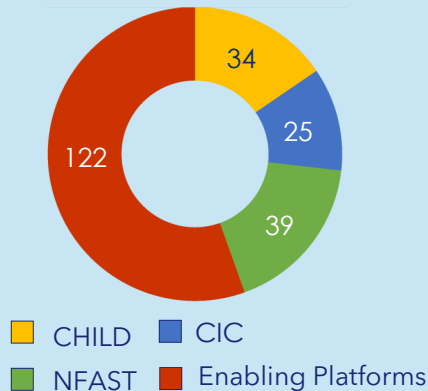
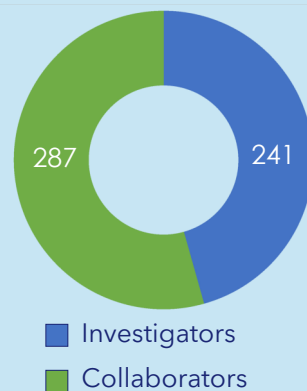


Over 15 years as a national Networks of Centres of Excellence, AllerGen invested over **\$51M** in **220** research projects; trained **1,763** Highly Qualified Personnel (HQP) students and trainees; partnered with **651** organizations across sectors to leverage **\$128.6M**; generated **6,730** scientific publications; and has had its research featured in major national and international media over **4,000** times.

Research Projects (n=220)



Researchers (n=528)



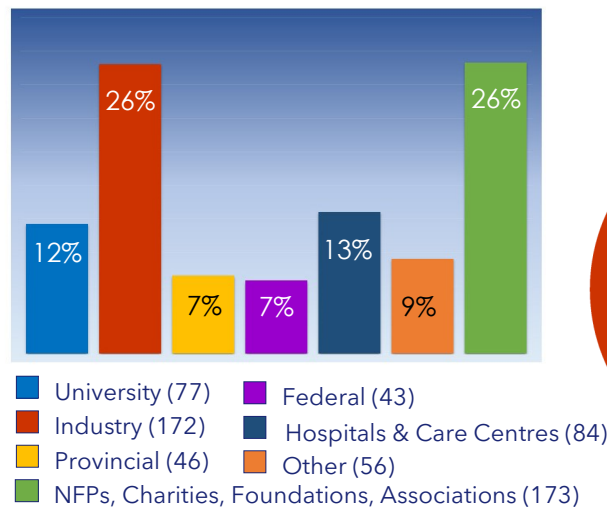
Networking and Partnerships

The power of partnership

Since 2005, AllerGen's Network-wide partner cash and in-kind investments total more than **\$128.6M**, representing an NCE to non-NCE leveraging ratio of **\$1:\$1.75**.

AllerGen has worked with **651** partners, including **148** international partners, and an average of **3 partners per research project** from industry, government, clinical practice, not-for-profit and community organizations, and other research receptor groups across sectors.

Partners 2005-20 (n=651)



Highly Qualified Personnel (HQP)

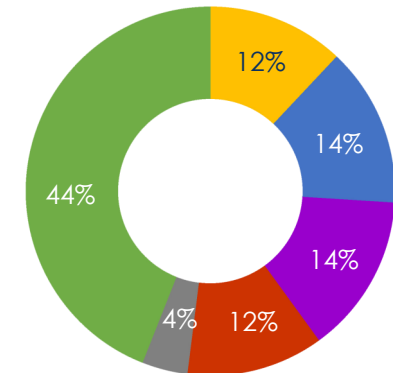
A legacy of learning and new Canadian capacity

Since 2005, AllerGen has invested in Canada's young allergic disease researchers in fields spanning over 46 disciplines and 23 institutions, providing them with value-added learning opportunities to accelerate their professional development and strengthen their ability to contribute to the Canadian economy.

AllerGen's Highly Qualified Personnel (HQP) program was one of the Network's most impactful and transformational achievements. In total, AllerGen invested **\$26.4M** in HQP programming, including **\$22.3M** in research support and **\$4.1M** in specialized awards, grants and Fellowships.

HQP 2005-20 (n=1,763)

- Undergraduate (212)
- MSc (247)
- PhD (247)
- PDF (212)
- FIT/MD (71)
- Research Associates/Technicians (776)



HQP Employment 2005-20 (n=328)

Of AllerGen's 1,763 HQP graduates, at least 328 are now employed across sectors including industry, policy development, healthcare and academe.

- University (147)
- Government (32)
- Other (40)
- Industry/Private sector (58)
- Unknown (51)

LEGACY INITIATIVES

Through its strategic research investments, AllerGen catalyzed three ongoing, self-sustaining Legacy Initiatives that benefit those living with—and caring for people affected by—allergy, asthma and related immune diseases.

CHILD Cohort Study (CHILD)

A world leader in maternal, newborn and child health research

This pan-Canadian, general population-based longitudinal birth cohort study is one of only a few studies in the world revealing the early-life origins of—and enabling new approaches to diagnosing, managing and preventing—asthma, allergy, and other chronic, non-communicable diseases (NCDs).

Clinical Investigator Collaborative (CIC)

International leader in air diseases clinical trials

The CIC is a pan-Canadian Phase II clinical trials consortium that fast-tracks new drug candidates for the treatment of inflammatory airways diseases, including allergic and severe asthma. The CIC has conducted 29 “proof-of-concept” clinical trials that determine pharmacological activity, pharmacokinetics, target engagement, and efficacy of new molecules and compounds for airways diseases. The CIC has attracted nearly \$30 million in clinical trials R&D investment to Canada.

National Food Allergy Strategic Team (NFAST)

Improving the health and quality of life of Canadians living with food allergies

This unique translational research program focused on understanding the causes, prevalence, treatment and consequences of food allergy and anaphylaxis. NFAST has enabled better clinical management strategies, created innovative educational tools, and advanced policy and public health measures addressing food allergy.

ENABLING PLATFORMS

Strengthening research technologies and methods

AllerGen’s Legacy Projects have been complemented by three Enabling Platforms that provided strategic, research-enhancing technologies and methods to ensure that AllerGen research has been novel and relevant to industry, clinicians and policymakers. The Gene-Environment Interactions; Biomarkers and Bioinformatics; and Patients, Policy and Public Health Enabling Platforms have enabled significant advances in understanding epigenetic mechanisms, the microbiome, and psychosocial factors in early life and their impacts on wellbeing and health.

Breakthrough CHILD Findings

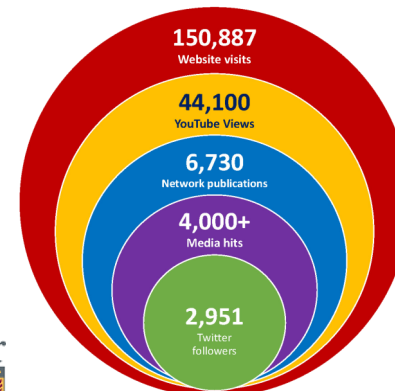
- Delayed introduction of allergenic foods increases food allergy risk—by 4x with peanut
- Owning a cat or dog may protect babies from allergies & obesity
- Air pollution exposure during pregnancy & infancy could increase risk of allergies
- Breastfeeding protects babies from wheezing & lowers asthma & obesity risk
- Four gut bacteria protect children against asthma; the first 100 days are critical
- Household cleaners may cause asthma & obesity in young children
- Screen time linked to behavioural problems in preschoolers
- Fruit consumption in pregnancy boosts babies’ cognitive development
- Cesarean deliveries & formula feeding alter the microbiome

Breakthrough CIC Findings

- Identified Ligelizumab (anti-IgE, Novartis), Quilizumab (anti-IgE, Genentech Inc.) & Mepolizumab (anti-IL-5, GlaxoSmithKline) as effective new molecule candidates for future investment
- Tested Tezepelumab (Amgen), a new anti-TSLP treatment for allergic asthma, & published results in *New England Journal of Medicine*
- Evaluated a range of other novel molecules including monoclonal antibodies, anti-sense oligonucleotides, small molecule inhibitors, & steroid receptor agonists
- Developed predictive biomarker panels to discriminate between early- & late-phase allergic asthma responders

Breakthrough NFAST Findings

- In partnership with Health Canada, produced the first *Canadian* data on food allergy prevalence, management, and disease burden
- Established C-CARE, a national multisite prospective study that is elucidating anaphylaxis rates and triggers, and improving anaphylaxis management Canada-wide.
- Discovered novel features about the genetic basis of peanut allergy
- Informed Health Canada’s food labelling reform and the implementation of Sabrina’s Law



KTEE 'at-a-glance' 2005-20

