

Allergy and Immun

All sessions at ATS 2012 will link latest research



“The ATS International Conference brings together both clinical and basic scientists to provide state-of-the-art information regarding topics of interest to allergists and immunologists alike,” says Bethany Moore, PhD, who chairs the meeting’s allergy, immunology and inflammation program committee. “It is a great venue to learn about the newest scientific and clinical advances and provides an excellent opportunity to meet and network with colleagues with similar interests.”

Highlights of the allergy, immunology and inflammation sessions offered at ATS 2012 include an exploration of the IL33/ST2 axis in asthma, a review of recent research into the treatment of severe asthma and a session on variability in asthma treatment responses.

The IL-33/ST2 axis in asthma

“IL-33 is a very hot topic in asthma this year,” says Dr. Moore. “This session will highlight the best in new basic research into asthma pathogenesis.” Recent genome-wide association studies have consistently identified IL-33 and its receptor ST2 as genes associated with asthma. New understanding

of the biology of IL-33, its receptor and its target cells is illuminating new disease pathways in asthma that may be potential treatment targets.

This course will help attendees understand the genetic associations of the IL33/ST2 axis with asthma, genetic variants and the key effector cells mediating IL-33 activity.

Severe asthma

This session will cover research on severe asthma conducted as part of the NHLBI’s Severe Asthma Research Program over the last decade. The session will begin with the presentation of five “typical” asthma patient cases and then review genetic biomarkers for asthma severity and progression biomarkers for risk assessment. It will present recent research on imaging in severe asthma, tailoring treatment for subgroups of patients with severe asthma and integrating genomics into clinical practice. The session will conclude with a discussion on the importance of global collaboration in understanding and treating severe asthma.



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Variability in asthma treatment responses

“Addressing Variability in Asthma Treatment Responses: Implementing an Individualized Approach” will cover predictors of asthma treatment response in children and adults, with a focus on recent randomized clinical trials. This session will help attendees translate emerging evidence into clinical practice, covering topics such as personalizing asthma treatment, the effects of phenotype on preschool wheeze, differential responses to asthma therapy in children and adults, eosinophil-guided asthma therapy, the pharmacogenomics of corticosteroid treatment in asthma and phenotype-based asthma therapy.

The presenter of the segment on phenotype-based asthma therapy and session co-chair Peter J. Sterk, MD, PhD, of the University of Amsterdam Academic Medical Center, notes that this year’s allergy, immunology and inflammation sessions “typify one of the most rewarding aspects of the ATS International Conference by not only presenting the latest and the world’s best basic and clinical current research but linking it with real-world practice.” ■



Dr. Sterk

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ATS 2012 sessions of interest to specialists in allergy, immunology & inflammation

- Novel Inflammatory & Repair Pathways in Chronic Obstructive Pulmonary Disease
- Divergent Roles of Antigen Presenting Cells in Lung Health & Disease
- Hypersensitivity Pneumonitis: Recent Advances, Future Directions
- Pneumonia & Pleural Infection: Advances & Controversies
- Airway Remodeling & Hyperresponsiveness in Asthma
- Novel Inflammatory & Repair Pathways in COPD
- Immunotherapy for Lung Cancer & Mesothelioma
- Controversies in the Treatment of Childhood Asthma: A Pro-Con Debate
- Divergent Roles of Antigen Presenting Cells in Lung Health & Disease
- Year in Reviews: Asthma & COPD
- Inflammation & Altered Metabolism in Pulmonary Hypertension
- Mechanisms of Mucus Accumulation in COPD
- Addressing Variability in Asthma Treatment Responses: Implementing an Individualized Approach
- Critical Care in the Immunocompromised Host
- Pulmonary Adaptive Immunity: More Than Just Crossing Your T’s*
- Poster Discussion: First Responders: Mucosal Innate Immunity
- Poster Discussion; Severe Asthma: Present and Future

*Postgraduate course

In addition to sessions programmed by the ATS, the National Institute of Allergy and Infectious Diseases will present these noontime sessions during ATS 2012:

The NIAID Human Immunology Project Consortium: Influenza and Systems Biology

The role of the Microbiome and Epigenetics in Inner-City Asthma