reAction Feb 2017



RESEARCH HIGHLIGHTS

Canadian alternative medicine clinics: over half make unproven allergy/asthma claims

The majority of Canadian chiropractic, naturopathic, homeopathic and acupuncture clinics claim that they can diagnose or treat allergy/sensitivity and asthma, according to an AllerGen study of nearly 400 clinic websites.

The research, published December 17, 2016, in *BMJ Open*, analyzed the marketing claims made by complementary and alternative medicine (CAM) providers in the country's 10 most populous cities.

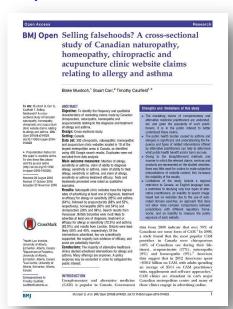
"We found that alternative medicine practitioners offer a wide-range of tests and treatments for allergy and asthma," says AllerGen investigator Timothy Caulfield, who led the research.

The study's results suggest the need for a legal and policy response to protect the Canadian public from questionable claims, according to Professor Caulfield.

"Several of the proposed treatments are potentially harmful," he says.

Read "Selling falsehoods? A crosssectional study of Canadian naturopathy, homeopathy, chiropractic and acupuncture clinic website claims relating to allergy and asthma" in *BMJ Open*.

Read the press release.





Study finds GO train riders exposed to high level of diesel exhaust

A study co-authored by AllerGen investigator Dr. Greg Evans, a University of Toronto professor of chemical engineering and director of the Southern Ontario Centre for Atmospheric Aerosol Research (SOCAAR), has found that passengers travelling in diesel-powered commuter GO trains risk high levels of exposure to pollutants—depending on where they sit and whether the locomotive is pushing or pulling the train.



A GO Transit diesel locomotive

The paper, "Exposure to ultrafine particles and black carbon in diesel-powered commuter trains," was published online in *Atmospheric Environment* on February 8, 2017. Its findings have been reported by *CBC*, the *Toronto Star*, *CTV*, *CP24*, *Science Daily* and other media outlets.

Using portable devices for measuring airborn pollutants, Dr. Evans and members of his team documented the presence of diesel-generated black

carbon and ultrafine particles in the air of GO train carriages during 43 separate trips in the Greater Toronto Area.

They found that when the locomotive *pulls* the train, the concentration of pollutants in passenger cars is higher than on a busy city street--nine times higher, in the case of the car closest to the locomotive.

In contrast, when the locomotive *pushes* the passenger cars, the air in the cars was typically cleaner than that to be found on a busy city street.

Metrolinx, the transit authority for the Greater Toronto and Hamilton Area, has been supportive of the research and is collaborating with Dr. Evans and his team to identify solutions to this air-quality problem.

Diesel exhaust is an established carcinogen associated with negative respiratory, cardiovascular and reproductive health effects.

AllerGen investigators have compiled a body of research documenting a number of these effects. For example, Dr. Chris Carlsten and Dr. Michael Kobor, both at The University of British Columbia, have found that diesel exposure can cause an enhanced allergic response and that it has epigenetic effects on asthmatics.



Diabetes in pregnancy associated with impaired lung function and childhood asthma

Diabetes in pregnancy may lead to impaired lung development and poor respiratory health among infants, according to a new review paper by researchers at the Developmental Origins of Chronic Diseases in Children Network (DEVOTION) in Manitoba.

The article, "Diabetes in pregnancy and lung health in offspring: developmental origins of respiratory disease," was published in *Pediatric Respiratory Reviews* and provides a summary of studies reporting associations of diabetes in pregnancy and respiratory outcomes in infants and children.

Together, these studies provide evidence that exposure to diabetes *in utero* may have adverse effects on an infant's lung development, including delayed lung maturation and an increased risk for a condition known as respiratory distress syndrome (RDS). RDS is a breathing disorder in which the air sacs (alveoli) in a newborn's lungs collapse because the production of a substance that coats the alveoli (surfactant) is absent or insufficient.

According to lead author Dr. Meghan Azad, a Research Scientist at the Children's Hospital Research Institute of Manitoba, a potential mechanism for the association between diabetes in pregnancy and infant RDS is related to high circulating levels of glucose in the diabetic mother.

"From the studies we reviewed, it appears that newborns who were exposed to hyperglycemia *in utero* may have impaired production of surfactant proteins that are important for proper lung function," said Dr. Azad, who is also an assistant professor in Pediatrics & Child Health at the University of Manitoba, and an investigator with AllerGen's CHILD Study. "Our review also found that these clinical observations have been confirmed in rodent models of diabetes in pregnancy."

The research team also observed a positive association between diabetes in pregnancy and childhood asthma—a finding seen in four studies from four countries—and identified this as an interesting area for future research.

Dr. Vernon Dolinsky, an associate professor at the University of Manitoba, was a study co-author. "Long-term studies will be particularly valuable for establishing lifecourse implications of diabetes in pregnancy on lung health," he said. "To our knowledge, there is no study that has investigated these associations beyond early adolescence."

Dr. Dolinsky is leading a Canadian Institutes of Health Research (CIHR) study about diabetes in pregnancy using samples from the CHILD Study.



Dr. Malcolm Sears, Dunedin Study featured in documentary series





AllerGen Research Leader and CHILD Study Co-Director Dr. Malcolm Sears is featured in a four-part 2016 documentary series chronicling the lives of 1,037 people born in Dunedin, New Zealand, during 1972-73.

The series, *Predict My Future: The Science of Us*, reveals the fascinating findings from the Dunedin Multidisciplinary Health and Development Study, a long-running birth cohort study that has followed nearly every aspect of the participants' health and development for over four decades.

Episode 4: *Dirt is Good, Dirt Poor is Bad* features interviews with Dr. Sears and reveals how excessive cleanliness affects asthma and allergies, how poverty gets under the skin to cause lifelong damage, the physical effects of social isolation, and how mental illness and Alzheimer's can be predicted by looking at the back of an eye.

The full documentary series is available for viewing on the website of Australian national public broadcaster SBS.

The Dunedin Study has provided insight into how the combined effects of hereditary (genes) and environment (upbringing) impact respiratory and cardiovascular health, allergic disease, obesity, sexual health, cognitive neuroscience, psychiatry, addictions, and criminology.

Dr. Sears was the original leader of the asthma and allergy component of the study.

Dr. Sears is Professor of Medicine at McMaster University, where he holds the AstraZeneca Chair in Respiratory Epidemiology, and a researcher at the Firestone Institute for Respiratory Health at St. Joseph's Healthcare.

AllerGen's CHILD Study is a Canadian birth cohort study following 3,500 Canadian children and their families from pre-birth to school age and beyond.



National study examines relationship between immigration status and prevalence of non-food allergies

A study published in the Canadian Journal of Public Health has found that immigrants to Canada have fewer non-food allergies than the non-immigrant population, but that the difference diminishes the longer they reside in Canada.

The study, based on data collected from 116,232 respondents to the Canadian Community Health Survey, represents approximately 98% of the Canadian population. It examined the prevalence of non-food allergies, such as allergic rhinitis and other respiratory allergies, among recent immigrants (immigrated to Canada within the last 10 years), long-time immigrants (immigrated more than 10 years ago) and non-immigrants.

Among immigrants who had lived in Canada for fewer than 10 years, only 14.3% had non-food allergies, while the rates for immigrants resident in Canada over 10 years and for non-immigrants were 23.9% and 29.6% respectively.

"This finding supports the 'healthy immigrant effect' theory, which states that new Canadians tend to have a low prevalence of chronic conditions, but their health status worsens with time and eventually converges with that of the Canadian-born population," says Dr. Hind Sbihi, an AllerGen HQP from The University of British Columbia (UBC) who led the

research. Jiayun Yao, a PhD candidate at UBC's School of Population and Public Health, was a co-author.

The lower prevalence of allergies among recent immigrants compared with non-immigrants may be partly attributed to differences in genetic and environmental risk factors for allergies between their countries of origin and Canada, according

to the researchers. In contrast, the increased prevalence among long-time immigrants compared with

recent immigrants primarily reflects the impact of environmental risk factors, such as urban living, lifestyle and diet.

"This may indicate that the immune systems immigrants developed during early life in their countries of origin, which were protective against allergies, can be reprogrammed to develop allergies later in life when adapting to a new environment," comments Dr. Sbihi.

She adds that, while food allergies have received substantial public, media, and research attention, it is important to raise awareness about allergies that result from other routes of exposure, like inhalation.

The study's findings will help researchers to better understand the environmental determinants of allergy development and may inform the design of multicultural strategies to manage the public health burden of allergic conditions.



AWARDS & HONOURS

Dr. Michael Kobor appointed to BC Leadership Chair



Dr. Michael Kobor

AllerGen Research Leader Dr. Michael Kobor, a Professor of Medical Genetics and Canada Research Chair in Social Epigenetics at The University of British Columbia, has been appointed to the Sunny Hill BC Leadership Chair in Child Development.

The Chair provides an endowment that will support Dr. Kobor's research into the mechanisms and processes by which biological embedding occurs—how experience gets "under the skin" to influence lifelong health and well-being.

Dr. Kobor's work builds on that of the late Dr. Clyde Hertzman and of previous Chairholder Dr. Thomas Boyce.

BC Leadership Chairs are supported by the Leading Edge Endowment Fund (LEEF) of the Government of British Columbia, established in 2002 to strengthen the province's position as a centre of excellence in research. Dr. Kobor's Chair is further funded by the BC Children's Hospital Foundation, the Lawson Foundation, the Donald Rix Foundation and the Koerner Foundation.

With AllerGen support, Dr. Kobor and his team are analyzing DNA from the umbilical cord blood of children participating in the CHILD Study and the Kingston Allergy Birth Cohort to determine if environmental influences, including maternal stress and childhood poverty, have epigenetic effects that influence allergy and asthma risk. Dr. Kobor is also a CHILD Study Investigator and serves on the Study's Executive Committee.

Read the UBC announcement.



Randy Yatscoff wins lifetime achievement award for Canadian entrepreneurship



Dr. Randy Yatscoff, a strategic advisor within the AllerGen network since 2010, has been awarded the *Startup Canada Adam Chowaniec Lifetime Achievement Award*.

The award is presented to an individual who has demonstrated an "outstanding impact and enduring legacy" in advancing the success of entrepreneurs, start-ups, start-up communities and entrepreneurial activities locally, regionally and nationally.

Former Prime Minister Paul Martin was the *Lifetime Achievement Award* recipient in 2015.

"Randy is an exceptional leader in Canada's entrepreneurship ecosystem," says Dr. Judah Denburg, Scientific Director and CEO of AllerGen.

"His innovation, creativity, and decades of dedication to supporting entrepreneurial activity have advanced an environment and culture for growth and success in Canada."

Dr. Yatscoff is the Executive Vice-President of Business Development for TEC Edmonton in Edmonton, Alberta.

He is also a valued member of AllerGen's Research Management Committee, and its Network-Supported Intellectual Property Advisory Committee, where he provides strategic advice on AllerGen's research, and knowledge and technology exchange and exploitation opportunities.

He also provides mentorship to Network investigators to support the development, protection, commercialization and financing of intellectual property arising from AllerGen research results.

Dr. Yatscoff received his award on November 29, 2016, at a red carpet Grand Finale in Toronto honouring national winners.

TEC Edmonton news release



PEOPLE & PARTNERS

Food Allergy Canada takes lead in McDonald's menu controversy

Changes at one of the country's oldest fastfood franchises have sparked controversy around food allergens and restaurant policies.

McDonald's Canada recently announced that all food products sold in its restaurants "may contain peanuts, tree nuts or other allergens" as the result of a new menu introduced across Canada on January 17, 2017.

Dr. Susan Waserman, an AllerGen investigator and an allergist at McMaster University, commented on the new allergy statement in a *Globe and Mail* article, stating: "There's not a lot of clarity about why they made such a wide-sweeping statement."

Food Allergy Canada (FAC), an AllerGen Legacy Partner, has taken a central role in representing the concerns of the foodallergic community regarding this announcement, penning an open letter to McDonald's Canada in the *Globe and Mail*, launching an online petition, and meeting with their President & CEO, John Betts, to request greater clarity around their allergen statement and policies.

Laurie Harada, FAC's Executive Director, says the new allergy statement "essentially

limits safe dining options for anyone with any food allergy."

McDonald's asked not to be "held to an 'unreasonable' standard," according to a *Globe and Mail* article published online on January 23, 2017.

<u>Allergic Living</u> has a full report of the latest developments.

AllerGen Research Leader Dr. Susan Elliott (University of Waterloo) is co-leading an AllerGen-enabled multidisciplinary stakeholder group working to develop a National Food Allergy Strategy for Canada.

"Fifty percent of Canadian households are affected by food allergy, either directly or indirectly, so decisions such as the one McDonald's recently made are not 'good for business,'" says Dr. Elliott.

"Ultimately, we should all work together to maximize choice and minimize risk for foodallergic Canadians."



Image accompanying Food Allergy Canada's open letter; used with permission



April O'Connell promoted to Manager, Research Programs

Dr. Diana Royce, Managing Director of AllerGen NCE, is pleased to announce that April O'Connell has been promoted to the position of Manager, Research Programs at the AllerGen Administrative Centre.

April remains the pointperson for Network research applications, funding processes and performance tracking.

Please join us in congratulating April.



April O'Connell

Former HQP heads ASACI

Former AllerGen trainee Dr. Yarden Yanishevsky, a pediatric allergist and Assistant Professor of Pediatrics at University of Alberta, was recently named President of the Alberta Society of Allergy and Clinical Immunology (ASACI).

Dr. Yanishevsky worked with Dr. Moshe Ben-Shoshan during his Allergy and Clinical Immunology Fellowship training at McGill University.



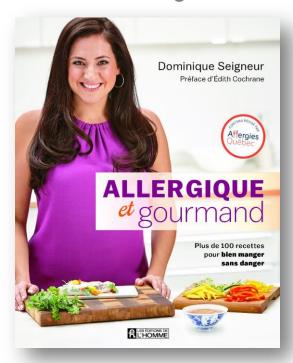
Dr. Yarden Yanishevsky

Allergies Québec's Communications Director publishes French cookbook for the food allergic

From aperitifs to desserts, to main dishes and snacks, *Allergique et gourmand*— the new French-language cookbook written by Dominique Seigneur—offers more than 100 allergen-free recipes.

Ms. Seigneur is Director of Communications for the AllerGen partner organization *Allergies Québec*. She is also the mother of an allergic child.

The book will be available in stores beginning March 1, 2017.



A

KNOWLEDGE MOBILIZATION

Asthma Pals peer mentoring program now available to support kids with asthma

Children living with asthma need all the support they can get. For over 40 years, the Asthma Society of Canada (ASC), an AllerGen legacy partner, has provided expert advice and support to individuals affected by asthma—and now the organization is doing even more to let Canadian kids know they are not alone.

In February 2017, the ASC announced the launch of its new *Asthma Pals* mentorship program. The program consists of eight weekly, online social support meetings for kids aged 7-11 years, led by experienced peer mentors. The first session begins April 24, 2017.

"Children face many challenges managing their asthma and the stigma associated with having a chronic condition," says Vanessa Foran, President & CEO of the ASC.

"This free program will empower kids to develop greater confidence and better communication skills, and help them live an active, symptom-free life by connecting them with other children and peer mentors who have faced similar experiences." The original program materials were designed by an interdisciplinary team led by AllerGen investigator Dr. Miriam Stewart, a professor of nursing at the University of Alberta, with research funding provided by AllerGen. From 2011 to 2013, these resources were refined and pilot-tested with community partner organizations through grants from AllerGen and Alberta Innovates-Health Solutions.

In 2016, the ASC signed a nonexclusive, non-revenue generating licensing agreement with AllerGen and the University of Alberta (TEC Edmonton) to adapt these resources to address the needs of asthmatic children.

Food Allergy Canada (FAC), another AllerGen legacy partner, first licensed and adapted Dr. Stewart's program in 2014, launching *Allergy Pals* (for youth aged 7-11 years), followed in 2015 by *Allergy Allies* (12-15 years)—customized peer support programs for children and teens affected by severe food allergies.



New CHILD Study video: traffic pollution & allergy risk

A new CHILD Study video shows how breathing in traffic fumes during infancy can increase the risk of allergies later on.

CHILD is following 3,500 Canadian children from pre-birth to school age and beyond to help us understand the causes of allergies, asthma, and other chronic diseases.

Discoveries such as this will help scientists and clinicians detect health conditions sooner, treat them more effectively, and even prevent them from developing in the first place.

Access the video from AllerGen's website or YouTube channel.



Introducing Research SKETCHES

AllerGen's new Research SKETCHES program mobilizes Network research findings and strengthens the knowledge translation skills of current and former HOP.



Eligible AllerGen HQP can apply to transform their research papers into AllerGen Research SKETCHES—short, clear-language research summaries for a non-scientific audience.

To be eligible, HQP must be co-author of a paper:

- stemming from an AllerGen-funded research study
- recently published, or submitted for publication, in a peer-reviewed journal.

HQP whose papers are selected will write a Research SKETCH, with training and support from the AllerGen Administrative Centre, and receive a \$500 award upon its successful completion.

Program details

If you wish to apply, please contact

Michelle Harkness Manager, HQP Training Programs michelleharkness@allergen-nce.ca Feb 2017

New KT video on treating allergies and asthma with naturopathy

How wise is it to seek asthma and allergy treatment from a naturopath? Your answer to this will depend on whether or not you value scientific evidence.

This is the lesson that is humourously illustrated in a new AllerGen-supported video produced by AllerGen investigator Professor Timothy Caulfield and his team, including AllerGen Highly Qualified Personnel Blake Murdoch and Alessandro Marcon, at the Health Law Institute (HLI) of the University of Alberta.

The video, "Seeking asthma and allergy treatment from a naturopath: A wise decision?," follows "Annie" who, "fed up

with her nagging asthma and allergies, seeks treatment from a naturopath based on a friend's recommendation." Follow Annie's foray into "alternative medicine," while facts and hyperlinked references pop up on the screen.

The HLI published this "Sciencing Health" video on YouTube on December 20, 2016.







HQP NEWS

AllerGen's fourth *Emerging Clinician-Scientist*Research Fellowship



Dr. Catherine Biggs

AllerGen is pleased to announce that Dr. Catherine Biggs has been awarded the prestigious AllerGen *Emerging Clinician-Scientist Research Fellowship*.

During the two-year Fellowship, Dr. Biggs will train under the supervision of AllerGen investigator Dr. Stuart Turvey, pediatric immunologist and director of clinical research at BC Children's Hospital, and professor at The University of British Columbia (UBC).

Dr. Turvey's research team has identified a Canadian family with a rare mutation in the Janus kinase 1 (JAK1) gene that causes severe atopic dermatitis, asthma, and strikingly elevated levels of eosinophils.

Working with this family, Dr. Biggs will study the impact of the JAK1 mutation on eosinophil levels and the immune system.

Dr. Biggs, a graduate of McGill University and UBC, completed a pediatrics residency and a specialty in clinical immunology and allergy at Harvard Medical School and Boston Children's Hospital, where she conducted both clinical and basic science research, and used cutting-edge technology based on CRISPR DNA targeting

This is the fourth such fellowship that AllerGen has awarded since 2011.

Valued at \$250,000, these awards enable newly trained Canadian allergists and immunologists to advance their research expertise and pursue a combined career as clinicians and academic researchers.

"Bringing Dr. Biggs back to Canada with this important AllerGen Fellowship is a big win for the Canadian clinical immunology community," says Dr. Turvey.

Read the press release.



ASNPN Vice-President attends International Day of Women and Girls in Science event

On February 11, 2017, AllerGen HQP Laura Feldman joined an exclusive audience of more than 100 women and girls to celebrate the 2017 International Day of Women and Girls in Science, held at Facebook Canada's headquarters in Toronto, ON.

As Vice-President of the AllerGen Students and New Professionals Network (ASNPN), Ms. Feldman was invited by the Canadian Institutes of Health Research to attend the event, which featured The Honourable Kirsty Duncan, Canada's Minister of Science and The Honourable Maryam Monsef, Canada's Minister of Status of Women.

A panel discussion, hosted by Canadian entrepreneur Erica Ehm, promoted and inspired women and girls in the STEM disciplines—science, technology, engineering and math.

"It was an honour to attend this high-profile event and to meet the Ministers in person," said Ms. Feldman (MPH), a Clinical Research Project Coordinator working with AllerGen investigator Dr. Teresa To at the Hospital for Sick Children. "The panelists focused on how to break down the barriers facing women and girls in STEM and how to encourage the full participation of women in these fields—it was very inspiring."

"As an AllerGen HQP, I have had many incredible opportunities to advance my career in science," she added. "From capacity-building workshops to funding for international research visits and mentoring

from AllerGen researchers like Dr. To and others—these opportunities have helped me to arrive at a place where I believe I can now mentor other young women."



Laura Feldman with Minister of Science Kirsty Duncan

AllerGen supports women in science to develop advanced-stage research expertise. Through its diverse initiatives, AllerGen's HQP program has attracted and retained a high proportion of female researchers in a gender ratio that far exceeds the national average. From 2011 to 2017, women represented 72.5% of AllerGen HQP at the Master's level and 67% at the Doctoral level, compared to 64% and 48%, respectively, in Canadian universities (according to a 2010 NSERC report). In addition, women represented 70% of AllerGen HQP at the postdoctoral level.

February 11 was declared as the International Day of Women and Girls in Science by the United Nations General Assembly in 2015.



AllerGen Research SKETCHES

Share your research BEYOND the readers of peer-reviewed journals.

AllerGen Research SKETCHES

Short lay summaries of peer-reviewed single research studies that answer:

- · what is the research about?
- what did the researchers do?
- · what did they find?
- how can the research be used?

GUIDELINES

Applications accepted on an ongoing basis

Open to ASNPN members who have co-authored a paper:

- based on an AllerGen-funded research study
- that has been published, or been submitted for publication, in a peer-reviewed journal

Aims to:

 make AllerGen research accessible to a broader audience and highlight novel, high-impact findings.

An HQP whose paper is selected as a *SKETCH* will be trained in clear language writing principles and receive a \$500 award upon completion.





Pryde Family Travel Grant

AllerGen Legacy Partner Food Allergy
Canada offers the Pryde Family Travel
Grant to assist students enrolled in medical
or graduate programs in Canada.

The Pryde Family Travel Grant is open to graduate students, medical students, and health care professionals with an interest in food allergy/anaphylaxis. Two travel grants valued at \$500 each will be awarded for attendance at an academic program or event related to food allergies. Recipients are selected by lottery.

The grant must be used to offset the costs of attending an academic program or event

related to food allergies, such as a conference, workshop, semester abroad, or clinical placement program. The grant cannot be used to pay for tuition.

This grant was established in honour of the Pryde family and their friends, as well as the friends and family of Sean Delaney, who have hosted The Sean Delaney Golf Memorial Classic since 2007, the year that Sean passed away from a severe allergic reaction.

Guidelines and Application Form

Application deadline: April 10, 2017

More HQP news in latest Airways newsletter

- Results of 2016 HQP Video Competition
- A celebration of recent ASNPN member accomplishments: awards and honours received, career advancement and publications
- List of new ASNPN members





MEDIA

AllerGen Researchers in the News



Dr. John Gordon

 Huffington Post, Hamilton Spectator, Global News, Allergic Living, Yahoo News

Dr. Hind Sbihi

 CBC, Vancouver Sun, Georgia Straight, Indo-Canadian Voice

Dr. Michael Brauer

OUR ULTIMATE GIFT GUIDE . BRIDE VS. NUT REACTION

 Christian Science Monitor, Digital Journal, Outlook Magazine, Car Throttle

Dr. Nicole Letourneau

Hamilton Spectator, Toronto Star

Dr. Sonia Anand

Huffington Post, WebMD

Prof. Timothy Caulfield

• CBC, Slate, National Post, Washington Post, MacLeans, Fox News

Dr. Susan Waserman

• CBC, Globe & Mail

Dr. Greg Evans

CBC, Toronto Star, CTV, CP24

Cover story: The CHILD Study and AllerGen investigators Drs Brett Finlay and Stuart Turvey are featured in the cover story of *Allergic Living* magazine (Winter 2017 edition): "The Good Bugs."



EVENTS

Upcoming AllerGen webinars building knowledge translation skills



Integrating the Patient Voice in Health Research: The What, Why and How

Colleen McGavin

Patient Engagement Lead, BC SPOR SUPPORT Unit

March 8, 2017 1:00 - 2:00 pm EST



How to Effect a Societal Change: Working with the Media & Public

B. Brett Finlay & Marie-Claire Arrieta The University of British Columbia & University of Calgary

March 23, 2017 2:00 - 3:00 pm EDT



Registration now open Topic TBD

Timothy Caulfield University of Alberta

April 11, 2017 2:00 - 3:00 pm EDT



Knowledge Transfer to Support Evidence-informed Health Policy

Maureen Dobbins McMaster University

May 8, 2017 2:00 - 3:00 pm EDT

Click on any webinar for more information and to register



AllerGen investigators present at WISC 2016

AllerGen was well-represented by its investigators at WISC 2016, the World Allergy Organization (WAO) International Scientific Conference, held December 6-9, 2016, in Jerusalem, Israel.

Scientific Director **Dr. Judah Denburg** moderated a symposium on "The Microbiome and its Role in Health and Disease" and presented two papers: "Lymphoid Cells, Effector Cells and Immune Responses" and "Allergy is in the Blood at Birth: Cord Blood Eosinophil Progenitors Predict the Development of Allergy and Asthma."

Dr. Bruce Mazer presented on "The Definition of Severe Asthma" and moderated two sessions: "Can Monoclonal Antibodies Really be Useful Weapons in Treating Allergic Diseases as they are in Cancer and Autoimmune Diseases?" and "CSACI - Anaphylaxis, Birth Cohorts, Development and Eosinophils: The ABC's of Canadian Allergy Research."

Dr. Louis-Philippe Boulet spoke on "The Effect of Activity and Weight Modification on Asthma Management."

Dr. Allan Becker shared insights from the CHILD Study in two presentations: "Early Life Origins of Respiratory Disease," and "Lessons from a Birth Cohort."

Dr. Moshe Ben-Shoshan presented on "Cross-Canada Anaphylaxis Registry (C-CARE): Lessons in Anaphylaxis from Montreal and Beyond."



Between March and July 2017, Bioninformatics.ca is offering a series of workshops for researchers on the latest approaches in computational biology.

Topics include:

- High-Throughput Biology: From Sequence to Networks
- Bioinformatics of Genomic Medicine
- Informatics on High-throughput Sequencing Data
- Informatics and Statistics for Metabolomics
- Introduction to R
- Epigenomic Data Analysis
- Microbiome Summer School: Big Data Analytics for Omics Science CIHR/CBW/CERC/BDRC
- Pathway and Network Analysis of -omics Data
- Cloud Computing in Bioinformatics with Big Data
- Informatics for RNA-Seq Analysis

More information on the full series



Send newsletter enquiries and comments to:
Kim Wright, Director, Communications and Knowledge Mobilization
Tel: 905.525.9140 x26641 Email: kimwright@allergen-nce.ca