



January 2017

BBDC Receives Support for Knowledge Translation Program and QUEST Program

The Banting & Best Diabetes Centre's Knowledge Translation and Optimizing Care Models Program has received renewed support from **Janssen**. The mandate of the BBDC's Knowledge Translation and Optimizing Care Models Program is to ensure that scientific knowledge of what we know constitutes best practice is implemented to improve the lives of people with diabetes. Our primary focus is to examine diabetes care gaps that could best be addressed by pharmacists and to develop interactive learning programs, knowledge translation initiatives and networking opportunities that support and empower pharmacists in the care of patients with diabetes. We would like to graciously acknowledge Janssen for providing additional support for this program.

The Centre's QUEST (Quality Education and Safety) Program has also received generous support from **Sun Life Financial**. Continuing education and quality improvement are a process of lifelong learning and systematic improvement for health professionals to expand and fulfill their potential, retain their capacity to practice safely and effectively, and to meet the healthcare priorities of the population and broader health care systems. This program fosters and develops continuing health education and quality improvement initiatives for all members of the diabetes team – physicians, nurse practitioners, nurses, dietitians, pharmacists and other health care professionals with the aim of providing a tangible impact at the patient level. We are grateful to Sun Life Financial for supporting the QUEST Program.

New Educational Opportunity for Trainees: Meetings with Visiting Speakers

As a result of comments and suggestions made by trainees at the most recent external review of the BBDC, we are happy to announce that graduate students and postdoctoral fellows will now have the opportunity to meet with visiting speakers as part of the BBDC Seminar Series at City-wide Endocrine Rounds. Graduate students and postdoctoral fellows will join visiting speakers for one-hour, informal group meetings specifically for trainees to discuss research and career-related topics. Attendance is open to graduate students and postdoctoral



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MARK YOUR CALENDAR

Diabetes Update 2017
April 21, 2017
Hilton Toronto

28th Annual Scientific Day
May 5, 2017
Old Mill Toronto

4th BBDC-Joslin-UCPH Conference
October 20-21, 2017
MaRS Centre, Toronto

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fellows whose supervisor is a member of the BBDC. The meetings will be held in the BBDC conference room.

Upcoming visiting speakers include Drs. Jeffrey Bluestone, Gerald Shulman and Kathryn Moore. An invitation to meet with the speakers will be emailed to BBDC trainees (and their supervisors) approximately six weeks prior to each speaker's visit, and registrations will be accepted at that time.

International Diabetes Collaboration Program Updates

Funded by a \$90,000 Sun Life Financial Impact Challenge Grant, Program Leader Dr. Julia Lowe and her team have been collaborating with clinicians in two low resource countries to improve diabetes care.

Ethiopia

Diabetes-related amputations are a major problem in Ethiopia, which has the fourth highest number of persons with type 2 diabetes in Africa. Collaborating with their Ethiopian colleagues and extending the successful model developed in Guyana, Canadian clinicians have built a diabetic foot centre at Tikur Anbessa (Black Lion) Hospital in Addis Ababa, Ethiopia. Canadian funds supported renovations, necessary basic equipment including plantar pressure redistribution supplies, and travel for Canadian visitors.



U of T wound care expert, Professor R. Gary Sibbald and chiropodist Laura Lee Kozody joined Dr. Julia Lowe to visit Ethiopia in October 2016 to open the centre and train a local interprofessional team. This training complemented the ongoing endocrinology residency program supported by the [Toronto Addis Ababa Academic Collaboration](#) as well as the [International Interprofessional Wound Care Course](#) held in South Africa and United Arab Emirates.

Guyana

Funded by a \$303,821 USD World Diabetes Foundation grant since January 2016, the three-year Guyana Diabetes Care Project has partnered with the Ministry of Public Health and the national referral hospital, the Georgetown Public Hospital Corporation, as well as [Orbis](#), an international eye care NGO, and the [WONDOOR](#) global health program to implement a multi-component project that will: introduce screening and treatment for diabetic retinopathy to Guyana, begin universal screening for diabetes in pregnancy, validate the Indian Diabetes Risk Score in Guyana and expand the use of the Guyana Health Information System, an electronic medical database.

The major project goal is to improve the health of 23,300 persons in Guyana by January 2019. This will be achieved by:

- Educating adults in lifestyle changes that prevent type 2 diabetes
- Identifying and treating previously undiagnosed persons
- Screening pregnant women for diabetes in pregnancy and treating women with this condition
- Screening people with diabetes for diabetic retinopathy and treating persons with sight threatening diabetic retinopathy by laser
- Increasing the knowledge and capacity of health care providers practising diabetes care and train further colleagues
- Reducing the negative consequences of specific complications of diabetes, specifically foot ulcers, diabetes in pregnancy, gestational diabetes and diabetic retinopathy.



The Canadian team visiting Guyana in November 2016 saw activities in full swing. Fundus cameras to screen for diabetic retinopathy have been purchased and local optometrists trained in their use. With the recent purchase of new laser and ancillary equipment and training, laser photocoagulation will soon be available to those with sight threatening diabetic retinopathy. Screening for diabetes in pregnancy has begun and the completion of the WHO chronic disease STEPS survey will allow the validation of the Indian Diabetes Risk Score.

Upcoming BBDC Events

BBDC Seminar Series 2016/2017

The BBDC will be hosting the following diabetes-related seminars which are held in conjunction with City-wide Endocrine Rounds. The seminars are held from 8 to 9 a.m. at the Mount Sinai Hospital, Lebovic Building, 60 Murray Street, 3rd floor conference room. Faculty who wish to meet with any of the speakers should contact Chris Sargent at chris.sargent@utoronto.ca.

March 24, 2017	Re-balancing the Immune System in Autoimmune Diseases Jeffrey Bluestone, PhD A.W. and Mary Margaret Clausen Distinguished Professor Director, Hormone Research Institute University of California, San Francisco
April 7, 2017	Role of Ectopic Lipid and Inflammation in the Pathogenesis of Insulin Resistance and Type 2 Diabetes Gerald Shulman, MD, PhD, FACP, MACE George R. Cowgill Professor of Medicine and Cellular & Molecular Physiology Investigator, Howard Hughes Medical Institute Yale University School of Medicine
May 19, 2017	Non-coding RNA Regulation of Lipid Metabolism in Health and Disease Kathryn J. Moore, PhD Jean and David Blechman Professor of Cardiology; Leon H. Charney Division of Cardiology; Marc and Ruti Bell Program for Vascular Biology and Disease New York University Medical Center

BBDC Diabetes Update 2017

April 21, 2017
Hilton Toronto

Registration is now open! The 2017 BBDC Diabetes Update will be held on Friday, April 21, 2017. This one-day continuing education event is targeted to health care providers in primary and specialty care such as physicians, pharmacists nurses, dietitians, etc. who are involved in diabetes education and management. This year's event will emphasize the importance of partnerships and collaboration towards improving the care of people living with diabetes.

Highlights include:

- How do we make team-based care work in reality?
- "Patient" vs "Person"-centered care
- The top 5 papers of the year: should they change our practices, and why?
- Pragmatic tips to address the diabetes/heart disease/kidney disease triad
- How can we best ensure safety and quality care of diabetes in the elderly?
- Strategies for helping patients with diabetes and disordered eating
- Patients with socioeconomic barriers and challenges: how can we help?
- Transitioning patients from the pediatric to adult setting: what to consider



Visit the [conference website](#) for more details, including agenda, registration and fee information. We look forward to seeing you there!

28th Annual Scientific Day

May 5, 2017

Old Mill, Toronto

Save the date! The Banting & Best Diabetes Centre's 28th Annual Scientific Day is taking place Friday, May 5, 2017 at the Old Mill, 21 Old Mill Road, Toronto. The BBDC Scientific Day is designed to provide an opportunity for our members to exchange scientific information and ideas, and to assist in the development of collaborative diabetes-related research activities. It also provides an opportunity for BBDC trainees to network and present their research. BBDC postdoctoral fellowship and graduate studentship recipients as well as selected Annual Trainee Awards competition abstract submitters will present posters of their work.

We are very pleased to announce that **Dr. Barbara Kahn**, George R. Minot Professor of Medicine, Harvard Medical School, will be delivering the Charles Hollenberg Memorial Lectureship. **Dr. Randy Levinson**, Senior Editor of Nature Medicine, will be co-judging the ten pre-selected posters for the Annual Trainee Awards competition together with a BBDC member. Local speakers will include **Drs. Khosrow Adeli, David Cherney, Zaved Waise, Diane Wherrett** and **Minna Woo**. Registration will open in early March 2017. [Visit our website](#) for updates.



4th BBDC-Joslin Diabetes Center-UCPH Conference Diabetic Complications: From Molecular Mechanisms to Patient Oriented Research

October 20-21, 2017

MaRS Centre, Toronto

Mark your calendar! The BBDC together with the Joslin Diabetes Center and the University of Copenhagen will be co-hosting the 4th annual diabetes conference from October 20-21, 2017 in Toronto. The program will include speakers from all three institutions as well as guest speakers from other leading diabetes research centres across the globe and will focus on diabetic complications from molecular mechanisms to patient oriented research. The conference will be preceded by a one-day interactive learning session for trainees from the three universities on

Thursday, October 19, 2017. We gratefully acknowledge Eli Lilly and Novo Nordisk for their generous support of this event. More information about the conference will be provided in the coming months.

Other Upcoming Events

LTRI Translational Metabolism Symposium

April 27, 2017

The Lunenfeld-Tanenbaum Research Institute will be hosting a Translational Metabolism Symposium: 30 years of GLP-1 biology - Looking forward to the next decade. The symposium will be held at Mount Sinai Hospital, Toronto, 18th floor auditorium. There is no fee to attend, but registration is required. [Visit the symposium website](#) for the complete program and registration information.

Funding Opportunities

Annual Trainee Awards Competition 2016/2017

The BBDC invites graduate, undergraduate and medical students, postdoctoral and clinical fellows, and medical residents to submit an abstract of their diabetes-related for this competition. The BBDC Training and Research Excellence Committee will screen all abstracts submitted to this competition. The top ten will be invited to present a

poster at the BBDC Annual Scientific Day to be held on May 5, 2017. The ten posters will be co-judged by **Dr. Randy Levinson, Senior Editor of Nature Medicine** and a BBDC member (to be announced) during the morning poster session. The prize winners will be announced and prizes will be awarded at the end of the Scientific Day.

All 2016/2017 BBDC graduate studentship and postdoctoral fellowship recipients are expected to submit an abstract of their work for this competition.

To be eligible, the trainee must be first author and the content of the abstract must be clearly and directly relevant to diabetes. The trainee must be either a:

- A) Registered University of Toronto graduate, undergraduate or medical student
- B) Postdoctoral fellow having received a PhD within the last 5 years
- C) Medical resident or clinical fellow having received an MD within the last 9 years

The trainee's supervisor must hold a faculty appointment with the University of Toronto at the level of Associate, Assistant or Full Professor. The trainee's supervisor must be a registered member* of the BBDC at the time of abstract submission. **Applications must be received by 5 p.m., January 17, 2017.** For complete award details and application instructions, please see [our website](#).

Charles Hollenberg Summer Studentship Program 2017

Fifteen summer studentships are available for undergraduate and medical students to carry out summer research in diabetes under the supervision of a member of the Banting & Best Diabetes Centre. The goal of the program is to introduce undergraduate and medical students to the field of diabetes research and to encourage research in diabetes and its complications as a career. Students will be required to work full-time for a minimum of 12 weeks between May 1 and August 31, 2017. To be eligible, the proposed supervisor must hold a full-time faculty appointment with the University of Toronto at the level of Associate, Assistant or Full Professor and must be conducting diabetes research. The proposed supervisor must also be a registered member* of the BBDC at the time of application submission.

A list of supervisors who potentially have one or more positions available for a summer student is available on the [BBDC's web site](#). Students may also directly contact other faculty not on this list with whom they are interested in working to discuss the possibility of a summer position. Research profiles of BBDC members [can be found here](#). **Applications must be received by 5 p.m., January 17, 2017.** For complete award details and application instructions, please see [our website](#).

Postdoctoral Fellowships 2017/2018

BBDC Postdoctoral Fellowships

Hugh Sellers Postdoctoral Fellowship

BBDC Fellowships In Diabetes Care (Funded By Eli Lilly & Boehringer Ingelheim)

The Banting & Best Diabetes Centre will be awarding a number of postdoctoral fellowships to candidates at the post-PhD or post-MD degree stages. The one-year fellowships normally commencing on July 1, 2017 (and no later than September 1, 2017) are to be used for full-time research training in diabetes. To be eligible, the candidate's proposed supervisor must be conducting diabetes research and must hold a faculty appointment with the University of Toronto at the level of Assistant, Associate, or Full Professor. The proposed supervisor must be employed by the University of Toronto or a University of Toronto-affiliated institution, and must be a registered member* of the BBDC at the time of application submission. Candidates must have received a doctoral degree (PhD) after July 2013, or a medical degree (MD) after July 2008 and must be within their first four years of postgraduate research training as of July 1, 2017.

Applications must be received by 5 p.m., February 28, 2017. For complete award details and application instructions, please see [our website](#).

Upcoming Funding Opportunities

The following funding program will be announced in the spring of 2017. Please visit [bbdc.org](#) for updates:

- 4th BBDC-Joslin Diabetes Center-UCPH Conference Travel Awards

Archie Sopman Diabetes Research and Education Awards 2017 (For University Health Network Employees)

This funding program is only open to University Health Network (UHN) staff physicians, dietitians, nurses, social workers, pharmacists, and scientists whose major job description involves diabetes research, diabetes education, or diabetes clinical care. Funding is available for travel to one diabetes-specific meeting occurring in the year 2017, or to support a visiting lecturer in diabetes or metabolic disorders visiting in the year 2017. To be eligible to apply, applicants must be employed by the UHN on a full-time or part-time basis. The principal applicant must also be a registered member* of the BBDC at the time of application submission. **Applications must be received by 5p.m., March 21, 2017.** For complete award details and application instructions, please see [our website](#).

AstraZeneca Impact Challenge Grant - Cardiovascular/Diabetes 2017

The Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research (HSRLCE) and the Banting & Best Diabetes Centre (BBDC) in conjunction with the Vice-Dean, Research and Innovation, Faculty of Medicine, are pleased to announce the 2017 AstraZeneca Impact Challenge Grant in Cardiovascular/Diabetes Research competition. One non-renewable award will be provided up to \$250,000 (\$125,000 annually for two years, to be spent over a maximum of three years). Funding for this competition will begin July 1, 2017.

The purpose of the AstraZeneca Impact Challenge Grant is to:

- Foster bench to bedside translational research with a focus on innovation and first-in man clinical trials;
- Foster the training of graduate students across disciplines and research institutes;
- Establish the University of Toronto as an international leader in the study of diabetes and heart disease; and
- Encourage collaboration between the BBDC and the HSRLCE.

Applications must be received by 4 pm, March 31, 2017. For complete award details and application instructions, please see the [HSRLCE website](#). Questions regarding this program may be directed to Liz Thuo, Business Manager, Heart & Stroke/Richard Lewar Centre of Excellence at hsrl.centre@utoronto.ca.

Graduate Studentships 2017/2018

The Banting & Best Diabetes Centre is now accepting applications for the following graduate studentships:

- 1) BBDC-Novo Nordisk Studentships
- 2) Yow Kam-Yuen Graduate Scholarship in Diabetes Research
- 3) Tamarack Graduate Award in Diabetes Research
- 4) BBDC-University Health Network Graduate Awards

To be eligible, the applicant must be a registered full-time graduate student in the Faculty of Medicine or the Institute of Health Policy, Management and Evaluation, University of Toronto by August 31, 2017 and must be carrying out studies in diabetes research. The applicant must be either a Canadian citizen or have Permanent Residence status in Ontario by August 31, 2017. The student's primary supervisor must hold a faculty appointment with the University of Toronto at the level of Assistant, Associate, or Full Professor. The primary supervisor must also be a registered member* of the BBDC at the time of application submission.

Please note that the eligibility requirements have changed since the previous competition. Potential applicants are asked to review the revised award terms for complete eligibility requirements. **Applications must be received by 5 p.m., April 4, 2017.** For complete details of each award and application instructions, please see [our website](#). Students need only submit one application to be considered for all awards.

Trainee Travel Awards 2016/2017 (Period 2) For Travel Occurring Between January 1 and June 30, 2017

Awards of up to \$1,000 (Canadian) are available to trainees who will be traveling to a national or international meeting between January 1 and June 30, 2017 to present a first-author abstract. The content of the abstract must be directly relevant to diabetes. At the time of abstract submission to the meeting, the applicant must be either a:

- A) Registered University of Toronto graduate, undergraduate or medical student
- B) Post-doctoral fellow having received a PhD within the last 5 years
- C) Medical resident or clinical fellow having received an MD within the last 9 years

The applicant's supervisor must hold a faculty appointment with the University of Toronto at the level of Assistant, Associate or Full Professor and must also be a registered member* of the BBDC at the time of application submission. **Applications must be received by 5 p.m., April 18, 2017.** For complete award details and application instructions, please see [our website](#).

*Those who are new to the field of diabetes research, education or care and are not members of the BBDC can request free membership prior to submitting an application. For more information about BBDC Membership, please view the Membership section of our web site at www.bbdc.org/membership/membership-overview.

Funding Decisions**

3rd BBDC-Joslin-UCPH Conference Travel Grants

Recipient	Supervisor	Title of Research
Battsetseg Batchuluun	Dr. Michael Wheeler	Elevation of Circulating Acylcarnitines Induces Pancreatic β -cell Dysfunction
William Cameron	Dr. Jonathan Rocheleau	Mitochondrial Targeting of APOLLO-NADP+ Reveals that Palmitate-induced Toxicity in Beta-cells Involves a Drop in Mitochondrial NADPH/NADP+ Redox State
Kenny Chan	Dr. Dana Philpott	Hematopoietic NOD1 depletion protects against metabolic inflammation and insulin resistance
Helen J. Dranse	Dr. Tony Lam	Mechanisms of Intestinal Protein Sensing
Javier Jaldin-Fincati	Dr. Amira Klip	Insulin signalling and insulin uptake into microvascular and lymphatic endothelial cells
Wenjuan Liu	Dr. Qinghua Wang	Combined therapy of GABA and GLP-1 prevents the onset of diabetes by promoting β -cell regeneration in mice
Helen Luck	Dr. Daniel Winer	IgA-related immune cell populations regulate obesity-induced insulin resistance
Lilia Magomedova	Dr. Carolyn Cummins	The glucocorticoid receptor coactivator ARGLU1 promotes steroid diabetes but does not impact anti-inflammatory effects of corticosteroids
Xavier Revelo	Dr. Daniel Winer	Nucleic acid-targeting pathways promote inflammation in obesity-related insulin resistance
Elodie Varin	Dr. Daniel Drucker	Is adipocyte DPP4 an adipokine critical for control of energy metabolism?

Trainee Travel Awards 2016/2017 (Period 1) For Travel Occurring Between July 1 and December 31, 2016

Recipient	Supervisor	Title of Research
Jodi Bernstein	Dr. Mary L'Abbe	Free sugar labelling is better than total sugar labelling to identify high-sugar "foods to limit" in the Canadian prepackaged food supply

Sarah Farr	Dr. Khosrow Adeli	Bile acid signaling as a novel regulator of postprandial lipemia and intestinal lipoprotein production
Victoria Higgins	Dr. Khosrow Adeli	The effect of BMI on circulating biomarkers of the metabolic syndrome in the CALIPER cohort of healthy children and adolescents
Yuliya Lytvyn	Dr. David Cherney	Renal and Vascular Effects of Uric Acid Lowering in Patients with Uncomplicated Type 1 Diabetes Mellitus
Harindra Rajasekeran	Dr. David Cherney	The effect of SGLT2 inhibition on urinary adenosine excretion in patients with Type 1 Diabetes
Jillian Rourke	Dr. Robert Screaton	High-Thoroughput Functional Genomics Identifies the Cell-Cycle Kinase Inhibitors p21 and p18 as Regulators of Primary Human Beta-Cell Proliferation
Jennifer Taher	Dr. Khosrow Adeli	The role of brown adipose tissue in mediating the lipid lowering effects of GLP-1
Julie Anh Dung Van	Dr. James Scholey	Characterizing the Urinary Peptidome of Early Type 1 Diabetes to Infer Protease Activity in the Kidney
Erin Worndl	Dr. Lorraine Lipscombe	Impact of a Cancer Diagnosis on Acute Diabetic Complications

****An essential condition of all BBDC programs is the acknowledgement of BBDC support, where appropriate, in all publications, presentations and communications relevant to the BBDC-supported research program. Failure to appropriately acknowledge the BBDC in relevant publications, presentations and communications will be considered grounds for suspending future eligibility for BBDC funding programs.**

BBDC Member Profile



Margaret Hahn, BSc, MD, PhD, FRCPC

Dr. Margaret (Maggie) Hahn is a Clinician Scientist and Psychiatrist with a research interest in schizophrenia and its treatments (antipsychotic drugs) which intersect to cause a very high risk of metabolic disturbances, in particular, type 2 diabetes. Her clinical work is invested in running a specialized metabolic clinic within the Centre of Addiction and Mental Health (CAMH) addressing the special metabolic, lifestyle intervention and psychopharmacological needs of this population.

Dr. Hahn completed an interdisciplinary BSc in immunology, biochemistry and physiology at McGill. She then entered Medicine at the University of Calgary. Following an MD degree, she pursued residency training at Dalhousie University in Psychiatry, where her original interest in physiology and biochemistry led her to become interested in the very high rates of metabolic co-morbidity observed in her patients. She was intrigued by the very pronounced weight gain and rapid development of dyslipidemias and diabetes in association with antipsychotic treatment. She also became intrigued by possible links between treatment response to antipsychotic medications and metabolic disturbances, where for example metabolic comorbidity (obesity, glucose dysregulation) may hold benefits in specific domains of psychopathology (psychosis/functioning), and detrimental effects in others (cognition/ neurogenesis). Following her psychiatric training in 2009, she joined

Dr. Gary Remington (CAMH) in close collaboration with Dr. Adria Giacca (U of T, Physiology) as a research fellow to investigate links between antipsychotic treatments and diabetes, employing rodent and human models.

This work branched into a PhD, following the completion of which Dr. Hahn joined the U of T faculty as an Assistant Professor, Department of Psychiatry in 2013. She received the BBDC Reuben & Helene Dennis Scholar Award in 2014 which inspired her to pursue the challenging and rewarding career path as a clinician scientist. She currently oversees a preclinical metabolic laboratory at CAMH and is also leading three clinical trials that focus on the complex interactions between psychotic illness, metabolic vulnerability, psychopathology and antipsychotic drugs. Her goal is to move towards examination of targeted interventions focusing on glucose dysregulation in patients with serious mental illness treated with antipsychotics. Her lab has also moved towards use of imaging to assess the relationship between glucose homeostasis, adiposity and brain function.

When not actively involved in research, she loves literature, skiing, painting and cooking (sometimes that means just going to a good restaurant). She loves the sun and she and her husband spend as much time as they can during the summer at their cottage in Northern Ontario, where she feels fortunate to be able to work (an extensive system has been set up to plug in her laptop at the dock), and sometimes take breaks to do water sports.

Director: Gary F. Lewis, MD, FRCPC

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