

DIVISION OF PULMONARY MEDICINE, ALLERGY, AND IMMUNOLOGY

Mission

The Division of Pulmonary Medicine, Allergy, and Immunology is committed to serving the community through excellence in patient care, teaching, and research. The division provides outstanding comprehensive care to children with acute or chronic pulmonary disorders, allergic diseases, cystic fibrosis, immune deficiencies, airway lesions, and sleep disorders. The division is dedicated to improving patients' health through research, including basic science, and translational and clinical investigations related to pulmonary and allergic diseases. Educational goals include teaching patients, their families and caregivers, medical students, residents, fellows, physicians, and other health care professionals about the physiology, pathophysiology, and treatment of lung disorders and allergic diseases.

FACULTY AND STAFF

Juan C. Celedón, MD, DrPH

Niels K. Jerne Professor of Pediatrics Professor of Internal Medicine, Epidemiology, and Human Genetics Division Chief, Pediatric Pulmonary Medicine, Allergy, and Immunology Director, Pediatric Asthma Center, Children's Hospital of Pittsburgh of UPMC

John F. Alcorn, PhD

Associate Professor of Pediatrics

Nadia Boutaoui, PhD

Assistant Professor of Pediatrics Laboratory Director

Sangeeta S. Chakravorty, MD

Associate Professor of Pediatrics Director, Pediatric Sleep Evaluation Center

Wei Chen, PhD

Associate Professor of Pediatrics, Biostatistics, and Human Genetics

Hey Chong, MD, PhD

Assistant Professor of Pediatrics Clinical Director, Allergy and Immunology

Mark Dovey, MD

Associate Professor of Pediatrics

Jonathan D. Finder, MD

Professor of Pediatrics Director, Outreach Pulmonary Clinics

Erick Forno, MD, MPH

Assistant Professor of Pediatrics

Todd D. Green, MD

Associate Professor of Pediatrics
Program Director, Allergy and
Immunology
Fellowship Director, Food Allergy
Research and Education (FARE)
Center of Excellence

Yueh-Ying Han, PhD, MS

Research Assistant Professor in Pediatrics

Geoffrey Kurland, MD

Professor of Pediatrics
Director, Pediatric Flexible
Bronchoscopy Service
Director, Pediatric Pulmonary
Transplantation Program

Allyson Larkin, MD

Assistant Professor of Pediatrics Program Director, Allergy and Immunology Fellowship

Hiren Muzumdar, MD

Associate Professor of Pediatrics Codirector, Pediatric Sleep Program

David R. Nash, MD

Assistant Professor of Pediatrics

David M. Orenstein, MD, MA

Professor of Pediatrics
Director Emeritus, Antonio J.
and Janet Palumbo Cystic
Fibrosis Center

Jonathan E. Spahr, MD

Associate Professor of Pediatrics Clinical Director, Pulmonary Medicine

Jieru Wang, MD, PhD

Assistant Professor of Pediatrics

Daniel J. Weiner, MD

Associate Professor of Pediatrics
Director, Antonio J. and Janet
Palumbo Cystic Fibrosis Center
Medical Director, Pulmonary
Function Laboratory
Medical Director, Exercise Laboratory

John Broyles, CRNP

Lori Holt, CRNP

OVERVIEW OF DIVISION

he Division of Pulmonary Medicine, Allergy, and Immunology at the Children's Hospital of Pittsburgh was ranked fifth in the country in the annual listing prepared by *U.S. News & World Report*. The division faculty was pleased to welcome Mark Dovey as an associate professor of pediatrics in March 2017. Hey Chong was appointed clinical director of allergy and immunology in July 2016. Wei Chen was promoted to associate professor of pediatrics, biostatistics, and human genetics in February 2017.

The Pediatric Pulmonary Medicine Fellowship Program trained six fellows during fiscal year 2017 (FY17). In June 2017, Sylvia Szentpetery and Sandeep Puranik graduated from the program. Upon graduation, Szentpetery accepted a position as an assistant professor of pediatrics at the Medical University of South Carolina in Charleston, S.C., and Puranik accepted a position as an assistant professor of pediatrics at the Indiana University School of Medicine in Indianapolis, Ind. In July 2017, two new fellows, Jeremy Landeo and Erica Stevens, began training in the division.



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The Allergy and Immunology Fellowship Program trained four fellows during FY17. June 2017 saw the graduations of Shari Montandon and Stacy Rosenberg. Montandon joined a private practice in Coeur d'Alene, Idaho. Rosenberg joined UPMC as a clinical instructor in pediatrics. In July 2017, two new fellows, Leanna-Maire Sims and Kara Coffey, began training in the division.

CLINICAL ACTIVITIES

he division provides comprehensive services to children with a variety of respiratory tract and allergic diseases. The division's Cystic Fibrosis Center has been honored by the Cystic Fibrosis Foundation as a benchmark center. The division actively participates in the pediatric lung transplantation program and provides consultative services for patients with asthma, recurrent pneumonia, bronchopulmonary dysplasia, neuromuscular disorders, airway lesions, food allergies, allergic rhinitis, atopic dermatitis, immune deficiencies, and other respiratory and allergic diseases. Under the direction of Sangeeta Chakravorty and Hiren Muzumdar, the division has developed a comprehensive sleep program for children. The infant pulmonary function laboratory is the only program of its kind in Western Pennsylvania.

RESEARCH AND OTHER SCHOLARLY ACTIVITIES

ver the past fiscal year, the division received additional funding from the National Institutes of Health (NIH), including an R01 grant to study the effects of psychosocial stress on response to inhaled corticosteroids in Puerto Rican children, an R01 to study the mechanisms of secondary *Staphylococcus Aureus* pneumonia after influenza infection, and a T32 training grant in pediatric pulmonary medicine. Moreover, the division has added new study sites (at Boston Children's Hospital and Washington University in Saint Louis) to the ongoing U01-funded clinical trial of vitamin D supplementation to prevent severe asthma exacerbations in children.

Juan C. Celedón, MD, DrPH

RESEARCH

Juan C. Celedón's research is focused on identifying genetic and epigenetic factors and early-life environmental exposures that influence the pathogenesis of asthma and chronic obstructive pulmonary disease (COPD) in general and among ethnic minorities in particular.

STUDY SECTIONS

 Board of Scientific Counselors, National Institute of Environmental Health Sciences

ADVISORY COMMITTEE MEMBERSHIPS

- Chair, Planning Committee, Environmental and Occupational Health Assembly, American Thoracic Society (ATS)
- Chair, ATS and European Respiratory Society Workshop/Task Force on Respiratory Health in Migrant and Refugee Populations
- Elected member (currently secretary-treasurer), Executive Committee, ATS

EDITORSHIPS

- Editorial Board, American Journal of Respiratory and Critical Care Medicine
- Editorial Board, Thorax

 Associate editor, *American Journal* of Respiratory
 and Critical Care
 Medicine

MAJOR LECTURESHIPS AND SEMINARS

• "Can We Predict Severe Asthma Exacerbations?" Congress of the Latin American Thoracic Association,

Association, Santiago, Chile, 2016

- "Genetics and Epigenetics of Asthma in Latino Americans," Congress of the Latin American Thoracic Association, Santiago, Chile, 2016
- "Genetics and Epigenetics of Stress and Asthma,"
 World Allergy Organization international scientific conference, Jerusalem, Israel, 2016
- "Solving the Puzzle of Asthma Disparities," annual symposium of the Saban Research Institute of Children's Hospital of Los Angeles, Los Angeles, Calif., 2017

Juan C. Celedón, MD, DrPH Division Chief, Pulmonary Medicine, Allergy, and Immunology

- "Epigenetics of Asthma," annual Pneumo Trieste scientific conference, Trieste, Italy, 2017
- "COPD in Hispanics," ATS/European Respiratory Society Workshop on Respiratory Health in Migrant and Refugee Populations, ATS international conference, Washington, D.C., May 2017
- "Genetics and Health Equality," ATS workshop on "High-Throughput Sequencing in Respiratory, Critical Care Medicine, and Sleep Research," ATS international conference, Washington, D.C., May 2017
- "Con: Vitamin D Supplementation Should Be Used in Asthma Management," symposium on "Pro/Con Debate in Pediatric Asthma," ATS international conference, Washington, D.C., May 2017

- Fellow, American College of Physicians
- Fellow, American College of Chest Physicians
- ATS

- Fellow, American Academy of Allergy, Asthma, and Immunology
- American Society of Human Genetics
- Federation of American Societies for Experimental Biology

HONORS

- Elected member, American Society for Clinical Investigation, 2010 to the present
- Elected member, American Pediatric Society, 2013 to the present
- Elected member, Association of American Physicians, 2015 to the present
- John M. Peters Award for outstanding contributions to environmental and population health, ATS Environmental, Occupational, and Population Health Assembly, 2017
- Elected to the ATS Executive Committee (first faculty member of the University of Pittsburgh and first Latino American ever elected to this position since the inception of ATS in 1905), 2017–2022

John F. Alcorn, PhD

RESEARCH

John F. Alcorn studies the role of type 17 immunity in viral and bacterial pneumonia. His studies have focused on influenza A infection and suppression of type 17 immunity against secondary staphylococcal infection. He has studied the mechanisms of asthma and allergic airway disease, with an emphasis on the role of type 17 cellular immunology. His studies have suggested that disease induced by Th17 cells is steroid resistant and may represent a model for steroid-insensitive asthma.

STUDY SECTIONS

- Immunity and Host Defense Study Section, NIH
- · Chair, FP-Flu Panel, Department of Defense
- P01 Special Emphasis Panel, National Institute of Allergy and Infectious Diseases, NIH
- F13 Microbiology F Fellowship Study Section, NIH
- Immunity and Host Defense Overflow Viral Immunity Topics Study Section, NIH

EDITORSHIPS

- Associate editor, Journal of Immunology
- Associate editor, American Journal of Respiratory Cell and Molecular Biology

MAJOR LECTURESHIPS AND SEMINARS

- "Influenza Infection and Susceptibility to Secondary Bacterial Pneumonia," Montana State University, Bozeman, Mont., March 2015
- "Influenza Infection and Susceptibility to Secondary Bacterial Pneumonia," University of Georgia, Athens, Ga., April 2015
- "Th17 Cells in Lung Immunity and Allergy," ATS international meeting, Denver, Colo., May 2015
- "Influenza Infection and Susceptibility to Secondary Bacterial Pneumonia," MedImmune, Gaithersburg, Md., October 2015

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- ATS
- · American Association of Immunologists

HONORS

- Parker B. Francis Jo Rae Wright Award for Scientific Excellence, Parker B. Francis Fellowship Program and the Francis Family Foundation, May 2015
- Elected member, Society for Pediatric Research, 2016 to the present



Nadia Boutaoui, PhD

RESEARCH

Nadia Boutaoui directs the division's genetics and epigenetics laboratory, which studies the impact of heredity and environmental exposures in early life on asthma, particularly in minorities. She trains junior faculty and fellows on genetic and epigenetic laboratory methods to study asthma.

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- ATS
- American Society of Human Genetics

Sangeeta S. Chakravorty, MD

RESEARCH

Sangeeta Chakravorty has established a Sleep Disorders Registry and has enrolled children with sleep disorders from those referred to the pediatric sleep evaluation clinic. She has collaborated with Jeffrey Simons and Allison Tobey (otolaryngologist) on INSPIRE, a proposed hypoglossal nerve stimulator implant in adolescents with trisomy 21.

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- National Sleep Subcommittee, Autism Treatment Network, 2008 to the present
- American Academy of Sleep Medicine, 1999 to the present

MAJOR LECTURESHIPS AND SEMINARS

- "Pharmacological Management of Narcolepsy," invited speaker, Annual Respiratory Care Conference, Cranberry, Pa., September 2016
- "Polysomnography 101," Combined ENT/ Pulmonology Airway Conference, August 2017

HONORS

 Division chief, sleep medicine, Professional Medical Staff Society, Children's Hospital of Pittsburgh, June 2017 to the present

Wei Chen, PhD

RESEARCH

Wei Chen's research focuses on statistical methods and analysis for genetic and genomic studies of complex diseases. He has developed novel methods for genotype calling in next-generation sequencing and has studied genetic risk factors for COPD, asthma, and age-related macular degeneration. In addition, he has studied epigenetics and its interaction with environment on asthma. He has two active R01s from NIH and several collaborative grants from NIH and multiple foundations.

EDITORSHIPS

- Ad hoc reviewer, Nature Genetics
- Ad hoc reviewer, Nature Communications
- Ad hoc reviewer, American Journal of Human Genetics
- Ad hoc reviewer, PLOS Genetics
- Ad hoc reviewer, Bioinformatics
- Ad hoc reviewer, BMC Genetics
- Ad hoc reviewer, PLOSONE
- Ad hoc reviewer, BMC Medical Genetics
- Ad hoc reviewer, Molecular Vision
- Ad hoc reviewer, Acta Ophthalmologica
- Ad hoc reviewer, Human Heredity
- · Ad hoc reviewer, Methods
- Ad hoc reviewer, Briefings in Bioinformatics
- Ad hoc reviewer, BMC Bioinformatics
- Statistical Advisory Board, PLOS ONE
- Guest editor, PLOS Genetics

STUDY SECTION

 Children's Health Exposure Analysis Resource: Data Repository, Analysis, and Science Center (U2C), National Institute of Environmental Health Sciences, Research Triangle Park, N.C.

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- · American Society of Human Genetics
- · American Statistical Association
- International Biometric Society

MAJOR LECTURESHIPS AND SEMINARS

- "Statistical Issues in Genome-Wide Association Studies of Age-Related Macular Degeneration Progression," Third Taihu International Statistics Forum, Shanghai, China, July 2016
- "AMD Genetics: Association and Prediction," annual meeting of Eastern North American Region Biometric Society, Austin, Texas, March 2016
- "Statistical Issues in Genome-Wide Association Studies of Age-Related Macular Degeneration Progression," Center for Quantitative Science, Vanderbilt University, Nashville, Tenn., May 2016
- "The Power of Statistics in Making Sense of Omics Data," Department of Pediatrics, Molecular Medicine Research Seminar, University of Pittsburgh, Pittsburgh, Pa., September 2016
- "A Novel Method for Clustering Droplet-Based Single-Cell Data," Recomb-seq, Hong Kong, China, 2017
- "DIMMS-SC: Methods for Single-Cell RNA-Seq Data," Joint Statistical Meeting, Baltimore, Md., 2017

RESEARCH

Hey J. Chong is the site principal investigator for two multicenter studies through the Primary Immunodeficiency Treatment Consortium. Study 6903 continues looking at patients treated for chronic granulomatous disease with or without transplant. Study 6904 continues looking at Wiskott-Aldrich syndrome and the role of transplantation. She is also the site principal investigator for six industry-sponsored food-tolerance clinical trials through Aimmune and DBV Technologies.

ADVISORY COMMITTEE MEMBERSHIPS

- Continuing Medical Education Committee, Clinical Immunology Society, 2014 to the present
- Fellowship Research Committee, Children's Hospital of Pittsburgh of UPMC

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- Clinical Immunology Society
- · American Academy of Allergy, Asthma, and Immunology

MAJOR LECTURESHIPS AND SEMINARS

- "Primary Immunodeficiency in Your Office" Children's Hospital of Pittsburgh grand rounds, Pittsburgh, Pa., September 2017
- Panel member, Seventh Annual Update in Allergy and Sino-Nasal Disorders, University of Pittsburgh School of Medicine, Pittsburgh, Pa., May 2017
- "Primary Immunodeficiency for the Intensivist," invited speaker, grand rounds, Children's Hospital Intensive Care Unit, Pittsburgh, Pa., November 2016
- "How the Clinical Laboratory Helps Identify, Diagnose, and Manage Patients With Immunodeficiency Diseases," invited speaker, Association of Medical Laboratory Immunologists meeting, Pittsburgh, Pa., August 2016
- "Immunology in Health and Disease," first-year medical course, University of Pittsburgh School of Medicine, Pittsburgh, Pa., 2013–2016

Mark Dovey, MD

RESEARCH

Mark Dovey is the site principal investigator of two multicenter clinical trials of investigational agents to treat cystic fibrosis lung disease: (1) a phase III, randomized, double-blind, placebo-controlled study of inhaled vancomycin for the treatment of persistent methicillin-resistant *Staphylococcus aureus* lung infection in cystic fibrosis patients and (2) a phase III, open-label study to evaluate the pharmacokinetics, safety, and tolerability of VX661 in combination with Ivacaftor in subjects 6 through 11 years

of age with cystic fibrosis, homozygous or heterozygous for the F508delCFTR mutation.

EDITORSHIPS

- Ad hoc reviewer, Blood (Journal of the American Society of Hematology)
- Ad hoc reviewer, American Journal of Respiratory and Critical Care Medicine
- Ad hoc reviewer, Pediatric Pulmonology
- Ad hoc reviewer, Journal of Pediatrics
- Ad hoc reviewer, American Journal of Perinatology
- Ad hoc reviewer, Journal of Developmental and Behavioral Pediatrics

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

ATS

HONORS

- Top Doctor, U.S. News & World Report, ranked top 1% in nation, 2013–2016
- Top Doctor in Pediatric Pulmonology, Boston Magazine, 2015–2016

Jonathan D. Finder, MD

ADVISORY COMMITTEE MEMBERSHIPS

- Pharmacy and Therapeutics Committee, Children's Hospital of Pittsburgh, 2000 to the present
- Codirector, Medical Staff Campaign, Children's Hospital of Pittsburgh Foundation, 2001 to the present
- Pharmacy Innovative Use Committee, Children's Hospital of Pittsburgh, 2007 to the present
- Ambulatory e-Record Optimization Steering Committee, Children's Hospital of Pittsburgh, 2011 to the present
- Clinical Transformation Steering Committee, Children's Hospital of Pittsburgh, 2014 to the present
- Task Force 2019, Children's Hospital of Pittsburgh, April 2016 to the present

EDITORSHIPS

• Editorial Advisory Board, RT Magazine, 2004 to the present

MAJOR LECTURESHIPS AND SEMINARS

- "Respiratory Management of Patients With Neuromuscular Disorders," grand rounds, University of Pittsburgh, Department of Pediatrics, Children's Hospital of Pittsburgh, February 2016
- Creator and organizer, Respiratory Outcomes in Muscular Dystrophy, meeting of Parent Project Muscular Dystrophy, U.S. Food and Drug Administration, NIH, international research community, and industry to result in a consensus statement, April 2016



- "Respiratory Management of Duchenne Muscular Dystrophy," Muscular Dystrophy Foundation of South Africa regional workshop, Hope School, Johannesburg, South Africa, August 2016
- "Respiratory Management of Duchenne Muscular Dystrophy," Muscular Dystrophy Foundation of South Africa regional workshop, Albert Lethuli Hospital, Durban, South Africa, August 2016
- "Respiratory Management of Duchenne Muscular Dystrophy," Muscular Dystrophy Foundation of South Africa regional workshop, Red Cross Hospital, Cape Town, South Africa, September 2016
- "Respiratory Management of Duchenne Muscular Dystrophy," South African Paediatric Association Second Biennial Congress, Durban, South Africa, September 2016
- "Respiratory Management of Patients with Neuromuscular Disorders," Pennsylvania Society for Respiratory Care Western Regional Conference, Cranberry, Pa., September 2016
- "Respiratory Management of Patients with Neuromuscular Disorders," grand rounds, Department of Pediatrics, Nationwide Children's Hospital, University of Ohio, December 2016
- "Pulmonary Secrets for Pediatricians," grand rounds, Children's Hospital of Pittsburgh, October 2017
- "Standards of Care," Parent Project Muscular Dystrophy, Boston regional conference, October 2017

- Advisor to board, Parent Project Muscular Dystrophy, 1999 to the present
- ATS, 1991 to the present

HONORS

- Best Doctors, Pittsburgh Magazine, 2012–2016
- Best Doctors in America, Woodward/White, Inc., 2003–2017
- 2013 Care Center Champion Award, Cystic Fibrosis Foundation, 2014
- University of Pittsburgh School of Medicine's Sheldon Adler Innovation in Medical Education Award, 2017

Erick Forno, MD, MPH

RESEARCH

Erick Forno studies the environmental and genetic risk factors for asthma and asthma severity in children. His primary focus is on the effect of overweight and obesity on childhood asthma. He has recruited for a study looking at the epigenetics and genomics of adipose tissue and childhood asthma, and he has participated in ongoing studies of epigenetics of asthma in Puerto Rico and of vitamin D supplementation for persistent asthma.

EDITORSHIPS

- Review Board, Journal of Allergy and Clinical Immunology
- Ad hoc reviewer, American Journal of Respiratory and Critical Care Medicine
- Ad hoc reviewer, Journal of Allergy and Clinical Immunology–In Practice
- Ad hoc reviewer, The Lancet Respiratory Medicine
- Ad hoc reviewer, Annals of the American Thoracic Society
- Ad hoc reviewer, European Respiratory Journal
- Ad hoc reviewer, Pediatrics
- · Ad hoc reviewer, Chest
- Ad hoc reviewer, Pharmacogenomics Journal
- Ad hoc reviewer, PLOS ONE
- Ad hoc reviewer, Pediatric Pulmonology
- · Ad hoc reviewer, Annals of Allergy, Asthma, and Immunology
- Ad hoc reviewer, *Thorax*
- Ad hoc reviewer, Respirology
- Ad hoc reviewer, *Journal of Pediatrics*
- Ad hoc reviewer, Obesity Reviews
- Ad hoc reviewer, Journal of Asthma
- Ad hoc reviewer, Jornal de Pediatria (Brasil)

MAJOR LECTURESHIPS AND SEMINARS

- "Multi-Omics Approach to Identify Genes Associated With Childhood Asthma Risk and Morbidity," mini-symposium, ATS international conference, San Francisco, Calif., May 2016
- "Omics of Environmental Lung Disease," co-chair, mini-symposium, ATS international conference, San Francisco, Calif., May 2016
- "Obesity and Asthma in Children," guest speaker, Chronic Diseases in Low- and Middle-Income
 Countries course, Johns Hopkins Bloomberg School of Public Health, Baltimore, Md., August 2016
- "Obesity, Stress, and Asthma," guest speaker, Societal Change, Asthma, and Allergy in Latin America international meeting, Salvador da Bahía, Brazil, December 2016
- "Childhood Obese Asthma," guest speaker, Pulmonary Division, University of Wisconsin School of Medicine and Public Health, Madison, Wis., January 2017
- "Obesity and Asthma in Children" and "Severe Phenotypes of Childhood Asthma," guest speaker, XXX Central American and Caribbean Congress of Pulmonology and Thoracic Surgery, San Jose, Costa Rica, March 2017

- "Obesity and Asthma" and "Asthma Management Beyond Monotherapy," invited lectures, Panama Respiratory Symposium, Panama City, Panama, April 2017
- "A Pro/Con Debate in Pediatric Asthma," co-chair, Scientific Symposium, ATS international conference, Washington, D.C., May 2017
- "Obesity and Chronic Respiratory Diseases in Children: Recent Advances and Clinical Implications," co-chair, scientific symposium, ATS international conference, Washington, D.C., May 2017

- ATS
- American Society of Human Genetics
- Society for Pediatric Research

HONORS

- Accepted to the Society for Pediatric Research, 2013
- Member, Program Committee, ATS Assembly of Pediatrics, 2015–2018
- Mentored Career Development Award (K08), NIH, 2015–2019
- Research Advisory Committee Award, Children's Hospital of Pittsburgh, 2015–2016
- Klostenfrau International Award for Research of Airway Diseases in Childhood, German Society of Pediatric Pulmonology, 2017
- Robert B. Mellins Achievement Award for Outstanding Research, Assembly on Pediatrics, ATS, 2017

Todd D. Green, MD

RESEARCH

Todd D. Green serves as director for the FARE Center of Excellence at Children's Hospital of Pittsburgh of UPMC. In that position, he serves as principal investigator for multiple clinical trials looking at novel potential therapies for food allergy, a condition for which there is currently no treatment. He continues to serve as principal investigator in studies examining quality-of-life issues in children with food allergy, as well as characterizing outcomes of oral food challenges. Green was a co-investigator (collaborating with William Doyle, principal investigator) on a pilot study of the effect of intranasal ragweed challenge in adult allergy rhinitis subjects on middle-ear pressure regulation.

EDITORSHIPS

• Section editor (Food Allergy), Current Allergy and Asthma Reports

- Ad hoc reviewer, Allergy (European Journal of Allergy and Clinical Immunology)
- · Ad hoc reviewer, Annals of Allergy, Asthma, and Immunology
- Ad hoc reviewer, Immunotherapy
- · Ad hoc reviewer, Journal of Allergy and Clinical Immunology
- Ad hoc reviewer, Journal of Allergy and Clinical Immunology—In Practice
- Ad hoc reviewer, Journal of Asthma
- Ad hoc reviewer, Journal of Pediatric Gastroenterology and Nutrition
- Ad hoc reviewer, New England Journal of Medicine
- Ad hoc reviewer, Pediatrics

ADVISORY COMMITTEE MEMBERSHIPS

- Outcomes Research Advisory Board, Patient-Centric Food Allergy Research Program, FARE, supported by the Patient-Centered Outcomes Research Institute through the Eugene Washington Engagement Award
- Medical Advisory Board, International FPIES (food protein–induced enterocolitis syndrome) Association
- UPMC Patient Experience Physician Advisory Group
- · Clinical Advisory Board, FARE
- Medical-Scientific Council, Asthma and Allergy Foundation of America
- Medical Advisory Team, Kids With Food Allergies
- Medical advisor, Epi-Life, Food Allergy Parent Support Group
- Residency Education Committee, Children's Hospital of Pittsburgh of UPMC
- Pediatric Residency Selection Committee, Children's Hospital of Pittsburgh of UPMC

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- Fellow, American Academy of Allergy, Asthma, and Immunology
- Representative to the Council of Pediatric Subspecialties from the American Academy of Allergy, Asthma, and Immunology
- Governor, Region 2, Federation of the Regional, State, and Local American Association of Immunologists Societies Assembly
- · Pediatrics Councilor, Program Directors Assembly
- Executive Committee, American Academy of Allergy, Asthma, and Immunology
- Clinical Immunology Society
- Past president, Board of Regents, Pennsylvania Allergy and Asthma Association

MAJOR LECTURESHIPS AND SEMINARS

 "Primary Prevention of Food Allergy," Children's Community Pediatrics, "Lunch 'N Learn" teleconference, Pittsburgh, Pa., June 2016



- "Pediatric Allergy Cases," faculty, 11th Annual Update in Sino-Nasal Disorders and Allergy, University of Pittsburgh School of Medicine, Pittsburgh, Pa., May 2016
- "Participating in a Research Study," webinar offered by FARE, April 2016

Yueh-Ying Han, PhD, MS

RESEARCH

Using epidemiological methodologies and quantitative analysis, Yueh-Ying Han studies etiology and risk factors for asthma and asthma severity in children. Her primary study is on dietary and nutritional intake in association with childhood asthma. She works closely with fellows and colleagues in various pulmonary studies. She also serves as the overall data manager for Celedón's research group, participating in several study projects at UPMC and Children's Hospital of Pittsburgh of UPMC.

EDITORSHIPS

- Ad hoc reviewer, Pediatric Allergy and Immunology
- Ad hoc reviewer, American Journal of Public Health

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- American Public Health Association
- Society for Epidemiology Research

TEACHING ACTIVITIES

• "Environmental Epidemiology," guest lecturer, University of Pittsburgh Graduate School of Public Health,

Geoffrey Kurland, MD

EDITORSHIPS

 Associate editor, lung transplantation, Journal of Pediatric Transplantation

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- Pediatric Pulmonary Sub-Board, American Academy of Pediatrics
- · Pediatric Planning Committee, ATS
- Pediatric Interstitial Lung Disease Consortium
- Medical volunteer, Western States 100-Mile Endurance Run, Sierra Mountains, Calif.
- Alpha Omega Alpha
- American Academy of Pediatrics
- American Pediatric Society
- American Society of Transplant Physicians
- AT:
- European Respiratory Society
- International Pediatric Transplantation Association
- International Society of Heart and Lung Transplantation
- Pediatric Pulmonary Training Directors Association

Allyson Larkin, MD

RESEARCH

Allyson Larkin is involved in multiple asthma-related projects. She continues work on developing an asthma game that will enhance understanding of treatment and disease processes. She sees patients in the Severe Asthma Research Program and works to develop an active asthma registry. She participates in the following studies.





- Step-Up Yellow Zone Inhaled Corticosteroids to Prevent Exacerbations
- Peanut Allergy Oral Immunotherapy Study of AR101 for Desensitization in Children and Adults (Palisade)
- A Double-Blind, Placebo-Controlled, Randomized Phase III Pivotal Trial to Assess the Efficacy and Safety of Peanut Epicutaneous Immunotherapy With Viaskin® Peanut in Peanut-Allergic Children
- A Double-Blind, Placebo-Controlled Randomized Trial to Study Viaskin® Milk Efficacy and Safety for Treating IgE-Mediated Cow's Milk Allergy in Children

ADVISORY COMMITTEE MEMBERSHIPS

- Pennsylvania Allergy and Asthma Association Board of Regents, June 2013
- Children's Community Pediatrics Asthma Care Program
- Accreditation Council for Graduate Medical Education
- Clinical Competency Committee, Allergy/Immunology Fellowship Program
- Curriculum and Program Evaluation Committee, Allergy/Immunology Fellowship Program
- Research Committee, Allergy/Immunology Fellowship Program

MAJOR LECTURESHIPS AND SEMINARS

- "Review of Primary Immunodeficiencies Related to B-Cell Defects and Phagocytic Defects," Immunology in Health and Disease, University of Pittsburgh School of Medicine, Pittsburgh, Pa., February 2016
- "Food Allergy Awareness," St. Edmond's Academy, Pittsburgh, Pa., May 2016
- "Use of Anti-IL4/IL5 Therapies in Allergic Disease," grand rounds, Allergy and Immunology, Children's Hospital of Pittsburgh, Pittsburgh, Pa., May 2016
- "Review of Primary Immunodeficiencies Related to B-Cell Defects and Phagocytic Defects," Immunology in Health and Disease, University of Pittsburgh Medical School, Pittsburgh, Pa., March 2017
- "Gateway Asthma Webinar," Pittsburgh, Pa., August 2017

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- Pennsylvania Allergy and Asthma Association
- American Academy of Allergy, Asthma, and Immunology

Hiren Muzumdar, MD

RESEARCH

Hiren Muzumdar is an investigator in a study on sleep disturbances in recent survivors of childhood cancer.

ADVISORY COMMITTEE MEMBERSHIPS

 Telehealth for Technology Dependent Children Program, Children's Hospital of Pittsburgh, 2014 to the present

EDITORSHIPS

- Reviewer, American Journal of Respiratory and Critical Care Medicine
- Reviewer, Chest
- Reviewer, Pediatric Pulmonology
- Reviewer, Sleep
- Reviewer, Sleep Medicine
- Reviewer, International Journal of Pediatric Otolaryngology
- Reviewer, Annals of the American Thoracic Society
- Reviewer, Journal of Clinical Sleep Medicine

MAJOR LECTURESHIPS AND SEMINARS

- "Pediatric Obstructive Sleep Apnea," annual Pennsylvania Society for Respiratory Care Western Regional Conference on Respiratory and Sleep Medicine, October 2015
- "Sleep Update," Three Rivers Pediatric Update, Children's Hospital of Pittsburgh, Pittsburgh, Pa., May 2016

HONORS

• Best Doctors, Pittsburgh Magazine, 2014 to the present

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- ATS
- American Academy of Sleep Medicine

David M. Orenstein, MD, MA

RESEARCH

David Orenstein's 37-year research career has focused on various aspects of exercise in patients with cystic fibrosis and other lung disorders. Orenstein continues as the principal investigator of the Pittsburgh Translational Center for the Cystic Fibrosis Foundation's National Therapeutics Development Network and as a driving force in many multicenter clinical studies.

ADVISORY COMMITTEE MEMBERSHIPS

- Board of Trustees, Western Pennsylvania Chapter, Cystic Fibrosis Foundation
- Chair, Ethics Committee, Children's Hospital of Pittsburgh of UPMC
- Data Safety Monitoring Committee, Cystic Fibrosis Foundation Therapeutics Development Network
- Pediatric Pulmonary Fellowship Programs, Appeals Panel for the Accreditation Council for Graduate Medical Education
- Professional Education and Training Committee, Cystic Fibrosis Foundation (national)

- American Academy of Pediatrics
- · American College of Sports Medicine
- American Pediatric Society
- · American Society for Bioethics and Humanities
- · Cystic Fibrosis Foundation
- · Society for Pediatric Research
- · Center for Bioethics and Health Law

HONORS

- Best Doctors in America, Woodward/White, Inc., 1989 to the present
- Antonio J. and Janet Palumbo Professor of Cystic Fibrosis, Children's Hospital of Pittsburgh of UPMC
- Health Care Heroes Lifetime Achievement Award, Pittsburgh Business Times, 2015

Daniel J. Weiner, MD

RESEARCH

Daniel Weiner is the local principal investigator for a number of multicenter cystic fibrosis clinical trials, including studies of novel pharmaceuticals to enhance ion transport, pancreatic enzyme–replacement therapies, and hydrating therapies (hypertonic saline). He continues to investigate measurements from multiple-breath washout studies as an outcome for clinical trials in cystic fibrosis.

COMMITTEE MEMBERSHIPS

- Center Committee, Cystic Fibrosis Foundation
- Proficiency Standards for Pulmonary Function Laboratories Committee, ATS
- Board of Directors, Western Pennsylvania Chapter of the Cystic Fibrosis Foundation
- Proficiency Standards for Pulmonary Function Laboratories Committee, ATS
- Accreditation for Pulmonary Function Laboratories Committee, ATS
- Sub-Board of Pediatric Pulmonology, American Board of Pediatrics
- PENTEC (Pediatric Normal Tissue Effects in the Clinic) Working Group
- Pulmonary Working Group, Children's Oncology Group
- Pulmonary Dysfunction Guidelines International Harmonisation Group

EDITORSHIPS

- Ad hoc reviewer, CHEST
- Ad hoc reviewer, Pediatric Emergency Care
- Ad hoc reviewer, European Respiratory Journal
- Ad hoc reviewer, American Journal of Respiratory and Critical Care Medicine
- Ad hoc reviewer, Pediatric Pulmonology
- Ad hoc reviewer, Anesthesia and Analgesia
- Ad hoc reviewer, Journal of Cystic Fibrosis
- Ad hoc reviewer, Acta Pathologica, Microbiologica, et Immunologica Scandinavica
- Ad hoc reviewer, Journal of Pediatrics
- Ad hoc reviewer, Journal of Asthma
- Ad hoc reviewer, Respiratory Care
- Ad hoc reviewer, International Journal of Radiation Oncology, Biology, Physics
- Review editor, Frontiers in Pediatric Pulmonology

MAJOR LECTURESHIPS AND SEMINARS

- "Cystic Fibrosis," Pennsylvania Association of Physician Assistants, Greentree, Pa., October 2016
- "Spirometry," lecture for pulmonary research coordinators, Division of Pulmonary Medicine, Children's Hospital of Pittsburgh, October 2016
- "Spirometry and Beyond," grand rounds, Section of Allergy and Immunology, Children's Hospital of Pittsburgh, November 2016
- "What About the Kids? Special Considerations for Pediatric Pulmonary Function Measurement and Interpretation" and "PG-21 Pulmonary Function and Cardiopulmonary Exercise Testing: Moving From Theory to Clinical Practice," ATS international conference, Washington, D.C., May 2017
- "To Spirometry and Beyond: Advanced Pulmonary Function Testing," grand rounds, Section of Allergy and Immunology, Children's Hospital of Pittsburgh, October 2017

PROFESSIONAL AFFILIATIONS/SOCIETY MEMBERSHIPS

- · Alpha Omega Alpha
- American College of Chest Physicians
- AT:
- European Respiratory Society

HONORS

- Outstanding Cystic Fibrosis Advocate Award, Cystic Fibrosis Foundation, 2016
- Outstanding Mini-Elective, University of Pittsburgh School of Medicine, October 2017

he division has two training programs accredited by the Accreditation Council for Graduate Medical Education (Pediatric Pulmonary Medicine and Allergy/Immunology). Six fellows currently are in training in the Pulmonary Medicine Program, and four fellows currently are in training in the Allergy/Immunology Program. The division's clinics serve as a popular elective rotation for medical students and residents.

The faculty teaches classes in molecular medicine and integrated life science; directs journal clubs and research conferences; bolsters training in other departments (e.g., the School of Nursing, Otolaryngology, Pediatric Critical Care); and participates in the Unified Fellows Course. The division's educational efforts included three predoctoral students, one of whom was in the Medical Scientist Training Program; two summer students; one summer undergraduate student; and two medical student researchers.

THREE-YEAR BIBLIOGRAPHY

2015

Oczypok EA, Milutinovic PS, **Alcorn JF**, Khare A, Crum LT, **Manni ML**, Epperly MW, Pawluk AM, Ray A, Oury TD. Pulmonary receptor for advanced glycation end-products promotes asthma pathogenesis through IL-33 and accumulation of group 2 innate lymphoid cells. *J Allergy Clin Immunol*. 2015;136(3):747-56.

Otsubo C, Bharathi S, Uppala R, Ilkayeva OR, Wang D, McHugh K, Zou Y, Wang J, **Alcorn JF**, Zuo YY, Hirschey MD, ES Goetzman. Long-chain acylcarnitines reduce lung function by inhibiting pulmonary surfactant. *J Biol Chem*. 2015;290:23897-904.

Alcorn JF, Sarkar SN. What is the oligoadenylate synthetases-like protein and does it have therapeutic potential for influenza? *Expert Rev Respir Med*. 2015;9(1):1-3.

Alcorn JF, **Kolls JK**. Physiology. Killer fat. *Science*. 2015;347(6217):26-7.

Rynda-Apple A, Robinson KM, **Alcorn JF**. Influenza and bacterial superinfection: Illuminating the immunologic mechanisms of disease. *Infect Immun*. 2015;83(10):3764-70.

Brehm JM, Ramratnam SK, Tse SM, Croteau-Chonka DC, Pino-Yanes M, Rosas-Salazar C, Litonjua AA, Raby BA, Boutaoui N, Han YY, Chen W, Forno E, Marsland AL, Nugent NR, Eng C, Colon-Semidey A, Alvarez M, Acosta-Perez E, Spear ML, Martinez FD, Avila L, Weiss ST, Soto-Quiros M, Ober C, Nicolae DL, Barnes KC, Lemanske RF Jr., Strunk RC, Liu A, London SJ, Gilliland F, Sleiman P, March M, Hakonarson H, Duan QL, Kolls JK, Fritz

GK, Hu D, Fani N, Stevens JS, Almli LM, Burchard EG, Shin J, McQuaid EL, Ressler K, Canino G, **Celedón JC**. Stress and bronchodilator response in children with asthma. *Am J Respir Crit Care Med*. 2015;192(1):47-56.

Wang T, Guan W, Lin J, **Boutaoui N**, Canino G, Luo J, **Celedón JC**, **Chen W**. A systematic study of normalization methods for Infinium 450K methylation data using whole-genome bisulfite sequencing data. *Epigenetics*. 2015;10(7):662-9.

Sordillo JE, Kelly R, Bunyavanich S, McGeachie M, Qiu W, Croteau-Chonka DC, Soto-Quiros M, Avila L, **Celedón JC**, **Brehm JM**, Weiss ST, Gold DR, Litonjua AA. Genome-wide expression profiles identify potential targets for gene-environment interactions in asthma severity. *J Allergy Clin Immunol*. 2015 Oct;136(4):885-92.e2.

Nguyen NLH, Pilewski JM, Celedón JC, Mandalapu S, Blanchrd ML, DeRicco A, Hartigan E, Alcorn JF, Kolls JK. Vitamin D supplementation decreases Aspergillus fumigatus specific Th2 responses in CF patients with Aspergillus sensitization: A phase 1 open-label study. Asthma Res Practice. 2015;1:3.

Chen W, Brehm JM, Lin J, Wang T, Forno E, Acosta-Perez E, Boutaoui N, Canino G, Celedón JC. Expression quantitative trait loci (eQTL) mapping in Puerto Rican children. *PLOS One*. 2015;10(3):e0122464.

Li B, Wei Q, Zhan X, Zhong X, **Chen W**, Li C, Haines J. Leveraging identity-by-descent for accurate genotype inference in family sequencing data. *PLOS Genet*. 2015;11(6):e1005271.

Chen W, Brehm JM, Manichaikul A, Cho MH, Boutaoui N, Yan Q, Burkart KM, Enright PL, Rotter JI, Petersen H, Leng S, Obeidat M, Bosse Y, Brandsma CA, Hao K, Rich SS, Powell R, Avila L, Soto-Quiros M, Silverman EK, Tesfaigzi Y, Barr RG, Celedón JC. A genome-wide association study of chronic obstructive pulmonary disease in Hispanics. *Ann Am Thorac Soc*. 2015;12(3):340-8.

Chen R, Wei Q, Zhan X, Zhong X, Sutcliffe JS, Cox NJ, Cook EH, Li C, **Chen W**, Li B. A haplotype-based framework for group-wise transmission/disequilibrium tests for rare variant association analysis. *Bioinformatics*. 2015;31(9):1452-9.

Wei Q, Zhan X, Zhong X, Liu Y, Han Y, **Chen W**, Li B. A Bayesian framework for *de novo* mutation calling in parents-offspring trios. *Bioinformatics*. 2015;31(9):1375-81.

Fan R, Wang Y, Boehnke M, **Chen W**, Li Y, Ren H, Lobach I, Xiong M. Genelevel meta-analysis of quantitative traits by functional linear models. *Genetics*. 2015;200(4):1089-104.

Xu Z, Duan Q, Yan S, **Chen W**, Li M, Lange E, Li Y. DISSCO: Direct imputation of summary statistics allowing covariates. *Bioinformatics*. 2015;31(15):2434-42.

Ray M, Horne W, McAleer JP, Ricks DM, Kreindler JL, Fitzsimons MS, Chan PP, Trevejo-Nunez G, Chen K, Fajt M, **Chen W**, Ray A, Wenzel S, Kolls JK. RNA-seq in pulmonary medicine: How much is enough? *Am J Respir Crit Care Med*. 2015;192(3):389-91.

Rice J, Matlack KM, Simmons M, Steinfeld J, Laws MA, Dovey ME, Cohen RT. LEAP: A randomized-controlled trial of a lay-educator inpatient asthma education program. Patient Educ Couns. 2015;98(12):1585-91.

McNally EM, Kaltman JR, Benson FW, Canter MCE, Cripe LH, Duan D, Finder JD, Hoffman EP, Judge DP, Kertesz N, Kinnett K, Kirsch R, Metzger JM, Pearson GD, Rafael-Fortney JA, Raman SV, Spurney MCF, Targum SL, Wagner KR, Markham LW. Contemporary cardiac issues in Duchenne muscular dystrophy. Circulation. 2015;131:1590-8.

Finder JD. The natural history of pulmonary function in Duchenne muscular dystrophy. Pediatric Pulmonology. 2015;50:421-2.

Finder JD. Tracheomalacia and bronchomalacia; congenital disorders of the lung. In: Nelson Textbook of Pediatrics, 20th ed. WB Saunders, Philadelphia; 2015.

Motoyama EK, Finder JD. Respiratory physiology in infants and children. In: Smith's Anesthesia for Infants and Children, 9th ed. Mosby/Elsevier; 2015.

Narayanaswami P, Dubinsky R, Wang D, Gjorvad G, David W, Finder JD, Smith B, Cheng J, Shapiro F, Mellion M, Spurney C, Wolff J, England J. Quality improvement in neurology: Muscular dystrophy quality measures. Neurology. 2015 Sep 8;85(10):905-9.

Blatter J, Finder JD. Congenital disorders of the lung. In: Nelson Textbook of Pediatrics, 20th ed. WB Saunders, Philadelphia; 2015.

Beckhaus AA, Garcia-Marcos L, Forno E, Pacheco-Gonzalez RM, Celedón JC, Castro-Rodriguez JA. Maternal nutrition during pregnancy and risk of asthma, wheeze, and atopic diseases during childhood: A systematic review and meta-analysis. Allergy. 2015; 70(12):1588-604.

Forno E, Gogna M, Cepeda A, Yañez A, Solé D, Cooper P, Avila L, Soto-Quiros M, Castro-Rodriguez JA, Celedón JC, et al. Asthma in Latin America. Thorax. 2015;70(9):898-905.

Strunk RC, Colvin R, Bacharier LB, Fuhlbrigge A. Forno E. et al. Airway obstruction worsens in young adults with asthma who become obese. J Allergy Clin immunol Pract. 2015;3(5):765-71. e2.

Forno E, Han YY, Muzumdar RH, Celedón JC. Insulin resistance, metabolic syndrome, and lung function in U.S. adolescents with and without asthma. J Allergy Clin immunol. 2015;136(2):304-11.

Desai SH, Jeong K, Kattan JD, Lieberman R, Wisniewski S, Green TD. Anaphylaxis management before and after implementation of guidelines in the pediatric emergency department. J Allergy Clin Immunol Pract. 2015; 3(4):604-6.

Green T. Allergic conditions [videotaped continuing medical education lecture]. In: Middleton D, course director: Comprehensive Review of Family Medicine. Birmingham, AL: Oakstone Publishing; 2015.

Liu M, Burks AW, Green TD. Tree nut allergy: Risk factors for development, mitigation of reaction risk, and current efforts in desensitization. Expert Rev Clin Immunol. 2015;11:673-9.

Han YY, Forno E, Holquin F, Celedón JC. Diet and asthma: An update. Current opinion in allergy and clinical immunology. 2015;15(4):369-74.

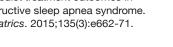
Han YY. Forno E. Marsland AL. Miller GE, Celedón JC. Depression, asthma, and bronchodilator response in a nationwide study of U.S. adults. J Allergy Clin Immunol Pract. 2016;4(1):68-73.

Han YY, Forno E, Brehm JM, Acosta-Pérez E, Alvarez M, Colón-Semidey A, Rivera-Soto W, Campos H, Litonjua AA, Alcorn JF, Canino G, Celedón JC. Diet. interleukin-17, and childhood asthma in Puerto Ricans. Ann Allergy Asthma Immunol. 2015 Oct;115(4):288-93.e1.

Sheares BJ, Mellins RB, Dimango E, Serebrisky D, Zhang Y, Bye MR, Dovey ME, Nachman S, Hutchinson V, Evans D. Do patients of subspecialist physicians benefit from written asthma action plans? Am J Respir Crit Care Med. 2015;191(2):1374-83.

Garetz SL, Mitchell RB, Parker PD, Moore RH, Rosen CL, Giordani B, Muzumdar H, Paruthi S, Elden L, Willging P, Beebe DW, Marcus CL, Chervin RD, Redline S. Quality of life and obstructive sleep apnea symptoms after pediatric adenotonsillectomy. Pediatrics. 2015;135(2):e477-86.

Rosen CL, Wang R, Taylor HG, Marcus CL, Katz ES, Paruthi S, Arens R, Muzumdar H, Garetz SL, Mitchell RB, Jones D, Weng J, Ellenberg S, Redline S, Chervin RD. Utility of symptoms to predict treatment outcomes in obstructive sleep apnea syndrome. Pediatrics. 2015;135(3):e662-71.



306

Orenstein DM, O'Sullivan BP, Quinton PM. Cystic fibrosis: Breakthrough drugs at break-the-bank prices [invited viewpoint]. *Global Adv Health Med*. 2015;4(6):8-10.

Ramratnam SK, Han YY, Rosas-Salazar C, Forno E, Brehm JM, Rosser F, Marsland A, Colón-Semidey A, Alvarez M, Miller G, Acosta-Pérez E, Canino G, Celedón JC. Exposure to gun violence and asthma among children in Puerto Rico. *Respir Med.* 2015;109(8):975-81.

Robinson KM, Lee B, Scheller EV, Mandalapu S, Enelow RI, Kolls JK, Alcorn JF. The role of IL-27 in susceptibility to post-influenza *Staphylococcus aureus* pneumonia. *Respir Res.* 2015;16(1):10.

Rosas-Salazar C, Forno E, Brehm JM, Han YY, Acosta-Perez E, Cloutier MM, Wakefield DB, Alvarez M, Colón-Semidey A, Canino G, Celedón JC. Breastfeeding duration and asthma in Puerto Rican children. *Pediatr Pulmonol.* 2015;50(6):527-34.

Lee B, **Robinson KM**, McHugh KJ, Scheller EV, Mandalapu S, Chen C, Di YP, Clay ME, Enelow RI, Dubin PJ, **Alcorn JF**. Influenza-induced type I interferon enhances susceptibility to gram-negative and gram-positive bacterial pneumonia in mice. *Am J Physiol Lung Cell Mol Physiol*. 2015;309(2):L158-67.

Robinson KM, Kolls JK, **Alcorn JF**. The immunology of influenza virus-associated bacterial pneumonia. *Curr Opin Immunol*. 2015;34:59-67.

Callahan P, Pinto SJ, Kurland G, Cain JG, Motoyama EK, **Weiner DJ**. Intravenous dexmedetomedine for infant lung function testing. *Pediatric Pulmonology*. 2015 Feb;50(2):150-4.

Garrod AS, Goyal RK, **Weiner DJ**. Sirolimus-induced interstitial lung disease following pediatric stem cell transplantation. *Pediatr Transplant*. 2015 May;19(3):E75-7.

Li Y, Garrod AS, Madah-Khetarpal Sa, Sreedher G, McGuire M, Klena N, Khalifa O, Zahid M, **Weiner DJ**, Lo CW. Motile respiratory cilia dysfunction in Jeune syndrome patient with compound heterozygous WDR35 mutations. *American Journal of Medical Genetics* A. 2015;167A(9):2188-96. Guglani L, Stabel D, **Weiner DJ**. False-positive and false-negative sweat tests: Systematic review of the evidence. *Pediatric Allergy, Immunology, and Pulmonology*. December 2015;28(4): 198-211.

Hanna RM, **Weiner DJ**. Overweight and obesity in patients with cystic fibrosis: A center-based analysis. *Pediatr Pulmonol*. 2015 Jan;50(1):35-41.

2016

Blatter J, Brehm J, Sordillo J, Forno E, Boutaoui N, Acosta-Pérez E, Alvarez M, Colón-Semidey A, Weiss ST, Litonjua A, Canino G, Celedón JC. Folate deficiency, atopy, and severe asthma exacerbations in Puerto Rican children. *Annals Am Thorac Soc*. 2016;13(2):223-30.

Castro-Rodríguez JA, Forno E, Rodríguez-Martínez C, **Celedón JC**. Risk and protective factors for childhood asthma: What is the evidence? *J Allergy Clin Immunol Pract*. 2016;4(6):1111-22.

de la Hoz R, Jeon Y, Miller G, Wisnivesky J, **Celedón JC**. Post-traumatic stress disorder, bronchodilator response, and incident asthma in World Trade Center rescue and recovery workers. *Am J Respir Crit Care Med*. 2016;194(11):1383-91.

Sloane D, Govindarajulu U, Harrow-Mortelliti J, Barry W, Hsu FI, Hong D, Laidlaw T, Palis R, Legere H, Bunyavanich S, Breslow R, Wesemann D, Barrett N, Brennan P, **Chong HJ**, Liu A, Fernandez J, Fanning L, Kyin T, Cahill K, Bankova L, Lynch A, Berlin S, Campos S, Fuchs C. Mayer R, Matulonis U, Castells M. Safety, costs and efficacy of rapid drug desensitizations to chemotherapy and monoclonal antibodies. *J Allergy Clin Immunol Pract*. 2016 May-Jun;4(3):497-504.

Han YY, Forno E, Marsland A, Miller GE, **Celedón JC**. Depression, asthma, and bronchodilator response in a nationwide study of U.S. adults. *J Allergy Clin Immunol Pract*. 2016;4(1):68-73.

Han YY, Forno E, Gogna M, Celedón JC. Obesity and rhinitis in a nation-wide study of children and adults in the United States. *J Allergy Clin Immunol*. 2016;137(5):1460-5.

Sterni LM, Collaco JM, Baker CD, Carroll JL, Sharma GD, Brozek JL, **Finder JD**, Ackerman VL, Arens R, Boroughs DS, Carter J, Daigle KL, Dougherty J, Gozal D, Kevill K, Kravitz RM, Kriseman T, MacLusky I, Rivera-Spoljaric K, Tori AJ, Ferkol T, Halbower AC. An official ATS Clinical Practice Guideline: Pediatric Chronic Home Invasive Ventilation. *Am J Resp Crit Care Med*. 2016. April 15:193 (8):910-924

Kazmerski TM, Borrero S, Tuchman LK, Weiner DJ, Pilewski JM, **Orenstein DM**, Miller E. Provider and patient attitudes regarding sexual health in young women with cystic fibrosis. *Pediatrics*. 2016;137(6).

Manni ML, Mandalapu S, McHugh KJ, Elloso MM, Dudas PL, **Alcorn JF**. Molecular mechanisms of airway hyperresponsiveness in a murine model of steroid-resistant airway inflammation. *J Immunol*. 2016;196(3):963-77.

Manni ML, Alcorn JF. The enigmatic role of IL-22 in asthma. Expert Rev Respir Med. 2016;10(6):619-23.

Taylor HG, Bowen SR, Beebe DW, Hodges E, Amin R, Arens R, Chervin RD, Garetz SL, Katz ES, Moore RH, Morales KH, **Muzumdar H**, Paruthi S, Rosen CL, Sadhwani A, Thomas NH, Ware J, Marcus CL, Ellenberg SS, Redline S, Giordani B. Cognitive effects of adenotonsillectomy for obstructive sleep apnea. *Pediatrics*. 2016;138(2).

Orenstein DM, Selvadurai H. Exercise: Testing and use in therapy. In: Bush A, Bilton D, Hodson M, eds. *Cystic Fibrosis*, 4th ed. (chapter 36, pp: 476-83). London, England: Hodder Arnold; 2016.

Rosas-Salazar C, Han YY, Brehm J, Forno E, Acosta-Pérez E, Cloutier M, Alvarez M, Colón-Semidey A, Canino G, Celedón JC. Gun violence, African ancestry, and asthma: A case-control study in Puerto Rican children. *Chest.* 2016;149(6):1436-44.

Rosas-Salazar C, Walczak SA, Kurland G, Spahr JE. Site of bronchoalveolar lavage via flexible bronchoscopy and fluid return in children. *J Bronchology Interv Pulmonol*. 2016;23(3):210-4.

Rosser F, Forno E, Brehm J, Han YY, Boutaoui N, Colón-Semidey A, Alvarez M, Acosta-Pérez E, Kurland K, Alcorn J, Canino G, Celedón JC. Proximity to a major road and plasma cytokines in school-aged children. Pediatr Allergy Immunol Pulmonol. 2016;29(3):111-7.

Szentpetery SE, Forno E, Canino G, **Celedón JC**. Asthma in Puerto Ricans: Lessons from a high-risk population. *J Allergy Clin Immunol*. 2016;138(6):1556-8.

Tang X, Zhang H, Song Y, Zhou D, Wang J. Hemagglutinin-targeting artificial microRNAs expressed by adenovirus protect mice from different clades of H5N1 infection. *Mol Ther Nucleic Acids*. 2016;5:e311.

Wang T, Ren Z, Ding Y, Fang Z, Sun Z, MacDonald ML, Sweet RA, **Wang J, Chen W**. Fast GGM: An efficient algorithm for the inference of Gaussian graphical model in biological networks. *PLoS Comput Biol*. 2016;12(2):e1004755.

Kazmerski T, Borera S, Pilewski JM, **Weiner D**, Orenstein DM, Miller E. Cystic fibrosis program directors' attitudes toward sexual and reproductive health in young women with cystic fibrosis. *Pediatric Pulmonology*. 2016;51(1):22-7.

Weiner DJ, Forno E, Sullivan L, Weiner GA, Kurland G. Subjective and objective assessment of flow-volume curve configuration in children and young adults. *Ann Am Thorac Soc.* 2016;13(7):1089-95.

2017

Celedón JC, Burchard EG, Schraufnagel D, Castillo-Salgado C, Schenker M, Balmes J, Neptune E, Cummings KJ, Holguin F, Riekert KA, Wisnivesky JP, Garcia JGN, Roman J, Kittles R, Ortega VE, Redline S, Mathias R, Thomas A, Samet J, Ford JG; American Thoracic Society and the National Heart, Lung, and Blood Institute. An American Thoracic Society/National Heart, Lung, and Blood Institute workshop report: Addressing respiratory health equality in the United States. *Ann Am Thorac Soc.* 2017;14(5):814-26.

Chen W, Wang T, Pino-Yanes M, Forno E, Liang L, Yan Q, Hu D, Weeks D, Baccarelli A, Acosta-Perez E, Eng C, Han YY, Boutaoui N, Laprise C, Davies G, Hopkin J, Moffatt M, Cookson W, Canino G, Burchard E, **Celedón JC**. An epigenome-wide association study of total serum immunoglobulin E in Hispanic children. *J Allergy Clin Immunol*. 2017;140(2):571-7.

Forno E, Weiner D, Mullen J, Sawicki G, Kurland G, Han Y, Cloutier M, Canino G, Weiss S, Litonjua A, Celedón JC. Obesity and airway dysanapsis in children with and without asthma. *Am J Respir Crit Care Med.* 2017;195(3):314-23.

Forno E, Sordillo J, Brehm J, Chen W, Benos T, Yan Q, Avila L, Soto-Quiros M, Cloutier M, Colón-Semidey A, Alvarez M, Acosta-Pérez E, Weiss S, Litonjua A, Canino G, Celedón JC. Genome-wide interaction study of dust mite allergen on lung function in children with allergy. *J Allergy Clin Immunol*. 2017;140(4):996-1003.e7.

Forno E, Wang T, Yan Q, Brehm J, Acosta-Perez E, Colon-Semidey A, Alvarez M, Boutaoui N, Cloutier MM, Alcorn JF, Canino G, Chen W, Celedón JC. A multi-omics approach to identify genes associated with childhood asthma risk and morbidity. *Am J Respir Cell Mol Biol*. 2017; 57(4):439-47.

Han YY, Forno E, Celedón JC. Vitamin D insufficiency and asthma in a U.S. nationwide study. *J Allergy Clin Immunol Pract*. 2017;5(3):790-6.

Han YY, Badellino HA, Forno E, Celedón JC. Rural residence, farming environment, and allergic diseases in Argentinean adolescents. *Pediatr Pulm*onol. 2017;52(1):21-8.

Han YY, Forno E, Badellino HA, Celedón JC. Antibiotic use in early life, rural residence, and allergic diseases in Argentinean children. *J Allergy Clin Immunol Pract*. 2017;5(4):1112-8.

Medsker BH, Brew BK, Forno E, Olsson H, Lundholm C, Han YY, Acosta-Pérez E, Canino GJ, Almqvist C, Celedón JC. Maternal depressive symptoms, maternal asthma, and asthma in school-aged children. *Ann Allergy Asthma Immunol*. 2017;118(1):55-60.

Medsker BH, Forno E, Han YY, Acosta-Pérez E, Colón-Semidey A, Alvarez M, Alcorn JF, Canino GJ, Celedón JC. Cockroach allergen exposure and plasma cytokines among children in a tropical environment. *Ann Allergy Asthma Immunol*. 2017;119(1):65-70. **Puranik S, Forno E**, Bush A, **Celedón JC**. Predicting severe asthma exacerbations in children. *Am J Respir Crit Care Med*. 2017;195(7):854-9.

Yan Q, Brehm J, Pino-Yanes M, Forno E, Lin J, Oh SS, Acosta-Perez E, Laurie CC, Cloutier MM, Raby BA, Stilp AM, Sofer T, Hu D, Huntsman S, Eng CS, Conomos MP, Rastogi D, Rice K, Canino G, Chen W, Barr RG, Burchard EG, Celedón JC. A meta-analysis of genome-wide association studies of asthma in Puerto Ricans. Eur Respir J. 2017;49(5).

Forno E, Celedón JC. The effect of obesity, weight gain, and weight loss on asthma inception and control. *Curr Opin Allergy Clin Immunol*. 2017;17(2):123-30.

Szentpetery SE, Han YY, Brehm JM, Acosta-Perez E, Forno E, Boutaoui N, Canino G, Alcorn JF, Celedón JC. Vitamin D insufficiency, plasma cytokines, and severe asthma exacerbations in school-aged children. *J Allergy Clin Immunol Pract*. 2017 Aug 25. pii: S2213-2198(17)30544-5.

Sullivan L, Forno E, Pedersen K, Nielsen JG, Weiner DJ. Nitrogen back-diffusion during multiple-breath washout with 100% oxygen. *Eur Respir J*. 2017;50(3).

Chen W, Wang T, Pino-Yanes M, Forno E, Liang L, Yan Q, Hu D, Weeks DE, Baccarelli A, Acosta-Perez E, Eng C, Han YY, Boutaoui N, Laprise C, Davies GA, Hopkin JM, Moffatt MF, Cookson WOCM, Canino G, Burchard EG, Celedón JC. An epigenome-wide association study of total serum IgE in Hispanic children. *J Allergy Clin Immunol.* 2017;140(2):571-7.

Finder JD, Mayer OH, Sheehan D, Sawnani H, Abresch R, Benditt J, Birnkrant DJ, Duong T, Henricson E, Kinnett K, McDonald CM, Connolly AM. Pulmonary endpoints in Duchenne muscular dystrophy: A workshop summary. *Am J Resp Crit Care Med*. 2017;196(4);512-9.