

Sean N. Parker Center for Allergy Research at Stanford University

FAQs

About the Center and Mr. Parker's Pledge

What is the mission of the Sean N. Parker Center for Allergy Research at Stanford University?

The Sean N. Parker Center for Allergy Research at Stanford University, established by a \$24 million gift from Silicon Valley entrepreneur and philanthropist Sean Parker, aims to propel innovation in allergy research.

The first of its kind in the world, the new Center's mission is to find better treatments and ultimately a cure for allergies. The Center will focus on research to better understand the immune system so we can develop customized treatment strategies for patients that are based on individual immune system characteristics. We believe this will have the best chance of having the safest, most durable effect.

The Center will include Stanford specialists in diverse fields including immunology, gastroenterology, otolaryngology, and genetics. Through laboratory and computational research, clinical trials, community outreach and other efforts, the team will work toward finding rationally-based therapies to provide the safest and best treatments for allergies.

How is this Center different from other allergy research centers?

Unlike other allergy centers, the Sean N. Parker Center for Allergy Research at Stanford University is the only coordinated effort that combines basic science and clinical trials with compassionate patient care across all allergies. To date, allergy research has been sporadic and uncoordinated, with centers working in isolation and focusing on either basic science or clinical trials.

By working collaboratively with other researchers in the U.S. and around the world, the Center will create a data-sharing cluster of interlinked satellite centers to run novel and innovative clinical trials in allergy research. In addition, the Center will provide the immune monitoring and share the mechanistic data that can be evaluated along with patient data at the same time. This type of approach has been very effective in cancer immunotherapy and HIV research and treatment. Therefore, we believe applying this approach to allergy research will dramatically accelerate progress in treatments and cures.

How will the \$24 million pledge be used?

Mr. Parker's \$24 million pledge over two years will provide both expendable and endowed support for innovative clinical research and care, state-of-the-art equipment, and top-ranked research scientists. Of the \$24 million total, \$4 million will be used to establish a dollar-for-dollar challenge match for all other new gifts to the Center. Part of the endowment will also go to training the next generation of allergy immunologists, to help address a critical need for more trained practitioners to treat allergic conditions.

Why is there a focus on immunology and immune mechanisms research at the allergy center?

Allergies are an immunological problem that should be tackled by immunologists and there is a critical need for funding the basic science around immune mechanisms driving the sensitization and desensitization in allergy. The whole field of allergy research has lagged behind relative to the rest of the

field of immunology. They should be one and the same but unfortunately they have existed in two different silos.

The Sean N. Parker Center for Allergy Research at Stanford University will operate in a world-class immunological context and help close this gap by providing the funding for basic science that will allow all the trials administered by the Center or linked to it to have an immune monitoring component that looks at biomarkers in immune response at each step along the way.

Other donors interested in supporting this work can now fund clinical research or scientific research, or buildings for laboratory research or for clinical research, so more people can be enrolled and better treatments can be applied faster.

Why did Sean Parker decide to make such a significant donation to allergy treatment research?

Mr. Parker has a personal connection to this issue, having experienced firsthand the impact of life-threatening allergies. This experience has led Sean to found the Center in order to bring better solutions to people all over the world who continue to suffer from allergic conditions every day.

It is Mr. Parker's hope that his donation will send a strong message to others in the philanthropic, public policy, research, medical, and public health community that funding and supporting research to better treat and cure allergic conditions is critical.

Who will lead the Sean N. Parker Center for Allergy Research at Stanford University?

The Center will be led by Kari Nadeau, MD, PhD, associate professor at Lucile Packard Children's Hospital Stanford and Stanford University School of Medicine, whose research focuses on allergies.

A trailblazer in allergy research, Dr. Nadeau's accomplishments include developing the first combination, multi-food-allergy therapy that has been shown to safely desensitize food-allergic patients to up to five different allergens at the same time. Dr. Nadeau has also led studies showing that the asthma drug omalizumab (brand name Xolair) can help speed the process of desensitizing a patient to a single food allergen or to combinations of food allergens via oral immunotherapy. She and her team have also demonstrated that oral immunotherapy changes the DNA of patients' immune cells. They are now investigating whether these changes can be used to track a patient's level of desensitization to food allergens. They are also trying to investigate whether oral immunotherapy could someday be replaced by therapy using other routes. In addition, Dr. Nadeau and her colleagues will work on novel treatments for other immune disorders like asthma, allergic rhinitis, eczema, and gastroenterological diseases.

Dr. Nadeau has treated 700 patients through clinical trials in the last three years. Currently, there are 320 patients (both adult and children) in clinical trials at Stanford.

Background on Allergy Research and Care

How many people suffer from allergies globally?

According to recent estimates, between 30 and 40 percent of the global population suffers from one or more allergic conditions. It is estimated that 17 million people in the United States and 18 million people in Europe, Russia, and China have food allergies (based on current available data).

What is the future outlook of the impact of food related allergic conditions?

The rate of people with food allergies is doubling approximately every 10 years, and it is thought that adults with food allergies have a 65 percent chance of passing those allergies on to their children.

How many people suffer from allergies in the United States?

About one in three Americans suffers from some form of allergy, and doctor-diagnosed food allergies affect one in 12 American children under the age of 21 and one in 50 adults. Of those individuals with a food allergy, approximately 25 percent will have a near-fatal anaphylactic reaction at some point in their lives. Around 17 million people in the U.S. suffer from food allergies.

What is the financial and medical impact of reactive food allergy care in the United States?

Approximately \$25 billion is spent each year on reactive food allergy care in the U.S. There are an estimated 90,000 emergency room visits related to food allergies every year in the U.S. Every two minutes, there is a visit to the emergency room due to a food allergy induced anaphylactic reaction.

What are the current treatment options for individuals who suffer from food allergies?

Currently, a patient's options for dealing with food allergies are limited. Their physicians advise them to avoid allergy triggers and carry injectable epinephrine at all times because they run a constant risk of anaphylactic reaction from accidental consumption.