

Northwestern University Feinberg School of Medicine Center for Human Immunobiology



Center for Human Immunobiology

The immune system directly drives or modifies essentially all disease processes. While we have learned a great deal about the cells and molecules of the immune system over the past decades, we are only beginning to understand how to re-direct the immune response to change the course of these diseases.

The mission of the Center for Human Immunobiology (CHI) at Northwestern University Feinberg School of Medicine is to discover and translate innovative science into cures for immune-regulated diseases. The CHI brings together immunologists from across Feinberg, Ann & Robert H. Lurie Children's Hospital of Chicago, and Northwestern's Evanston campus to achieve this goal. The center is directed by Stephanie Eisenbarth, MD, PhD, the Roy and Elaine Patterson Professor of Medicine, chief of Feinberg's Division of Allergy and Immunology in the Department of Medicine, and Professor of Pathology.

The Center for Human Immunobiology has launched at a critical time. Understanding how the immune system fights new viruses, controls the growth of cancer, or inappropriately targets the body's own tissues has a direct impact on health.

Our faculty at the center are:

- Leading studies to understand the causes of allergic disease and autoimmunity;
- Discovering new ways to focus the power of the immune system to fight cancer;
- Harnessing the power of the immune system to eliminate pathogens while limiting the damage to tissues; and
- Identifying new ways of preventing the immune system from rejecting life-saving transplanted organs.

The CHI fosters collaboration and scientific exchange among the more than 140 faculty members, spanning 17 divisions and departments. The center is located on the 15th floor of the Tarry Research and Education Building on our Chicago campus in a series of research labs and offices within 9,000 square feet of newly renovated space designed for interactivity.

In addition to the research activities, the CHI is actively recruiting internationally recognized immunology talent to Northwestern; training and mentoring junior faculty, fellows, post-docs, and students; and providing ongoing opportunities for exchange about cutting-edge immunological topics among Northwestern's diverse scientific and clinical community.

The center also plans to offer more tools and resources to advance ongoing and new initiatives in immunological research, including catalyzer awards and access to biorepositories. This includes reaching beyond our currently large and inclusive faculty and trainee membership roster.



“Through the Center for Human Immunobiology, our goal is to stimulate innovative new approaches to treat diseases caused or amplified by the immune system and rapidly translate them into practice.”

Stephanie Eisenbarth, MD, PhD
Director, Center for Human Immunobiology
Chief of Allergy and Immunology in the Department of Medicine
Roy and Elaine Patterson Professor of Medicine
Professor of Medicine (Allergy and Immunology) and Pathology

About the Center Director

Dr. Stephanie Eisenbarth is an internationally renowned immunologist whose research focuses on how dendritic cells, B-cells, and T-cells interact to induce antibody responses. Her work has advanced the understanding of what induces anaphylactic reactions in those with food allergies. These findings may have important implications for altering and tracking the inappropriate immune response to food allergens. Additional research she has done has led to the identification of how antibody responses to transfused red blood cells, pathogens, and vaccination occur.

Research Laboratories at CHI

We are pleased to share brief descriptions of a few select labs within the CHI. For a full listing of faculty members of the Center for Human Immunobiology, please visit our website. Some of our current members are listed here.



Thorp Laboratory

Edward Benjamin Thorp, PhD

Frederick Robert Zeit Professor of Pathology; Associate Professor of Pathology (Experimental Pathology) and Pediatrics

The Thorp Lab seeks to discover fundamental new mechanisms by which the innate immune system heals tissue, and how these processes are impaired in diseases of aging. A particular focus is inflammation during cardiometabolic heart disease, which remains the leading cause of death in the United States. In the lab, newly discovered immune pathways are being targeted towards regenerating heart tissue after heart attack and prolonging the life of donor hearts in heart transplant recipients.



Dulai Laboratory

Parambir S. Dulai, MD

Associate Professor of Medicine (Gastroenterology and Hepatology); Director, GI Clinical Trials and Precision Medicine; Director, Digestive Health Foundation Biorepository

The Dulai Lab integrates evolving clinical trial designs with novel technology capable of rapidly profiling millions of immune cells to provide precision medicine approaches for stopping the inflammation that causes inflammatory bowel disease and other disorders of the gut. The lab then uses artificial intelligence to identify new cell types in the gut that drive the destructive inflammatory process, enabling targeting with already available or newly developed treatments.



Lee Chang Laboratory

Catalina Lee Chang, PhD

Assistant Professor of Neurological Surgery

The Lee Chang Lab studies how brain tumors evade the immune response in order to discover new ways to leverage current and novel immunotherapies to fight these tumors. The lab is particularly interested in developing genetically engineered, B-cell-based therapies that result in eradication of tumor cells.

Eisenbarth-Williams Laboratory

Stephanie Eisenbarth, MD, PhD

Director, Center for Human Immunobiology; Chief of Allergy and Immunology in the Department of Medicine; Roy and Elaine Patterson Professor of Medicine and Professor of Medicine (Allergy and Immunology) and Pathology

The Eisenbarth-Williams Lab seeks to discover fundamental mechanisms that regulate the immune response to allergens. The team is studying how the pathogenic antibodies that cause allergic reactions are induced by airborne and food allergens. The ultimate goal is to identify new treatments that prevent potentially life-threatening allergic reactions that can be triggered by many different allergens.

Adam Williams, PhD

Associate Professor of Medicine (Allergy and Immunology)



Seminar and Distinguished Lectureship Series

We kicked off our Center for Human Immunobiology Distinguished Lectureship Series in the fall of 2022, bringing in leading immunologists from all over the country. This forum brings together the immunology research community at Northwestern to engage with each other, learn from experts, and discuss emerging fields in immunology.

An Invitation to Partnership

Through the Center for Human Immunobiology and the research we are leading, Northwestern will be recognized as one of the leading institutions in the world using insights into human immunology to fight immune-mediated diseases. Generous current and new donors are a driving force that propels us forward and leads to the discovery of new interventions that improve the lives of those living with immune-related diseases. Please join us in embracing this bold vision. Your commitment will make an extraordinary difference. Our vision is only possible through such partnership.



Fast Facts: Center for Human Immunobiology

160+
faculty members
and trainees



25+
divisions and
departments



25+
immunology
research cores



Follow CHI on Twitter @immunology_nu

For more information about giving to the Center for Human Immunobiology, please contact:

Tiffany Scaparotti

Assistant Dean for Development
Northwestern University Feinberg School of Medicine
Email: tiffany.scaparotti@northwestern.edu
Phone: 312-503-3088

MaryPat Mauro

Director, Major Gifts
Northwestern University Feinberg School of Medicine
Email: marypat.mauro@northwestern.edu
Phone: 312-503-1090

For more information about the Center for Human Immunobiology, visit feinberg.northwestern.edu/sites/immunobiology