# SickKids

**Allergy Program** With your support, we believe that we can cure allergy in the next decade.

## Healthier Children. A Better World. A World Without Allergy.



For approximately 300,000 Canadian children and their families, constant anxiety and stress over the possibility of a deadly allergic reaction is a reality of everyday life. The only way to avoid a dangerous reaction is to completely avoid its trigger. But childhood can make avoidance of common allergens such as nuts, milk, and eggs difficult. Sometimes, all it takes to provoke a life-threatening reaction is a hug from a friend who has eaten a peanut butter sandwich.

It is estimated that approximately one to two per cent of the Canadian population is at risk for anaphylaxis — the most serious and potentially fatal allergic reaction — as a result of exposure to food or insect allergens. And the prevalence of allergy is on the rise, with an approximate 18 per cent increase in severe allergic reactions over the past 15 years.

Researchers are not sure what causes allergic disorders, although it is suspected that they are the result of a complex interplay between genetic and environmental factors.

#### The Vision

The Allergy Program at SickKids will drive a transformation in children's health to eliminate the emotional burden and health challenges posed by the threat of allergic reaction within the next decade.

We will:

Research the factors that influence the development and successful treatment of allergic reactions.

Educate patients, families, the public, and the medical community about the challenges and advances in the diagnosis and management of allergy.

Care for children using evidence-based treatments designed to optimize health outcomes and quality of life for children, families, and society.

Now, more than ever before, researchers are poised on the cusp of major breakthroughs in allergy research and have the tools at their disposal to develop a cure for allergy. "Allergies do not just affect a single child — they affect a child's family and community. At SickKids, we are in a tremendous position to help these children and families, and society as a whole."

> Dr. Eyal Grunebaum Head, Division of Immunology and Allergy

SickKids has a long history of excellence in immunology and genetics research. Since the 1950s, SickKids researchers have identified 25 disease-causing genes and driven major breakthroughs in our understanding of the genetic basis of autism, cancer, and other devastating diseases. Soon, our researchers hope to add allergic disorders to this impressive list.

Our immunology and allergy team is the best in Canada, with internationally renowned research programs in primary immunodeficiency, stem cell therapy and bone marrow transplantation, gene therapy, and the development of novel leukemia and lymphoma therapies. Each year, the Allergy Clinic treats over 2,000 children and adolescents with the most serious allergic disorders.

The Allergy Program will harness these unique research strengths at SickKids, focusing on the following themes:

Disease Models | SickKids will pioneer the very first disease models of allergy to enable groundbreaking research in allergy and inflammation.

Population Health and Genetics | Our researchers will study the genes of families with food and drug allergies and identify underlying genetic factors that cause allergy.

Revolutionary Therapies | Using new knowledge about the pathology and genetic basis of allergy, we will develop new treatments – and ultimately, a cure for allergies.

#### Impact

By introducing new knowledge and treatments, the Allergy Program will transform quality of life for children and families affected by allergy around the world.

At home, it will increase the hospital's clinical capacity to care for patients with the most severe allergic disorders, help disseminate new findings to health-care professionals, and empower patients and families with the information they need to manage their illness. By educating the community about allergy, we will also create a safer environment for children with allergies outside their own homes.



www.sickkidsfoundation.com

### Our funding goals.

The Allergy Program is a **\$11.2** million project which rests on a **\$4.3** million investment from The Hospital for Sick Children. We are committed to raising an additional **\$6.9** million for this transformational initiative.

Imagine a future where no parent or child must live with constant fear and anxiety over potentially fatal allergic reactions. Together with your support, SickKids will move closer to making this dream a reality. Be part of the solution.

#### **KEY FUNDING PRIORITIES**

#### People: Clinician Researchers (\$3 million)

People are the foundation of the Allergy Program. An investment in this area will allow SickKids to recruit world-leading clinician researchers specializing in allergy, accelerating research productivity as well as increasing clinical capacity.

#### Places: Research Laboratories (\$2 million)

Advanced research ideas require the most advanced technology. Your gift will establish an allergy research laboratory in the new SickKids Centre for Research and Learning, set to open this fall.

#### Programs: Research Fellowships (\$1.25 million)

By investing in a fellowship, you can help SickKids train the next generation of leaders in allergy research. When fellows return to their home communities, they take expertise gained at SickKids with them, improving care for children with allergies around the world.

#### Programs: Educational Program (\$250,000)

Knowledge is power: power for patients to manage their allergies, for health-care professionals to improve care, and for members of the community to ensure that every child is safe at home, school, and play. Establishing an education program in allergy will help SickKids share this knowledge and power.

#### Programs: Research Seed Funding (\$400,000)

Supporting seed funding grants will help turn a spark in a researcher's mind into new treatments for children with allergy. These grants will allow researchers to gather the data they need to prove the viability of a hypothesis and secure additional funding from external granting agencies.

### **SickKids**

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