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AllerGen Holds First Scientific Meeting Since Network's Founding

In early June, 2013, the halls of the Kingbridge Conference Center & Institute in King City, Ontario, were filled with Canada's leading clinicians and researchers in asthma, allergy and related immune diseases as they attended AllerGen's first Network-wide Scientific Meeting since the Network's founding in 2005.

From 2005 to 2012, AllerGen held Annual Conferences open to the public, which focused on the presentation of research results.



Network Investigators present their research at AllerGen's Scientific Meeting, June 2013.

The three-day Scientific Meeting attracted 107 delegates, including 45 Network Investigators and 54 students and new professionals.

Researchers presented on 36 research initiatives funded by the Network from 2012 to 2019, identified project opportunities, challenges and impacts, and planned new collaborative partnerships and initiatives across the Network.

Within the scope of the main conference program, satellite team meetings were also held to foster sustained, focused discussions about AllerGen research and strategic initiatives within smaller working groups.

Among other outcomes, key results of the Scientific Meeting included:

- the development of three Network-wide priorities and overarching strategic concerns to inform the Network's future action plans;
- the identification of new multi- and trans-disciplinary research collaborations and commercialization and knowledge mobilization partnerships;
- the identification of value-added opportunities to enhance the training, education and professional development of HQP, which strengthen Canada's knowledge base, innovative capacity and work-force productivity.

Dr. Jean Marshall, Dr. Judah Denburg, Dr. Denise Daley (left to right).



Gut Bacteria Gain International Attention

In February 2013, AllerGen researcher Dr. Anita Kozyrskyj of the University of Alberta, and Dr. Meghan Azad, an AllerGen trainee and postdoctoral fellow, published evidence that the method of delivery (vaginal *versus* cesarean) and the method of infant feeding (breastfeeding *versus* formula) influences the bacterial colonization of an infant's gut.

"Our findings are particularly timely given the recent affirmation of the gut microbiota as a 'super organ' with diverse roles in health and disease, and the increasing concern over rising cesarean delivery and insufficient exclusive breastfeeding in Canada," the authors wrote.

The study used samples from infants participating in the Canadian Healthy Infant Longitudinal Development (CHILD) Study national birth cohort—a platform used to study the early-life development of allergy, asthma and atopic disease.

Gut microbiota of healthy Canadian infants: profiles by mode of delivery and infant diet at 4 months (2013 March 19; 185(5): 385–394) was published with an accompanying editorial in the Canadian Medical Association Journal (CMAJ), garnering international media attention.

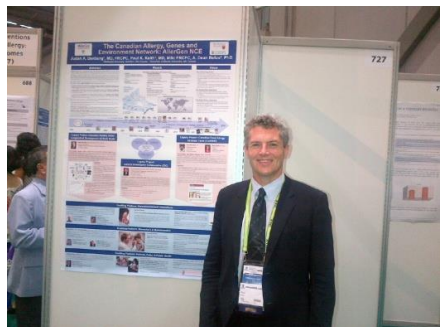
Dr. Azad, first author of the study, gained media experience providing interviews to disseminate the study's results. "Working on this AllerGen-funded research has taught me how to prepare 30-second sound bites for the media and craft effective messages summarizing our research findings for parents and health professionals," said Dr. Azad. To access the journal article, [click here](#).

AllerGen Investigators Highlight Canadian Research at 2013 EAACI-WAO Congress

In June 2013, over 8,000 clinicians, researchers and health professionals from around the world convened in Milan, Italy, to discuss the latest developments in allergy and asthma at the 2013 European Academy of Allergy and Clinical Immunology (EAACI) and World Allergy Organization (WAO) Congress.

AllerGen investigators Dr. Judah Denburg, Scientific Director, AllerGen NCE Inc., and Dr. Paul Keith, President, Canadian Society of Allergy and Clinical Immunology, were featured presenters, highlighting Canada's leadership role on the world stage in allergy research and innovation.

Fellows-in-training Dr. Andrew O'Keefe, McGill University, and Dr. Gina Tsai, Western University—both members of AllerGen's Students and New Professionals Network—also presented at the Congress.



Dr. Paul Keith presents an AllerGen poster at the 2013 EAACI-WAO conference.

AllerGen Research Team Awarded Five-Year CIHR Grant

Dr. Bruce Mazer, McGill University, and a national team of AllerGen researchers have received a five-year operating grant from the Canadian Institutes of Health Research (CIHR) Institute of Nutrition Metabolism and Diabetes. The award, valued at \$392,000, will support GET-FACTS: Genetics, Environment and Therapies: Food Allergy Clinical Tolerance Studies—a project which combines components of population genetics, immunology, clinical medicine and sociocultural analyses to study the nature of food allergies.

GET-FACTS aims to identify genetic and environmental factors influencing allergy and tolerance, investigate the role of microbial contamination in immunological tolerance and sensitivity to foods, and search for novel biomarkers of clinical allergy and tolerance in existing Canadian therapeutic trials.

The GET-FACTS proposal was ranked first by the CIHR review committee for Programmatic Grants in Food and Health.

CHILDhood Influences

The groundbreaking research being conducted by Dr. Malcolm Sears and collaborators on the Canadian Healthy Infant Longitudinal Development (CHILD) Study is featured in a three-page article in the April 2013 issue of *International Innovation* magazine.



Dr. Malcolm Sears

In a question-and-answer style interview, Dr. Sears discusses his research interests and explains how CHILD explores the role and interplay of environmental and genetic factors in the development of asthma and allergy.

According to Dr. Sears, preliminary CHILD Study findings reveal that by one year of age, more than 10 percent of children had experienced recurrent wheezing; 16 percent had positive skin allergy tests; 14 percent had atopic dermatitis; and 6 percent had reported a food allergy.

It is expected that data from the CHILD study will power new research exploring the origins of complex, chronic illnesses such as asthma and contribute to the development of new ways to diagnose and treat diseases across a wide range of health issues. Download the pdf of the full interview, [click here](#).

AllerGen Takes Cafés Scientifiques “Cross Country”

AllerGen’s popular Café Scientifique series travelled to Vancouver and Montréal on April 29, 2013, to mark World Immunology Day. These Cafés brought outstanding panels of Canadian clinicians and researchers into the local communities to discuss advances in the fields of immunology and allergy. Events featured expert presentations followed by interactive discussions, question-and-answer periods, and displays of sponsor information and resource materials. Over 80 community members attended each Café.

Vancouver, B.C., April 29, 2013 Van Dusen Botanical Gardens

Allergies—what can be done?

Hosted by the Child & Family Research Institute and the CIHR Human Immunology Network, and co-sponsored by AllerGen NCE.

Montréal, QC, April 29, 2013 Musée des Beaux-Arts

Allergies-what are they all about?

Presented by the McGill University Health Centre, Centre Hospitalier de l’université de Montréal, the CIHR Human Immunology Network and AllerGen NCE.



Second Phase of AllerGen Research Builds on Accomplishments since 2005

From 2005 to 2012, AllerGen supported **130** research projects, investing over **\$28 million** in Network research and strategic initiatives. Outcomes of these projects have resulted in **39** innovation products (patents, start-up companies, copyrights, industry licenses, *etc.*), over **1,300** publications, **49** research workshops, **five** Cafés Scientifiques, and a wealth of knowledge, tools, technologies and educational materials that will improve the quality of life for Canadians living with asthma, allergies and related immune disease.

In addition, AllerGen has provided education, training and capacity building opportunities for **866** trainees and new professionals, and awarded over **\$2 million** in trainee awards and fellowships.

AllerGen’s second and final phase of NCE funding from 2012 to 2019 will see continued investment in research, networking and capacity building, but also a substantial increase in knowledge mobilization investment and activity in areas where AllerGen research can have a significant social and economic impact.

AllerGen Awards \$250,000 Fellowship

Dr. Philippe Bégin, a physician and associate researcher from Centre hospitalier de l'Université de Montréal (CHUM) and Centre hospitalier universitaire (CHU) Sainte-Justine in Montréal, Québec, has received the prestigious *AllerGen Emerging Clinician-Scientist Research Fellowship Award*, valued at \$250,000.

This award is an innovative solution to the critical shortage of allergy and clinical immunology expertise in Canada, and the need to enable newly trained Canadian Clinical Immunologists and Allergists to pursue allergy, asthma and anaphylaxis academic research training.



Dr. Philippe Bégin

Dr. Bégin's fellowship showcases an international collaboration between AllerGen, CHU Sainte-Justine and Stanford University in California.

During his two-year fellowship, Dr. Bégin will perform clinical and fundamental research on oral immunotherapy for patients suffering from food allergy.

Dr. Bégin is co-supervised by Dr. Elie Haddad, Chief of Immunology, CHU Sainte-Justine and Professor at the Université de Montréal, and the internationally renowned Director of the Stanford Alliance for Food Allergy Research (SAFAR) and Associate Professor at Stanford University, Dr. Kari Nadeau.

AllerGen Partners Shine

AllerGen would like to congratulate the following Network partners who recently received the Queen Elizabeth II Diamond Jubilee Medal:

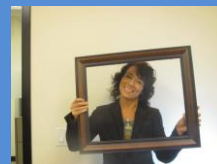
- Laurie Harada, Anaphylaxis Canada
- Dr. Robert Oliphant, The Asthma Society of Canada
- Dr. Elinor Wilson, Consultant
- Glenna Carr, Consultant

Created in 2012 to mark the 60th anniversary of Her Majesty Queen Elizabeth II's accession to the Throne as Queen of Canada, the Queen Elizabeth II Diamond Jubilee Medal honours significant contributions and achievements by Canadians.

New Faces at AllerGen

Two new staff members have joined AllerGen's Administrative Centre team.

- **Kim Wright** has assumed the position of Manager, Communications and Knowledge Mobilization. Kim has extensive experience in writing, editing, marketing, communications and pharmaceutical sales.



- **Marshall Beck** is the new Administrative Coordinator, Communications and Knowledge Mobilization. Marshall has coordinated a research centre at York University and served as editor for a U.S.-based political magazine.



Welcome Kim and Marshall!

Anaphylaxis Motion M-230 Passed

A motion recognizing anaphylaxis as a "serious concern for an increasing number of Canadians," passed in the House of Commons on May 22, 2013. Introduced into Parliament by MP Dean Allison, and supported by the Canadian Anaphylaxis Initiative (CAI)—a network of Canadian families committed to raising awareness of anaphylaxis on Parliament Hill—the motion reads as follows:

"That in the opinion of the House, anaphylaxis is a serious concern for an increasing number of Canadians and the government should take the appropriate measures necessary to ensure these Canadians are able to maintain a high quality of life."

AllerGen supported the progress of M-230 with a Letter of Support and supplementary background information highlighting important knowledge gaps about the prevalence, triggers, management and societal burden of anaphylaxis.

AllerGen Researcher Receives \$100,000 Award for Non-invasive Asthma Test

Dr. Darryl Adamko of the University of Saskatchewan and the University of Alberta, is a 2013 recipient of a \$100,000 federal Grand Challenges Canada grant through the “Stars in Global Health” program. Dr. Adamko has developed a simple urine test that can detect tissue damage and reduced lung function caused by asthma and allergies. The test detects unique markers in the body which are excreted in the urine.

Grand Challenges Canada funds innovative research that addresses “a specific critical barrier that, if removed, would help solve an important health problem in the developing world, with a high likelihood of global impact through widespread implementation.”

[Click here](#) to see a Grand Challenges interview with Dr. Adamko about his work.

Dr. Darryl Adamko
(photo courtesy of CTV Saskatchewan)



Health Canada Supports C-CARE

Health Canada has announced \$50,000 in funding support for the Cross Canada Anaphylaxis Registry (C-CARE) project, the first prospective study on anaphylaxis.

C-CARE is led by AllerGen investigators, Dr. Moshe Ben-Shoshan, Dr. Ann Clarke and Dr. Sebastien La Vieille. The project establishes patient registries and assesses the rate, triggers and management of anaphylaxis in emergency medical services, emergency departments and medical clinics across Canada.

Celebrating Success!

Dr. Claude Roy, a former member of AllerGen’s Board of Directors and former Vice-Chair, was inducted into the Canadian Medical Hall of Fame in May 2013.

Dr. Roy, a pediatric gastroenterologist specializing in infant nutrition, chronic liver disease and gastrointestinal and hepatobiliary manifestations of Cystic Fibrosis, was honoured for his impact on pediatric health across the country.



Dr. Claude Roy (centre) inducted into the Canadian Medical Hall of Fame in May 2013.

- **Dr. Louis-Philippe Boulet**, Université Laval, and **Dr. Allan Becker**, University of Manitoba, are recipients of a Queen Elizabeth II Diamond Jubilee Medal.
- **Dr. Moshe Ben-Shoshan**, Assistant Professor of Pediatrics at McGill University, was awarded the 2013-2014 Fonds de recherche du Québec-Santé (FRQS)-AllerGen Clinical Research Scholar - Junior 1 Career Award.
- **Ms. Lianne Soller**, AllerGen ASNPN President, received the Fonds de recherche du Québec-Santé (FRQS) Doctoral Training Award, ranking 2nd out of 426 applications.

Globe-hopping AllerGen Trainees

Dr. Jeremy Hirota and **Ms. Lianne Soller** are the inaugural recipients of AllerGen's *International Research Visit Award* program. The program provides value-added opportunities for the training, education and professional development of AllerGen trainees who seek to work with the most innovative researchers, clinician-scientists and laboratories around the world.

Dr. Hirota will spend 10 weeks at Dr. Phil Hansbro's laboratory in the Priority Research Centre for Asthma & Respiratory Diseases at The University of Newcastle in Australia to study airway diseases and immune responses.

Ms. Soller will travel to Cork, Ireland, in September 2013 for a six-month placement with Dr. Jonathan Hourihane and Dr. Audrey Dunn Galvin at University College Cork. She will study the role of parent and clinician decision making on quality of life for children with allergies.



Dr. Jeremy Hirota



Ms. Lianne Soller

AllerGen and Sweden's Karolinska Institute: A model partnership

During the *Centre for Allergy Research Day* held at the Karolinska Institute in Stockholm, Sweden, in April 2013, AllerGen's Scientific Director and CEO, Dr. Judah Denburg, spoke of the necessity of forging international partnerships toward addressing common patient-, productivity-, public policy- and international imperatives.

To date, AllerGen has developed 11 international partnerships, including a fruitful collaboration with the Karolinska Institute. This partnership has produced primary care guideline development for allergic rhinitis and

asthma, research on novel strategies for allergy vaccines and the TAG Project (traffic pollution, asthma and genetics), a Genome-Wide Data Workshop, and the first Clinical Investigator Collaborative (CIC) site outside of Canada.

Dr. Jennifer Protudjer, a past President of the AllerGen Students and New Professionals Network and currently a post-doctoral fellow at the Karolinska Institute, also presented at the event.

"National and international collaborations with leaders in allergic disease will ensure that Canada is part of cutting-edge initiatives that will extend for years to come," said Dr. Protudjer. "This is AllerGen's legacy."



Dr. Jennifer Protudjer and Dr. Judah Denburg speak at the *Centre for Allergy Research Day*.

2011-2012 Annual Report Available

The 2011-2012 AllerGen NCE Inc. *Annual Report* is available electronically on the AllerGen website at www.allergen-nce.ca. The *Annual Report 2011-2012* highlights Network research accomplishments, capacity building program results, as well as networking, commercialization and knowledge mobilization outcomes to March 31, 2012.

Checking Canada's Innovation Pulse

What does the 2013 federal budget mean for innovation in Canada?

On April 9-10, 2013, the 12th Annual Re\$earch Money Conference, *Checking the Pulse of Canada's Innovation Policies*, brought together a group of innovation experts, including AllerGen's Managing Director and COO, Dr. Diana Royce, to discuss this question.

Six keynote speakers and four interactive panels—each addressing unique perspectives within the innovation community—considered what Budget 2013 signals for emerging government policies, priorities, and strategies that affect Canada's innovation ecosystem and culture.

According to conference speakers, federal funding for research and innovation remains “small,” while support for infrastructure and military refurbishment is booming, leading some experts to identify an opportunity for funding basic and applied research through military procurement. Investment in university-based research is also declining in favour of targeted sectors, such as aerospace or the automotive industry. Both trends underscore the need for universities to fund their research through closer collaboration with industry, rather than through direct public support.

Beyond federal policy, the participants also explored Canadian and international innovation successes, failures, opportunities, and lessons learned, as well as prospects for the industrial sector and the state of financing more broadly. To download the full conference proceedings, [click here](#).



Diana Royce and panel members at the 12th Annual Re\$earch Money Conference.

AllerGen researcher funded to develop paper-based biosensor

Dr. Parameswaran Nair, CIHR Canada Research Chair in Airway Inflammometry and Associate Professor of Medicine, McMaster University, has received a \$600,000 award to develop a bioactive paper that aims to provide an inexpensive point-of-care diagnostic tool for asthma and COPD.

The paper strip will measure the quantity of an eosinophil-specific protein secreted in sputum. Treatment strategies for asthma and COPD that are based on quantitative eosinophil cell counts provide significantly better outcomes than strategies guided by conventional assessments of symptoms and airflow. NSERC and CIHR have provided \$600,000 over a period of three years through the Collaborative Health Research Program to further Dr. Nair's research.

Researchers “In The News”

Susan Waserman , CTV News	Tim Caulfield , National Post	Paul O'Byrne , Macleans
Anne Ellis , CTV News	Malcolm Sears , The Hamilton Spectator	Catherine Laprise , La Presse
Meghan Azad , Hamilton Spectator	Manel Jordana , Supplement to The Globe and Mail	
Anne Ellis , The Kingston-Whig Standard	Erika Ladouceur , The Hamilton Spectator	
Anne Ellis , FLY FM	Anita Kozyrskyj , The New York Times	Susan Waserman , Metro Morning
Miriam Stewart , MDLinx	Darryl Adamko , CTV News	

AllerGen Success Stories: Spring 2013

The fifth issue of AllerGen's *Success Stories* is available in print and electronically on the AllerGen website at www.allergen-nce.ca. This popular publication showcases Network-supported research and the accomplishments of leading Canadian allergy, asthma, anaphylaxis, genetics, environment and education researchers, their students and partner organizations.

In this issue, we share the highlights of five AllerGen-supported research projects. Feature stories include:

- a possible connection between a rise in premature births and childhood asthma in Canada;
- how protein research in mice sheds light on the development of asthma, colitis and colon cancer in humans;
- the impact of out-of-pocket medication expenses on asthma control in children;
- how probiotics may ease asthma symptoms; and
- the outcomes of a unique Canadian workshop exploring occupational allergies.

In sharing these stories, AllerGen aims to accelerate the dissemination, discussion and mobilization of AllerGen-supported research results. We hope you enjoy reading this latest issue!



Spring 2013



Spring 2012



Summer 2011



Spring 2011



Fall 2010



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d'excellence

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