Lupus Research at Yale

Advancing scientific discovery and solutions for lupus through collaborative research.

To successfully treat lupus, we must thoroughly understand the disease. We are vigorously pursuing answers to the most challenging questions about the disease at Yale. Through our team’s leading-edge basic, clinical, and translational research, we are gaining a better understanding of the causes and complexities of lupus—and guiding scientific discoveries and innovations from the lab to the clinic.

Lupus is an autoimmune disease that affects millions of people worldwide but currently has no cure. It is typically treated by a rheumatologist, with treatment plans ranging from conservative to more intensive, depending on the nature and severity of a patient’s symptoms. Treatment options range from anti-inflammatory and antimalarial drugs to corticosteroids, immune suppressants, biologics, and combination treatments. However, while such treatments can be quite effective in managing the disease, they are not without side effects.

Finding new and more effective lupus treatments with fewer side effects, as well as more effective means of diagnosing the disease, are challenges that our world-class Yale Rheumatology team is passionately tackling.

Our talented team includes researchers whose expertise ranges from innate immunity to B- and T-cell immunity in lupus. Our investigators lead the Rheumatic Diseases Research Core Center at Yale, an initiative involving more than 40 Yale scientists from multiple disciplines who are dedicated to advancing knowledge about autoimmune and rheumatic diseases. Joining them in the quest for answers are Yale physicians, who are also integral members of our team.

In addition to collaborating with their Yale peers, Yale Rheumatology researchers and physicians collaborate with external partners. Our team recently was selected to participate in a new North American network—the Lupus Clinical Investigators Network (LuCIN)—established to accelerate the identification and development of novel therapies for lupus. LuCIN’s clinical research, conducted worldwide, will hopefully lead to a better understanding of the causes and biological mechanisms of lupus and to improved, next-generation treatments.
Patients at Yale also play a key role in our research. Those who volunteer to participate in studies of new lupus therapies, as participants in clinical trials, help to advance our understanding of the disease and pinpoint which drug or treatment candidates are most promising. Because Yale regularly participates in the clinical trials of potential new lupus therapies, we are able to offer our patients a wide range of treatment options, including some of the most leading-edge options available in the world.

**Goals**

- To understand the causes of lupus and, using this knowledge, devise better therapies for the disease.
- To collaborate with lupus scientists and clinicians across the United States and Canada to better understand lupus, and to design better treatments for the disease.

**Impact**

- Identified mechanisms that lead to autoimmune inflammation in lupus.
- Used this information to provide knowledge about best therapeutic approaches in lupus.
- Recognized by the National Institutes of Health and leading lupus organizations as a leading lupus research team.

**Leadership**

**Joseph Craft, MD**

Dr. Craft is the chief of the Section of Rheumatology, Paul B. Beeson Professor of Medicine, and professor of immunobiology at the Yale School of Medicine. He is also director of Yale’s Investigative Medicine Program, a unique program providing doctoral training for physicians. He has been immersed in rheumatology-related research for more than 30 years, receiving support from the National Institutes of Health and authoring numerous scientific publications. He directs a laboratory at Yale devoted to understanding lymphocyte differentiation and function in lupus and related illnesses. Dr. Craft is a fellow of the American Association for the Advancement of Science and has served on the board of the Lupus Foundation of America’s Connecticut chapter. He is also a co-founder of L² Diagnostics, a biotechnology company formed in partnership with Yale.

**Insoo Kang, MD**

Dr. Kang is associate professor of medicine in Rheumatology at Yale and an active researcher. His lab is focused on understanding the human immune system in lupus and related illnesses, and the development of autoimmunity, inflammation, and age-related deterioration of the immune system. Dr. Kang’s rheumatology clinical practice focuses on diagnosing and treating patients with lupus and related conditions.

**You Can Make a Difference**

Generous gifts are making these accomplishments possible. But much more needs to be done. Your philanthropy can help lead to new discoveries that will advance the treatment of lupus. To learn more, please contact Erin Shreve in the Office of Development at (203) 436-8529 or erin.shreve@yale.edu. Thank you for your interest in partnering with us.