH2 and Induce RA-Sensitive Genes in Naïve T Cells
Bert Ruiter, PhD
3:45 The C-Lectin Receptor Dendritic Cell Immunoreceptor (DCIR) Mediates the Tolerogenic Effects of Intravenous Immunoglobulin in Pulmonary Inflammation
Amir Hossein Massoud, PhD
4:00 Aspergillus Fumigatus (Af) Induced Airway Epithelial Accumulation and Decreased Lymph Node Homing of Myeloid Dendritic Cells (DC) in the Lung of Mice with Chronic Granulomatous Disease (CGD)
Lisa R. Forbes, MD

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

Oral Abstract

3604 Food Allergy
3:00 to 4:15 pm
Convention Center, Ballroom Level, Ballroom C3
Credit: 1.25 CME / 1.50 CE
Moderator: Stacie M. Jones, MD
Robert A. Wood, MD FAAAAI
3:00 Long-Term Outcomes of Milk Oral Immunotherapy in Children
Conrine Keet, MD MS
3:15 Tolerance Induction in an Interim Analysis of Peanut Sublingual Immunotherapy
Edwin Kim, MD MS
3:30 Basophil Activation Test Discriminates Between Allergy and Tolerance Among Peanut Sensitized Children
Alexandra F. Santos, MD MSc
3:45 Low-Dose Oral Immunotherapy As an Early Intervention Strategy for Peanut Allergy
Brian P. Vickery, MD FAAAAI
4:00 Development of Tolerance Following Peanut Immunotherapy Is Associated with Basophil Hyporesponsiveness and Low Peanut-IgE/IgG4 Ratio
Michael D. Kulis, Jr., PhD

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

Oral Abstract

3603 Mother and Child: Prevention and Disease
3:00 to 4:15 pm
Convention Center, Concourse Level, Room 217CD
Credit: 1.25 CME / 1.50 CE
Rana S. Bonds, MD FAAAAI
Harald E. Renz, MD
3:00 Maternal Vitamin D Status During Pregnancy and Asthma in the Offspring Among Participants in the Norwegian Mother and Child Cohort Study
Maria C. Magnus, MPH
3:15 Maternal Probiotic Intake and Respiratory and Allergy Outcomes in Early Childhood
Randi J. Bertelsen
3:30 Potential Role for IFNy in Promoting Asthma After Prenatal Exposure to BPA
Terumi Midoro-Horuti, MD PhD FAAAAI
3:45 The Impact of Caesarian Section On the Relationship Between Inhalant Allergen Exposure and Allergen-Specific IgE At Age 2 Years
Christine Cole Johnson, PhD MPH FAAAAI
4:00 Does Presence of Animals in the Home Increase the Risk of Sensitization to the Same Animals?
Anusha Raj

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

Oral Abstract

3605 EGID
3:00 to 4:15 pm
Convention Center, Ballroom Level, Ballroom C2
Credit: 1.25 CME / 1.50 CE
Carla M. Dauls, MD
3:00 Antigen-Specific IL-13 Secretion in Children with Eosinophilic Esophagitis
Benedicte Michaud, MD
3:15 Misregulation of Suppressors of Cytokine Signaling in Eosinophilic Esophagitis
Maria Paz Zafra
3:30 Key Function of Cadherin-Like 26 in Eosinophilic Gastrointestinal Disorders
Julie M. Caldwell, PhD
3:45 A Transforming Growth Factor Beta-1 Gene Single Nucleotide Polymorphism May Influence Phenotype in Pediatric Eosinophilic Esophagitis
Arjun Andrew Anilkumar, BS
4:00 MMP-14 Is Elevated in Pediatric Subjects with Eosinophilic Esophagitis
Lisa Beppu, BS

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

3606 Adherence and Asthma Treatment
3:00 to 4:15 pm
Convention Center, Concourse Level, Room 217AB
Credit: 1.25 CME / 1.50 CE
Moderator: Marcus S. Shaker, MD MS FAAAAI
3:00 Texting for Adherence to Asthma Medication in Adolescents
Wagas Jehangir, MD
3:15 The Use of Coping Peer Support and MP3 Technology to Improve Adherence to Inhaled Corticosteroids Among Low-Income Minority Adolescents
Giselle Mosnaim, MD MS FAAAAI
3:30 Adherence Risk Patterns in Adult Patients with Asthma in an Inner City Cohort Over a 25 Month Period
Edan Sarid, MD
3:45 Association Between Medication Adherence Report Scale (MARS-5) and Asthma Outcomes in Inner City Children with Asthma
Seojin Yang

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

Oral Abstract

3607 Rhinitis Pathophysiology
3:00 to 4:15 pm
Convention Center, Ballroom Level, Ballroom C1
Credit: 1.25 CME / 1.50 CE
Moderator: David Amrol, MD FAAAAI
David W. Hauswirth MD FAAAAI
3:00 Anti-Histaminergic Responses On TRPV1 Channels
Umesh Singh, MD PhD
3:15 Allergen Exposure Affects Sinonasal Microbiota
Chris Choi
3:30 Invariant Natural Killer T Cells Populations in Peripheral Blood From Allergic Rhinitis Patients: Regulatory or Pathologic Role?
Soledad Lopez, PhD
3:45 TRPV1 Ion Channel Activation Is Enhanced by Bradykinin in Sensory Neuronal Cells
Jonathan A. Bernstein, MD

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

Oral Abstract

3608 Advances in Controlling Allergic Inflammation
3:00 to 4:15 pm
Convention Center, Concourse Level, Room 214BC
Credit: 1.25 CME / 1.50 CE
Moderator: Dorothy S. Cheung, MD FAAAAI
3:00 Role of Mannose Receptor (MR) in Cockroach Allergen-Induced Allergic Inflammation
Peisong Gao, MD PhD
3:15 DNA Methylation Profiling in Asthmatic and Non Asthmatic Nasal Epithelial Cells During Respiratory Virus Infection
Peter McEnteean, PhD
3:30 Vitamin D Supplementation Reduces Airway Hyperresponsiveness and Allergic Airway Inflammation in a Murine Model
Tanupriya Agrawal
3:45 IL-4Rα Expression by Airway Epithelial Cells Promotes Allergen-Induced Airway Hyperresponsiveness
Christoper G. McKnight, MD
4:00 Novel Phosphodiesterase-4 Inhibitors Decrease Allergic Sinus Congestion and Inflammation
Bill T. Ameredes

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

Featured Poster Session and Reception

5:30 to 7:30 pm
Convention Center, Concourse Level, Park View
All Annual Meeting delegates and their guests are invited to attend this event. No fee and no pre-registration required.
Credit: No CME / No CE
Featured Posters highlight the highest quality abstracts submitted for presentation at the Annual Meeting. These posters will be displayed throughout the meeting on the Concourse Level in the Park View area of the Convention Center. During the Featured Poster Session and Reception on Sunday evening, authors will be present with their posters to discuss their research. Take this opportunity to talk with these authors and network with other meeting delegates.

3801 Asthma Mechanisms
3802 BCI Featured Posters
3803 Allergen Exposures at Home, School and Work
3804 Best of FADDA
3805 Best of HEDQ
3806 Immunotherapy: Pathophysiology and Clinical Efficacy
3807 Mechanisms of Allergy: Best of the Best
3811 Allied Health Featured Poster

First Annual 5K Run/Walk - Race for Allergy & Asthma Research
5:30 pm
HemisFair Park
This event is open to everyone: serious runners, casual runners, walkers, families and the general public. Registration required. See page 13 for more information.
In a year of market instability, one of your investments will pay consistent dividends.

<table>
<thead>
<tr>
<th>AAAAI MEMBERSHIP BENEFIT</th>
<th>SAVINGS</th>
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<tbody>
<tr>
<td>Subscription to <em>The Journal of Allergy &amp; Clinical Immunology</em> (JACI)</td>
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<td>Typical Career Connections job posting</td>
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4001 Does Impulse Oscillometry Play a Role in Asthma Management?
James W. Baker, MD
Joseph Spahn MD
Marriott Rivercenter, Third Floor, Conference Room 1
Upon completion of this session, participants should be able to: Discuss the physiologic basis of impulse oscillometry; Compare impulse oscillometry to other methods for measuring small airway function; Assess outcomes studies of asthma which employed impulse oscillometry.

4002 Ordering TLR-Receptor Testing in Patients with Recurrent Infections
Antonio Condino-Neto, MD PhD
Troy R. Torgerson, MD PhD
Marriott Rivercenter, Third Floor, Grand Ballroom Salon B
Upon completion of this session, participants should be able to: Recognize the clinical presentation of toll-like receptor defects; State how to interpret results of TLR testing; Discuss treatment options for patients with TLR defects.

4003 Afterburn: Asthma, Bronchiolitis, Sarcoidosis and Titanium Lung Injury After Deployment to Iraq and Afghanistan
Debra Milek, MD PhD MPH
Anthony Szema, MD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon C
Upon completion of this session, participants should be able to: Discuss the concept of Iraqi War Lung Injury; Review potential causes of IAW-LI; Discuss animal models of IAW-LI and novel therapeutic strategies.

4004 How to Assess and Manage a Child with Multiple Positive Environmental and Food Allergy Tests
Kirsti M. Jarvinen-Seppo, MD PhD
Anna H. Nowak-Wegrzyn, MD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon D
Upon completion of this session, participants should be able to: Explain the prevalence and difference between classic food allergies and pollen-food allergy syndrome; Describe the utility of skin prick, fresh food skin prick, serum specific IgE testing, component resolved diagnostics and oral food challenge in assessment of complex patients with multiple food and environmental sensitizations; Discuss the management of complex patients with multiple food and environmental sensitizations.

4005 Cracking the Code: Preparing for ICD-10
A. Sean McKnight, MD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon A
Upon completion of this session, participants should be able to: Contrast ICD-10 with ICD-9-CM; Describe the impact of ICD-10 on billing and coding; Identify strategies for implementing ICD-10 in clinical practice.

4006 Immunotherapy: Practical Office Paradigms
Michael B. Wein, MD FAAAAI
Hugh H. Windom, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 2
Upon completion of this session, participants should be able to: Maximize your immunotherapy clinic efficiency in an era of changing reimbursement; Explain purchasing co-operatives for obtaining immunotherapy supplies; Recall systems to remind patients and improve compliance as well as complying with regulatory issues.

4007 The Relationship Between Allergies and Infections
Soman N. Abraham, PhD
Mitchell H. Grayson, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 3
Upon completion of this session, participants should be able to: Discuss the ability of bacteria to induce basophil activation; Review the data suggesting that the production of IgE is part of the antiviral immune response; Discuss how mast cells play a role in the clearance of bacterial and viral infections.

4008 Update on Anti-IL-5: Indications in Asthma and Beyond
Jonathan Corren, MD
Sally E. Wenzel, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 4
Upon completion of this session, participants should be able to: Review cytokine blockers in eosinophilic diseases; Identify currently available cytokine blockers; Describe the effects of cytokine blockers in asthma.

4009 Advances in the Treatment of RA: Where are We Now?
Clifton O. Bingham, MD
John S. Sundy, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 7
Upon completion of this session, participants should be able to: Identify the new treatments are available for RA; Describe complications induced by the new drugs; List options for limiting these complications.

4010 Damp Buildings are Unhealthy: What are Damp Buildings and How Do They Cause Problems?
W. Elliott Horner, PhD LEED AP FAAAAI
Kevin Kennedy, MPH CIROC
Marriott Rivercenter, Third Floor, Conference Room 8
Upon completion of this session, participants should be able to: Review the multiple expert panels/reports and position statements concluding that there is adequate evidence for respiratory health impacts, including new onset asthma, due to damp buildings; Describe the challenges of quantifying dampness and establishing acceptable moisture levels; Recognize the several plausible mechanisms that underlie the adverse respiratory impacts of the damp building effect.

4011 Mastocytosis Mimics: Cutting Through the Clutter
Joseph H. Butterfield, MD FAAAAI
Melody C. Carter, MD
Marriott Rivercenter, Third Floor, Conference Room 9
Upon completion of this session, participants should be able to: Discuss the multiple expert panels/reports and position statements concluding that there is adequate evidence for diagnosing systemic mastocytosis; Review the criteria for diagnosing mast cell activation syndrome; List the differential diagnosis possibilities when faced with a patient with symptoms suggestive of systemic mastocytosis.

4012 The Use of Social Media in Your Practice
Sakina S. Bajowala, MD FAAAAI
Vesselin Dimov, MD
Marriott Rivercenter, Third Floor, Conference Room 10
Upon completion of this session, participants should be able to: Implement social media and search engine optimization to market a practice; Identify appropriate tools for developing and maintaining a practice website; Discuss strategies for optimizing listings on healthcare rating websites.

4013 Local Allergic Rhinitis: How Do You Make the Diagnosis?
Paloma Campo, MD PhD
Marriott Rivercenter, Third Floor, Conference Room 11
Upon completion of this session, participants should be able to: Recognize that patients may still have allergic rhinitis even if skin testing and/or in vitro tests for specific IgE antibodies are negative; Review the methods for identifying patients with local allergic rhinitis; Discuss the potential for performing nasal challenge in the office.
4014 **Th17 Cells in Allergy and Asthma**  
Jay K. Kolls, MD  
Dawn C. Newcomb, PhD  
**Marriott Rivercenter, Third Floor, Conference Room 12**  
Upon completion of this session, participants should be able to: Analyze the current evidence for involvement of the Th17 subset in allergic diseases and asthma; Define regulation of Th17 cytokines by Th2 cytokines; Delineate implications of therapies which target these Th2 cytokine pathways on Th17 driven inflammation.

4015 **Outcomes Measures in Allergy Practice and Research**  
Mary M. Klote, MD  
Sandra Wilson, PhD  
**Marriott Rivercenter, Third Floor, Conference Room 16**  
Upon completion of this session, participants should be able to: List outcomes measures for asthma and other allergic diseases; Identify the importance of outcomes measures in clinical allergy practice; Explain how to design a clinical outcomes research study for asthma and/or allergy.

**Plenary**  
4101 **Immune Defects: Insights and Opportunities**  
8:15 to 9:45 am  
**Convention Center, Street Level, Exhibit Hall D**  
Credit: 1.50 CME / 1.80 CE  
Moderator: Luigi D. Notarangelo, MD  
8:15 **Patients Don’t Lie: Connecting Infections and Immune Phenotypes**  
Steven M. Holland, MD  
8:45 **Random Germline Mutagenesis in the Analysis of Immunity**  
Bruce Beutler, MD  
9:15 **New Insights and Opportunities in Curative Therapies for Primary Immunodeficiency**  
Lisa Filipovich, MD  
Upon completion of this session, participants should be able to: Recognize cardinal infections and linked immune pathways, using these to identify causative genes; Understand how one can experimentally create inherited immune deficiencies and rapidly determine the causative mutations; Outline recent therapeutic developments for patients with primary immune deficiencies.

**Asthma Educators Course**  
4151 **Association of Asthma Educators National Asthma Educator Certification and Re-Certification Review Course**  
8:30 am to 5:30 pm  
**Marriott Rivercenter, Third Floor, Grand Ballroom Salon I**  
Pre-registration and ticket required. No fee. Ticket included with registration for session 3551. See page 63 for more information.  
Credit: 8.00 CME / 9.60 CE  
8:30 **Spirometry Interpretation for Asthma Educators**  
Marciarose Winston MSN CPNP AE-C  
9:30 **Pharmacotherapy**  
Karen L. Gregory, DNP APRN-BC RRT AE-C  
11:30 **Educational Needs**  
Marciarose Winston MSN CPNP AE-C  
12:30 **Networking Lunch**  
1:30 **Problem Based-Learning Workshop: Devices**  
Marciarose Winston MSN CPNP AE-C  
3:00 **Professional Networking, Referral and Outcomes**  
Karen L. Gregory, DNP APRN-BC RRT AE-C  
3:30 **Problem-Based Learning Workshop: Complicated Asthma Comprehensive Case**  
Karen L. Gregory, DNP APRN-BC RRT AE-C  
4:30 **Taking the National Asthma Educator Certification Exam**  
Karen L. Gregory, DNP APRN-BC RRT AE-C  
Upon completion of this session, participants should be able to: Describe trends in asthma prevalence; Discuss an individual patient’s levels of severity and control; Identify barriers to adherence as they apply to self-assessment and self-management of asthma.

**Posters**  
7:00 am to 6:00 pm  
**Convention Center, Street Level, Exhibit Hall C**  
Posters on display from 7:00 am to 6:00 pm. Authors present from 9:45 to 10:45 am.  
Credit: No CME / No CE  
Refer to pages 86-139 for abstracts and authors.

4201 **Nature vs. Nurture in Asthma**  
4202 **Immunodeficiency**  
4203 **Immunogenetics and Immunodeficiency**  
4204 **Asthma and Epidemiology I**  
4205 **Asthma and Allergy Epidemiology II**  
4206 **Drug Allergy I**  
4207 **EGID/Immunologic GI Disorders II**  
4208 **Immunotherapy III**  
4209 **Rhinitis/Conjunctivitis II**  
4210 **Cytokines and Chemokines**  
4211 **T Cells in Allergic Responses**
Symposium 4301  Anaphylaxis: Novel Mechanisms and Therapeutic Implications
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C1
Credit: 1.25 CME / 1.50 CE
Moderator: Vivian P. Hernandez-Trujillo, MD FAAAAI

10:45 C-Kit Mutations and Conal Mast Cell Disease in Anaphylaxis
Cem Akin, MD PhD FAAAAI

11:05 Fatal Peanut Anaphylaxis: Role of Platelet Activating Factor
Peter Vadas, MD PhD

11:25 Vitamin D in Atopy and Anaphylaxis
Augusto A. Litonjua, MD MPH

11:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss the role of clonal mast cell disease in idiopathic and hymenoptera anaphylaxis; Recognize the involvement of PAF and PAF hydrolase levels in anaphylaxis; Learn the relation between vitamin D and atopic disease and anaphylaxis.

Symposium 4302  New Developments in the Pathophysiology of Allergic Rhinitis
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C2
Credit: 1.25 CME / 1.50 CE
Moderator: Fuad M. Baroody, MD FAAAAI

10:45 Understanding the Concept of Local IgE Production
Philippe Gevaert, MD

11:05 Cytokine Networks in Allergic Rhinitis
Martin Wagenmann, MD FAAAAI

11:25 Treatment Choices for Allergic Rhinitis
Alikis Togias, MD FAAAAI

11:45 Question & Answer
Upon completion of this session, participants should be able to: Explain the concept of local IgE production in the nose; Recognize the relevance of cytokines in the pathophysiology of allergic rhinitis; Review treatment options for allergic rhinitis.

Symposium 4303  Key Players in the Immune Basis of Atopic Dermatitis
10:45 am to 12:00 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Moderator: Donald Y. M. Leung, MD PhD FAAAAI

10:45 Roles of Dendritic Cells in Atopic Dermatitis
Thomas Werfel, MD

11:05 TSLP: A Master Switch for Allergic Disease
Steven Ziegler, PhD

11:25 IL-33 and Inflammatory Responses in Atopic Dermatitis
Cezmi A. Akdis, MD FAAAAI

11:45 Question & Answer
Upon completion of this session, participants should be able to: Describe the role of TSLP as a master switch of allergic responses; Review the role of IL-33 in inducing a Th2 response; Identify the dendritic cell as the cell which responds to TSLP and IL-33 and directs Th0 towards a Th2 response.

Symposium 4304  New Developments in the Pathogenesis and Treatment of Angioedema
10:45 am to 12:00 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Sarbjeet S. Saini

10:45 Factor XII-Independent Initiation of the Bradykinin Cascade
Allen P. Kaplan, MD FAAAAI

11:05 Type III Angioedema
Konrad Bark, MD

11:25 Idiopathic Angioedema
Aleena Banerji, MD

11:45 Question & Answer
Upon completion of this session, participants should be able to: Improve understanding of angioedema subtypes; Examine the clinical treatments available for angioedema subtypes.

Symposium 4305  What Every Clinician Should Know About IVIG
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 217AB
Credit: 1.25 CME / 1.50 CE
Moderator: Elena E. Perez, MD PhD FAAAAI

10:45 Adverse Reactions to Immunoglobulin Infusions
Rima A. Rachid, MD FAAAAI

11:05 New Guidelines: What Do We Know About Dosing and Administration?
Helen Chapel, MA MD

11:25 Mechanisms of IVIG-Mediated Tolerance Induction
Bruce D. Mazer, MD FAAAAI

11:45 Question & Answer
Upon completion of this session, participants should be able to: Describe mechanisms by which the IgG molecule can suppress inflammation and autoimmunity; Recognize the strengths and weaknesses of different IVIG dosing strategies; Discuss the use of IVIG in IgA-deficient patients.

Symposium 4306  Molecular Allergy: Emerging Concepts for the Practicing Allergist
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 217CD
Credit: 1.25 CME / 1.50 CE
Moderator: Robert G. Hamilton, PhD D.ABMLI FAAAAI

10:45 The World of Protein Allergens: Sources, Structures and Significance
Heimo Breiteneder, PhD

11:05 Allergenic Molecules in Anaphylactic Reactions: Improved Differentiation and Higher Analytical Sensitivity
Markus Ollert, MD

11:25 Relevant Sensitizing Allergens and Optimizing SIT
Thomas B. Casale, MD FAAAAI

11:45 Question & Answer
Upon completion of this session, participants should be able to: Explain the concept of protein families and how structurally related allergenic molecules will effect our interpretation of crossreactivity and (seeming) multisensitizations to protein allergens; Describe the diagnostic value of inhalant and food components and how they will lead to improved diagnostic answers and advices to the patient; Appreciate recently identified components from bee and wasp venom, latex and other protein allergens facilitating definitive answers in case of presumed sensitizations and enhancing analytical sensitivity.
**Symposium**

**4307 The Allergist’s View of Green and Sustainable Housing and Buildings**

10:45 am to 12:00 pm  
Convention Center, Concourse Level, Room 214BC  
Credit: 1.25 CME / 1.50 CE  
Moderator: W. Elliott Horner, PhD LEED AP FAAAAI

10:45 **Recent Trends in Buildings and Associated Exposures**  
Charles Barnes, PhD

11:05 **Indoor Home Mold Assessments**  
Kevin Kennedy, MPH CIEC

11:25 **Evaluation and Effects of Traditional and Green Buildings on Asthma**  
Nathan Rabinovitch, MD MPH

11:45 **Question & Answer**

Upon completion of this session, participants should be able to: Review the changes that have occurred in the last half century and the continuing trends in indoor environments; Recognize the constraints and benefits of current assessment tools for indoor pollutant exposure; Apply the results from comparisons of asthmatic children living in different types of housing.

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**AAA AI Business Meeting**

12:30 to 1:30 pm  
Convention Center, Ballroom Level, Ballroom C3  
All AAAAI Fellows and members should attend this annual business meeting. Box lunches included. No fee. No pre-registration required.

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**Oral Abstract**

**4602 Biological Therapies**

2:00 to 3:15 pm  
Convention Center, River Level, Room 006  
Credit: 1.25 CME / 1.50 CE  
Moderator: Ivan Chinn, MD

2:00 **Persistent Hypogammaglobulinemia After Rituximab Treatment**  
Yelena Kopyltsova, MD

2:15 **Thymus Transplantation Restores the Repertoire of Foxp3+ T Cells in Complete DiGeorge Anomaly**  
Ivan Chinn, MD

2:30 **Immunotolerance Mechanisms Depend On High Vs Low Dose of Sublingual Immunotherapy**  
Kari Nadeau, MD PhD FAAAAI

2:45 **Mechanisms of Th2 to Treg Vs Th2 to Th1 in Non Rush Vs Rush Food OIT**  
Shu-Chen Lyu

3:00 **Resolvin D1 Inhibits IL-1beta Induced Alveolar Epithelial Cell Activation**  
Ruan R. Cox, Jr.

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

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**Oral Abstract**

**4603 Inflammatory Responses to Pollutants, Pesticides, and Endotoxin**

2:00 to 3:15 pm  
Convention Center, River Level, Room 007  
Credit: 1.25 CME / 1.50 CE  
Moderator: Neil Alexis, PhD

2:00 **Interactions of Natural Killer (NK) Cells and Surfactant Protein D (SP-D) in Regulation of Ozone Induced Airway Inflammation: Involvement of NKp46**  
Moyar Q. Ge

2:15 **Association Between Dichlorophenol Exposure, Asthma Medication Use, and Serum Immunoglobulin E**  
Purvi Parikh, MD

2:30 **MyD88-Dependent Signaling Is Critical for Acute Organic Dust-Induced Airway Inflammation in Mice**  
Jill A. Poole, MD FAAAAI

2:45 **IL-18 Induces IL-8 Production From Human Airway Epithelial Cells**  
Michelle L. Hernandez, MD

3:00 **Exposure to Silica Crystals and Poly (I:C) Induces Caspase-Dependent Apoptosis of Human Bronchial Epithelial Cells**  
Hirotoshi Unno, MD

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

**4604 Anaphylaxis**
2:00 to 3:15 pm  
Convention Center, Ballroom Level, Ballroom C1  
Credit: 1.25 CME / 1.50 CE  
Moderator: Scott P. Commins, MD PhD

2:00 Activation of the Plasma Contact-System in Patients with Anaphylaxis  
Anna Sala-Cunill

2:15 An IgE Receptor Mimetic Peptide (PepE) Protects Mice From IgE Mediated Anaphylaxis  
Joseph S. Zhou, MD PhD

2:30 SHIP-1 Regulates IgG/PAF Mediated Allergen-Induced Fatal Anaphylaxis Through the PI3 Kinase Pathway  
Sun Young Oh, PhD

2:45 Preclinical Study: Dose Comparison of New-Generation Taste-Masked Epinephrine (E) Sublingual Tablets  
Keith Simons, PhD

3:00 Anatomical and Anthropometric Determinants of Intramuscular Versus Subcutaneous Administration in Children with Epinephrine Auto-Injectors  
Peter D. Arkwright, MD PhD FAAAAI

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

Oral Abstract

**4605 Management of Allergies: New Insights**
2:00 to 3:15 pm  
Convention Center, Concourse Level, Room 217AB  
Credit: 1.25 CME / 1.50 CE  
Moderator: Melinda M. Rathkopf, MD FAAAAI

2:00 Allergic Disease in US Children Is Associated with Increased Prevalence of Epilepsy  
Helen G. Durkin, PhD

2:15 Nasal Congestion Worsens Sleep Disturbance and Psychological Wellness in Allergic Rhinitis Patients  
Rosa Munoz-Cano, MD

2:30 Relationship Between Maternal Mid Pregnancy Folate Levels and the Risk of Allergic and Respiratory Diseases in Early Childhood: The Mothers and Children's Environmental Health (MOCEH) Study  
Ja Hyeong Kim, MD

2:45 The Role of Molecular Allergology in Allergen-Specific Immunotherapy Adherence and Patient Quality of Life in A Complex Pollen Area: A Simulation Model  
Barbara Mascialino

3:00 Follow-up Patterns Among Children with Anaphylaxis and Other Allergic Diseases Referred from an Urban Emergency Department to Allergy Clinic  
Jonathan Hemler, MD

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

Oral Abstract

**4606 Immunotherapy**
2:00 to 3:15 pm  
Convention Center, Grand Ballroom Level, Ballroom C2  
Credit: 1.25 CME / 1.50 CE  
Moderator: Désirée E.S. Larenas Linnemann, MD FAAAAI

2:00 Dose Adjustment During Pollen Seasons in Build-up and Maintenance Vials Lowers the Risk of Severe Systemic Reactions (SRs) to Subcutaneous Allergen Immunotherapy (SCIT): Year 4 of the AAAAI/ACAAI Surveillance Study  
Tolly Epstein, MD MS

2:15 Is a 30 Minute Vs. 20 Minute Immunotherapy (IT) Waiting Period Justified?  
Leon S. Greos, MD FAAAAI

2:30 Local Nasal ‘Protective’ Immunoglobulin G4 (IgG4) Responses in Nasal Fluid Following Grass Pollen Sublingual Immunotherapy  
Naushene Saleem, BSc

2:45 Antigen-Specific TH Cell Monitoring by CD154 Expression in Japanese Cedar-Specific SCIT  
T. Nomura

3:00 Immunological Mechanism of Sublingual Immunotherapy  
Reza Farid, MD FAAAAI

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

Oral Abstract

**4607 The Role of Lymphocytes in Mediating Asthma and Allergic Inflammation**
2:00 to 3:15 pm  
Convention Center, Concourse Level, Room 217CD  
Credit: 1.25 CME / 1.50 CE  
Moderator: Kari Nadeau, MD PhD

2:00 Th2 Mediated Airway Diseases Strongly Linked to Fungal T Cell Memory  
Paul Porter, PhD

2:15 LIGHT Is Associated with Increased Cellular Infiltrate and Levels of Th1 Cytokines As Well As Well As Reduced Lung Function in Human Asthma  
Jonathan Romeo, DO

2:30 Immunomodulatory Effects of IL-27 On Allergen-Induced Th2 Responses  
Tomakazu Matsuoka

2:45 Grass Pollen Allergics Have Fewer IL-10-Produc ing B Cells Than Non-Atopic Controls  
James E.G. Charlesworth

3:00 Rab11+ Recycling Endosomes Controls Signaling Output and Cellular Response of Memory CD4 T Cells in Asthma  
Chaoyu Chen

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

4611 Late Breaking Oral Abstract I
2:00 to 3:15 pm
Convention Center, River Level, Room 008
Credit: 1.25 CME / 1.50 CE
Stephen C. Dreskin, MD PhD FAAAAI
2:00 Exome Chip Genotyping Reveals Association with LAMA3 (laminin, alpha 3) Gene and Eczema Herpeticum in a Population of European Descent
Nicholas Rafaels, MS
2:15 Identification of Der p 23, a Peritrophin-Like Protein, As a New Major Dermatophagoides Pteronyssinus Allergen Associated with the Peritrophic Matrix of Mite Fecal Pellets
Susanne Vrtala
2:30 Efficacy and Safety of Omalizumab in Chronic Idiopathic/Spontaneous Urticaria (CIU/CSU): Results From a Phase III, Randomized, Double-Blind, Placebo-Controlled Trial
Thomas Casale, MD FAAAAI
2:45 Leukotriene D4 Induces Type 2 Innate Lymphoid Cell Cytokine Production Through CysLT1R
Taylor Alan Doherty, MD
3:00 IL-21 Receptor Mutation in Humans Leads to Disseminated Cryptosporidiosis, Antibody Defects, and Abnormal B and T Cell Function
Monica G. Lawrence, MD
Upon completion of this session, participants should be able to discuss recent research developments in the field of allergy/immunology.

Cutting-Edge Research Keynote

4701 Exploring Frontiers in Innate and Specific Immune Systems
3:30 to 4:30 pm
Convention Center, Street Level, Exhibit Hall D
Credit: 1.00 CME / 1.20 CE
Moderator: James E. Gem, MD FAAAAI
3:00 Personalized Vaccine Therapy as a Strategy for Prevention of Cancer Relapse
Larry W. Kwak, MD PhD
3:30 Phenotypic Diversity of Mast Cell Subsets is Tissue Determined and Likely Expands Functions
K. Frank Austen, MD FAAAAI
Upon completion of this session, participants should be able to: Describe techniques used in vaccine therapy for cancer; Describe the mechanisms involved in generating mast cell diversity and the functional implications..

Hands-On Workshop

4801 Hands-On Rhinolaryngoscopy
4:45 to 6:00 pm
Convention Center, River Level, Room 004
Pre-registration and ticket required. No fee. Ticket included with registration for Workshop 2807: Course in Introductory Rhinolaryngoscopy.
Credit: 1.25 CME / 1.50 CE
Allen D. Adinoff, MD FAAAAI
Jerald W. Koepke, MD FAAAAI
Kevin R. Murphy, MD
Garet C. Olson, MD
Donald W. Pulver, MD FAAAAI
C. Ross Westley, MD FAAAAI
Upon completion of this session, participants should be able to: Describe the surgical anatomy of the upper airway, including the nasal cavity, pharynx and larynx; Identify examples of normal and abnormal anatomy, as well as disease presentations and post operative changes found with endoscopic examination of the upper airway; Identify indications for and the use of the fiberoptic rhinoscope in the allergist's office.

Problem-Based Learning Workshop

4802 Eosinophilic Esophagitis
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 216A
Pre-registration and ticket required. Fee: $50.
Credit: 1.25 CME / 1.50 CE
Moderator: Theodore M. Freeman, MD FAAAAI
4:45 New In Vitro Testing vs. Skin Testing for Insect Allergy
David B.K. Golden, MD FAAAAI
5:00 The Alpha-Gal Story and Longhorn Ticks
Scott P. Commins, MD PhD
5:15 When and How to Use Cross-Reactivity in Venom Allergy
James M. Tracy, DO FAAAAI
5:30 Question & Answer

Annual Meeting Workshops
Programmed by the AAAAI. Annual Meeting Workshops funded through an educational grant from Merck.
Upon completion of this session, participants should be able to:
- Evaluate insect reactions;
- Review treatment of insect allergy;
- Discuss importance of alpha-gal reactions.

Q & A Workshop

4804 Vaccines 101: Expanding the Role of the Allergist/Immunologist
4:45 to 6:00 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Limone C. Collins, MD

4:45 Diagnostic and Therapeutic Uses for Vaccines in the Older Adult
Monroe J. King, DO FAAAAI

5:05 IgE-Mediated Adverse Reactions to Vaccines
John M. Kelsa, MD FAAAAI

5:25 Non-IgE-Mediated Adverse Reactions to Vaccines
Renata J.M. Engler, MD FAAAAI

Upon completion of this session, participants should be able to:
- Review the childhood and adult vaccination schedules; Identify vaccination requirements for specific diseases and conditions; Discuss types of adverse reactions to vaccines and management options.

Q & A Workshop

4805 Difficult Situations in Practice Management
4:45 to 6:00 pm
Convention Center, River Level, Room 008
Credit: 1.25 CME / 1.50 CE
Moderator: Tao Le, MD MHS FAAAAI

4:45 Employment Agreements and Partnerships
Marshall Pl Grodofsky, MD FAAAAI

5:00 Hiring and Firing
Stanley M. Fineman, MD MBA FAAAAI

5:15 Marketing and Referral Development
Weily Soong, MD

5:30 Question & Answer

Upon completion of this session, participants should be able to:
- Evaluate difficult situations in employment agreements and partnership; Identify and address difficult situations regarding hiring and firing; Investigate difficult situations in marketing and referral development.

Panel Discussion Workshop

4806 How to Get Your Manuscript Published
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 210AB
Credit: 1.25 CME / 1.50 CE
Moderator: Michael H. Clayton, MD FAAAAI
Panelists: Donald Y.M. Leung, MD PhD FAAAAI
Michael Schatz, MD MS FAAAAI
Hans-Uwe Simon, MD PhD FAAAAI
Stanley J. Szefler, MD FAAAAI

4:45 Question & Answer

Upon completion of this session, participants should be able to:
- Describe best practices for manuscript preparation; Discuss appropriate journal selection for submission, to include the new journal JACI-In Practice; Outline the process of manuscript review; Review how to accept critiques and how to handle manuscript revision.

Hands-On Workshop

4807 Preparing Your Office for Anaphylaxis and Other Emergencies
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 211
Pre-registration and ticket required. Fee: $50.
Credit: 1.25 CME / 1.50 CE
Moderator: Dana V. Wallace, MD FAAAAI

4:45 Hands-On Mock Anaphylactic Reaction with CPR on a Mannequin
Dana V. Wallace, MD FAAAAI

5:00 Anaphylaxis: Presentation and Management
Nabil El Sanadi, MD

5:15 Hands-On Instruction

Upon completion of this session, participants should be able to:
- Work with office staff as a team to manage emergencies; Formulate and execute a logical plan for treatment of anaphylaxis; Respond appropriately to cardiac emergencies and other non-respiratory emergencies.

Q & A Workshop

4808 CD4+ T Cell Subsets in Asthma Phenotypes
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 212AB
Credit: 1.25 CME / 1.50 CE
Moderator: Marsha A. Wills-Karp, PhD

4:45 Defining the CD4 Phenotypes of Asthma
Speaker to be announced.

5:00 Th17 Cells in Asthma
Dawn C. Newcomb, PhD

5:15 Th9 Cells in Asthma
Mark H. Kaplan, PhD

5:30 Question & Answer

Upon completion of this session, participants should be able to:
- Determine various biomarkers used to identify Th2 high and Th2 low asthma patients using periostin as a biomarker; Define the role of Th9 and Th17 cells in asthma; Describe the crosstalk between Th2, Th17 and Th9 pathways and cytokines.

Panel Discussion Workshop

4809 Methacholine vs. Mannitol Challenge in the Evaluation of Asthma
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 213AB
Credit: 1.25 CME / 1.50 CE
Moderator: Hee-Bom Moon, MD PhD
Panelists: Sandra D. Anderson, PhD DSc
Louis-Philippe Boulet, MD
James M. Quinn, MD FAAAAI

Upon completion of this session, participants should be able to:
- Compare positive and negative predictive values of methacholine and mannitol inhalation tests; Evaluate
methacholine and mannitol as potential tests for monitoring asthma treatment.

Panel Discussion Workshop

4810 Bronchial Thermoplasty for Severe Asthma
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 214A
Credit: 1.25 CME / 1.50 CE
Moderators: Mark F. Sands, MD FAAAAI
Neil Thomson, MD
Monica Kraft, MD
Sally E. Wenzel, MD FAAAAI

Upon completion of this session, participants should be able to: Describe the risks and benefits of bronchial thermoplasty in severe asthma; Review the studies to date on thermoplasty outcomes; Describe the areas requiring further research.

Panel Discussion Workshop

4811 Difficult Cases in Anaphylaxis: Biphasic and Protracted Anaphylaxis
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 217CD
Credit: 1.25 CME / 1.50 CE
Moderators: James J. Herman, MD FAAAAI
Carmen Vidal, MD PhD
Panelists: S. Allan Bock, MD FAAAAI
Stephen F. Kemp, MD FAAAAI
Phillip Lieberman, MD FAAAAI

Upon completion of this session, participants should be able to: Describe multiphasic and protracted anaphylactic reactions; Review the literature for risk factors related to reactions that have been multiphasic and/or protracted; Review proper treatment and current recommendations for these patients.

Q & A Workshop

4812 Skin Immunity, Barrier and Food Allergy
4:45 to 6:00 pm
Convention Center, Concourse Level, Room 214D
Credit: 1.25 CME / 1.50 CE
Moderator: Lisa A. Beck, MD FAAAAI

4:45 Mechanisms of Primary Sensitization to Food Allergens Through the Skin
Cecilia Berin, PhD

5:00 Induction of Tolerance by Epicutaneous Immunotherapy
Christophe Dupont, MD PhD

5:15 Impact of Skin Barrier Function on Sensitization
Michiko K. Oyoshi, PhD

5:30 Question & Answer

Upon completion of this session, participants should be able to: Identify the associations and theories of causality among allergic rhinitis, adenotonsillar hypertrophy, sleep disordered breathing and attention related behavioral disorders in children; List the demonstrated effects and possible benefits of intranasal corticosteroids and other allergic rhinitis treatment in improving each of the latter three disorders; Define the spectrum of SDB and OSA in children and the role of rhinoscopy and polysomnography in establishing the diagnosis and response to treatment; Identify the role of the allergist/immunologist in identifying these patients and coordinating care among pediatrician, ENT, neurologist/psychiatrist/developmental pediatrician and sleep specialist.

Programmed by the AAAAI. Annual Meeting Workshops funded through an educational grant from Merck.
Upon completion of this session, participants should be able to: Discuss how to approach patients with PCN or other beta lactam allergies; Review how to approach patients presenting with multiple antibiotic allergies; Describe how to approach patients with suspected CVID. Review the lab testing available to be used in the workup of a patient with suspected CVID.

Q & A Workshop

4818 Drug Allergy: You Have Questions, We Have Answers
4:45 to 6:00 pm
Convention Center, Ballroom Level, Ballroom C3
Credit: 1.25 CME / 1.50 CE
Moderator: Rebecca S. Gruchalla, MD PhD FAAAAI

4:45 Multiple Antibiotic Allergies
Roland Solensky, MD FAAAAI
5:00 Allergy to Chemotherapeutics
Aleena Banerji, MD
5:15 Beta-Lactams Including Issues of Cross-Reactivity
Eric Macy, MD FAAAAI
5:30 Question & Answer

Upon completion of this session, participants should be able to: Discuss how to approach patients presenting with multiple antibiotic allergies; Describe how to approach patients with PCN or other beta lactam allergies; Review how to approach patients with reactions to chemotherapeutics.

4819 AAP: Hot Topics in Pediatric Allergy and Immunology
4:45 to 6:00 pm
Convention Center, Grand Ballroom Level, Ballroom C2
Credit: 1.25 CME / 1.50 CE
Moderator: John M. James, MD FAAAAI

4:45 Pediatric Allergic Respiratory Disease
Chitra Dinakar, MD FAAAAI
5:00 Atopic Dermatitis
Lynda C. Schneider, MD FAAAAI
5:15 Food, Drugs and Bugs
Jennifer S. Kim, MD FAAAAI
5:30 Question & Answer

Upon completion of this session, participants should be able to: Describe the most recent clinical research findings in pediatric asthma, eczema, food, drug and insect allergy; Apply recent advances in pediatric allergy/immunology.

Seminars

4:45 to 5:45 pm
Programmed by the AAAAI. Seminars funded through an educational grant from Merck.
Pre-registration and ticket required. Fee: $40. Refreshments included. Sessions and refreshments limited to 30 people.
Credit: 1.00 CME / 1.20 CE

4821 Viral and Bacterial Interactions in Asthma
William W. Busse, MD FAAAAI
Philippe Gevaert, MD
Marriott Rivercenter, Third Floor, Conference Room 1

Upon completion of this session, participants should be able to: Describe the role of viruses as triggers of asthma exacerbations; Discuss the relevance of Staph aureus for asthma development and severity.

4822 CVID: Molecular and Immunological Testing
Elena E. Perez, MD PhD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 2

Upon completion of this session, participants should be able to: Describe the common features of CVID; Review the lab testing available to be used in the workup of a patient with suspected CVID.

4823 Pollen Forecasting and Exposure: A View from Space
Estelle Levetin, PhD FAAAAI
Alan P. Zelicoff, MD
Marriott Rivercenter, Third Floor, Conference Room 3

Upon completion of this session, participants should be able to: Describe how estimates of pollen production can be determined; Describe the value of remote sensing data in pollen forecasting; Describe the role of the allergist in using the pollen alerts.

4824 Tree Nut and Peanut: Complexity in Cross-Reactivity
Soheila J. Maleki, PhD
Suzanne S. Teuber, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 4

Upon completion of this session, participants should be able to: Distinguish between clinical cross-reactivity and in vitro cross-reactivity; List the main seed storage proteins involved in cross-reactivity; Review the closely related tree nuts that are often clinically cross-reactive.
4825  Quality Improvement and Patient Safety in Allergy Practice  
Paul M. Carter, MD MHCM FAAAAI  
Matthew A. Rank, MD FAAAAI  
Marriott Rivercenter, Third Floor, Conference Room 7  
Upon completion of this session, participants should be able to: Appreciate the recent experiences attendees may have had while considering, planning or performing quality projects; Discuss fundamental principles guiding quality improvement of allergic/immunologic diseases in the U.S.; Recognize potential quality improvement opportunities that could positively influence the outcomes of allergy/immunology education, research and patient care at the local and national level.

4826  The Four Ws of IgE Testing: Why, What, Who and When?  
Robert G. Hamilton, PhD D.ABMLI FAAAAI  
Joerg Kleine-Tebbe, MD FAAAAI  
Marriott Rivercenter, Third Floor, Conference Room 8  
Upon completion of this session, participants should be able to: Describe how to use IgE testing to inhalants (pollen, ped, mite, mold allergens/molecules); Discuss how to use IgE testing to foods (plant- and non-plant-related); Review how to use IgE testing to hymenoptera venoms (extracts, single venom components).

4827  Highlights in the Cytokine Network of Allergic Diseases  
Paul S. Foster, PhD DSc  
Yui-Hsi Wang, PhD  
Marriott Rivercenter, Third Floor, Conference Room 9  
Upon completion of this session, participants should be able to: Discuss the emerging roles of novel cytokines, such as TSLP, IL-9 and IL-33 in allergic diseases.

4828  Allergen Immunotherapy or Omalizumab in Asthma: When to Use Which?  
Thomas B. Casale, MD FAAAAI  
Harold S. Nelson, MD FAAAAI  
Marriott Rivercenter, Third Floor, Conference Room 10  
Upon completion of this session, participants should be able to: Review efficacy of IT in asthma and safety of AIT in moderate to severe asthma; Review studies of omalizumab alone and in combination with AIT in asthma; Make recommendations on individual use of these drugs and in combination for asthma.

4829  Identification and Functional Assessment of Regulatory T Cells in Health and Disease  
Christine M. Seroogy, MD FAAAAI  
Dat Q. Tran, MD  
Marriott Rivercenter, Third Floor, Conference Room 11  
Upon completion of this session, participants should be able to: Review markers for identification of regulatory T Cells and their subsets; Discuss strategies for isolation and expansion of regulatory T Cells; Describe methods for functional assessment of regulatory T Cells.

4830  Impact of Tobacco Smoke Exposure on Atopic Disease and Prevention/Treatment Strategies  
Christina E. Ciaccio, MD  
Deborah A. Gentile, MD  
Marriott Rivercenter, Third Floor, Conference Room 12  
Upon completion of this session, participants should be able to: Demonstrate the effects of exposure to tobacco smoke on the pathogenesis of atopic disorders; Summarize effective strategies to prevent/treat exposure to tobacco smoke; Emphasize the role of allied health care providers in prevention/treatment of exposure to tobacco smoke.
Upon completion of this session, participants should be able to: Describe the different types of pseudoallergic and allergic reactions to ASA/NSAIDs and underlying diseases; Discuss the approach to the evaluation of patients who give a history of reactions to ASA and other NSAIDs; Discuss the approach to identifying and describing skin lesions.

5003 Oral Immunotherapy for Food Allergy: Contrasting Practices in the U.S. and in Europe
Giovanni B. Pajno, MD FAAAAI
Rushani W. Saltzman, MD
Marriott Rivercenter, Third Floor, Grand Ballroom Salon D

Upon completion of this session, participants should be able to: Discuss the right patients for the right OIT; Describe food allergens which are worth OIT; Review food allergies which are worth active treatment.

5004 New Insect Allergens: Fire Ant, Mosquito, Deerfly and Asian Lady Beetle
Christopher W. Calabria, MD
Richard F. Lockey, MD
Marriott Rivercenter, Third Floor, Grand Ballroom Salon E

Upon completion of this session, participants should be able to: Describe the epidemiology and diagnosis of mosquito and deerfly allergy; Discuss eventual indications for immunotherapy in these cases; Describe the pros and cons of the available whole body extracts.

5005 What’s New in Testing for Primary Immunodeficiency Disorders?
Roshini S. Abraham, PhD FAAAAI
Harry R. Hill, MD
Marriott Rivercenter, Third Floor, Conference Room 7

Upon completion of this session, participants should be able to: Review the laboratory tests used to work up patients with recurrent infection, including a description of the assays; Describe the clinical value of these tests and interpretation of the results; Appreciate how newer technologies are being applied to diagnostic laboratories for primary immunodeficiency.

5006 Food Challenges in the Office Setting
S. Allan Bock, MD FAAAAI
Justin M. Skripak, MD
Marriott Rivercenter, Third Floor, Conference Room 8

Upon completion of this session, participants should be able to: Determine which subjects are suitable for office food challenges; List which foods are most likely to be safely challenged in an office and how to choose them; Describe which challenge procedures are most useful, including baked egg and milk challenges.

5007 Advanced Therapeutics: Managing the Severe and Refractory Eczema Patient
Luz S. Fonacier, MD FAAAAI
Jennifer S. Kim, MD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom A

Upon completion of this session, participants should be able to: Identify common pitfalls in the treatment of eczema, with special emphasis on compliance; Describe the rationale for an extended therapeutic ladder for patients refractory to standard treatments; Evaluate treatments and interventions that have been shown to be of no benefit in the disease.

5008 Problem-Based Learning: Immunodeficiency Evaluation
Mark Ballow, MD FAAAAI
Mercedes L. Hetzler, MD
Marriott Rivercenter, Third Floor, Conference Room 10

Upon completion of this session, participants should be able to: Determine an alternative diagnosis of a patient with recurrent infections; Order lab tests to evaluate a patient for immune deficiency; Interpret lab tests for suspected immune deficiency.

5009 Physical Urticaria and Idiopathic Urticaria: Clinical Perspectives
Laura M. Gober, MD
David R. Wecklen, MD FAAAAI
Marriott Rivercenter, Third Floor, Conference Room 11

Upon completion of this session, participants should be able to: Discuss the differential diagnosis for physical urticaria and idiopathic urticaria; Explain the diagnostic approaches; Review the treatment options.

5010 Eosinophilic Esophagitis: Practical Aspects of Assessing Immediate and Delayed Food Hypersensitivity
Mark Holtzmann, MD FAAAAI
Amir F. Kagalwalla, MD
Marriott Rivercenter, Third Floor, Conference Room 12

Upon completion of this session, participants should be able to: Complete a comprehensive food allergy evaluation in children and adults with eosinophilic esophagitis; Explain the practical aspects of the preparation of food allergens for prick and patch testing; Describe the role of immunoassays for foods in eosinophilic esophagitis.

5011 Dermatology for the Allergist
Peter Lio, MD
Marriott Rivercenter, Third Floor, Grand Ballroom Salon I

Upon completion of this session, participants should be able to: Describe the basic clinical features of atop dermatitis, other eczemas, allergic contact dermatitis and drug eruptions; Discuss the approach to identifying and describing skin lesions; Discuss the role of biopsy in diagnosis and management.

5012 There’s An App for That: iPhone/iPad, Android and Web Tools for Clinical Practice
Linda D. Green, MD FAAAAI
Melinda M. Rathkopf, MD FAAAAI
Marriott Rivercenter, Third Floor, Grand Ballroom Salon J

Upon completion of this session, participants should be able to: Discuss novel applications of the iPhone/iPad, Android and other smart devices in daily practice; Present use case scenarios of web tools for improving patient care, education and outreach; Navigate and find features of the new AAAAI website.

5013 Novel Therapies for Chronic Urticaria and Angioedema
David H. Dreyfus, MD PhD FAAAAI
Marriott Riverwalk, Second Floor Level, Alamo Ballroom Salon A

Upon completion of this session, participants should be able to: Discuss novel therapy for chronic urticaria and angioedema; List novel diagnostic testing for chronic urticaria and angioedema; Review practical considerations for application of novel therapy and diagnosis.
5014 Problem-Based Learning: So the Patient Has Eosinophilia: What Next?
Amy D Klion, MD
Catherine R. Weiler, MD PhD FAAAAI
Marriott Riverwalk, Second Floor, Alamo Ballroom Salon B
Upon completion of this session, participants should be able to: Review diagnosis of variants hypereosinophilic syndrome; Describe identification of secondary eosinophilia; Discuss therapeutic approaches to hypereosinophilic syndrome.

5015 Exhaled NO: Time to Clear the Air!
Mark F. Sands, MD FAAAAI
Stanley J. Szefler, MD FAAAAI
Marriott Riverwalk, Second Floor, Alamo Ballroom Salon C
Upon completion of this session, participants should be able to: Discuss the application of eNO in the context of ATS guidelines and AAAAI/ACAAI position statements; Recognize the relationship between the levels of evidence and practice guidelines for clinical eNO use; Explain potential weakness/strengths of eNO for managing asthmatics.

Plenary ▼
5101 Neurogenic Pathways of Inflammation
8:15 to 9:45 am
Convention Center, Street Level, Exhibit Hall D
Credit: 1.50 CME / 1.80 CE
Moderator: Michael A. Kaliner, MD FAAAAI
8:15 The Cough that is Getting on My Nerves
Bradley Undem, PhD
8:45 Your Nose Acts Through Your Nerves
Alkis Togias, MD FAAAAI
9:15 Pruritus Beyond Antihistamines
Gil Yoav, MD
Upon completion of this session, participants should be able to: Describe neurogenic mechanisms and treatment options for chronic non-allergic rhinopathy; Discuss neuro-reflex mechanisms for chronic cough; Describe the role of taste receptors and other related neuronal receptors in airway smooth muscle.

Posters
7:00 am to 5:00 pm
Convention Center, Street Level, Exhibit Hall C
Posters on display from 7:00 am to 5:00 pm. Authors present from 9:45 to 10:45 am.
Credit: No CME / No CE
Refer to pages 86-139 for abstracts and authors

5201 Asthma Updates
5202 Other BCI Topics
5203 Anaphylaxis I
5204 Food Allergy II
5205 Rhinitis/Rhinosinusitis
5206 Immunotherapy/Immune Deficiencies

Symposium ▼
5301 Assessing Eosinophil Functions in Asthma, Eosinophilic Esophagitis and Hypereosinophilic Syndromes
10:45 am to 12:00 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Moderator: Rafeul Alam, MD PhD FAAAAI
10:45 Eosinophils in Immune Regulation and Remodeling: New Insights
Steven J. Ackerman, PhD
11:05 Eosinophil Depletion by Antibody Treatment: Lessons Learned from Clinical Trials
Amy D. Klion, MD
11:25 Extracellular Eosinophil DNA Traps: How to Assess and Their Role in Disease
Hans-Uwe Simon, MD PhD FAAAAI
11:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss the role of eosinophils in asthma, eosinophilic esophagitis and hypereosinophilic syndromes; Describe the power of clinical investigations as an in vivo approach to understand eosinophil biology; Discuss new insights obtained from specific anti-eosinophil treatment approaches.

Symposium ▼
5302 New Phenotypes in Pediatric Asthma
10:45 am to 12:00 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Scott T. Weiss, MD MS
10:45 New Approaches Identifying Asthma Phenotypes in Childhood
Adnan Custovic, MD PhD FAAAAI
11:05 What Clinical Lessons Can We Learn from Phenotyping Asthma in Childhood?
Anne M. Fitzpatrick, PhD
11:25 Prediction of Persistence and Remission of Asthma in Adolescence: Differences Between Male and Female
Ronina Covar, MD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss if different phenotypes of pediatric asthma require different therapies; Review if genetics help in phenotyping pediatric asthma.
Symposium

5303 Advances in Immunotherapy: Mechanisms and Approaches
10:45 am to 12:00 pm
Convention Center, Ballroom Level, Ballroom C1
Credit: 1.25 CME / 1.50 CE
Moderator: Robert A. Wood, MD FAAAAI
10:45 Overview of Immunotherapy in Children with Asthma
Jacqueline Pongracic, MD FAAAAI
11:05 T Cell Epitope in Immunotherapy
Alessandro Sette, Dr. Biol. Sci.
11:25 Blocking Antibodies and their Role in the Effectiveness of Immunotherapy
Stephen R. Durham, MA MD FRCP
11:45 Question & Answer
Upon completion of this session, participants should be able to: Review principles of IT as they apply to inner city asthma; Discuss potential biomarkers in the application of IT; Discuss the unique contribution and use of T cell epitopes in IT.

Symposium

5304 Evolving Understanding of the Contributions of Mast Cells to Immune and Inflammatory Disease Models
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 214BC
Credit: 1.25 CME / 1.50 CE
Moderator: Francesca Levi-Schaffer, PhD FAAAAI
10:45 New Insights Into the Contributions of Mast Cells to Immune and Inflammatory Responses Through New Strains of Mast Cell-Deficient Mice
Stephen J. Galli, MD
11:05 The Adjuvant Effects of Mast Cells
Soman N. Abraham, PhD
11:25 Mast Cells and Immune Tolerance
Paul Bryce, PhD
11:45 Question & Answer
Upon completion of this session, participants should be able to: Discuss new models of mast cell deficient mice; Review mast cell models with adjuvant effects; Discuss the contribution of mast cells in immune tolerance.

Symposium

5305 New Insights into Mold-Related Symptoms and Disease and Potential Housing-Related Solutions
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 214D
Credit: 1.25 CME / 1.50 CE
Moderator: Leslie C. Grammer, MD FAAAAI
10:45 Irritant Effects of Mold Exposure: What to Tell Your Patient When There is No Evidence of Disease
Kari E. Reijula, MD PhD FAAAAI
11:05 Effect of Mold Constituents on Innate Immune Responses
Charles S. Barnes, PhD
11:25 Unusual But Important Sources of Industrial and Home Mold Exposure
Karín A. Pacheco, MD MSPH FAAAAI
11:45 Question & Answer
Upon completion of this session, participants should be able to: Describe how mold components can drive the innate immune response; Define the irritant effects of mold exposure in non-mold-allergic patients, and how to diagnose and treat these; Review potential exposures to mold at work and at home.

Symposium

5306 Response to Viral Infections in the Atopic Host: Is it Deficient?
10:45 am to 12:00 pm
Convention Center, Concourse Level, Room 217AB
Credit: 1.25 CME / 1.50 CE
Moderator: Peter W. Heymann, MD
10:45 Innate Response to Viral Infections and Asthma
Sebastian L. Johnston, MD PhD
11:05 Adaptive Immune Response to Viral Infections and Asthma
Larry Borish, MD FAAAAI
11:25 Viral Determinants of Rhinovirus Virulence
James E. Gern, MD FAAAAI
11:45 Question & Answer
Upon completion of this session, participants should be able to: Describe why allergic individuals may be more susceptible to symptoms caused by viral infections; Discuss whether deficiencies in the response to viral infections in the atopic host involve both the innate and acquired immune systems; Discuss how the susceptibility to symptoms caused by viral infections affects patients with asthma and atopic dermatitis.
Symposium  

5307 Comprehensive Allergy Programs: A Systematic Approach to Reduce the Burden  
10:45 am to 12:00 pm  
Convention Center, Concourse Level, Room 217CD  
Credit: 1.25 CME / 1.50 CE  
Richard F. Lockey, MD FAAAAI

10:45 Global Burden of Allergy and Future Predictions  
Ruby U. Pawankar, MD PhD FAAAAI

11:05 From Guidelines to Action Programs: The Finnish Experience  
Erkka Valovirta, MD PhD

11:25 Is Allergy Preventable?  
Thomas A.E. Platts-Mills, MD PhD FAAAAI

11:45 Question & Answer

Upon completion of this session, participants should be able to: Describe the role of allergy/immunology patients that have the greatest evidence to support their use.

Pro/Con Debate  

5501 Empiric Elimination Diets are Better than Targeted Elimination Diets for the Management of Eosinophilic Esophagitis  
12:30 to 1:30 pm  
Convention Center, River Level, Room 006  
Mark Holtbrecht, MD FAAAAI

Pro  
Katrina Jane Allen, MD PhD

Con  
Carla M. Davis, MD

Upon completion of this session, participants should be able to: Highlight the discrepancy between the approach towards EoE between allergists and gastroenterologist and enable enhanced communication between the two subspecialties by providing the rationale behind the diversity of approach; Describe evidence on the effectiveness of various protocols for dietary elimination; Explain how the choice of elimination diet can have an impact on patient compliance of both diet as well as the feasibility of endoscopic follow-up.

5503 Basophils are Key Antigen Presenting Cells in Allergic Inflammation  
12:30 to 1:30 pm  
Convention Center, Concourse Level, Room 214A  
Credit: 1.00 CME / 1.20 CE  
Moderator to be announced

Pro  
Speaker to be announced

Con  
Speaker to be announced.

Upon completion of this session, participants should be able to: List what comprises the evidence that basophils can function as antigen-presenting cells; Discuss the role of dendritic cells in Th2 initiation; Describe how to reconcile data on basophils and dendritic cells which support and refute a role in Th2 initiation.

5504 Anaphylaxis vs. Mastocytosis: A Bone Marrow Biopsy is Always Necessary  
12:30 to 1:30 pm  
Convention Center, Concourse Level, Room 214BC  
Credit: 1.00 CME / 1.20 CE  
Moderator: Mariana C. Castells, MD PhD FAAAAI

Pro  
Cem Akin, MD PhD FAAAAI

Con  
Paul A. Greenberger, MD FAAAAI

Upon completion of this session, participants should be able to: Review the indications for bone marrow biopsy in patients with anaphylaxis (severe hypotension, hymenoptera sting reactions, recurrent episodes without trigger); Review the data on frequency of patients presenting with anaphylaxis and elevated tryptase who have MMCAS or mastocytosis.

5505 Integrative Medicine Should Be a Component of Allergy/Immunology Practice  
12:30 to 1:30 pm  
Convention Center, Concourse Level, Room 214D  
Credit: 1.00 CME / 1.20 CE  
Moderator: William Silvers, MD FAAAAI

Pro  
Galen D. Marshall, Jr., MD PhD FAAAAI

Con  
Richard F. Lockey, MD FAAAAI

Upon completion of this session, participants should be able to: List what comprises the principles of integrative medicine and the evidence-based components that include allergy-immunology; Describe the components of complementary therapies that can be useful in the practice of allergy, asthma/immunology; Discuss CAM therapies used in allergy/immunology patients that have the greatest evidence to support their use.

Pro/Con Debate  

5502 Antibiotics Have a Role in Asthma Treatment  
12:30 to 1:30 pm  
Convention Center, River Level, Room 007  
Credit: 1.00 CME / 1.20 CE  
Moderator: R. Stokes Peebles, Jr., MD FAAAAI

Pro  
Monica Kraft, MD

Con  
Thomas A.E. Platts-Mills, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Describe the role of bacteria and atypical bacteria in provoking asthma symptoms; Discuss whether or when antibiotics can be used routinely, or selectively in treating flares of asthma; Discuss the potential of antibiotics to reduce airway inflammation (e.g. azithromycin).
Tuesday, February 26

Pro/Con Debate ▼

5506 SLIT and SCIT Duration: Three Years is Enough
12:30 to 1:30 pm
Convention Center, Concourse Level, Room 217AB
Credit: 1.00 CME / 1.20 CE
Moderator: Andrew M. Smith, MD
Pro
Stephen R. Durham, MA MD FRCP
Con
Giovanni Passalacqua, MD

Upon completion of this session, participants should be able to: Discuss the duration of immunotherapy according to findings of clinical trials for SCIT; Discuss the duration of immunotherapy according to findings of clinical trials for SLIT.

Oral Abstract

5601 Asthma Therapeutic Updates
2:00 to 3:15 pm
Convention Center, Ballroom Level, Ballroom C1
Credit: 1.25 CME / 1.50 CE
Moderator to be announced.

2:00 A Randomized Placebo-Controlled Safety and Pharmacodynamic Study of KB002, a Chimeric Anti-GM-CSF Monoclonal Antibody, in Patients with Asthma
Nestor A. Molino, MD MSc

2:15 Over-Expression of the LTC4 Synthase Gene in Mice Reproduces Human Aspirin-Induced Asthma
Tatsuya Yokoyama

2:30 Effect of Inhaled Corticosteroids (ICS) Vs. Inhaled Corticosteroid with Long-Acting Beta2 Agonists (ICS/LABA) On Asthma Control: Results From National Asthma Survey
Neeth Talreja

2:45 A Randomized, Double-Blind, Placebo-Controlled, Multiple-Dose Study to Evaluate the Safety, Tolerability, and Efficacy of Brodalumab (AMG 827) in Subjects with Moderate to Severe Asthma
William W. Busse, MD FAAAAI

3:00 Calcium-Dependent Pathways Are Essential for Canonical Glucocorticoid [GR] Receptor Signaling
Ashwini Reddy, MD

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

Oral Abstract

5602 Immunodeficiency
2:00 to 3:15 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Moderator to be announced.

2:00 Evaluation of the B Cell Compartment in CVID and Respi Patients
Tracy Hwangpo, MD PhD

2:15 Continuous G-CSF Treatment Induces Complete Clinical Remission and Restoration of IL-17 Secretion in Autosomal Dominant Chronic Mucocutaneous Candidiasis
Eduardo Shahar, MD

2:30 Bacterial Specificity of IgM and Susceptibility to Pneumonia in Primary Humoral Immunodeficiency
Paul J. Maglione, MD PhD

2:45 TREC Newborn Screening Can Identify Patients with Leaky SCID and May Improve Outcome
Alice Chan, MD PhD

3:00 Disseminated HPV Following Stem Cell Transplant (SCT) in NK(-) Severe Combined Immune Deficiency (SCID) and Association with NK Cell Dysfunction
Kapil Saxena, MS

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

Oral Abstract

5603 Effects of Viral and Bacterial Infections on Asthma
2:00 to 3:15 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Daniel J. Jackson, MD

2:00 Characterization of RV-Specific T Cell Responses in Healthy and Infected Individuals
John W. Steinke, PhD FAAAAI

2:15 Differential Effects of HRV Species On Cold and Asthma Symptoms
Hiba Bashir, MD

2:30 Effects of Human Rhinovirus Species On Viral Replication in Differentiated Sinus Epithelial Cells
Kazuyuki Nagaogi, MD

2:45 Role of Mycoplasma Pneumoniae in Childhood Asthma
Edward G. Brooks, MD

3:00 Detection of Streptococcus Pneumoniae and Human Rhinovirus Is Associated with Loss of Asthma Control
Kirsten Kloepfer, MD

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

**5604 Drug/AD**

- **2:00 to 3:15 pm**
- **Convention Center, Ballroom Level, Ballroom C3**
- **Credit: 1.25 CME / 1.50 CE**
  - **David A. Khan, MD FAAAAI**
  - **Anna H. Nowak-Wegrzyn, MD FAAAAI**
- **2:00** Safely Diagnosing Clinically Significant Penicillin Allergy with Only Penicilloyi-Poly-Lysine, Penicillin, and Oral Amoxicillin
  - **Eric M. Macy, MD FAAAAI**
- **2:15** Protein Haptenation by Amoxicillin: Immunological Detection with Monoclonal Anti-Amoxicillin Antibodies and Identification of Candidate Target Proteins in Human Serum
  - **Adriana Ariza**
- **2:30** Th2 Cytokines and Filaggrin Deficiency Enhance Staphylococcus Aureus Alpha-Toxin Induced Keratinocyte Death
  - **Anne M. Brauweiler, PhD**
- **2:45** An Open Label Study in Adults with Atopic Dermatitis to Assess Immune Response to Fluzone® Intradermal Vaccine
  - **Donald Y. M. Leung, MD PhD FAAAAI**

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

Oral Abstract

**5605 Improving Asthma Outcomes**

- **2:00 to 3:15 pm**
- **Convention Center, Concourse Level, Room 217AB**
- **Credit: 1.25 CME / 1.50 CE**
  - **Moderator to be announced.**
- **2:00** School-Based Asthma Clinic Improves Asthma Outcomes
  - **Alysa G. Ellis, MD**
- **2:15** Factors Related to Decision Making and Substance Use in Adolescents with Asthma: A Presenting Clinical Profile
  - **Mary C. O’Laughlin, PhD RN FNP-BC**
- **2:30** Interviewing Adolescents with Asthma: Are We Doing Enough?
  - **Matthew Altman, MD**
- **2:45** Comparative Effectiveness of Budesonide/Formoterol Combination (BFC) and Fluticasone/Salmeterol Combination (FSC) Among Asthma Patients
  - **Setareh Williams**
- **3:00** University and Public Health System Partnership: A Systematic Intervention for Assistance of Patients with Asthma in Brazil
  - **Marcos R. Goncalves, MD**

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

Oral Abstract

**5606 Rhinitis and Rhinosinusitis Pathophysiology**

- **2:00 to 3:15 pm**
- **Convention Center, Ballroom Level, Ballroom C2**
- **Credit: 1.25 CME / 1.50 CE**
  - **Moderator: Anju T. Peters, MD FAAAAI**
  - **Jayant M. Pinto, MD**
- **2:00** Evaluation of In Vivo and in Vitro Responses to Notoe1 in Systemic and Local Allergic Rhinitis
  - **Paloma Campo, MD PhD**
- **2:15** Levels of the Cytokines IL-5, IL-13 and Rantes in Nasal Lavage Fluids Parallel the Cytokine Content of Nasal Polyps in Patients with Chronic Rhinosinusitis with Nasal Polyps (CRSwNP)
  - **Christopher Ocampo, MD PhD**
- **2:30** Aeroallergen Wheat Area Especially for Molds At Ages Two and Three Predicts Allergic Rhinitis At Age Four: The Cincinnati Childhood Allergy and Air Pollution Study (CCAAPS)
  - **Christopher D. Codispoti, MD PhD**
- **2:45** Decreased Production of Antimicrobial Peptides in Chronic Rhinosinusitis Associated with Age and Elevated Soluble gp130
  - **Sun Hye Lee, PhD**
- **3:00** Inhibitory Effects of Mometasone Furoate and Azithromycin On Phorbol Ester-Induced Mucin Production From Human Airway Epithelial Cells
  - **Orapan Poachanukoon, MD**

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

Oral Abstract

**5607 Recent Advances in Eosinophil and Mast Cell Biology**

- **2:00 to 3:15 pm**
- **Convention Center, Concourse Level, Room 217CD**
- **Credit: 1.25 CME / 1.50 CE**
  - **Moderator: Lisa A. Spencer, PhD**
- **2:00** Mice with Attenuated Expression of the α2,3 Sialyltransferase ST3gal-III (St3gal3) Display Enhanced Allergic Eosinophilic Airway Inflammation
  - **Takumi Kiwamoto, MD PhD**
- **2:15** Epicutaneous Sensitization in Filaggrin Gene-Depleted Mouse Induces Prolonged Airway Eosinophilia without Obvious Dermatitis
  - **Yusuke Suzuki**
- **2:30** Epicutaneous Sensitization in Flaggrin Gene-Depleted Mouse Induces Prolonged Airway Eosinophilia without Obvious Dermatitis
  - **Takumi Kiwamoto, MD PhD**
- **2:15** Epicutaneous Sensitization in Flaggrin Gene-Depleted Mouse Induces Prolonged Airway Eosinophilia without Obvious Dermatitis
  - **Takumi Kiwamoto, MD PhD**
- **2:00** Thymic Stromal Lymphopoietin Promotes Peripheral Blood CD34+ Cell Eosinophilic Lineage Commitment
  - **Claudia C.K. Hui, MSc**
- **2:45** Hypoxia Inducible Factor (HIF) Alpha Subunits Modulate Eosinophil Migration, Oxidative Burst, and Degranulation
  - **Laura E. Crotty Alexander, MD**
- **3:00** Functional Expression of the Novel C5a Receptor C5L2 in Human Mast Cells
  - **Priyanka Pundir, DVM**

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

5611 Late Breaking Oral Abstract II
2:00 to 3:15 pm
Convention Center, River Level, Room 008
Credit: 1.25 CME / 1.50 CE
William J. Calhoun, MD FAAAAI
2:00 Antibiotic Exposure and the Risk of Food Allergy in Young Children
Bryan L. Love, PharmD BCPS
2:15 Deficiency of Inducible PGE2 Is Sufficient to Cause Aspirin Sensitivity in the Setting of Pulmonary Inflammation
Tao Liu, PhD
2:30 VRC 311: Phase I Clinical Trial of a Virus-Like Particle Chikungunya Vaccine in Healthy Adults
Lee-Jah Chang, MD
2:45 Chronic Sub-Cutaneous Exposure to a Staphylococcus Aureus Superantigen, Staphylococcal Enterotoxin B, Elicits an Eosinophilic Airway Inflammation in HLA Class II Transgenic Mice - Linking Atopic Dermatitis (AD) to Asthma
Govindarajan Rajagopalan, DVM PhD
3:00 Detection and Quantitation of Total and Allergen-Specific IgE in the Bronchial Mucosa of Atopic and Non-Atopic Asthmatics
Prathap Chellappan Pillai, MD

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

Problem-Based Learning Workshop 5701

3:30 to 4:45 pm
Convention Center, River Level, Room 004
Pre-registration and ticket required. Fee: $50.
Credit: 1.25 CME / 1.50 CE
Don A. Bukstein, MD

Upon completion of this session, participants should be able to: To interactively discuss the case of a child with a chronic cough; To discuss in depth the differential diagnoses of a child with a chronic cough and the appropriate diagnostic evaluation; Debate therapeutic options for a child with a chronic cough.

Problem-Based Learning Workshop 5702

3:30 to 4:45 pm
Convention Center, River Level, Room 005
Pre-registration and ticket required. Fee: $50.
Credit: 1.25 CME / 1.50 CE
Leonard B. Bacharier, MD FAAAAI

Upon completion of this session, participants should be able to: Discuss how the Asthma Predictive Index can aid in making a presumptive diagnosis of asthma in an infant with intermittent wheezing; Discuss the NAEPP Guidelines recommendations for daily ICS therapy for intermittent wheezing in an infant who needs several courses of oral corticosteroids per year; Outline the most recent data from the MIST and TREXA studies from the CARES Network regarding an alternative-high dose ICS/SABA intermittently-for an infant with intermittent-severe wheezing.

Q & A Workshop

5703 Allergy Diagnosis 2013: Between Scientific Progress and Unproven Methods
3:30 to 4:45 pm
Convention Center, Concourse Level, Room 217AB
Credit: 1.25 CME / 1.50 CE
Moderator: Sarbjit S. Saini
3:30 In Vivo Veritas: From Skin Testing to Challenges with Allergens: Kinesiology
Martin Wagenmann, MD FAAAAI
3:45 Antibody Based Tests: IgE In Immediate Type Hypersensitivity: IgG4 to Foods
Robert G. Hamilton, PhD D.ABMLI FAAAAI
4:00 Cellular Allergy Testing: Basophil and Lymphocyte-Based Tests: ALCAT
Joerg Kleine-Tebbe, MD FAAAAI
4:15 Question & Answer

Upon completion of this session, participants should be able to: Acknowledge new findings in the diagnosis or IgE-mediated reactions and disorders using In vivo, In vitro and Ex vivo methods; Utilize recent developments in diagnostic methods for advancing the interpretation of individual test results; Identify unproven methods like kinesiology, bioresonance, IgG tests with foods.

Q & A Workshop

5704 Chronic Rhinosinusitis: From Bench to Bedside
3:30 to 4:45 pm
Convention Center, River Level, Room 007
Credit: 1.25 CME / 1.50 CE
Moderator: Patricia A. Takach, MD FAAAAI
3:30 Research in Mucociliary Clearance in CRS
Noam A. Cohen, MD PhD
3:45 Research in Barrier Dysfunction in CRS
Anju Peters, MD
4:00 Treatment Modalities In CRSsNP and CRSwNP
Daniel L. Hamilos, MD FAAAAI
4:15 Question & Answer

Upon completion of this session, participants should be able to: Describe mucociliary dysfunction in CRS; Describe barrier dysfunction in CRS; Discuss treatment modalities in CRS.

Annual Meeting Workshops
Programmed by the AAAAI. Annual Meeting Workshops funded through an educational grant from Merck.
### Q & A Workshop

**5705 Advances in Desensitization**  
3:30 to 4:45 pm  
Convention Center, River Level, Room 008  
Credit: 1.25 CME / 1.50 CE  
Moderator: Aleena Banerji, MD

#### 3:30 Desensitization to Drugs  
Aleena Banerji, MD

#### 3:45 Desensitization to Foods  
Stacie M. Jones, MD

#### 4:00 Rapid Desensitization to Aeroallergens  
David A. Khan, MD FAAAAI

#### 4:15 Question & Answer

Upon completion of this session, participants should be able to: Discuss the principles and application of rapid desensitization to drugs, such as antibiotics, chemotherapeutics and monoclonal antibodies; Describe the current state of knowledge of desensitization to foods; Discuss the current state of knowledge of rapid desensitization to aeroallergens.

### Panel Discussion Workshop

**5706 Are Your Baked Milk and Egg Challenges Half-Baked?**  
3:30 to 4:45 pm  
Convention Center, Ballroom Level, Ballroom C1  
Credit: 1.25 CME / 1.50 CE  
Moderators: Pamela H. Steele, MSN CPNP AE-C  
Kirsten Beyer, MD  
Marion E. Groetch, MS RD  
Sally A. Noone, RN MSN CCRC  
Anna H. Nowak-Wegrzyn, MD FAAAAI

Upon completion of this session, participants should be able to: Identify when to offer a baked milk or egg challenge; Conduct a baked milk or egg challenge; Educate patients about a diet that avoids milk or egg but includes baked milk or egg.

### Problem-Based Learning Workshop

**5707 Problem-Based Learning: Approach to a Patient with Primary Immunodeficiency Disease**  
3:30 to 4:45 pm  
Convention Center, Concourse Level, Room 210AB  
Pre-registration and ticket required. Fee: $50.  
Credit: 1.25 CME / 1.50 CE  
Moderator: Meredith L. Heltzer, MD  
Elena E. Perez, MD PhD FAAAAI

Upon completion of this session, participants should be able to: Make a differential diagnosis of patient with recurrent infections; Make a stepwise plan for testing; Interpret test results in the setting of the patient’s overall presentation.

### Q & A Workshop

**5708 Airway Smooth Muscle Signaling: New Insights in Asthma**  
3:30 to 4:45 pm  
Convention Center, Concourse Level, Room 212AB  
Credit: 1.25 CME / 1.50 CE  
Moderator: Aleena Banerji, MD

#### 3:30 Airway Tone and Regulator of G-Protein Signaling (RGS) Proteins: Intracellular Modulators of Gpcrs  
Yaping Tu, PhD

#### 3:45 OGR1 a pH Sensor for ASM  
Raymond Penn, PhD

#### 4:00 New Therapeutic Strategies Targeting Airway Smooth Muscle  
Reynold A. Panettieri, Jr., MD

#### 4:15 Question & Answer

Upon completion of this session, participants should be able to: Review important intracellular signaling events controlling airway tone and remodeling; Discuss the role of RGS proteins in the pathobiology of asthma; Describe novel approaches aimed at GPCRs for the management of asthma.

### Q & A Workshop

**5709 Technology-Based Interventions to Improve Asthma Management and Adherence**  
3:30 to 4:45 pm  
Convention Center, Concourse Level, Room 214A  
Credit: 1.25 CME / 1.50 CE  
Moderator: William Vollmer, PhD

#### 3:30 Patient Preferences for Use of Social Media, Text Messaging and Email for Asthma Management  
Alan P. Baptist, MD MPH

#### 3:45 Electronic Medical Record-Based Interventions to Improve Adherence  
William Vollmer, PhD

#### 4:00 A Smartphone Intervention to Improve Adherence and Asthma Self-Management in Urban Minority Adolescents  
Giselle Mosnaim, MD MS FAAAAI

#### 4:15 Question & Answer

Upon completion of this session, participants should be able to: Discuss patient preferences for use of social media, text messaging and email for patient-provider communication; Explore the use of electronic medical records to improve adherence; Explore the use of smartphone technologies to improve adherence in urban minority adolescents.
Q & A Workshop

5710 Novel Insights into the Pathobiology of Eosinophilic Esophagitis
3:30 to 4:45 pm
Convention Center, Concourse Level, Room 213AB
Credit: 1.25 CME / 1.50 CE
Jonathan M. Spergel, MD PhD FAAAAI
3:30 Main Conclusions from Genetic Studies and Future Aspects
Jonathan M. Spergel, MD PhD FAAAAI
3:45 The Spectrum of Allergen Sensitization: Similarities and Differences Between Pediatric and Adult Eosinophilic Esophagitis
Seema Sharma Aceves, MD PhD FAAAAI
4:00 Lessons Learned from Investigator-Initiated Trials
Hans-Uwe Simon, MD PhD FAAAAI
4:15 Question & Answer
Upon completion of this session, participants should be able to: Describe the immunopathogenesis of eosinophilic esophagitis; Discuss recent findings obtained in genetic studies; Discuss the main conclusions of clinical studies performed in pediatric and adult eosinophilic esophagitis patient groups.

Year-in-Review Workshop

5711 Year-in-Review: Changes in Health Care Reform
3:30 to 4:45 pm
Convention Center, Concourse Level, Room 214BC
Credit: 1.25 CME / 1.50 CE
Moderator: James C. Sublett, MD FAAAAI
3:30 Implementing the Patient Protection and Affordable Care Act in Your Practice
Richard W. Honsinger, MD MACP FAAAAI
3:45 Maintaining Excellence in Subspecialty Care within Accountable Care Organizations and the Patient Centered Medical Home
Michael B. Foggs, MD FAAAAI
4:00 Engineering Systems that Work: Meaningful Use, EHR and Medical Informatics in 2013 and Beyond
James C. Sublett, MD FAAAAI
4:15 Question & Answer
Upon completion of this session, participants should be able to: Describe the current state of proposed models of health care; Discuss the status of EHR implementation and meaningful use requirements; Review the current health care laws.

Q & A Workshop

5712 Type I Interferons, Rhinovirus and Viral Infection in the Allergic Response
3:30 to 4:45 pm
Convention Center, Concourse Level, Room 214D
Credit: 1.25 CME / 1.50 CE
Moderator: Dorothy S. Cheung, MD FAAAAI
3:30 Expression Patterns of Type I IFN in Response to Respiratory Viruses
Philippa Hillyer, MD
3:45 Which is More Important in Asthma Exacerbations: Rhinovirus A or C?
James Gern, MD FAAAAI
4:00 The Role of IgE in Antiviral Immune Responses
Peter W. Heymann, MD
4:15 Question & Answer
Upon completion of this session, participants should be able to: Describe that despite signaling through one set of receptors, individual type I IFN family members may have unique roles or biological functions in mediating the inflammatory response to viral infection; Clarify the importance of the different groups of rhinoviruses in asthma exacerbations; Discuss the data suggesting that the production of IgE is part of the antiviral immune response.

Q & A Workshop

5713 EGIDs: Shining a Light on Eosinophils Below the Esophagus
3:30 to 4:45 pm
Convention Center, River Level, Room 006
Credit: 1.25 CME / 1.50 CE
Moderator: David Mark Fleischer, MD FAAAAI
3:30 Eosinophils in the Gut: What is Abnormal?
Margaret Collins, MD
3:45 Recognition and Medical Management of EGIDs
Mima Chehade, MD
4:00 Allergy Testing and Elimination Diets in EGIDs
Fred (Dan) McDaniel Atkins, MD FAAAAI
4:15 Question & Answer
Upon completion of this session, participants should be able to: Discuss the current state of proposed models of health care; Discuss the status of EHR implementation and meaningful use requirements; Review the current health care laws.

Q & A Workshop

5714 FDA CBER Update on Regulation of Allergenic Products
3:30 to 4:45 pm
Convention Center, Concourse Level, Room 217CD
Credit: 1.25 CME / 1.50 CE
Moderator: Michael R. Nelson, MD PhD FAAAAI
3:30 Current Status of the Categorization of Non-Standardized Allergenic Extracts
Jay E. Slater, MD
3:45 Clinical Proof of Efficacy of Novel Allergenic Therapeutics
Ronald L. Rabin, MD FAAAAI
4:00 Statistical Proof of Efficacy of Novel Allergenic Therapeutics
Tammy Massie, PhD
4:15 Question & Answer
Upon completion of this session, participants should be able to: Describe the current and potential future status of non-standardized allergenic extracts in the use of diagnosis and treatment of allergic diseases; Discuss the requirements for clinical proof of efficacy for licensure of novel allergenic therapeutics; Discuss the requirements for statistical proof of efficacy for licensure of novel allergenic therapeutics.

Annual Meeting Workshops
Programmed by the AAAAI. Annual Meeting Workshops funded through an educational grant from Merck.
Scientific Abstract Sessions

Emerging Asthma Therapeutics

2021
Saturday, February 23rd, 2013, 9:45 AM - 10:45 AM

1 Induction of IL-10 Production by Dendritic Cells From a Human Myeloblast Cell Line and Peripheral Blood Mononuclear Cells From Asthmatic Patients by an Alkaloid Compound From Sophorae Flavescentis
William Holder1, Changda Liu, PhD3, Ying Song, MD4, Nan Yang, PhD MS5, Jody R. Tversky, MD, PhD1, 2 and Xiu-Min Li, MD1, 1Mount Sinai School of Medicine, New York, NY, 2Johns Hopkins Medical Center

2 Efficacy of Tiotropium in Patients with Asthma in Relation to Allergic Status
Mark L. Vandewalker, MD1, Michael Engel, MD2, Hendrick Schmidt3, Wolfgang Siebold4, Petra Moroni-Zentgraf5, Hub Kersten5, 6, Eric Donn Bateman, MD1 and Donald P. Tashkin, MD3, 1Clinical Research of the Ozarks, Columbia, MO, 2Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim Am Rhein, Germany, 3Boehringer Ingelheim Pharma GmbH & Co. KG, Ingelheim am Rhein, Germany, 4Boehringer Ingelheim Pharma GmbH & Co. KG, Biberach an der Riss, Germany, 5University Medical Center Groningen, University of Groningen, Groningen, Netherlands, 6Groningen Research Institute for Asthma and COPD (GRIAC), Groningen, Netherlands, 7University of Cape Town, Cape Town, South Africa, 8David Geffen School of Medicine at UCLA, Los Angeles, Los Angeles, CA

3 Ganoderic Acid a Suppressed Th2 Responses and Induced Th1/ Tregs in Cultures of Peripheral Blood Mononuclear Cells From Asthmatic Patients
Changda Liu, PhD3, Ying Song, MD4, Nan Yang, PhD MS5, Jody R. Tversky, MD, PhD1, 2 and Xiu-Min Li, MD1, 1Mount Sinai School of Medicine, New York, NY, 2Johns Hopkins Medical Center

4 Pre-Clinical Efficacy of RP6503 in PI3Kδ/γ Mediated Airway Disorders
Swaroop Vakkalanka, PhD1, Babu Govandaraju, PhD2, Kasiviswanath Ruthou, PhD2, Sridhar Veeraraghavan, M.Pharma2, Srikanth Viswanadha, PhD2 and Dhanapalan Nagarathanam, PhD2, 1Rhizen Pharmaceuticals S A, La Chaux-de-Fonds, Switzerland, 2Incozen Therapeutics Pvt. Ltd., Hyderabad, India, 3DNSK International, Hamden, CT

5 Preclinical and Early Clinical Development of a GATA-3-Specific Dnazyme Intended for the Treatment of Th2-Driven Asthma
Agnieszka Turowska1, Ursula Homburg1, Jens Kuhlmann1, Anke Müller1, Joachim Bille1, Harald E. Renz, MD2 and Holger Garn3, 1sterna biologicals GmbH & Co. KG, Marburg, Germany, 2Philips University of Marburg, Marburg, Germany

6 Incidence of Oral Candidiasis Among Patients with Asthma Receiving Fluticasone Propionate / Salmeterol Dry Powder Inhaler Versus Beclometasone Dipropionate Hydrofluoroalkane: Large-Scale Retrospective Claims Analysis
Stephen P. Peters, MD PhD FAAAAI1, Michael Benninger, MD2, Cheryl S. Hankin, PhD3, Zhaohui Wang, MS3, Amy Bronstone, PhD3, Philip Buck, PhD, M.P.H.4 and Mark S. Lepore, MD FAAAAI3, 1Wake Forest University School of Medicine, Winston Salem, NC, 2Cleveland Clinic, Cleveland, OH, 3Teva Pharmaceuticals, Inc., Frazer, PA

7 Accuracy of Canister Weight to Predict the Number of Doses Remaining in Metered-Dose Inhalers
Tharinee Sahajarupat, MD, prince of songkla university, Prapasi Kulalert, MD, Prince of Songkla University, Songkla, Thailand, Araya Yuenyongviwat, MD, Price of Songkla University, Songkhla, Thailand and Pasuree Sangsupawanich, MD, Prince Songklahealthnaragarinda hospital, Hatyai, Thailand

Comparative Effectiveness of Extraline Hydrofluoroalkane Beclometasone (EF HFA-BDP) and Fluticasone Propionate (FP) in Smoking Asthmatic Patients — a Retrospective, Real-Life Observational Study in a UK Primary Care Asthma Population
David Price, FRCGP, MRCGP, DRCOG1, 2, Richard J. Martin, MD3, Mark Milton-Edwards4, Eliot Israel, MD, FAAAAI5, Nicolas Roche6, Annie Burden7, Julie von Zegnerweid8, Shuna E. Gould9, Elizabeth Hillyer2 and Gene L. Colice, MD1, 1University of Aberdeen, United Kingdom, 2Research In Real Life, Cambridge, United Kingdom, 3National Jewish Health, Department of Medicine, Denver, CO, 4TEVA Pharmaceuticals, 5B Brigham and Women’s Hospital, Boston, MA, 6Hôpital de l’Hôtel-Dieu, France, 7Washington Hospital Centre and George Washington University School of Medicine, Washington, DC

Triflurorizin Isolated From Radix Sophorae Flavescentis Inhibited Airway Smooth Muscle Contraction
Nan Yang, PhD MS1, Bhusan Liang2, Jiusan Zhan3, Joseph Goldfarb2, Hugh A. Sampson, MD, FAAAAI1 and Xiun-Min Li5, 1Mount Sinai School of Medicine, New York, NY, 2Mount Sinai School of Medicine, 3University of Texas State University, 4David Geffen School of Medicine at UCLA, Los Angeles, Los Angeles, CA

Determinants of Prescribing Inhaled Long-Aeta-Gonast Bronchodilators As Monotherapy to Adults with Asthma
Ayad K. Ali, BPharmSc, MPharm, PhD, University of Florida, FL; Eli Lilly and Company, IN

Wearing a Mask During Sleep Improved Asthma Control in Children
Keigo Kainuma, MD, Institute for Clinical Research, Mie National Hospital, Akihiko Terada, MD, PhD, Terada Pediatric Allergy Clinic, Reiko Tokuda, Tokuda Family Clinic, Mizuho Nagao, MD, Mie National Hospital, Nobuo Kubo, Unicharm Corporation and Takao Fujisawa, MD, FAAAAI, Mie National Hospital, Mic, Japan

Study of Antioxidants in Combination with Choline Chloride in Mouse Model of Allergic Airway Disease
Preeti Bansal, Sanjay Saw, Dhanapal Govindaraj and Naveen Arora, CSIR Institute of Genomics and Integrative Biology, New Delhi, India

The Observed Incidence of Anaphylaxis in Patients Receiving Omalizumab in a Tertiary Allergy and Asthma Clinic in Canada
Megan MacRae, RN, BScN1, Stephanie Santucci, RN1, Caroline Rizk, MD2, Jacob Karsh, MD, FRCPc2 and William H. Yang, MD, FRCP, FAAAAI3, 1Allergy and Asthma Research Centre, Ottawa, ON, Canada, 2University of Ottawa, Ottawa, ON, Canada, 3University of Ottawa, Canada, 4University of Ottawa Medical School, Ottawa, ON, Canada, 5Evidence and Allergy Research Corp., Ottawa, ON, Canada

A Double-Blind Placebo–Controlled, Multicenter, Cross-Over, Dose-Ranging Study to Compare the Efficacy and Safety of Albuterol Spiromax and Proair HFA in Adult and Adolescent Patients Ages 12 and Older with Persistent Asthma
Edward M. Kerwin, MD, FAAAAI1, Hermina Taveras, PhD2, Harald Iverson, PhD2, Denise Wayne, PhD2, Tushar Shah, MD3 and Mark S. Lepore, MD FAAAAI3, 1Allergy and Asthma Center of Southern OR, Medford, OR, 2Teva Pharmaceuticals, Inc., Miami, FL, 3Teva Pharmaceuticals, Inc., Frazer, PA
Pattern Recognition Receptor, T Cells, B Cells and Dendritic Cells

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Saturday, February 23rd, 2013, 9:45 AM - 10:45 AM

IL-1-Beta Maintains IL-2R-Alpha (CD25) Expression On the Surface of Th17 Cells and Partially Reverses IL-2 Mediated Inhibition of Th17 Differentiation
Michelle C. Crank, MD, Jane Hu-Li and William E. Paul, MD, NIAID, National Institutes of Health, Bethesda, MD

Evidence for Expansion of Simonsal B-Lineage Cells in Chronic Rhinosinusitis
Kathryn E. Hulse, PhD\textsuperscript{1}, James Norton, MS\textsuperscript{2}, Robert Kern, MD\textsuperscript{3}, David Conley, MD\textsuperscript{1}, Rakesh Chandra, MD\textsuperscript{1}, Bruce Tan, MD\textsuperscript{1}, Anju Peters, MD\textsuperscript{1}, Leslie C. Grammer, MD, FAAAAI\textsuperscript{1}, Kathleen E. Harris\textsuperscript{4}, Sudarshan Seshadri, PhD\textsuperscript{3}, Roderick Carter, BSc\textsuperscript{4}, Lydia Suh, BSc\textsuperscript{4}, Atsushi Kato, PhD\textsuperscript{2} and Robert P. Schleimer, PhD, FAAAAI\textsuperscript{2}, 1Northwestern University Feinberg School of Medicine, Chicago, IL, 2Department of Medicine, Division of Allergy-Immunology, Northwestern University Feinberg School of Medicine, Chicago, IL, 3Northwestern University Feinberg School of Medicine, Chicago, IL, 4Northwestern University Feinberg School of Medicine, Chicago, IL

Biologic Therapies, Vaccines, HIV

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Cytokine Profile and Clinical Correlates in Immune Deficient (HIV-infected) Infants with Severe (bypoxic) Pneumonia
Robin J. Green, MD PhD FAAAAI\textsuperscript{1}, Refiloe Masekela, MD, Cert Palm Paed\textsuperscript{1}, Dankwart Wittenberg, MD, Cert Palm Paed\textsuperscript{1}, Alta Terblanche, Cert Gastro Paed\textsuperscript{1}, Paul Rheeder, PhD\textsuperscript{2}, Piet Becker, PhD\textsuperscript{3} and Ronald Anderson, PhD\textsuperscript{4}, 1Department of Paediatrics and Child Health, University of Pretoria, South Africa, 2Division of Clinical Epidemiology, School of Health Systems and Public Health, University of Pretoria, Pretoria, South Africa, 3Medical Research Partnership, South Africa, 4Centre of Excellence for愕pidemiology and Health Research, University of the Witwatersrand, Johannesburg, South Africa
Council, South Africa, 4Medical Research Council Unit for Inflammation and Immunity, Department of Immunology, University of Pretoria and Tshwane Academic Division of National Health Laboratory Service, South Africa

33 Atheroprotection Conferred by Immunization with 15-Mer Peptide Fragments From ApoB100
Kevin Tse, MD1, Harley Tse, PhD2, Michael Shaw2, Alessandro Sette, Biol. Sci.3 and Klaus Ley, MD3, 1UCSD, 2Wayne State University, 3The Jolla Institute for Allergy and Immunology, La Jolla, CA

34 Removal of Coagulation Factors by the Gamunex®-C Purification Process
Melanie Williams, PhD, Jeff Willey, Catherine Tull, Glenn Stevenson, Mona Parks, LaToya McElrath, Luda Golovko, Catherine Russ, John Griffin and Pete Vandenberg, Grifols, Inc., Raleigh, NC

35 Serum 25-Hydroxyvitamin D Is Associated with Positive Hepatitis B Vaccine Response
Ju-Suk Lee, MD PhD, Sangkyunkwan university, changwon, South Korea, Jin-A Jung, MD, Dong-A University Hospital, Busan, Bong-Seong Kim, MD, Gangneung Asan Hospital, Gangneung-Si, Hyeon Jong Jong Yang, MD, Soonchunhyang University Hospital, Seoul; Pediatric Allergy Respiratory Center, Department of Pediatrics, Soonchunhyang University Hospital, Seoul, South Korea and Ja Hyeon Kim, MD, Ulsan University Hospital, Ulsan

36 Functional Characterization of A Cis-Acting Temperature Sensitive Mutation From A Respiratory Syncytial Virus Vaccine Candidate
Michael Teng1,2, David J. Fitzhugh, MD1, Kim Tran1, Richard F. Lockey, MD1 and Peter Collins2, 1University of South Florida Morsani College of Medicine, Tampa, FL, 2NIAD, Bethesda, MD, 3James A. Haley Veterans’ Hospital, Tampa, FL.

37 A Fusion Protein Designed with Segments of Different Allergens of Blomia Tropicalis
Dalgy’s Martinez1, Marlon Munera1, Jose Cantillo1, Leonardo Puerta1,2 and Luis Caraballo1,2, 1Institute for Immunological Research/University of Cartagena, Cartagena, Colombia, 2Foundation for the development of medical and biological sciences, Cartagena, Colombia

38 Inhibition of IL-1β Mediated Proinflammatory Cytokine Production by Epigallocatechin Gallate in Human Alveolar Epithelial Cells
Oluwakemi Phillips1, Ruan R. Cox Jr1, Jutaro Fukumoto, MD2, Itsuko Fukumoto, DMD3, Prasanna Tamarapalli1, Tran Luong1, Richard F. Lockey, MD1,2 and Narasiah Kollipudi, PhD3, 1Morsani College of Medicine, University of South Florida, Tampa, FL, 2James A. Haley Veterans’ Hospital, Tampa, FL, 3Internal Medicine, Morsani College of Medicine, University of South Florida, Tampa, FL.

39 Safety and Immunogenicity of Flublok®, a Highly Purified Recombinant Influenza Vaccine Made without Eggs or Live Influenza Viruses
Ruvim Izikson, MD, Elizabeth N. Ibbotson, RN and Daniel Adams, JD, Protein Sciences, Meriden, CT

40 Immune Response Post-Administration of Polyvalent Pneumococcal Vaccine and Implications Regarding Clinical Efficacy
Javeid M. Khan, DO1,2, Hassan Nasir, DO2,3 and Walter Ryan, DO1,2, 1Larkin Community Hospital, Miami, FL, 2Nova Southeastern University College of Osteopathic Medicine, Davie, FL.

41 Intravenous Immune Globulin Acts in an Fc-Gamma-Receptor-Independent Manner in an Antigen-Driven Murine Model of Allergic Asthma
Gabriel N. Kaufman, MSc1, Amir Hossein Massoud1, Ryan Fitter1, Ciricco Piccirillo, PhD2 and Bruce D. Mazer, MD, FAAAAI1,2, 1Meakins-Christie Laboratories, Montreal, QC, Canada, 2McGill Centre for the Study of Host Resistance, Montreal, QC, Canada

OCCUPATIONAL AND ENVIRONMENTAL EXPOSURES

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42 Predictive Value of Normal Non-Specific Bronchial Responsiveness (NSBR) in the Investigation of Occupational Asthma (OA)
Andre Cartier, MD, FAAAAI, Jacques-André Pralong, Manon Labrecque, Jocelyne L’Archevêque and Catherine Lemière, Hopital du Sacré-Coeur de Montréal, Montreal, QC, Canada

43 Relationship of Airway Hyperresponsiveness and RGS2 Expression in Smokers
Harold DelasAlan, MD, PharmD1, Ningxi Zhu, MD, PhD1, Yaping Tu, PhD2 and Thomas B. Casale, MD FAAAAI1, 1Creighton University School of Medicine, Omaha, NE, 2Creighton University, Omaha, NE

44 Muramic Acid in Indoor Air and Dust: Relationship with Home Characteristics
Atin Adhikari, PhD1, David Popham, PhD2, Christopher Schaffer1, Reshi Indugula1, Sergey Grinshpun, PhD1 and Tiina Reponen, PhD1, 1University of Cincinnati, Cincinnati, OH, 2Virginia Tech, Blacksburg, VA

45 Endotoxin in House Dust Mite Extracts Stimulate Human Dermal Fibroblasts
Larry G. Arlian, PhD FAAAAI, Jananie Rockwood and Marjorie S. Morgan, PhD, Wright State University, Dayton, OH

46 Specific Inhalation Challenge with Isocyanates Induces Nasal Congestion in Patients with Probable Occupational Asthma
Roberto Castano, MD, PhD, Hôpital du Sacré-Coeur de Montréal, Montreal, QC, Canada, Victor Johnson, PhD, BRT-Burleson Research Technologies and André Cartier, MD, FAAAAI, Hopital du Sacré-Coeur de Montréal, Montreal, QC, Canada

47 Identifying Genetic Susceptibility to Sensitization to Cephalosporins in Hospital Workers
Young-Hee Nam, MD1, Jeong-Eun Kim, MD2, Seung-Hyun Kim, PhD1, Hyun Jung Jin, MD3, Yoo Seob Shin, MD, PhD3, Young Min Ye, MD3 and Hae-Sim Park, MD, PhD1, 1Dong-A University School of Medicine, Busan, South Korea, 2Samsung Changwon Hospital, Changwon, South Korea, 3Ajou University School of Medicine, Suwon, South Korea, 4Yeungnam University College of Medicine, Daegu, South Korea

48 House Dust Mite Group 2 Allergen Modulates LPS-Induced Responses in Airway Sensory Neurons
Mayur Patil, MS1,2, Edward G. Brooks, MD3, Michael Henry, DDS, PhD1 and Arman Akopian, PhD1, 1UTHSCSA, san antonio, TX, 2Univ. Texas Health Science Center San Antonio, San Antonio, TX, 3UTHSCSA, San Antonio, TX

49 Effect of Recent Acetaminophen Usage in the Development of Asthma and Bronchial Hyperresponsiveness Is Modified by Toll Like receptor-4 (rs1927911) Polymorphism
Song I Yang, MD1,2, Seung-Hwa Lee, BS2, Mi-Jin Kang, MS3, Ho-Sung Yu, BS1, Young Ho Jung, MD1,2, Ju-Hee Seo, MD, Ji-Won Kwon, MD1, Byoung-Ju Kim, MD, PhD3, Ha-Jung Kim, PhD, DVM1, Young-Joon Kim, MS1,2, Hee-Suk Kim, MD, Kyungmo Hong2, So-Yeon Lee1, MD3, Kang Seo Park, MD, Jinho Yu, MD, PhD1,2 and Soo-Jong Hong, MD, PhD1,2, 1Childhood Asthma Atopy Center, Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea, 2Research Center for Standardization of Allergic Disease, Seoul, South Korea, 3Asan Institute for Life Sciences, University of Ulsan College of Medicine, Seoul, South Korea, 4Department of Pediatrics, Korea Cancer Center Hospital, Seoul, South Korea, 5Department of Pediatrics, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam, South Korea, 6Department of Pediatrics, Hae-undae Paik Hospital, Inje University College of Medicine, Busan, South Korea, 7Goucher College, Baltimore, USA, 8Department of Pediatrics, Hallym
Allergens and Epitopes

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50 Disposition of Toluene Diisocyanate (TDI) Following Dermal Exposure
Donald H. Beezhold, PhD, FAAAAI, Ajay Nayak, PhD, Stacey Anderson, PhD, Brett Green, PhD and Paul Siegel, PhD, CDC/NIOSH, Morgantown, WV

51 Production of a Methyleneedianphenyl Diisocyanate Hapten-Specific Monoclonal Antibody
Brett Green, PhD, Ajay Nayak, PhD, Brandon Law, MS, Paul Siegel, PhD and Donald H. Beezhold, PhD, FAAAAI, CDC/NIOSH, Morgantown, WV

52 Environmental Assay to Measure Mouse Urine Antigens
Rosa Codina, PhD and Robert Esch, PhD, Greer Laboratories, Inc., Lenoir, NC

Hagen, Riccardo Asero, MD, and Steen Klysner, PhD, 1 Allergopharma Joachim Ganzer KG, Reinbek, Germany, 2 Clinica San Carlo, Paderno Dugnano, Italy
Characterization of Native and Recombinant Per a 10 Allergen, of Periplaneta Americana
Dhanapal Govindaraj, Shailendra N. Gaur, MD, FAAAAI2 and Naveen Arora, 1 CSIR Institute of Genomics and Integrative Biology, New Delhi, India, 2 University Of Delhi, Delhi, India
Expression of Immunoreactive Recombinant Alt a 1 in Pichia Pastoris
Audrey Koid, BA, Meredith Lohmann, MD, Martin D. Chapman, PhD, FAAAAI and Sabina Wünschmann, PhD, INDOOR Biotechnologies, Inc.

Interactions Between Der p 7 Allergen and Human IgE/Mouse Monoclonal Antibody WH9
Horng-Der Shu, PhD, 1 Sheh-Yi Sheu2, Hong Chou1, Hsiao-Yun Tai1 and Yu-Sen Chen1, 1Taipei Veterans General Hospital, Taipei, Taiwan, National Yang-Ming University

Crystal Structure of Korean Pine (Pinus koraiensis) Vicilin Yuzhu Zhang, PhD1,2, Tengchuan Jin, PhD1 and Yang Wang2, 1 USDA, Albany, CA, 2 Illinois Institute of Technology, Chicago, IL

IgE, IgG1, IgG4 Reactivity Profile to Blo t 5 Recombinant Allergen From Blomia Tropicalis and Its Modified Form in Atopic and Non-Atopic Patients
Ernesto Ákio Taketomi, MD, PhD,12 Juliana Miranda,2 Karine Almeida1, Isabella Siman,5 Leandro Ynoue,1 Helena Penha,3 Deise Silva4, Bárbara Ávila,4 Laura Tomaz1 and Jair Cunha Júnior2, 1 Federal University of Uberlândia, Uberlândia, Brazil, 2 Federal University of Uberlândia

Food Allergens/Food Disease Epi/Insect Hypersensitivity

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53 Novel Grass Pollen Antigens Contribute to the Stimulation of TH2 Cytokines in Allergic Individuals
Veronique M. Schulten1, Jason Greenbaum1, Ravi Kolla1, Cecilia Arlehamn-Lindestam1, Carla Oseroff1, Rafeul Alam, MD, PhD, FAAAAI2, David H. Broide, MB, ChB, PhD and Donald H. Beezhold, PhD, FAAAAI, CDC/NIOSH, Morgantown, WV

54 Structural Analysis Reveals Molecular Basis for Interactions of Group 1 Allergens with Species Specific and Cross-Reactive Antibodies
Maksymilian Chruszcz, PhD,安娜 Pome1, PhD, FAAAAI2, Tomasz Osinski1, Karolina A. Majorek1, Jill Glesner2, Wladek Minor, PhD2, Lisa D. Vail1 and Martin D. Chapman, PhD, FAAAAI2, 1 University of South Carolina, Columbia, SC, 2 Indoor Biotechnologies, Inc., Charlottesville, VA, 3 University of Virginia, Charlottesville, VA

55 The Anionic Surfactant Lipid, Palmitoyl-Oleoyl-Phosphatidyl-glycerol (POPG), Suppresses Der p 2 Stimulated Inflammatory Responses in Lung Epithelial Cells and Macrophages
Sasipa Tanyaratsrisakul, PhD1, Surapon Piboonpocanun, PhD2 and Dennis R. Voelker, PhD3, 1 National Jewish Health, Denver, CO, 2 UC San Diego, La Jolla, CA, 3 University of Texas Health Science Center at San Antonio, San Antonio, TX

56 The Cockroach Allergen Bla g 1 Forms Alpha Helical Capsules with an Internal Lipid Binding Cavity: Implications for Allergenicity
Geoffrey Mueller, PhD1, Lars Pedersen1, Fred Lih1, Jill Glesner2, Martin D. Chapman, PhD FAAAAI2, Ken Tomer1, Robert London1 and Anna Pomes, PhD FAAAAI2, 1 National Jewish Health, Denver, CO, 2 National Institute of Environmental Health Sciences, NIH, Research Triangle Park, NC, 3 Indoor Biotechnologies, Inc., Charlottesville, VA

57 De Novo Creation of an Antibody Binding Epitope On Group 1 Mite Allergens
Jill Glesner1, Maksymilian Chruszcz, PhD2, Wladek Minor, PhD3, Martin D. Chapman, PhD FAAAAI2 and Anna Pomes, PhD FAAAAI2, 1 Indoor Biotechnologies, Inc., Charlottesville, VA, 2 University of South Carolina, Columbia, SC, 3 University of Virginia, Charlottesville, VA

Recombinant Major Ragweed Allergen Amb a 1: Physicochemical Characterization and Immunologic Comparison of Five Recombinant Ragweed Isoallergens Amb a 1.01 to Amb a 1.05
Andreas Nandy, PhD1, Steffen Augustin, PhD1, Martin Wald, PhD1, Linda Pump1, Alexis Hermann1, Sven Treder1, Susan Satzinger, PhD2, 1 Allergopharma Joachim Ganzer KG, Reinbek, Germany, 2 Clinica San Carlo, Paderno Dugnano, Italy

Mapping of Der p 7 Allergen Interactions with Human IgE: Mouse Monoclonal Antibody WH9
Horng-Der Shu, MD, PhD,1 Sheh-Yi Sheu2, Hong Chou1, Hsiao-Yun Tai1 and Yu-Sen Chen1, 1 Taipei Veterans General Hospital, Taipei, Taiwan, National Yang-Ming University

Crystal Structure of Korean Pine (Pinus koraiensis) Vicilin Yuzhu Zhang, PhD1,2, Tengchuan Jin, PhD1 and Yang Wang2, 1 USDA, Albany, CA, 2 Illinois Institute of Technology, Chicago, IL

IgE, IgG1, IgG4 Reactivity Profile to Blo t 5 Recombinant Allergen From Blomia Tropicalis and Its Modified Form in Atopic and Non-Atopic Patients
Ernesto Akio Taketomi, MD, PhD,12 Juliana Miranda,2 Karine Almeida1, Isabella Siman,5 Leandro Ynoue,1 Helena Penha,3 Deise Silva4, Bárbara Ávila,4 Laura Tomaz1 and Jair Cunha Júnior2, 1 Federal University of Uberlândia, Uberlândia, Brazil, 2 Federal University of Uberlândia

Determination of the Most Potent Allergens of Walnut
Pitul Rangithichai1, 2, Yonghua Zhuang, MD, PhD,1 Kirk Hansen, PhD2 and Stephen C. Dreskin, MD, PhD, FAAAAI2, 1 University of Colorado Denver, Aurora, CO, 2 National Jewish Health, Denver, CO

A Method for Reducing Allergenicity of Legume Proteins
Naveen Arora, CSIR-IGIB, Delhi, India, Ramkrashan Kasera, CSIR-Institute of Genomics and Integrative Biology, India, Anand Singh, PhD, Institute of Genomics and Integrative Biology, DELHI, India, Shaktunala Lavasa, USLavasa Medical & Research Center, India and Komera Nagendra, Bengaluru Allergy Centre, India

Comparative Analysis of IgE Binding Proteins in GM and Non-GM Rice Varieties Using Atopic Patients sera
Chandni Mathur, INSTITUTE OF GENOMICS & INTEGRATIVE BIOLOGY, DELHI, India, PC Kathuria, NATIONAL ALLERGY CENTRE, India, Shaktunala Lavasa, USLavasa Medical
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Structure and Function of the Peanut Panallergen Ara h 8
Barry K. Hurlburt, PhD

Analysis of the Association Between Food Allergy and Sensitization to Ltp and Profilin
Felicia Berroa1, M Jose Goikotxeta, PhD, MD,2 Marta M. Ferrer, MD, PhD, FAAAAI,2 Paula Cabrera-Freitag, MD, PhD,3 Gracia Javaloyes, MD, PhD1, Maria L. Sanz, MD PhD1 and Gabriel Gastañiza, MD, PhD1

Repeated Sequences with Similar Physicochemical Properties

Effect of D-Amino Acids On IgE Binding to Peanut Allergens
Si-Yin Chung

Structure and Function of the Peanut Panallergen Ara h 8
Barry K. Hurlburt, PhD1, Lesa Celeste, PhD2, Karolina A. Majorek3, Jane McBride4, Soheila J. Maleki, PhD5, Wladek Minor, PhD5 and Maksymilian Chruszcz, PhD5

Chemical and Structural Alterations to Ara h 2 Following Simulation to Ltp and Profilin
Barry K. Hurlburt, PhD1, Lesa Celeste, PhD2, Karolina A. Majorek3, Jane McBride4, Soheila J. Maleki, PhD5, Wladek Minor, PhD5 and Maksymilian Chruszcz, PhD5

Pharmacological and Structural Alterations to Ara h 2
Barry K. Hurlburt, PhD1, Lesa Celeste, PhD2, Karolina A. Majorek3, Jane McBride4, Soheila J. Maleki, PhD5, Wladek Minor, PhD5 and Maksymilian Chruszcz, PhD5

1 USDA-ARS-SRRC, New Orleans, LA,
2 University of South Carolina, Columbia, SC
3 Fundacion Jimenez Diaz, Madrid, Spain,
4 Department of Allergy, Immunology and Rheumatology, Georgia Health Sciences University, Augusta, GA
5 Department of Allergy, Immunology and Rheumatology, Georgia Health Sciences University, Augusta, GA
African American Race Is a Robust Risk Factor for Food, but Not Aeroallergen Sensitization

Haejin Kim, MD, Suzanne Havstad, MA, Jerel M. Ezell, M.P.H., Ganasa Wegienka, PhD, Edward M. Zoratti, MD, FAAAAI1 and Christine Cole Johnson, PhD, M.P.H., FAAAAI2, 1Division of Allergy and Clinical Immunology, Henry Ford Hospital, Detroit, MI, 2Division of Allergy and Immunology, Henry Ford Hospital, Detroit, MI, 3Division of Allergy-Immunology and Rheumatology, Georgia Health Sciences University, Augusta, GA

Comparison of Allergy to Multiple Versus Single Foods in a Pediatric Urban Population

Jennifer E. Dadas, MD, Powell M. Keay, MD, M.P.H., FAAAAI1 and Richard A. Auer, MD, M.P.H., FAAAAI2, 1Division of Allergy and Immunology, Henry Ford Hospital, Detroit, MI, 2Children’s Hospital of Michigan, Detroit, MI

The Anti-Inflammatory Pro-Resolution Lipoxin A4 Increases During Ultra-Rush Venom Immunotherapy

Vincenzo Patella,1,2 Mario Romano3, Eleonora Cianci, Salvatore Saïta, Stefano Lattanzio, Giovanni Florio and Sebastiano Gangemi,1,2 1School of Allergy and Clinical Immunology, University of Naples Federico II, Naples, Italy, 2Division of Allergy and Clinical Immunology, Agropoli General Hospital, ASL Salerno, Salerno, Italy, 3Department of Experimental and Clinical Sciences, Center of Excellence on Aging, G. D’Annunzio University Foundation, Chieti, Italy, 4Department of Medicine and Aging Sciences, Center of Excellence on Aging, G. D’Annunzio University Foundation, Chieti, Italy, 5School and Division of Allergy and Clinical Immunology, Department of Human Pathology, University of Messina, 6IBIM (Istituto di Biomedicina e Immunologia Molecolare “Alberto Monroy”), CNR (Consiglio Nazionale delle Ricerche), Palermo, Italy

Measurement of Hymenoptera Venom Specific IgE by the Immulite 3gAllergy in Subjects with Negative or Positive Results by Immunocap

Mineaki Watanabe1, Hirokuni Hirata2, Naruo Yoshida,1 Taichi Shibara,1 Tatsuya Yokoyama1 and Takeshi Fukuda,1 1Dokkyo medical university, Japan, 2Dokkyo Medical School of Medicine, Mibu, Japan

Evaluation and Validation of A Bee Venom Sting Challenge Performed by A MICRO-Syringe

Maurizio Giuseppe Severino,1 Gabriele Cortellini,2 Elisabetta Francescato,3 Stefano Turillazzi,2 Giovanni Passalacqua,4 M.D. 1Allergy Clinic, Ospedale San Giovanni di Dio, Florence, 2Internal Medicine and Rheumatology, Rimini Hospital, 3Entomom sas, Florence, 4Dipartimento di Biologia Evoluzionistica, University of Florence, 5Analfiero, Florence, 6Allergy and Respiratory Diseases, IRCCS San Martino Hospital-Ist-University of Genoa

Venom Immunotherapy in Patients with Clonal Mast Cell Disorders: Efficacy, Safety and Practical Considerations

Patrizia Bonadonna, MD1, David Gonzalez-De-Olano2, Roberta Zanotti,1 Annamaria Riccio,1 Laura De Ferrari,1 Carla Lombardo,1 Anthi Rogkakou,1 Luis Escrivan, MD PhD3, Ivan Alvarez-Twose4, Almudena Matito,5 Arantza Vega, MD5 and Giovanni Passalacqua, MD4, 1Allergy Unit, Azienda ospedal Università di Verona, Italy, 2Allergy Unit, Hospital Universitario de Fuenlabrada, Madrid, Spain, 3Department of Clinical and Experimental Medicine, Haematology Section, University of Verona, Italy, 4Allergy and Respiratory Diseases, IRCCS San Martino Hospital-Ist-University of Genoa, 5Instituto de Estudios de Masticocidosis, Hospital Virgen del Valle, Toledo, Spain, 6Instituto de Estudios de Masticocidosis, Hospital Virgen del Valle, Toledo, Spain, 7Allergy unit, HOSPITAL UNIVERSITARIO GUADALAJARA, Guadalajara, Spain

Per a 3 Homologue of German Cockroach; A Novel Allergen Identified Using Avian Scf Antibodies

Taruna Khurana, PhD, FDA Center for Biologics Evaluation and Research, Maggie Collison, FDA Center for Biologics Evaluation and Research, Resea, Rockville, MD, Fook Tim Chew, PhD, National University Singapore, Singapore, Singapore and Jay E. Slater, MD, FDA/CBER/OVRR/DBPAP, Rockville, MD

Importance of Component Resolved Diagnosis of Vespet/Poistes Allergic Patients

Guillermo Salamanca, PhD1,2 Ruth Gutierrez2,2 Agustin Galan2, Fernando De La Torre1, Arantza Vega, MD2, Lluis Marques2, Domingo Barber, PhD2 and Rafael Monsalve, PhD2, 1ALK-Abello, Madrid, Spain, 2ALK-Abello, Madrid, Spain, 3Allergy unit, HOSPITAL UNIVERSITARIO GUADALAJARA, Guadalajara, Spain, 4Hospital Santa Maria- Universitari Ama, Vilanova (Lleida), Spain, 5ALK-ABELLO, S. A., Madrid, Spain

Hymenoptera Venom Hypersensitivity Evaluation

Wayne Wolverton, DO, Walter Reed National Military Medical Center, Bethesda, MD, Douglas E. Beakes, MD, FAAAAI, Walter Reed Medical Center A/I Dept, Washington, DC and Silvia Huebner, MD, Evans Army Community Hospital, Fort Carson, CO

Urticaria/Angioedema

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A Phase I Assessment of the Safety and Tolerability Profile of Novel Treatments for Acute Allergic Reactions Administered by Intravenous and Intramuscular Injection Formulations

Mira Francis1, Mireille Noumeir2, Eric Sicard1, Marc Lefebvre1 and Jie Du2, 1Algorithme Pharma, Laval, QC, Canada, 2JDP Therapeutics Inc., Lansdale, PA

Comparison of Laboratory Findings and Medication Levels to Control Urticaria According to Asst Reactivity in Chronic Idiopathic Urticaria

Seong-Wook Sohn and Soo-Kyung Lee, Dongguk University Ilsan Hospital

Seasonal Variation in Angioedema and Urticaria in an Inner-City Minority Population

Ashlei Mathew, MD1, Rauno O. Joks, MD FAAAAI2 and Gina Dapul-Hidalgo, MD, 1Center for Allergy and Asthma Research, State University of New York Downstate Medical Center, Brooklyn, NY, 2State University of New York Downstate Medical Center, Brooklyn, NY

The Association Between Strongyloides Stercoralis Infection and Allergic Diseases

Lahari Rampur, MD, Albert Einstein/Jacobi medical center, Bronx, NY, Sunit Jariwala, MD, Albert Einstein/Montefiore Medical Center, New York, NY, Gabriele De Vos, MD, Albert Einstein College of Medicine, Bronx, NY, Golda Hudes, MD PhD, Albert Einstein / Montefiore Medical Center, New York, NY and David L. Rosenstreich, MD FAAAAI, Albert Einstein / Montefiore Medical Center, NY

Clinical Characterization of Chronic Urticaria Phenotypes to Predict Treatment Outcomes

Priyal Amin1, Tecumseh Bryson1, Danny Krall1, Linda Levin1, John Eckman1 and Jonathan A. Bernstein, MD2, 1University of Cincinnati, College of Medicine, 2University of Cincinnati Medical Center, Cincinnati, OH, 3Bernstein Allergy Group, Cincinnati, OH

Age-Dependent Increase in Oral Steroid Utilization in the Treatment of Chronic Urticaria

Roxana L Siles, MD, Meng Xu and Fred H. Hsieh, MD, Cleveland Clinic Foundation, Cleveland, OH
Prevalence of Helicobacter Pylori Infection and Chronic Urticaria

James A. Loh, MD, University of Alberta, Edmonton, AB, Canada, Amin S. Kanani, MD, University of British Columbia, Vancouver, BC, Canada and Donald F. Stark, MD, FAAAAI, The University of British Columbia, Vancouver, BC, Canada

Successful Treatment of Refractory Cholinergic Urticaria with Omalizumab in a Pediatric Patient

Selene K. Bantz, MD, Jose G. Calderon, MD and David H. Dreyfus, MD, PhD, FAAAAI, Yale University School of Medicine, New Haven, CT

Post-Treatment Levels of Matrix Metalloproteinase-9 and Vascular Endothelial Growth Factor in Patients with Chronic Urticaria

Denisa Ferstrauroar, MD, Albert Einstein / Jacobi Medical Center, Bronx, NY, Purvi Parikh, MD, Albert Einstein / Montefiore Medical Center, Sunit Jariwala, MD, Albert Einstein/Montefiore Medical Center, New York, NY, Golda Hudes, MD, PhD, Albert Einstein / Montefiore Medical Center, New York, NY and David L. Rosenstreich, MD FAAAAI, Albert Einstein / Montefiore Medical Center, NY

Correlation of Cellular Measures and Disease Activity in Chronic Idiopathic Urticaria

Eric Oliver, MD, Patricia M. Serba, MS and Sarbjit S. Saini, Department of Medicine, Division of Allergy and Clinical Immunology, Johns Hopkins University School of Medicine, Baltimore, MD

Baseline Characteristics of Patients with Refractory Chronic Idiopathic/Sporadic Urticaria (CIU/CSU) Enrolled in a Phase III, Randomized, Placebo-Controlled Trial of Omalizumab

Karin Rosen, Genentech, Inc., South San Francisco, Hsin-Ju Hsieh, Genentech, Inc., South San Francisco, CA, Panayiotis Georgiou, Novartis Pharmaceuticals UK Limited, Horsham, West Sussex, United Kingdom, Thomas Casale, Creighton University Medical Center, Omaha and Marcus Maurer, Charité-Universitätsmedizin Berlin, Berlin, Germany

Autoimmune Phenotype in Refractory Chronic Urticaria Does Not Affect Response to Omalizumab

Ravi K. Viswanathan, MD and Sameer K. Mathur, MD, PhD FAAAAI, University of Wisconsin School of Medicine and Public Health, Madison, WI, William S. Middleton Veterans Hospital, Madison, WI

Decrease in Fc Epsilon R1 Antibodies with IVIG

Michael J. Radtke, MD, Dreyer Medical Clinic

Does Early Clinical Manifestation of Hereditary Angioedema (HAE) Influence the Clinical Course of the Disease?

Inmaculada Martinez-Saguer, MD, Jochen Graff, Eva Rusicka, MD, Emel Aygören-Pürürün, Thomas Klingebiel and Wolfhart Kreuz, MD, J.-W. Goethe University Hospital, 1Clinical Trial Center Rheine-Main (KSRM), 1International Research Institute for Blood Coagulation Disorders and Immunodeficiencies

Prevalence of Type III Hereditary Angioedema Presenting with Recurrent Abdominal Distention After Estrogen Use

Jennifer E. Ferguson, DO, Richard F. Lockey, MD and Mark C. Glaum, MD, PhD, FAAAAI, 1,2, James A. Haley Veterans’ Hospital, 1University of South Florida Morsani College of Medicine, Tampa, FL, 2University of Chicago, Chicago, IL

Clinical Characteristics of Hereditary Angioedema (HAE) Type III Patients Compared with Those with HAE Type I/II

Isabelle Boccon-Gibod, Laurence Bouillet, MD, and Clement Olivier, 1Grenoble University Hospital, Grenoble, France, 2Shire HGT, Eysins, Switzerland

Angioedema in the ER Department: Predicting Outcomes

S. L. Felder, R. M. Curtis, I. Ball, MD, FRCP, and R. Boric-Mazi, MD, FRCP, 1Queens University, Kingston, ON, Canada, 2School of Medicine, 3Department of Emergency Medicine, 4Division of Allergy and Immunology

Expanding the Paradigm of Idiopathic Angioedema: A Patient Who Responds to CI-Esterase Inhibitor (CINH), Replacement Therapy

Michael G. Gates, MD and John T. Anderson, MD, University of Alabama at Birmingham, Birmingham, AL

Efficacy of C1-Inhibitor Concentrate (Berinert®) for the Treatment of Cutaneous Attacks of Acute Hereditary Angioedema Compared to Historical Untreated Controls

Konrad Bork, MD, Petra Staubach, Jonathan A. Bernstein, Henrik Feuersenger, Thomas Machning and Timothy J. Craig, DO, FAAAAI, 1University of Mainz, Mainz, Germany, 2University of Cincinnati Medical Center, Cincinnati, OH, 3CSL Behring GmbH, Marburg, Germany, 4Penn State University College of Medicine, Hershey, PA

Discovery and Characterization of a Fully Human Monoclonal Antibody Inhibitor of Plasma Kallikrein for the Treatment of Plasma Kallikrein-Mediated Edema

Daniel Sexton, Ryan Fauquette, Malini Viswanathan, Niksa Kastrupel, Kris Kopacz, Greg Conley, Allison Lindberg, Janja Cosic, Stephen Comeau, Shauna Mason, Jon Kenniston, Mike DiLeo, Jie Chen, Robert Ladner, Andrew Nixon and Christopher TenHoor, Dyax Corp.

Treatment of Hereditary Angioedema Attacks with Icatibant: A Comparison of Observational Data with Clinical Trial Data

Marcus Maurer, MD, Charité - Universitätsmedizin Berlin, Berlin, Germany, Hilary Longhurst, MD, Bart’s and The London Hospital, London, United Kingdom, Huanmin Henry Li, MD, PhD, FAAAAI, Institute for Asthma and Allergy, Chevy Chase, MD, Vincent Fabien, PhD, Shire Human Genetic Therapies, Eysins, Switzerland and William R. Lumry, MD, FAAAAI, Allergy and Asthma Specialists, Dallas, TX

Safety and Convenience of Self-Administered Icatibant for the Treatment of Acute Hereditary Angioedema Attacks

Werner Aberer, MD, Medizinische Universität Graz, Graz, Austria, Anette Bygum, MD, Odense University Hospital, Odense, Denmark, Nitin Nair, PhD, Shire Human Genetic Therapies, Lexington and Shmeul Kivity, MD, The Tel Aviv Medical Center, Tel Aviv, Israel

Benefits of Early Administration with Icatibant for the Treatment of Hereditary Angioedema Attacks

Hilary Longhurst, MD, Bart’s and The London Hospital, London, United Kingdom, Werner Aberer, MD, Medical University of Graz, Graz, Austria, Laurence Bouillet, MD, Grenoble University Hospital, Grenoble, France, Teresa Caballero, MD PhD, Hospital La Paz Research Center (IIdPaz), Madrid, Spain, Vincent Fabien, PhD, Shire Human Genetic Therapies, Eysins, Switzerland, Gisele Kanny, MD, PhD, University of Lorraine, Vandoeuvre-les-Nancy, France, Andrea Zanicelli, MD, Luigi Sacco University of Milan, Milan, Italy and Marcus Maurer, Charité-Universitätsmedizin Berlin, Berlin, Germany

Clinical Response to Treatment of Hereditary Angioedema (HAE) Type III with Icatibant

Laurence Bouillet, MD, Isabelle Boccon-Gibod and Vincent Fabien, PhD, 1Grenoble University Hospital, Grenoble, France, 2Shire Human Genetic Therapies, Eysins, Switzerland

Comparative Economics of On-Demand Treatment Options Approved in the United States for Hereditary Angioedema

Geetika Sabharwal, Natalia Vernon, MD, Art Zbrozek, Thomas Machning and Timothy J. Craig, DO FAAAAI, 1Penn State University College of Medicine, Hershey, PA, 2CSL Behring LLC, King of Prussia, PA, 3CSL Behring GmbH, Marburg, Germany
122 Comparative Economics of On-Demand Treatment Options Approved in the United Kingdom for Hereditary Angioedema
Zoya Panahloo, CSL Behring UK Ltd, Haywards Heath, United Kingdom, Thomas Machnig, CSL Behring GmbH, Marburg, Germany and Art Zbrozek, CSL Behring LLC, King of Prussia, PA

Provider Education, Knowledge and Specialty
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123 Comparison of Characteristics of Asthma Patients Seeking Care From Specialists Versus Primary Care Physicians
Kurtis S. Elward, MD1, Thomas B. Casale, MD FAAAAI2, Wilson Pace3, Michael Schatz, MD MS FAAAAI4, Ryan Walters5 and Paul Turner6, American Academy of Family Physicians, Charlottesville, VA, 2Michael Schatz, MD, MS FAAAAI, 3Wilson Pace, MD, 4Ryan Walters, MD, 5Kaiser Permanente, San Diego, CA, 6Creighton University

124 Characteristics of Asthma Visits to Specialists Compared to Primary Care Physicians
Michael Schatz, MD MS FAAAAI1, Thomas B. Casale, MD FAAAAI2, Wilson Pace3, Ryan Walters4, Paul Turner5 and Kurtis S. Elward, MD6, Kaiser Permanente, San Diego, CA, 2Creighton University School of Medicine, Omaha, NE, 3University of Chicago, IL and 4American Academy of Family Physicians, Charlottesville, VA

125 Tweeting the Meeting: Investigating Twitter Activity At the 2012 AAAAI Conference
Neha Mehrotra, MD, University of Chicago, IL and Vesselin Dimov, MD, MC 0729, C-150B, Department of Pediatrics, University of Chicago, Chicago, IL

126 Change in Food Allergy Knowledge Among Urban Public School Nurses After a Standardized Educational Curriculum
Sarah Twichell, MD, MPH1, Humaira Robinson, RN, BSN2, Eleanor Garrow, BHA3, Maria L. Acebal, ID4 and Hemant P. Sharma, MD MHS FAAAAI5, Children’s National Medical Center, Division of Allergy and Immunology, Washington, DC, 2Food Allergy & Anaphylaxis Network, Fairfax, VA

127 Assessing Allergy Knowledge in Internal Medicine Residents
Brynn Everist, PGY3 Pediatric Resident1, Kim Baumann2 and John B. Hagan, MD FAAAAI3, Mayo Clinic, Rochester, MN

128 A Variable Compass: Practice Parameters and Strength of Recommendation Data
Taylor A. Banks, MD, Julia Savitz and Michael R. Nelson, MD PhD FAAAAI, Walter Reed National Military Medical Center, Bethesda, MD

Immunotherapy I
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130 Treatment of Allergic and Immune Disorders
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129 Severe Atopic Dermatitis (SAD) and Quality of Life (QOL) in Children During Background Therapy (BT)
Vladislava Derkach, PhD1,2 and Tatiana Slavyanskaya, MD PhD1,3, 1Institute of Immunophysiology, Moscow, Russia, 2Vladivostok State Medical University, Vladivostok, Russia, 3University of Russia, Moscow, Russia

130 A Qualitative Analysis of Health-Related Quality of Life and Treatment Satisfaction Associated with Rapid Push Scig Therapy

131 The Hygiene Hypothesis: Aeroallergen Sensitization in Allergic Rhinitis Patients Living in Rural and Urban Areas of Lebanon
Carla Irani, MD FAAAAI1,2 and Maya Mounzannar1, 1Hotel Dieu de France hospital, Beirut, Lebanon, 2University of Alberta, Edmonton, Canada

133 Epinephrine Preparedness in a Food-Allergic Pediatric Patient Population
Casey Curtis, MD1, David R. Stukus, MD FAAAAI2, Rebecca Scherer, MD FAAAAI3 and Kara Simonson, MD4, 1Nationwide Children’s Hospital, 2Nationwide Children’s Hospital, New Albany, OH, 3Nationwide Children’s Hospital, Columbus, OH

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130 Multi-Grass Pollen Immunotherapy Confers Quality Broad Spectrum Treatment
Alan D. Bullimore and Murray Skinner, Allergy Therapeutics

135 Safety and Tolerability of Escalating Doses of House Dust Mite-PEptide Antigen Desensitization (HDM-PAD)
Mark Larche, Division of Clinical Immunology & Allergy, Department of Medicine, McMaster University, Hamilton, ON, Canada, Pascal Hickey, Adiga Life Sciences, Hamilton, ON, Canada, Jacques Hebert, MD, Centre de Recherche Applique en Allergie de Quebec, Quebec City, QC, Canada and Rod Hafner, PhD, Circassia, Oxford, United Kingdom

136 Non-Detectable IgE Binding of an Amb a 1 Derived, Contiguous Overlapping Peptide Based, SIT Product Candidate Against Ragweed Allergy
Christophe Reynold1, Alexandre Kettner, PhD1, Valerie Boand1, Adrien Manigetti1, Anne-Christine Thierry2, Regine Audran, PhD2 and Francois Speranti, MD3, 1ANERGIS SA, EPALINGES, Switzerland, 2Division of Immunology and Allergy, CHUV, LAUSANNE, Switzerland

137 Efficacy of House Dust Mite Sublingual Immunotherapy in Adults with Allergic Rhinitis: Results of an Environmental Exposure Chamber Study
Michel Roux1, William H. Yang, MD, FRCP, FAAAAI2, Agnès Viatte1, Véronique Cadic1, Kathy Abiteboul1 and Robert K. Zeldin1, 1Stallergenes, Antony, France, 2Allergy and Asthma Research Corp., Ottawa, ON, Canada

138 Onset of Action of Sublingual Tablets of House Dust Mite Allergen Extracts in Adults
Pascal M. Demoly, MD, PhD1, Karl-Christian Bergmann2, Michel Melac3, Hélène Nguyen4, Marine Frereux3 and Robert K. Zeldin1, 1University Hospital of Montpellier, Montpellier, France, 2Charite Campus Mitte, Berlin, Germany, 3Stallergenes, Antony, France

139 Molecular Differences in Major and Minor Allergens From US Grass Species Support the Association of Several Pollens for Specific Immunotherapy
Thierry Batard, PhD1, Henri Chabre, PhD2, Véronique Baron-Bodo,
140 Safety and Tolerability of Fel d 1-Derived Peptide Antigen Desensitization
Brett Haumann, MD, John Powell, MD and Rod Hafner, PhD, Circassia Ltd, Oxford UK

141 High-Dose IgG Completely Inhibited TNF-α-Induced, but Not IL-1β- or Poly (I:C)-Induced, G-CSF Expression by Human Coronary Artery Endothelial Cells
Akio Matsuda, PhD, Hideaki Morita, MD, PhD, Hirotoshi Unno, MD, Hirohisa Saito, MD, PhD, Kenji Matsumoto, MD, PhD and Jun Abe, MD, PhD, Department of Allergy and Immunology, National Research Institute for Child Health and Development, Tokyo, Japan

142 Allergen Specific IgE Titters Are Suppressed by Increased IgG4 Levels When Analyzed by Multiplex Molecular Allergen Chip but Not by Fluoroenzyme Immunoassay
Johannes M. Schmid, MD, Peter A. Wurtzten, Ronald Dahl, MD and Hans Jurgen Hoffmann, PhD, 1 Aarhus University, Aarhus, Denmark, 2 Dept. of Experimental Immunology, ALK-abellò, Hoersholm, Denmark, 3 Department of Respiratory Medicine, Aarhus University Hospital, Aarhus C, Denmark

Rhinitis I

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143 Focalin® Inhibits Allergen and Histamine Skin Testing
Honorable Steve L. Kagen, MD, FAAAAI, Michael Kagen, MD, Zainab Nayeri, MD and Joe Zondlo, MD, 1 Kagen Allergy Clinic, Appleton, WI, 2 University of Tennessee-Chattanooga, Chattanooga, TN

144 Qnasl® Non-Aqueous Nasal Aerosol Delivers Softer Sprays Than Aqueous Flonase®, Nasacort AQ®, and Nasonex®
Jade Ly, Armando Morales, Catherine Salas, Julio Cabrera, Mukul Dalvi and Zian-Ming Zeng, Teva Branded Pharmaceutical Products R&D, Inc.

145 Caregiver’s Reported Prevalence of Symptom and Psychosocial Problem in Children with Allergic Rhinitis in South Korea
Sun-Hee Choi, MD, PhD, Gangdong Kyung Hee University Hospital, Hyun Hee Kim, MD, PhD, Dept. of Pediatrics Bucheon St. Mary’s Hospital The Catholic University of Korea, Bucheon-si, South Korea, Young Yul Y. Koh, MD, PhD, Seoul National University Hospital, Seoul, South Korea, Yong-Mean Park, MD, PhD, Depart. of Pediatrics / Konkuk Univ. Hospital, Seoul, Man-Yong Han, MD, PhD, CHA University Hospital, Hye Young Yum, MD, PhD, Seoul Medical Center and Yeong-Ho Rha, MD, PhD, Kyung Hee University Hospital

146 RNA-Seq-Derived Whole Genome Transcriptomic Profiling Following Challenge to Mt. Cedar in a Pollen Challenge Chamber Uncover Novel Insights Into Allergic Rhinocconjunctivitis Pathogenesis
Nathan Harper, BS1,2, John Castiblanco, MS1,2, Cynthia Rather, CCRC1, Charles Andrews, MD1, Daniel Ramirez, MD1, Robert L. Jacobs, MD1, Wei Jing He, MD1,2 and Sunil Ahuja, MD1,2, 1 Veterans Administration Center for Personalized Medicine, South Texas Veterans Health Care System, San Antonio, TX, 2 Department of Medicine, University of Texas Health Science Center, San Antonio, TX, 3 Biogenics Research Chamber, San Antonio, TX

147 Comparison of Efficacy At Steady State of Levocetirizine, Fexofenadine and Desloratadine On Aeroallergen-Induced Wheal and Flare Responses in Allergic Rhinitis Patients
Krittapoom Akrawinthawong, MD1,2, Pavarat Saengaram, MD3, Wisit Cheungpaisarn, MD3 and Kiat Ruxrungtham, MD3, 1 St.John Hospital & Medical Center, Detroit, MI, 2 Chulalongkorn University, Bangkok, Thailand, 3 Hussayin Health Care Network, Cooperstown, NY, 4 Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

148 Natural Evolution of Local Allergic Rhinitis
Carmen Rondon, MD PhD, Paloma Campo, MD, PhD, Rocío Herrera, NR2, Inmaculada Doña, MD PhD, Miriam Osorio1, Jaime García, MD, 1 Enrique Gómez, PhD2 and Miguel Blanca, MD PhD2, 1 Allergy Service Carlos Haya Hospital, Malaga, Spain, 2 Allergy Service Carlos Haya Hospital, Malaga, Spain, 3 IMABIS Foundation, Malaga, Spain, “Research Laboratory, Carlos Haya Hospital-FIMABIS, Malaga, Spain, “Allergy Service, Carlos Haya Hospital, Malaga, Spain

149 Phenotypical Features of Obstructive Sleep Apnea (OSA) in Children with Chronic Rhinitis
Maria J. Gutierrez, MD, Division of Pulmonary, Allergy & Immunology and Critical Care Medicine, Pennsylvania State University College of Medicine, Hershey, PA; Division of Pediatric Rheumatology, Pennsylvania State University College of Medicine, Hershey, PA, Carlos Rodriguez-Martinez, MD, Division of Pediatric Pulmonology, National University of Colombia, Bogota, Colombia, Cesar Nino, PhD, Department of Electronics Engineering, Javeriana University, Bogota, Colombia, Anjani Ravindra, MD, Department of Pediatrics, Division of Pediatric Pulmonology, Hershey, PA and Gustavo Nino, MD, Penn State Sleep Research and Treatment Center, Pennsylvania State University College of Medicine, Hershey, PA; Department of Pediatrics, Division of Pediatric Pulmonology, Pennsylvania State University College of Medicine, Hershey, PA

150 Skin Prick Test and Serum Specific IgE May Not Be Sufficient for the Diagnosis of Perennial Allergic Rhinitis in Atopic Patients
Miguel Blanca, MD, PhD, 1 Carmen Rondon, MD, PhD, 2 Paloma Campo, MD, PhD, 3 Francisca Gomez, MD, PhD, 4 Rosa Garcia Menozza, 5 Maria Isabel Sanchez Rivas, 5 Lidia Melendez, Lab. Tech., 5 Tahia Fernandez, PhD and Maria Jose Torres, MD, PhD, 1 Allergy Service, Carlos Haya Hospital, Malaga, Spain, 2 Allergy Service Carlos Haya Hospital, Malaga, Spain, 3 IMABIS Foundation, Malaga, Spain, 4 Research Laboratory, Hospital Carlos Haya, Malaga, Spain

151 Underutilization of Rhinolaryngoscopy in Allergy Practices: Results of National Survey of Allergists and Fellows in Training (FTTs)
Puneet Bajaj, MD1 and Timothy J. Craig, DO, FAAAAI,2,3,1 Hershey Medical Center, Hershey, PA, 1 Penn State University College of Medicine, Hershey, PA, 2 Penn State University

152 Eosinophils and CD8+ Lymphocytes in the Inflammation and Remodeling Process in Nasal Mucosa in Chinese CRS Patients
Wei Zhang, MD, Leandra Mfuna Endam2, Sawsan Al-Mot3, Ying Li, Erzhong Fan1, Luo Zhang, MD, and Martin Desrosiers, MD, 1 Beijing Tongren Hospital, Capital Medical University, Beijing, China; Beijing Institute of Otolaryngology, Beijing, China., 2 Centre de Recherche du Centre Hospitalier de l’Université de Montréal (CRCHUM), Montreal, PQ, Canada; Division of Otolaryngology, Centre Hospitalier de l’Université de Montréal (CHUM), Montreal, PQ, Canada

153 Comparison of Allergic Rhinitis Responses During Grass Pollen Season to Those Induced by Controlled Grass Pollen Exposure in the Environmental Exposure Unit (EEU)
Emily Kay, MD,1 Lisa Steacy, BSc2, Terry Walker, BA2, Barnaby Hobsbawn2, Wilma Hopman, BSc3, and Anne K. Ellis, MD, MSc FRCPC FAAAAI1,2,4, 1 Department of Pediatrics, Queen’s University, Kingston, ON, Canada, 2 Allergy Research Unit, Kingston General Hospital, Kingston, ON, Canada, 3 Clinical Research Unit, Kingston General Hospital, Kingston, ON, Canada, 4 Departments of Medicine and Biomedical & Molecular Science, Queen’s University, Kingston, ON, Canada
Allergic Inflammation

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154 Allergen Challenge Induces Recruitment of CD49d+ Neutrophils to the Nasal Mucosa of Atopic Individuals
Jerome Sigua, MD, Becky Buelow, MD, Meribeth Klancnik, Desire Hunter, Erika Buell, MD, Monica Vasudev, MD, Dorothy S. Cheung, MD, FAAAAI and Mitchell H. Grayson, MD, FAAAAI, Medical College of Wisconsin, Milwaukee, WI

155 CD49d+ Neutrophils Connect the Viral and Hygiene Hypotheses
Shella S. Bhat, Desire Hunter, Erika Buell, Dorothy S. Cheung, MD, FAAAAI, and Mitchell H. Grayson, MD, FAAAAI, 1Medical College of Wisconsin, 2Medical College of Wisconsin, Milwaukee, WI

156 Different Roles of Interleukin-23 During the Epicutaneous Sensitization and the Antigen Exposure to the Airways On Airway Inflammation and Responsiveness in Mice
Katsunori Masaki, Yusuke Suzuki, Shizuku Kagawa, Motohiro Kodama, Hiroki Kihata, Jun Miyata, Kyo Tanaoka, Koichi Fukunaga, Tsuyoshi Oguma, Tomoko Betsumakura and Koichiro Asano, 1Division of Pulmonary Medicine, Department of Medicine, Keio University School of Medicine, Tokyo, Japan, 2Department of Pulmonary Medicine, Tokai University School of Medicine, Isehara, Japan

157 Autophagy Contributes to Release of IL-18 From Epithelial Cells in Alternaria Exposure
Hiromi Murai, MD PhD1,2, Motoko Yasutomi, MD, PhD, Hirose Hayashi, MD, Aiki Kawakita, MD, Koji Suzuki, MD, Istvan Boldogh, PhD, Sanjiv Sur, MD and Yusei Ohshima, MD, PhD, 1University of Fukuoka, Yoshida-gun, Japan, 2University of Texas Medical Branch, Galveston, TX

158 Semaphorin4C: A Molecule May Aggravate Murine Allergic Airway Disease
Di Xue, Mcgill university and Bruce D. Mazer, MD, FAAAAI, Montreal Children’s Hospital, Montreal, QC, Canada; Meakins-Christie Laboratories, Montreal, QC, Canada

159 Effect of Cholesterol Depletion On Interleukin-8 Production in Semaphorin4C: A Molecule May Aggravate Murine Allergic
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156 Different Roles of Interleukin-23 During the Epicutaneous Sensitization and the Antigen Exposure to the Airways On Airway Inflammation and Responsiveness in Mice
Katsunori Masaki, Yusuke Suzuki, Shizuku Kagawa, Motohiro Kodama, Hiroki Kihata, Jun Miyata, Kyo Tanaoka, Koichi Fukunaga, Tsuyoshi Oguma, Tomoko Betsumakura and Koichiro Asano, 1Division of Pulmonary Medicine, Department of Medicine, Keio University School of Medicine, Tokyo, Japan, 2Department of Pulmonary Medicine, Tokai University School of Medicine, Isehara, Japan

157 Autophagy Contributes to Release of IL-18 From Epithelial Cells in Alternaria Exposure
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Di Xue, Mcgill university and Bruce D. Mazer, MD, FAAAAI, Montreal Children’s Hospital, Montreal, QC, Canada; Meakins-Christie Laboratories, Montreal, QC, Canada

159 Effect of Cholesterol Depletion On Interleukin-8 Production in Human Respiratory Epithelial Cells
Min Jung Kim, MD, Jung Yeon Hong1, Kyung Eun Lee, PhD1, Hwan Soo Kim, MD, Yoon Ki Han, MD, Hye Mi Jee, MD, Kyung Won Kim, MD, Myung Hyun Sohn, MD, PhD1 and Kyo-Earn Kim, MD, PhD1, Yongji University College of Medicine, Seoul, Korea, 2Yonsei University School of Medicine, Seoul-Korea, 3CHA University School of Medicine, Seongnam, Korea

160 TGase 2 Induces Allergic Asthma by up-Regulating IgE and Mediators in Cross-Talk of B and Mast Cells Via CD40/CD40L in Mice
Jai Yool Ro1, Gwan Ui Hong1, Bum Soo Park1, Nam Goo Kim1 and Young Min Ahn1, 1Sungkyunkwan University School of Medicine, 2Eulji University School of Medicine

161 Hyaluronan and Nitric Oxide Collaborate As Inflammatory Mediators in Asthma
Ahila Subramanian, MD, Alana Majors, PhD, Suzy AA Comhair, PhD, Serpil C. Erzurum, MD, 1 and Mark A. Aronica, MD, 1, 2Respiratory Institute, Cleveland Clinic, 1Department of Pathobiology, Cleveland Clinic

162 Molecular Pattern in Olive Pollen Response
Blanca Cardaba1,2, Miriam Aguerri1, David Calzada1, David Montaner, Manuel Mata2,4, Fernando Florido1, Joaquin Dopezo1 and Carlos Lahoz1,2, 1Immunology Department, IIS-Fundacion Jimenez Diaz, Madrid, Spain, 2CIBERESP, Spain, 3Functional Genomics, Unit Bioinformatic Department, Centre de Investigacion Principe Felipe, Valencia, Spain, 4Genomic Department, Fundacion de Investigacion, Hospital Universitario, Valencia, Spain, 5Allergy Department, Hospital Universitario San Cecilio, Granada, Spain

163 Bronchial Epithelial Cells From Asthmatic Patients Express FcεRIγ At Higher Levels During Rhinovirus Infection
Sandy R. Durrani, MD, 1 Yury Bochkov, PhD 2, Nizar N. Jarjour, MD 3 and Daniel J. Jackson, MD, 1University of Wisconsin School of Medicine and Public Health, Madison, WI, 2Pediatrics, University of Wisconsin School of Medicine and Public Health, Madison, WI

164 Exposure to Juniperus Ashei (Mt. Cedar) Pollen in a Pollen Challenge Chamber Elicits Changes in White Blood Cell Counts and Cytokines in Mountain Cedar Positive and Negative Subjects
Weijing He, 1,2, Andrew Carrillo, BS, 1,2, Nathan Harper, BS, 1,2, Fabio Jimenez, BS, 1,2, Hernan Martinez, MD, 3, Seema Ahuja, MD, 3, 2, Cynthia Rather, CCRC1, Daniel Ramirez, MD, 3, Charles Andrews, MD, 3, Robert L. Jacobs, MD 3 and Sunil Ahuja, MD, 1, 2Department of Medicine, University of Texas Health Science Center, San Antonio, TX, 2Veterans Administration Center for Personalized Medicine, South Texas Veterans Health Care System, San Antonio, TX, 3Biogenes Research Chamber, San Antonio, TX

165 Reduction of CD49d+ Neutrophil Accumulation and Post-Viral Airway Hyperreactivity with CysLTR1 Blockade
Dorothy S. Cheung, MD FAAAAI, Erika Buell, Desire Hunter and Mitchell H. Grayson, MD FAAAAI, Medical College of Wisconsin, Milwaukee, WI

166 Magnetic Stimulation of Left TPO Cerebral Cortex of Allergic Humans Increases Blood/Serum Substance P Levels, and CD4 and CD8+ T Cell Numbers, While Suppressing IgE Responses. Substance P Suppresses P38 MAP Kinase Expression by Their PBL
Bryan McCarthy, BS, Seto M Chice, MS, Rauno Joks, MD, Jonathan I Silverberg, MD, PhD, MPH, Mark Stewart, MD, PhD, Vahé Amassian, MD and Helen G Durkin, PhD, Center for Allergy and Asthma Research at SUNY Downstate, Brooklyn, NY

167 Early Aeroallergen Sensitization Is Associated with Higher Fractional Exhaled Nitric Oxide Levels in School Age Children Independent of Asthma Diagnosis
Matthew C. Bell, MD, 1 Michael D. Evans, MS2, Christopher J. Tisler, MT1, James Gem, MD FAAAAI 1, Robert F. Lemanske Jr., MD FAAAAI 1 and Daniel J. Jackson, MD 2, 1University of Wisconsin School of Medicine and Public Health, Madison, WI, 2Pediatrics, University of Wisconsin School of Medicine and Public Health, Madison, WI

168 Eosinophil and Neutrophil Derived Mediators in Nasal Washes From Children Treated for Asthma
Patricia Jorge, MD, 1 Holliday T. Carper, BS, 1 Manuel Soto-Quiros2, Lydiana Avila2, Deborah D. Murphy, RN1, Joshua L. Kennedy, MD1, Thomas Platss-Mills, MD PhD FAAAAI FRS1 and Peter W. Heymann, MD, 1University of Virginia, Charlottesville, VA, 2Hospitlal Nacional de Niños, San José, Costa Rica

169 Non-Canonical Activation and Phosphorylation of the Glucocorticoid Receptor [GR] Phosphorylation Reduces Pro-Inflammatory in Human Bronchial Smooth Muscle Cells [Hbsmc]
Lata Kaphalia, PhD, 1 Bill T. Ameredes, PhD 2 and William J. Calhoun, MD FAAAAI, UTMB, 1University of Texas Medical Branch, Galveston, TX

170 The Role of IL-33 in Allergic Disease and Atherosclerosis
Tania Mucci, MD, 1 MichaelLittlefield, BA, 1 Allison Reiss, MD 2, Luz S. Fonacier, MD FAAAAI, 1Steven Carsons, MD 2 and Iryna Veloshyna, PhD 2, 1Winthrop University Hospital, Mineola, NY, 2Winthrop Research Institute, Mineola, NY, 3Winthrop University Hospital, Allergy & Immunology, Mineola, NY

171 STAT6-Dependent and -Independent Regulation of Lung Natural Helper Cell Responses During Alternaria-Induced Airway Inflammation
Naseem Khorrani1, Jinny Chang, MD, 2, Hee-Kyoo Kim, MD, 1, Michael Croft, PhD, 2, David H. Broide, MB ChB FAAAAI 1 and Taylor Alan Doherty, MD, 1, 2UC San Diego, La Jolla, CA, 3Scripps Clinic,
172 Pro-Inflammatory Actions of the Exodomain Shed From Protease Activated Receptor 2 (PAR-2)
Mogib El-Rahman Kheder1,2, Ahmed Abdelmotelb, PhD, Laurie Lau, PhD3, Matthew Arno, PhD3, Sylvia Pender, PhD3, Xiaoying Zhou, MD4 and Andrew F. Walls, PhD, FAAAAAI1. University of Southampton, Southampton General Hospital, Southampton, United Kingdom, 2Suez Canal University,Faculty of Medicine, Ismailia, Egypt, 3King’s College London, Genomics Centre, London, United Kingdom

173 Lung Resident Cells Are Independently Capable of Maintaining Chronic Asthma in Mice After Immune Ablation
Christina Christiannson, PhD, Chaoyu Chen, MS, Magdalena Gorska, MD, PhD and Rafeul Alam, MD, PhD, FAAAAAI, National Jewish Health, Denver, CO

181 The Role of Education in Achieving Bronchial Asthma Control – Differences Between Genders
Andrzej M. Fal, Beata Jankowska-Polanska, Izabella Uchmanowicz and Mariola Sen, Wroclaw Medical University

182 The Influence of Operators On the Obtaining of Successful Bronchial Biopsies in Asthma Research
Khem Keem Jones, RN1, L.Q.C. Siew, MD2, P. Pillai, MD3, C. Reinholtz, RN1, H. Bull, RN2, M. Rabuya, RN2, E. Fuerst, PhD4, D.B. Wright, PhD student5, Y. Shaifit, PhD5, Ying. S, MD PhD5, Q. Meng, Research Assistant6 and C. J. Corrigan, MD, PhD, FAAAAAI7, 1King’s College London, School of Medicine, London, United Kingdom, 2Guy’s & St. Thomas’ Foundation Trust, London, United Kingdom, 3King’s College London, London, United Kingdom, 4King’s College London School of Medicine, London, United Kingdom

183 Effects of Outliers From Indoor Pollutants On the Relationships to Respiratory Health Outcomes
Charles Aloe, MPH1, Elizabeth Matsui, MD2, Nadia Hansel, MD2, D’Ann Williams, DrPH2 and Roger Peng, PhD3, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2Johns Hopkins University, Baltimore, MD

184 First Person Narratives of Pediatric Allergy Nurse Coordinators Describing the Nursing Practice Embedded in the Role
Lisa P. Talarico, RN MS1, Sally A. Noone, RN MSN CCRC1,2, Beth D. Strong, RN CCRC3, Sarah D. Knorr, RN MHC CRP4, Kim E. Mudd, RN MSN CCRP5 and Eloise Cathcart, RN MSN6, 1Mount Sinai School of Medicine, New York, NY, 2Mount Sinai School of Medicine, Mt. Sinai School of Medicine, New York, NY, 3Johns Hopkins University, Baltimore, MD, 4New York University School of Nursing

185 Profiling Attendees of a Food Allergy Cooking Class
April Clark, Registered Dietitian, Children’s Medical Center, Dallas, TX, Nithya Swamy, MD, University of Texas Southwest Medical Center, Dallas, TX and J. Andrew Bird, MD, UT Southwestern Medical Center, Dallas, TX

Asthma and the Environment

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Saturday, February 23rd, 2013, 2:00 PM - 3:15 PM

186 Contributing and Protective Risk Factors for Asthma Exacerbation in Latinos (GALA-II Study)
Ulysses Burley1, Joy Hsu, MD2, Elizabeth Nguyen, BS3, Lindsey Roth, MA4, Joshua Galanter, MD4, Sam Oh, PhD, MPH4, Celeste Eng, BS5, Fred Lurmann, MS1, Rajesh Kumar, MD, MS, FAAAAAI6,7, Harold J. Farber, MD, MSPH8, Denise Serebrisky, MD9,10, Luisa Borrell, DDS, PhD11, Saunak Sen, PhD12, William Rodriguez-Cintor, MD13, Jose Rodriguez-Santana, MD14, Esteban Gonza Burchard, MD, MPH15, and Pedro C. Avila, MD, FAAAAAI16,17, 1Feinberg School of Medicine, Northwestern University, Chicago, Illinois, 2Feinberg School of Medicine, Northwestern University, Chicago, IL, 3Department of Medicine, University of California, San Francisco, California, San Francisco, CA, 4Department of Medicine, University of California, San Francisco, San Francisco, CA, 5Sonoma Technology, Inc., Petaluma, CA, 6Children’s Memorial Hospital, Chicago, IL, 7Pediatric allergy, Ann & Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, 8Texas Children’s Hospital, Houston, TX, 9Pediatric Pulmonary Division, Jacobi Medical Center, Bronx, NY, 10Mount Sinai School of Medicine, New York, NY, 11Department of Health Sciences, Graduate Program in Public Health, Lehman College, City University of New York, New York, NY, 12Department of Epidemiology and Public Health, School of Medicine, University of California, San Francisco, San Francisco, CA.
187 Aeroallergen Sensitization Is Associated with Asthma Severity in Latinos (GALA-II Study)

Joy Hsu, MD1, Ulysses Burley, MPH2, Elizabeth Nguyen, BS3, Lindsey Roth, MA4, Joshua Galanter, MD5, Sam Oh, PhD6,7, Celeste Eng, BS5, Fred Lurmans, MS5, Rajesh Kumar, MD, MS8,9, AAAAI10, Harold J. Farber, MD, MSPH11, Denise Serebrisky, MD12, Lisa Borrell, DDS12, PhD12, Saumak Sen, PhD12, William Rodriguez-Centron, MD13, Jose Rodriguez-Santana, MD13,14, Esteban Gonza Burchard, MD, MPH15 and Pedro C. Avila, MD, AAAAI16,17, Feinstein School of Medicine, Northwestern University, Chicago, IL, 1Department of Medicine, University of California, San Francisco, California, San Francisco, CA, 2Department of Medicine, University of California, San Francisco, San Francisco, CA, 3Sonoma Technology, Inc., Petaluma, CA, 4Pediatric allergy, Ann & Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, 5Texas Children’s Hospital, Houston, TX, 6Pediatric Pulmonary Division, Jacobi Medical Center, Bronx, NY, 7Department of Health Sciences, Graduate Program in Public Health, Lehman College, City University of New York, Bronx, NY, 8Department of Epidemiology and Biostatistics, University of California, San Francisco, San Francisco, CA, 9Veterans Caribbean Health Care System, San Juan, PR, 10Centro de Neumología Pediatrica, San Juan, PR

188 Influence of Cigarette Smoking On Airway Inflammation and Inhaled Corticosteroid Treatment in Asthmatic Patients

Terufumi Shimoda, MD1, Yasushi Obase, MD2, Michiyoshi Inouka, MD3, Reiko T. Kishikawa, MD3 and Tomoaki Iwanaga, MD4, 1The National Hospital Organization Fukuoka Hospital, Fukuoka, Japan, 2Kawasaki Medical School, Kurashiki, Japan, 3Fukuoka National Hospital, Fukuoka, Japan, 4The National Hospital Organization Fukuoka Hospital, Fukuoka, Japan

189 Correlation Between Aeroallergen Sensitization and Pediatric Asthma Severity - Data From the Severe Asthma Research Program (SARP)

Marc D. Ikeda, MD1,2, Merritt L. Fajt, MD1, Shean Aujla, MD2, Paul Rebovich, MS2 and Sally E. Wenzel, MD, AAAAI1, 1The University of Pittsburgh Asthma Institute at UPMC and the University of Pittsburgh School of Medicine, Department of Pulmonary, Allergy and Critical Care Medicine, Pittsburgh, PA, 2The Children’s Hospital of Pittsburgh, Pittsburgh, PA

190 House Dust Mite Sensitization Is the Main Risk Factor for the Increase in Prevalence of Wheeze in 13-14 Year Old Schoolchildren in GUANGZHOU City, China

Jing Li, MD, MSc1, Yan Chen2, Jingping Zheng3, Gary W. K. Wong3 and Nanshan Zhong3, 1The First Affiliated Hospital of Guangzhou Medical College, State Key Laboratory of Respiratory Disease, Guangzhou Institute of Respiratory Disease, Guangzhou, China, 2Guangdong Pharmaceutical University, Clinical Medical College, Guangzhou, China, 3Department of Paediatrics, The Chinese University of Hong Kong, Hong Kong

Immunogenetics

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Saturday, February 23rd, 2013, 2:00 PM - 3:15 PM

191 Next Generation Sequencing May Be More Efficient and Economical Than Targeted Gene Testing in Patients with Primary Immune Deficiency (PIDs)

Talal Mousallem, MD1,2, Thomas J. Urban, PharmD, PhD2, Joseph L. Roberts, MD, PhD2, Roberta E. Parrott, BS1, David B. Goldstein, PhD2 and Rebecca H. Buckley, MD, AAAAI1, 1Department of Pediatrics, Duke University Medical Center, Durham, NC, 2Center for Human Genome Variation, Duke University Medical Center, Durham, NC

192 Interactions Between SLC22A5, IL13 and SMAD3 Modulate Spirometric Indices in Chinese Children

Ting Fan Leung, MD, FRCPC1, Man Fung Tang1, Susan Shuxin Wang2, Alice P. S. Kong3, Ping Yee Sy4 and Gary W. K. Wong1, 1Department of Paediatrics, The Chinese University of Hong Kong, Hong Kong, 2Department of Medicine and Therapeutics, The Chinese University of Hong Kong, Hong Kong

193 Effects of Maternal Allergy On Umbilical Cord Blood Regulatory T Cell Forkhead Box Protein 3 (FOXP3) DNA Methylation

Michelle North, PhD1,2, Sarah Mah, BSc3, Lisa Steacy, BSc4, Jeffrey Brook, PhD5,6, Michael Kober, PhD5,6 and Anne K. Ellis, MD, MSc, FRCPC, AAAAI7,8, 3Departments of Medicine and Biomedical & Molecular Science, Queen’s University, Kingston, ON, Canada, 4Centre for Molecular Medicine & Therapeutics, Child & Family Research Institute, Vancouver, BC, Canada, 5Allergy Research Unit, Kingston General Hospital, Kingston, ON, Canada, 6Environment Canada, Toronto, ON, Canada, 7University of Toronto, Toronto, ON, Canada, 8University of British Columbia, Vancouver, BC, Canada

194 Sequencing of the ST2 Gene Reveals a Haplotype That Determines Serum Total ST2 Levels in Individuals of African Ancestry

Lili Huang, MPH1, Li Gao, MD, PhD2, Camila Figueiredo, PhD2, Nicholas M. Rafals, MS1, Candelaria I. Vergara, MD, PhD3, Ingo Ruczinski, PhD3, Terri H Beatty, PhD3, Kathleen C. Barnes, PhD, AAAAI4 and Raskia A. Mathias, ScD5, 1Division of Allergy and Clinical Immunology, Department of Medicine, Johns Hopkins University, Baltimore, MD, 2Instituto de Ciencias da Saude, Universidade Federal da Bahia, Salvador, Bahia, Brazil, Salvador, Brazil, 3Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

195 Whole Genome Sequence Reveals a Haplotype Confering Protection From Asthma Common to Subjects of European and African Ancestry

Abdellah Hedjoudje1,2,3, Lili Huang, MPH1,4, Nicholas M. Rafals, MS2,3, Candelaria I. Vergara, MD PhD4,5, Margaret Taub, PhD5, Ingo Ruczinski, PhD5, Carole Ober, PhD5, Esteban Gonza Burchard, MD, MPH6,7,8, Terri H Beatty, PhD7,8, Donata Vercelli, MD1,3, Kathleen C. Barnes, PhD, AAAAI3,8, Raskia A. Mathias, ScD7,8, EVE Consortium7,8 and C.A.A.P.A. Consortium7,8, 1Division of Allergy and Clinical Immunology, Department of Medicine, Johns Hopkins University, Baltimore, MD, 2Université Paris Descartes, Paris, France, 3INSEERM, Unit 909, Cardiovascular Epidemiology and Sudden Death, Hospital Européen Georges Pompidou, Paris, France, 4Johns Hopkins University, Baltimore, MD, 5Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, 6Johns Hopkins University School of Public Health, Baltimore, MD, 7Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, 8University of Chicago, Chicago, IL, 9UCSF, San Francisco, CA, 10Department of Medicine, University of California, San Francisco, San Francisco, CA, 11The University of Arizona, Tucson, AZ, 12University of Chicago

How Inner-City Exposures Lead to Disparities in Children’s Asthma

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Saturday, February 23rd, 2013, 2:00 PM - 3:15 PM

196 Classroom Fungal Spore Exposure and Asthma Morbidity in Inner-City School Children
Sachin N. Baxi, MD1, Carter R. Petty, MA1, Chunxia Fu, MS2, William J. Sheehan, MD3, Perdita Permaul, MD3, Lianne Kopel, MD1, Watcharoot Kanchongkittiphon, PhD, MD1, Jonathan M. Gaffin, MD, MMSc1, Christine A. Rogers, PhD4, Michael L. Muilenberg, MS5, Diane R. Gold, MD6 and Wanda Phipatanakul, MD, MS, FAAAAI1, 1Boston Children’s Hospital, Boston, MA, 2Harvard School of Public Health, Boston, MA, 3Division of Pediatric Allergy/Immunology, Massachusetts General Hospital, Boston, MA, 4University of Massachusetts, Amherst, MA, 5Channing Laboratory, Boston, MA

197 Exposure to Polycyclic Aromatic Hydrocarbons Is Associated with Higher Levels of Total IgE, Decreased Function of T Regulatory Cells and an Increase of Asthma Occurrence in Children
Annett I. Walker, MD1, Arunima Kohli1, Aleena Syed1, Ellen A. Eisen, ScD2, Elizabeth M. Noth, PhD2, Boriana Pratt, MA2, S. Katharine Hammond, PhD2 and Kari Nadeau, MD, PhD, FAAAAAI1, 1Department of Pediatric Allergy and Immunology, Stanford University, California, USA, 2Division of Environmental Health Sciences, University of California, Berkeley, California, USA

198 Association Between Asthma-Related Emergency Department Visits and Pollen Concentration in the Bronx, 2001-2008
Sayantan B. Sindher, MD, Albert Einstein/Montefiore Medical Center, Sunit Jariwala, MD, Albert Einstein/Montefiore Medical Center, New York, NY, Gabriele De Vos, MD, Albert Einstein College of Medicine, Bronx, NY, Jennifer Toh, Montefiore Medical Center, New York, NY, Anna Tavdi, BA, Albert Einstein College of Medicine, Division of Allergy/Immunology and David L. Rosenstrech, MD, FAAAAI, Albert Einstein / Montefiore Medical Center, NY

199 Report of Exercise-Induced Wheeze Predicts Urgent Medical Visits for Asthma Among Inner-City Children
Matthew S. Perzanowski, PhD, Department of Environmental Health Sciences, Columbia University, New York, NY, Timothy Mainardi, MD, Division of Pulmonary, Allergy and Critical Care Medicine, Columbia University, Kathleen Donohue, MD, Division of General Medicine, Columbia University, Lori Hoepner, Data Coordinating Center, Columbia University, Inge Goldstein, Department of Epidemiology, Columbia University, Frederica P. Perera, PhD, Columbia’s Center for Children’s Environmental Health, Columbia University and Rachel L. Miller, MD, FAAAAI, Division of Pulmonary, Allergy and Critical Care Medicine, Columbia University, New York, NY

200 Allergen Exposure Influences the Relationship Between Community Violence and Asthma Morbidity: The Inner City Asthma Study
Michelle L. Sever, PhD1,2, James Thomas, PhD2, Agustín Calatroni3, Karin Yeatts, PhD3, Cynthia Visness, PhD3, Herman Mitchell, PhD3 and Darryl C. Zeldin, MD1, 1NIEHS, Research Triangle Park, NC, 2Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, 3Rho, Inc., Chapel Hill, NC


temporary Biographies

Sachin N. Baxi, MD1, Carter R. Petty, MA1, Chunxia Fu, MS2, William J. Sheehan, MD3, Perdita Permaul, MD3, Lianne Kopel, MD1, Watcharoot Kanchongkittiphon, PhD, MD1, Jonathan M. Gaffin, MD, MMSc1, Christine A. Rogers, PhD4, Michael L. Muilenberg, MS5, Diane R. Gold, MD6 and Wanda Phipatanakul, MD, MS, FAAAAI1, 1Boston Children’s Hospital, Boston, MA, 2Harvard School of Public Health, Boston, MA, 3Division of Pediatric Allergy/Immunology, Massachusetts General Hospital, Boston, MA, 4University of Massachusetts, Amherst, MA, 5Channing Laboratory, Boston, MA

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200 Allergen Exposure Influences the Relationship Between Community Violence and Asthma Morbidity: The Inner City Asthma Study
Michelle L. Sever, PhD1,2, James Thomas, PhD2, Agustín Calatroni3, Karin Yeatts, PhD3, Cynthia Visness, PhD3, Herman Mitchell, PhD3 and Darryl C. Zeldin, MD1, 1NIEHS, Research Triangle Park, NC, 2Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, 3Rho, Inc., Chapel Hill, NC

New Insights in Food Allergy Treatment

San Diego, La Jolla, CA, 1US Hereditary Angioedema Association, Honolulu, HI, 2San Diego VA Healthcare, San Diego, CA

202 High Serum Levels of Mast Cell Chymase and Carboxypeptidase D in Mastocytosis
Xiaoqing Zhou, PhD1, Laura B. Sanchez-Munoz, MD, PhD2,3, Alberto Orfao, MD, PhD3,4, Luis Escribano, MD, PhD3,5 and Andrew F. Walls, PhD, FAAAAI1, 1University of Southampton, Southampton, United Kingdom, 2Instituto de Estudios de Mestocitosis, Hospital Virgen Del Valle, Toledo, Spain, 3Spanish Network on Mastocytosis (REMA), 4University of Salamanca, Salamanca, Spain, 5University of Southampton, Southampton General Hospital, Southampton, United Kingdom

203 Overexpression of Epidermal Filaggrin in Patients with Chronic Idiopathic Urticaria Correlates with Urticaria Severity
Young Min Ye, MD1,2, Byung Eui Kim, MD2, Yoo Seob Shin, MD, PhD2, Hae-Sim Park, MD, PhD2 and Donald Y.M. Leung, MD, PhD2, 1Ajou University School of Medicine, Suwon, South Korea, 2Department of Pediatrics, Division of Allergy-Immunology, National Jewish Health, Denver, CO

204 Genetic Analysis and Etiology of Angioedema
Jonathan Levy1, Georges-Etienne Rivard2, Eric Wagner3, Don Beezhold4, Noam Berlin, BSc5, Li Fan2 and Gordon L. Sussman, MD, FAAAAI4, 1University of Alberta, Edmonton, AB, Canada, 2Service of Hematology and Oncology, Université de Montréal and Centre de Recherche, CHU-Saint-Justine, Montreal, QC, Canada, 3Rheumatology-Immunology Research Center, Centre Hospitalier Universitaire de Québec and Department of Microbiology-Infectious Diseases and Immunology, Université Laval, Quebec City, QC, Canada, 4NIOHS, Morgantown, WV, 5Gordon Sussman Clinical Research, Toronto, ON, Canada, 6University of Toronto, Toronto, ON, Canada

205 Hereditary Angioedema Type III: Mutation in Factor XII Gene in Brazilian Families
Adriana S. Moreno, PhD, University of Sao Paulo, Ribeirao Preto, Brazil, Solange Valle, Clementino Fraga Filho University Hospital-UF RJ, Rio de Janeiro, Brazil, Alifie França, Clementino Fraga Filho University Hospital, UFRJ, Rio de Janeiro, Brazil, Soloni Levy, Clementino Fraga Filho University Hospital - UFRJ, Brazil, Wagner Campos, Department of Medicine, School of Medicine of Ribeirao Preto - FMRP, Ribeirao Preto, Brazil, Wilson da Silva Junior, Department of Genetics, School of Medicine of Ribeirao Preto - FMRP, Ribeirao Preto, Brazil and Luisa Karla P. Arruda, MD, PhD, FAAAAI, School of Medicine of Ribeirao Preto, Ribeirao Preto, Brazil

2605 Oral Challenge and Food Allergy Quality of Life in Caregivers of Food Allergic Children
Timothy J. Franzman, MD, Laura E. Howe, MD and Matthew J. Greenhawt, MD, MBA, MSc, University of Michigan, Ann Arbor, MI

207 Racial and Ethnic Disparity in Food Allergy in the United States: A Systematic Review
Matthew J. Greenhawt, MD, MBA, MSc, Department of Internal Medicine, The University of Michigan Medical School, Division of Allergy and Clinical Immunology, Ann Arbor, MI, Christopher C. Weiss, PhD, Global Food Protection Institute, Battle Creek, MI, Marisa Conte, University of Michigan, Taubman Health Sciences Library, Ann Arbor, MI, Marlie Doucet, MPH, Oak Ridge Institute for Science and Education Fellow, Division of Adolescent and School Health, Centers for Disease Control and Prevention, Atlanta,

Urticaria/Angioedema

2604 Pediatric Presentation of Hereditary Angioedema (HAE) Due to C1 Inhibitor Deficiency
Sandra C. Christiansen, MD, FAAAAI1,2, Donna Davis3, Anthony J. Castaldo1 and Bruce L. Zuraw, MD2,4, 1Southern CA Permanente Med Grp, San Diego, CA, 2University of California San Diego, La Jolla, CA, 3US Hereditary Angioedema Association, Honolulu, HI, 4San Diego VA Healthcare, San Diego, CA
Rhininosinusitis and Nasal Polyps: Pathophysiology

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Saturday, February 23rd, 2013, 2:00 PM - 3:15 PM

210 Excessive Fibrin Deposition Caused by a Fibrinolytic Disorder Associated with Reduction of Tissue Plasminogen Activator Expression in Nasal Polyps
Tetsuji Takabayashi, MD
Robert Kern, MD
Northwestern University Feinberg School of Medicine, Chicago, IL

211 A Proposed Model to Study Immunologic Changes During Chronic Rhinosinusitis Exacerbations: Data From a Pilot Study
Shefali Samant, MD
Robert Kern, MD
Northwestern University Feinberg School of Medicine, Chicago, IL

212 The Impact and Nature of Inflammation in the Obstructed Lobe
On Obfация in Patients with Chronic Rhinosinusitis
Jennifer Lavin, MD
Robert Kern, MD
Northwestern University Feinberg School of Medicine, Chicago, IL

213 Effect of Prostaglandin E2 on VEGF Production Through the E-Prostanoid 4 Receptor in Nasal Polyp-Derived Fibroblasts
Byoung Joon Baek
Department of Otolaryngology-Head and Neck Surgery, Cheonan Hospital, Soonchunhyang University, Cheonan, South Korea and Dong Yool Han, Department of Otolaryngology-Head and Neck Surgery, Cheonan Hospital, Soonchunhyang University
Diagnostic Methods in Asthma

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220 Does Monitoring of the Spirometric Values by Office Reflect Asthma Control After Discontinuing Controller Medication in Children with Controlled Asthma?
Dong In Suh, MD, Ju Kyung Lee, Jun-Hyuck Song and Young Yull Y. Koh, MD, PhD, Seoul National University Hospital, Seoul, South Korea

221 Should Allergists Be Caring for Alpha-1 Antitrypsin Deficiency?
Yoon M. Kim, DO1,2, Yuqing Gao1, Puneet Bajaj, MD1 and Timothy J. Craig, DO, FAAAAAI1,2, Hershey Medical Center, Hershey, PA, 2Pinnacle Health, Harrisburg, PA, 3Penn State University College of Medicine, Hershey, PA

222 Relationships Between Exhaled Nitric Oxide and Atopy Profiles (Mono-sensitization/Poly-sensitization) in Children with Asthma
Young Yoo, MD, PhD, Department of Pediatrics, Korea University Anam Hospital, Seoul, South Korea, Siegfried Bauer, MD, Korea University Hospital, Seoul, Samuel Harmin, Department of Pediatrics, Korea University Anam Hospital, South Korea, South Korea, Sungchul Seo, Korea University, Seoul, Wonsuck Yoon, Department of Life Science and Biotechnology, Seoul, South Korea and Ji Tae Cheong, MD, Korea Univ. Medical Center, Seoul.

223 The Role of the FACT Score in Predicting Antibody Responses to Pneumococcal Antigens in Asthmatics and Non-Asthmatics
Jenna Podjasek, MD, Ji A Jung, MD, Hirohito Kita, MD, Miguel A. Park, MD and Young J. Juhn, MD, MPH, Mayo Clinic, Rochester, MN

224 Spirometry Flow Volume Tracings Predict Vocal Cord Dysfunction Diagnosis in Children and Adults
Monica Vasudev, MD, Jonathan Tam, MD, Jerome Sigua, MD, Kathleen Divine, MS, Mahua Dasgupta, MS and Raymond Hoffmann, PhD, Medical College of Wisconsin, Milwaukee, WI

225 Characterization of Asthmatic Patients with Vocal Cord Dysfunction
Rosana C. Agondi, MD, PhD, Violeta Galvao, Marcelo Aun, MD, Carla Biscaccioni, MD, Jorge Kalil, MD, PhD and Pedro Giavina-Bianchi, MD, PhD, Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil.

226 The Simplified Method for Encapsular Voluntary Hyperventilation (EVH) Challenge May Be Useful to Discriminate Exercise Induced Asthma (EIA) From Deconditioning
Richard R. Rosenthal, MD1,2, Lorie Shora, MSN, FNP3, Harvey Howe, BS3 and Paul Knause, BS3, 1Allergy and Clinical Immunology, Johns Hopkins School of Medicine, Baltimore, MD, 2INOVA Fairfax Hospital, Fairfax, VA, 3Self

227 A Retrospective Analysis Comparing Subjects with Isolated and Co-Existent Vocal Cord Dysfunction and Asthma
Russell Traister, MD, PhD3, Merritt L. Fajt, MD2, Emily Whiteman-Purves1, William C. Anderson III, MD and Andrej Petrov, MD3, 1University of Pittsburgh Medical Center, 2UPMC Montefiore, Pittsburgh, PA, 3University of Colorado, Denver/National Jewish Health, Denver, CO, 4University of Pittsburgh Medical Center, Pittsburgh, PA

228 Clinical Outcomes of Subjects with Non-Specific Respiratory Symptoms and High Feno Who Were Not Diagnosed with Asthma – A Retrospective Review of Outcomes 6 Months Following the Initial Evaluation
Barbara Yawn, MD, MSc, FAAAAI1, Kathy Rickard, MD2, Nancy Herje, BSN, RN, MBA2 and Paul M. Dorinsky, MD, 1Olmsted Medical Center, Rochester, MN, 2Aerocline, Inc., Morrisville, NC

229 Plasma Complement Levels and Peripheral Blood Complement Receptor Levels of Adults with Asthma Requiring Emergency Department Treatment Correlate with IgE Responses and QOL Scores
David Erstein, MD1, Jane Yee, BS1, Richard Sinert, DO2, Seto Chice, MS1, Helen G Durkin, PhD3 and Rauno Joks, MD, 1Center for Allergy and Asthma Research at SUNY Downstate, Brooklyn, NY, 2Kings County Hospital Center, Brooklyn, NY

230 Exhaled Nitric Oxide Level and School Absenteeism in Rural High School Students with Current Asthma
Jeremiah Bivins, MD1, Dennis Obwabi, MD, FAAAAI1, Jennifer Waller, PhD2 and Martha Tingen, PhD2, 1Division of Allergy-Immunology and Rheumatology, Georgia Health Sciences University, Augusta, GA, 2Georgia Health Sciences University, Augusta, GA.

231 Mannitol Challenge Test, Sputum Eosinophils and Exhaled Nitric Oxide (FENO) for Diagnosis of Asthma
Gyu-Young Hur, MD1, Jee Youn Oh2, Jong-Hyun Choi2, Jae-Keomy Sim2, Kyung Hoon Min2, Sung-Yong Lee2, Jae-Jeong Shim2 and Kyung-Ho Kang2, 1Korea University College of Medicine, Seoul, South Korea, 2Korea University College of Medicine, South Korea

232 Feasibility of Spirometry Testing in Preschool Children
Jordan Kampschmidt1,2, Edward G. Brooks, MD, PhD, Debra Cherry, MD2 and Pamela R. Wood, MD1, 1Univ. Texas Health Science Center San Antonio, 2Univ. Texas Health Science Center Tyler

233 Clinical Implication of Exhaled Breath Temperature in Pediatric Asthma
Yoon Ki Han, MD1, Yoon Hee Kim, MD1, Hyun Bin Park, MD2, Min Jung Kim, MD1, Hwan Soo Kim, MD, Hee Seon Lee, MD1, Hyun Hee Lee, MD, PhD2, Kyung Won Kim, MD, PhD2, Myung Hyun Sohn, MD, PhD2 and Kyu-Earn Kim, MD, PhD1, 1Yonsei University College of Medicine, Seoul, Korea, 2Kwangdong University College of Medicine, Seoul

Autoimmunity, Immunodiagnostics

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Sunday, February 24th, 2013, 9:45 AM - 10:45 AM

234 Elevated Interleukin-6 Levels in Irritable Bowel Syndrome and Non-Ulcerative Dyspepsia
Mahta Mortezaei, MD1, P.W.N, Keeling, MD2, Eamonn M.M. Quigley, MD1 and Timothy G. Dinan, MD1, 1University at Buffalo, Buffalo, NY, 2Trinity College, Dublin, Ireland, 3Allimentary Pharmabiotic Centre, University College Cork, Ireland

235 Serum IgE and Skin Test Using Partially Purified Specific Gnatostoma spinigerum Antigen by Immunoblot Test Detecting 24kD Protein Among Patients with Angioedema or Eosinophilia
Waller, PhD and Debra Cherry, MD and Martha Tingen, PhD, 1Division of Allergy-Immunology and Rheumatology, Georgia Health Sciences University, Augusta, GA, 2Georgia Health Sciences University, Augusta, GA

236 Elevated Interleukin-6 Levels in Irritable Bowel Syndrome and Non-Ulcerative Dyspepsia
Mahta Mortezaei, MD1, P.W.N, Keeling, MD2, Eamonn M.M. Quigley, MD1 and Timothy G. Dinan, MD1, 1University at Buffalo, Buffalo, NY, 2Trinity College, Dublin, Ireland, 3Allimentary Pharmabiotic Centre, University College Cork, Ireland

237 Intravenous Methylprednisolone Pulse Therapy Target CD8+ Regulatory T Cell in Lupus Nephritis with Refractory Proteinuria
Ching-Yuang Lin, MD, PhD, Clinical Immunology Center, China Medical University Hospital

238 Use of Component Assays, ISAC, and Serial Dilution to Identify Sera with IgE Antibodies Specific for a Minor Component
Lisa J. Workman, BA1, Anubha Tripathi, MA1, Alicia Clark, BA1, Scott P. Commins, MD, PhD1, Elizabeth Erwin, MD2, Robert G. Hamilton, PhD, D.ABMLI, FAAAAI1 and Thomas Platts-Mills,
MD, PhD, AAAAI FRS, University of Virginia, Charlottesville, VA, Nationwide Children’s Hospital, Columbus, OH, Johns Hopkins University School of Medicine, Baltimore, MD

239 NY-ESO-1 Expression Is Associated with Melanoma Thickness, but Not Mortality
Mara Giavina-Bianchi, MD, Miriam Nacagamo Sotto, MD, PhD, Luciane Kanashiro, Andrew J. Simpson, Pedro Giavina-Bianchi, MD, PhD, Jorge Kalil, MD, PhD, and Cyro Festa, MD, PhD, Division of Dermatology, University of Sao Paulo, University of Sao Paulo, Ludwig Institute for Cancer Research, Clinical Immunology and Allergy Division, University of Sao Paulo, Sao Paulo, Brazil

240 Immune Abnormalities in Pediatric Acute-Onset Neuropsychiatric Syndrome (PANS)
Katie Miro, MD, Razan Alghanni, MD, James Rankin, MBS, Lee Geng, PhD and Harumi Iyounouchi, MD, UMDNJ-New Jersey Medical School, Newark, NJ

241 Plasma IL-16 Concentration and Recurrent Wheeze At Age 3 in Inner-City Children in the Ureca Birth Cohort
William W. Cruikshank, PhD, Marina Tuzova, MD, PhD, Katy Jaffe2, George T. O’Connor, MD3, Gordon R. Bloomberg, MD, FAAAAI3, Meyer Kattan, MD, Robert A. Wood, MD, FAAAAI5 and James Gern, MD, PhD, FAAAAI, Boston University School of Medicine, Boston, MA, Rhô Inc., Chapel Hill, NC, Campus Box 8116, St. Louis Children’s Hospital; Saint Louis, MO, New York-Presbyterian/Columbia, New York, NY, Johns Hopkins University School of Medicine, Baltimore, MD, University of Wisconsin School of Medicine and Public Health, Madison, WI

242 Normal B Cell Subpopulations in the Pediatric Age Groups and Adults
Matthew Plassmeyer, PhD, Mark Ryherd, Margaret Brown, B.S., Raavi Gupta, MD, Ley Lachabaw and Oral Alpan, MD, Amerimmune, LLC, VA

243 Utility of Double-Negative T-Cells As a Marker for Autoimmunity in 22q11 Deletion Syndrome Patients
Brady A. Locke, DO, Mary Hintermeyer, APNP, Trivikram Dasu, PhD, John M. Routes, MD, FAAAAI and James W. Verbsky, MD, PhD, Medical College of Wisconsin, Milwaukee, WI

244 Immune Complex-Mediated Damage Is Under Complement Pathway Control
Evelyne Y. Wu, MD, Garren Hester, BS, Haixiang Jiang, MD, PhD and Michael Frank, MD, FAAAAI, Duke University Medical Center

245 Simultaneous Detection of Total and Allergen-Specific IgE in Human Plasma Using Multiplex Array Technology
Meredith Lohman, MS, Martin D. Chapman, PhD FAAAAI and Eva King, MSc, PhD, Indoor Biotechnologies, Inc., Charlottesville, VA

Immunodeficiency

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246 Primary Immunodeficiencies in Patients with Recurrent Ear and Sinus Infections
Chadi Makary, MD, Rafka Chaiban, MD, Benjamin Addicks, Yesim Yilmaz Demirug, MB, West Virginia University School of Medicine, Morgantown, WV, West Virginia University School of Medicine, Morgantown, WV

247 Late Onset Invasive Pneumococcal Disease in a Patient with IRAK4 Deficiency
Michael David O’Sullivan1, Catherine Stroud2, Mario Abinun3,4, Rainer Döffinger3, Steven O’Reilly3, Marzena Ciechomska3, Dawn Barge2, Rebecca Treacy2, Stephen Owens4, Terry Flood4, Andrew Gennery3,4, and Sophie Hambleton3,4, Immunology Department, PathWest Laboratory Medicine, Perth, Australia, Department of Immunology, Royal Victoria Infirmary, Newcastle upon Tyne, United Kingdom, 3Institute of Cellular Medicine, Newcastle University, Newcastle upon Tyne, United Kingdom, 4Paediatric Immunology & Infectious Diseases Department, Great North Children’s Hospital, Newcastle upon Tyne, United Kingdom, 5Department of Clinical Biochemistry and Immunology, Addenbrooke’s Hospital, Cambridge, United Kingdom, 6East Anglian Medical Genetics Service, Addenbrooke’s Hospital, Cambridge, United Kingdom

248 Nurses’ Perceptions of Wear-off Effects Following Immunoglobulin Replacement Therapy
Carla M. Duff, CPNP, MSN1, Annette R. Zampelli, NP2 and Ann Bullinger, PharmD2, University of South Florida, Tampa, FL, CSL Behring, King of Prussia, PA

249 Chronic Non-Iatrogenic Chylous Loss Syndromes in Children: Are They Primary Immune Deficiencies?
Niti Y. Chokshi, MD, Neha Sethi, Maria Afanador, MD, Filiz Seeborg, MD, MPH, Barbara Reid, MD, Timothy Vece, MD, Jordan Orange, MD, PhD, FAAAAI and I. Celine Hanson, MD, FAAAAI, Baylor College of Medicine and Texas Children’s Hospital, Section of Immunology, Allergy and Rheumatology, Houston, TX, Baylor College of Medicine and Texas Children’s Hospital, Section of Neonatology, Houston, TX, Baylor College of Medicine and Texas Children’s Hospital, Section of Immunology, Allergy and Rheumatology, Baylor College of Medicine and Texas Children’s Hospital, Section of Pediatric Gastroenterology, Hepatology, and Nutrition, Houston, TX, Baylor College of Medicine and Texas Children’s Hospital, Section of Pediatric Pulmonology, Houston, TX, Baylor College of Medicine-Texas Children’s Hospital, Section of Immunology, Allergy and Rheumatology, Houston, TX

250 Report of Eight Patients with Immunodeficiency After Receiving Rituximab Therapy
Jennifer Welch, MD, Washington University School of Medicine, Saint Louis, MO and H. James Wedner, MD, FAAAAI, Washington University School of Medicine, Saint Louis, MO

251 Idiopathic Lymphocytopenia: Clinical and Immunological Aspects
Norma de Paula Motta Rubini, Albertina Varandas Capelo, Eliane Miranda da Silva, Mary Jane Lisboa Valory, Rafael Figurevedo Poleshuck, Fernando Samuel Sion, João Negreiros Tebyrácia and Carlos Alberto Morais-de-Sérc, Federal University of the State of Rio de Janeiro, Rio de Janeiro, Brazil

252 Impaired In Vitro Capacity to Undergo IgG Isotype Class-Switching (ICS) in Response to Interleukin-21 (IL21) Stimulation in Common Variable Immunodeficiency (CVID)
Marylin Desjardins, MD, McGill University Health Centre, Montreal, QC, Canada; Meakins Christie Laboratories, Montreal, QC, Canada and Bruce D. Mazer, MD, FAAAAI, Montreal Children’s Hospital, Montreal, QC, Canada; Meakins-Christie Laboratories, Montreal, QC, Canada

253 IVIG Trademark Head to Head Analysis of Adverse Events in 1394 Intravenous Immunoglobulin Replacement Treatments
Blas Javier Larrauri1, Diego Fernandez Romero1, Maria Cecilia Juri, MD, Diego Alejandro Malbran, MD, British Hospital of Buenos Aires, Buenos Aires, Argentina, Hospital Britanico de Buenos Aires, Buenos Aires, Argentina

254 A Case of Bare Lymphocyte Syndrome: A Combined Immunodeficiency Missed by Newborn Screening?
Caroline Kuo, MD, E. Richard Steinh, MD, FAAAAI and Maria Garcia-Lloret, MD, FAAAAI, Division of Allergy and Immunology, Department of Pediatrics, David Geffen School of Medicine at UCLA, Los Angeles, CA

255 Indications of Autoimmunity and Auto-Inflammation in X-Linked Agammaglobulinemia
Vivian P. Hernandez-Trujillo, MD, FAAAAI, Miami Children’s Hospital, Pembroke Pines, FL, Christopher Scalchunes, MPA.
Immune Deficiency Foundation, Charlotte Cunningham-Rundles, MD, PhD, FAAAAI, Mt. Sinai Medical Center, New York, NY, Hans D. Ochs, MD, M/S C95-7, Seattle Children’s Institute/University of Washington, Seattle, WA; Seattle Children’s Research Institute and University of Washington, Seattle, WA; University of Washington, Seattle, WA and Kathleen E. Sullivan, MD, PhD, FAAAAI, Children’s Hospital of Philadelphia, Philadelphia, PA

Cost-Effectiveness of Screening for Complement Deficiency After Initial Meningococcal Infection
Gina D. Kubitz, MD, Gil G. Magpantay, MD and Paul B. Keiser, MD, Walter Reed National Military Medical Center, Bethesda, MD

The Duke University Medical Center (DUMC) Experience with Common Variable Immune Deficiency (CVID)
Michele R. Henson, MD, Duke University, Durham, NC and Patricia L. Lugar, MD, MS, Duke University Medical Center, Durham, NC

Poliovirus Antibodies in Patients with Antibody Deficiency Having Regular Intravenous Immunoglobulin Therapy
Patricia M. Fontes, Beatriz Tavares Costa-Carvalho, MD, Maria Isabel de Moraes Pinto, Celso Granato and Elaine dos Santos Lima, Federal University of Sao Paulo, Brazil

Polyomavirus Excretion in Immune Compromised Patients
Margaret Hollister, MD, Gloria McClure, John Vanchiere, MD, PhD and Adrian Casillas, MD, FAAAAI, Louisiana State University Health Shreveport, Shreveport, LA

Outcomes of Newborn Screening (NBS) for Severe Combined Immunodeficiency (SCID) in Delaware
Archana Mehta, MD1-3, Stephen J. McGeady, MD, FAAAAI1-2, and Christopher Chang, MD, PhD, FAAAAI1-2, Thomas Jefferson University Hospital, Philadelphia, PA, Alfred I duPont Hospital for Children, Wilmington, DE

Novel RAB27A Mutation Distinguishes Hyppigmentation From Cytotoxic Dysfunction in Griscelli Syndrome Type 2
Sanny K. Chan, MD, PhD1, Pinaki Banerjee, PhD1, Lenora Mendoza Noroski, MD, MPH2, Linda Monaco-Shawver1, Javier Chinen, MD, PhD, FAAAAI4, I. Celine Hanson, MD, FAAAAA4 and Jordan Orange, MD, PhD, FAAAAA4, Baylor College of Medicine and Texas Children’s Hospital, Section of Immunology, Allergy and Rheumatology, Houston, TX, Baylor College of Medicine-Texas Children’s Hospital, Section of Immunology, Allergy and Rheumatology, Houston, TX, Children’s Hospital of Philadelphia, Lake Houston Allergy Asthma Immunology, Humble, TX

Impaired Naive B Cell Differentiation in a Kabuki Syndrome Patient with an MLL-2 Nonsense Mutation
Andrew W. Lindley, MD-PhD, Cincinnati Children’s Hospital Medical Center, Marsha A. Wills-Karp, PhD, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD and Jonathan A. Bernstein, MD, University of Cincinnati Medical Center, Cincinnati, OH

TREC -30 in Infants without SCID As A Marker for High Mortality
Millard L. Tierce IV, DO1, Mary Ruehle, RN, MS, CPN1, Karen Andrusewski, BS2, Kevin Cavanagh, PhD2, Karen Dahl, MD2, Mary Kleyen, MS2, Patrick Michael Long, PhD2, Kelly Walkovich, MD2, Heather Wood, MS2, William Young, PhD2 and Elizabeth A. Secord, MD, FAAAAI1, Wayne State University, Michigan Department of Community Health, Helen DeVos Children’s Hospital, University of Michigan with Cincinnati Children’s

Atopic Dermatitis in Patients with A gammaglobulinemia Is Associated with Cutaneous Staphylococcal Infections
Rongras Damrongwatanasuk, MD1-3, Panida Sriaaroon, MD2 and John Slesman, MD1, Children’s Research Institute, Saint Petersburg, FL, University of South Florida, Saint Petersburg, FL, USF/All Children’s Hospital, St Petersburg, FL

B-Cell Phenotypes in Solid Organ Transplant Pediatric Patients with Hypogammaglobulinemia
Jennifer A. Shih, MD, Emory University, Atlanta, GA and Lisa J. Kobrynski, MD, MPh, FAAAAI, Emory Children’s Center, Atlanta, GA; Emory University School of Medicine, Atlanta, GA

How Viral and Bacterial Infections Drive Asthma

Sunday, February 24th, 2013, 9:45 AM - 10:45 AM

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Respiratory Syncytial Virus (RSV) Infection and Replication in Mesenchymal Stem Cells (MSCs)
Michael B. Cheung, MS1-2, Subhra Mohapatra, MS, PhD1-2 and Shyam S. Mohapatra, PhD, FAAAAI1-3, The University of South Florida Morsani College of Medicine, Tampa, FL, James A Haley VA Hospital, Tampa, FL

Interactive Effect of Sodium Sulfite and Rhinovirus Infection in Chemokines Production by Airway Epithelial Cells
Huyn Hee Kim, MD, PhD1, Yoon Hong Chun2, Jong-seo Yoon2 and Joon Sung Lee, MD, PhD2, Dept. of Pediatrics Bucheon St. Mary’s Hospital The Catholic University of Korea, Bucheon-si, South Korea, Dept. of Pediatrics The Catholic University of Korea

Assessment of Bacterial Colonization in Airways of Children with Asthma and Chronic Cough by Culture and 16S rRNA Gene Sequencing
Pia J. Hauk, MD1, Elena Goleva, PhD2, Leisa P. Jackson, BS2, J. Kirk Harris, PhD1, J. Tod Olin, MD MSCS1, Susan M. Brugman, MD1, Dave P. Nichols, MD1, Marzena Krawiec, MD2 and Donald Y. Leung, MD, PhD1, National Jewish Health, Division of Pediatrics, Division Pediatric Allergy/Immunology, Denver, CO, National Jewish Health, Department of Pediatrics, Denver, CO, University of Colorado Anschutz Medical Campus, Department of Pediatrics, Aurora, CO, National Jewish Health, Department of Pediatrics, Division Pediatric Pulmonology, Denver, CO, Eastern Carolina University, Pediatric Pulmonology, Greenville, NC

Inhibition of Pim1 Kinase Attenuates Respiratory Syncytial Virus (RSV) Re-Infection-Induced Enhanced Airway Hyperresponsiveness (AHR) and Inflammation
Jyunan Han, PhD, Wanjiang Zeng, MD, Meiqin Wang, MD, PhD, Katsuyuki Takeda, MD, Shigeru Ashino, PhD, Yi Jia, PhD, Yoo Seob Shin, MD, PhD and Erwin W. Gelfand, MD, National Jewish Health, Denver, CO

Allergic Airway Inflammation (AAI) Decreased Lung Klebsiella Pneumoniae Burden in a Mouse Model of Acute Pneumonia
Daniel E. Dulek, MD1,2,3,4, J. Tod Olin, MD MSCS1,2,5, Elena Goleva, PhD2,6, Leisa P. Jackson, BS2,7,8, Kasia Golenska, MD2,8,9, J. Alexander Kurosky, PhD2,6,10,11,12,13,14, Paul B. Keiser, MD2,8,9 and Rauno O. Joks, MD, FAAAAI, Department of Pediatrics and Preventive Medicine; Vanderbilt University School of Medicine, Nashville, TN, Allergy, Pulmonary, and Critical Care Medicine; Department of Pediatrics; Vanderbilt University School of Medicine, Nashville, TN

RSV Infection Causes Lung Epithelial Cells Secretion of the Proinflammatory Cytokine HMGB1
Yashoda M. Hosakote, PhD1,2,3,4,5, and Robert P. Garofalo, MD1 and Alexander Kurosky, PhD2,3,4,5, University of Texas Medical Branch, Galveston, TX, University of Texas Medical Branch, League City, TX

Correlation of Development of Asthma to Previous Infections in Chinese and Hispanic Immigrant Populations Residing in Brooklyn
Maria-Anna Vastardi, MD1,2,3,4,5, Irina Kataye, MD1, Haijun Yao, MD2, Daniel Puebla-Neira, MD2,5, Kobkul Chotikanatis, MD1, Kobkul Chotikanatis, MD1, Jeremy Weedon, PhD1, Helen G. Durkin, PhD1, Stephan A. Kohlhoff, MD1 and Rauno O. Joks, MD, FAAAAI1, SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY, Lutheran Medical Center, Brooklyn, NY, Scientific Computing Center, SUNY Downstate Medical Center, Brooklyn, NY
Measuring Pollen Exposures

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273 Evaluation of a Compact Ionic Capture Device for Airborne Allergens with the Use of a Controlled Environmental Chamber
Jennifer Hope, MD
Prasanthi Gandhi, MBA, MPH, David Alburtus, President and Pam Murowchick, Director of Lab Operations,
InspireToLC, LLC, Chicago, IL, ABilturly Inc, Drexel, MO

274 Climate Variability and Pollen: More Hay Fever or Less?
Estelle Levetin, PhD, FAAAAI
University of Tulsa and Claudia Owens, MS, University of Tulsa, Tulsa

275 Heightened Responses to Quercus Virginiana (Virginia Live Oak) Pollen During Natural Seasonal Exposure Versus Pollen Challenge Chamber Exposure: Role of Co-Factors
Robert L. Jacobs, MD, Weijing He, MD, Nathan Harper, BS, Charles P. Andrews, MD, Cynthia Rather, CCRC, Daniel Ramirez, MD and Sunil Ahuja, MD
1Biogenics Research Chamber, San Antonio, TX, 2Department of Medicine, University of Texas Health Science Center, San Antonio, TX, 3Diagnostics Research Group, San Antonio, TX

276 Is There Such a Thing As a Hypoallergenic Dog?
Betty Ann Petrak-Ron, MD, FAAAAI, Boulder Community Hospital, Boulder, CO, Eric Ron, Colorado State University, Ft. Collins, CO and Judy St. Clair, CSU

277 Comparison of Airborne Allergen Levels Collected On Filters with Dust Borne Allergen Levels Collected by Vacuum

278 Reduction of Domestic Allergen Levels in Carpets and Soft Furnishings in US Homes Using a Proprietary Hot Water Extraction Cleaning Process
Bruce Mitchell, Märie Fox, Claire Mernagh, John Fallon and Viviene Mahon, airdok service llc, Dublin, Ireland

279 Digital Pathology Techniques in Pollen Assessment
Marissa B. Lewis, University of Delaware, East Brunswick, NJ and Leonard Bielory, MD, FAAAAI, Rutgers University, New Brunswick, NJ

280 A Side-by-Side Comparison of Rotorod and Burkard Pollen and Spore Collections
Howard C. Crisp, MD
Robert Anthony Gomez, James M. Quinn, MD, FAAAAI and Kevin M. White, MD
1Wilford Hall Ambulatory Surgical Center, San Antonio, TX, 2Wilford Hall Ambulatory Surgical Center, Lackland AFB, TX

281 Personalized Forecasting of Pollen-Induced Symptoms for Hay-Allergy Sufferers
Uwe E. Berger, MBA, Siegfried Jaeger, Matt Smith and Karl-Christian Bergmann
1Medical University Vienna, Vienna, Austria, 2Charité Campus Mitte, Berlin, Germany

Renato Ariano, Gianni Mistrello, Giuseppe Frenguelli, Emma Teleschini, Raphael C. Panzani and Giovanni Passalacqua
1Department of Internal Medicine, Bordighera, Imperia, Italy, 2Research Dept. Lofarma SpA, Milan, Italy, 3Department of Vegetable Biology of Perugia, University of Perugia, Perugia, Italy, 4Centre de Recherche en Allergologie, Marseille, France, 5Allergy and Respiratory Diseases, IRCCS San Martino Hospital-IST, University of Genoa

283 Increase in Midwestern Airborne Elm Pollen Over 14 Years
Manika Girdhar, DO
Charles Barnes, PhD, Minati Dhar, PhD
and Jay M. Portnoy, MD, FAAAAI, 1Children’s Mercy Hospital & Clinics, Kansas City, MO, 2University of Missouri - Kansas City

284 Measuring Individual Pollen Exposure
Torsten Selhinger, Klaus Boehm, Frank Goergen and Karl-Christian Bergmann
1Bluestone Technology GmbH, Woerzstadt, Germany, 2University of Applied Science Mainz, Mainz, Germany, 3Charité Campus Mitte, Berlin, Germany

285 Myxomycete Spores: Unrecognized Aeroallergens?
Michelle B. Lierl, MD, FAAAAI, Cincinnati Children’s Hospital, Cincinnati, OH

286 Shifting Trends of Ragweed (Ambrosia) Measurements During a 22 Year Period in Northern and Southern New Jersey (NJ)
Jonathan Maik, Yeshiva University and Leonard Bielory, MD, FAAAAI, STARx Allergy and Asthma Center, Springfield, NJ

287 The Effect of Local Temperature, Wind Velocity and Rain On Aerobiology Sampling; Ten Year Study (2001-2011), Sarasota, FL
Gregory Michael Cowan, MD, Neetu Talreja, MD, Jennifer E. Fergesson, DO, Mary Jelks, MD, Dennis K. Ledford, MD, FAAAAI and Richard F. Lockey, MD
1University of South Florida Morsani College of Medicine, 2Morsani College of Medicine University of South Florida and James A. Haley Veteran Hospital, 3University of South Florida Morsani College of Medicine, Tampa, FL

288 Distribution of Indoor Fungal Spore Levels
Minati Dhar, PhD
Freddy Pacheco, MS, Jay M. Portnoy, MD, FAAAAI, Charles S. Barnes, PhD and Children’s Mercy Center for Environmental Health, 1Children’s Mercy Hospital & Clinics, Kansas City, MO, 2Children’s Mercy Hospital, Kansas City, MO, 3Children’s Mercy Hospitals and Clinics, Kansas City, MO, 4Children’s Mercy Hospitals and Clinics

289 The Effect of Increasing Ragweed Pollen Counts On Skin Prick Reactions
Sunena C. Argo, MD, Nikita Raje, MD, MBBS, Ravneet Donegan, MD, Charles S. Barnes, PhD and Paul J. Dowling, MD, FAAAAI, 1Children’s Mercy Hospitals and Clinics/University of Missouri-Kansas City, Kansas City, MO, 2Children’s Mercy Hospitals and Clinics, Kansas City, MO

290 House Dust Mite – Crustacean-Mollusk-Insect Syndrome (HCMIS) in A Patient Resident of A Tropical Zone
Kaddy Juliana Beltzan, Kaddy Juliana Beltzan, Ruth Helena Ramirez and Ricardo Cardona-Villa, MD
1Universidad de Antioquia, 2Universidad de Antioquia, Medellin, Colombia, 3Universidad de Antioquia, Colombia

291 Correlation of Yearly Poaceae Pollen and January to July Rainfall
Charles S. Barnes, PhD, Minati Dhar, PhD and Jay M. Portnoy, MD, FAAAAI, 1Children’s Mercy Hospital and Clinics, Kansas City, MO, 2Children’s Mercy Hospital & Clinics, Kansas City, MO

292 Juniper Pollen Hotspots in the Southwest
Landon Bunderson, University of Tulsa, Tulsa, OK, Jeffrey Luvall, NASA Marshall Space Flight Center, Huntsville, AL, Peter Van De Water, PhD, California State University, Fresno, CA and Estelle Levetin, PhD, FAAAAI, University of Tulsa

293 Correlation Between Mold Sensitization and Proximity to Mushroom Farms
Mary K. Paul, MD
Christopher Chang, MD, PhD, FAAAAI and Gang Ye, PhD
1A.I. DuPont Hospital, Wilmington, DE, 2Thomas Jefferson University Hospital, Philadelphia, PA, 3Alfred I duPont Hospital for Children, Wilmington, DE, 4Nemours

294 Monitoring Japanese Allergenic Pollen Using Durham’s and Burkard Sampler for Asia Pollen Allergy Network
Reiko Kishikawa, MD, Akemi Saito, PhD, Hiroyuuki Nanba, PhD, Norio Suhashi, PhD, Yoshinori Higaki, Eiko Koto, Terufumi Shimoda, MD, Kazuo Akiyama, MD and Tomoaki Iwanaga, MD
1The National Hospital Organization Fukuoka Hospital, Fukuoka, Japan, 2The National Hospital Organization Sagamihara
Food Allergy I

Outcomes and Safety of Oral Food Challenges in a University-Based Clinic
Timothy P. Moran, MD, PhD1, Ginger S. LaBelle, CPNP2, Debra A. Sedlak, MSN, CPNP2, P. Brian Smith, MD MHS MPS3, Brian P. Vickery, MD, FAAAAI4 and Joseph L. Roberts, MD, PhD4 1Duke University Medical Center, Durham, NC, 2University of North Carolina at Chapel Hill, Chapel Hill, NC

Exercise Should Be Added to Food Challenge Tests to Predict Anaphylaxis During Oral Tolerance Induction for Severe Milk Allergy Patients
Kazuyo Kuzume, Ehime Prefectural Niihama Hospital, Niihama, Ehime, Japan, Yu Kuwabara, Ehime Prefectural Niihama Hospital, Munemitsu Koizumi, Ehime Prefectural Central Hospital, Koji Nishimura, Uwajima City Hospital and Yoshitaka Murakami, Ehime Prefectural Imabari Hospital

Utility of Ovomucoid and Egg White Specific IgE and Skin Prick Testing in Predicting Baked Egg Challenge Outcomes Lisa Bartnikas, MD1, William J. Sheehan, MD2, Katherine Larabee, BA3, Lynda C. Schneider, MD, FAAAAI1,2 and Wanda Papatanakul, MD, MS, FAAAAI1,2 1Boston Children’s Hospital, Boston, MA, 2Harvard Medical School, Boston, MA, 3Boston University School of Medicine, Boston, MA

CoAeL Multicenter Study: Diagnostic Tests As Predictors of Clinical Reactivity in the Follow-up of the Milk-Allergic Infants Mariangela Bermudez Martinez1, Cristina Vlaicu2, Melissa Olano Rocha1, Ibon Eguiluz Garcia2, Soledad Terrados Cepeda1, Inmaculada Cerecedo Carballo3, Maria Del Carmen Dieguez4, Belden De La Hoz, MD, PhD5 and Montserrat Fernandez-Rivas6 1Hospital Universitario Ramon y Cajal, Madrid, Spain, 2Hospital Clinico San Carlos, Madrid, Spain, 3Hospital del Sureste, Aragon, Spain

Basophil Allergen Threshold Sensitivity, CD-Sens, and IgE Antibodies to Wheat, Hydrolysed Wheat, α-5 Gliadin and Timothy Grass in Relation to Wheat Challenge Outcome Nora Nilsson, Astrid Lindgrens Childrens Hospital, Stockholm, Sweden

309 Oral Food Challenge: Experience in a Brazilian Food Allergy Outpatient Tertiary Service Camila Pereira1, Leila Borges2, Renata R. Cocó1, Lucila Camargo1, Marcia Mallozi1 and Dirceu Sole, MD PhD3 1Federal University of São Paulo, 2Federal University of Sao Paulo, 3Federal University of Sao Paulo, Sao Paulo, Brazil

310 Tolerance to Extensively Heated (Baked) Milk-Clinical and Immunologic Phenotype Hugh A. Sampson, MD, FAAAAI1, George N. Konstantinou, MD, PhD, MSc1, Jacob Daniel Kattan, MD1, Madhan Masilamani, PhD1, Beth D. Strong, RN, CRCC3, Elizabeth Paynter, MA1, Tee Bahnson, BS, MPH1 and Anna H. Nowak-Wegrzyn, MD, FAAAAI1 1Mount Sinai School of Medicine, New York, NY, 2Mt. Sinai School of Medicine, New York, NY, 3Rho Federal Systems Division, Inc., Chapel Hill, NC

312 Efficacy & Safety of Abbreviated Oral Food Challenges in Ruling Out Food Allergy in a Pediatric Allergy Clinic Kelly M. Maples, MD1,2, Tyler Thompson1,3, Amy Perkins, MS1,2 and Madison Smart, MA1, Children’s Hospital of The King’s
311 Induction of Antigen-Specific B Cells During Peanut Oral Immunotherapy Using Novel Tetramer-Based Approach

312 Outcomes Using a Graded Protocol for Open Food Challenges

313 Baked Milk Oral Food Challenges: A Single-Center Pediatric Hospital Experience

314 Subjects Sensitized to Sunflower Seed (Helianthus annuus) Are Tolerant in a High Proportion of Cases

315 Profile of Sensitization to Sunflower Seed in a Large Population Highly Exposed

316 Characterization of Apple Allergy in a Mediterranean Population

317 Food Specific IgE Levels in Children Should Be Interpreted in Context of Total IgE

318 Threshold Dose for Shrimp: A Risk Characterization Based On Objective Reactions in Clinical Studies

319 Desensitization by Sublingual Immunotherapy for Crustacean Allergy

320 Clinical and Laboratory Predictors of the Outcome of Oral Food Challenges

321 The Difference of Positive Predictive Value of Ovm-Specific IgE for Heated Hen’s Egg Oral Food Challenge by Transition of Ovm-Specific IgE

322 Egg White Skin Prick Tests: A Reliable Predictor of Heated Egg Tolerance in Egg-Allergic Children

323 Slow Stepwise Resolution Protocol for Children with Food Allergies

324 Ovo-Des Nm®, a Future Treatment for Egg Allergy

325 Early Treatment of Food-Induced Allergic Reactions with Epinephrine Is Associated with Lower Risk of Hospital Admission

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Multiple Epinephrine Doses in Food-Induced Anaphylaxis in Children
Angela Tsuang, MD,1 Nikhil Menon, Medical student1, Natasha Setia, Medical student1, Larry Geyman, Medical student1 and Anna H. Nowak-Wegrzyn, MD, FAAAAI,2 1Mount Sinai School of Medicine, 2Mount Sinai School of Medicine, New York, NY

Peanut Oral Immunotherapy Induces Desensitization At 2g Maintenance Dosing
Matthew Feldman, MD1, Amy Arneson, RN2, Caitlin Burk3, Michael D. Kulis Jr, PhD4, A. Wesley Burks, MD, FAAAAI5 and J. Andrew Bird, MD, MD2, UT Southwestern Medical Center, Dallas, TX, 1Children’s Medical Center, Dallas, TX, 2University of North Carolina at Chapel Hill, Chapel Hill, NC

Predictors of Clinical Tolerance After Peanut Oral Immunotherapy
Yamini Virkud, MD, MA1, Stacy Chin, MD2, Nik Kamilari, Michael D. Kulis Jr, PhD3, Janet S. Kamilari, RN4, Pamela H. Steele, MSN, CPNP, AE-C5, P. Brian Smith, MD, MHS, MPS6, Brian P. Vickery, MD, FAAAAI7 and A. Wesley Burks, MD, FAAAAI8, 1Duke University Durham, NC, 2FDA/CDER, Washington, DC, 3University of North Carolina, Chapel Hill, NC, 4University of North Carolina at Chapel Hill, Chapel Hill, NC, 5Duke University Medical Center, Durham, NC

Epicutaneous Immunotherapy (EPIT) Is Safe for the Treatment of Peanut Allergy in Allergic Patients
Wence Agbotounou, PhD1, Laurent Martin, PharmD2, Bertrand Dupont3, Isabelle Pascal4, Cécile Vauleon5 and Pierre Henri Benhamou, MD6, 1DBV Technologies, Bagneux, France, 2DBV Technologies, Paris, France

Safety of Peanut Oral Immunotherapy (OIT) Using a Modified Dosing Protocol
Amy Arneson, RN1, Matthew Feldman, MD2 and J. Andrew Bird, MD2, 1Children’s Medical Center, Dallas, TX, 2UT Southwestern Medical Center, Dallas, TX

Life with Peanut: Follow up of Tolerant Versus Desensitized Subjects After Peanut OIT
Saira Zafar Sheikh, MD1, Brian P. Vickery, MD, FAAAAI1, Pamela H. Steele, MSN, CPNP, AE-C1, Janet S. Kamilari, RN4, Michael D. Kulis Jr, PhD4, Suzanne K. Carlisle, RN, BSN, CRCR5, G. Lynn Christie, MS, RD2, Stacie M. Jones, MD5, A. Wesley Burks, MD, FAAAAI, 1University of North Carolina at Chapel Hill, Chapel Hill, NC, 2University of Arkansas for Medical Sciences, Little Rock, AR

Comparison Between Two Maintenance Feeding Regimens After Successful Cow’s Milk Oral Desensitization
Giovanni B. Pajno, MD, FAAAAI1, Lucia Caminiti1, Giuseppina Salzano1, Giuseppe Crisafulli1, Tommaso Aversa1, Francesca Maria Messina1, Malgorzata Wasniewska1 and Giovanni Passalacqua2, 1Dept of Pediatrics, Allergy Unit, University of Messina, 2University of Genoa, Genoa, Italy, 3Allergy and Respiratory Diseases, IRCCS San Martino Hospital-IST-University of Genoa

Predictors for the Successful Outcome of Oral Immunotherapy to Milk
Michael B. Levy, MD, FAAAAI, Amon Elizur, MD, Michael Goldberg, MD, PhD, Liat Nachshon, MD and Yitzhak Katz, MD, FAAAAI, Assaf Harofeh

Perinatal Environmental Influences Contributing to Goat’s and Sheep’s Milk Allergy without Cow’s Milk Allergy
Rani Maskatia, MD, Baylor College of Medicine, Houston, TX and Carla M. Davis, MD, Baylor College of Medicine/Texas Children’s Hospital, Department of Pediatrics, Houston, TX, Texas Children’s Hospital, Houston, TX

Bystander Suppression in Food Allergy
Megan S. Motosue, MD1, Tina Dominquez, PA-C2, Alicia Sciancalepore, RN2, Daniela Pineda, MA2, Anjuli Mehrrotra, MD, MA, Lisa Hoyte, NP2 and Kari Nadeau, MD, PhD, FAAAAI, 1Santa Clara Valley Medical Center, San Jose, 2Stanford University for Food Allergy Research, Palo Alto, CA, 3Silicon Valley Allergy and Asthma Inc, Mountain View, CA, 4Stanford Univ School Medicine, Stanford, CA

Efficacy of Oral Immunotherapy in Patients with Multiple Food Allergies
Shruti P. Wilson, MD, Tina L.R. Dominguez, PA-C MMS, Alicia Sciancalepore, RN, Daniela Pineda, MA, Anjuli Mehrrotra, MD, Steven W. Rubinstein, MD, Alan B. Goldsobel, MD, FAAAAI, Michael J. Mulligan, MD, Robert C. Bocian, MD, PhD, FAAAAI, Nancy Cummings, MD, FAAAAI and Kari Nadeau, MD, PhD, FAAAAI, Stanford University School of Medicine

Role of Omalizumab in Rush Cow’s Milk Desensitization in the Outpatients Office
Paloma Puza-Guedes1, Ruperto Gonzalez-Perez2, Inmaculada Sanchez Machin1 and Victor Matheu, MD, 1Hospital del Tórax-Oltra, Sta Cruz de Tenerife, Spain, 2Hospital Ofra, Tenerife, Spain

Efficacy of Oral Immunotherapy and Anti-IgE Antibody-Adjuvant Treatment in Patients with Multiple Food Allergies
Tina L.R. Dominguez, PA-C MMS, Shruti P. Wilson, MD, Alicia Sciancalepore, RN, Daniela Pineda, MA, Anjuli Mehrrotra, MD, Steven W. Rubinstein, MD, Alan B. Goldsobel, MD, FAAAAI, Michael J. Mulligan, MD, Robert C. Bocian, MD, PhD, FAAAAI, Nancy Cummings, MD, FAAAAI and Kari Nadeau, MD, PhD, FAAAAI, Stanford University School of Medicine

Rapid Oral Desensitization for Severe Peanut Allergy Enabled with Omalizumab
Lynda C. Schneider, MD, FAAAAI, Rima A. Rachid, MD, FAAAAI, Jennifer S. LeBovidge, PhD, Dionne Graham, PhD, Timothy Harrington, BA, Mudita Mittal, MD and Dale T. Umemtsu, MD, PhD, FAAAAI, Boston Children’s Hospital, Boston, MA

Increased IL-17A Responses in Food Allergic Children
Nashmia Qamar, DO1, Anna B. Fishbein2, Kristin A. Erickson3, Mary J. Kwansy1, Mao Cai1, Ramsay L. Fuleihan2 and Anne Marie Singh1, 1Division of Allergy & Immunology, Department of Pediatrics, Northwestern University Feinberg School of Medicine, Chicago, IL, 2Division of Allergy & Immunology, Department of Pediatrics, Northwestern University Feinberg School of Medicine, Chicago, IL, 3Department of Preventive Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL

Preliminary Results Comparing the Sensitizing Potential of Purified β-Lactoglobulin (BLG) Versus Whey Protein in Germfree (GF) and Conventional C3H/Hen Mouse
Nathan L. Marsteller1,2, Kwame Andoh-Kumi1, Daniel A. Peterson3, Joe L. Baumber, PhD1 and Richard E. Goodman1, 1Food Allergy Research and Resource Program, University of Nebraska-Lincoln, Lincoln, NE, 2School of Biological Sciences, University of Nebraska-Lincoln, 3Johns Hopkins School of Medicine, Baltimore, MD

Peanut Tolerance in Offspring of Female Mice Fed Peanut and Cholera Toxin B Subunit Is Associated with Epigenetic Regulation of Foxp3 Promoter and Induction of Mucosal Foxp3 and IL-10 Gene Expression
Yiqun Hui, MD, PhD1, Ying Song, MD2, Hugh A. Sampson, MD, FAAAAI2 and Xiu-Min Li, MD2, 1The Mount Sinai Hospital, 2Mount Sinai School of Medicine, New York, NY

Negative Association of Foxp3 Regulatory T Cells with Anaphylaxis Upon Food Challenge in Murine Models of Peanut Allergy
Laurie M. McWilliams1, Michael D. Kulis Jr, PhD2, Rishu Guo, PhD2, A. Wesley Burks, MD, FAAAAI2 and Patrick Seed1, 1Duke University, Durham, NC, 2University of North Carolina at Chapel Hill, Chapel Hill, NC

In Vitro Immunomodulatory Effects of FAHF-2 (Food Allergy Herbal Formula-2) On PBMCs From Food Allergy Patients
Xiu-Min Li, MD1, Ying Song, MD1, Julie Wang1, Paul Faybusovich1, Min-Li Hong1, Jaime Ross1, Scott Sicherer2, June Straw1, Stacie M. Jones, MD2 and Hugh A. Sampson, MD, FAAAAI1,1
Food Allergy Related Issues/Immune Mediated Skin Disease

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Sunday, February 24th, 2013, 9:45 AM - 10:45 AM
348 Risk Factors of Extrinsic and Intrinsic Atopic Dermatitis in Korean Adolescents
Kyung-Suk Lee, MD, PhD1, Sun-Hee Choi, MD, PhD2 and Yeong-Ho Rha, MD, PhD3, 1Kyung Hee University Hospital, 2Gangdong Kyung Hee University Hospital
349 Relationship Between Socioeconomic and Sociodemographic Risk Factors and Atopic Dermatitis in Korean Adolescents
Yeong-Ho Rha, MD, PhD, 1Kyung Suk Lee, MD, PhD and Sun-Hee Choi, MD, PhD, 1Kyung Hee University Hospital, 2Gangdong Kyung Hee University Hospital
350 Delayed Introduction of Food and Effect On Incidence of Food Allergy in a Population At High Risk for Atope: The Canadian Asthma Primary Prevention Study (CAPPS)
Tiffany Wong, MD1, Moira Chan-Yeung, MB2, Roxanne Rousseau, BSc3, Anne Dybuncio, BS4, Anita L. Kozysrkyj, PhD4, Clare Ramsey, MD, MSc, FRCP5, Allan Becker, MD, FAAAAI6 and Edmond S. Chan, MD, FAAAAI, 1Department of Pediatrics, Faculty of Medicine, University of British Columbia, 2Department of Medicine, Faculty of Medicine, University of British Columbia, 3University of Manitoba, Edmonton, AB, Canada, 4Department of Medicine, Faculty of Medicine, University of Manitoba, 5University Of Manitoba, Winnipeg, MB, Canada
351 Differentiating Cause and Severity of Allergic Reaction to Soy Based On Component Testing to PR-10 and Storage Proteins
Rabia Q. Chaudhry, MD, Stephen Bigelsen, MD, Alan H. Wolff, MD and Danyoul Yamin, UMDNJ, Newark, NJ
352 Severe Reactions to a Soy Containing Beverage in Peanut Allergic Individuals Not Avoiding Soy
Benjamin Remington, BS1, Julie A. Nordlee, MS1, John R. Bacon, MD, FAAAAI2, Marc E. Dyer, MD3, Steve L. Taylor, PhD4 and Joe L. Baumert, PhD, 1Food Allergy Research and Resource Program, University of Nebraska-Lincoln, Lincoln, NE, 2Private Practice, Townson, MD, 3Private Practice, Laguna Niguel, CA
353 Clinical Features of Sulfite Hypersensitivity
Ga Young Ban, Ajou University School of Medicine
354 The Development of A Diet-Focused Allergy History Tool
Isabel J. Skypala, PhD, RD, Royal Brompton and Harefield NHS Foundation Trust, London, United Kingdom, Carina Venter, PhD, RD, The David Hide Asthma and Allergy Research Center, Isle of Wight, United Kingdom, Louiza Damianidi, RD, University of Athens, Athens, Greece, Nicolette De Jong, PhD, Erasmus MC, Dept of Internal Medicine, Rotterdam, Netherlands, Adam T. Fox, MD, Gay’s and St Thomas’ Hospitals NHS Foundation Trust and Kings College, London, United Kingdom, Marion E. Groetj, MS, RD, Mount Sinai School of Medicine, Rosan Meyer, PhD, RD, Great Ormond Street NHS Foundation Trust, London, United Kingdom, Hanneke Oude Elberink, MD, University Medical Center of Groningen, Groningen, Netherlands, Aline Sprikkelman, MD, Emma Children’s Hospital Academic Medical Centre, Amsterdam, Netherlands and Berber Vlieg-Boerstra, PhD, RD, Emma Children’s Hospital, Academic Medical Center, Amsterdam, Brummen, Netherlands

355 Long Term Nutritional Outcome of Children Fed by an Amino Acid Formula
356 Reduction of Bone Mineral Density (BMD) in IgE-Mediated Cow’s Milk Protein (CMP) Allergy and Normalization After Tolerance Acquisition by Oral Immunotherapy
Liat Nachshon, MD, Michael Goldberg, MD, PhD, Arnon Elizur, MD, Michael B. Levy, MD, FAAAAI1 and Yitzhak Katz, MD, FAAAAI, Assaf Harofeh University of Nebraska-Lincoln, Lincoln, NE, 2Private Practice, Laguna Niguel, CA, 3University of Colorado School of Medicine, 4University College Cork, Cork, Ireland
357 Family Management of Children’s Food Allergies: Patterns of Food Avoidance and Reaction Response Preparation in Relation to Anxiety
Mary D. Klinnert, PhD1, Elizabeth McQuaid, PhD2, Anna Forssen1, Sophia Cohen1, David Fedele2, Jane Robinson1, David Mark Fleisher, MD, FAAAAI1,3, Jonathan O. Hourihane and Fred (Dan) McDaniel Atkins, MD, FAAAAI,1,3, 1National Jewish Health, Denver, CO, 2Brown School of Medicine, Rhode Island Hospital, Providence, RI, 3University of Colorado School of Medicine
358 Parental Reporting of Allergic Food Introduction: A Study of Urban and Suburban Populations
Heather N. Hartman, MD1, Caitlin Dodd, MS2 and Amal H. Assa’ad, MD, FAAAAI, 2Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 1Cincinnati Childrens, Cincinnati, OH
359 Nutritional Features of Children with Multiple Food Allergies Who Require Elemental Formula Supplementation
Karen Robbins, MD1, Anthony Guerrerio, MD, PhD1, Elizabeth Matsui, MD1, Pamela A. Frischmeyer-Guerrerio, MD, PhD2, Susan Oh, MS, MPH, RD1, Sara Hauck, RD, LDN1 and Robert A. Wood, MD, FAAAAI1, Johns Hopkins University School of Medicine, Baltimore, MD, 2Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD
360 Comparison of Growth Parameters Between Children with and without Food Allergies in 2 Different Demographic Populations
Harshna Mehta, MD, Mount Sinai School of Medicine, New York, NY, Elizabeth Feuille, MD, Mount Sinai School of Medicine and Julie Wang, MD, FAAAAI, Mt. Sinai School of Medicine, New York, NY
361 Impact of Food Allergy On Growth in the Pediatric Population
Caroline B. Hobbs, MD1, Ashley C. Skinner, PhD2, A. Wesley Burks, MD, FAAAAI1 and Brian P. Vickery, MD, 1Division of Pediatric Allergy, Immunology, Rheumatology, and Infectious Disease, University of North Carolina, Chapel Hill, NC, 2Division of General Pediatrics and Adolescent Medicine, University of North Carolina, Chapel Hill, NC
362 Differences in Dietary Management of Infant Atopic Dermatitis
Among Pediatricians, Allergists, and Dermatologists in the United States
Laura Czerniecki, MS, RD,1 Erica Horodniceanu2, Vardhaman Patel2,3, Marc Botteman, MSc2 and Jose Saavedra, MD1, Nestle Nutrition, Florham Park, NJ, 2Pharmerit International, Bethesda, MD, 3College of Pharmacy, University of Illinois, Chicago, IL

363 The Multiple Open Food Allergen Challenge Test in Children with Moderate to Severe Atopic Dermatitis
Jae Ho Lee, MD, PhD1 Eun Kyung Lim2 and Eun Ae Yang1, Department of Pediatrics, Chungnam National University, Taejon, South Korea, 2Department of Pediatrics, Chungnam National University, Taejon, South Korea

364 Parental Concerning Pediatric Atopic Dermatitis and Bathing Frequency Recommendations by Providers: An Area of Uncertainty and Frustration
Erin Kempe1, Ivan D. Cardona, MD, PhD1,2 and Neal Jain, MD, FAAAAI, Maine Medical Center, Portland, ME, Allergy and Asthma Associates of Maine, Portland, ME, San Tan Allergy, Gilbert, AZ

365 Allergen-Specific Immunotherapy (ASIT) Effect On Quality of Life (QOL) in Children with Moderate (MAD) and Severe (SAD) Atopic Dermatitis
Tatiana Slavyanskaya, MD, PhD1,2 and Vladislava Derkach, PhD2,3, University of Russia, Moscow, Russia, Institute of Immunophysiology, Moscow, Russia, Vladivostok State Medical University, Vladivostok, Russia

366 Allergen Specific Immunotherapy in Cases of Severe Atopic Dermatitis
Immaculada Sanchez-Machin, MD, Hospital Ofra-Tórax, Tenerife, Spain, Paloma Pozo, Hospital Ofra-Tórax, Santa Cruz de Tenerife, Spain, Ricardo Gonzalez, Hospital Ofra-Tórax, S/C de Tenerife, Spain and Victor Mateu, MD, Hospital Ofra, Tenerife, Spain

367 A Randomized, Open-Label, Parallel Group Study to Evaluate the Efficacy and Safety of Proactive Management in Pediatric Subjects with Moderate to Severe Atopic Dermatitis
Tatsuki Fukucu, MD, PhD1,2, Ichiro Nomura, MD, PhD, Masami Narita, MD, PhD2, Tsukasa Suzuki, MD3, Iwao Tajima, MD1, Osamu Natsume, MD1, Tomohide Taguchi, MD, Tsutomu Ogata, MD, Yoshihiko Tokura, MD, PhD, Kenji Matsumoto, MD, PhD2 and Kiyohiro Ohya, MD, PhD2, Department of Pediatrics, Hamamatsu University School of Medicine, Shizuoka, Japan, Division of Allergy, Department of Medical Subspecialties, National Center for Child Health and Development, Tokyo, Japan, Department of Allergy and Immunology, National Research Institute for Child Health and Development, Tokyo, Japan, Department of Dermatology, Hamamatsu University School of Medicine, Shizuoka, Japan

368 Evaluation of People with Atopic Dermatitis Allergen Patch Test with Mites, Cockroach and Mouse
Lihua Yang, MD1, Rao O. Joks, MD, FAAAAI2 and Hamid Moalem, MD1, SUNY Downstate Medical Center, Brooklyn, NY, SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY

369 The Effect of Outdoor Air Pollutants On the Severity of Atopic Dermatitis
Mi-ran Park,1 Jihyun Kim, MD2, Youngsik Han, PhD3, Hae-Kwan Cheong4, Eun-Hye Kim2, Kwon Jung2 and Kangmo Ahn, MD, PhD1, Samsung Medical Center, Seoul, Department of Social and Preventive Medicine, and Samsung Biomedical Research Institute, Suwon, South Korea, Seoul Research Institute of Public Health and Environment, Gwangcheon, South Korea

370 Association of Stress, Pruritus and Illness in Children with Atopic Dermatitis
Kimberly Kelsay, MD1, Eleni Weisnicht2,3, Bruce G. Bender, PhD, FAAAAAI1, Donald Y.M. Leung, MD, PhD, FAAAAAI2 and Mary D. Kleinert, PhD3, University of Colorado, School of Medicine, Aurora, National Jewish Health, University of Colorado, Boulder, National Jewish Health, Denver, CO, University of Colorado School of Medicine

371 Human Basophils Express Novel TSLPR Variants Including a Putative Secreted Form
Martin J. Romeo, PhD1, Rachana Agrawal, PhD2, Anna Pomés, PhD, FAAAAI1 and Judith A. Woodfolk, MBChB, PhD, FAAAAI1, University of Virginia, Charlottesville, VA, Indoor Biotechnologies, Inc., Charlottesville, VA

372 Early Life Transepidermal Water Loss (TEWL) Values Can Predict Atopic Dermatitis At Six and Twelve Months in Asymptomatic Infants: Results From the Baseline Study
Maeve M. Kelleher1, Audrey Dunn Galvin1, Deirdre Murray1, Alan David Irvine2, Jonathan O. Hourihane1 and Baseline Team1, University College Cork, Ireland, Trinity College Dublin, Dublin, Ireland

373 Leukotriene B4 Driven Neutrophil Recruitment to the Skin Is Essential for Allergic Skin Inflammation
Michiko K. Oyoshi, PhD1, Rui He4, Yi Tang Li5, Subhanjan Mondal1, Juhan Yoon1, Rossy Afsar6, Mei Chen7, David M. Lee, MD, PhD3, Hongbo Luo1, Andrew D. Luster, MD, PhD2, John Cho1, Lloyd Miller4, Allison Larson1, George Murphy5 and Raif Geha, MD1, Boston Children’s Hospital, Boston, MA, Massachusetts General Hospital, Charlestown, MA, Brigham and Women’s Hospital, University of California Los Angeles, Brigham and Women’s Hospital/Harvard Medical School, Boston, MA

374 Initial Presentation of Severe Neutropenia Mimicking Atopic Dermatitis
Laura E. Noonan, MSN, FNP-C1, Oral Alpan, MD,2,3, Denise Loizou, RN1, Margaret Brown, B.S.1,5, Mark Ryherd1 and Matthew Plasmyer, PhD1, O&O Alpan, Fairfax, VA, Aamerimmune, LLC, VA, O&O Alpan, LLC

375 T Helper Cytokines (Th1, Th2 and Th17) Differentially Regulate the Epidermal Tight Junction Barrier
I-Hsin Kuo, MS1, Anna De Benedetto, MD1, Takeshi Yoshida, PhD1, Donald Y. Leung, MD PhD1 and Lisa A. Beck, MD, FAAAAI, Department of Dermatology, University of Rochester Medical Center, Rochester, New York, National Jewish Health, Department of Pediatrics, Division Pediatric Allergy/Immunology, Denver, CO

376 The Role of Transient Receptor Potential Ankyrin-1 (TRPA1) in Chronic Itch in Atopic Dermatitis (AD)
Min-Hee OH, PhD Student1, Hongfie Lou, MD2, Allen Myers, PhD2, Zhou Zhu, MD, PhD2 and Tao Zheng, MD1, Johns Hopkins University, Baltimore, MD, Johns Hopkins University School of Medicine, Baltimore, MD

377 Correlation Between Serum 25-Hydroxyvitamin D Concentration and Methcillin - Resistant Staphylococcus Aureus Skin Infection in Atopic Dermatitis
Taek Ki Min1,2, You Hoon Jeon, MD1, Hyeon Jong Yang, MD1, Hae Won Lee, RN2 and Bok Yang Pyun, MD, PhD1, Pediatric Allergy Respiratory Center, Department of Pediatrics, Soonchunhyang University Hospital, Seoul, South Korea, Pediatric Allergy Respiratory Center, Department of Pediatrics, Soonchunhyang University Hospital, South Korea

378 Biomarkers of Disease Severity and Th2 Polarity Are Predictors of Atopic Dermatitis Subjects Who Are colonization with S. Aureus
Lisa A. Beck, MD, FAAAAI1, Takeshi Yoshida, PhD1, Anna De Benedetto, MD, FAAAAI1, Seunghun Rhee, MS1, I-Hsin Kuo, MS1, Jamie Reese1, Gloria David, PhD1, Lynda C. Schneider, MD, FAAAAI5,6, Amy Paller, MD1, Jo M. Hanifin, MD, FAAAAI3, Mark Boguniewicz, MD FAAAAI1, Kathleen C. Barnes, PhD, FAAAAI10 and Donald Y.M. Leung, MD, PhD, FAAAAI11, Department of Dermatology, University of Rochester Medical Center, Rochester, NY, University of Rochester Medical Center, Rho, Inc., Chapel Hill, NC, Rho, Inc., Boston Children’s...
Hospital, Boston, MA, 4Division of Allergy/Immunology, Boston Children’s Hospital, Harvard Medical School, Boston, MA, 5Northwestern University Feinberg School of Medicine, Chicago, IL, 6Oregon Health & Science University, Portland, OR, 7National Jewish Health, Denver, CO, 8Division of Allergy and Clinical Immunology, Department of Medicine, Johns Hopkins University, Baltimore, MD, 9National Jewish Health, Department of Pediatrics, Denver, CO

379 Differences of Serum Cytokine Levels and Sensitization Rates to Allergens

Jin-A Jung, MD1, Hyun-jin Yun, MD2, Eun-jung Choi3, Hye-sung Ahn4, Ja Hyo-young Kim, MD4, and Ju-Suk Lee, MD, PhD4

1Dong-A University Hospital, Busan, 2Ililin Christian Hospital, Busan, South Korea, 3Iljin Christian Hospital, 4Good Moonhwa Hospital, 5Ulsan University Hospital, Ulsan, 6Sungkyunkwan university, Chiangwon, South Korea

382 Interactions Between CD14/IL-13 Genes and Cesarean Section Delivery May Affect the Development of Atopic Dermatitis in a Cocoa Study

Eun Lee1, So-yeon Lee2, Kangmo Ahn, MD, PhD3, Kyung Won Kim, MD, PhD4, Yoon Ho Shin, MD, PhD5, Gyeong-shin Lee6, Young Ho Jung, MD7, Jinho Yu, MD, PhD7, Ju-Hee Seo, MD, PhD7, Hyo-Byun Kim, MD, PhD8, Ji-Won Kwon, MD9, Byoung-Ju Kim, MD, PhD10, Woo Kyung Kim, MD, PhD10, Dae Jin Song, MD, PhD11, Gwang Cheon Jung, MD, PhD11, Jung Yeon Shim, MD, PhD11, Soo Young Lee, MD12, and Soo-jong Hong, MD, PhD11

1Department of Pediatrics, Childhood Asthma Atpoky Center, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea, 2Department of Pediatrics, Hallym University College of Medicine, 3Samsung Medical Center, Seoul, 4Yong-Dong Severance Hospital, Seoul, 5Yong Dong Severance Hospital, Seoul, 6Childhood Asthma Atpoky Center, Asan Medical Center, University of Ulsan College of Medicine, 7Department of Pediatrics, Korea Cancer Center Hospital, 8Inje University Sanggye Paik Hospital, Seoul, 9Department of Pediatrics, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam, South Korea, 10Department of Pediatrics, Hae-undae Paik Hospital, Inje University Medicine College, Busan, South Korea, 11Department of Pediatrics, Korea University Guro Hospital, 12Department of Pediatrics, National Health Insurance Corporation Ilsan Hospital, 13Sungkyunkwan University School of Medicine, K, Seoul, 14Ajou University School of Medicine, Suwon

383 Targeted Resequencing Identiﬁed Novel Variants in Candidate Genes Associated With Increased Risk of Atopic Dermatitis Complicated by Eczema Herpeticum

Li Gao, MD, PhD1, Lili Huang, MS2, Nicholas M. Rafaels, MS2, Rachel Lewis, MS3, Rasika A. Mathias, ScD3, Lisa A. Beck, MD, FAAAAI2, Donald Y. Leung, MD, PhD4, and Kathleen C. Barnes, PhD, FAAAAI5, 1Johns Hopkins University, Baltimore, MD, 2University of Rochester, Rochester, NY, 3Department of Pediatrics, Division of Allergy/Immunology, National Jewish Health, Denver, CO

384 Methylation Patterns in Whole Blood From Healthy Controls and Patients with Atopic Dermatitis with and without a History of Eczema Herpeticum

Chris Cheadle, JHU

385 Severe Protein-Loss in Atopic Dermatitis in Infancy: Summary of 10 Patients

Iwao Tajima, MD1,2, Tatsuki Fukuie, MD, PhD1, Osamu Natsume, MD1, Tsukasa Suzuki, MD1, Tomohide Taguchi, MD1, and Tsutomu Ogata, MD, PhD1, 1Department of Pediatrics, Hamamatsu University School of Medicine, Shizuoka, Japan, 2Department of Pediatrics, Iwata city hospital, Shizuoka, Japan

386 A Study of 77 Infants with Atopic Dermatitis Investigated the Risk Factors for Hypoproteinemia

Geunhwa Park, Busan St. Mary’s Medical Center

New Developments in the Treatment of Asthma and Allergic Diseases

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Sunday, February 24th, 2013, 9:45 AM - 10:45 AM

387 Identifying Physicians Who Care for Hereditary Angioedema (HAE) for Targeted Awareness & Education

Gregory H. Bennett, DO, Penn State Hershey Children’s Hospital, Hershey, PA, Nimish Mehta, PhD, MBA, Medscape Education, NJ and Timothy J. Craig, DO, FAAAAI, Penn State University College of Medicine, Hershey, PA

388 Physical Activity, BMI, and Asthma Control Among Adolescents: A Cross-Sectional Analysis

Aimee L. Speck, MD, University of Michigan, Division of Allergy and Clinical Immunology, Ann Arbor, MI and Alan P. Baptist, MD, MPH, University of Michigan, Division of Allergy, Ann Arbor, MI

389 Characteristics of Asthma Patients Seeking Specialist Care

Thomas B. Casale, MD FAAAAI1, Kurt Eldred2, Wilson Pace3, Paul Turner4, Ryan Walters4, and Michael Schatz, MD, MS, FAAAAI1, 1Creighton University School of Medicine, Omaha, NE, 2U Virginia, 3U Colorado, Denver, 4Creighton University, 5Kaiser Permanente, San Diego, CA

390 Associations Between Patient Perceived Health Status, Disease Severity, and Specific Demographic or Individual Factors in Primary ImmuneDeficiency

Filiz Seeborg, MD, MPH1, Marcia Boyle2, Christopher Scalches, MPA3, Linzhi Xu, MS4 and Jordan Orange, MD, PhD, FAAAAI1, 1Baylor College of Medicine and Texas Children’s Hospital, Section of Immunology, Allergy and Rheumatology, 2Immune Deficiency Foundation, 3Baylor College of Medicine/Texas Children’s Hospital, Department of Pediatrics, TX

391 Asthma Knowledge Level of Teachers in Child Daycare Center

Ahmet Akay, MD, Associate Professor of Pediatrics, Istanbul University, Istanbul School of Medicine, Department of Pediatrics, Division of Pediatric Allergy, Istanbul, Turkey., Zeynep Tamay, MD, Associate Professor of Pediatrics, Istanbul University, Istanbul School of Medicine, Department of Pediatrics, Division of Pediatric Allergy, Istanbul, Turkey, Saima U. Ones, MD, FAAAAI, Istanbul Medical Faculty, Istanbul, Turkey and Nermin Guler, MD, Professor of Pediatrics, Istanbul University, Istanbul School of Medicine, Department of Pediatrics, Division of Pediatric Allergy, Turkey

392 Status of the Allergy and Immunology Clinical Trials Portfolio: Data From Clinicaltrials.gov

Ankoor Shah, MD1, Samuel Broderick, PhD1, Karen Chiswell, PhD2, Asa Tasneem, PhD2, and John S. Sundy, MD, PhD, FAAAAI1, 1Duke University Medical Center, Durham, NC, 2Duke University Medical Center

393 Preferred Learning Methods for Parents of Asthmatic Children

Nabeel Farooqui, MD, Nationwide Children’s Hospital; The Ohio State University and David R. Stukus, MD, FAAAAI, Nationwide Children’s Hospital, New Albany, OH

394 The Annual Subspecialty Retreat in Allergy and Immunology - an Innovative Model for Reflection and Program Excellence

Lenora Mendoza Noroski, MD, MPH, Baylor College of Medicine-Texas Children’s Hospital, Section of Immunology, Allergy and Rheumatology, Houston, TX

395 Evaluating the Differences in Characteristics of Asthma Patients Initiating Budesonide/Formoterol Combination (BFC) and Fluticasone/Salmeterol Combination (FSC)

Frank Trudo1, Ozgur Tunceli2, David Kerr2, Ned Pethick1, Hanah Elhefn1, Catrin Wessman1, Situing Zhou2 and Setareh Williams1, 1AstraZeneca, 2HealthCore

396 Parental Education On Asthmatic Severity in the Emergency Department and Primary Care Follow-up Rates

Kelli W. Williams, MD, MPH, Carolyn Word, MD, Maria R.
Streck, MD and M. Olivia Titus, MD, Medical University of South Carolina, Charleston, SC

Immunotherapy II

Sunday, February 24th, 2013, 9:45 AM - 10:45 AM

397 JTF-Recommended Allergen Dosing Used in Multi-Allergen Immunotherapy Induces Loss of Skin Test Reactivity
Michael Vaughn, MD, PhD, Alamo Asthma & Allergy, San Antonio, TX and Adrienne Vaughn, MD, Alamo Allergy & Asthma, San Antonio, TX

398 Switching From Monthly Intravenous to Biweekly Subcutaneous Immunoglobulin: A Pharmacokinetic Modeling and Simulation Approach
Mikhail Rojavin, PhD, Clinical Research and Development, CSL Behring LLC. King of Prussia, PA, Cornelia Landsdorfer, Centre for Medicine Use and Safety, Monash University, Parkville, Australia, Martin Bexon, MD, CSL Behring AG, Bern 22, Switzerland, Marc Pfister, Quantitative Solutions, Inc., Bridgewater, NJ and Jagdev S. Sidhu, Clinical Pharmacology & Early Development, CSL Ltd, Parkville, Australia

399 The Role of Murine Myeloid Cells On Stimulation with Amino Acids Copolymers
Norio Kawamoto, MD, PhD1,2, Hidenori Ohtnishi, MD, PhD3, Naomichi Kondo, MD, PhD4 and Jack Strominger, MD,3,4 Gifu University, Gifu, Japan, 2Harvard University, Cambridge, MA

400 Berinert® (CI-Esterase Inhibitor Concentrate) Treatment Is Not Related to Prothrombotic Risk Based On Preclinical Efficacy and Safety Investigations
Eva Herzog, Daniel Schuermann, Elmar Raquet, Sabine Zollner and Ingo Pragst, CSL Behring GmbH, Marburg, Germany

401 Depigmented-Polymerized and Native Extracts of Birch Pollen Exhibit Different IgG Epitopes Specific to Bet v 1 and Bet v 2
Jerónimo Carnés, Mg Angeles López Matas, Mg Teresa Gallego, Tamara Aranda, María Morales, José Ramón Leonor and Victor Miguel Iraola, Laboratorios LETI, S.L., Tres Cantos, Spain

402 Enzymatic Activity of Grass Native Allergenic Extracts Is Eliminated in Depigmented Allergoids
Víctor Miguel Iraola, José Ramón Leonor, María Morales, Mg Angeles López Matas, Mg Teresa Gallego and Jerónimo Carnés, Laboratorios LETI, S.L., Tres Cantos, Spain

403 Characterizing the 12 Amb a 1-U Ragweed Allergy Immunotherapy Tablet Adverse Event Profile in Adults with Ragweed-Induced Allergic Rhinoconjunctivitis
Jennifer Maloney, MD1, Gary D. Berman, MD, FAAAAI2, David I. Bernstein, MD, FAAAAA1,3,4, Bobby Q. Lanier, MD, FAAAAA1,3,4, Amarjot Kaur, PhD5, Nancy Liu, PhD6 and Hendrik Nolte, MD, PhD7, 1Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc, Whitehouse Station, NJ, 2Allergy and Asthma Specialists, Minneapolis, MN, 3University of Cincinnati, Cincinnati, OH, 4Bernstein Clinical Research Center, LLC, Cincinnati, OH, 5Department of Pediatrics, Shiga Medical Center for Children, Shiga, Japan, 6Center for General Internal Medicine and Emergency Care, Kinki University School of Medicine, Osaka, Japan, 7Kumiko Allergy Clinic, Kyoto, Kyoto, Japan

404 Prevalence of IgE Specific to Profilin in a Texas and California Population
Greg A. Plunkett, PhD1, Domingo Barber, PhD2, Eliseo M. Villalobos, MD, FAAAAA1, Joshua S. Jacobs, MD2, Jeffrey S. Hallett, MD, FAAAAA1, Tara Mostofí2, Agustin Galan Nieto and Tricia Moore1, 1ALK-Abelló, Inc, Round Rock, TX, 2ALK-Abelló, Madrid, Spain, 3Allergy Institute of San Antonio, PA, San Antonio, TX, 4Allergy and Asthma Medical Group of the Bay Area, Walnut Creek, CA, 5Jeffery Hallett, Round Rock, TX

405 Safety of Ragweed Allergy Immunotherapy Tablet: Results From Four Placebo-Controlled Trials
Hendrik Nolte, MD, PhD1, Peter Creticos, MD, FAAAAI2, Gary D. Berman, MD, FAAAAA3, Amarjot Kaur, PhD3, Nancy Liu, PhD4, Jacques Hebert, MD5, David I. Bernstein, MD, FAAAAA6,7 and Jennifer Maloney, MD4, 1Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc, Whitehouse Station, NJ, 2Johns Hopkins University School of Medicine, Baltimore, MD, 3Allergy and Asthma Specialists, Minneapolis, MN, 4Merck, Whitehouse Station, NJ, 5Centre de Recherche Applique en Allergie de Quebec, Quebec City, QC, Canada, 6University of Cincinnati, Cincinnati, OH, 7Bernstein Clinical Research Center, LLC, Cincinnati, OH

406 Immunological Characterization of Patients with Systemic and Localized Seminal Plasma Hypersensitivity
Debashri Ghosh, PhD, University of Cincinnati College of Medicine, Cincinnati, OH and Jonathan A. Bernstein, MD, University of Cincinnati Medical Center, Cincinnati, OH

Rhinitis/Conjunctivitis I

Sunday, February 24th, 2013, 9:45 AM - 10:45 AM

407 Lifestyle Risk Factors for Allergic Rhinitis in Schoolchildren: Are Sports Activities a Negative Factor?
Jiro Takeuchi, MD1,2,3, Takashi Kusunoki, MD, PhD1,4, Takeshi Morimoto, MD, PhD1,5, Mio Sakuma, MD, PhD1,5, Kumiko Mukaida, MD, PhD1,4,6, Takahiro Yasumi, MD, PhD1,7, Ryuta Nishikomori, MD, PhD1,7 and Toshio Heike, MD, PhD1,5,7 1Shiga LAKE Study Group, Japan, 2Osaka Saiseikai Nakatsu Hospital, Osaka, Japan, 3Kyoto University Health Service, Kyoto, 4Department of Pediatrics, Shiga Medical Center for Children, Shiga, Japan, 5Center for General Internal Medicine and Emergency Care, Kinki University School of Medicine, Osaka, Japan, 6Kumiko Allergy Clinic, Kyoto, Kyoto, Japan, 7Department of Pediatrics, Graduate School of Medicine, Kyoto University, Kyoto, Japan

408 Fluticasone Furoate Decreases Nasal Eosinophilic Inflammation by Inhibiting Both Cytokine Secretion From Nasal Mucosa Epithelial Cells Cytokine Secretion and Eosinophil Survival
Jordi Roca-Ferrer, PhD1, Laura Pujols, PhD1, Maria Perez, MS1, Mireya Fuentes, MS1, Francisco de Borja Callejas, MS1, Isam Alobid, MD, MD1,2, Antonio Valero, MD, MD1,2, Cesar Picado, MD, MD1,2,1,7 and Joaquim Mullol, MD, PhD, FAAAAI1,2,3, FEBRUARY 2013, 3210, IDIBAPS, Barcelona, Spain, 4HOSPITAL CLINIC. Unitat de Rinologia i Clínica de l’Offacte, Servei d’Otorrinolaringologia, Barcelona, Spain, 3HOSPITAL CLINIC. Servei de Pneumologia i Allèrgia Respiratoria, Barcelona, Spain

409 Improvement of Nasal Congestion and Sleep Quality Following Once-Daily Treatment with Beclomethasone Dipropionate Nasal Aerosol in Patients with Seasonal Allergic Rhinitis
Eli O. Meltzer, MD, FAAAAI1,2,3,4, Julius H. Van Bavel, MD2,4, Gordon Raphael, MD2,4, Paul H. Ratner, MD, FAAAAA4, Yu Ding5 and Sundeh Tanty, PhD3, 1Allergy and Asthma Medical Group & Research Center, San Diego, CA, 2Isis Clinical Research, Austin, TX, 3Gordon D. Raphael, Bethesda, MD, 4Sylvana Research, San Antonio, TX, 5Teva Branded Pharmaceutical Products R&D, Inc.

410 Tear Meniscus Height by Optical Coherence Tomography (OCT) and Ocular Itch
Milton M. Hom, OD FAAO, Private Practice, Azusa, CA, Andrew Nguyen, PhD, California State University, Fullerton, Fullerton, CA and Leonard Bielory, MD, FAAAAA, Robert Wood Johnson University Hospital, New Brunswick, NJ; Rutgers University, New Brunswick, NJ; STARx Allergy and Asthma Center, Springfield, NJ

411 Relationship Between ARIA and ISAAC Questionnaires Regarding to the Classification and Severity of Rhinitis in School Children

Baseline Challenge Responses During Repeated, Daily Controlled Exposures to Grass Pollen in the Environmental Exposure Unit (EEU)  
Lisa Steacy, BSc1, Terry Walker, BA1, Barnaby Hobbsbrown1 and Anne K. Ellis, MD, MSc, FRCP, FAAAAI1,2, 1Allergy Research Unit, Kingston General Hospital, Kingston, ON, Canada, 2Departments of Medicine and Biomedical & Molecular Science, Queen’s University, Kingston, ON, Canada

Once-Daily Treatment with Beclomethasone Dipropionate Nasal Aerosol Provides Long-Term and Sustained 24-Hour Nasal Symptom Relief in Patients with Perennial Allergic Rhinitis  
Eric R. Schenkel, MD, FAAAAI, William R. Lumry, MD, FAAAAI, Harold B. Kaiser, MD, FAAAAI, Gary D. Berman, MD, FAAAAI, Yu Ding1 and Sudeesh Tantry, PhD1, 1Valley Clinical Research Center, Bethlehem, PA, 1AARA Research Center, Dallas, TX, 1Clinical Research Institute, Inc, Minneapolis, MN, 1Clinical Research Institute, Inc., Plymouth, MN, 1Teva Branded Pharmaceutical Products R&D, Inc.

Once-Daily Treatment with Beclomethasone Dipropionate Nasal Aerosol Effectively Improves the Symptom of Itchy Ear or Palate Associated with Seasonal Allergic Rhinitis  
Niran J. Amar, MD, FAAAAI, Allergy Asthma Research Institute, Waco, TX, Frank Hampel, MD, Central Texas Allergy and Asthma, New Braunfels, TX, Paul H. Ratner, MD, FAAAAI, Sylvana Research, San Antonio, TX, Julius Van Bavel, MD, Isis Clinical Research, LLC, Austin, TX, Amy Melchior, MS, MT, Teva Branded Pharmaceutical Products R&D, Inc, Frazer, PA and Sudeesh Tantry, PhD, Teva Branded Pharmaceutical Products R&D, Inc.

Once-Daily Treatment with Beclomethasone Dipropionate Nasal Aerosol 320 μg Provides 24-Hour Nasal Symptom Relief in Patients with Seasonal Allergic Rhinitis  
Albert F. Finn Jr, MD, FAAAAI, National Allergy, Asthma and Urticaria Center, Charleston, SC, Bruce Prener, Allergy Associates Medical Group Inc., San Diego, CA, Robert A. Nathan, MD, FAAAAI, Asthma and Allergy Associates, Colorado Springs, CO, Michael Ruff, Dallas Allergy and Asthma Center, Dallas, TX, Leith Kelley, Teva Branded Pharmaceutical Products R&D, Inc., Frazer, PA and Sudeesh Tantry, PhD, Teva Branded Pharmaceutical Products R&D, Inc.

MP29-02 Provides Rapid and More Complete Nasal Symptom Relief Than Two First-Line Therapies: A Retrospective Analysis of a Randomized, Double-Blind, Placebo-Controlled Trial  
Warner E. Carr, MD, Allergy and Asthma Associates of SC, Mission Viejo, CA, Julius Van Bavel, MD, Allergy and Asthma Research Associates, Austin, TX, Phillip Lieberman, MD, University of Tennessee College of Medicine, Frank Hampel, MD, Central Texas Health Research, Eli O. Meltzer, MD, FAAAAI, Asthma and Allergy Medical Group & Research Center, San Diego, CA and Paul H. Ratner, MD, FAAAAI, Sylvana Research, San Antonio, TX

Japanese School Age Children  
Mari Kondo1, Mayumi Sagimoto, MD2, Keigo Kainuma, MD3, Reiko Tokuda3, Mizuho Nagao, MD2 and Takao Fujisawa, MD, FAAAAI1, 1Mie National Hospital, Tsu, Japan, 2Mie National Hospital, 3Mie National Hospital, Mie, Japan

Establishment of the Hermansky Pudlak Mastocyte (HPM) Cell Line Which Has the HPS1 16-Bp Duplication (c.1470_1486dup16)  
Arnold Kirshenbaum, MD, FAAAAI1, Avanti Desai, MS2, Geethani Bandara, PhD2, Glenn Cruse, PhD2, Elizabeth Fischer, PhD2, Alasdair M. Gillillan, PhD2, William Gahl, MD, PhD3 and Dean D. Metcalfe, MD, FAAAAI1, 1Laboratory of Allergic Diseases, NIAID, NIH, Bethesda, MD, 2Laboratory of Allergic Diseases, NIAID, NIH, 3NHGRI, NIH

Elevated Presence of Basophils in Chronic Rhinosinusitis with Nasal Polyps  
Mahboobeh Mahdavinia, MD, PhD1, Kathryn E. Hulse, PhD1, Roderick Carter, BSc2, James Norton, MS2, Lydia Suh, BSc3, Atsushi Kato, PhD1, Anju Peters, MD2, Rakesh Chandra, MD1, David Conley, MD1, Robert Kern, MD3, Bruce Tan, MD1, Leslie C. Grammer, MD1, FAAAAI1, Lawrence B. Schwartz, MD, PhD, FAAAAI1 and Robert P. Schleimer, PhD, FAAAAI1, 1Northwestern University Feinberg School of Medicine, Chicago, IL, 2Department of Medicine, Division of Allergy-Immunology, Northwestern University Feinberg School of Medicine, Chicago, IL, 3Department of Dermatology, Northwestern University Feinberg School of Medicine, Chicago, IL, 4Northwestern University Feinberg School of Medicine, Chicago, IL, 5Virginia Commonwealth University, Richmond, VA

Aspirin Augments IgE-Mediated Histamine Release From Human Peripheral Basophils Via Syk Kinase Activation  
Hiroaki Matsuo1, Tomoharu Yokooji2, Hirohito Morita1, Mina Ooi1, Kana Urata2, Shunsuke Takahagi3, Kaori Ishii2, Yukhi Yanase2, Takaaki Hiragun2, Shoji Mihiara2 and Michihide Hide2, 1Department of Pathophysiology and Therapeutics, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, Japan, 2Department of Dermatology, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, Japan

Genetic Variation of the Histamine Pathway in Subjects with Asthma  
Nikita Raje, MD, MBBS1,2, Carrie A. Vyhlidal, PhD1, Amanda K. Riffel1, Hongying Dai, PhD3 and Bridgette L. Jones, MD, FAAAAI1, 1Children’s Mercy Hospital & Clinics, Kansas City, MO, 2University of Missouri- Kansas City

The Mastocytosis Society Survey On Mast Cell Disorders: Patient Experiences and Perceptions  
Susan Jennings1, Nancy C. Russell1, Blair Jennings1, Valerie Sloc1, Lisa Sterling1, Mariana C. Castells, MD, PhD, FAAAAI2, Peter Valent3 and Cem Akin, MD, PhD, FAAAAI3, 1The Mastocytosis Society, Hastings, NE, 2Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, 3Medical University of Vienna, Vienna, Austria

Mast Cell Activation Syndrome Associated with Elevation in Serum Tryptase or 24-Hour Urine 11β-Prostaglandin-D2  
Rachana Agrawal, PhD, Julia Wisniewski, MD and Judith A. Woodfolk, MBChB, PhD, FAAAAI, University of Virginia, Charlottesville, VA

Exploring an Inhibitory Role for Basophils in Atopic Dermatitis  
Rachana Agrawal, PhD, Julia Wisniewski, MD and Judith A. Woodfolk, MBChB, PhD, FAAAAI, University of Virginia, Charlottesville, VA

Loss of Cell Surface Siglec-8 Expression Following Its Engagement On Human Mast Cells  
Adriano N. Salicru, MD, PhD1, Sherry Hudson, MS1, John W. Steinke, PhD, FAAAAI2, Larry Borish, MD, FAAAAI2 and Bruce S. Bochner, MD, FAAAAI1, 1Department of Medicine, Division of Allergy and Clinical Immunology, Johns Hopkins University

Mast Cells, Basophils and IGE

Diagnostic Agreement of Different IgE Assay Methods, Immunocap and ‘Extended Range’ Immulite 2000 3gAllergy in

Sunday, February 24th, 2013, 9:45 AM - 10:45 AM
School of Medicine, Baltimore, MD, 2Asthma and Allergic Disease Center, Carter Center for Immunology Research, University of Virginia, Charlottesville, VA

427 Rhinovirus Specific IgE Can Be Detected In Human Sera
Jonathan Tam, MD,1 William Jackson, PhD,1 David Proud, PhD2 and Mitchell H. Grayson, MD, FAAAAI1, 1Medical College of Wisconsin, Milwaukee, WI, 2University Of Calgary, Calgary, AB, Canada

428 Comparative Studies On the Allergenicity of Native Ovalbumin and Ovoalbumin in Biological and Serologic Assays
Na Sun1, Huilian Che, MD1,2, Cui Zhou1, Jing Wang1 and Kunlun Huang1,2, 1College of Food Science and Nutritional Engineering, China Agricultural University, Beijing, China, 2The Supervision, Inspection and Testing Center of Genetically Modified Organisms, Ministry of Agriculture, Beijing, China

429 Evidence for a Role of IgE in Altered Basophil Phenotypes in Peanut Allergic Adults
Emily C. McGowan, MD1, Patricia M. Sterba, MS2, John-Paul Courneya, MS1, Jessica Rabe Savage, MD, MHSc3, Robert A. Wood, MD, FAAAAI1 and Sarbjit S. Saini1, 1Johns Hopkins University, Baltimore, MD, 2Johns Hopkins University, Mount Airy, MD, 3Johns Hopkins University School of Medicine, Baltimore, MD, 4Johns Hopkins, Baltimore, MD

430 IgE Anti-Hepatitis B Surface Antigen Antibodies Detected in Serum From Inner City Serum IgE Positive Asthmatic and Severe IgE Negative Nonasthmatic Children
Elizabeth Tam, BS1, Kevin Norowitz, MD2, Kobkul Chotikanatis, MD3, Helen G. Durkin, PhD3, Martin H. Bluth, MD, PhD3, Stephan A. Kohlhoff, MD3 and Tamar A. Smith-Norowitz, PhD3, 1SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY, 2SUNY Downstate Medical Center, Center for Allergy and Asthma Research, 3Wayne State University Medicine, Detroit, MI

431 Soybean Isolevuloses Suppress Basophil Degranulation in Vitro in Subjects with Food Allergy
Mohanapriya Kamalakannan, MS1, Matthew Stadler2, Hugh A. Sampson, MD, FAAAAI3 and Madhan Masilamani, PhD2, 1Mt. Sinai School of Medicine, New York, NY, 2Mount Sinai School of Medicine, New York, NY

432 Basophil Activation Following Cold Challenge in Patients with Cold-Induced Urticaria
Hirsh D. Komarow, MD1, Cameron Waites, BS1, Michael L. Young, RN, MPH1, Celeste Nelson, NP1, Sarah Arceo, RN1 and Dean D. McAlife, MD, FAAAAI2, 1NIH/NIADDLaboratory of Allergic Diseases, Bethesda, MD, 2SAIC-Frederick, Inc., Bethesda, MD

433 Nanomaterials for Mast Cell and Basophil Stabilization Through Non-FceRI Stimuli
Anthony Dellingering1, Brad Brooks2, Beverly Plunkett3, Becky M. Vonakis, PhD, FAAAAI1, Zhiqou Zhou1 and Christopher L. Kepley, PhD, MBA, FAAAAI1, 1Joint School of Nanoscience and Nanotechnology, 2Luna Innovations, Danville, VA, 3Johns Hopkins University School of Medicine, Baltimore, MD

434 Mouse Mast Cell Protease 4 Mediates Epidermal Injury Through Targeted Disruption of Tight Junctions
Lora Georgieva Bankova, Maria Cecilia Lezcano, George F. Murphy, K. Frank Austen and Michael Gurish, Brigham and Women’s Hospital/Harvard Medical School, Boston, MA

435 Primary Human Mast Cells Possess the Ability to Endocytose Both Particulate and Fluid-Phase Antigens in Vitro
Brant Ward, MD, PhD, Sahar Lotfi-Emran and Lawrence B. Schwartz, MD, PhD, FAAAAI, Virginia Commonwealth University, Richmond, VA

436 Study the Effect of Methemal Factor On Cord Blood IgE
Mohammad Fereidouni, MD, PhD, Shaghyagehsadat Nourani

437 Systemic Mastocytosis in the Elderly
Joseph H. Butterfield, MD, FAAAAI and Catherine R. Weiler, MD, PhD, FAAAAI, Mayo Clinic, Rochester, MN

Eosinophils

438 The Development of Scleroderma in a Young Child Following Resolution of Eosinophilic Syndrome (HES)
Rohit Gaurav1, James Stahl, PhD1, Elizabeth Schwantes, BS1, Sameer K. Mathur, MD, PhD, FAAAAI1,2 and Neal P. Barney, MD1, 1University of Wisconsin School of Medicine and Public Health, Madison, WI, 2William S. Middleton Veterans Hospital, Madison, WI

440 IL-5, GM-CSF, and FMLP-Stimulated Eosinophil Degranulation Is Inhibited by Olopatadine, but Not Other Drugs in the Same Class
Ellen B. Cook, PhD1, James Stahl, PhD1, Elizabeth Schwantes, BS1, Sameer K. Mathur, MD, PhD, FAAAAI1,2 and Neal P. Barney, MD1, 1University of Wisconsin School of Medicine and Public Health, Madison, WI

441 Hypereosinophilic Syndrome and Thrombosis: A Retrospective Review
Kara L. Wallace, PAC1, Martha K. Elias, MD2, Joseph H. Butterfield, MD, FAAAAI1 and Catherine R. Weiler, MD, PhD, FAAAAI1, 1Mayo Clinic, Rochester, MN, 2Dartmouth- Hitchcock Medical Center, Lebanon, NH

442 Negative Regulation of Eosinophil Production by Toll-Like Receptors
Patricia C. Fulkerson, MD, PhD1, Kaila L. Schollaert, MS2 and Marc E. Rothenberg, MD, PhD, FAAAAI2, 1Allergy and Immunology, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 2Cincinnati Children’s Hospital Medical Center, Cincinnati, OH

443 Cytokine Expression in Eosinophilic Sinusitis: Prominent Role for Interferon-γ in Aspirin-Exacerbated Respiratory Disease
Larry Borish, MD, FAAAAI1, Lixia Liu, MD2, Phillip Huyett, MD2, Julie Negri, B.S.3, Spencer Payne, MD2 and John W. Steinke, PhD, FAAAAI1, 1Asthma and Allergic Disease Center, Carter Center for Immunology Research, University of Virginia, Charlottesville, VA, 2University of Virginia, Charlottesville, VA

444 CLC3 Transcript Variants in the Activation and Migration of Eosinophils in Allergic Asthmatics
John K. Agrawal1, Min-Jung Kim1, Anujendra Bewtra2 and Devendra K. Agrawal1, 1Center for Clinical and Translational Science and Department of Biomedical Sciences, Creighton University School of Medicine, Omaha, NE, 2Department of Medicine, Division of Allergy and Immunology, Creighton University Medical Center, Omaha, NE

445 Eosinophils Through the CXC4R Chemokine Receptor
Sarah K. Straub1, University of Texas Medical Branch, Galveston, TX, Konrad Pazdruk, MD, PhD, Univ. of TX Medical Branch, Galveston, TX and Alexander Kurosky, PhD, University of Texas Medical Branch, League City, TX

446 Correlations Between Eosinophil Markers in Allergic Disorders
Manshaa W. Hadi1,2,3, 1Inova Fairfax Hospital, 2Amerimmune, LLC, VA, 3O&O ALPAN, LLC
AH Sunday Oral Abstract Luncheon

Sunday, February 24th, 2013, 12:15 PM - 1:30 PM

450 Both Bronchodilator Reversibility and FEV1/FVC, but Neither Circumstances of Medically Unadvised Purposeful Exposure to United States Asthma Hospitalization Rates in the 21st Century Change in Food Allergy Attitudes Among Urban Public School VOLUME 131, NUMBER 2 J ALLERGY CLIN IMMUNOL Evans, MS

Mary Jane C. Ong

Asthma Among Urban Children and Adolescents with Persistent & Anaphylaxis Network, Fairfax, VA

Kim E. Mudd, RN MSN CCRP

Johns Hopkins University, Baltimore, MD, Gregory B. Diette, MD, MHS and Elizabeth Matsui, MD 1,2,4, Johns Hopkins University, Baltimore, MD, 2Johns Hopkins University, 3Johns Hopkins School of Public Health, 4Johns Hopkins University School of Medicine, Baltimore, MD

448 Evaluation of the Animated Cartoon-Aided Teaching of Intranasal Corticosteroid Administration Technique Among Thai Children with Allergic Rhinitis Somaying Indradat, MD, Siriraj hospital, Mahidol University, Thailand

449 Change in Food Allergy Attitudes Among Urban Public School Nurses After a Standardized Educational Curriculum Humaira Robinson, RN, BSN, Sarah Twichell, MD, MPH, Eleanor Garrow, BHA, Maria L. Acebal, JD 2 and Hemant P. Sharma, MD, MHS, FAAAAI 1, Children’s National Medical Center, Division of Allergy and Immunology, Washington, DC, 3Food Allergy & Anaphylaxis Network, Fairfax, VA

450 Both Bronchodilator Reversibility and FEV1/FVC, but Neither FEV1 Nor FEF25-75, Are Predictors of Future Acute Visits Among Urban Children and Adolescents with Persistent Asthma Mary Jane C. Ong, Johns Hopkins University, Meredith C. McCormack, MD, Johns Hopkins Pulmonary, Baltimore, MD, Gregory B. Diette, MD, MHS, Johns Hopkins University, Baltimore, MD, Patrick Breysse, PhD, Johns Hopkins School of Public Health and Elizabeth Matsui, MD, Johns Hopkins University School of Medicine, Baltimore, MD

451 Circumstances of Medically Unadvised Purposeful Exposure to Food Allergens in an Observational Study (Consortium of Food Allergy Research, COFAR) Kim E. Mudd, RN MSN CCRP, Johns Hopkins University, Baltimore, MD, Jill Ellingham, Department of Pediatrics, National Jewish Health, Denver, CO, Phyllis Mayfield, University of Arkansas for Medical Sciences, Pediatric Allergy and Immunology Arkansas, Children’s Hospital, Little Rock, AR, Lisa P. Talarico, RN MS, Mount Sinai School of Medicine, New York, NY, Janet S. Kamilaris, RN, Division of Pediatric Allergy and ImmunologyUniversity of North Carolina, Chapel Hill, NC and Scott H. Sicherr, MD, FAAAAI, Mt. Sinai School of Medicine, New York, NY

Asthma Epidemiology

Sunday, February 24th, 2013, 3:00 PM - 4:15 PM

452 United States Asthma Hospitalization Rates in the 21st Century Show a Peak Female Prevalence in the 5th and 6th Decades of Life Robert Yao-Wen Lin, FAAAAI 1,2,3, William Liao 1 and Rong Ji, MD 1, New York Downtown Hospital, New York, NY, 2New York Medical College, Valhalla, NY, 3Weill Cornell Medical College, New York, NY

453 Comparison of Prepubertal Gender Differences in Pulmonary Physiologic Outcome Measures Amy Lynn O’Brian, MD 1, Daniel J. Jackson, MD 2, Michael D. Evans, MS 1, Sean Fin 1, Ronald Sorkness, PhD 1, James Gern, MD, FAAAAI 1 and Robert F. Lemanske Jr., MD, FAAAAI 1, 1University of Wisconsin School of Medicine and Public Health, Madison, WI, 2Pediatrics, University of Wisconsin School of Medicine and Public Health, Madison, WI, 3University of Wisconsin, Madison, WI

454 Estimated Prevalence and Economic Burden of Severe, Uncontrolled Asthma in the United States Cheryl S. Hankin, PhD 1, Amy Bronstone, PhD 1, Zhaohui Wang, MS 1, Mary Buatti Small 1 and Philip Buck, PhD, MPH 2, 1BioMedEcon, LLC, Moss Beach, CA, 2Teva Pharmaceuticals, Inc., Frazer, PA

455 Factors Associated with Asthma Readmissions in Children in Rural Wisconsin Ejaz Yousef, MD, FAAAAI 1,2, Diane Kessler, MS 1 and Gerald A. Bucholtz, MD 1, 1Marshfield Clinic, Marshfield, WI, 2St Joseph Hospital

456 Older Adults with Asthma: Comparisons of Those with Long-Standing Asthma to Those with Late Onset Asthma Alan P. Baptista, MD, MPH, University of Michigan, Division of Allergy, Ann Arbor, MI, Jacqueline A. Ross, MD, University of Michigan, Ann Arbor, MI and Noreen Clark, PhD, Center for Managing Chronic Disease, University of Michigan, Ann Arbor, MI

Dendritic Cells

Sunday, February 24th, 2013, 3:00 PM - 4:15 PM

457 Dendritic Cells From X-Linked Hyper-IgM Patients Present Impaired Responses to Candida Albicans and Paracoccidioides Brasiliensis That Can Be Reversed by Exogenous Soluble CD40L, Otauio C. Marques 1, Christina Arslanian 2, Rodrigo N. Ramos 2, Mariana M. Marques 2, Lena F. Schimke 1, Paulo V.S. Pereira 1, Sonia Jancar 1, Janara F. S Ferreira 1, Cristina W. Weber 3, Gisele Kunze 1, Nelson Augusto Rosario-Filho 1, Beatriz C. Carvalho 1, Patricia C. Bergami-Santos 1, Mary J. Hackett 1, Hans D. Ochs 2, Troy R. Torgerson 1, José Alexandre M. Barbuto 1, Antonio Condon-Neto 1-10, 1Institute of Biomedical Sciences, Department of Immunology, University of São Paulo, São Paulo, Brazil, São Paulo, Brazil, 2University of São Paulo, 3Institute of Biomedical Sciences, Department of Immunology, University of São Paulo, São Paulo, Brazil, 4Albert Sabin Hospital, 5Pediatric and Immunology Clinic, 6Federal University of Paraná, 7Federal University of São Paulo, 8University of Washington, 9Contributed equally.

458 Molecular Mechanisms Involved in Dendritic Cell-Dependent Regulatory T Cell Generation During Immunotherapy Marco A. Garcia, Stanford University, Mountain View, CA and Kari Nadeau, MD, PhD, FAAAAI, Stanford University School of Medicine

459 Human Dendritic Cells Stimulated with a Novel Peanut Protein Express High Levels of RALDH2 and Induce RA-Sensitive Genes in Naïve T Cells Bert Ruiter, PhD 1, Galina Grishina, MSc 2, Stanis den Hartog Jager, BSc 2, Edward F. Knol, PhD 3, Peggy Oziyas-Akins, PhD 3, Hugh A. Sampson, MD, FAAAAI 4 and Wayne G. Shreffler, MD, PhD, FAAAAI 1, 1Massachusetts General Hospital, Boston, MA, 2Mount Sinai School of Medicine, New York, NY, 3University Medical Center, Utrecht, Netherlands, 4University of Georgia, Tifton, GA

The C-Lectin Receptor Dendritic Cell Immunoreceptor (DCIR) Mediates the Tolerogenic Effects of Intravenous Immunoglobulin in Pulmonary Inflammation Amir Hossein Massoud 1,2, Aidan Ablona 2,3, Gabriel N. Kaufman, MSc 4, Ciro Piccirillo, PhD 3 and Bruce D. Mazer, MD, FAAAAI 4, 1McGill University Health Center, 2Meakins-Christie Laboratories, Montreal, QC, Canada, 3McGill University, 4McGill University,
Montreal, QC, Canada, 3McGill University Health Centre, Canada, 3Montreal Children’s Hospital, Montreal, QC, Canada

461 Aspergillus Fumigatus (Af) Induced Airway Epithelial Accumulation and Decreased Lymph Node Homing of Myeloid Dendritic Cells (DC) in the Lung of Mice with Chronic Granulomatous Disease (CGD)

Lisa R. Forbes, MD1, Akshit Gupta2, Ilerian Kolkalari3, Imre Redai1 and Angela Haczku, MD, PhD, FAAAAI1, 1Baylor College of Medicine, Texas Children’s Hospital, Houston, TX, 2University of Pennsylvania, 3University of Pennsylvania, Philadelphia, PA

Mother and Child: Prevention and Disease

3603
Sunday, February 24th, 2013, 3:00 PM - 4:15 PM

462 Maternal Vitamin D Status During Pregnancy and Asthma in the Offspring Among Participants in the Norwegian Mother and Child Cohort Study

Maria C. Magnus, MPH1, Per Nafstad, MD, PhD1,2, Lars Christian Stene, PhD3, Siri Eldevik Haberg, MD, PhD1, Stephanie J. London, MD, DrPH1, Hein Stigum, PhD1 and Wenche Nystad, PhD1, 1Norwegian Institute of Public Health, Oslo, Norway, 2University of Oslo, Oslo, Norway, 3NIEHS, Research Triangle Park, NC, 4Norwegian Institute of Public Health, Oslo, Norway

463 Maternal Probiotic Intake and Respiratory and Allergy Outcomes in Early Childhood

Randi J. Bertelsen1,2, Anne Lise Brantsaeter3, Margaretha Haugen1, Helle Margrethe Meltzer1 and Stephanie J. London, MD, DrPH1, 1Norwegian Institute of Public Health, Oslo, Norway, 2National Institute of Environmental Health Sciences (NIEHS/NIH), Research Triangle Park, NC, 3Norwegian Institute of Public Health, Oslo, Norway, 4NIEHS, Research Triangle Park, NC

464 Potential Role for IFNγ in Promoting Asthma After Prenatal Exposure to BPA

Terumi Midoro-Horiuti, MD, PhD, FAAAAI1, Xiang Zhang, PhD2, Yoichi Nakajima, MD, PhD1, Yueqing Zhang, BS3, Deepthi Kolli, PhD1, Shuk-Mei Ho, PhD2 and Randall M. Goldblum, MD1, 1University of Texas Medical Branch, Galveston, TX, 2University of Cincinnati, Cincinnati, OH

465 The Impact of Caesarian Section On the Relationship Between Inhaling Allergen Exposure and Allergen-Specific IgE At Age 2 Years

Christine Cole Cole Johnson, PhD, MPH, FAAAAI1, Suzanne Havstad, MA1, Dennis Owby, MD1, Ganesa Wegienka, PhD2 and Edward M. Zorant, MD, FAAAAI1, 1Henry Ford Hospital & Health System, Detroit, MI, 2Department of Public Health Sciences, Henry Ford Hospital, Detroit, MI, 3Georgia Health Sciences University, Augusta, GA, 4Division of Allergy and Clinical Immunology, Henry Ford Hospital, Detroit, MI

466 Does Presence of Animals in the Home Increase the Risk of Sensitization to the Same Animals?

Anusha Raj K., Under grad Med student1, Padukudru Mahesh, Prof of Medicine2, Amrutha D Holla, MBBS, DAA1, B.S Jayaraj, Prof of Medicine1 and Pudupakkam Vedanthan, Clinical Professor Medicine2, 1Mysore Medical College & Research Institute, Mysore, India, 2JSS Medical college, Mysore, India, 3Allergy, Asthma & Chest Centre, Mysore, India, 4University of Colorado, Lakewood, CO

Food Allergy

3604
Sunday, February 24th, 2013, 3:00 PM - 4:15 PM

467 Long-Term Outcomes of Milk Oral Immunotherapy in Children

Corinne Keet, MD, MS1, Shannon Seopaul, BS2, Sarah D. Knorr, RN, MPH, CCRP2, Satya Narsimy, MD2, Justin M. Skripak, MD3 and Robert A. Wood, MD, FAAAAI1, 1Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD, 2Johns Hopkins University School of Medicine, 3ENT & Allergy Associates, Hoboken, NJ, 4Johns Hopkins University School of Medicine, Baltimore, MD

468 Tolerance Induction in an Interim Analysis of Peanut Sublingual Immunotherapy

Edwin Kim, MD, MS1, Stacy Chin, MD2, Pamela H. Steele, MSN, CPNP, AE-C1, Janet S. Kamilarius, RN1, Nikolas Kamilarius1, Caitlin Burk1, Brian P. Vickery, MD1, Michael D. Kulis Jr, PhD1 and A. Wesley Burks, MD, FAAAAI1, 1University of North Carolina at Chapel Hill, Chapel Hill, NC, 2FDA/CDER, Washington, DC

469 Basophil Activation Test Discriminates Between Allergy and Tolerance Among Peanut Sensitized Children

Alexandra F. Santos, MD, MSc1,2, Natalia Bécares, BSc1, Shih-Ying Wu, MSc1, Suzana Radulovic, MD1, Alicke Stephens, PhD1, Victor Turcanu, PhD1, George Du Toit, MD, FAAAAI2 and Gideon Lack, MD, FRCPC1,2, ‘King’s College London, London, United Kingdom, 3St Thomas’ Hospital, London, United Kingdom

470 Low-Dose Oral Immunotherapy As an Early Intervention Strategy for Peanut Allergy

Brian P. Vickery, MD, Pamela H. Steele, MSN, CPNP, AE-C, Janet S. Kamilarius, RN, Caitlin Burk, Nikolas Kamilarius, Michael D. Kulis Jr, PhD and A. Wesley Burks, MD, FAAAAI, University of North Carolina at Chapel Hill, Chapel Hill, NC

471 Development of Tolerance Following Peanut Immunotherapy Is Associated with Basophil Hyporesponsiveness and Low Peanut-IgE/F4 Ratio

Michael D. Kulis Jr, PhD, Rishu Guo, PhD, Edwin Kim, MD, MS, Brian P. Vickery, MD and A. Wesley Burks, MD, FAAAAI, University of North Carolina at Chapel Hill, Chapel Hill, NC

EGID

3605
Sunday, February 24th, 2013, 3:00 PM - 4:15 PM

472 Antigen-Specific IL-13 Secretion in Children with Eosinophilic Esophagitis

Benedicte Michaud, MD1, Diana Colson2, Pascale Soulain2, Sophie Canond, MD, PhD3, Marie-Alexandra Alyanakian, MD, PhD3, Jocelyne Just, MD, PhD3, Lucienne Chatenoud, MD, PhD3 and Christophe Dupont, MD, PhD3, 1Université Paris Descartes, Hôpital Necker-Enfants Malades, INSERM U1013, Paris, France, 2Hospital Necker, Enfants Malades, Université Paris V René Descartes (Paris, France), Paris, France, 3Hôpital Necker Enfants Malades, Laboratoire d’immunologie biologie, Paris, France, 4Université Pierre et Marie Curie, Hôpital Armand Trousseau, Centre de l’Asthme et des Allergies, Paris, France, 5Université Paris V René Descartes, Paris, France

473 Misregulation of Suppressors of Cytokine Signaling in Eosinophilic Esophagitis

Maria Paz Zafra1, Nataly Cancelleri, MD2, Pablo Rodriguez Del Rio2, Monica Ruiz Garcia2, Laura Estevez2, Maria Victoria Andregnette3, Silvia Sanchez-Garcia1, Ana Fandos2, Joaquin Sastre, MD, PhD, FAAAAI1, Santiago Quince, MD, PhD2, Maria Dolores Ibañez3 and Victoria Del Pozo, PhD3, 1IIS-Fundación Jiménez Diaz, 2University Hospital La Paz, Madrid, Spain, 3Hospital Niño Jesus, 3Fundacion Jimenez Diaz, Madrid, Spain, 4IIS-Fundacion Jimenez Diaz, Madrid, Spain, 5Hospital La Paz, 3Hospital La Paz Institute for Health Research, Dept. of Allergy, Madrid, Spain

474 Key Function of Cadherin-Like 26 in Eosinophilic Gastrointestinal Disorders
Rhinitis Pathophysiology

Sunday, February 24th, 2013, 3:00 PM - 4:15 PM

481 Anti-Histaminergic Responses On TRPV1 Channels
Umesh Singh1, Jonathan A. Bernstein, MD,2,3, Kristin Luther1, Lauren Haar1 and W. Keith Jones1,1
University of Cincinnati, Cincinnati, OH, 2Bernstein Allergy Group, Cincinnati, OH, 3University of Cincinnati Medical Center, Cincinnati, OH

482 Allergen Exposure Affects Sinonasal Microbiota
Chris Choi1, Valeriy Poroyko1, So Watanabe2, Dao Jiange1, James Lane1, Marcella D’Tineo2, Faad M. Baroody1, Robert M. Naclerio, MD, FAAAAI3 and Jayant M. Pinto, MD4
1Univ of Chicago, 2Showa University, Toyko, Japan, 3University of Chicago, Chicago, IL, 4Univ of Chicago, The University of Chicago, Chicago, IL

483 Invariant Natural Killer T Cells Populations in Peripheral Blood From Allergic Rhinitis Patients: Regulatory or Pathologic Role?
Soledad Lopez, PhD1,2, David Pozo, PhD1,2, Jose Luis Rodriguez-Bada, Lab, Tech.1, Lidia Melendez, Lab, Tech.2, Cristobalina Mayorga, PhD3 and Miguel Blanco, MD, PhB1,3, NIB Lab, Department of Cell Signalling CABIMER-Andalusian Center for Molecular Biology and Regenerative Medicine, Spain, 2Department of Medical Biochemistry, Molecular Biology and Immunology, University of Seville Medical School, 3Research Laboratory, Carlos Haya Hospital-Fundación IMABIS, Spain, 4Research Laboratory, Carlos Haya Hospital-FIMABIS, Malaga, Spain, 5Allergy Service, Carlos Haya Hospital, Málaga, Spain

484 TRPV1 Ion Channel Activation Is Enhanced by Bradykinin in Sensory Neuronal Cells
Jonathan A. Bernstein, MD,1,2,3 Umesh Singh1, Lauren Haar4, Kristin Luther4 and W. Keith Jones1, 1Bernstein Allergy Group, Cincinnati, OH, 2University of Cincinnati Medical Center, Cincinnati, OH, 3University of Cincinnati, University of Cincinnati, Cincinnati, OH

485 The Allergic Rhinitis Clinical Investigator Collaborative (AR-CIC) – a Multicentre Pilot Study to Optimize a Standard Nasal Allergen Challenge Protocol
Anne K. Ellis, MD, MSc, FRCP, FAAAAI1,2, Louis-Philippe Boulet, MD1, Harissios Vilagiotos, MD4, Paul Keith, MD, FAAAAI5, Susan Wazerman, MD, FAAAAI3, Marie-Eve Boulay1, Lisa Steacy, BSc1 and Helen Neighbour1, 1Allergy Research Unit, Kingston General Hospital, Kingston, ON, Canada, 2Departments of Medicine and Biomedical & Molecular Science, Queen’s University, Kingston, ON, Canada, 3Institut Universitaire de Cardiologie et de Pneumologie de Québec, Quebec City, QC, Canada, 4Pulmonary Research Group, University of Alberta, 5Department of Medicine, McMaster University, Hamilton, ON, Canada, 5Firestone Institute for Respiratory Health, McMaster University, Hamilton, ON, Canada

Adherence and Asthma Treatment

3606

Sunday, February 24th, 2013, 3:00 PM - 4:15 PM

477 Texting for Adherence to Asthma Medication in Adolescents
Waqas Jahangir, MD, Childrens Hospital of Michigan, detroitor, MI, Wafa Alame, RN, Childrens Hospital of Michigan, Detroit, MI, Elizabeth A. Secord, MD, FAAAAAI, Wayne State University, Jenny M. Montejo, MD, Childrens Hospital of MI, Detroit, MI and Milind V. Pansare, MD, FAAAAAI, Childrens Hospital Of Michigan, Grosse Pointe Woods, MI

478 The Use of Coping Peer Support and MP3 Technology to Improve Adherence to Inhaled Corticosteroids Among Low-Income Minority Adolescents
Giselle Mosnaim, MD, MS, FAAAAAI1, Hong Li, PhD2, Molly Martin, MD, MAPP2, Paula Jo Belice, MS2, Elizabeth Avery, MS2, Norman Ryan, MD2, Bruce G. Bender, PhD, FAAAAAI3 and Lynda Powell, PhD4, 1Rush University Medical Center, Chicago, 2Rush University Medical Center, Chicago, IL, 3National Jewish Health, Denver, CO

479 Adherence Risk Patterns in Adult Patients with Asthma in an Inner City Cohort Over a 25 Month Period
Edan Sarid, MD and Rauno O. Joks, MD, FAAAAAI, SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY

480 Association Between Medication Adherence Report Scale (MARS-5) and Asthma Outcomes in Inner City Children with Asthma
Seojin Yang1, Mona G. Tsouklерis, PharmD1, Cassie Lewis-Land, MA2, Jennifer Walker, MS2, Mary E. Bollinger, DO3 and Arlene Butz, RN, ScD2, 1University of Maryland School of Pharmacy, Baltimore, MD, 2Johns Hopkins University School of Medicine, Baltimore, MD, 3University MD School of Medicine, Baltimore, MD

Advances in Controlling Allergic Inflammation

3608

Sunday, February 24th, 2013, 3:00 PM - 4:15 PM

486 Role of Mannose Receptor (MR) in Cockroach Allergen-Induced Allergic Inflammation
Peisong Gao, MD, PhD1, Ying-Ming Tsai, MD2,3, Shih-Chang Hsa1, Yufeng Zhou, MD, PhD, Beverly Plunket1 and Shau-Ku Huang, PhD1,3, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2Kaohsiung Medical University, Taiwan, 3National Health Research Institutes, Taiwan
Asthma Mechanisms

3801 Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

3802 Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

487 DNA Methylation Profiling in Asthmatic and Non Asthmatic Nasal Epithelial Cells During Respiratory Virus Infection

Peter McErlean, PhD1, Silvio Favoreto Jr., PhD2, Fabricio Costa, PhD2, Junquing Shen, PhD1, Assel Byasheva, PhD1, Maria de Fatima Bonaldo, PhD2, Denise Scholtens, PhD1, Hehuang Xie, PhD2, Marcelo B. Soares, PhD2 and Pedro C. Avila, MD, FAAAAI1

1Northwestern University, Chicago, IL, 2Childrens Memorial Hospital Research Center, Chicago, IL, 3Northwestern University Feinberg School of Medicine, Chicago, IL

A Novel Method for Newborn Screening for 22q11.2 Deletion Syndrome Using Dried Blood Spots

Lisa J. Kobrinsky, MD, MPH, FAAAAI, Emory School of Medicine, Atlanta, GA

The Oxidant-Modified Lipid Lysocephatidylserine (lysoPS) Made by Exudate Neutrophils Limits Neutrophil Accumulation in Vivo

Donna Bratton, MD1, Ruby Fernandez-Boyanapalli, PhD1, Karin Zemski-Berry, PhD2, Robert Murphy, PhD1 and S. Courtney Frasch, PhD1, National Jewish Health, Denver, CO, 2University of Colorado Denver, Aurora, CO, 3University of Colorado Denver, 4National Jewish Health

Application of Anti-Viral Adoptive T-Cell Therapy to Primary Immunodeficiency Patients

Sarah K. Nicholas, MD1, Caridad Martinez, MD2, Ann Leen, PhD2, Ciona Rooney, PhD2, Catherine Bollard, MD1, Stephen Gottschalk, MD1, Helen Heslop, MD1, I. Celine Hanson, MD, FAAAAI1, Malcolm Brenner, MD2 and Jordan Orange, MD, PhD, FAAAAI1, 2Baylor College of Medicine/Texas Children’s Hospital, Houston, TX, 3Baylor College of Medicine and Texas Children’s Hospital, Section of Immunology, Allergy and Rheumatology

500 Exome Sequencing Reveals Novel Genetic Underpinnings of Common Variable Immunodeficiency (CVID)

Patricia L. Lugar, MD MS4, Michele R. Henson, MD2, Cassandra Love5, Heather Rivera Gutekunst, MD4, Zhen Sun5 and Sandeep Dave6, 1Duke University Medical Center, Durham, NC, 2Duke University, Durham, NC, 3Duke University, Duke Medicine, Raleigh, NC

BCI Featured Posters

3802 Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

3803 Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

Allergen Exposures at Home, School and Work

3803 Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

501 Allergen Exposure of Table and Desk Surfaces in Preschools and Elementary Schools of Urban Children with Asthma

Watcharoot Kanchongkittiphon, PhD, MD, Boston Children’s Hospital, Boston, MA, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

502 Most House Dust Mite Aeroallergen Exposure Occurs During the Day, Not in Bed

Euan Tovey, PhD1,2, Christiana Willenborg, BSc1, Daniel Crisafulli, MSc1, Janet Rimmer, MD1, Jason Sercombe, MSc2 and Guy Marks, PhD1, 2Woolcock Institute of Medical Research, Sydney, Australia, 3University of Sydney, Australia, 4Prince of Wales Hospital, Sydney, Australia
Best of FADDAA

3804

Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

503 Mouse Allergen Exposure in Urban Schools and Its Effect On Childhood Asthma Morbidity
Perdita Permaul, MD1, Carter R. Petty, MA2, William J. Sheehan, MD2, Sachin N. Baxi, MD2, Jonathan M. Gaffen, MD, MMSc3, Lianne S. Kopel, MD2, Watcharoot Kanchongkittiphan, MD, PhD2, Ann Bailey, BA1, Chuxunia Fu, MS1, Diane R. Gold, MD3 and Wanda Phipatananukul, MD MS FAAAAI1, 1Division of Pediatric Allergy/Immunology, Massachusetts General Hospital, Boston, MA, 2Boston Children’s Hospital, Boston, MA, 3Channing Laboratory, Boston, MA

504 Endotoxin Exposure May Modify the Relationship Between Mouse Allergen Exposure and Incident Sensitization to Mouse Sharon K. Ahluwalia, MD1, Roger Peng, PhD2, Charles Aloe, MPH1, Wayne G. Shreffler, MD PhD FAAAAI3,4, Mary Krevens, RN5, Carol A. Hagberg, BSN FNP6, Peter S. Thorne, PhD7 and Elizabeth Matsui, MD1, 1Johns Hopkins University School of Medicine, Baltimore, MD, 2Johns Hopkins University, Baltimore, Maryland, MD, 3Massachusetts General Hospital, Boston, MA, 4Harvard Medical School, Boston, MA, 5The Jackson Laboratory, Bar Harbor, ME, 6University of Iowa, Iowa City, IA

505 Effect of Dermatophagoides Pteronyssinus Allergens On Expression of Genes Involved in Inflammation and Tissue Remodeling by Peripheral Blood Mononuclear Cells of Allergic Asthma Patients
Krzysztof Kowal, MD PhD1, Pawel Bernatowicz, MD2, Lech Chyczewski, MD, PhD and Anna Bodzenta Lukaszyk, PhD1, 1Medical University of Bialystok, Bialystok, Poland, 2Medical University of Bialystok

Best of HEDQ

3805

Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

510 Activation of the Steroidogenic Enzyme Cyp11a1 Is Essential for Development of Peanut-Induced Intestinal Anaphylaxis
Meiqin Wang, MD, PhD, Julita Ramirez, PhD, Junyan Han, PhD, Yi Jia, PhD, Joanne Domenico, BS, Max Seibold, PhD, James Hagan, PhD and Erwin W. Gelfand, MD, National Jewish Health, Denver, CO

511 Anaphylaxis Deaths in Ontario: A Retrospective Review of Cases From 1986 to 2011
Yasophia Xu, FRCPC, McMaster University, Hamilton, ON, Canada, Susan Waserman, MD, FAAAAI, Department of Medicine, McMaster University, Hamilton, ON, Canada and Monika Kastner, PhD, University of Toronto, Toronto, ON, Canada

512 Reduced Prevalence of Allergic Disease in Foreign Born American Children Is Reversed After US Residence
Jonathan I. Silverberg, MD, PhD, MPH, St. Luke’s-Roosevelt Hospital Center, New York, NY, Eric Simpson, MD, MCR, OHSU, Helen G. Durkin, PhD, SUNY Downstate Medical Center, Center for Asthma and Allergy Research, Brooklyn, NY and Rauno O. Joks, MD, FAAAAI, SUNY-HSC, Brooklyn, NY

513 Poor Asthma Control Results in Decreased Productivity and More Exacerbations
Patrick W. Sullivan, PhD1, David Magid, MD, MPH2, Jon Campbell, PhD2, Gary Globe, PhD2, Vahram Ghushchyan, PhD3, Karen Smith, B.S. Pharm, PhD1, Bruce G. Bender, PhD, FAAAAI1 and Shao-Lee Lin, MD, FAAAAI3, 1Regis University, 2Kaiser Permanente Colorado, 3University of Colorado Denver, 4Amen, Inc., Thousand Oaks, CA, 5National Jewish Health, Denver, CO

514 Evidence-Based Standardized Order Set (EBSSOS) Improves Adherence to National Asthma Guidelines (NAG) for Treatment of Children Presenting to the Pediatric Emergency Department (PED) in Status Asthmaticus (SA)
Moira E. Breslin, MD1, Andrew Miller2, Leslie Claracay, MD3 and James Fox, MD3, 1Duke University Medical Center, Durham, 2Duke University Medical Center, Department of Respiratory Care Services, Durham, NC, 3Duke University Medical Center, Durham, NC

515 Long Term Mortality in Young Adults with Asthma and Allergic Disease: Results From the Nhanes I Epidemiologic Follow up Study
Jessica Savage, MD, MHS1, Elizabeth Matsui, MD2, Meredith C. McCormack, MD3, Robert A. Wood, MD, FAAAAI1 and Corinne Keet, MD, MS1, 1Brigham and Women’s Hospital, Division of Rheumatology, Immunology and Allergy, Boston, MA, 2Johns Hopkins University School of Medicine, Baltimore, MD, 3Pulmonary and Critical Care Medicine, Johns Hopkins University School of Medicine, Baltimore, MD
Immunotherapy: Pathophysiology and Clinical Efficacy

3806 Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

516 Epicutaneous Immunotherapy Prevents Further Sensitization to Peanut in a Model of Mice Sensitive to Milk
Lucie Mondoulet1, Vincent Dioszeghy, PhD 2, Emilie Pateaux 2, Mélanie Ligouis 1, Véronique Dhelft 1, Christophe Dupont, MD, PhD 3, and Pierre Henri Benhamou, MD 4. DBV Technologies, Bagneux, France, 2DBV Technologies, France, 3Université Paris V René Descartes, Paris, France, 4DBV Technologies, Paris, France

517 Immunotherapy-Induced Regulatory T Cells in Mice Sensitive to Peanut: Epicutaneous Vs Sublingual
Vincent Dioszeghy, PhD 2, Lucie Mondoulet1, Véronique Dhelft 1, Mélanie Ligouis 1, Emilie Pateaux 2, Christophe Dupont, MD, PhD 3, and Pierre Henri Benhamou, MD 4. DBV Technologies, Bagneux, France, 2DBV Technologies, France, 3Université Paris V René Descartes, Paris, France, 4DBV Technologies, Paris, France

518 IL-35+ Regulatory T Cells Suppress Grass Pollen-Driven TH2 Responses and Are Induced Following Grass Pollen-Specific Sublingual Immunotherapy
Mohamed Shamji, PhD, CS, 1 Janice Layhadi, BSc(Hons), 1, 2 Alan Perera-web, BS(Hons), 1, 2, Guy Scadding, MRCP, 1 and Stephen R. Durham, MA, MD, FRCP, 1. Imperial College London, 2Medical Research Council and Asthma UK Centre for Allergic Mechanisms of Asthma, UK

519 A Randomized, Double-Blind, Placebo-Controlled, Parallel Trial of Standardized Short Ragweed (RW) Sublingual Allergy Immunotherapy Liquid Extract (RW-SAIL) in Adult Subjects with Ragweed-Induced Allergic Rhinoconjunctivitis
Peter Creticos, MD, 1, 2 Robert E. Esch, PhD, FAAAI, 3 Peter Couroux, MD, 4 Deborah A. Gentile, MD, 5 Pina D’Angelo, PhD, 6 Brad Whitlow, BS, 7 Michael Alexander, MD 7, and Terrance Coyne, MD 8. 1Creticos Research Group, Crowningshield, MD, 2Allergy & Asthma Specialists Greater Washington, Warrenton, VA, 3Greer Laboratories, Inc, Lenoir, NC, 4Topstone Research, Toronto, ON, Canada, 5Temple University School of Medicine, Allegheny General Hospital, 6PRACS Institute, Mississauga, ON, Canada, 7Niagara Clinical Research Inc, Niagara Falls, ON, Canada

520 Two Year Persistent Treatment Effect Achieved After 4 Doses of Cat-Peptide Antigen Desensitization (Cat-PAD) in an Environmental Exposure Chamber (EEC) Model of Cat Allergy
Rod Haffner, PhD, Circassia, Oxford, United Kingdom, Peter Couroux, MD, Cetero Research, Mississauga, ON, Canada, Kristen Armstrong, Adiga Life Sciences Inc., Hamilton, ON, Canada, Deepen Patel, Cetero Research, Mississauga, ON, Canada and Mark Larche, PhD, McMaster University/St. Joseph’s Healthcare, Hamilton, ON, Canada

Mechanisms of Allergy: Best of the Best

3807 Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

521 Skin Mast Cells Acquire IgE by Directly Sampling the Blood
Laurence E. Cheng, MD, PhD, UCSF Medical Center, San Francisco, CA, Axel Roers, University of Technology Dresden, Dresden, Germany, Max Krummel, PhD, University of California San Francisco, San Francisco, CA and Richard M. Locksley, MD, University of California - San Francisco, HHMI, San Francisco, CA

522 A Mendelian Presentation of Multiple TH2-Mediated Allergic Diseases
Pamela A. Frischmeyer-Guerrero, MD, PhD 1, Anthony Guerrero, MD, PhD 1, Gretchen Oswald, MS 1, Kristin Chichester, MS 1, Loretha Meyers 1, Marc Halushka, MD 2, Maria Oliva-Hemker, MD 3, Robert A. Wood, MD, FAAAI 4 and Harry Dietz, MD, 1Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD, 2Johns Hopkins University School of Medicine, Baltimore, MD, 3Johns Hopkins University School of Medicine

523 The Notch Mediator RBP-J in CD4 T Cells Plays a Crucial Role in the Induction of Allergic Asthma in Mice
Alex KleinJan1, Marjolein de Brujin1, menn van Ninwegen1, Ingrid Berg1, Henk C. Hoogsten1, Derk Amsen1 and Rudi W. Hendriks1, Erasmus MC, Rotterdam, Netherlands, 2AMC, Amsterdam, Netherlands

524 Relationships Among FeERI Expression, IgE, Allergic Sensitization and Recurrent Wheezing in Preschool Inner City Children
Daniel J. Jackson, MD 1, Mark DeVries 2, Kay Jaffe 2, Gordon R. Bloomberg, MD, FAAAI 1, Meyer Kattan, MD 1, George T. O’Connor, MD 1, Robert A. Wood, MD, FAAAI 1 and James Gern, MD, FAAAI 1, Pediatrics, University of Wisconsin School of Medicine and Public Health, Madison, WI, 2University of Wisconsin School of Medicine and Public Health, Madison, WI, 1Rho, Inc., Chapel Hill, NC, 1Campus Box 8116, St. Louis Children’s Hospital, Saint Louis, MO, 2NewYork-Presbyterian/Columbia, New York, NY, 3Boston University School of Medicine, Boston, MA, 3Johns Hopkins University School of Medicine, Baltimore, MD

525 Vitamin D Decreases the Protein Expression of Suppressors of Cytokine Signaling in the Lungs of Murine Model of Allergic Airway Inflammation
Ankita Aggarwal1, Vikash Kansal1, Christian Andreen2 and Devena K. Agrawal1, Center for Clinical and Translational Science and Department of Medical Microbiology and Immunology, Creighton University School of Medicine, Omaha, NE, 2Center for Clinical and Translational Science and Department of Biomedical Sciences, Creighton University School of Medicine, Omaha, NE

Allied Health Featured Poster

3811 Sunday, February 24th, 2013, 4:30 PM - 6:30 PM

526 Evaluation of a Food Allergy Education Module Delivered Live for Illinois Schoolteachers
Christine Szychlinski, MS, APN, CPNP 1, Katherine A. Schmeiss, MS, RN 2, Ruchi Gupta, MD 2, Claudia Lau 1 and Jacqueline Pongracic, MD, FAAAAI 1, 1Ann & Robert H Lurie Children’s Hospital of Chicago, Chicago, IL, 2Ann & Robert H Lurie Children’s Hospital of Chicago, Chicago, IL

Nature Vs. Nurture in Asthma

4201 Monday, February 25th, 2013, 9:45 AM - 10:45 AM

527 Maternal Supplementary Vitamin Intake During Lactation Is Positively Associated with the Cumulative Incidence of Bronchial Asthma in Their Infants in Japan
Miwa Shimohara, MD, PhD 1, 2, Hirohisa Saito, MD, PhD 3 and Kenji Matsumoto, MD, PhD 1, 3Department of Pediatric Allergy and Clinical Research, Shimoshizui National Hospital, Yotsukaido, Japan, 2Department of Pediatrics, Kochi Medical University, Nangoku, 3Department of Allergy and Immunology, National Research Institute for Child Health and Development, Tokyo, Japan

528 Association Between Weight Gain and the Prevalence and Severity of Wheezing and Asthma in the First Year of Life
Gustavo Wandalsen, MD 1, Leila Borges 2, Nathalia Barroso 2, Fabiola Suano 1, Elaine Prestes 1, Herberto J. Chong Neto, MD, PhD,
FAAAAI, Nelson A. Rosario, MD, PhD, FAAAAAI, Ani Carolina Dela Bianca, Carolina Aranda, Decio Medeiros, Emanuel Sarinho, Lillian SANCHEZ LACERDA Moraes, MD, MSc, Javier Mallo and Dircceu Sole, MD, PhD.

1. Federal University of Sao Paulo, Sao Paulo, Brazil, 2. Federal University of Sao Paulo, 3. State University of Para, 4. Federal University of Para, 5. Federal University of Para, Brazil, 6. Federal University of Paraná, Brazil, 7. Federal University of Paraná, Curitiba, Brazil, 8. Federal University of Pernambuco, Federal University of Mato Grosso, 9. University of Santiago de Chile

529 High Asthma Prevalence Among Inner-City Schoolchildren in Antananarivo (Madagascar)
Peter Th. Wolff, MD.

Lala Arison, MD, 2. Abel Rahajiamikatra, MD, 3. Francis Raseraiona, MD, 4. and Bodo Niggemann, MD, FAAAAAI.

1. Pediatric Practice am Stadtsee, Pfäffendorf, Germany, 2. Clinic MM 24/24 Mpitabo Mikambana, Antananarivo, Madagascar, 3. Hedwig-Von-Rüttberg-Zentrum, Berlin, Germany

530 The Association of Obesity and Severity of Acute Asthma Exacerbations in Children
Michelle J. De Vera, MD, FAAAAI and Maria Celeste Gomez, MD.

The Medical City Hospital, Pasig City, Philippines

531 The Role of Chitinase-Like Protein YKL-40 in Childhood Asthma
Carah Santos, MD, Joshua Davidson, MD, Ronina Covar, MD, Eleanor Brown, BS and Joseph D. Spahn, MD, National Jewish Health, Denver, CO

532 Vitamin D Levels and FoxP3 Treg Cells Expression in North Indian Children with Atopic Diseases
Aalim Chauhan, Meenu Singh, MD, Savita Attri and Amit Agarwal.

1. Post Graduate Institute of Medical Education and Research, Chandigarh, India, 2. Advanced Pediatrics Centre, Chandigarh, India

533 Environment-Environment Interactions Between Bronchiolitis and PM10 Exposure Could Be Modified by the TLR4 Polymorphism in the Development of Asthma
Young Ho Jung, MD, 1,2. Byoung-Ju Kim, MD, PhD, 3. Ju-Hee Seo, MD, 4. Ji-Won Kwon, MD, 5. Hyo-Bin Kim, MD, PhD, 6. So Yeon Lee, MD, PhD, 7. Gwang Cheon Jang, MD, PhD, 8. Dae Jin Song, MD, PhD, 9. Woo-Kyung Kim, MD, PhD, 10. Jung Yeon Shim, MD, PhD, 11. Hwan-Cheol Kim, MD, 12. Jong-Han Leem, MD, 13. Hyung Young Kim, MD, 14. and Soo-Jong Hong, MD, PhD, 15. Childhood Asthma Aotry Center, Department of Pediatrics, Asan Medical Center, 16. University of Ulsan College of Medicine, Seoul, South Korea, 17. Research Center for Standardization of Allergic Disease, Seoul, South Korea, 18. Department of Pediatrics, Hae-undae Paik Hospital, Inje University College of Medicine, Busan, South Korea, 19. Department of Pediatrics, Korea Cancer Center Hospital, Seoul, South Korea, 20. Department of Pediatrics, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam, South Korea, 21. Inje University Sanggye Paik Hospital, Seoul, 22. Department of Pediatrics, Hallym University College of Medicine, 23. Department of Pediatrics, National Health Insurance Corporation Ilsan Hospital, 24. Department of Pediatrics, Korea University Guro Hospital, 25. Department of Pediatrics, Kangbuk Samsung Hospital, Sungkyunkwan University College of Medicine, 26. Department of Occupational and Environmental Medicine, Inha University Hospital, 27. Childhood Asthma Aotry Center, Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, 28. Research Center for Standardization of Allergic Diseases

534 Changes of Sensitization to Pollen Allergens in Children with Allergic Disease of Seoul Area Over the Last 10 Years
Keum Hee Hwang, 1. Young Ho Jung, MD, 2. kyung Hee Kim, 3. Min Ju Kim, 4. Geun Mi Park, 5. Hyung Young Kim, MD, 6. Ju-Hee Seo, MD, 7. Jinho Yu, MD, PhD and Soo-Jong Hong, MD, PhD.

1. Childhood Asthma Aotry Center, Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, 2. Department of Pediatrics, Childhood Asthma Aotry Center, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea, 3. Childhood Asthma Aotry Center, Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea

535 The Impact of Ethnicity On Incidence Rates for Development of Allergic Disease in Immigrants to Brooklyn
Edward Kleinman, MD, Maria-Anna Vastradi, MD, Irina Katayeva, MD and Rauno O. Joks, MD, FAAAAI, SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY

536 The Identification of Associations Between the Expression of TGF Beta 1 and the Level of Asthma Control in the Polish Asthma Population - Pilot Study
Michał Gabriel Panek, MD, PhD, 1. Tadeusz Pietras, MD, PhD, 2. Artur Fahijan, 3. Lukasz Wieteska, MA, 4. Michał Chojnacki, MA, 5. Pawel Gorksi, MD, PhD, 6. Janusz Szemraj, MD, PhD and Piotr Kuna, MD, PhD.

1. Department of Internal Medicine, Asthma and Allergy, Medical University of Lodz, Poland, 2. Department of Pneumology and Allergology, Medical University of Lodz, Poland, 3. Students Research Group at the Department of Pneumology and Allergology, Medical University of Lodz, Poland, 4. Department of Medical Biochemistry, Medical University of Lodz, Poland

537 Asthma and Risk of Community-Acquired Blood Stream Infection Caused by Escherichia Coli: A Population-Based Case-Control Study
Hyeon Jong Jong Yang, MD, 1. Duk Won Bang, 2. Eell Ryoo, 3. Larry Baddour, 4. Majdi Al-Hasan, 5. Barbara Yawn, MD, MSc, FAAFP and Young J. Juhn, MD, MPH.


538 Effect of Breastfeeding On Lung Function of Asthmatic Children
Hwan Soo Kim, MD, 1. Yoon Ki Han, MD, 2. Min Jung Kim, 3. Hyun Bin Park, MD, 4. Yoon Hee Kim, MD, 5. Hee Seon Lee, MD, 6. Hyun Hee Lee, MD, PhD, 7. Kyung Won Kim, MD, PhD, 8. Myung Hyun Sohn, MD, PhD and Kyu-Earn Kim, MD, PhD.

1. Yeonsei University College of Medicine, 2. Yeonsei University College of Medicine, Seoul, Korea, 3. Yeonsei University College of Medicine, Seoul, Korea, 4. Kwandong University College of Medicine, Seoul, 5. Characteristics and Prognosis of Phenotypic Clusters in Childhood Asthma: A Population Based School-Aged Cohort

Ji-Won Kwon, MD, 1. Young Ho Jung, MD, 2. Eun Lee, 3. Hyung Young Kim, 4. Ju-Hee Seo, MD, 5. Byoung-Ju Kim, MD, PhD, 6. Hye-Bin Kim, MD, PhD, 7. So Yeon Lee, 8. Jinho Yu, MD, PhD, 9. Ho-Jang Kwon, MD, PhD and Soo-Jong Hong, MD, PhD.

1. Department of Pediatrics, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam, South Korea, 2. Childhood Asthma Aotry Center, Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea, 3. Research Center for Standardization of Allergic Disease, Seoul, South Korea, 4. Department of Pediatrics, Korea Cancer Center Hospital, Seoul, South Korea, 5. Department of Pediatrics, Hae-undae Paik Hospital, Inje University College of Medicine, Busan, South Korea, 6. Inje University Sanggye Paik Hospital, Seoul, 7. Department of Pediatrics, Hallym University College of Medicine, 8. Dankook University, Cheonan

540 Identification of TLR3 and PTPN22 Mutations in One Cohort with Chronic Mucocutaneous Candidiasis (CMC)

4202

Monday, February 25th, 2013, 9:45 AM - 10:45 AM

Immunodeficiency
Pneumococcal Meningitis in a Patient with Irrak-4 Deficiency: A Case of Failed Prophylactic Therapy

Meredith A. Dilley, MD, Tania Aung, MD, John W. Chambers, MD, and Michael Sloan, MD, PhD, Texas Children's Hospital, Houston, TX

Hypogammaglobulinemia with Adequate Pneumococcal Antibody Response Progressing to Common Variable Immunodeficiency (CVID)

Tania Aung, MD, University of Iowa Hospitals and Clinics, Iowa City, IA, Antoine Azar, MD, FAAAAI, University of Iowa Hospitals and Clinics and Zuhair K. Ballas, MD, FAAAAI, University of Iowa Health Care, Iowa City, IA

Successful Lung Transplantation in a CVID Patient with Recalcitrant Bronchiectasis

Heena Shah, MD and Prem Kumar, MD, FAAAAI, Louisiana State University, New Orleans, LA

Disseminated Aspergillosis in Adult-Onset Severe Combined Immunodeficiency (SCID)

Kellie J. Lim, MD, UCLA, Department of Pediatrics, Division of Allergy and Immunology, Los Angeles, CA, E. Richard Steinhe, MD, FAAAAI, Division of Allergy and Immunology, Department of Pediatrics, David Geffen School of Medicine at UCLA, Los Angeles, CA, Richard Gatti, MD, UCLA, Department of Pathology & Laboratory Medicine and Otto Yang, MD, UCLA, Department of Medicine, Division of Infectious Disease

Abnormalities in CD4 and CD8 Lymphocyte Subpopulations in Patients with Common Variable Immunodeficiency

Amanda J. Seba, Norma de Paula Motta Rubini, Albertina Varandas Capelo, Eliane Miranda da Silva, Fernando Samuel Sion, Clety Larissa Angulo Llerena and Carlos Alberto Moraes de-Sa, Federal University of the State of Rio de Janeiro, Rio de Janeiro, Brazil

Experience with a 20% Subcutaneous Immunoglobulin (Hizentra®) in Children with Primary Immunodeficiency - A Single-Center Review

Rebecca Gregory, Clare Malcolmson, Chetan Patel, Terry Woolley and Alison Jones, Great Ormond Street Hospital, London, United Kingdom, CSL Behring, West Sussex, United Kingdom

Correction of Signal Transduction and Activator of Transcription 3 (STAT3) Function in an Adolescent with Autosomal Dominant Hyper-IgE Syndrome (AD-HIES) Following Hematopoietic Stem Cell Transplantation (HSCT)

Joel L. Gallagher, Andrew Gilman, Troy R. Torgerson, MD, PhD and Niraj C. Patel, MD, Levine Children’s Hospital at Carolinas Medical Center, Charlotte, NC, University of Washington School of Medicine and Seattle Children’s Hospital, Seattle, WA

Patient Satisfaction with 20% Subcutaneous Immunoglobulin (Hizentra®) Treatment: Results From a Single-Center Study in Children with Immunodeficiencies

Clare Malcolmson, Rebecca Gregory, Chetan Patel, Zoya Panahoo and Alison Jones, Great Ormond Street Hospital, London, United Kingdom, CSL Behring UK Ltd, Haywards Heath, United Kingdom

Adverse Reactions Related to Endovenous Human Immunoglobulin Infusion for the Treatment of Patients with Primary Immunodeficiency

Flavio Sano, MD, Danielli Christinni Bichute-Silva, MD, Fernanda Furlan, MD, Anna Tereza Negrini Fagundes, MD, Fernanda Aimee Nobre, MD, Camila Teles Machado Pereira, MD, Tessa Rachel Tranquillini Goncalves, MD, Mariana Gouveia-Pereira, MD, Rafael Rota, MD and Beatriz Tavares Costa-Carvalho, MD, Federal University of Sao Paulo, Sao Paulo, Brazil, Federal University of Sao Paulo, Brazil

The Spectrum of Primary Immunodeficiency Diseases in A Saudi Tertiary Care Hospital Over Two Years

Bandar Al-Saud, MD, S Al-Muhisen, MD, A-Ghonaum, MD, S Al Gazlan, MD, H Al-Dheki, MD, R Amaout, MD, A-Seraifi, MD, N Elsayed, M Shoukri, PhD, J Afzaal, MD and H Al-Mousa, MD, King Faisal Specialist Hospital & Research Center, Al Każif University, College of Medicine, Pediatric, King Faisal Specialist Hospital & Research Center, King Saud University, College of Medicine, Riyadh, Saudi Arabia, Madicin, King Faisal Specialist Hospital & Research Center, Pediatric Hematology/Oncology King Faisal Specialist Hospital & Research Center, Nursing Affairs, King Faisal Specialist Hospital & Research Center, Biostatistics, Epidemiology & Scientific Computing King Faisal Specialist Hospital & Research Center, Biostatistics, Epidemiology & Scientific Computing, King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia

Shift in Patterns in Previous Immunoglobulin Therapy Use in Patients Prescribed 20% Subcutaneous Immunoglobulin

Mark Ballow, MD, FAAAAI, SUNY Buffalo, Sarasota, FL, Ann Bullinger, PharmD, CSL Behring, King of Prussia, PA, Elyse A. Murphy, RN, CSL Behring, Vienna, VA and Melvin Berger, MD, PhD, FAAAAI, CSL Behring, LLC, King of Prussia, PA

Long-Term Efficacy and Tolerability of 20% Scig in the Treatment of Patients with Primary Immunodeficiency Disease

Michael Borte, Acadmic Teaching Hospital of the University of Leipzig, Germany, Richard L. Wasserman, MD, PhD, FAAAAI, Allergy/Immunology Research Center of North Texas, Dallas, TX, Mikhail Rojavin, PhD, Clinical Research and Development, CSL Behring LLC, King of Prussia, PA, Martin Bexon, MD, CSL Behring AG, Bern 22, Switzerland and Stephen Jolles, University Hospital of Wales, Cardiff, United Kingdom

Sickle Cell Disease and Poor Response to Pneumococcal Vaccination

Elizabeth Bertucci, MD, Tulane School of Medicine and Ochsner Medical Center, New Orleans, LA, Jane M. El-Dahr, MD, FAAAAI, Tulane University Health Sciences Center, New Orleans, LA and Julle Kanter-Wadhco, Tulane University School of Medicine

A Pediatric Case of Hypogammaglobulinemia in a Patient with Fanconi Anemia: A Case Report and Review of the Literature

Julia A. Savitz, MD, Walter Reed, potomac, MD and Barbara Martinez, MD, Walter Reed

MBL Polymorphisms in a US Cohort of Children with Recurrent Infection

Catherine Kubiak, MD, John Sleasman, MD and Morna J. Dorsey, MD, MMMSc, FAAAAI, USF/All Children’s Hospital, St Petersburg, FL

Clinical and Immunological Features of Four Patients with X-Linked Lymphoproliferative Disease (XLP) Presenting Over a One-Year Period, Including a Novel Mutation in the SH2D1A Gene


Immunogenetics, Immunodeficiency
Randomized, Double-Blind, Placebo-Controlled, Single Ascending Dose Study in Healthy Volunteers

Allen Radin, MD,1 Hoobo Ren, PhD2, Pamela Papino-Wood1, Usman Chaudhry, PhD1 and Jennifer D. Hamilton, PhD2,1 Regeneron Pharmaceuticals, Inc., Tarrytown, NY, 2Regeneron Pharmaceuticals, Inc., Basking Ridge, NJ

Variation in the Management of C2 Deficiency in the USA: A Need for Consensus?

Jordan K. Abbott, MD and Erwin W. Gelfand, MD, National Jewish Health, Denver, CO

Low Levels of Serum B-Cell Activating Factor (BAFF) Among Humans with High IgE Reactivity to the Nematode Ascaris

Adriana P. Bornacelly1,2, Nathalie Acevedo1,2 and Luis Caraballo1,2,1 Institute for Immunological Research/University of Cartagena, Cartagena, Colombia, 2Foundation for the development of medical and biological sciences, Cartagena, Colombia

Genetics of Periodic Fever, Aphthous Stomatitis, Pharyngitis, Adenitis (PFAPA) Syndrome

Lori Broderick, MD, PhD1, Daniela Carvalho2, Anthony Magi1,2, Wen Jiang2, Shelby Leuin1, Marcella Bothwell2, Donald Kearns2, Seth Pransky2 and Hal M. Hoffman, MD, FAAAAAI1,2,1 University of California, San Diego, 2Rady Children’s Hospital-San Diego

Targeted Deep Resequencing of Thirteen Candidate Genes Reveals Novel Variants Determining Asthma Risk in Individuals of African Ancestry

Rasika A. Mathias, ScD1, Lili Huang, MPH1, Li Gao, MD, PhD1, Nicholas M. Rafaels, MS2, Candeldaria I. Vergara, MD, PhD2, Ingo Ruczinski, PhD2, Terri H Beaty, PhD2 and Kathleen C. Barnes, PhD, FAAAAAI1,2,1 Division of Allergy and Clinical Immunology, Department of Medicine, Johns Hopkins University, Baltimore, MD, 2Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Novel Interleukin-7R alpha (IL-7Rα) Mutations Causing Delayed Onset Isolated T Cell Immunodeficiency Disease

Jean Brown, MD1, John Slapsman, MD2, Morna J. Dorsey, MD, MMSc, FAAAAAI1 and Panida Sriaroon, MD1,1 University of South Florida, Tampa, FL, 2USF/All Children’s Hospital, St Petersburg, FL, 3University of South Florida, Saint Petersburg, FL

Genetic Variations On IL10 Gene and Helicobacter Pylori Infection

Shirleide Assis, MSc1, Cintia R Marques, Msc1, Ryan S Costa, MSc1, Neusza M Alcantara-Neves, PhD1, Mauricio L Barreto, PhD2, Kathleen C. Barnes, PhD, FAAAAAI1 and Camila A Figueirêdo, PhD1,1 Instituto de Ciências da Saúde, Universidade Federal da Bahia, Salvador, BA, Brazil, Brazil, 2Instituto de Saúde Coletiva, UFBa, Salvador, BA, Brazil, 3Division of Allergy and Clinical Immunology, Department of Medicine, Johns Hopkins University, Baltimore, MD

IBD Presenting Decades Prior to the Diagnosis of CVID

Anna Kochin, MD, Montefiore Medical Center, Bronx, NY and Arye Rubinstein, MD, FAAAAAI, Albert Einstein College of Medicine, Bronx, NY

Asthma and Allergy Epidemiology I

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Monday, February 25th, 2013, 9:45 AM - 10:45 AM

Characteristics of Allergic Sensitization Among Adult Asthmatics Older Than 55 Years: Results From the National Health and Nutrition Examination Survey 2005-2006

Paula Busse, MD, FAAAAAI1, Richard Cohn, PhD2, Paivi M. Salo, PhD3 and Darryl C. Zeldin, MD1, 1Mount Sinai School of Medicine, New York, NY, 2SRA International, Inc, Durham, NC, 3NIEMS, Research Triangle Park, NC

Comparison of Four Different Skin Prick Test Devices in Allergic and Non-Allergic Subjects

Timothy J. Campbell, MD, Kathy Caruso, RN, Susan Golubski, LPN, Stephanie Slattery, RN and Alton Lee Melton Jr., MD, Cleveland Clinic


Panagiotis Koutsoupias, Rutgers University Center for Environmental Prediction, Qingyu Meng, PhD, UMDNJ - School of Public Health and Leonard Bielory, MD, FAAAAAI, Robert Wood Johnson University Hospital, New Brunswick, NJ, Rutgers University, New Brunswick, NJ, STARx Allergy and Asthma Center, Springfield, NJ

Assessment of Health Literacy and Asthma Outcomes in the Primary Care Setting

Mark Stevens, MD, University of Iowa College of Medicine, Iowa City, IA, M. Bridget Zimmerman, PhD, Department of Biostatistics, College of Public Health, University of Iowa, Iowa City, IA and Mary Beth Fasano, MD, FAAAAAI, C42-E6 GH, University of Iowa College Medicine, Iowa City, IA

There’s an App for That: A Pilot and Feasibility Study of Mobile-Based Asthma Action Plans

AJ Burbank1,2, J Hall-Barrow1, RR Denman1,2, SD Lewis1, M Hewes1, D E Schellhase1,2, M Rettiganti1,2, C Luo1,2, L A Bylander1,2, R H Brown1 and T T Perry1,2,1 University of Arkansas for Medical Sciences, Little Rock, AR, 2Arkansas Children’s Hospital, Little Rock, AR


Qingyu Meng, PhD, UMDNJ - School of Public Health, Panagiotis Koutsoupias, Rutgers University Center for Environmental Prediction and Leonard Bielory, MD FAAAAAI, Robert Wood Johnson University Hospital, New Brunswick, NJ; Rutgers University, New Brunswick, NJ; STARx Allergy and Asthma Center, Springfield, NJ

Asthma and Allergy Epidemiology II

4205

Monday, February 25th, 2013, 9:45 AM - 10:45 AM

An Analysis of Asthma Exacerbations and Weather Conditions in Chunccheon

Jae-Woo Kwon1, Young-Ji Han1, Moo Kyung Oh1, Chang Ryul Lee1, Seon-Soon Han1, Seung-Joon Lee1 and Woo Jin Kim1,1 Division of Allergy and Clinical Immunology, Department of Internal Medicine, Kangwon National University College of Medicine, Chuncheon, South Korea, 2Department of Environmental Science, Kangwon National University, Chuncheon, South Korea, 3Department of Health Policy and Management, Kangwon National University, Chuncheon, South Korea, 4Department of Internal Medicine, Chuncheon Sacred Heart Hospital, Hallym University College of Medicine, Chuncheon, South Korea, 5Division of Pulmonology, Department of Internal Medicine, Kangwon National University College of Medicine, Chuncheon, South Korea

Implications of Serum Specific Immunoglobulin E for the Progression From Autumn Pollen Induced Allergic Rhinitis to Asthma

Le Cui, Department of Allergy, Peking Union Medical College Hospital, Chinese Academy of Medical Science, Beijing, China and Jia Yin, Department of Allergy, Peking Union Medical College Hospital, Chinese Academy of Medical Science
574 Differences in Allergen Exposures Between American Asthmatic and Nonasthmatic Homes
Jianfeng JM Meng, MD, Children’s Mercy Hospitals and Clinics, Kansas City, MO; UMKC School of Medicine, Charles Barnes, PhD, Children’s Mercy Hospital & Clinics, Kansas City, MO and Lanny Rosenwasser, MD, FAAAAI, Children’s Mercy Hospital, Kansas City, Kansas City, MO

575 Bronchial Asthma Correlates with Vitamin D Status of Adult Women in North Jordan
Shaher M. Samrah, MBBS, FCCP, Ibrahim Khatib, Basheer Khassawneh, MBBS, FCCP, Suleiman Momany, MBBS, FCCP and Ammar A. H. Daoud, MD, FAAAAI, Faculty of Medicine, Jordan University of Science and Technology (J.U.S.T), Irbid, Jordan

576 Prevalence of Sensitization to the Storage Mite Acarus Siro in Middle-East of Brazil
Natasha R. Ferraroni, MD, PhD, Hospital de Base, Brasilia-DF, Brazil; Clinim Alergoclinica, Brasilia-DF Brazil., Brasilia-DF, Brazil, Sabrina Oliveira, Biomedical, Centro Universitario de Brasilia - UnicEUB, Brasilia-DF, Brazil and Jose Joao Ferraroni, MD PhD, Clinim Alergoclinica, Brasilia-DF, Brazil., Brasilia-DF, Brazil

577 Prevalence and Related Factors of Multiple Chemical Sensitivity in Patients Having Allergic Diseases
Jae-Hyun Lee, MD, PhD1, Inphil Jeong2 and Inah Kim2, 1Department of Internal Medicine, Yonsei University College of Medicine, 2Graduate School of Public Health, Yonsei University

578 The Frequency of Pollen Hypersensitivity Among Children with Bronchial Asthma and Allergic Rhinoconjunctivitis in Alexandria, Egypt
Dalia El-Ghoneimy, MD, PhD, Zeinab El-Sayed1 and Ahmed Aborahma2, 1 Ain Shams University, 2 Alexandria University

579 Indoor Environmental and Demographic Factors of Malaysian Allergic Children
Aravind Yadav, MD,1,2 and Rakesh Naidu1,3,1 University of Malaya, Malaysia, 2Pediatric Pulmonary, University of Texas Health Science (Houston), Houston, TX, 3School of Medicine and Health Sciences, Monash University Sunway Campus, Malaysia

580 Determining the Prevalence of Mites in Kindergartens and Children’s Room in Bogota
Gustavo Cuadros, MSc1, María M. Olives, MD2, Libardo Renteria, MD3, Javier PeNuea, MD4, Nidia Garzon, technician5, David Rodriguez, MD5, Enrique Fernandez-Caldas, PhD5 and Camila Marquez, MD1, 1District Department of Health of Bogota, Bogota, Colombia, 2group of Clinical and Experimental Allergy Department of Antioquia, MEDELLIN, Colombia, 3District Department of Health of Bogota, BOGOTA, Colombia, 4District Department of Health of Bogota, bogota, colombia, 5Inmunotek, Madrid, Spain

Drug Allergy I

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581 Delayed Reaction to Paclitaxel
Maria Alicia Urena Tavera, MD1, Denisse Angel2, Ricardo Madrigal-Burgaleta, MD2, Pilar Berges, MD, PhD1, Emilio Alvarez-Cuesta, MD, PhD2 and Rafael Perez Arango3, 1Ramón y Cajal University Hospital, Madrid, Spain, 2Hospital Universitario Ramón y Cajal, 3Ramón & Cajal University Hospital, Madrid, Spain, 4Ramón y Cajal Hospital

582 Desensitization to Methylprednisolone Succinate in a Patient with Multiple Sclerosis
Denise Angel Pereira, MD, Ricardo Madrigal-Burgaleta, MD, Pilar Berges, MD, PhD, Maria Alicia Urena Tavera, MD, Ximena Rodríguez, MD and Emilio Alvarez-Cuesta, MD, PhD, Ramon y Cajal University Hospital, Madrid, Spain

583 Allergy to Heparins and Their Cross-Reactivity
Patricia Martinez-Lezcano, MD1, Blanco Noguerado, MD2, Rafael Pineda, MD3, Manuel De Barrio, MD4 and Pilar Tomero, MD5, 1Hospital General Universitario Gregorio Marañon, Madrid, Spain, 2Hospital General Universitario Gregorio Marañon, Madrid, Spain

584 Allergy Suspicion to Proton Pump Inhibitors - Taking Advantage of Cross-Reactivity
Diana Silva, Eunice Castro, MD and Josefinna Ceradina, Servicio de Imunologia Clínica, Centro Hospitalar S João E.P.E., Porto, Portugal

585 Hypersensitivity Reactions to Taxanes and Platins
A. Gomez Infante, MD, J.M. Escobar Montalvo, MD, E. Alejo Almanzar, MD, MA Jimenez Blanco, MD, A. Enriques Matas, MD, R. Vives Conesa, MD and R. Mielgo Ballesteros, MD, Hospital Universitario 12 de Octubre, Madrid, Spain

586 Oxaliplatin Hypersensitivity: Management and Comparison with Carbo/Cisplatin
Morris Ling, MD,1,2, Sarita U. Patil, MD2,3 and Johnson T. Wong, MD, FAAAAI1,2, 1Massachusetts General Hospital, Boston, MA, 2Harvard Medical School, Boston, MA, 3Allergy and Immunology, Massachusetts General Hospital, Boston, MA

587 Hypersensitivity Reactions to Oxaliplatin: Outcomes of Premedication and Desensitization
Su-Hyung Lee1,2, Mi-yeong Kim1,2, Min-Hye Kim1,2,3, Woo-Jung Song1,2, Hye-Ryun Kang2,1, Kyung-Up Min1,2,3 and Sang Heon Cho, MD PhD2,1, 1Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea, 2Institute of Allergy and Clinical Immunology, Seoul National University Medical Research Center, Seoul, Korea, 3Seoul National University Hospital Regional Pharmacovigilance Center, Department of Internal Medicine, Seoul National University College of Medicine, Seoul, South Korea

588 Successful Desensitization to Voriconazole
Ricardo D. Zwienor, MD1, Gustavo Marinos2, Milagros Moreno2nna2, Brodsky Tamar2 and Tisi Baity Matas2, 1Hospital Universitario Austral, Pilar, Argentina, 2Hospital Universitario Austral

589 Novel Echinocandin Desensitization in a Pediatric Patient with Hypersensitivity to Micafungin
Stephanie L. Logsdon, MD, Children’s Hospital of Boston, Boston, MA and John Jhe-Yun Lee, MD, Children’s Hospital of Boston, Needham, MA

590 Clinical Manifestations and Diagnostic Methods of Immediate Hypersensitivity Reaction to Oral Cefalexin
Park Chen Sun1, Choi Gil Soon2, Park Seung Hyun3 and Lee Joo Won3, 1Inje University, Haedereum Paik hospital, 2Kosin University gospel hospital

591 DAP: New Products for Skin Tests Diagnosis of Penicillin Allergy
F. Javier Fernandez, MD, PhD1, Maria Jose Torres, MD, PhD2, Julian Campos, Biologist1, Francisca Arribas-Poves, Pharmacist1, Miguel Blanca, MD, PhD2 and Angel Vallverdu, MD2, 1UMH Alicante G.University Hospital - Allergy Sect., Alicante, Spain, 2Allergy Service, Carlos Haya Hospital, Malaga, Spain, 3Diater Laboratory, Madrid, Spain

592 Aspirin Allergy in a VA Population: Is There Potential Benefit for Evaluation in the Allergy Clinic
Bhavisha Patel, MD1,2, Peter Mason, MD, MPH1,2, Sujani Kakumanu, MD1,2 and Sameer K. Mathur, MD, PhD, FAAAAA1,2, 1University of Wisconsin School of Medicine and Public Health, Madison, WI, 2William S. Middleton Veterans Hospital, Madison, WI

593 Rapid Outpatient Aspirin Desensitization/Challenge for Urticaria/Angioedema and AERD
Johnson T. Wong, MD, FAAAAI, Massachusetts General
594 Food Allergy Is Not A Risk Factor in Cross-Intolerance to NSAids for Induction of Symptoms
Francisca Gomez, MD, PhD1, Inmaculada Doña, MD, PhD2, Natalia Blanca-López, MD, PhD3, Maria J Torres, MD, PhD3, Maria Salas, MD, PhD4, Carmen Rondon, MD, PhD5, Paloma Campo, MD, PhD6, Teresa Posadas6, Maria Auxiliadora Guerrero1, Gabriela Canto, MD, PhD5 and Miguel Blanco, MD, PhD7, 1IMABIS Foundation, Malaga, Spain, 2Allergy Service, Carlos Haya Hospital, Malaga, Spain, 3Allergy Service, Infanta Leonor Hospital, Madrid, Spain, 4Allergy Service, Carlos Haya Hospital, Malaga, Spain, 5Allergy Service, Infanta Leonor Hospital, Madrid, Spain, 6Allergy Service, Carlos Haya Hospital, Malaga, Spain, 7Allergy Service, Infanta Leonor Hospital

595 Patients with Acute Urticaria/Angioedema to NSAids Do Not Evolve to Chronic Urticaria
Inmaculada Doña, MD, PhD1, Carmen Rondon, MD, PhD2, Paloma Campo, MD, PhD2, Maria J Torres, MD, PhD1, Natalia Blanca-López, MD, PhD1, Francisca Gomez, MD, PhD5, Maria Salas, MD, PhD5, Maria Dolores Ruiz5, Gabriela Canto, MD, PhD5 and Miguel Blanco, MD, PhD7, 1Allergy Service, Carlos Haya Hospital, Malaga, Spain, 2Allergy Service, Carlos Haya Hospital, Malaga, Spain, 3Allergy Service, Infanta Leonor Hospital, Madrid, Spain, 4IMABIS Foundation, Malaga, Spain, 5Allergy Service, Carlos Haya Hospital, Malaga, Spain, 6Allergy Service, Infanta Leonor Hospital

596 Influence of the Basophil Selection Strategy and Death Cells Exclusion in BAT for NSAids Patients
Tahia Fernandez, PhD1, Ana Aranda, PhD1, Inmaculada Doña, MD, PhD7, Maria J Torres, MD, PhD1, Lidia Melendez, Lab. Tech1, 1Maria I Montaínez, PhD1, Enrique Gómez, PhD1, Miguel Blanco, MD, PhD5 and Cristina Mayorga, PhD1, 1Research Laboratory, Carlos Haya Hospital-FIMABIS, Malaga, Spain, 2Allergy Service, Carlos Haya Hospital, Malaga, Spain, 3Pediatric Service, Carlos Haya Hospital, Malaga, Spain

597 Non-Immediate Hypersensitivity Reactions to Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)
Rafael Pineda, MD, Patricia Martinez Leccano, Tamara Fernandez, Gabriela Zambrano, Roberto Pelta and Manuel De Barrio, MD, Hospital General Universitario Gregorio Marañón, Madrid, Spain

598 Drug Provocation Tests in the Diagnosis of Hypersensitivity Reactions to Non-Steroidal Anti-Inflammatory Drugs in Children
Maria Angeles Zambonino1, María José Torres, MD, PhD2, Candelaria Muñoz2, Gloria Requena2, Cristina Mayorga, PhD2, Teresa Posadas1, Antonio Ueda1, Miguel Blanco, MD, PhD5 and Jose Luis Corro Higuera1, MD, 1Pediatric Service, Carlos Haya Hospital, Malaga, Spain, 2Allergy Service, Carlos Haya Hospital, Malaga, Spain

599 Association of Thymic Stromal Lymphopoietin Genetic Variants in Urticaria/Angioedema Induced by Multiple NSAids
Maria del Carmen Plaza-Serón, Bsc1, Pedro Ayuso Parejo, PhD2, Jose Augusto García-Agúndez, MD, PhD3, Jose A Cornejo-García, PhD3, Miguel Blanco, MD, PhD3, Maria José Torres, MD, PhD3, Inmaculada Doña, MD, PhD3, Maria Salas, MD, PhD5, Natalia Blanca-López, MD, PhD2, Gabriela Canto, MD, PhD5, Carmen Rondon, MD, PhD5, Paloma Campo, MD, PhD5, Jose Julio Laguna, MD, PhD5, F. Javier Fernandez, MD, PhD5, Carmen Martinez, MD, PhD5 and Elena García-Martín, MD, PhD5, 1Dept. Bioquímica Biología Molecular y Genética, Universidad de Extremadura, Cáceres, Spain, 2Allergy Service, Infanta Leonor Hospital, Madrid, Spain, 3Dept. Farmacología, Universidad de Extremadura, Cáceres, Spain, 4Laboratorio de Investigación, FIMABIS, Malaga, Spain, 5Allergy Service, Carlos Haya Hospital, Malaga, Spain, 6Allergy Service, Carlos Haya Hospital, Malaga, Spain, 7Allergy Service, Infanta Leonor Hospital, Madrid, Spain, 8Allergy Service, Carlos Haya Hospital, Malaga, Spain, 9Allergy Service, Carlos Haya Hospital, Malaga, Spain, 10De La Cruz Roja Hospital, Madrid, Spain, 11UMH Alicante G.University Hospital - Allergy Sect., Alicante, Spain

601 A Genome-Wide Association Study of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)-Induced Acute Urticaria in the Spanish Population
Mike TM Lee1,2, Jose A Cornejo-García, PhD3, Yuan-Tsong Chen1, Chien-Hsui Chen1, Natalia Blanca-López, MD, PhD4, Inmaculada Doña, MD, PhD5, María J Torres, MD, PhD5, Carmen Rondon, MD, PhD5, Paloma Campo, MD, PhD5, Jose Julio Laguna, MD, PhD5, F. Javier Fernandez, MD, PhD5, Pedro Ayuso Parejo, PhD5, María del Carmen Plaza-Serón, Bsc1, María Del Mar Gandolfo Cano, MD, PhD4, Ana Rosado Ingelmo, MD, PhD5, Gabriela Canto, MD, PhD5 and Miguel Blanco, MD, PhD5, 1Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan, 2Center for Genomic Medicine, RIKEN, Yokohama, Japan, 3Laboratorio de Investigación, FIMABIS, Malaga, Spain, 4Allergy Service, Infanta Leonor Hospital, Madrid, Spain, 5Allergy Service, Carlos Haya Hospital, Malaga, Spain, 6De La Cruz Roja Hospital, Madrid, Spain, 7Allergy Service, Carlos Haya Hospital, Malaga, Spain, 8Allergy Service, Carlos Haya Hospital, Malaga, Spain, 9Allergy Service, Infanta Leonor Hospital, Madrid, Spain, 10Allergy Service, Carlos Haya Hospital, Malaga, Spain, 11Allergy Service, Fuenlabrada Hospital, Madrid, Spain, 12Allergy Service, Alcorcón Hospital, Madrid, Spain, 13Allergy Service, Infanta Leonor Hospital

602 Profiling Gene Expression Changes in Cytokines and Micro-RNAs As a Novel Assay in the Diagnosis of Drug Hypersensitivity
Neeti Bhardwaj, MD, MS, Penn State Milton S. Hershey Medical Center, Hershey, PA, Heather Rouse, PharmD, Penn State Milton S. Hershey Medical Center and Faoud T. Ishmael, MD, PhD, The Pennsylvania State University College of Medicine, Hershey, PA

603 Drug Resistance Infections with Methicillin-Resistant Staphylococcus Aureus, Clindamycin Difficult, and Vancomycin Resistant Enterococcus Are Associated with a Higher Prevalence of Pencillin Allergy
Vinitha Reddy, MD1, Neil S. Barnan, MD1, Cynthia Whitener1 and Faoud T. Ishmael, MD, PhD2, 1Penn State Hershey Medical Center, Hershey, PA, 2Penn State University College of Medicine, Hershey, PA

604 Acetaminophen Hypersensitivity: Myth or Reality
Renata P. Bittar, Marcelo Ann, MD, Laila Sabino Garro, MD, Marisa Rosineire Ribeiro, MD, Jorge Kalil, MD, PhD, Pedro Gavina-Bianchi, MD, PhD and Antonio Abilio Motta, MD, PhD, Division of Clinical Immunology and Allergy, University of São Paulo, Brazil

605 Sulfonamide Hypersensitivity in Patients with Systemic Erythematous
Masato Okada, MD, FAAAAI1, Yasuhiro Suyama, MD2, Ryo Rokutanda, MD2, Yuri Ohara, MD2, Chishun Min, MD2 and Ken-ichi Yamaguchi, MD2, 1St.Luke’s International Hospital, 2St.Luke’s International Hospital, Tokyo, Japan
606 Induction of Drug Tolerance to Trimethoprim/Sulfamethoxazole in Non-HIV Patients with a History of Sulfonamide Allergy
Regan Pyle, DO1, Miguel A. Park, MD2, Gerald W. Volcheck, MD, FAAAAI2, Kimberly Poe, RN1, Jenna Podjasek, MD1, Matthew A. Rank, MD, FAAAAI1 and Joseph H. Butterfield, MD, FAAAAI1,
1Mayo Clinic, Rochester, MN, 2Mayo Clinic and Foundation, Rochester, MN, 3Mayo Clinic, Scottsdale, AZ

607 Results of Drug Provocation Tests in Patients with a History of Drug Hypersensitivity Reaction
Wanida Dampanrat, MD, prince of Songkla university, Hatyai, Thailand, Prapsari Kulalert, MD, Prince of Songkla University, Songkla, Thailand, Araya Yuenyongvivat, MD, Price of Songkla University, Songkhla, Thailand and Pasuree Sangsupawanich, MD, Prince Songkhlanagarind hospital, Hadyai, Thailand

608 Effects of Steroid Treatment On Outcomes in Patients with Drug Reaction with Eosinophilia and Systemic Symptoms Syndrome
Elina Jerschow, MD, MSc. Albert Einstein College of Medicine/ Montefiore Medical Center, Bronx, NY, Mili Shum, MD, Albert Einstein College of Medicine, New York, NY, and David L. Rosenstreih, MD, FAAAAI, Albert Einstein / Montefiore Medical Center, NY

609 DRESS Syndrome Induced by Piperacillin-Tazobactam in Eight Patients
Oscar Calderon1, Ana Fiandor2, Teresa Caballero, MD, PhD1, Teresa Bellon3, Nieves Prior Gomez, MD3, MC Lopez-serrano4, Santiago Quirce, MD, PhD3 and Rosario Cabanillas4. 1La Paz University Hospital, 2Hospital La Paz, 3Hospital La Paz Research Center (IdiPaz), Madrid, Spain, 4La Paz University Hospital, ME, Spain, 5Hospital Universitario La Paz, Madrid, Spain, 6La Paz University Hospital, Spain, 7Hospital La Paz Institute for Health Research, Dept. of Allergy, Madrid, Spain

610 Management of Adverse Drug Reactions with Suspicious Immune Mechanisms in Latin America
Mario Sanchez Borges, MD1,2, Ricardo Cardona-Villa, MD2, Luis Felipe C. Ensina, MD1,2, Dirceu Sole, MD, PhD2, Alfredo Arias Cruz2, Sandra Gonzalez Diaz2, Alejandra Macias-Weinmann, MD2, Maximiliano Gomez2, Carlos Serrano3, Mabel Noemi Cuello, MD1, Paola Toche Pinaud3, Ruth Ramirez Giraldo1,1, Miguel Vinueza, MD, PhD1,2, Adolfo Salvatierra1, Camila Telles1,2, Djanira Andrade1,2, Alicia De Falco3, Gregorio Mercovich13, Adriana Weiss16 and Edgardo J. Jares, MD1,2. 1Centro Medico- Docente La Trinidad, Caracas, Venezuela, 2Universidad de Antiquia, Colombia, 3Universidade Federal de Sao Paulo, Brazil, 4Federal University of Sao Paulo, Sao Paulo, Brazil, 5Hospital Universitario, Monterrey, Mexico, 6Hospital Universitario UANL, Monterrey, N.L., Mexico, 7Hospital San Bernardo, Salta, Argentina, 8Fundación Valle del Lili, Cali, Colombia, 9Consultorios San Juan, San Juan, Argentina, 10Clinica Las Condes, Santiago, Chile, 11Universidad de Antioquía, Medellín, Colombia, 12Universidad de Rosario, Rosario, Argentina, 13Fundair, San Luis, Argentina, 14Universidad Federal de Sao Paulo, Sao Paulo, Brazil, 15Universidad Nacional de La Plata, La Plata, Argentina, 16Hospital Municipal Bernardo A. Houssay, Vicente Lopez, Argentina, 17Hospital Nacional Alejandro Posadas, Buenos Aires, Argentina

611 A Survey On Drug Reactions in Latin America
Edgardo J. Jares, MD1, Mario Sanchez Borges2, Luis Felipe C. Ensina, MD3, Maximiliano Gomez4, Galie Minessi5, Alfredo Arias Cruz2, Carlos Serrano6, Susana Díez-Zuluaga7, Mabel Noemi Cuello, MD8, Sandra Gonzalez Diaz9, Alejandra Macias Weinmann2, Dirceu Sole, MD, PhD2, Alicia De Falco10,11 Inès Camelo Nunes11, Susana Barayzarra12, Ivan Cherez, MD13, Andrea Zanacchi12, Juan F. Schuhl, MD, FAAAAI14, Adolfo Salvatierra15 and Ricardo Cardona-Villa, MD16, 1Hospital Nacional Alejandro Posadas, Buenos Aires, Argentina, 2Centro Medico-Docente La Trinidad, Caracas, Venezuela, 3Universidade Federal de Sao Paulo, Brazil, 4Hospital San Bernardo, Salta, Argentina, 5Hospital Universitario, Monterrey, Mexico, 6Fundación Valle del Lili, Cali, Colombia, 7Universidad de Antioquiá, Medellin, Colombia, 8Consultorios San Juan, San Juan, Argentina, 9Federal University of Sao Paulo, Sao Paulo, Brazil, 10Universidad Nacional de La Plata, La Plata, Argentina, 11Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 12Nuevo Hospital San Roque, Córdoba, Argentina, 13Hospital Kennedy, Guayaquil, Ecuador, 14British Hospital, Montevideo, Uruguay, 15Fundair, San Luis, Argentina, 16Universidad de Antioquia, Colombia

612 Prevalence and Characteristics of Penicillin Allergy in Urban Adults
Stephanie Albin, MD, Mount Sinai School of Medicine and Shradha Agarwal, MD, Mount Sinai School of Medicine, New York, NY

613 Characterization of Penicillin Allergy Among VA Patients
Mark Biagian, MD1,2, Sujani Kakumud, MD1,2 and Sameer K. Mathur, MD, PhD, FAAAAI1,2. 1University of Wisconsin School of Medicine and Public Health, Madison, WI, 2William S. Middleton Veterans Hospital, Madison, WI

614 Prevalence of Quinolones Allergy in an Allergy Unit
Silvia Uriarte, Pamela Jar, Mar Fernández-Nieto and Joaquín Sastre, Fundación Jiménez Díaz, Madrid, Spain

615 Reported Antibiotic Allergy History and Outcomes in Patients Hospitalized with Community-Acquired Pneumonia
D’Jahna Akinnyemi, MD1, Andrea J. Aptert, MD, MA, MSc, FAAAAI2, Brian Strom1 and Rui Feng3. 1Johns Hopkins Asthma and Allergy Center, Baltimore, MD, 2University of Pennsylvania, Media, PA, 3University of Pennsylvania

616 Penicillin Allergy At A Tertiary Centre in Cape Town, South Africa
Tamara Kerbelker, MBBCh and Michael E. Levin, MBBCh, Red Cross War Memorial Children’s Hospital, Cape Town, South Africa

617 Characterization of Single and Multiple Antibiotic Allergies in Cystic Fibrosis Patients
Shenil Shah, MD, Sapna Shah, MD, Erik Lehman, MS, Robert L. Vender, MD, Gavin Graff, MD and Faoud T. Ishmael, MD, Ph.D, The Pennsylvania State University College of Medicine, Hershey, PA

618 A Novel Desensitization Protocol for Inhaled Aztreonam
E. Kwak, T.R. Mainardi, S.M. Canfield, R.L. Miller and E.A. Di-mas, Columbia Presbyterian Medical Center, New York, NY

619 A Retrospective Study of Drug-Induced Anaphylaxis Treated in the Emergency Department (ED) or Hospital: Patients’ Characteristics and Their Receipt of Preventive Care
Susan A. Rudders, MD. Division of Asthma and Allergy, Department of Pediatrics, Rhode Island Hospital, Alpert School of Medicine at Brown University, Providence, RI, Sunday Clark, MPH, ScD, Department of Emergency Medicine, Weill Cornell Medical College, New York, NY, Wenhu Wei, PhD, MS, MBA, Evidence Based Medicine, sanofi US, Bridgewater, NJ and Carlos Camargo Jr., MD, DrPH, Department of Emergency Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA

620 Prevalence of Pediatric Drug Allergy Based on Drug Provocation Testing
Gita Ram1, Vidya Pathenpura1 and Antonella Cianferoni, MD, 2Children’s Hospital of Philadelphia, 3615 Civic Center Boulevard, Children’s Hospital of Philadelphia, Philadelphia, PA

621 Incidence and Severity of Pediatric Allergic/Immunologic Adverse Drug Reactions in a Tertiary Care Center
Janelle Sher, MD1, Katherine Hahn, MD, MPH2, Misu Paul3, Marcella R. Aquino, MD, FAAAAI1, Mark Davis-Lorton, MD, FAAAAI1, Shan Wang, PhD2, Brian Malone, PhD2 and Luz S.
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622 Increasing Radiocontrast Associated Adverse Effects in Cardiovascular Angiography Hospitalizations: New York State 1996-2010
Marialina Martell Gravić1 and Robert Yao-Wen Lin, FAAAAAI1,2,3,
1New York Downtown Hospital, New York, NY, 2New York Medical College, Valhalla, NY, 3Weill Cornell Medical College, New York, NY

623 The Utility of Skin Testing in a Patient with Anaphylaxis to Contrast Media During Cardiac Catheterization: A Case Report
Shalli Shah, MD, University of North Carolina, Chapel Hill, NC, Vinod Doresswamy, MD, The Polyclinic, Seattle, WA, Samuel McDowell, MD, LeBauer Heartcare, Cone Health, Greensboro, NC and Maya R. Jerath, MD, PhD, University of North Carolina at Chapel Hill, Chapel Hill, NC

624 Clinical Feature and Progress of Contrast Media Anaphylaxis
Min-Hye Kim1, Min-Suk Yang1, Sang-II Choi1, Jae-Hyung Kim3, Woo-Jun Song1, So-Hee Lee3, Sae-Hoon Kim3, Hye-Ryun Kang1, Heung-Woo Park1, Sun-Sin Kim3, Yoon-Seok Chang3, Kyung-Up Min, MD, PhD1, You-Young Kim6 and Sang Heon Cho, MD, PhD2, 1Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea, 2Seoul National University Boramae Medical Center, 3Seoul National Hospital, 4Seoul National University Bundang Hospital, 5Seoul National University Hospital, 6Seoul National University College of Medicine, Seoul, South Korea

625 Effectiveness of Electronic Medical Record-Embedded Consultation Support System for Iodinated Radiocontrast Media Hypersensitivity Prevention – an Observational Study in a Tertiary Hospital
Min-Suk Yang1, Min-Hye Kim2, Sang-II Choi1, Jae-Hyung Kim3, Woo-Jun Song1, Sae-Hoon Kim3, Hye-Ryun Kang1, Heung-Woo Park1, Yoon-Seok Chang3, Sang Heon Cho, MD, PhD2 and Kyung-Up Min, MD, PhD1, 1SMG-SNU Boramae Medical Center, Seoul, South Korea, 2Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea, 3Seoul National University Bundang Hospital, Seongnam, Gyeonggi, South Korea, 4Seoul National University Bundang Hospital, Seoul, 5Seoul National University Hospital, 6Seoul National University College of Medicine, Seoul, South Korea

626 Comprehensive Allergy Consultation Minimizes Risk of Hypersensitivity Reaction During Subsequent Anesthesia
Autumn Chandler Guyer, MD1, Michelle Comroy, MD1, Carlos Camargo Jr., MD, DrPH2, Aidan Long, MD1 and Alecna Banerji, MD1, 1Massachusetts General Hospital, Harvard Medical School, Boston, MA, 2Department of Emergency Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA

627 Incidence of Intraoperative Anaphylaxis in a University General Hospital in Brazil
Laila Sabino Garro, MD1, Maria José Carvalho Carmona2, Iarcy Silvia Corrêa Soares3, Marcelo Vivolo Aun, MD1, Marisa Rosimeire Ribeiro, MD1, Adriana Teixeira Rodrigues1, Jorge Kahl, MD, PhD2, Pedro Giavina-Bianchi, MD, PhD3 and Antonio Abilio Motta, MD, PhD3, 1Division of Clinical Immunology and Allergy, University of São Paulo, Brazil, 2Anesthesia Division, University of São Paulo, Brazil

628 Knowledge of Food Protein-Induced Enterocolitis (FPIES) Among General Pediatricians
Nikhil Menon, Medical student1, Elizabeth Feuille, MD1, Faith Huang, MD2 and Anna H. Nowak-Wegrzyn, MD, FAAAAI1, 1Mount Sinai School of Medicine, 2Mount Sinai Hospital, New York, NY, 3Mt. Sinai School of Medicine, New York, NY

629 M. Pneumonie A Potent Trigger for Eosinophilic Esophagitis
Maya D. Srivastava, MD, PhD, FAAAAI, SUNY at Buffalo, East Amherst, NY

630 Eosinophilic Esophagitis : Clinical Spectrum of PuertoRican Children
Vycla Velazquez, MD, Hospitali Episcopal San Lucas, Ponce, PR

631 A Predictive Score for the Presence of Eosinophils in the Esophagus
Margaret Redmond, MD1, Jean Brown, MD2, Dale Rhoda1, Wei Wang1, John Russo, MD3, Thomas Platt-Mills, MD, PhD, FAAAAI FRS1 and Elizabeth Erwin, MD1, 1Nationwide Children’s Hospital, Columbus, OH, 2University of South Florida, Tampa, FL, 3University of Virginia, Charlottesville, VA

632 The Relationship Between Atopic Disease, Mast Cell Counts and Irritable Bowel Syndrome-Diarrhea Predominant (IBS-D)
R. Joseph Mittel1, Mark Demo1, Shiram Jakate1, Sue Mikolaitis1, Sandra Tilmon2 and Mary C. Tobin1, 1Rush University, 2Department of Public Health, Chicago, IL

633 Understanding the Role of Familial Allergies in Children with Eosinophilic Esophagitis
Nicol Awadalla, MD, Inova Fairfax Hospital, VA, Oral Alpan, MD, O&O ALPAN, LLC, Denise Loizou, RN, O&O Alpan, Fairfax, VA and Girish Hiremath, MD, O & O ALPAN, LLC

634 Evidence That Low Titer IgE Antibodies to Milk and Wheat in Adults and Children with Eosinophilic Esophagitis May Be Directed Against a Minor Component of the Extract
Anubha Tripathi, MD1, Lisa J. Workman, BA1, Alicia Clark, BA1, Princess U. Ogbugo, MD, FAAAAI2, Barrett Barnes, MD1, Scott P. Commins, MD, PhD3, Thomas Platts-Mills, MD, PhD, FAAAAI FRS1, Robert G. Hamilton, PhD, D.ABMLI, FAAAAI1 and Elizabeth Erwin, MD3, 1University of Virginia, Charlottesville, VA, 2The Ohio State University, Columbus, OH, 3Johns Hopkins University School of Medicine, Baltimore, MD, 4Nationwide Children’s Hospital, Columbus, OH

635 Perinatal Distribution of Pediatric Eosinophilic Esophagitis Diagnoses
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636 Allergen Sensitization Profiles in A Pediatric Cohort with Eosinophilic Esophagitis
S. Nicole Chadha, MD, Li Wang and Donna Sedlak Hummel, MD, Vanderbilt University Medical Center, Nashville, TN

637 Food Allergy Testing in Adult Eosinophilic Esophagitis, Clarifying the Role of the Allergist
Manujendra Ray, MD, PhD and Benjamin P. Soule, MD, University of Pennsylvania, Philadelphia, PA

638 Comparison of Atopic Features Between Children and Adults with Eosinophilic Esophagitis
Natalia Vernon, MD, Shenil Shah, MD, Sapna Shah, MD and Gi-soo Ghaffari, MD, FAAAAI, Penn State Milton S. Hershey Medical Center, Hershey, PA

639 Eosinophilic Esophagitis: A Comparison of Clinical Approaches towards Pediatric and Adult Patients in a Large HMO
Rani Reddy Vatti, MD, Kaiser Permanente, Roseville, CA
University of California, Davis, Suzanne S. Teuber, MD, FAAAAI, UC Davis and Machelle Wilson, PhD, CTSC UC Davis Public Health Sciences/School of Medicine, Davis, CA

640 Comparison of Various Treatment Options of Eosinophilic Esophagitis: Patient Perspective
Neelu Kalra, MD, Amy Welch, MD and Gisoo Ghaffari, MD, FAAAAAI, Penn State Hershey Medical Centre, Hershey, PA

641 Combination Therapy Is Effective in Patients with Eosinophilic Esophagitis
N. Seth1, A. P. Olive2 and C. M. Davis1,1 Immunology, Allergy and Rheumatology, Department of Pediatrics, Baylor College of Medicine/Texas Children’s Hospital, TX, 2Gastroenterology, Hepatology and Nutrition, Department of Pediatrics, Baylor College of Medicine/Texas Children’s Hospital, TX

642 Swallowed Fluticasone Is an Effective Maintenance Therapy for Children with Eosinophilic Esophagitis
Doethe A. Andreae, MD, Oksana Yershov, MS and Mirna Chehade, MD, Mount Sinai School of Medicine, New York, NY

643 Review of Treatment Outcomes in Pediatric Patients with Concomitant Eosinophilic Esophagitis and Celiac Disease
Kathryn D. Convers, MD, St. Louis University School of Medicine, St. Louis, MO, Jeffrey Teckman, MD, Cardinal Glennon Children’s Medical Center, St. Louis, MO and Bradley A. Becker, MD, FAAAAAI, Saint Louis University School of Medicine, Saint Louis, MO

644 3-Months Elimination Diet in Childhood Eoe: Nutritional and Immunological Aspects
Nicolas Kalach, MD, PhD1,2,3, Diana Colson2,3, Pascale Soulanies2,3, Benedicte Michaud, MD1,2, Lucienne Chatenoud, MD, PhD1 and Christophe Dupont, MD, PhD1,1 Hôpital Saint Vincent de Paul, Groupe Hospitalier de l’Institut Catholique de Lille (GH-ICL), Lille, France, 2Hôpital Necker, Enfants Malades, Université Paris V René Descartes (Paris, France), Paris, France, 3Hôpital Cochin-Saint Vincent de Paul, Université Paris V René Descartes (Paris, France), Paris, France, 4Laboratoire d’immunologie Biologie, Hôpital Necker-enfants Malades, Paris, France, Paris, France, 5Université Paris Descartes, Hôpital Necker-Enfants Malades, INSERM U1013, Paris, France, 6Université Paris V René Descartes, Paris, France, 7Hôpital Necker Enfants Malades, Paris, France

645 Tolerance of Baked Milk in a Subset of Patients with Cow’s Milk-Mediated Eosinophilic Esophagitis
John Leung, MD1, Aubrey J. Katz, MD2, Qian Yuan, MD, PhD2, Rajashri Shuba Iyengar, MD2, Perdita Permaul, MD2, Jolan E. Wuter, MD, PhD2, Jyoti Ramakrishna, MD2, Navneet Hundal, MD2, Theodora Swenson, BA2, Alexandra R. Alejos, BA2, Wayne G. Shreffler, MD, PhD, FAAAAAI and Paul E. Hesterberg, MD2, 1Rheumatology, Allergy and Immunology, Massachusetts General Hospital, Boston, MA, 2Massachusetts General Hospital, Boston, MA, 3Division of Pediatric Allergy/Immunology, Massachusetts General Hospital, Boston, MA

646 Dietary Avoidance in Children with Eosinophilic Esophagitis Is Associated with Improved Growth Parameter
Karen A. DeMuth, MD, FAAAAI, Emory University, Atlanta, GA

647 Impact of Eosinophilic Disorders On Daily Activities and Frustration with Healthcare Provider Interactions
Julia Eismann, MPH1, Gillian Mayman, MLIS1, Wendy Book, MD2, Harvey L. Leo, MD1, and Noreen Clark, PhD1, 1Center for Managing Chronic Disease, University of Michigan, Ann Arbor, MI, 2American Partnership for Eosinophilic Disorders, Atlanta, GA

648 Quality of Life in a Racially Diverse Cohort of Children with Eosinophilic Esophagitis and Comparison to Other Chronic Pediatric Illnesses
Thomas Weiler, MD1, Saul Rubin2, Hemant Sharma, MD, MHS3 and Irene Mikhail, MD1, 1Children’s National Medical Center, 2University of Pittsburgh, 3Children’s National Medical Center, Division of Allergy and Immunology, Washington, DC

649 Infants with Food Protein-Induced Enterocolitis Syndrome (FPIES) Can Be Classified Into Two Distinct Subgroups Based on the Presence or Absence of Bloody Stool and Their Anti-gene-Specific Cytokine Production Profiles
Hideaki Morita, MD, PhD1, Ichiro Nomura, MD, PhD1, Tetsuo Shoda, MD1, Hiroshi Unno, MD1,2, Akio Matsuda, PhD1, Hirohisato Saito, MD, PhD1 and Kenji Matsumoto, MD, PhD1, 1Department of Allergy and Immunology, National Research Institute for Child Health and Development, Tokyo, Japan, 2Department of Pediatrics, Jikei University School of Medicine, Japan

650 Systemic Cytokine Responses in Acute Food Protein-Induced Enterocolitis (FPIES)
Anna H. Nowak-Wegrzyn, MD, FAAAAI1, Thomas Kraus, PhD2, Ramon Bencharitwong, PhD3, Thomas Moran, PhD2 and Hugh A. Sampson, MD, FAAAAI4, Mt. Sinai School of Medicine, New York, NY, 2Mount Sinai School of Medicine, 3Mount Sinai School of Medicine, New York, NY, 4Mount Sinai School of Medicine, New York, NY

651 T Cell Responses to Food Protein in Acute Food Protein-Induced Enterocolitis (FPIES)
Jean-Christoph Cautet, MD1, Ramon Bencharitwong, PhD2, Madhan Masilamani, PhD1, Hugh A. Sampson, MD, FAAAAI1, Cecilia Berin, PhD3 and Anna H. Nowak-Wegrzyn, FAAAAI4, 1University Hospitals of Geneva, Department of Child and Adolescent, Geneva, Switzerland, 2Mount Sinai School Medicine, New York, NY, 3Mount Sinai School of Medicine, New York, NY, 4Mount Sinai School of Medicine, New York, NY

652 Multiparameter Assay to Investigate the Inflammatory Profile of Pediatric Celiac Disease Patients
Yvelise Barrios, MD, PhD1, Immaculada Sánchez-Machín, MD2, Andres Franco, MD, Honorio Armas, MD1 and Victor Matheu, MD3, 1Hospital Universitario de Canarias, Tenerife, Spain, 2Hospital Oftra-Tórax, Tenerife, Spain, 3Hospital Oftra, Tenerife, Spain

653 A New Symbiotic Can Increase Weight Gain in Infants with Cow’s Milk Allergy: A Randomized-Controlled Trial
Hamid Anchanian, MD1, Hamid Reza Kianifar2, Reza Farid, MD, FAAAAI1 and Seyyed Ali Jafari3, 1Allergy Research Center, Mashhad University of Medical Sciences, 2Department of Pediatric Gastroenterology, Mashhad University of Medical Sciences, Mashhad, Iran

654 Distinct Differences Between Cluster 3 and 4 of Non-IgE Mediated Gastrointestinal Allergy in Allergen-Specific Lymphocyte Proliferation Test and Histological Findings of the GI Mucosa
Ichiro Nomura, MD, PhD1, Hideaki Morita, MD, PhD1, Tetsuo Shoda, MD1, Kumiko Morita, MD1, Akio Matsuda, PhD2, Hirota Shimizu, MD3, Katsuhiko Arai, MD3, Atsuko Nakazawa, MD, PhD2, Yukihiro Ohya, MD, PhD1, Hirohisato Saito, MD, PhD1 and Kenji Matsumoto, MD, PhD1, 1Division of Allergy, National Center for Child Health and Development, Tokyo, Japan, 2Department of Allergy and Immunology, National Research Institute for Child Health and Development, Tokyo, Japan, 3Department of Gastroenterology, National Center for Child Health and Development, Tokyo, Japan, 4Department of Pathology, National Center for Child Health and Development, Tokyo, Japan

655 Toll-Like Receptor Expression with Testosterone in Peripheral Blood Lymphocytes in Adults with Eosinophilic Esophagitis
Elizabeth Erwin, MD1, Nicholas Young, PhD2, Alexandra Friedman3, Wael Jarjour, MD2 and Thomas Platts-Mills, MD, PhD FAAAAI, FRSA3, 1Nationwide Children’s Hospital, Columbus, OH, 2Centre for Allergy Research, School of Medicine, University of Virginia, Charlottesville, VA

656 Elucidating Mechanisms of Allergic Inflammation in Eosinophilic Esophagitis
Denise Loizou, RN1, Otto Louis-Jacques, MD2, Benjamin Enav, MD2, Julie Kim, MD2, Peter Lee, MD2, Catherine Chao, MD2, Lynn Duffy, MD2, Ian Leibowitz, MD2, Suhasini Kaushal, MD1, Annu Farwah1, Ozlem Goker-Alpan, MD1 and Oral Alpan, MD1, 1O&O ALPAN, LLC, 2Isaia Fairfax Hospital
Mast Cell Lectin Protein 8 (MC-LP8) in Humans: A Marker of Mast Cell Activation and Potential Therapeutic Target
James M. Grant, MD, Michelle Lamerz, PhD, Jonathan D. Clark, MD, Ph.D., Sarah M. Hanson, MPH, and Stephen Green, MD, MPH

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Rhinitis/Conjunctivitis II

Monday, February 25th, 2013, 9:45 AM - 10:45 AM

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Prevalence of Ocular Symptoms in Patients with Allergic Rhinitis: Korean Multicenter Study
Dong-Young Kim, Seoul National University College of Medicine, Seoul, South Korea

More Seasonal Allergic Rhinitis Patients Improve with Diphenhydramine Compared with Loratadine and Placebo: A Responder Analysis

A Post-Hoc Analysis of Improvement in Individual Nasal Symptoms by Their Baseline Severity Following Treatment with Ciclesonide Hydrofluoroalkane Nasal Aerosol in Patients with Seasonal Allergic Rhinitis
John Karafilidis, PharmD1,2,3 Holly Huang, PhD, MPH1 and John Karafilidis, PharmD2,1 Kerrville Research Associates, Kerrville, TX,2 Sunovion Pharmaceuticals, Marlborough, MA

Diagnosis of Nasal and Eye Allergies - the Allergies, Immunotherapy, & Rhinoconjunctivitis (AIRS) Patient Survey
Michael S. Blaiss, MD, FAAAAI, Allergy and Asthma Care, Memphis, TN, Mark S. Dykewicz, MD, FAAAAI, Wake Forest University School of Medicine, Winston Salem, NC, Bryan D. Leatherman, MD, Coastal Ear, Nose and Throat Associates, Gulfport, MS, Nancy Smith, MS, Merck & Co, Inc, WhiteHouse Station, NJ and Felicia C. Allen-Ramey, PhD, Merck & Co, Inc, West Point, PA

Relevance of Aspirin or Allergen Sensitivity On Rhinitis Among Residents of Puerto Rico
Javier A. Mendez, MD, Angel M. Rivera, MD, Rafael H. Zaragoza, MD, PhD, Cristina J. Ramos, MD, Fernando J. Lopez, MD, Iona K. Malinow, MD, Arndalo E. Perez, MD, Carmen Acantilado, MD and Sylvette Nazario, MD, University of Puerto Rico School of Medicine, San Juan, PR

Visual Analog Scale Showed a Good Correlative with Allergic Rhinitis and Its Impact On Asthma (ARIA ) Classification in School Children
Akira Akasawa, MD, PhD1,2 Yuiichi Adachi, MD, PhD2, Koichi Yoshihda, MD2,3 Mayumi Furukawa1 and Hiroshi Odajima, MD, Ph.D2,3 Tokyo Metropolitan Children’s Medical Center, Tokyo, Japan,3 University of Toyama, Toyama, Japan,3 Division of Allergy, Tokyo Metropolitan Children’s Medical Center, Tokyo, Japan,4 Department of Pediatrics, Fukuoka National Hospital, Japan

Mobile Natural Exposure Chamber Technology Standardizes Controlled Environmental Exposure Chamber Challenges Across Multicenter National and International Allergy Trials
Cytokines and Chemokines

Monday, February 25th, 2013, 9:45 AM - 10:45 AM

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Cytokine-Stimulated Human Dermal Microvascular Endothelial Cells and Fibroblasts Produce Thymus and Activation-Regulated Chemokine (TARC) in Vitro

Tetsuo Shoda, MD, Kyoko Futamura, MD, PhD, Kenichiro Motomura, MD, Hirohisa Saito, MD, PhD, Kenji Matsumoto, MD, PhD and Akio Matsuda, PhD, Department of Allergy and Immunology, Gunma Prefectural Institute of Public Health and Environmental Sciences, Maebashi, Japan, Hirohito Kita, MD, MPH, Richard Armstrong, PhD, Nichole Reisorph, PhD, Brian P O'Connor, PhD, Joseph J. Lucas, PhD and Erwin W Gelfand, National Jewish Health, Denver, CO

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T Cells in Allergic Responses

Monday, February 25th, 2013, 9:45 AM - 10:45 AM

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The Steroidogenic Enzyme Cyp11a1 Is Essential for CD8+ Tc2 Conversion to Enhance Allergen-Induced Airway Hyperresponsiveness and Inflammation

Yi Jia, PhD, Joanne Domenico, BS, Katsuyuki Takeda, MD, Junyan Han, PhD, Mei Qiu, PhD, Michael Armstrong, PhD, Nichole Reisorph, PhD, Brian P O'Connor, PhD, Joseph J. Lucas, PhD and Erwin W Gelfand, National Jewish Health, Denver, CO

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T Cell-Induced Late Phase Asthmatic Response in Mice

Akio Morii, MD PhD1, Satoshi Koyama2, Akemi Abe3, Miyako Yamaguchi4, Yo Iijima5, Chihiro Mitsu6, Chihiro Oshikata7, Hide-nori Tanimoto8, Yuma Fukutomi, MD, Kiyoshi Sekiya9, Masami Taniguchi10, Yuji Maeda11, Mamoru Ohtomo5,4, Maki Hasegawa2, Kazuo Akiyama, MD, Takayuki Ohtomo2 and Osamu Kaminuma, PhD, 1 Gunma University, Gunma, Japan, 2Hokkaido University, Sapporo, Japan, 3University of Tohoku, Tohoku, Japan, 4School of Medicine, 5Sagamihara National Hospital, Sagamihara, Japan, 6Tokyo University of Pharmacy and Life Science, Tokyo, Japan, 7Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan

Piyush Patel, MD, FRCP, Harry Nandkeshore, MT (AMT), CCRP and Karen Shields, RT, Inflamx Research, Mississauga, ON, Canada

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Total Ocular Symptom Score (TOSS) and Dry Eyes

Leonard Bielyor, MD, FAAAAI1, Robert Wood Johnson University Hospital, New Brunswick, NJ; Rutgers University, New Brunswick, NJ; STARx Allergy and Asthma Center, Springfield, NJ, Milton M. Hom, OD, FAAO, Private Practice, Azusa, CA and Andrew Nguyen, PhD, California State University, Fullerton, Fullerton, CA

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Improvement in the Frequency of Allergic Rhinitis Symptoms After Four Weeks of Treatment with Intranasal Ciclesonide 200 Mcg Qd

Francisco Javier Saynes-Marín1, Carmen Cano-Salas2,3, Arcelis Arellano-Plancarte4, Zarini Chiu-Ugalde1, José Antonio Vargas-Romero1 and Juan Carlos López-Alvareaga2,4, 1Hospital Angeles Metropolitano, Mexico City, Mexico, 2Takeda México SA de CV, Edo. de Méx., Mexico, 3Instituto Nacional de Enfermedades Respiratorias, Mexico City, Mexico, 4Dirección de Investigación, Hospital General de México, Mexico City, Mexico

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Correlation of Development of Allergic Rhinconjunctivitis to Previous Infections in Chinese and Hispanic Immigrant Populations Residing in Brooklyn

Irina Katayeva, MD1, Maria-Anna Vastardi, MD2, Haijun Yao, MD2, Daniel Puebla-Neira, MD2, Kobuk Chotikanatis, MD2, Jeremy Weedon, PhD2, Helen G Durkin, PhD2, Stephan Kohlhoff, MD1,3 and Rauno Joks, MD1, 1Center for Allergy and Asthma Research at SUNY Downstate, Brooklyn, NY, 2Lutheran Medical Center, Brooklyn, NY, 3SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY, 4SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY, 5SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY, 6State University of New York Downstate Medical Center, Brooklyn, NY, 7University of Virginia, Charlottesville, VA

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Chlamydia Pneumoniae (Cpn) - Induced In Vitro Interferon Gamma (IFN-γ) and Interleukin 2 (IL-2) Responses of PBMC From Asthmatics

Kobuk Chotikanatis, MD1, Diana Weaver, MD2, Danielle Lent2, Eva Estrella3, Margaret R. Hammerslag, MD3, Rauno O. Joks, MD, FAAAAI1 and Stephan A. Kohlhoff, MD1, 1SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY, 2Kings County Hospital Center, Brooklyn, NY, 3SUNY Downstate Medical Center, Brooklyn, NY, 4State University of New York Downstate Medical Center, Brooklyn, NY, 5University of Virginia, Charlottesville, VA

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Prostaglandin I2 Receptor (IP) Signaling Inhibits Lung Type I Interferon Expression by RSV Infection

Shinji Toki, PhD1, Sara Reiss1, Kasia Goleniewska, MS2, Martin L. Moore, PhD3, Garret FitzGerald, MD4 and R. Stokes Peebles Jr., MD FAAAAI1, 1Vanderbilt University School of Medicine, Nashville, TN, 2Emory University, Atlanta, GA, 3University of Pennsylvania, Philadelphia, PA

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Rhinovirus Induces Differential Expression of Th2-Promoting Epithelial Cytokines From Asthmatics Ex Vivo

Joshua L. Kennedy, MD1, Larry Borish, MD, FAAAAI2, Peter W. Heymann, MD1 and John W. Steinke, PhD, FAAAAI2, 1University of Virginia, Charlottesville, VA, 2Asthma and Allergic Disease Center, Carter Center for Immunology Research, University of Virginia, Charlottesville, VA

683

Genetic Variants in Thymic Stromal Lymphopoietin (TSLP) and Receptor (TSLPR) and Their Influence On the Humoral Immune Response

Luis Fang, Cesar Muñoz, Luz Hernandez, Beatriz Martinez and Javier Marrugo, University of Cartagena, Cartagena, Colombia

684

Immune Modulatory Effects of IL-22 On Allergen-Induced Pulmonary Inflammation

Ping Fang, asthma & allergy center,Johns Hopkins University School of Medicine

Hideaki Kouzaki, MD, PhD. Shiga University of Medical Science, Otsu, Shiga, Japan, Ichiro Tojima, Shiga University of Medical Science, Otsu, Otsu, Japan, Hirohito Kita, MD, Mayo Clinic, Rochester, MN and Takeshi Shimizu, Shiga University of Medical Science, Otsu, SHiga, Japan
What’s New in Asthma Diagnostics

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Serum Periostin Levels Correlate with Bronchial Hyperresponsiveness to Mannitol and Methylcholine in Children with Asthma

Heysung Baek, MD, PhD1, Jae-Won Oh, MD, PhD, FAAAAAI2, Ha-Baik Lee, MD, PhD3 and Kenji Izuhara, MD, PhD4, 1Hallym University College of Medicine, Seoul, Korea, 2Hanyang University College of Medicine, Seoul, Korea, 3Saga Medical School, Saga, Japan

4695

Meta Analysis of Asthma Exacerbation Rates in Pediatric Studies During Asthma Managed Using Fractional Exhaled Nitric Oxide Versus Standard Clinical Parameters Alone

Joseph D. Spahn, MD, National Jewish Health, Denver, CO, Jonathan Malka, MD, Pediatric Associates, Aventura, FL, Todd A. Mahr, MD, FAAAAAI, Gundersen Lutheran Medical Center, La Crosse, WI and Paul M. Dorinsky, MD, Aerocrine, Inc., Morrisville, NC

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Exhaled Nitric Oxide Concentration During Pediatric Acute Asthma Exacerbations Is Associated with Severity and African-American Race

Emily W. Langley, MD, Division of Allergy, Pulmonary, and Critical Care Medicine, Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee, Tebeh Gebretsadik, MPH, Department of Biostatistics, Vanderbilt University School of Medicine, Nashville, Tennessee, Diana V. Hartz, MD, MPH, Division of Allergy, Pulmonary, and Critical Care Medicine, Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee, Tina V. Hartert, MD, MPH, Division of Allergy, Pulmonary, and Critical Care Medicine, Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee, R. Stokes Peebles Jr., MD, FAAAAAI, Allergy, Pulmonary, and Critical Care Medicine; Department of Medicine; Vanderbilt University School of Medicine, Nashville, TN and Donald Arnold, MD, MPH, Departments of Pediatrics and Emergency Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee

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Biological Therapies

Monday, February 25th, 2013, 2:00 PM - 3:15 PM

4699

Persistent Hypogammaglobulinemia After Rituximab Treatment

Yelena Kopyltsova, MD, North Shore LIJ, Great Neck, NY, Blanka M. Kaplan, MD, FAAAAAI, Cohen Children’s Medical Center of New York, Great Neck, NY and Vincent R. Bonagura, MD, FAAAAAI, Hofstra, Northshore-LIJ School of Medicine, Great Neck, NY

700

Thymus Transplantation Restores the Repertoire of Foxp3+ T Cells in Complete DiGeorge Anomaly

Ivan Chinn, MD1, Joshua D. Milner, MD2, Philip Scheinberg1,4, 1Duke University Medical Center, Durham, NC, 2National Institute of Allergy and Infectious Diseases (NIAID), Bethesda, MD, 3National Heart, Lung, and Blood Institute, Bethesda, MD, 4National Institute of Allergy and Infectious Diseases, Bethesda, MD

701

Immunotolerance Mechanisms Depend On High Vs Low Dose of Sublingual Immunotherapy

Kari Nadeau, MD, PhD, FAAAAAI, Stanford University School of Medicine and Soujanya Vissamsetti, MD, Stanford University

702

Mechanisms of Th2 to Treg Vs Th2 to TH1 in Non Rush Vs Rush Food OIT

Shu-Chen Lyu, Stanford University and Kari Nadeau, MD, PhD, FAAAAAI, Stanford University School of Medicine

703

Resolvin D1 Inhibits IL-1beta Induced Alveolar Epithelial Cell Activation

Ruan R. Cox Jr1, Oluwakemi Phillips1, Jutaro Fukumoto, MD, PhD1, Isuko Fukumoto, DMD3, Prasanna Tamara1, Tran Luong1, Richard F. Locke, MD1,2 and Narasiah Kolliputi, PhD1, 1Morsani College of Medicine, University of South Florida, Tampa, FL, 2James A. Haley Veterans’ Hospital, Tampa, FL, 3Internal Medicine, Morsani College of Medicine, University of South Florida, Tampa, FL
Inflammatory Responses to Pollutants, Pesticides, and Endotoxin

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704 Interactions of Natural Killer (NK) Cells and Surfactant Protein D (SP-D) in Regulation of Ozone Induced Airway Inflammation: Involvement of NKP-16
Moyar Q. Ge1,2, Jin Hwang1, Imre Redai1, Blerina Kokalari1, David M. Kemeny, PhD, FAAAAI2, Kerry S. Campbell, PhD3 and Angelica Hazuku, MD, PhD, FAAAAI1, University of Pennsylvania, Philadelphia, PA, 1National University of Singapore, Singapore, Singapore, 2Fox Chase Cancer Center, Philadelphia, PA

705 Association Between Dichlorophenol Exposure, Asthma Medication Use, and Serum Immunoglobulin E
Jill A. Poole, MD, FAAAAI1,2, Angela Gleason, MA1, Christopher Bauer2,1, William West, MD2, Debra Romberger, MD1,3, Angela Gleason, MA2, Todd Wyatt, PhD1 and Tammy Kielian, PhD2, University of Nebraska Medical Center, Omaha, NE, 1University of Nebraska Medical Center, New York, NY and Elina Jerschow, MD, Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY

706 MyD88-Dependent Signaling Is Critical for Acute Organic Dust-Induced Airway Inflammation in Mice
Jill A. Poole, MD, FAAAAI2, Christopher Bauer1, William West, MD2, Debra Romberger, MD1,3, Angela Gleason, MA2, Todd Wyatt, PhD1 and Tammy Kielian, PhD2, University of Nebraska Medical Center, Omaha, NE, 1University of Nebraska Medical Center, New York, NY and Elina Jerschow, MD, Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY

707 IL-18 Induces IL-8 Production From Human Airway Epithelial Cells
Michelle L. Hernandez, MD1, Katherine Mills, BA1, Weidong Wu, MD, PhD2 and Matthew Kesic, PhD3, University of North Carolina Chapel Hill School of Medicine, Chapel Hill, NC, 1UNC Center for Environmental Medicine, Asthma, and Lung Biology, Chapel Hill, NC, 2Methodist University, Fayetteville, NC

708 Exposure to Silica Crystals and Poly (I:C) Induces Caspase-Dependent Apoptosis of Human Bronchial Epithelial Cells
Hirotsuki Unno, MD, Kyoko Futamura, MD, PhD, Reji Kojima, Hideaki Morita, MD, PhD, Hiroshi Saito, MD, PhD, Kenji Matsui, MD, PhD and Akio Matsuda, PhD, Department of Allergy and Immunology, National Research Institute for Child Health and Development, Tokyo, Japan

Anaphylaxis

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Monday, February 25th, 2013, 2:00 PM - 3:15 PM

709 Activation of the Plasma Contact-System in Patients with Anaphylaxis
Anna Sala-Cumill1,2,3, Mar Guiralt1,2,3, Vicky Cardona1,2, Jenny Björkqvist2,3, Moises Labrador2,3, Katrin Nickel1,3, Olga Luengo1,2 and Thomas Renne1,3,4,1,2 Allergy Section, Internal Medicine Department, Hospital Universitari Vall d’Hebron, 2Allergy Research Unit, Allergy Department, Institut de Recerca Vall d’Hebron, Universitat Autònoma de Barcelona, Barcelona, Spain, 3Center of Molecular Medicine Karolinska Institutet, Stockholm, Sweden, 4Clinical Chemistry, Department of Molecular Medicine and Surgery

710 An IgE Receptor Mimetic Peptide (PepE) Protects Mice From IgE Mediated Anaphylaxis
Joseph S. Zhou, MD, PhD1, Annamaria Sandomenico2, Oliver Burton2, Hans C. Oettgen, MD, PhD, FAAAAI1 and Menotti Ruvo2, 1Boston Children’s Hospital, Boston, MA, 2Istituto di Biostretteure e Bioimmagini, Napoli, Italy

SHIP-1 Regulates IgG/PAF Mediated Allergen-Induced Fatal Anaphylaxis Through the PI3 Kinase Pathway
Sun Young Oh, PhD1, Fan Wu, BS1,2, Fred D. Finkelman, MD3, Tao Zheng, MD1 and Zhou Zhu, MD, PhD1, 1Johns Hopkins University, Baltimore, MD, 2Cincinnati Veterans Affairs Medical Center, Cincinnati, OH

Preclinical Study: Dose Comparison of New-Generation Taste-Masked Epinephrine (E) Sublingual Tablets
Keith Simons1, Ousama Rachid1, Mutaseem Rawas-Qalaji2 and F. Estelle R. R. Simons, MD, FAAAAI1, University of Manitoba, Winnipeg, MB, Canada, 1Nova Southeastern University, Fort Lauderdale, FL

Anatomical and Anthropometric Determinants of Intramuscular Versus Subcutaneous Administration in Children with Epinephrine Auto-Injectors
Peter Arkwright, MD, PhD, FAAAAI1,2, Neville Wright1 and Daniel Bewick1, 1University of Manchester, Manchester, United Kingdom, 2Royal Manchester Children’s Hospital, Manchester, United Kingdom

Management of Allergies: New Insights

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714 Allergic Disease in US Children Is Associated with Increased Prevalence of Epilepsy
Helen G. Durkin, PhD, SUNY Downstate Medical Center, Center for Allergy and Asthma Research, Brooklyn, NY, Rauno O. Joks, MD, FAAAAI, State University of New York Downstate Medical Center, Brooklyn, NY and Jonathan I. Silverberg, MD, PhD, MPH, St. Luke’s-Roosevelt Hospital Center, New York, NY

715 Nasal Congestion Worsens Sleep Disturbance and Psychological Wellness in Allergic Rhinitis Patients
Rosa Munoz-Cano, MD1,2, Vanessa Gonzalez, MD2, Maria Rueda, MD3, Joaquin Mullol, PhD, MD, FAAAAI1,4, M Herdman1, Jaime Sanchez-Lopez, MD1,2, Joan Bartra, MD, PhD2,3 and Antonio Valero, MD, PhD2,3, 1Institut d’Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Centro de Investigaciones Biomedicas en Red de Enfermedades Respiratorias (CIBERES), Spain, 2Servei de Pneumologia i ALLergia Respiratoria.Hospital Clinic, Barcelona, Spain, 3Hospital Quiron, Barcelona, Spain, 4Unitat de Rinologia i Clinica de l’Olfacto. Servei d’Otorrinolaringologia. Hospital Clinic., Barcelona, Spain, 5Insight Consultin & Research, Barcelona, Spain

716 Relationship Between Maternal Mid Pregnancy Folate Levels and the Risk of Allergic and Respiratory Diseases in Early Childhood: The Mothers and Children’s Environmental Health (MOCEH) Study
Ja Hyeong Kim, MD, Ulsan University Hospital, Ulsan, Kyuong-Sook Jeong, MD, Department of Occupational and Environmental Medicine, Dongguk University-Seoul, Graduate School of Medicine, Dongguk University Ilsan Hospital, Ilsan, South Korea, Eun-Hee Ha, MD, 3Department of Preventive Medicine, School of Medicine, Ewha Womans University, South Korea, Hye sook Park, MD, 3Department of Preventive Medicine, School of Medicine, Ewha Womans University, South Korea, Hye sook Park, MD, 3Department of Preventive Medicine, Dankook University College of Medicine, Yun-Chul Hong, MD, 3Department of Preventive Medicine, Seoul National University College of Medicine, Soo-Young Bhang, MD, Department of Psychiatry, University of Ulsan, College of medicine, Ulsan University Hospital, Soo-Jeong Lee, MD, Department of Obstetrics and Gynecology, University of Ulsan, Collage of
Medicine, Ulsan University Hospital, Kyung Yeon Lee, MD, Department of pediatrics, University of Ulsan, College of Medicine, Ulsan University Hospital, Seon-Ho Lee, MD, Department of Laboratory Medicine, University of Ulsan, College of Medicine, Ulsan University Hospital, Yang ho Kim, MD, Department of Occupational and Environmental Medicine, University of Ulsan, College of Medicine, Ulsan University Hospital, Ju-Suk Lee, MD, PhD, Samsung Changwon hospital; Sungkyunkwan university, Changwon, South Korea; 1, South Korea, Jin-A Jung, MD, Dong-A University Hospital, Busan and Nam Soo Chang, PhD, Department of Nutritional Science and Food Management, Ewha Womans University, Seoul, Korea

718 The Role of Molecular Allergology in Allergen-Specific Immunotherapy Adherence and Patient Quality of Life in A Complex Pollen Area: A Simulation Model
Barbara Mascialino1, Lisse-Lotte Herrmannson1 and Joaquin Sastre, MD, PhD, FAAAAI2, 1Thermo Fisher Scientific IDD, Upsala, Sweden, 2Fundacion Jimenez Diaz, Madrid, Spain

719 Follow-up Patterns Among Children with Anaphylaxis and Local Nasal 'Protective' Immunoglobulin G4 (IgG4) Responses Is a 30 Minute Vs. 20 Minute Immunotherapy (IT) Waiting Period Justified?
Jonathan Hemler, MD1, Amanda Troger1, Darlene Kassab Mansoor, MD1, Hemant Sharma, MD, MHS1 and Irene Mikhail, MD1, 1Children's National Medical Center, 2Children's National Medical Center, Division of Allergy and Immunology, Washington, DC

Immunotherapy

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719 Dose Adjustment During Pollen Seasons in Build-up and Maintenance Vials Lowers the Risk of Severe Systemic Reactions (SRs) to Subcutaneous Allergen Immunotherapy (SCIT): Year 4 of the AAAAA/CAAI Surveillance Study
Tolly Epstein, MD, MS1,2, Gary M. Liss, MD, MS, FRCP1, Karen Murphy Berends, BS, RRT, CCRC2 and David I. Bernstein, MD, FAAAAI1, 1University of Cincinnati, Cincinnati, OH, 2Cincinnati VA Medical Center, Cincinnati, OH, 3Ontario Ministry of Labour, Toronto, ON, Canada, 4Bernstein Clinical Research Center, LLC, Cincinnati, OH

720 Is a 30 Minute Vs. 20 Minute Immunotherapy (IT) Waiting Period Justified?
Leon S. Greos, MD FAAAAI, Colorado Allergy and Asthma Centers, P.C., Centennial, CO, Mary H. Thal, BS, RN, Colorado Allergy and Asthma Centers PC, Denver, CO and Allen D. Adinoff, MD, FAAAAI, Colorado Allergy and Asthma Center, Highlands Ranch, CO

721 Local Nasal ‘Protective’ Immunoglobulin G4 (IgG4) Responses in Nasal Fluid Following Grass Pollen Sublingual Immunotherapy
Nausheen Saleem, BSc(Hons)1, Adam Chaker, MD1,2,3, Ulrich Zissler2, Carsten B. Schmidt-Weber, PhD1, Stephen R. Durham, MA, MD, FRCP1,2,6 and Mohamed H. Shamji, BSc, MSc, PhD1,3, 1Imperial College London, 2University of Dusseldorf, Dusseldorf, Germany, 3ENT department, TU Munich, Munchen, Germany, 4ENT department, TU Munich, 5Imperial College, London, United Kingdom, 6Medical Research Council and Asthma UK Centre for Allergic Mechanisms of Asthma, UK, 7MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, 8Imperial College London, United Kingdom

722 Antigen-Specific Tfh Cell Monitoring by CD154 Expression in Japanese Cedar-Specific SCIT
T. Nomura1,2,3, I. Tsuge1, C. Inou1, Y. Nakajima1, K. Tanaka1, N. Naruse1, S. Suzuki1, H. Ando1, Y. Kondo1, S. Saitoh1 and A. Urisu1, 1Department of Pediatrics, School of Medicine, Fujita Health University, Toyoake, Japan, 2Department of Pediatrics and Neonatology, Graduate School of Medical Sciences, Nagoya City University, Nagoya, Japan, 3Department of Pediatrics, The Second Teaching Hospital, Fujita Health University, Nagoya, Japan

723 Immunological Mechanism of Sublingual Immunotherapy
Reza Farid, MD, FAAAAI, Allergy Research Center, Mashhad University of Medical Sciences, Farahzad Jabbari, mashhad university, Mashhad, Iran and Homa Sadri, Dr, Mashhad Universiti, Mashhad, Iran

The Role of Lymphocytes in Mediating Asthma and Allergic Inflammation

4607 Monday, February 25th, 2013, 2:00 PM - 3:15 PM

724 Th2 Mediated Airway Diseases Strongly Linked to Fungal T Cell Memory
Paul Porter, PhD1, Chu-Lin Tsai, MD, PhD2, Martin Citardi, MD3, Samer Fakhri, MD1, David B. Corry, MD1 and Amber U. Luong, MD, PhD1, 1Baylor College of Medicine, Houston, TX, 2University of Texas School of Public Health, Houston, TX, 3University of Texas Medical School at Houston, Houston, TX, 4University of Texas Medical School at Houston, Houston, TX

725 LIGHT Is Associated with Increased Cellular Infiltrate and Levels of Th1 Cytokines As Well As Shortened Lung Function in Human Asthma
Jonathan Romeo, DO, Annette T. Hastie, PhD, Susan Foster, PhD, Wendy Moore, MD, Stephen P. Peters, MD, PhD, FAAAAI, Eugene R. Bleecker, MD, FAAAAI and Mark S. Dykewicz, MD, FAAAAI, Wake Forest University School of Medicine, Winston Salem, NC

726 Immunosupmodulatory Effects of IL-27 On Allergen-Induced Th2 Responses
Tomokazu Matsuoka1,2, Faith Wing chun, BSc(Hons)1, Bryony Stott, MSc1, Stephen R. Durham, MA, MD, FRCP1,3 and Mohamed H. Shamji, BSc, MSc PhD1,5, 1Imperial College London, 2Medical Research Council and Asthma UK Centre for Allergic Mechanisms of Asthma, UK, 3Imperial College, London, United Kingdom, 4MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, 5Imperial College London, United Kingdom

727 Grass Pollen Allergies Have Fewer IL-10-Producing B Cells Than Non-Atopic Controls
James E G Charlesworth1,2, Andrea Goldstone1, Moises A. Calderon, MD, PhD1,2,3, David Cousins2, Stephen R. Durham, MA, MD, FRCP1,2,3 and Mohamed H. Shamji, BSc, MSc PhD1,3, 1Imperial College London, 2Medical Research Council and Asthma UK Centre for Allergic Mechanisms of Asthma, UK, 3Imperial College, London, United Kingdom, 4MRC & Asthma UK Centre in Allergic Mechanisms of Asthma, 5Imperial College London, United Kingdom

728 Rab11+ Recycling Endosomes Controls Signaling Output and Cellular Response of Memory CD4 T Cells in Asthma
Chaoyu Chen, MS, Dipa Seth, MD, Dave Gupta, MD, Magdalena Gorska, MD, PhD and Rafeul Alam, MD, PhD, FAAAAI, National Jewish Health, Denver, CO

Asthma Updates

5201 Tuesday, February 26th, 2013, 9:45 AM - 10:45 AM

729 Effect of Budesonide/Formoterol Pressurized Metered-Dose Inhaler (BUD/FM pMDI) in African-American Patients with...
Moderate to Severe Asthma: Responder Analysis in Patients with Versus without Fixed Airflow Obstruction (FAO)
Bradley E. Chipp, MD, FAAAAI1, Donald P Tashkin, MD2, Tom Uryniak3 and Frank Trudo3, 1Capital Allergy & Respiratory Disease Center, Sacramento, CA, 2University of California, Los Angeles, CA, 3AstraZeneca LP, Wilmington, DE
730 CC10 A38G Polymorphism (rs3741240) Is Associated with Asthma Susceptibility and Bronchial Hyperresponsiveness Mediated by the Eosinophilic Inflammation in Korean Children
Kyungmo Hong1, Hyun-Kyung Kim2, Mi-Jin Kang3, Hoyoung Yu4, Byoung-Ju Kim5, MD, PhD6, Young Ho Jung6, MD7,8, Jinho Yu, MD, PhD7 and Soo-Jong Hong6, MD, PhD7,8, 1Goucher College, Baltimore, USA, 2Childhood Asthma Atopy Center, Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea, 3Department of Pediatrics, Haeundae Paik Hospital, Inje University College of Medicine, Busan, South Korea, 4Childhood Asthma Atopy Center, Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea, 5Research Center for Standardization of Allergic Disease, Seoul, South Korea

731 Safety of Modified Dust Mite Subcutaneous Immunotherapy in Severe Allergic Asthma
Ruperto González, Hospital Ofra-Torax, S/C de Tenerife, Spain, Paloma Pozas, Hospital Ofra-Torax, santa cruz de tenerife, Spain, Victor Matheu, Hospital Ofra, Tenerife, Spain and Anmaculada Sánchez-Machín, MD, Hospital Ofra-Torax, Tenerife, Spain

732 The Role of Exhaled Nitric Oxide in Guiding Asthma Management
Dermot Ryan1, Mike David Thomas2, Paul M. Dorinsky, MD3,4, Annie Burden5, Julie von Ziegenweidt6, Catherine Hutton6, Alison Chisholm7 and David Price, FRCPC, MRCP, DRCOG1,2, 1Woodbridge Medical Centre, Loughborough, United Kingdom, 2University of Southampton, Southampton, United Kingdom, 3Teva Pharmaceuticals, Blue Bell, PA, 4Aerocrine, Inc., Morrisville, NC, 5Research In Real Life, Cambrige, United Kingdom, 6Research in Real Life, Cambridge, United Kingdom, 7University of Aberdeen, United Kingdom

733 The Influences of Low BMI On the Treatment of Fixed Airway Obstruction
June-Hyuk Lee1, Sung-Woo Park, MD2, Doojin Kim3 and Ansoo Jang, MD4, 1Soonchunhyang univ bucheon hospital, 2Soonchunhyang Univ. Hospital, Bucheon, 3Soon Chun Hyang University Hospital, Bucheon and 4Inha University College of Medicine, Incheon, South Korea

734 A Study of Vitamin D Levels in Children with Asthmatic Exacerbation At Queen Sirikit National Institute of Child Health
Varuith Thongbai, MD, Mukda Vangveeravong, MD, Tassalapa Daengsuwan, MD and Gun Phongsamart, MD, Queen Sirikit National Institute of Child Health, Bangkok, Thailand

735 Safety and Tolerability of Fel d 1-Derived Peptide Antigen Desensitization in Subjects with Controlled Asthma
Pascal LC Hickey, BPharm, PhD, Adiga Life Sciences, Hamilton, Canada, Amarjit Singh Cheema, MD, Alpha Medical Research, Mississauga, ON, Canada, Mark Larche, PhD, McMaster University/St Joseph’s Healthcare, Hamilton, ON, Canada and Rod Hafner, PhD, Circassia, Oxford, United Kingdom

736 Longitudinal Evaluation of the Prognostic Value for Difficult Asthma of Rhinitis Clusters
Ioana Octavia Agache, MD1, Cristina Ciobanu2, Valentina Barbieru2 and Liliana Rogozae2, 1Transylvania University Brasov, Brasov, Romania, 2Theramed Medical Center, 3Transylvania University Brasov

737 Childhood Asthma Profile in Participants of Asthma Control Program
Gesmar Segundo1,2 and Juliana Ribeiro1, 1Universidade Federal de Uberlandia, Uberlandia, Brazil, 2Centro Universitário de Patos de Minas, Patos de Minas, Brazil

738 Churg-Strauss Syndrome in Japan
Shunsei Hirohata, Kitasato University School of Medicine, Sagamihara, Japan

739 An Application of Computerized Asthma-Specific QOL in Korean Asthmatics
Kim Mi-Ae1, Ye Young-Min1, Park Jung-Won2, Lee Jae-Hyun3, Lee Soo-Kool3, Kim Cheol-Woo3, Jung Ki-Suck3, Kim Joo-Hee3, Yoo Hye-Soo1, Lee Seung Ihm1, Kim Seung-Hyun1, Shin Yoo Seob1 and Park Hae-Sim1, 1Ajou University School of Medicine, Suwon, South Korea, 2Yonsei University College of Medicine, Seoul, South Korea, 3Dong-A University College of Medicine, Busan, South Korea, 4Inha University College of Medicine, Incheon, South Korea, 5Hallym University Medical School, Pyeongchon, South Korea

740 Reproducibility of Acq-7 Questionnaire in the Assessment of Asthma Control
Mariana N. Cardoso, MD1, Herberto J. Chong Neto, MD, PhD2,3, Carlos Antonio Riedi, MD PhD2 and Nelson A. Rosario, MD, PhD, FAAAAI1,2,3, 1Federal University of Paraná, Curitiba, Brazil, 2Federal University of Parana, Curitiba, Brazil

741 Follow-up of Wheezing in Preschool Children From Cuiabá, MT, Brazil
Lilian SANCHEZ LACERDA Moraes, MD, MSc, Federal University of Mato Grosso, Dirceu Sole, MD, PhD, Federal University of Sao Paulo, Sao Paulo, Brazil and Olga Takano, MD, Federal University of Mato Grosso, cuiabá, Brazil

742 How Does Asthma Related Internet Search Correlate with Extrinsic Triggers in Urban Centers?
Robit Divecak, MBBS, PhD and Suresh Bhavnani, PhD, Univ. of Texas Medical Branch at Galveston, Galveston, TX

743 Analysis of Relationship Between Asthma and Rhinitis Symptoms in Patients Treated in University Hospital by Using Sacra Questionnaire
Hiroyuki Nagase, MD, PhD1, Naoya Sugimoto1, Yuko Nakase1, Yusuke Tanaka1, Asae Kamiyama1, Yasuhiro Koijima1, Hisanao Yoshihara1, Michio Kuramochi1, Hiroyuki Tashimo1, Hidenori Arai1, Masao Yamaguchi1 and Ken Ohta1,2, 1Teikyo University School of Medicine, Tokyo, Japan, 2National Hospital Organization Tokyo National Hospital, Tokyo, Japan

744 Associations Between Asthma and Puberty in Swedish Children
Jennifer Protudjer, PhD, Cecilia Lundholm, MSc, Anna Bergstrom, PhD, Inger Kull, PhD and Catarina Almqvist, MD, PhD, Karolinska Institute, Stockholm, Sweden

745 Outcome of Pre-School Children with Asthma: A Japanese Cohort Study
Mayumi Furukawa, Division of Allergy, Tokyo Metropolitan Children’s Medical Center, Tokyo, Japan, Mari Sasaki, Division of Allergy Tokyo Metropolitan Children’s Medical Center, Hiriko Watanabe, NHO Kanagawa Hospital, Hiroshi Odajima, MD, PhD, Department of Pediatrics, Fukuoka National Hospital, Japan, Takao Fujisawa, MD, FAAAAI, Mie National Hospital, Mie, Japan, Motohiro Ebisawa, MD, PhD, FAAAAI, Sagamihara National Hospital and Akira Kasawara, MD, PhD, Tokyo Metropolitan Children’s Medical Center, Tokyo, Japan

Other BCI Topics
5202 Tuesday, February 26th, 2013, 9:45 AM - 10:45 AM

746 Association Between Polymorphisms of Itpke and CASP3 in IVG Unresponsiveness and Coronary Artery Lesion in Kawasaki Disease
Ho-Chang Kuo, MD, Chang Gung University College of Medicine, Kaohsiung, Taiwan; Department of Pediatrics, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan

747 Clinical and Immunologic Role of Mannose Binding Lectin Deficiency
Payal Patel, MD1, Mariam S. Rasheed, MD2, Ernest Visconti1, Jenny Shlozberg, MD, FAAAAI3 and Arye Rubinstein, MD, FAAAAA1, 2Alpert Einstein College of Medicine, Bronx, NY, 2Albert Einstein College of Medicine, New York, NY, 3State Island University Hospital, State Island, NY, 4Montefiore Medical Center, New York, NY

748 Strategies to Query and Display Allergy-Derived Epitope Data From the Immune Epitope Database (IEDB)
Kerrie C. Vaughan1, Bjorn Peters1, Mark Larche2, Anna Pomes3, David Broide4 and Alessandro Sette5, 1La Jolla Institute for Allergy and Immunology, La Jolla, CA, 2Division of Clinical Immunology & Allergy, Department of Medicine, McMaster University, Hamilton, ON, Canada, 3Indoor Biotechnologies, Charlottesville, VA, 4Allergy and Immunology, Department of Medicine, University of California, San Diego, San Diego, CA

749 Immune System Dysregulation Persists During Long-Duration Spaceflight
Brian Crucian1, Sara Zwart1, Satish Mehta1, Raymond Stowe1, Peter Uchkin2, Heather Quiristine3, Duane Pierson1, Scott M. Smith1 and Clarence Sams1, 1NASA Johnson Space Center, Houston, TX, 2Universities Space Research Association, Houston, TX, 3Enterprise Advisory Services Inc., Houston, TX, 4Microgen Laboratories, La Manque, TX, 5Mercer University, Macon, GA, 5RES Tech, Houston, TX

750 A Simple, Sensitive and Selective Fluorogenic Assay to Monitor Kallikrein Activity in Activated Plasma
Jianwen Zhang, Debra Kellogg, Ramanda Wilson, Leigh Harman, Shanta Bantia andYS Babu, BioCryst Pharmaceuticals, Inc, Birmingham, AL

751 A Human Monoclonal IgE Resource - a Tool to Understand Allergen-IgE Interactions
Mats Ohlin and Mattias Levin, Lund University, Sweden

752 Upper Respiratory Cytokine Production in Children with Pandemic H1N1 Versus Seasonal H3N2 Influenza A Infection
Hazar Kobayaa1, Joseph Domachowske1, Basim Amsar1, Cynthia Bonville2 and Elizabeth A. Secord, MD, FAAAAI, 1Wayne State Medical Center, 2SUNY Upstate Medical Center, 3Wayne State University, 4Upstate Medical Center

753 The Effects of Diabetes Mellitus and in Vitro Hyperglycemia On Cytokine Secretion From Peripheral Blood Leucocytes
Najwan Ibrahim, Jordan University of Science and Technology, Nizar Abuharfil, Faculty of Science and Arts - Jordan University of Science and Technology, Fawaz Amrani, Faculty of Medicine - JUST and Ammar K. Daoud, MD, FAAAAI, Faculty of Medicine, Jordan University of Science and Technology (J.U.S.T), Iribd, Jordan

754 Immune Responses to Allopurinol in a Patient with DRESS Syndrome
Krikor Manoukian, MD, University of California Irvine, CA, Sudhanshu Agrawal, University of California Irvine and Sudhir Gupta, MD, PhD, FAAAAA, University Of CA - Irvine, Irvine, CA

755 Altered Frequency and Composition of Cultured Peripheral Blood Natural Killer Cells From Cow’s Milk Allergic Subjects
Madhan Masilamani, PhD1, Ashay Bhatt, MS2, Lara Ford, MD3, Jacob Daniel Kattan, MD4 and Hugh A. Sampson, MD, FAAAAI, 1Mount Sinai School of Medicine, New York, NY, 2Mt. Sinai School of Medicine

756 BCX-4161, a Small Molecule and Orally Bioavailable Plasma Kallikrein Inhibitor for the Treatment of Hereditary Angioedema
Shanta Bantia, Jianwen Zhang, Ramanda Wilson, Cynthia D. Parker, Debra Kellogg, Pravin Kotian andYS Babu, BioCryst Pharmaceuticals, Inc, Birmingham, AL

757 Factor XII-Independent Activation of the Complex of Prekallikrein with High Molecular Weight Kininogen: Implications for Hereditary Angioedema
Kussumam Joseph, PhD, Medical University of South Carolina, Charleston, Baby Tholanikunnel, PhD, Medical University of South Carolina and Allen P. Kaplan, Medical University of South Carolina, Charleston, SC

758 Multiplexed Analysis of Primary Cord Blood Adherent-Mono nuclear Cell-Supernatants Related to Maternal Atopy
Jenny Thiele, MSc1, Yifei Zhu2 and Anne K. Ellis, MD, MSc, FRCP, FAAAAI3, 1Queens University, 2Allergy Research Unit, Kingston General Hospital, Kingston, ON, Canada, 3Departments of Medicine and Biomedical & Molecular Science, Queen’s University, Kingston, ON, Canada

759 Q-PCR Analysis of GATA-1 in Umbilical Cord Blood: Optimizing RNA Extraction and Reverse Transcription Techniques
Vanessa N. Omana, BSc, Queen’s University, Jenny Thiele, MSc, Queens University and Anne K. Ellis, MD, MSc, FRCP, FAAAAI, Allergy Research Unit, Kingston General Hospital, Kingston, ON, Canada; Departments of Medicine and Biomedical & Molecular Science, Queen’s University, Kingston, ON, Canada

Anaphylaxis I

5203
Tuesday, February 26th, 2013, 9:45 AM - 10:45 AM

Tryptase Levels in Children Presenting with Anaphylaxis to the Montreal Children’s Hospital
Michelle Halbrich, MD1, Ann Elaine Clarke, MD, MSc2, Sebastian La Vieille, MD3, Harley Eisman, MD1, Reza Alizadehfar, MD1, Lawrence Joseph, PhD1, Judy Morris, MD4 and Moshe Ben-Shoshan, MD, MSc1, 1McGill University, Montreal, QC, Canada, 2McGill University Health Centre, Montreal, Canada, 3Food Directorate, Ottawa, ON, Canada, 4University de Montreal, Montreal, QC, Canada

Anaphylaxis in Children Treated At the Montreal Children's Hospital: Rate, Clinical Characteristics, Triggers and Management
Moshe Ben-Shoshan, MD, MSc1, 2, Sebastian La Vieille, MD3, Harley Eisman, MD1, 4, Reza Alizadehfar, MD1, 5, Emma Perkins, BSc6, Lawrence Joseph, PhD1, Judy Morris, MD1, 3 and Ann Elaine Clarke, MD, MSc1, 9, 10McGill University, Montreal, QC, Canada, 3Montreal Children’s Hospital, Montreal, Canada, Food Directorate, Ottawa, ON, Canada, 5Montreal Children’s Hospital, Montreal, QC, Canada, 5McGill University, Brossard, Canada, 6McGill University Health Centre, Montreal, QC, Canada, 7University de Montreal, Montreal, QC, Canada, 8Sacré-Coeur Hospital, 9McGill University Health Centre, Montreal, Canada, 10Montreal General Hospital

Auvi-Q Versus EpiPen: Preferences of Adults, Caregivers, and Children
Adriana Guana1, F. Estelle R. R. Simons, MD, FAAAAI2, Sheldon Wang1 and Carlos Camargo Jr, MD, DrPH3, 1Sanofi US, 2University of Manitoba, Winnipeg, MB, Canada, 3Department of Emergency Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA

Characterization of Cannabis Sativa Allergens
Ajay Nayak, PhD1, Brett Green, PhD1, Gordon L. Sussman, MD, FAAAAI2, Noam Berlin, BSc3, Hemant Lata, PhD3, Suman Chandray, PhD3, Mahmoud ElSohly, PhD3, Justin Hetrick, PhD1 and Donald H. Beezhold, PhD FAAAAI, 1CDC/NIOSH, Morgantown, WV, 2University of Toronto, Toronto, ON, Canada, 3Gordon Sussman Clinical Research, Toronto, ON, Canada, 4University of Mississippi, Oxford, MS
674 Allergic Sensitization in Transfusion Recipients, Not Blood Donors, Is a Risk Factor for Allergic Transfusion Reactions
Gabriel Verzino, MD, *=Aaron* Tobian, MD, PhD, 2Dayand Borge, MD, PhD, 3Jessica Rabe Savage, MD, MHS, 4Paul Ness, MD, 5Robert G. Hamilton, PhD, 6ABMIL, FAAAAI 7and William Savage, MD, PhD, 8Brigham and Women’s Hospital, 9Johns Hopkins University School of Medicine, 10Greater Chesapeake and Potomac Red Cross, 11Johns Hopkins University School of Medicine, Baltimore, MD

675 Using Omega-3 Gliadin ( rTri a 19) in the Diagnosis of Anaphylaxis
Sai Hurung Kham Murung, MBBS MRCP (UK), William Egner, MD, PhD, Anna Shrimpton, MBChB, FRCPath and Ravishankar B. Sargur, MBBS, MRCP, Northern General Hospital, Sheffield, United Kingdom

676 Characterization of the Causative Allergens for Wheat-Dependent Exercise-Induced Anaphylaxis Sensitized with Hydrolyzed Wheat Proteins in Facial Soap
Tomoharu Yokooji1, Sai Kurihará1, Tomoko Murakami1, Yuko Chinuki2, Susumu Harada3, Hi toshi Takahashi2, Eishin Morita4, Kaori Ishii5, Makiko Hiraguni6, Michihiro Hido6 and Hiroaki Matsuo7, *1Department of Pathophysiology and Therapeutics, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, Japan, 2Department of Dermatology, Shimane University, Izumo, Japan, 3Harada Skin Clinic, Nishinomiya, Japan, 4Department of Dermatology, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, Japan

677 Streptococci in a Blueberry Pie? Risk of Allergic Sensitization and Reaction to Antibiotics Contained in Foods
François Graham, MD, MSE1, Philippe Begin, MD, MSE1, Louis P. Paradis, MD, FAAAAI2, Yves Babin, PhD2 and Anne M. Des Roches, MD, FAAAAI3, *CHUM, Hôpital Notre-Dame, Montreal, QC, Canada, 2Ministère de l’Agriculture, des Pêcheries et de l’Alimentation du Québec, Québec, QC, Canada, 3CHU Sainte-Justine, Montréal, QC, Canada

678 Severe Marijuana Allergy Controlled with Omalizumab
David B. Engler, MD, FAAAAI, Houston Allergy & Asthma Clinic, Houston, TX, Alnoor A. Malick, MD, FAAAAI, The Allergy Clinic, Pasadena, TX, Sunil K. Saraf, MD, The Allergy Clinic, The Woodlands, TX and Lisa Adams Dargel, PA-C, The Allergy Clinic, Manvel, TX

679 A Patient with Carminic Acid-Induced Anaphylaxis; Usefulness of the Basophil Activation Test
Naoya Sugimoto1, Masao Yamaguchi1, Yuko Nakase1, Yusuke Tanaka1, Hirouki Tashimo1, Hidenori Aru1, Hiroshi Akiyama2, Hirouki Nagase, MD, PhD and Ken Ohta1,3, *Teikyo University School of Medicine, Tokyo, Japan, 2National Institute of Health Sciences, Tokyo, Japan, 3National Hospital Organization Tokyo National Hospital, Tokyo, Japan

700 Anaphylactic Shock in Oral Allergy
Parwinder Gill and Gordon L. Sussman, MD, FAAAAI, University of Toronto, Toronto, ON, Canada

701 Bullous Mastocytosis; Cutaneous or Systemic Disease?
Lauren Kinneman, MD1, Barbara Molloy, MD, PhD, Robert Silverman, MD, Jasbir Johal, MD, Noel Mensah-Bonsu1 and Oral Alpan, MD, 1Inova Fairfax Hospital, 2Amerimmune, LLC, VA

702 IgE Specific to Oxycodone Identified by ELISA Inhibition in a Young Woman with Symptoms of Anaphylaxis Following Oral Ingestion: First Case Report of Oxycodone-Mediated Anaphylaxis
Daniel A. Steigelman, MD, David Rose, MD, Robert Anthony Gomez and Tonya S. Rans, MD, Wilford Hall Ambulatory Surgical Center, Lackland ABF, TX

703 Characteristics of Patients with Delayed Allergic Reactions to Mammalian Meat Presenting to a Tertiary Care Academic Medical Center in North Carolina
Maya R. Jerath, MD, PhD and Saira Zafar Sheikh, MD, University of North Carolina at Chapel Hill, Chapel Hill, NC

774 Pediatric Alpha-Gal: IgE Antibodies to Galactose-Alpha-1,3-Galactose in Children Presenting with Delayed Urticaria or Anaphylaxis
Hayley James1, Josh L. Kennedy, MD, Thomas Platts-Mills, MD PhD, FAAAAI, FRS1, Amy Polen Stallings, MD, 2Lisa J. Workman, BA1, Anubha Tripathi, MD, 3Shawna Pochan, DNP, CNM1, Charles Lane, MD, 4Luis A. Matos, MD, MBA, FAAAAI, 5Saju S. Eapen, MD, 6Dane C. McBride, MD, FAAAAI2, Peter W. Heymann, MD, 7and Scott P. Commins, MD, PhD, 8University of Virginia, Charlottesville, VA, 9Duke University, NC, 1Allergy Partners, Lynchburg, VA, 2Asthma and Allergy Center, Roanoke, VA

775 Appearance of CD63+ Basophils After Food Challenge Occurs in Both Alpha-Gal Positive Subjects and Controls
Susan Mozziocado, MD1, Hayley James1, Michael H. Land, MD, FAAAAI2, Shawna Pochan, DNP, CNM1, Lisa J. Workman, BA1, Thomas Platts-Mills, MD, PhD, FAAAAI FRS1 and Scott P. Commins, MD, PhD, 1University of Virginia, Charlottesville, VA, 2Allergy, Southern California Permanente Medical Group, San Diego, CA

776 Positive Basophil Activation Test in a Patient with Exercise-Induced Anaphylaxis
Rafael Firszt, MD, University of Utah, Salt Lake City, UT

777 Maternal Transmission of Peanut Allergy Susceptibility Is Associated with IL-4 Promoter Demethylation in Offspring
Ying Song, MD, Ching-feng Huang, ChangDa Liu, Paul Fuyaboschich, Jia Chen, PhD and Xi-Min Li, MD, Mount Sinai School of Medicine, New York, NY

778 Oral Sensitization to Peanut in Balb/c Mice Is Enhanced by Dietary Elimination of Soybean Components - towards a Better Mouse Model for Food Allergy
Lisa Chang, BS1, Hugh A. Sampson, MD, FAAAAI2 and Madhan Masilamani, PhD2, 1Mt. Sinai School of Medicine, New York, NY, 2Mount Sinai School of Medicine, New York, NY

779 Epicutaneous Sensitization Results in IgE-Dependent Intestinal Mast Cell Expansion and Food Anaphylaxis
Raif Ghe, MD, Lisa Bartnikas, MD, Michael Gurish2, Oliver Burton1, Sabine Leist en1, Erin Jansen1, Hans C. Oetgen, MD, PhD, FAAAAI1, Jacqueline Beaupré1, Christopher Lewis1, K. Frank Austen1, Stephanie Schulte2, Jason L. Hornick, MD, PhD2 and Michiko K. Oyoshi, PhD3, 1Boston Children’s Hospital, Boston, MA, 2Brigham and Women’s Hospital, Boston, MA, 3Mount Sinai School of Medicine, New York, NY

780 Anisakis Simplex Excretion/Secretion Antigens Inhibit Anaphylactic Response in a Murine Model
Guadalupe Marco Martín, MD, Alejandro La Rotta Hernández, MD, Patricia Martinez Lexcano, MD, Jose Manuel Zubeldia Ortuno, MD, MD and Maria L. Baeza Ochoa de Ocariz, MD, PhD, Hospital General Universitario Gregorio Marañón, Madrid, Spain

Food Allergy II

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Tuesday, February 26th, 2013, 9:45 AM - 10:45 AM

781 Real-Time Surveillance of Epinephrine Administration in Schools Supports the Argument for ‘Stock’ Epinephrine Availability
Elizabeth Ferracce1, 2, Alexandra R. Alejos, BA, 2Robert Leibowitz, PhD, 1Michael Pistiner, MD, MMSc, 2Wayne G. Shreffler, MD, PhD, FAAAAI, 2and Anne Sheertz, RN, BSN, MPH1, 1Barnard, Massachusetts General Hospital, Boston, MA, 2Massachusetts Department of Public Health, Boston, MA, 3Harvard Vanguard Medical Associates, Boston, MA, 4Harvard Medical School, Boston, MA

782 24-Hour Helpline Access for Food Allergic Reaction Treatment Advice in Children Prescribed Epinephrine Auto-Injectors: Randomised Controlled Trial

134
Anaphylaxis: Hospital Doctors’ Knowledge of Management Guidelines

Jae Won Jeong, Inje University Ilsan Paik Hospital, Goyang, South Korea, Chan San Park, Inje University Haeundae Paik Hospital, Busan, South Korea, Jae Woo Jung, Chungang University, Seoul, South Korea, Hye Kyung Park, Pusan National University, Busan, South Korea, Se Hoon Kim, Seoul National University Bundang Hospital, Seongnam, South Korea, Tae Bum Kim, Asan Medical Center, Seoul, South Korea, Seong Wook Son, Dongkuk University, Goyang, South Korea, Jae Woo Kwon, Kangwon University, Chuncheon, South Korea and Sang Rok Lee, Cheongju St Mary’s Hospital, Cheongju, South Korea

Simulation-Based Education Is an Effective Teaching Tool for Pediatric Trainees, in the Diagnosis and Management of Pediatric Anaphylaxis

Natalie Beaven Miller, MD,3, James Fehr,1, Andrew White,1, Leonard B. Bacharier, MD, FAAAAAI and Alysa G. Ellis, MD,1 Washington University, Saint Louis, MO, 2Department of Pediatrics, Washington University School of Medicine and St. Louis Children’s Hospital, Saint Louis, MO

Knowledge, Attitudes and Behaviors of Pediatric Residents Regarding Anaphylaxis Diagnosis and Management

Artemio M. Jongco III, MD, PhD, MPH1, 2, Robert Sporter, MD1, Sheila Bina, MD1, Marie A. Cavuoto Petrizzi, MD, FAAAAAI2, Susan Schuval, MD, FAAAAAI1 and Blanka M. Kaplan, MD FAAAAI1, 1Cohen Children’s Medical Center of New York, Great Neck, NY, 2Feinstein Institute for Medical Research, Manhasset, NY, 3Stony Brook University Hospital, Stony Brook, NY, 4Pro-Health Care LLP, Westbury, NY, 5Stony Brook U Medical Center, Stony Brook University Medical Center, Stony Brook, NY

Creation and Validation of Web-Based Audiovisual Educational Materials for Caregivers of Children with Food Allergy

Jamie Rosen and Scott H. Sicherer, MD, FAAAAAI, Mt. Sinai School of Medicine, New York, NY

Correct Parental Reaction Perception Affects Quality of Life in Food Allergy

Laura E. Howe, MD1, Timothy J. Fr anzman, MD1 and Matthew J. Greenhawt, MD, MBA, MSc2, 1University of Michigan, Ann Arbor, MI, 2Department of Internal Medicine, The University of Michigan Medical School, Division of Allergy and Clinical Immunology, Ann Arbor, MI

Accurate of Allergists’ Estimation of Anxiety in Children with Food Allergy

Melissa Rubes1, Anna Podolsky2, Nicole Caso1, Rachel Annunziato1, Scott H. Sicherer, MD, FAAAAAI1 and Eyal Shemesh2, 1Fordham University, Bronx, NY, 2Mt. Sinai School of Medicine, NY, NY, 3Mount Sinai School of Medicine, New York, NY

Treatment of Allergic Reactions and Quality of Life Among Caregivers of Food Allergic Children

Claire E. Ward, MD, CS Mott Children’s Hospital, University of Michigan, Department of Pediatrics, Ann Arbor, MI, Lynda Mitchell, Kids With Food Allergies Foundation, Doylestown, PA and Matthew J. Greenhawt, MD, MBA, MSc, Department of Internal Medicine, The University of Michigan Medical School, Division of Allergy and Clinical Immunology, Ann Arbor, MI

The High Economic Burden of Childhood Food Allergy in the United States

Ruchi Gupta, MD, MPH1, 2, David Holdford, BSPharm, MS, PhD, FAPA1, Lucas Bilaver, PhD, MS, MPH1, 2, Ashley Dyer, MPH3 and David Meltzer, MD, PhD3, 1Northwestern University Feinberg School of Medicine, Chicago, IL, 2Ann & Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, 3Virginia Commonwealth University, Richmond, VA, 4Northern Illinois University, DeKalb, IL, 5University of Chicago, Chicago, IL

Anaphylaxis Identification Using Direct and Combined ICD-9 Methods

Timothy Trojan, MD, University of Texas Southwestern at Dallas, Dallas, TX, Ying Ma, PhD, Center for Clinical Innovation, Parkland Health and Hospital System, Dallas, TX and David A. Khan, MD, FAAAAAI, University Texas SW Medical Center, Dallas, TX

Rhinitis/Rhinosinusitis

Tuesday, February 26th, 2013, 9:45 AM - 10:45 AM

CT-Imaging of the Upper Sinus Airways in a Model of Allergic Sinus Congestion and Treatment
Walter C. Spear, MS, Igor Patrakeev, PhD, Massoud Motamedi, MD and Bill T. Ameredes, PhD, University of Texas Medical Branch, Galveston, TX

798 Allergic Fungal Sinusitis: A Challenging Disorder for the Clinician
T.M. Nooli,1,2,3, C. Schluckebier1 and J. Bellanti1,2, 1Georgetown University Medical Center, Washington, DC, 2International Center for Interdisciplinary Studies of Immunology, Washington, DC, 3Watergate and Burke Allergy and Asthma Centers, Washington, DC

799 Post-Translational Modification of CCL23 in Chronic Rhinosinusitis with Nasal Polyps
Anjeni Keswani, MD, 1 Julie Poposki, MS, 1 Sarah Peterson, MD, 1 Lydia Suh, BS, 1 James Norton, MS, 1 Anju Peters, MD, 1 Leslie C. Grammer, MD, FAAAAI, 1 Bruce Tan, MD, 1 Rakesh Chandra, MD, 1 David Conley, MD, 1 Juan Iaen, PhD, 1 Thomas Schall, PhD, 1 Robert Kern, MD, 1 Robert P. Schleimer, PhD, 1 FAAAAAI and Atsushi Kato, PhD, 1 Northwestern University Feinberg School of Medicine, Chicago, IL, 2Department of Medicine, Division of Allergy-Immunology, Northwestern University Feinberg School of Medicine, Chicago, IL, 3Northwestern University Feinberg School of Medicine, Chicago, IL, 4Chemocentryx Inc, 1Northwestern University Feinberg School of Medicine, Chicago, IL

800 Increased Expression of the Epithelial Anion Transporter Pendrin in Nasal Polyp Tissues of Patients with Chronic Rhinosinusitis
Sudarshan Seshadri, PhD, 1 Xiang Lu, MD, PhD, 1 Andrew Choi, 1 Roderick Carter, BS, 1 James Norton, MS, 1 Atsushi Kato, PhD, 1 Lydia Suh, BS, 1 Anju Peters, MD, 1 David Conley, MD, 1 Rakesh Chandra, MD, 1 Bruce Tan, MD, 1 Leslie C. Grammer, MD, FAAAAI, 1 Robert Kern, MD, 1 and Robert P. Schleimer, PhD, FAAAAAI, 1 Department of Medicine, Division of Allergy-Immunology, Northwestern University Feinberg School of Medicine, Chicago, IL, 2Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL

801 Evaluation of Allergies in Children with Recurrent Ear and Sinus Infections
Rafka Chaiban, MD, Chadi A. Makary, MD, Benjamin Addicks and Yessim Yilmaz Demirdag, MD, West Virginia University School of Medicine, Morgantown, WV

802 Patients Living with Allergy Symptoms: The Allergies, Immuno-therapy
Mark S. Dykewicz, MD, FAAAAI, Wake Forest University School of Medicine, Winston Salem, NC, Michael S. Blaiss, MD, FAAAAI, Allergy and Asthma Care, Memphis, TN, Bryan D. Leatherman, MD, Coastal Ear, Nose and Throat Associates, Gulfport, MS, David P. Skoner, MD, West Penn Allegheny Health System, Cranberry TWP, PA, Nancy Smith, MS, Merck & Co, Inc, NC, Whitehouse Station, NJ and Felicia C. Allen-Ramey, PhD, Merck & Co, Inc, West Point, PA

803 A Novel Validated Electronic Patient Data Acquisition Tool Standardizes Patient Reported Outcomes (PRO) Data Acquisition Across Multi-Center Environmental Exposure Chamber and Field Studies
Dan Wilson1, 1Giles Wilson1 and Piyush Patel, MD, FRCPI, 1Logos Technologies Inc, London, United Kingdom, 1Inflammax Research, Mississauga, ON, Canada

804 Novel Natural Exposure Chamber Technology Mimics Environmental Allergen Levels Whilst Providing Well-Controlled Airborne Allergen Exposures with High Specificity to Allergic Patients
Harry Nandkesore, MD (AMT), CCRP, Karen Shields, RT, Stephanie Recker, MSC, CCRP and Piyush Patel, MD, FRCPI, Inflammax Research, Mississauga, ON, Canada

Immunotherapy/Immune Deficiencies

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Tuesday, February 26th, 2013, 9:45 AM - 10:45 AM

805 Efficacy of and Adherence with Subcutaneous Allergen Immunotherapy: Comparison Between Allergic Rhinitis and Mixed Rhinitis
Gang Cheng, MD, PhD1, Andrew M. Smith, MD, 1,2 and Jonathan A. Bernstein, MD, 1 Division of Immunology Allergy & Rheumatology, University of Cincinnati Medical Center, CINCINNATI, OH, 2Cincinnati VA Medical Center. CINCINNATI, OH, 3University of Cincinnati Medical Center, Cincinnati, OH

806 Experience with Scg Infusion in Patients with Primary Immune-deficiencies: From Clinical Trials to Real-World Practice
Emily Carne1, Zoya Panahloob2, Gillian Potter3, Nicola Salome-Bentley1, Christine Symons1, Jane Gilliam3, Sarita Workman4, Sophie Barber1, Katrin Morris1, Tarig El-Shanawany5 and Stephen Jolles1, 1University of Wales, Cardiff, United Kingdom, 2CSL Behring UK Ltd, Haywards Heath, United Kingdom, 3University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom, 4John Radcliffe Hospital, Oxford, United Kingdom, 5Plymouth Hospital NHS Trust, Plymouth, United Kingdom, 6Royal Free Hospital, London, United Kingdom

807 Individuals, Subgroups or Cohorts? A Population Pharmacoki-netic Modeling Approach to Optimize Dosing of Hizentra®
Martin Bexon, MD, 1 Jonathan M. Edelman, MD, 2 Mikhail Rojavin, PhD3, Jutta Neufang-Hueber4, Jaden S. Siddi5 and Cornelia Landersdorfer5, 1Clinical Research and Development, CSL Behring AG, Berne, Switzerland, 2Clinical Research and Development, CSL Behring LLC, King of Prussia, PA, 3Global Clinical Operations, CSL Behring AG, Berne, Switzerland, 4Clinical Pharmacology & Early Development, CSL Ltd, Parkville, Australia, 5Centre for Medicine Use and Safety, Monash University, Parkville, Australia

808 Use of Modified (Cluster) Rush Immunotherapy to Safely Reach Maintenance in Pediatric Patients Who Fail a Conventional Schedule
Julia A. Cronin, MD, 1 Deborah D. Murphy, RN, 2 Amy Polen Stal-lings, MD, 3 Scott P. Commins, MD, PhD1 and Peter W. Heymann, MD, 1 University of Virginia, Charlottesville, VA, 2Duke University, NC

809 Ragweed Allergy Immunotherapy Tablet Reduces Use of Oc-u lar Antihistamines in Patients with Ragweed Pollen-Induced Allergic Rhinoconjunctivitis
David L. Bernstein, MD, FAAAAI, 1 Hendrik Nolte, MD, PhD, 2 Peter Creticos, MD, FAAAAI, 1 Amarjot Kaur, PhD, 3 Nancy Liu, PhD, 3 Gary D. Berman, MD, FAAAAI, 1 Jacques Hebert, MD, 2 and Jennifer Maloney, MD, 1 University of Cincinnati, Cincinnati, OH, 2Bernstein Clinical Research Center, LLC, Cincinnati, OH, 3Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc, Whitehouse Station, NJ, 4Johns Hopkins University School of Medicine, Baltimore, MD, 5Merck, Whitehouse Station, NJ, 4Allergy and Asthma Specialists, Minneapolis, MN, 5Centre de Recherche Applique en Allergie de Quebec, Quebec City, QC, Canada

810 Effect of Allergy Immunotherapy Tablet in Patients with or without Local Application-Site Reactions
Gary D. Berman, MD, FAAAAI, 1 Michael S. Blaiss, MD, FAAAAI, 2 Peter Creticos, MD, FAAAAI, 1 Jennifer Maloney, MD, 2 Kevin R. Murphy, MD, 3 Harold S. Nelson, MD, FAAAAI, 4 Amarjot Kaur, PhD, 3 Nancy Liu, PhD, 3 and Hendrik Nolte, MD, PhD, 3 Allergy and Asthma Specialists, Minneapolis, MN, 2University of Tennessee Health Science Center, Memphis, TN, 3Johns Hopkins University School of Medicine, Baltimore, MD, 4Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc, Whitehouse Station, NJ, 4Boys Town National Research Hospital, Boys Town, NE, 5National Jewish Health, Denver, CO, 6Merck, Whitehouse Station, NJ
The Effects of Pollen Season On Adverse Reactions to SCIT
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815 Over-Expression of the LTC4 Synthase Gene in Mice Repro-
816 Effect of Inhaled Corticosteroids (ICS) Vs. Inhaled Corticoste-
817 AAAAI Survey On Allergen Immunotherapy (AIT) in Patients
818 The Incidence of Systemic Allergic Reaction During Subcutane-
819 J ALLERGY CLIN IMMUNOL
820 A Randomized Placebo-Controlled Safety and Pharmacody-
821 Tatsuya Yokoyama
822 Asthma Therapeutic Updates
5601 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM
823 Over-Expression of the LTC4 Synthase Gene in Mice Repro-
824 Nestor A. Molfino, MD, MSc1, Philip G. Bardin, MD, PhD2, Philip
825 University of California San Francisco, San Francisco, CA,
826 TREC Newborn Screening Can Identify Patients with Leaky
827 TREC Newborn Screening Can Identify Patients with Leaky
828 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM
829 Continuous G-CSF Treatment Induces Complete Clinical
830 Primary Bacterial Specificity of IgM and Susceptibility to Pneumonia in
831 Immunodeficiency
832 Immunodeficiency
833 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM
834 A Randomized Placebo-Controlled Safety and Pharmacody-
835 Boris, MD, FAAAAI
836 A Randomized, Double-Blind, Placebo-Controlled, Multiple-
837 William W. Busse, MD, FAAAAI, University of Wisconsin School
838 Characteristics of RV-Specific T Cell Responses in Healthy
839 John W. Steinke, PhD, FAAAAI1, Lixiu Liu, MD, MD2, Joshua L. Ken-
840 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM
841 Evaluation of the B Cell Compartment in CVID and Respi Pa-
842 Continuation of Viral and Bacterial Infections on Asthma
5602 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM
843 Effect of Inhaled Corticosteroids (ICS) Vs. Inhaled Corticoste-
844 Effect of Inhaled Corticosteroids (ICS) Vs. Inhaled Corticoste-
845 William W. Busse, MD, FAAAAI, University of Wisconsin School
846 Effects of Viral and Bacterial Infections on Asthma
5603 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM
847 A Randomized, Double-Blind, Placebo-Controlled, Multiple-
848 William W. Busse, MD, FAAAAI, University of Wisconsin School
849 The Effects of Pollen Season On Adverse Reactions to SCIT
850 The Effects of Pollen Season On Adverse Reactions to SCIT
851 The Effects of Pollen Season On Adverse Reactions to SCIT
852 The Incidence of Systemic Allergic Reaction During Subcutane-
853 AAAD Survey On Allergen Immunotherapy (AIT) in Patients
854 The Effects of Pollen Season On Adverse Reactions to SCIT
855 CA and Shao-Lee Lin, MD, FAAAAI, Amgen, Inc., Thousand
856 Calcium-Dependent Pathways Are Essential for Canonical Glu-
857 Ashwini Reddy, MD, UTMB, Galveston, TX, Lata Kaphalia, PhD,
858 The Incidence of Systemic Allergic Reaction During Subcutane-
859 The Effects of Pollen Season On Adverse Reactions to SCIT
860 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM
861 The Effects of Pollen Season On Adverse Reactions to SCIT
862 AAAAD Survey On Allergen Immunotherapy (AIT) in Patients
863 The Incidence of Systemic Allergic Reaction During Subcutane-
864 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM
865 The Effects of Pollen Season On Adverse Reactions to SCIT
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825 Differential Effects of HRV Species On Cold and Asthma Symptoms
Hiba Bashir, MD,1 Yury Boychov, PhD,2 Fue Vang,3 Tressa Pappas, BS,2 Kristine Grindle,1 Theresa Kang, RN,2 Lisa Salazar, BS,2 Elizabeth L. Anderson, BSN, MA,2 Sheila Turcanyi,1 Michael D. Evans, MS,2 Ronald E. Gangnon, PhD,2 Kirsten Kloepfer, MD,1 Daniel J. Jackson, MD,3 Robert F. Lemanske Jr., MD FAAAAI1 and James Gern, MD, FAAAAI2,1University of Wisconsin School of Medicine and Clinics, Madison, WI,2University of Wisconsin School of Medicine and Public Health, Madison, WI,1University of Wisconsin, Madison, WI,3Pediatrics, University of Wisconsin School of Medicine and Public Health, Madison, WI

826 Effects of Human Rhinovirus Species On Viral Replication in Differentiated Sinus Epithelial Cells
Kazuyuki Nakagome, MD, Yury Boychov, PhD, Shamaila Ashraf, PhD, Rebecca Brockman-Schneider, MS and James Gern, MD, FAAAAI, University of Wisconsin School of Medicine and Public Health, Madison, WI

827 Role of Mycoplasma Pneumoniae in Childhood Asthma
Edward G. Brooks, MD, Vanessa Hill, MD, Margaret Burks, BS, Jay Peters, MD, Harjinder Singh, MD, Thirumalai Kannan, PhD, Schruthi Vale, MS, Mariana Cagle, Molly Prinio, Joel Barry Baseman, PhD and Pamela R. Wood, MD, Univ. Texas Health Science Center San Antonio, San Antonio, TX

828 Detection of Streptococcus Pneumoniae and Human Rhinovirus Is Associated with Loss of Asthma Control
Kirsten Kloepfer, MD, Rose Vritis, BS, Tressa Pappas, BS, Theresa Kang, RN, Lisa Salazar, BS, Elizabeth L. Anderson, BSN MA, Yury Boychov, PhD, Wai-Ming Lee, PhD, Michael D. Evans, MS, Ronald E. Gangnon, PhD, Robert F. Lemanske Jr., MD FAAAAI and James Gern, MD, FAAAAI, University of Wisconsin School of Medicine and Public Health, Madison, WI

Drug/AD

5604 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM

829 Safely Diagnosing Clinically Significant Penicillin Allergy with Only Penicilloyl-Poly-Lysine, Penicillin, and Oral Amoxicillin
Eric M. Macy, MD, FAAAAI. 5th Floor, SCPMG-Kaiser Permanente San Diego, San Diego, CA and Eunis Ngor, MS, Kaiser Permanente Health Care Program, Department of Research and Evaluation, San Antonio, TX

830 Protein Haptenation by Amoxicillin: Immunological Detection with Monoclonal Anti-Amoxicillin Antibodies and Identification of Candidate Target Proteins in Human Serum
Adriana Ariza1,2, Daniel Ruiz-Abínade }1,2, Vivian de los Ríos1, Miguel Blanco, MD, PhD, María José Torres, MD, PhD and Dolores Pérez-Sala1,1Department of Chemical and Physical Biology, Centro de Investigaciones Biológicas, C.S.I.C., Madrid, Spain, 2Research Unit for Allergic Diseases, Fundación IMABIS-Hospital Carlos Haya, Málaga, Spain, 3Allergy Service, Carlos Haya Hospital, Málaga, Spain

831 TH2 Cytokines and Filaggrin Deficiency Enhance Staphylococcus Aureus Alpha-Toxin Induced Keratinocyte Death
Anne M. Brauwiler, PhD,1 Elena Goleva, PhD,2 Michiko K. Oyoshi, PhD,3 Raif S. Geha, MD,4 and Donald Y.M. Leung, MD, PhD5,6Department of Pediatrics, Division of Allergy-Immunology, National Jewish Health, Denver, CO, 7National Jewish Health, Department of Pediatrics, Denver, CO, 8Division of Immunology, Children’s Hospital, Harvard Medical School, Boston, MA

832 An Open Label Study in Adults with Atopic Dermatitis to Assess Immune Response to Fluzone® Intradermal Vaccine
Donald Y.M. Leung, MD, PhD1, Chris Cheadle, PhD2, Joanne Streib, BA3, Trudi Madigan, RN, Susan B. Leung, RN2, Carolin Bronchick, RN,5 Seungshin Rhee, MS,5 Kathleen C. Barnes, PhD, FAAAAI6, Gloria David, PhD4 and Adriana Weinstein, MD5,1Department of Pediatrics, Division of Allergy-Immunology, National Jewish Health, Denver, CO, 2Johns Hopkins University, Baltimore, MD, 3Department of Pediatrics, Division of Allergy-Immunology, National Jewish Health, Denver, CO, 4Rho, Inc., Chapel Hill, NC, 5University of Colorado Health Sci Ctr., Denver, CO

Improving Asthma Outcomes

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833 Selective Transgenic Expression of IL-22 in the Skin Induces Atopic Dermatitis (AD) Like Dermatitis
Hongfei Lou, MD1, Min-Hee OH, PhD Student2, Li Zhou, PhD2, Fan Wu, B.S.1, Zhou Zha, MD, PhD2 and Tao Zheng, MD1, 2Johns Hopkins University, Baltimore, MD, 3The Johns Hopkins University School of Medicine, Baltimore, MD

5606 Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM

834 School-Based Asthma Clinic Improves Asthma Outcomes
Alysia G. Ellis, MD,1 Emily Glynn, PNP-BC2, Lisa D. Henry, PNP-BC3, Lisa A. Meadows, PNP-BC1, Deborah Loman, PhD, CPNP1, Diana Sundaram1, Anyah Land1, Catherine Rains3, Jonathan Strutt, MD4, Kali Svarczkopf, MD5 and Robert C. Strunk IV, MD,6 FAAAAI7,8Washington University, Saint Louis, MO, 9St. Louis Children’s Hospital, Saint Louis, MO, 10St Louis University School of Nursing, Saint Louis, MO, 11Washington University School of Medicine, Saint Louis, MO

835 Factors Related to Decision Making and Substance Use in Adolescents with Asthma: A Presenting Clinical Profile
Mary C. O’Laughlen, PhD, RN, FNP-BC, Patricia J. Hollen, PhD, RN, FAAN, Wenjun Xin, MS, James T. Patrecie, MS, Ivora D. Hinton, PhD and Martha A. Hellemes, MD, MS, University of Virginia, Charlottesville, VA

836 Interviewing Adolescents with Asthma: Are We Doing Enough?
Matthew Altman, MD, University of Washington, Seattle, WA, Andrea J. Apter, MD, MA, MSc, FAAAAI, University of Pennsylvania, Media, PA, Kenneth Ginsburg, MD, The Children’s Hospital of Philadelphia, Philadelphia, PA and David R. Naimi, D. Hinton, PhD and Martha A. Hellemes, MD, MS, University of Virginia, Charlottesville, VA

837 Comparative Effectiveness of Budesonide/Formoterol Combination (BFC) and Fluticasone/Salmeterol Combination (FSC) Among Asthma Patients
Setareh Williams1, Ozgur Tunceli2, David Kern2, Ned Petrick1, Hanaa Elhefni1, Catrin Wessman1, Siting Zhou3 and Frank Trudo1, 1AstraZeneca, 2HealthCore

838 University and Public Health System Partnership: A Systematic Intervention for Assistance of Patients with Asthma in Brazil
Marcos R. Gonçalves, MD1, Janaina Melo, MD,2 Adriana S. Moreno, PhD2, Virginia Ferrarini, MD, PhD2, Ana Carla Araujo, MD, PhD2, Elicio Viana, MM, PhD3, Marcos Borges, MD, PhD, Persio Roxo Jr, MD, PhD2, Rosa Ferrreira, MD, PhD,3 Luane Mello, MD, PhD3, Jorgote Silva, MD, PhD2, Patricia Stefanelli, MD2, Larissa Oliveira, MD2, Andrea Vernier, MD2, Luana Queiroz, MD2, Rosangela Villela, MD2, Marina Dias2, Davi Aragon2, Nélvio Domingos, MD2 and L. Karla Arruda, MD, PhD, FAAAAI, 1School of Medicine of Ribeirão Preto - University of Sao Paulo, Ribeirão Preto, Brazil, 2School of Medicine of Ribeirão Preto - University of Sao Paulo, 3University Center Barao de Maua, Ribeirão Preto, Brazil, 4Department of Pediatrics - Prefeitura Municipal, Ribeirão Preto
Rhinitis and Rhinosinusitis Pathophysiology

Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM

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Evaluation of in Vivo and in Vitro Responses to Nole e1 in Systemic and Local Allergic Rhinitis
Paloma Campo, MD, PhD1, Carmen M. Rondon Segovia, MD2, Mayte Villalba, PhD2, Cristobalina Mayorga, PhD2, MJ Sanchez-Quintero, BS2, Oscar Palomares, PhD2, Luisa Galindo, RN2, Lidia Melendez, Lab. Tech.3, Jose Luis Rodriguez-Bada, Lab. Tech.3, and Miguel Blanca, MD, PhD2, 1Allergy Service Carlos Haya Hospital, Malaga, Spain, 2Carlos Haya Hospital, Malaga, Spain, 3Department of Biochemistry and Molecular Biology, Faculty of Chemistry, Madrid, Spain, 4Research Laboratory, Carlos Haya Hospital, Malaga, Spain, 5Research Laboratory, Hospital Carlos Haya, Malaga, Spain

840 Levels of the Cytokines IL-5, IL-13 and Rantes in Nasal Lavage Fluids Parallel the Cytokine Content of Nasal Polyps in Patients with Chronic Rhinosinusitis with Nasal Polyps (CRSwNP)
Christopher Ocampo, MD, PhD, Lydia Suh, BSc, Robert Kern, MD, Atsushi Kato, PhD, David Conley, PhD, Rakesh Chandra, MD, Bruce Tan, MD, James Norton, MS, Anju Peters, MD, Leslie C. Grammer, MD, FAAAAI and Robert P. Schleimer, PhD, FAAAAI, Northwestern University Feinberg School of Medicine, Chicago, IL

841 Aeroallergen Wheal Area Especially for Molds At Ages Two and Three Predicts Allergic Rhinitis At Age Four: The Cincinnati Childhood Allergy and Air Pollution Study (CCAAPS)
Christopher D. Codispoti, MD, PhD1, Grace K. LeMasters, PhD2, Linda Levin, PhD2, Patrick Ryan, PhD3, Tiina Reponen, PhD2, Gurjit K. Khurana Hershey, MD, PhD, FAAAAA1, Manuel S. Villareal, MD, FAAAAA1, James E. Lockey, MD, MS, FAAAAA and David I. Bernstein, MD, FAAAAA, 1University of Cincinnati, Cincinnati, OH, 2Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, 3Children’s Hospital Medical Center, Cincinnati, OH, 4Fragge Allergy and Asthma Clinics, FSC, Fort Mitchell, KY, 5University Cincinnati College Medicine, Cincinnati, OH

842 Decreased Production of Antimicrobial Peptides in Chronic Rhinosinusitis Associated with Age and Elevated Soluble gp130
Sun Hye Lee, PhD1, Seong Ho Cho, MD1, Kathryn E. Hulse, PhD2, James Norton, MS1, Jason Siebert1, David Conley, MD2, Rakesh Chandra, MD2, Anju Peters, MD3, Robert Kern, MD1,2, Leslie C. Grammer, MD, FAAAAA1 and Robert P. Schleimer, PhD, FAAAAA1, 1Department of Medicine, Division of Allergy-Immunology, Northwestern University Feinberg School of Medicine, Chicago, IL, 2Department of Otolaryngology, Northwestern University Feinberg School of Medicine, Chicago, IL

843 Inhibitory Effects of Mometasone Furoate and Azithromycin On Phorbol Ester-Induced Mucin Production From Human Airway Epithelial Cells
Orapan Poachanukoon, MD1, Napapon Pattanacharoenchai2 and Sittichai Koontongkaew2, 1Thammasat University, Pathumtani, Thailand, 2Thammasat University, Pathumtani

Recent Advances in Eosinophil and Mast Cell Biology

Tuesday, February 26th, 2013, 2:00 PM - 3:15 PM

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Mice with Attenuated Expression of the α2,3 Sialyltransferase ST3gal-III (ST3gal3) Display Enhanced Allergic Eosinophilic Airway Inflammation
Takumi Kiwamoto, MD, PhD, Mary E. Brummet, Mary Motari, Ronald Schnaar, PhD, Zhou Zhu, MD, PhD and Bruce S. Bochner, MD, FAAAAI, The Johns Hopkins University School of Medicine, Baltimore, MD

844 Epicutaneous Sensitization in Filaggrin Gene-Depleted Mouse Induces Prolonged Airway Eosinophilia Without Obvious Dermatitis
Yusuke Suzuki1,2, Katsunori Masaki1, Shizuko Kagawa1,2, Hiroshi Kawasaki1,2, Keisuke Nagao1,2, Akiharu Kubo1,2, Tomoko Betsuyaku1, Masayuki Amagai1 and Koichiro Asano1,2, Division of Pulmonary Medicine, Department of Medicine, Keio University School of Medicine, Tokyo, Japan, 3MSD Endowed Program for Allergy Research, Tokyo, Japan, 4Department of Dermatology, Keio University School of Medicine, Tokyo, Japan, 5The Association for Preventive Medicine of Japan, Tokyo, Japan, 6Center of Integrated Medical Research, Tokyo, Japan, 7Department of Pulmonary Medicine, Tokai University School of Medicine, Isehara, Japan

845 Thymic Stromal Lymphopoietin Promotes Peripheral Blood CD34+ Cell Eosinophilic Lineage Commitment
Claudia C.K. Hui, MSc, Sina Rusta-Salleh, BSc, Delia Heroux, BSc and Judah Aryeh Denburg, MD, FRCP, FAAAAI, McMaster University, Hamilton, ON, Canada

846 Hypoxia Inducible Factor (HIF) Alpha Subunits Modulate Eosinophil Migration, Oxidative Burst, and Degranulation
Laura E. Crotty Alexander, MD1,2, Shari Nicatia, BSc1, Elisa McEachern, BSc1, Randall Johnson, PhD2, David H. Broide, MB, ChB, FAAAAA2 and Victor Nizet, MD2, 1VA San Diego Healthcare System, La Jolla, CA, 2University of California, San Diego, La Jolla, CA, 3Utrecht University, Utrecht, Netherlands, 4University of Cambridge, United Kingdom, 5Division of Allergy, Immunology

847 Functional Expression of the Novel C5a Receptor C5L2 in Human Mast Cells
Priyanka Pandur, DVM1,2 and Marianna Kulka, PhD2, 1Department of Biomedical Sciences, Atlantic Veterinary College, Charlottetown, PE, Canada, 2National Research Council Canada, Charlottetown, PE, Canada