A Newsletter from the CIHR Institute of Nutrition, Metabolism and Diabetes

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INMD *Connections*

Message from Philip Sherman, INMD Scientific Director

Research in the area of **Environments, Genes and Chronic Disease** is one of four Strategic Priorities supported by INMD, as described in the **INMD Strategic Plan 2010-2014**. In February 2012, INMD convened a **workshop** to identify research gaps and opportunities related to this priority. Using information from this workshop, INMD launched a Catalyst Grant funding opportunity in December 2012, with the support of partners, including the Heart and Stroke Foundation of Canada, Crohn's and Colitis Foundation of Canada, and the Kidney Foundation of Canada. This timely and important research is also supported by the CIHR Institutes of Aboriginal Peoples Health, Circulatory and Respiratory Health, Genetics, Gender and Health, Human Development Child and Youth Health, Infection and Immunity, and Neurosciences, Mental Health and Addictions. The diverse range of internal collaborators and external partners shows that **Environments, Genes and Chronic Disease** is an important research topic for a number of research communities. Many thanks to our external partners and CIHR collaborators, and congratulations to the successful applicants, who are highlighted on the following page.

Philip M. Sherman, MD, FRCPC

VASCULAR 2013 BREAKFAST SYMPOSIUM

From left: Jean Rouleau, Keeley Rose, Pierre Boyle, and Philip Sherman

INMD was delighted to co-host a Breakfast Symposium with the Institute of Circulatory and Respiratory Health (ICRH) during the Vascular 2013 conference in Montreal on October 18, 2013. This symposium was an opportunity to highlight topics of interest to researchers working in the INMD and ICRH mandate areas. Topics included CIHR Signature Initiatives as well as current and upcoming funding opportunities related to INMD and ICRH. Thanks to Jean Rouleau, Scientific Director of ICRH and Pierre Boyle, ICRH Assistant Director, for sharing the stage with INMD.

CELEBRATING THE CANADIAN CHILDREN INFLAMMATORY BOWEL DISEASE NETWORK (CCIBDN): A JOINT RESEARCH FUNDING PARTNERSHIP OF CIHR AND THE CH.I.L.D. FOUNDATION

On October 18, 2013, the Foundation for Children with Intestinal and Liver Disorders (CH.I.L.D Foundation) and CIHR-INMD celebrated the creation of the **CCIBDN** at the **23rd Annual Doormen's Dinner** in Vancouver, BC. The Network, led by Dr. Anne Griffiths and a Leadership Team (Drs. David Mack, Bruce Vallance, Aleixo Muise, Eric Benchimol, and Thomas Walters), is funded through a partnership between the CH.I.L.D. Foundation and CIHR (announced in **June 2013 at the Vancouver Children's Hospital**). Thanks again to Dr. Grace McCarthy, Mary Parsons and Lindsay Gordon, the co-founders of the CH.I.L.D. Foundation, for their leadership and dedication, as well as Tim Murphy and Dr. Aubrey Tingle for partnering with CIHR to see this exciting initiative through to fruition.

From left: Grace M. McCarthy, Tim Murphy, David Mack, Paul Bélanger, Anne Griffiths, and Mary Parsons

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Ravi Retnakaran, MD, MSc, FRCPC

Canadian Society of Endocrinology and Metabolism (CSEM), 2013 New Investigator Award Recipient, University of Toronto

Dr. Ravi Retnakaran is an Associate Professor in the Division of Endocrinology and Metabolism at the University of Toronto and a Clinician-Scientist based at the Leadership Sinai Centre for Diabetes at Mount Sinai Hospital in Toronto. He is a former Robert Turner Visiting Scholar in Diabetes Research at Oxford University, a Canadian Institutes of Health Research (CIHR) New Investigator, and Canadian Diabetes Association (CDA) Clinician-Scientist. His research program is supported by CIHR, CDA, the Heart and Stroke Foundation of Ontario (HSFO), and the Ontario Ministry of Research and Innovation. Dr. Retnakaran's clinical research program focuses on the early pathophysiology of type 2 diabetes and cardiovascular disease, particularly as studied through long-term longitudinal cardio-metabolic characterization of subjects at varying degrees of risk for the future development of these disorders. He has a particular interest in the concept that a woman's gluco-regulatory response to the metabolic challenge posed by pregnancy can provide unique insights into her future risk of type 2 diabetes and cardiovascular disease.

CONGRATULATIONS TO ENVIRONMENTS, GENES AND CHRONIC DISEASE (EGCD) CATALYST GRANTS RECIPIENTS!

INMD congratulates the successful **EGCD Catalyst Grants applicants**:

Principal Investigator	Institution	Project Title
Valerie Abadie	Hôpital Sainte-Justine	Deciphering the pathways associated with tissue destruction in Celiac disease
Darius Bagli	Hospital for Sick Children	Environmental microbe-gene interactions: role of host epigenetics in chronic urinary tract infection
Janice Bailey	Université Laval	How paternal prenatal exposure to environmentally-relevant organochlorines compromises health of future generations: a mechanism for health discrepancies between northern aboriginal and non-aboriginal Canadians
Jonathan Choy	Simon Fraser Univ.	The endogenous microbiota and Th17 cells in abdominal aortic aneurysm
Susanne Clee	Univ. British Columbia	Molecular mechanism of a gene-stress interaction on obesity
Jeff Dixon	Univ. Western Ontario	Mechanical environment - gene interactions in chronic musculoskeletal diseases
Lise Dubois	Univ. Ottawa	Interactions between dietary protein intake and polymorphisms in the insulin growth factor family: effects on obesity development in the Québec newborn twin study
Anne Ellis	Queen's Univ.	Early-life environment and chronic allergic disease: leveraging a prospective study to discover epigenetic signatures
France Gagnon	Univ. Toronto	Identifying pollutant-sensitive DNA methylation marks associated with a global measure of thrombosis risk: a proof-of-concept study
Catherine Laprise	Université du Québec à Chicoutimi	Comprehensive analysis of IL1R1 and IL1R2 genes in asthma considering smoking status
Francesco Leri	Univ. Guelph	Food addiction: studies of bio-behavioural links between nutrition and obesity
Laetitia Michou	Université Laval	Gene-environment interactions in a chronic bone disease
David Mutch	Univ. Guelph	Investigating the use of biclustering to identify blood mRNA biomarkers to monitor the efficacy and safety of pharmacological and nutritional compounds targeting MetS.
Louis Pérusse	Université Laval	Joining phenotype and genetic exposures with statistical models to understand gene-environment interactions in metabolic syndrome
Mojgan Rastegar	Univ. Manitoba	Investigating the cell type-specific regulatory role of ethanol on MeCP2 expression
Jonathan Schertzer	McMaster Univ.	Early life nutrition, antibiotics, infection and bacterial sensing regulate diabesity
Deborah Sloboda	McMaster Univ.	Early life determinants of obesity and metabolic compromise
Laura Sly	Univ. British Columbia	Crohn's disease genetic variants predispose to commensal-driven autoinflammation
Weihong Song	Univ. British Columbia	Epigenetic effect of traumatic brain injury contributes to Alzheimer's disease
Marie-Claude Vohl	Université Laval	Interactions between dietary n-3 fatty acids and genetic variations on cardiovascular disease risk factors
Benjamin Willing	Univ. Alberta	Epigenetic effects of early life antibiotics on genes relevant for metabolic disease and immune tolerance