

[AAAAI Foundation and Michael M. Frank, MD FAAAAI Lectureship \(5th year\)](#)

Sunday, February 26, 2024

3101 The Link Between Metabolic and Allergic Diseases

Convention Center, Level 2, Hall D, 8:15-9:45 AM

Lecturer: Jeffrey Rathmell, PhD

Polarization of the Immune Response by Metabolic Pathways

Michael M. Frank, MD FAAAAI



The AAAAI Foundation is pleased to honor the life and work of Dr. Michael Frank with the creation of the Michael M. Frank, MD FAAAAI Lectureship. Throughout his long career, Dr. Frank has made an important mark on the Allergy/Immunology specialty, especially in the area of hereditary angioedema and as a beloved mentor to many in our field.

Dr. Frank is the Samuel L. Katz Professor Emeritus of Pediatrics in the School of Medicine at Duke University and an internationally respected physician-scientist. The research of Dr. Frank's laboratory revolves around effector mechanisms of immune damage. Specifically, the laboratory is interested in understanding how antibody and complement contribute to the damage of tissues and micro-organisms. Overlapping areas of interest include the role of mediators in inflammation and the functions of antibody and complement in the production of autoimmune disease.

Dr. Frank was born and raised in Brooklyn, New York. Discovering a very early scientific interest, he knew he wanted to be a medical researcher before the age of ten. Dr. Frank credits reading *Microbe Hunters* by Paul de Keraf as a young boy as having inspired an early fascination with the immune system.

Entering the University of Wisconsin at age 15, Dr. Frank developed an interest in infectious diseases through microbial biologist, and subsequent Nobel Prize winner, Joshua Lederberg. He then went on to attend Harvard Medical School and was a House Officer in Medicine at Harvard and in Pediatrics at Johns Hopkins Medical School. After completing his training, he joined the NIH in 1966 as clinical director of allergy and infectious disease. His program led the team that found the first effective treatment for hereditary angioedema. Dr. Frank rose to become section chief at NIAID and served as Clinical Director for his last 13 years at the Institute.

After 24 years at the NIH, Dr. Frank was hand-selected by Dr. Samuel Katz to be his successor as Chair of Pediatrics at Duke. While at Duke, Dr. Frank recognized the need for the pediatrics department to have their own building. He helped spearhead the effort towards the creation of a pediatrics hospital and was instrumental in raising funds and even picking architects for its design. Duke Children's Hospital opened in May of 2000 and has gone on to become one of the foremost children's hospitals in the world. Dr. Frank passed away in August of 2019.

Jeffrey Rathmell, PhD



Dr. Jeffrey Rathmell studies T cells in autoimmune or inflammatory diseases and cancer with a focus on metabolic mechanisms that regulate lymphocyte fate and function in autoimmunity and cancer. He has an interdisciplinary research program using genetic and biochemical approaches to discover immunometabolic mechanisms that drive these immune-related diseases. He received his PhD in Immunology at Stanford University and performed postdoctoral studies at the University of Pennsylvania prior to beginning as faculty at Duke University and subsequently Vanderbilt University Medical Center. In this time, he showed that lymphocyte metabolism is dynamically regulated and his was the first group to show that each T cell subset adopts a specific metabolic program that can be targeted to modulate immune cells in inflammatory diseases or in tumor microenvironments and immunotherapy. He joined Vanderbilt in 2015 as the Cornelius

Vanderbilt Professor of Immunobiology to found and direct the Vanderbilt Center for Immunobiology and is co-leader for the Vanderbilt-Ingram Cancer Center Program in Host-Tumor Interactions. His awards include Scholar of the Leukemia & Lymphoma Society, Bernard Osher Fellow of the American Asthma Foundation, and William Paul Distinguished Innovator of the Lupus Research Alliance.