Food Allergy Fund Invests in Next Generation of Scientists Tackling Food Allergy's Biggest Challenges

Inaugural NextGen Fellows address a critical research funding gap while investigating persistent allergies, anaphylaxis and AI-powered diagnosis

NEW YORK, NY (November 17, 2026) — The Food Allergy Fund today announced its inaugural class of NextGen Fellows, awarding three early-career clinician-researchers $50,000 each to pursue research into some of the most pressing questions in food allergy: why some allergies persist for life, how to prevent severe reactions and whether artificial intelligence could make diagnosis safer and more precise.

The inaugural fellows are Dr. John Barber of Duke University, Dr. Melanie Donahue of the University of Michigan and Dr. Mathew Lucas of Children's Hospital of Philadelphia and the University of Pennsylvania.

“Too many promising researchers reach a point in their careers where they have important ideas but not the funding or time to pursue them. We can't afford to lose that talent, especially when patients are waiting for better treatments, prevention and diagnostics,” said Ilana Golant, founder and CEO of the Food Allergy Fund. “That's where philanthropy can make a difference. By investing early, we can help young scientists build the evidence they need to move their research forward and compete for larger grants.”

Physician-scientists make up only about 1.5% of U.S. physicians, and their numbers are declining. The challenge is especially pressing in allergy and immunology, where allergists spend less than 10% of their time on research. For young doctors who want to pursue research, finding the funding and protected time to build their own programs can be a major hurdle.

Funded by an anonymous donor, FAF’s NextGen Fellows Program provides research support during the academic year, along with

mentorship from established leaders in food allergy research. The three fellows were selected through a national application process, with proposals reviewed by the Food Allergy Fund's Scientific Advisory Board. Applicants were asked to demonstrate their research experience, scientific interests, career goals and how the fellowship would help them advance their work.

Meet the Inaugural Fellows

Dr. John Barber, Duke University

Project: Decoding Immune Memory to Predict Food Allergy Persistence

Why do some people outgrow their food allergies while others live with them for life? Dr. Barber's project looks for the answer in the immune system's memory cells. When someone develops a food allergy, certain immune cells "remember" the allergen for years, and this memory is what keeps the allergy active. Dr. Barber is using a new laboratory technique that can examine thousands of individual immune cells from a single patient, identify the rare cells that specifically cause food allergies, and study their properties in detail. The goal is to find measurable features of these memory cells that predict whether a patient's allergy will persist or resolve. In the long run,

Dr. Melanie Donahue, University of Michigan

Project: Targeting the Immune Cell "Switches" to Prevent Severe Allergic Reactions

Dr. Donahue aims to better understand how and why some allergic triggers lead to severe reactions including anaphylaxis. The study focuses on mast cells, which are immune cells that play a central role in allergic reactions, and two proteins called focal adhesion kinases that may act like "switches" inside these cells. She will study whether these proteins play a significant role in regulating how mast cells release the chemicals that cause rash, swelling, vomiting, trouble breathing, low blood pressure, and other dangerous allergy symptoms. By using isolated mast cells and mouse models, the project hopes to find out if blocking these protein switches could prevent or reduce severe allergic reactions. In the long term, this work could help lead to better treatments for food allergies and other allergic diseases.

Dr. Mathew Lucas, Children's Hospital of Philadelphia and the University of Pennsylvania
Project: An AI Data-Driven Approach to Safer Food Allergy Diagnosis
Food allergy tests don't always tell families whether a food will actually cause a reaction, leaving some people avoiding foods they could safely eat. Oral food challenges are the most accurate way to diagnose food allergies, but they take considerable time and clinical resources and carry the risk of an allergic reaction. Dr. Lucas will use electronic health records and data from thousands of previous food challenges, applying advanced statistical modeling and machine learning to develop a tool that predicts how patients may respond. His goal is to help doctors make more informed decisions about when food challenges are appropriate, counsel families more precisely and reduce unnecessary food avoidance.

Applications for the next class of NextGen Fellows will open in spring 2027. To learn more, visit foodallergyfund.org/fellowships.

About the Food Allergy Fund
The Food Allergy Fund (FAF) is a science-driven nonprofit that serves as a granter and convener. FAF supports research to prevent, diagnose, and treat food allergies—a growing public health crisis affecting 10 percent of people in the United States and more than 300 million worldwide. FAF identifies and funds high-impact research, builds multi-sector coalitions, and works with scientists, policymakers, industry leaders, and families affected by food allergies. Through summits, partnerships, and strategic public private collaborations, FAF is transforming how food allergies are understood and addressed. For more information, visit www.foodallergyfund.org.

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