July 2019 Newsletter

Research News

Study published TODAY in The Journal of the American Medical Association (JAMA) Network Open
Title: Epidemiology of sesame allergy in the United States

- Authors: Christopher M. Warren, PhD; Avneet S. Chadha, BS; Scott H. Sicherer, MD; Jialing Jiang, BA; Ruchi S. Gupta, MD, MPH

Our sesame allergy prevalence study has just been published! Using the same nationally-representative database of nearly 80,000 US children and adults, we estimated that over 1.5 million US children and adults (.49% of the US population) report a current sesame allergy, and over 1.1 million (0.34% of the US population) either report a physician-diagnosed sesame allergy or a history of sesame-allergic reaction symptoms to sesame that are consistent with an IgE-mediated response. We are particularly eager to share these data since the FDA US Food and Drug Association is currently considering regulatory action that would add sesame to the list of food allergens for which mandatory labeling is required on packaged foods. Unlike in other countries (i.e. the European Union, Australia) current US law does not require that sesame-containing products be labeled. However, this is rapidly changing, since on July 24th, the governor of Illinois signed a law mandating that any packaged foods indicate the presence of sesame on their labels.

Learn more about Illinois' new sesame labeling law: https://will.illinois.edu/news/story/illinois-requires-food-manufacturers-to-label-sesame-allergen

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Two studies published in The Journal of Allergy and Clinical Immunology (JACI)
Title: **Prevalence and characteristics of adult shellfish allergy in the United States**

- **Authors:** Christopher M. Warren PhD; Ozge N. Aktas, MD; Ruchi S. Gupta, MD, MPH; Carla M. Davis, MD

We conducted a survey of over 40,000, nationally-representative US households about their food allergies, and discovered that nearly 3% of US adults report a shellfish allergy, along with a history of reaction symptoms to shellfish that are likely to represent a true allergic reaction. This makes shellfish the most common adult allergy, with approximately half of shellfish allergic adults developing their allergy after age 18. Furthermore, we found that 2.4% of adults were allergic to crustacea compared to only 1.6% of adults who had a mollusk allergy. Interestingly adults who live closer to the coast appear more likely to develop shellfish allergies, particularly crustacean allergies. Further work is needed to figure out why shellfish allergies are developing at such high rates among US adults so that we can prevent and treat these important allergies moving forward.
Title: **Food protein-induced enterocolitis syndrome in the US-population-based study**

- Authors: Anna Nowak-Wegrzyn, MD, PhD; Christopher M. Warren, PhD; Terri Brown-Whitehorn, MD; Antonella Cianferoni, MD, PhD; Fallon Schultz-Matney, MSW, LCSW, CAM; Ruchi S. Gupta, MD, MPH

Another recent study from our group, which surveyed a nationally-representative sample of nearly 80,000 US children and adults, found that Food Protein-induced Enterocolitis (FPIES) affects approximately .5% of US children and .2% of US adults—more than previously reported. FPIES is a type of food allergy characterized by repetitive, projectile vomiting that occurs 1-4 hours after eating the trigger food, followed by lethargy and diarrhea. Consequently, this can result in severe dehydration, low blood pressure and metabolic problems, making FPIES a serious condition. These data suggest that this condition affects nearly 1 million people in the US and are consistent with data from other countries (i.e. Spain, Israel, Australia) that suggest that this condition may be rising in prevalence. Further work in the US is needed, both to confirm our findings, as well as to understand why FPIES appears to be increasingly common.

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**Welcome to our 2019 SOAAR Summer Scholars!**
Pictured L to R:

**Top Row:** Benjamin Guzman, John Welch, Sahil Deenadayalu, Jocelyn Dorney, Joe Fishbein

**Middle Row:** Amelia Wissink, Ines Debbiche, Isabel Galic, Deepthi Devireddy

**Front Row:** Rohan Jain, Frank Belette, Simran Kohli, Rosie Newmark

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**We're very excited to introduce our 2019 Summer Scholars! These students have been so enthusiastic, hardworking, and kind, and we're so grateful to have them on our team!**

Every summer, SOAAR invites 8-15 high school, undergraduate, graduate and medical students to join our research team to strengthen their skills in epidemiological, clinical, and community-based research. The students assist with various ongoing projects on the team and are able to conduct and shadow study enrollments, practice recruiting participants for studies, work with our statisticians to interpret the data analysis for the team, and contribute to scientific abstract and manuscript writing on our study outcomes. The students also attend weekly didactic sessions to learn from our team members on various research and medicine topics.

**Learn more about some of their experiences below and stay tuned for more next month!**

*John Welch*
Rosie Newmark  
**Hometown: Chicago, IL**  
**Rising High School Senior at Jones College Prep**  
"This internship has been very eye opening to me. As someone who does not have food allergies, I never realized how much of an issue they can be in daily life. I knew that food allergies could be life threatening, but I never knew the extent to which one with food allergies must be cautious of what they are eating."

Benjamin Guzman

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**Hometown: Palo Alto, CA**  
**BS: Stanford University, 2018**  
**Undergraduate Major: Engineering Product Design**  
**Masters: Engineering Design Innovation, Northwestern University**  
"In this internship, I hoped to gain experience designing services that real people will get to use and help families with significant problems in their lives. I was interested in learning more about the process of design within the medical field and how to incorporate the creativity of design into the structure of medicine. My goal was to design services that are delightful for both the user and the service provider, making a significant impact on their life."
Hometown: Irvine, CA  
BA: Northwestern University, 2019  
Undergraduate Major: Biological Sciences  
"My main project so far has been with creating a college video to educate incoming college students about the various challenges that young adults with food allergy may encounter being in a new environment such as a college campus. I am also beginning to help on another project which implements and determines the efficacy of an interactive asthma action plan for asthmatic patients. I think it is important to approach the projects from the perspective of the patient's/college students who would be receiving the information. I want to make sure the information communicated is clear, concise, adequately addresses any and all necessary aspects."

Frank Belette  
Hometown: Miami, FL  
Rising High School Senior at Pine Crest School  
"My experience with Dr. Gupta was excellent. She was very resourceful and was always willing to provide information and help when needed. Dr. Gupta cared not only for my work but for me as a person. She took the time to ask about my life outside of work and was interested in the future competitions that I would participate in with the project I was working on in Chicago. Overall, I had a great and positive
relationship with Dr. Gupta during my time there. I am beyond fortunate to have met her and gained from her insight and knowledge."

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Joe Fishbein  
**Hometown:** Hinsdale, IL  
**BS:** University of Illinois at Urbana-Champaign  
**Undergraduate Major:** Psychology  
**Masters:** Biostatistics  
"Coming into the internship, I wanted an opportunity to apply the skills and knowledge I have gained in the classroom to a real world environment. I hoped to learn as much as possible and observe all the steps needed to create a successful research project."

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Amelia Wissink  
**Hometown:** Chicago, IL  
**Rising High School Senior at Walter Payton College Prep**  
"I am working on the psychosocial intervention project right now with the help of Madeleine and Dr. Gupta. Essentially, we are working on finding psychological interventions for patients that struggle with anxiety due to food allergy. The project, while in its beginning stages, has been really interesting to me because of its relevance to my own life. I’ve learned a lot of valuable skills such as conducting literature reviews and writing IRBs,"
which are skills I can hopefully use in my future projects and throughout college. Overall, I’ve learned a lot working on this project and I’m really excited to continue!"

Deepthi Devireddy
Hometown: Troy, MI
Undergraduate Student at University of Michigan
Major: Neuroscience
"I’m studying Neuroscience and hope to attend medical school after graduation. Outside of school, I love to play tennis, read, be outside, and spend time with my friends. Before starting this internship, I hoped to learn more about the process of research from the initial conception of an idea, to applying for grants and publicizing findings. I’m happy to say that I’ve learned a lot about all of these things even in just the month that I’ve been working here!"
One of our interns, John, leading an intern didactic session about graphic design.

**Upcoming Events**

*Conference for Asthma Research and Education (CARE) by Allergy & Asthma Network & SOAAR*
AAN and SOAAR are hosting an asthma conference on the latest research, medications and management techniques suggested by doctors.

**Saturday, August 24, 2019**

Ann & Robert H. Lurie Children’s Hospital of Chicago
225 E. Chicago Avenue
11th Floor Conference Center
Chicago, Illinois

**Free of cost**

**For adults and children age 9+**

**Local travel grants available (up to $20)**

To register for CARE

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**Allergy Awareness Game**

Sunday August 25th, 1:10pm

Chicago White Sox vs. Texas Rangers
Join the Chicago White Sox on August 25th for Contains: Courage™ Day powered by Food Allergy Research & Education (FARE) and the Chicago White Sox! Up to $10 from every ticket goes to FARE’s transformative Contains: Courage™ Campaign supporting families living with food allergies. Learn more at foodallergy.org/containscourage. To purchase the tickets for this game, please visit www.fevo.me/allergy.

Save the Date for FACES Chicago!
Saturday, September 28th, 2019

Mark your calendars for the 2nd annual conference to bring together families with food allergy, researchers, and experts throughout the Midwest region to share the latest research surrounding food allergy and new advancements in treatments, prevention and daily living.

FACES Conference Website

Food Allergy Conference for Education and Science (FACES) will be held at Ann & Robert H. Lurie Children's Hospital of Chicago.

Registration is now open!