



20X/0.40

∞/0.17 WD 1.2

40X

40X  
∞/0.17



## **Banting & Best Diabetes Centre**

---

Annual Report  
July 2019 - June 2020



Banting & Best Diabetes Centre  
UNIVERSITY OF TORONTO

# Contents

---

## 3 > Who We Are

---

## 3 > Vision and Mission

---

## 4 > Director's Report

---

## 6 > Committees

---

## 9 > Funding Programs and Funding Decisions

### > Funding Programs for Trainees

6th BBDC-Joslin-UCPH Abstract Competition

Annual Trainee Awards

Charles Hollenberg Summer Studentship Program

Graduate Studentships

Postdoctoral Fellowships

Trainee Travel Awards

### > Funding Programs for Faculty and Health Professionals

Archie Sopman Diabetes Research and Education Awards

BBDC-Novo Nordisk Chair in Incretin Biology

Diabetes Educator of the Year Award 2019

Pilot and Feasibility Grants

New Investigator Awards

---

## 19 > Educational Activities

> 6th BBDC-Joslin Diabetes Center-UCPH Conference

> 2nd PMCC-BBDC Joint Cardiovascular-Diabetes Symposium

> Annual Scientific Day

> BBDC Seminar Series (at City-wide Endocrine Rounds)

> Trainee Seminars

> Diabetes Pharmacists Network

> Guidebook on Diabetes Management

> QUEST Website

---

## 29 > Core Laboratory

---

## 30 > Acknowledgements

---

## 31 > Our Supporters



# Who We Are

The BBDC was established in 1978 as an extra-departmental unit of the Faculty of Medicine, University of Toronto with the primary objective of advancing diabetes research, education, and patient care.

We offer several grants, studentships, fellowships, and other support for qualified individuals involved in diabetes research at the University of Toronto and its affiliated hospitals and research institutes across the city including SickKids, Mount Sinai Hospital, University Health Network, Sunnybrook Health Sciences Centre, St. Michael's Hospital, Women's College Hospital, Centre for Addiction and Mental Health and many other community affiliated sites.

We host scientific conferences to facilitate the exchange of scientific information and ideas, and to assist in the development of collaborative diabetes research activities both locally and internationally. We foster and develop continuing health education and quality improvement initiatives for all members of the diabetes health care team with the aim of providing a tangible impact at the patient level.

Our members are a network of over 200 faculty and health care providers involved in diabetes research, education and care from various departments at the University of Toronto and its affiliated hospitals and research institutes.



## Our Vision

As a centre of excellence for innovation in diabetes research, education, and clinical care, we will tangibly impact diabetes prevention and outcomes in Canada and globally.



## Our Mission

We bring together researchers and health professionals across multiple University of Toronto affiliated disciplines to:

---

Lead discoveries in patient-oriented research, large-scale clinical trials and basic science across affiliated hospitals and research institutes

---

Develop novel treatment paths to cure diabetes or prevent its complications

---

Identify innovative ways to manage diabetes and improve the lives of those living with the condition



# Director's Report

This academic year has been a challenging one for all of us.

BBDC members are navigating a “new normal” and trying to manage research programs alongside funding shortfalls, changing work environments and adjustments to work and life priorities. We are also sharing in the collective pain as so many people around the globe grapple with illness, job losses and the ongoing stress of an unprecedented health emergency.

Disruptions to funding programs continue to be a concern for our members. Major federal grant competitions have been postponed, and the non-profit organizations supporting diabetes research have cancelled or reduced their funding commitment in the short term. Laboratory and clinical research closures have resulted in major delays and disruptions to ongoing projects.

A number of BBDC investigators have pivoted their research to COVID-19 projects or have been redeployed to COVID-19 research. Their experience with diabetes offers a unique lens, as type 2 diabetes, like COVID-19, often affects the most vulnerable in our communities. The COVID-19 pandemic has also shone a light on the many inadequacies in our health care system. We have a renewed urgency to improve our understanding and management of chronic illness, with diabetes being the exemplar.

The BBDC leadership team is making every attempt to maintain our current funding levels. We are also committed to providing continued diabetes education and opportunities to share scientific information and ideas.



**Gary F. Lewis, MD, FRCPC**

Director, Banting & Best  
Diabetes Centre  
Professor, Departments of  
Medicine and Physiology  
Sun Life Financial Chair in  
Diabetes  
Drucker Family Chair in  
Diabetes Research

## **We have made the following changes to BBDC programs and events:**

- > Although our 31st annual BBDC Scientific Day was cancelled, our 2020 Charles Hollenberg Memorial Lecturer, Prof. Christopher Newgard, will present virtually at City-wide Endocrine Rounds in September.
- > BBDC trainee seminars and visiting speaker series will continue as virtual seminars. As travel expenses are no longer incurred for these events, we are able to increase the number of speakers for the coming year and invite speakers from beyond North America.
- > Funding for our Trainee Travel Awards program will now be provided to those presenting a first-authored abstract at a virtual conference.
- > The Archie Sopman Awards program will now provide funding to attend virtual conferences and continuing diabetes education courses.

## **Despite the challenges of the past few months, 2019/2020 has been a very productive and successful year for the BBDC. Below are some of the highlights:**

- > The 6th BBDC-Joslin-UCPH Conference was held in Boston from October 24-26, 2019. The conference was preceded by a Training Day for trainees from the three institutions, which was generously funded by the Danish Diabetes Academy.
- > The Guyana Diabetes Care Project concluded after nine years of successful international collaboration. The project was supported in part by the BBDC's International Diabetes Collaboration Program. We are extremely proud of the work carried out by our colleagues in Guyana, South America. A summary of the project can be viewed on the [BBDC's website](#).
- > The BBDC QUEST (Quality, Education and Safety) program continues to produce high quality educational videos on topics in diabetes. The most recent video addresses Glucocorticoid-Induced Hyperglycemia (Steroid Induced Diabetes) to help guide health care providers in monitoring patients for glucocorticoid-induced hyperglycemia, and to provide key strategies for treatment. The video is available on [diabetesquest.ca](#).

In January 2020, the Peter Munk Cardiac Centre and the BBDC QUEST program co-hosted the second annual Joint Cardiovascular-Diabetes Symposium in Toronto; a two-day educational event for health care providers.

- The BBDC's Knowledge Translation and Optimizing Care Models program, led by Dr. Lori MacCallum, continues to be very active in the following areas:

**Community of Practice:** The BBDC's Diabetes Pharmacists Network continues to grow with 1,500 members from across Canada. The online community ([diabetespharmacistsnetwork.ca](https://diabetespharmacistsnetwork.ca)) has 23,028 individual users with 89,900 page views.

**Knowledge Translation:** We continue to develop online resources to support the safe and effective use of medications in diabetes management. Our most recent practice tool on GLP-1 receptor agonists received over 700 downloads in the first two weeks. It has also been integrated into an electronic medical record in a family practice unit. Our previous practice tool on SGLT2 inhibitors recently surpassed 5,000 downloads.

**Stakeholder Engagement:** This past year, Dr. Lori MacCallum served as a member of the expert committee and co-author of the *Diabetes Canada Interim Update of Pharmacologic Management of Type 2 Diabetes Clinical Practice Guideline*, an advisory member for the Ontario Quality Standards in Type 2 Diabetes, a member of the Ontario College of Pharmacists Quality Indicators Technical Specifications Working Group, and was appointed as Academic Director to the board of the Canadian Foundation for Pharmacy. She also co-authored a white paper, [Pharmacy in the 21st century: Enhancing the impact of the profession of pharmacy on people's lives in the context of health care trends, evidence and policies](#), which was chosen as *Canadian Pharmacists Journal's* best paper of 2019 for its potential to positively impact practice and lead to better patient care.

The volunteers who serve on our four committees are the BBDC's greatest resource. These 34 individuals review applications for our funding programs, plan our events, provide educational content for our QUEST website, and advise on new initiatives. Without them, the BBDC could not function.

In 2021 we celebrate the 100th anniversary of the discovery of insulin. There has never been a more exciting time in diabetes research. We now have the tools, resources and drive, not to mention the accumulated wisdom of the last century, to focus our efforts on making a major impact on the lives of those affected by diabetes. The BBDC and its related U of T organizations will continue to play a leadership role in diabetes research well into the future. Thank you to all BBDC members and trainees for your dedicated efforts.





# Committees

“As U of T prepares to celebrate the 100th anniversary of the discovery of insulin in 2021, **we are determined to make history once again.**”



---

## > Executive Committee

The governance structure of the BBDC consists of a Director and Executive Committee who ensure that the goals of the Centre are appropriately implemented. The Executive Committee provides leadership and representation for the University of Toronto diabetes research, education and care communities.

**Director and Chair: Dr. Gary Lewis** Department of Medicine, Division of Endocrinology & Metabolism, and Department of Physiology\*

**Dr. Khosrow Adeli** Department of Biochemistry, and Department of Laboratory Medicine & Pathobiology\*

**Dr. Richard Gilbert** Department of Medicine, Division of Endocrinology & Metabolism\*

**Dr. Richard Hegele** Vice Dean, Research and Innovation, Faculty of Medicine\*

**Dr. Tony Lam** Department of Medicine and Department of Physiology\*

**Dr. Lorraine Lipscombe** Department of Medicine, and Department of Health Policy, Management and Evaluation\*

**Dr. Bruce Perkins** Department of Medicine, Division of Endocrinology & Metabolism\*

**Dr. Phillip Segal** Department of Medicine, Division of Endocrinology & Metabolism\*

**Dr. Minna Woo** Department of Medicine, Division of Endocrinology & Metabolism\*

---

## > Quality Education and Safety (QUEST) Committee

This committee fosters and develops continuing health education and quality improvement initiatives for all members of the diabetes team with the aim of improving the lives of people living with diabetes.

**Chair: Dr. Phillip Segal** Department of Medicine, Division of Endocrinology & Metabolism\*

**Leigh Caplan** Certified Diabetes Nurse Educator, Sunnybrook Health Sciences Centre

**Dr. Julie Anne Gilmour** Department of Medicine, Division of Endocrinology & Metabolism\*

**Dr. Ilana Halperin** Department of Medicine, Division of Endocrinology & Metabolism\*

**Dr. Lori MacCallum** BBDC Program Director, Knowledge Translation and Optimizing Care Models;  
Leslie Dan Faculty of Pharmacy\*

**Dr. Geetha Mukerji** Department of Medicine, Division of Endocrinology & Metabolism\*

**Violetta Nikolova** Clinical Nurse Specialist, Mount Sinai Hospital

**Dr. Monica Parry** Associate Professor, Lawrence S. Bloomberg Faculty of Nursing\*

**Lori Sutton** Regional Facilitator, Toronto Diabetes Care Connect, South Riverdale Community Health Centre

**Dana Whitham** Clinical Leader Manager, Diabetes and Renal Transplant, St. Michael's Hospital

**Dr. Rene Wong** Department of Medicine, Division of Endocrinology & Metabolism\*

---

\*University of Toronto

---

## > Training and Research Excellence Committee

This committee implements the scientific review of BBDC funding programs, develops the Annual Scientific Day program, and selects speakers for the BBDC Seminar Series.

**Chair: Dr. Tony Lam** Associate Director of Research, BBDC; Departments of Medicine and Physiology\*

**Dr. Kim Connelly** Department of Medicine, Division of Cardiology\*

**Dr. Satya Dash** Department of Medicine, Division of Endocrinology & Metabolism\*

**Dr. Margaret Hahn** Department of Psychiatry\*

**Dr. Caroline Kramer** Department of Medicine\*

**Dr. Julie Lovshin** Department of Medicine, Division of Endocrinology & Metabolism\* (*as of January 2020*)

**Dr. Cynthia Luk** Department of Medicine\*

**Dr. Ian Rogers** Department of Obstetrics and Gynecology\*

**Dr. Hoon-Ki Sung** Department of Laboratory Medicine and Pathobiology\*

**Dr. Darren Yuen** Department of Laboratory Medicine and Pathobiology\*

---

## > Trainee Advancement and Development Committee

As a subcommittee of the Training and Research Excellence Committee, this committee implements the scientific review of the Summer Studentships, Annual Trainee Awards, and Trainee Travel Awards funding programs. Members are postdoctoral fellows with diverse expertise and disciplines who are either BBDC or externally funded.

**Chair: Dr. Tony Lam** Associate Director of Research, BBDC; Departments of Medicine and Physiology\*

**Dr. Chris Chen** (Supervisor: Dr. Robert Srean) (*from Dec. 2019*)

**Dr. Queenie Hu** (Supervisor: Dr. Robert Srean) (*to Dec. 2019*)

**Dr. Adriana Migliorini** (Supervisor: Dr. Cristina Nostro)

**Dr. Willem Pepler** (Supervisor: Dr. Tony Lam) (*to Dec. 2019*)

**Dr. Sonia Rehal** (Supervisor: Dr. Minna Woo)

**Dr. Priska Stahel** (Supervisor: Dr. Gary Lewis)

**Dr. Chi Kin Wong** (Supervisor: Dr. Daniel Drucker)

**Dr. Samaneh Yazdani** (Supervisor: Dr. Amira Klip)

**Dr. Veera Ganesh Yerra** (Supervisor: Dr. Andrew Advani)

**Dr. Song-Yang Zhang** (Supervisor: Dr. Tony Lam) (*from Dec. 2019*)

---

\*University of Toronto





# Funding Programs and Funding Decisions

**“Discoveries like insulin** only happen when the right people are given the time, resources and the support they need to pursue their ideas.”

This section of our annual report provides a brief overview of the significant funding that we provide for the diabetes research, education and care communities at the University of Toronto and its affiliated institutions. Complete details and specific eligibility requirements for each program are outlined on our website [bbdc.org](http://bbdc.org).

## Funding Programs For Trainees

### > 6th BBDC-Joslin-UCPH Abstract Competition

The following ten trainees were selected to participate in the Danish Diabetes Academy Training Day held in Boston on October 23, 2019 in advance of the 6th BBDC-Joslin Diabetes Center-University of Copenhagen Conference which was held October 24-26, 2019. The objective of the Training Day is to facilitate development of networks and future research collaborations among the selected young researchers across the three involved institutions. The trainees also presented posters at the conference.

| Trainee            | Supervisor             | Title of Research   |
|--------------------|------------------------|---|
| Dana Al Rijjal     | Dr. Michael Wheeler    | Fish Oil Derived Omega-3 Ethyl Ester Prescription Drug Protects against High Fat Diet Impaired Glucose Intolerance and Insulin Resistance                               |
| Cindy Bui          | Dr. Jonathan Rocheleau | Imaging Apollo-NADP+ to investigate NADPH production dynamics in pancreatic $\beta$ cells   |
| Huntley Chang      | Dr. Jonathan Rocheleau | Elucidating the metabolism of beta cells at the various stages of the cell cycle using genetically encoded sensors for redox state and glycolytic flux                  |
| Scott Frendo-Cumbo | Dr. Amira Klip         | Deficiency of the autophagy gene ATG16L1 induces insulin resistance through KLHL9/KLHL13/CUL3-mediated IRS1 degradation   |
| Romario Regeenes   | Dr. Jonathan Rocheleau | Design of Islet-On-A-Chip Devices to Dynamically Measure Glucose-Stimulated Metabolism and Insulin Secretion in Individual Pancreatic Islets                            |
| Zhila Semnani Azad | Dr. Anthony Hanley     | Adipose Tissue Insulin Resistance and Inflammation are Independently Associated with Dysglycemia: the Prospective Metabolism and Islet Cell Evaluation (PROMISE) Cohort |
| Priska Stahel      | Dr. Gary Lewis         | Glucose and Glucagon-Like Peptide-2 Mobilize Intestinal Triglyceride by Distinct Mechanisms   |
| Victoria Tokarz    | Dr. Amira Klip         | Insulin-stimulated GLUT4 translocation is reduced by palmitate independently of defective Akt, but linked to defective Rac1-induced actin remodeling                    |
| Ashley Untereiner  | Dr. Michael Wheeler    | GABA stimulates beta-cell proliferation but primarily acts as a gene repressor  |
| Jie Xu             | Dr. Michael Wheeler    | Zinc transporter 8 (ZnT8) deficiency specifically in pancreatic beta-cells worsens glucose intolerance in mice expressing human islet amyloid polypeptide               |

---

## > Annual Trainee Awards

The Annual Trainee Awards program is intended to showcase the best innovative and novel diabetes research being conducted by trainees at the University of Toronto and to provide an incentive for BBDC trainees to share their very best work with their colleagues and the BBDC membership. The top ten abstracts are selected for poster presentations at the BBDC's Annual Scientific Day where they are judged by internationally renowned diabetes researchers.

Due to the cancellation of the BBDC's 2020 Scientific Day as a result of the COVID-19 pandemic, poster judging could not take place. However, it was decided to award prizes for the top 10 abstract submissions. Each prize recipient received a \$200 gift card.

| Award Recipient                | Supervisor            | Title of Research  |
|--------------------------------|-----------------------|--|
| Daniella Febbraro              | Dr. Minna Woo         | UVRAG Regulated Mitochondrial Dynamics and EGFR Signaling in Skeletal Muscle Homeostasis   |
| Dakota Gustafson               | Dr. Jason Fish        | Circulating Extracellular Vesicles in the Context of Diabetes Promote the Induction of Vascular Leak Through MEK/ROCK Signaling  |
| Daniel Jong Jin Han            | Dr. Cynthia Luk       | Adipocyte YAP Regulated Glucose Homeostasis and Browning of Adipose Tissue In Vivo   |
| Mi Lai                         | Dr. Michael Wheeler   | The Early Postpartum Period After Gestational Diabetes Reveals Subclinical Amino Acid Dysmetabolism and a Signature that Accurately Predicts Progression to Type 2 Diabetes: A Metabolic Profiling Study |
| Yu Zhe Li                      | Dr. Minna Woo         | Investigating the Metabolic Role of PTEN in Parasympathetic Phox2B Neurons   |
| Sarah Martchenko (nee Wheeler) | Dr. Patricia Brubaker | Elucidating the Interactions Between the Microbiome, Intestinal Immunity and Circadian Secretion of Glucagon-like Peptide-1  |
| Frankie Poon                   | Dr. Cristina Nostro   | Deciphering the Signaling Pathways Driving $\beta$ -cells Development From Human Pluripotent Stem Cells  |
| Fitore Raka                    | Dr. Khosrow Adeli     | Peripheral Serotonin Regulates Dietary Fat Absorption and Intestinal Chylomicron Production  |
| Falak Shoaib                   | Dr. Adria Giacca      | Palmitate Induces NOD1-mediated Insulin Resistance in Vivo   |
| Shawn Veitch                   | Dr. Jason Fish        | MicroRNA-30 Regulated Endothelial Fatty Acid Metabolism and Microvascular Function in Diabetic Cardiomyopathy  |

---

## > Charles Hollenberg Summer Studentship Program

This program is designed to introduce undergraduate and medical students to the field of diabetes research by providing an opportunity to perform a full-time summer research studentship in the laboratory of a BBDC member. Students and their supervisors participate in a weekly seminar series which include presentations by the summer students describing how their projects fit into the overall goals of their labs. All students present the results of their work at the end of the summer in a workshop format at a half-day mini-conference. The awards are valued at \$5,880 each (half is provided by the BBDC). Unfortunately, due to the COVID-19 pandemic, the 2020 Summer Studentship program was cancelled.



## > Graduate Studentships

### BBDC-NOVO NORDISK STUDENTSHIPS

A collaboration with Novo Nordisk Canada Inc. was established in 1996 to provide long-term endowment in support of graduate students who are pursuing a career in diabetes research. As part of the Ontario Student Opportunity Trust Fund program, the support obtained from Novo Nordisk was matched by equal contributions from the University of Toronto and the Government of Ontario. Studentships are valued at up to \$21,000 each. The 2019/2020 award recipients are:

| Recipient               | Supervisor            | Title of Research   |
|-------------------------|-----------------------|---|
| Yasaman Badakhshi       | Dr. Tianru Jin        | Metabolic function of the hepatic GLP-1-Wnt-FGF21 axis  |
| Daniel Jong Jin Han     | Dr. Cynthia Luk       | Novel mechanisms of YAP/TAZ in regulating insulin resistance and adipose tissue fibrosis  |
| Saad Khan               | Dr. Daniel Winer      | Immune Mechanisms of Hepatic Glucose Dysregulation in Non-Alcoholic Fatty Liver Disease   |
| Tiffany Kong            | Dr. Jayne Danska      | The effects of human gut microbial products on mucosal immunity in Type 1 Diabetes  |
| Andy Yu Zhe Li          | Dr. Minna Woo         | Investigating the metabolic role of PTEN in parasympathetic PHOX2B neurons  |
| Michelle My Linh Nguyen | Dr. Walter Swardfager | Relationship between serum osteocalcin, glycemic control, mood and cognition in people with type 2 diabetes mellitus                      |
| Fitore Raka             | Dr. Khosrow Adeli     | Regulation of postprandial chylomicron production and secretion by peripheral Serotonin   |
| Victoria Tokarz         | Dr. Amira Klip        | Novel mechanisms of dysregulated actin dynamics during insulin-resistant GLUT4 translocation  |
| Andy Tran               | Dr. Dense Belsham     | The role of Nampt, FasL, Mif, and Tnfrsf13b in inducing insulin resistance and feeding neuropeptide dysregulation in hypothalamic neurons |
| Sarah Emily Wheeler     | Dr. Patricia Brubaker | Elucidating the interaction between the microbiome, circadian secretion GLP-1, and intestinal homeostasis                                 |
| Sophie Wong             | Dr. Walter Swardfager | Effects of Exercise Intervention on Oxylinin Profile, Mood, and Cognition of Type 2 Diabetes Mellitus Patients                            |
| Anne Wu                 | Dr. Michael Wheeler   | Effect of Beta Cell Specific ZnT8 Deficiency on Diabetes  |

“Diabetes is on the rise worldwide. The impact on human lives and health systems will be staggering. Research and innovation cannot let up.”

### BBDC-UNIVERSITY HEALTH NETWORK GRADUATE AWARDS

These awards were made possible by the partnership between the BBDC and the University Health Network. To be eligible for this award, the student's supervisor must hold a full-time UHN appointment as an active staff physician, or if he/she holds an associate staff position or staff scientist position the supervisor's principal laboratory or clinical research space must be physically located at the UHN. Studentships are valued at up to \$21,000 each. The 2019/2020 award recipients are:

| Recipient             | Supervisor             | Title of Research   |
|-----------------------|------------------------|---|
| Daniella Febbraro     | Dr. Minna Woo          | Investigating the metabolic role of autophagy in skeletal muscle  |
| Jing Wen (Rosa) Li    | Dr. Tony Lam           | Glucoregulatory Impact of Glucose Sensing in the Dorsal Vagal Complex   |
| Frankie Hoi Chun Poon | Dr. Cristina Nostro    | Functional characterization of pluripotent stem cell derived $\beta$ -like cells  |
| Romario Regeenes      | Dr. Jonathan Rocheleau | Investigating the biphasic nature of glucose-stimulated insulin secretion through the design and application of islet-on-a-chip devices |

### TAMARACK GRADUATE AWARD IN DIABETES RESEARCH

This graduate scholarship was made possible by a generous private endowment which was matched by equal funding from the University of Toronto and the Government of Ontario under the Ontario Student Opportunity Trust Fund program. The award is valued at up to \$21,000. The 2019/2020 award recipients are:

| Recipient            | Supervisor           | Title of Research  |
|----------------------|----------------------|--|
| Andrea Glenn         | Dr. John Sievenpiper | Adherence to the Portfolio dietary pattern and prevention of cardiometabolic diseases: Insights from the Women's Health Initiative and PREDIMED-Plus cohorts |
| Emily Moon           | Dr. Robert Screaton  | Identifying novel regulators of human embryonic stem cell-derived beta cell maturation using RNAi screening  |
| Justin Hou Ming Yung | Dr. Adria Giacca     | Lipotoxicity and Beta Cell Insulin Resistance: Role of c-Jun N-terminal kinase   |

### YOW KAM-YUEN GRADUATE SCHOLARSHIP IN DIABETES RESEARCH

This graduate scholarship was made possible by a generous private endowment which was matched by equal funding from the University of Toronto and the Government of Ontario under the Ontario Student Opportunity Trust Fund program. The value of the award varies and is normally between \$12,000 and \$14,000. The 2019/2020 award recipient is:

| Recipient    | Supervisor       | Title of Research  |
|--------------|------------------|--|
| Falak Shoaib | Dr. Adria Giacca | Role of NOD1 activation by saturated free fatty acids in inducing insulin resistance in vivo |

## > Postdoctoral Fellowships

The support of research fellows has been a major priority of the BBDC since the Centre's inception. Each year, the BBDC endeavours to provide as many fellowships as possible to enable individuals holding an MD or PhD to carry out full-time diabetes research at the University of Toronto or one of its affiliated institutions. The objective of these awards is to attract and foster young investigators to initiate and/or continue research training in the field of diabetes. Awards are \$40,000 or \$50,000 depending on the degree held. The 2019/2020 recipients are:

### SELLERS POSTDOCTORAL FELLOWSHIP

| Recipient    | Supervisor         | Title of Research  |
|--------------|--------------------|--|
| Chi Kin Wong | Dr. Daniel Drucker | Inhibition of macrophage-mediated metabolic inflammation by glucose-dependent insulinotropic peptide |

### BBDC POSTDOCTORAL FELLOWSHIPS

| Recipient       | Supervisor          | Title of Research  |
|-----------------|---------------------|--|
| Mi Lai          | Dr. Michael Wheeler | Discovery of Circulating Metabolites that both Predict and Contribute to the Risk of Future Gestational Diabetes |
| Priska Stahel   | Dr. Gary Lewis      | Investigation of intestinal lipid mobilization and chylomicron secretion   |
| Song-Yang Zhang | Dr. Tony Lam        | The Gut Microbiome and Insulin Action  |

### BBDC FELLOWSHIP IN DIABETES CARE (Funded by Eli Lilly/Boehringer Ingelheim Diabetes Alliance)

This fellowship has been made possible by a generous contribution from Eli Lilly/Boehringer Ingelheim Diabetes Alliance.

| Recipient         | Supervisor          | Title of Research  |
|-------------------|---------------------|--|
| Florian Le Billan | Dr. Carolyn Cummins | The Role of the Nuclear Receptor Coregulator ARGLU1 in Insulin Resistance and Diabetes |

### D.H. GALES FAMILY CHARITABLE FOUNDATION FELLOWSHIP

This fellowship has been made possible by a generous contribution from the D. H. Gales Family Charitable Foundation to the Toronto General & Western Hospital Foundation.

| Recipient          | Supervisor      | Title of Research   |
|--------------------|-----------------|---|
| Santosh Kumar Goru | Dr. Darren Yuen | Fibroblast metabolism: a new therapeutic target for diabetic nephropathy? |

### HEFFEL POSTDOCTORAL FELLOWSHIP

This fellowship was a one-time award which resulted from a generous donation made to the BBC by Heffel Fine Art Auction House.

| Recipient            | Supervisor      | Title of Research  |
|----------------------|-----------------|--|
| Luisa Ulloa Severino | Dr. Darren Yuen | Role of glomerular biophysics in vitro and in vivo in Diabetes |



## > Trainee Travel Awards

Attendance at scientific meetings provide all researchers, trainees and established researchers alike, with an opportunity to hear about cutting edge research in their field, often well before those results are published in scientific journals. Scientific meetings provide an opportunity for trainees to present their research findings to an international audience of their peers and promote networking and the establishment of research collaborations. Travel awards are available to trainees presenting a first-author abstract directly related to diabetes research which has been accepted for poster or oral presentation at a scientific meeting. Trainees receive travel reimbursement of up to \$1,000 CAD to attend the meeting. The 2019/2020 award recipients are:

### BBDC TRAINEE TRAVEL AWARDS - PERIOD 1 AWARD RECIPIENTS

| Recipient            | Supervisor                              | Title of Research   |
|----------------------|---|---|
| Ghazal Fazli         | Dr. Gillian Booth                       | Trends in the incidence of prediabetes among younger and older immigrants in Canada, 2011-2015  |
| Daniella Febbraro    | Dr. Minna Woo                           | Investigating molecular mechanisms of autophagy in skeletal muscle  |
| Mohammad Izadifar    | Dr. Andras Nagy                         | An Engineered Fail-safe Approach For Pancreatic Cell- Replacement Therapy   |
| Shane Mooney         | Dr. Lorraine Lipscombe                  | Glycemic Outcomes in Transition-age Adults with Type 1 Diabetes using Continuous Subcutaneous Insulin Infusion Pumps                                    |
| Luisa Ulloa Severino | Dr. Darren Yuen                         | Diabetic glomeruli stiffen as they scar   |
| Priska Stahel        | Dr. Gary Lewis                          | Glucose and GLP-2 mobilize enteral fat by pre- and post-Golgi mechanisms, respectively  |
| Victoria Tokarz      | Dr. Amira Klip                          | Insulin - stimulated GLUT4 translocation is reduced by palmitate independently of defective Akt, but linked to defective Rac1- induced actin remodeling |
| Julie Anh Dung Van   | Dr. James Scholey<br>Dr. Ana Konvalinka | Urinary proteomics identifies signature of early type 1 diabetes linked to keratan sulfate degradation and lysosomal enzymes                            |
| Alexander Vlahos     | Dr. Michael Sefton                      | Tuneable pseudo-islet implants for diabetes therapy   |
| Sarah Wheeler        | Dr. Patricia Brubaker                   | Elucidating the interactions between the microbiome, intestinal immunity and circadian secretion of glucagon-like peptide-1                             |

Due to the COVID-19 pandemic, the 2019/2020 period 2 Trainee Travel Awards competition was cancelled.

## Funding Programs for Faculty and Health Professionals

### > Archie Sopman Diabetes Research and Education Awards 2019

This program is intended to promote continuing diabetes education for health professionals at the University Health Network who do not normally have access to funds to travel to diabetes conferences or bring seminar speakers to Toronto. Award recipients who attend conferences are encouraged to share their learnings from the conference with their colleagues. Funding for this program is provided by the Toronto General and Western Hospital Foundation Archie Sopman endowment fund. The endowment is held at the University Health Network (UHN) and award payments are made directly to the recipients by the UHN. The 2019 funding recipients are:

| Recipient        | Occupation and UHN Site  | Amount (For Travel To Meeting) |
|------------------|--|--------------------------------|
| Joyce Chan       | Pharmacist, Toronto General Hospital                             | Up to \$1,000                  |
| Lucia Chan       | Registered Nurse,<br>Toronto Western Hospital Diabetes Clinic    | Up to \$1,000                  |
| Margaret De Melo | Practice Leader,<br>Clinical Nutrition, Toronto Western Hospital | Up to \$1,000                  |
| Kitty Mak        | Nurse Clinician, Toronto General Hospital                        | Up to \$1,000                  |

### > BBDC - Novo Nordisk Chair in Incretin Biology

The research Chair was made possible through a \$3 million gift from Novo Nordisk in appreciation of the innovative diabetes research undertaken by the BBDC. Both Novo Nordisk and the University of Toronto, Faculty of Medicine have a long-standing tradition of diabetes research originally dating back to the discovery of insulin, and most recently focused on the science of incretin biology which holds the potential to have the kind of transformative impact that insulin had in improving the lives of people with diabetes. This Chair will position the University of Toronto as a leader in this area of research. Dr. Daniel J. Drucker is the Chair holder and has been reappointed for a third 5-year term until 2025. Dr. Drucker is a clinician-scientist world-renowned for his ability to translate scientific breakthroughs into clinical treatments for patients.

“Almost 100 years after the discovery of insulin, diabetes remains a major health crisis.”



Diabetes Educator of the Year 2019 award recipient Vanita Pais (right) and Dr. Phillip Segal.

## > Diabetes Educator of the Year Award 2019

Each year one award is presented to recognize a diabetes educator who has demonstrated outstanding efforts and achievements in his/her role as a diabetes educator. This award is meant to recognize achievements above and beyond the individual's clinical job description, and exceptional individuals who contribute to initiatives across teams within their organization and more broadly to the diabetes community. Candidates are not required to be members of the BBDC. The 2019 award recipient is:

| Recipient   | Occupation and Institution  | Amount  |
|-------------|---|---------|
| Vanita Pais | Registered Dietitian, Certified Diabetes Educator<br>The Hospital For Sick Children | \$1,000 |



---

## > Pilot and Feasibility Grants

New ideas and directions for research involve risk-taking by scientists and funding agencies. Most established funding agencies require considerable evidence of feasibility before they consider funding an application for a new project. Furthermore, researchers who are new to the diabetes field who may wish to adapt their non-diabetes research techniques to a diabetes-related topic of interest are disadvantaged in most funding competitions. The BBDC, therefore, prioritizes pilot and feasibility funding to attract researchers without a pre-existing track record of diabetes research or established diabetes researchers who wish to pilot an innovative research idea or project. The 2019/2020 grant recipients are:

### SUN LIFE FINANCIAL PILOT AND FEASIBILITY GRANTS

These grants are made possible by a generous contribution from Sun Life Financial to the Toronto General & Western Hospital Foundation.

| Recipient  | Title of Research  | Amount   |
|--|--|----------|
| Dr. Patricia L. Brubaker<br>Dr. Dana J. Philpott                     | Role of the intestinal microbiome in the regulation of metabolism    | \$40,000 |
| Dr. Adria Giacca<br>Dr. Xiao Yu (Shirley) Wu<br>Dr. Michael Laflamme | Development and initial testing of insulin-eluting stents            | \$40,000 |
| Dr. Peter K. Kim   | Elucidating the role of adipose peroxisomes in metabolic homeostasis | \$40,000 |

### D.H. GALES FAMILY CHARITABLE FOUNDATION PILOT AND FEASIBILITY GRANT

This grant is made possible by a generous contribution from the D.H. Gales Family Charitable Foundation to the Toronto General & Western Hospital Foundation.

| Recipient       | Title of Research   | Amount   |
|-----------------|---|----------|
| Dr. Cynthia Luk | The role of adipose tissue fibrosis signaling in insulin resistance | \$40,000 |

---

## > New Investigator Awards

These awards were established to support new clinician-scientists and basic scientists in the early stages of their careers, which is a particularly challenging and vulnerable time as the researcher transitions from trainee to independent investigator. Faculty are eligible for this funding within five years of their first faculty appointment. Awards are held over a 2-year period.

### REUBEN & HELENE DENNIS SCHOLAR IN DIABETES RESEARCH (BIENNIAL PROGRAM)

This is a biennial funding program. No competition was held in 2019.

### SUN LIFE FINANCIAL NEW INVESTIGATOR AWARD

This award is made possible by a generous contribution from Sun Life Financial to the Toronto General & Western Hospital Foundation. The 2019-2021 award recipient is:

| Recipient        | Title of Research   | Amount                   |
|------------------|---|--------------------------|
| Dr. Hoon-Ki Sung | Reversal of Adipose Fibrosis by Intermittent Fasting and Adipose-VEGF | \$80,000<br>over 2 years |



# Educational Activities



“The number of people worldwide with diabetes **rose from 108 million in 1980 to 422 million in 2014.**”

## 6th BBDC-Joslin Diabetes Center-UCPH Conference: Bioenergetics and its Dysregulation in Diabetes



On October 24-26, 2019, the Joslin Diabetes Center co-hosted the 6th collaborative conference in Boston together with the BBDC and University of Copenhagen.

The three-day event was preceded by a one-day interactive learning and networking session for trainees from the three universities on October 23. The three institutions have long been at the heart of global diabetes research. This annual conference seeks to build on that long tradition to bring together not only prominent researchers but also young researchers from across the globe, and to foster greater cross-institutional research in the field of diabetes.

### > DAY 1: Thursday, October 24, 2019

8:00 a.m. Registration and Continental Breakfast

9:00 Introduction and Welcome Remarks – T. Keith Blackwell, MD, PhD & George King, MD

#### **Bioenergetics and Stress Pathways**

Moderators – Laurie Goodyear, PhD, and Barbara Kahn, MD

9:15 Keynote Lecture – Stephen Elledge, PhD

10:05 Amira Klip, PhD

10:35 John Blenis, PhD

11:00 Break

11:30 Beth Levine, PhD

12:00 p.m. Juleen Zierath, PhD

12:30 Yu-Hua Tseng, PhD

1:00 Lunch

#### **Epigenetics and Aging**

Moderators – Steven Shoelson, MD, PhD, and Marcia Haigis, PhD

2:00 Judith Campisi, PhD

2:30 Deborah Muoio, PhD

3:00 Break

3:25 Raul Mostoslavsky, MD, PhD

3:55 John Sedivy, PhD

4:25 C. Ronald Kahn, MD

4:55 Closing Remarks – T. Keith Blackwell, MD, PhD

5:05 Adjourn Day 1 and Poster Session

7:00 Speaker Dinner at Basho

---

## > DAY 2: Friday, October 25, 2019

---

|         |   |
|---------|---|
| 8:30 am | Continental Breakfast                           |
| 9:00    | Day 2 Opening Remarks – Rohit Kulkarni, MD, PhD |
| 9:10    | Keynote Lecture – Daniel Drucker, MD            |

### **Islet Senescence and Energetics**

Moderators – Gordon Weir, MD, and Jens Nielsen, MSc, DSc

|       |                         |
|-------|-------------------------|
| 10:00 | Susan Bonner-Weir, PhD  |
| 10:30 | Douglas Melton, PhD     |
| 11:00 | BREAK                   |
| 11:25 | Richard Kibbey, MD, PhD |
| 11:55 | Timothy Kieff PhD       |
| 12:25 | Olle Korsgren, MD, PhD  |
| 12:55 | Lunch                   |

### **Islet Regeneration, Epigenetics, Epitranscriptomics**

Moderators – Eduard Montanya, MD, PhD, and Elena Toschi, MD

|      |   |
|------|---|
| 2:00 | Charlotte Ling, PhD                       |
| 2:30 | Thomas Mandrup-Poulsen, MD, DMSc          |
| 3:00 | Markus Stoff MD, PhD                      |
| 3:30 | BREAK                                     |
| 3:55 | Rohit Kulkarni, MD, PhD                   |
| 4:25 | Patrick MacDonald, PhD                    |
| 4:55 | Closing Remarks – Rohit Kulkarni, MD, PhD |
| 5:05 | Adjourn Day 2                             |

---

## > DAY 3: Saturday, October 26, 2019

---

|         |   |
|---------|---|
| 8:30 am | Continental Breakfast                   |
| 9:00    | Day 3 Opening Remarks – George King, MD |

### **Complications Related**

Moderators – Alessandro Doria, MD, PhD and Jennifer Sun, MD, MPH

|       |                                   |
|-------|-----------------------------------|
| 9:10  | Katalin Susztak, MD, PhD          |
| 9:40  | T. Keith Blackwell, MD, PhD       |
| 10:10 | Break                             |
| 10:35 | Gary Lewis, MD, FRCPC             |
| 11:05 | Monika Niewczas, MD, PhD, MPH     |
| 11:35 | George King, MD                   |
| 12:05 | Closing Remarks – George King, MD |
| 12:15 | Adjourn Day 3                     |



# PMCC-BBDC Joint Cardiovascular-Diabetes Symposium

## Journey From Risk Management to Advanced Therapeutics

On January 17-18, 2020, the Banting & Best Diabetes Centre and Peter Munk Cardiac Centre co-hosted this educational event for healthcare providers.



**2nd Annual**  
**Joint Cardiovascular-Diabetes Symposium**  
Journey From Risk Management to Advanced Therapeutics

Cardiovascular disease is the leading cause of morbidity and mortality in those living with diabetes. Consequently, it is imperative for healthcare providers to engage, learn, and challenge one another on how to best care for patients at risk, or affected by, both diseases. With this Joint Cardiovascular-Diabetes Symposium, we aim to strengthen clinical and communication links and enhance the continuum of care from hospital to community.

### > DAY 1: Friday, January 17, 2020

7:30 a.m. Breakfast and Registration

8:30 Welcome and Opening Remarks: Phillip Segal

#### Act 1: Early Diabetes

8:40 The Truth about Prediabetes and Vascular Risk [Caroline Kramer](#)

9:05 The Skinny on Pharmacological Weight Loss Therapies [Alice Cheng](#)

9:30 Nutrition Quick Hits: How to provide cultural specific dietary advice? [Karen Blekaitis](#)

9:55 Panel Discussion

10:15 Refreshment Break

#### Act 2: Progression of Diabetes

10:35 Top 5 Diabetes Papers of 2019 for the Cardiologist [Jeremy Gilbert](#)

11:00 Cardiovascular Risk Reduction: What can be achieved by lowering blood sugar?  
[Avital Nahmias](#)

11:25 Panel Discussion

11:50 BBDC Diabetes Educator of the Year Award Presentation

12:00 p.m. Lunch and Exhibits

#### Act 3: Complications of Diabetes

1:00 Diabetes Rehab: What are the benefits / Exercise as a tool for managing CV complications of DM? [Paul Oh](#)

1:25 Revascularization Treatment in Those with Diabetes [Michael Farkouh](#)

1:50 Antiplatelet Agents Through the Ages: Does it apply to those with diabetes? [Peter Lin](#)

2:15 New Treatments for Diabetic Nephropathy [James Scholey](#)

2:40 Panel Discussion

3:10 Day 1 Summary [Peter Lin](#)

3:25 Refreshment Break

---

## > DAY 1: Friday, January 17, 2020 (continued)

---

### Interactive Breakout Cases 1 (choose one)

---

- |      |  |
|------|--|
| 3:40 | <ul style="list-style-type: none"><li>• <a href="#">Phillip Segal</a>: Non-Insulin Based Therapies: What comes next after Metformin?</li><li>• <a href="#">Elaine Wylie</a>: When (and when not) to Consider Newer Insulins</li><li>• <a href="#">Julie Gilmour</a>, <a href="#">Geetha Mukerji</a>: Quality Improvement in Diabetes</li><li>• <a href="#">Miranda Boggild</a>: Psychosocial Challenges in Diabetes Care</li></ul> |
|------|--|
- 

### Interactive Breakout Cases 2 (choose one)

---

- |      |  |
|------|--|
| 4:10 | <ul style="list-style-type: none"><li>• <a href="#">Phillip Segal</a>: Non-Insulin Based Therapies: What comes next after Metformin?</li><li>• <a href="#">Elaine Wylie</a>: When (and when not) to Consider Newer Insulins</li><li>• <a href="#">Julie Gilmour</a>, <a href="#">Geetha Mukerji</a>: Quality Improvement in Diabetes</li><li>• <a href="#">Miranda Boggild</a>: Psychosocial Challenges in Diabetes Care</li></ul> |
|------|--|
- 

|      |                     |
|------|---------------------|
| 4:40 | Adjourn for the Day |
|------|---------------------|

---

---

## > DAY 2: Saturday, January 18, 2020

---

|           |                            |
|-----------|----------------------------|
| 7:30 a.m. | Breakfast and Registration |
|-----------|----------------------------|

---

|      |   |
|------|---|
| 8:30 | Welcome and Opening Remarks: Sean Balmain |
|------|---|

---

### Act 4: Coronary Disease and Vascular Complications

---

|      |   |
|------|---|
| 8:40 | Risk Stratification of Chest Pain: CT angiography or stress testing <a href="#">Mini Pakkal</a> |
|------|---|

---

|      |  |
|------|--|
| 9:05 | Expanding Indications for Direct Oral Anticoagulants for Cardiovascular Disease<br><a href="#">Eric Kaplovitch</a> |
|------|--|

---

|      |   |
|------|---|
| 9:30 | Management of Peripheral Vascular Disease in Diabetes <a href="#">Thomas Forbes</a> |
|------|---|

---

|      |                  |
|------|------------------|
| 9:55 | Panel Discussion |
|------|------------------|

---

|       |                   |
|-------|-------------------|
| 10:15 | Refreshment Break |
|-------|-------------------|

---

### Act 5: Valvular Heart Disease and Arrhythmia

---

|       |  |
|-------|--|
| 10:35 | TAVR in 2020 – Patient Selection and Outcomes <a href="#">Eric Horlick</a> |
|-------|--|

---

|       |  |
|-------|--|
| 11:00 | Bradycardia – High Risk Presentations and Pacemaker Indications <a href="#">Rebecca Noad</a> |
|-------|--|

---

|       |  |
|-------|--|
| 11:25 | Contemporary Management of Atrial Fibrillation – From Anticoagulation to Ablation<br><a href="#">Andrew Ha</a> |
|-------|--|

---

|       |                  |
|-------|------------------|
| 11:50 | Panel Discussion |
|-------|------------------|

---

|            |                    |
|------------|--------------------|
| 12:10 p.m. | Lunch and Exhibits |
|------------|--------------------|

---

---

## > DAY 2: Saturday, January 18, 2020 (continued)

---

### Act 6: Heart Failure & Cardiac Devices

---

|      |   |
|------|---|
| 1:10 | Medical Therapy for Heart Failure – What do the Guidelines Say? <a href="#">Michael McDonald</a>          |
| 1:35 | The Lethal Combination of Heart Failure and Diabetes <a href="#">Subodh Verma</a>                         |
| 2:00 | Which Device Implant Will Benefit My Patient with Systolic Heart Failure?<br><a href="#">Sean Balmain</a> |
| 2:25 | Panel Discussion  |
| 2:45 | Day 2 Summary: <a href="#">Peter Lin</a>  |
| 3:00 | Refreshment Break   |

---

### Interactive Breakout Cases 1 (choose one)

---

|      |  |
|------|--|
| 3:15 | <ul style="list-style-type: none"><li>• <a href="#">Adriana Luk</a>: HF-PEF Management, Case-Based Discussion</li><li>• <a href="#">Avital Nahmias</a>: Pragmatic Strategies for the use of SGLT2 Inhibitors in Patients with Diabetes and Cardiovascular Disease</li><li>• <a href="#">Eric Kaplovitch</a>: Combining Anticoagulant and Antiplatelet Therapy – What is the Safest Approach?</li><li>• <a href="#">Juan Duero Posada</a>: Remote Monitoring and Wearable Devices in Heart Failure Care</li></ul> |
|------|--|

---

### Interactive Breakout Cases 2 (choose one)

---

|      |  |
|------|--|
| 3:45 | <ul style="list-style-type: none"><li>• <a href="#">Adriana Luk</a>: HF-PEF Management, Case-Based Discussion</li><li>• <a href="#">Avital Nahmias</a>: Pragmatic Strategies for the use of SGLT2 Inhibitors in Patients with Diabetes and Cardiovascular Disease</li><li>• <a href="#">Eric Kaplovitch</a>: Combining Anticoagulant and Antiplatelet Therapy – What is the Safest Approach?</li><li>• <a href="#">Juan Duero Posada</a>: Remote Monitoring and Wearable Devices in Heart Failure Care</li></ul> |
| 4:15 | Adjourn for the Day  |

---

## Annual Scientific Day

This annual event provides an opportunity for BBDC members to exchange scientific information and ideas and assists in the development of collaborative diabetes-related research activities.

The Scientific Day focuses on the latest diabetes research topics with both clinical and laboratory applications. Each year, an internationally renowned diabetes researcher is selected to deliver the Charles Hollenberg Memorial Lecture.

The event also provides an opportunity for BBDC trainees to network and present their research. BBDC postdoctoral fellowship recipients, graduate studentship recipients and other trainees present posters of their work. Ten pre-selected posters are judged by esteemed researchers for the Annual Trainee Awards competition. Registration is free for all BBDC members, their trainees and U of T endocrine residents.

Unfortunately, due to the COVID-19 pandemic, the 2020 Scientific Day was cancelled.

“Diabetes is a major cause of blindness, kidney failure, heart attacks and stroke. ”





## BBDC Seminar Series (At City-Wide Endocrine Rounds)

Each year the BBDC invites internationally renowned diabetes researchers to present their work and to interact with BBDC faculty at our Seminar Series. To ensure a broad audience, seminars have been incorporated into the University of Toronto City-wide Endocrine Rounds which are held every Friday morning at the Mount Sinai Hospital.



### Stephanie Fulton, PhD

Associate Professor

Department of Nutrition,  
Faculty of Medicine  
Université de Montréal

*Neurometabolic  
mechanisms underlying  
mood and motivational  
deficits in obesity*

October 18, 2019



### Patrick Seale, PhD

Associate Professor  
of Cell and  
Developmental Biology

University of  
Pennsylvania

*Mesenchymal stem  
cells and fat tissue  
remodeling*

December 13, 2019



### Philip R. Schauer, MD

Professor of  
Metabolic Surgery

Pennington Biomedical  
Research Center,  
Louisiana State  
University

*Long-term diabetes  
remission after  
metabolic surgery:  
Banting's dream?*

February 7, 2020

## Trainee Seminars

In an effort to provide an enhanced training environment for trainees, the BBDC regularly hosts two seminar series: the Trainee Lab Seminar Series and the Clinical Research-in-Progress Rounds.

These seminar series provide postdoctoral fellows, graduate students, residents and junior faculty with an opportunity to present their diabetes research proposals and unpublished basic science research or clinical and population-based research to their peers in a moderated academic setting. The Trainee Lab Seminars are held monthly and the Clinical Research in Progress Rounds are held three to four times per year. Since the COVID-19 pandemic, the seminars have moved to an online format.

## Diabetes Pharmacists Network

The Diabetes Pharmacists Network and website were created by the BBDC's Knowledge Translation and Optimizing Care Models Program as a way to bring together pharmacists from across Canada who are interested in the care of patients with diabetes. At the BBDC, we are committed to finding ways to improve the lives of people with diabetes and those at risk of diabetes.

Our primary focus has been to examine diabetes care gaps that could best be addressed by pharmacists and develop programs that support and empower pharmacists in the care of people with diabetes through networking, education and knowledge translation initiatives. More recently, we have expanded the dissemination of our products to include family physicians, nurses, dietitians and other health care providers on the diabetes care team.

Membership in the Diabetes Pharmacists Network is free and open to all licensed pharmacists in Canada with an interest in diabetes. Pharmacy students currently enrolled in a pharmacy program in Canada are also welcome to join. Visit [diabetespharmacistsnetwork.ca](https://diabetespharmacistsnetwork.ca).

“About 3 million Canadians (8.1%) were living with diagnosed diabetes in 2014”



## Guidebook On Diabetes Management

At the Banting & Best Diabetes Centre, one of the ways we honour our commitment to improving the lives of people with diabetes is to provide health care teams with resources that are evidence-based, patient-centred, and user-friendly, to help guide them as they work together with people with diabetes to achieve treatment goals.

Our second edition *Guidebook on Diabetes Management* incorporates recommendations from the latest clinical practice guidelines in glycemic management, blood pressure, lipids, antiplatelet agents, nutrition, exercise and smoking cessation, and combines them with expert opinion and practical advice. The guidebook is divided into three main sections: Glycemic Management, Cardiovascular Protection and Lifestyle. Also included is information on over 100 medications, clinical pearls and practical tips.

The guidebook is an initiative of the BBDC's Knowledge Translation and Optimizing Care Models Program and is edited by the program leader, Dr. Lori MacCallum. It is available for purchase at [diabetespharmacistsnetwork.ca](http://diabetespharmacistsnetwork.ca).



## QUEST Website

The BBDC's Quality Education & Safety (QUEST) program provides an educational website where diabetes health care providers can obtain the best diabetes clinical practice resources and learn about local diabetes initiatives.

For clinicians and those living with diabetes including patients and their caregivers, QUEST offers valuable tools and information about diabetes as well as opportunities to get involved with diabetes care and research in the community. Providers will find valuable tools and information about the disease and options to get involved with diabetes care and research in their communities. Visit the site at [diabetesquest.ca](http://diabetesquest.ca).



# Core Laboratory

The BBDC Core Laboratory operates as a specialty laboratory within Mount Sinai Services to provide high quality laboratory assays and services at discounted rates to BBDC members.

The lab also provides services to the wider scientific community including external academic and/or industry initiated research. A list of some of the current assays and services provided by the Core Lab is available on the BBDC's [website](#) or by contacting the Core Lab directly:

## Senior Manager, Client Service & Operations:

Cheryl Koval, HBSc, MASc  
Phone: (416) 586-4800 Ext. 7266  
Fax: (416) 586-8882  
[cheryl.koval@sinaihealth.ca](mailto:cheryl.koval@sinaihealth.ca) or  
[client.service@mountsinaiservices.com](mailto:client.service@mountsinaiservices.com)

## Banting & Best Diabetes Centre Core Laboratory

Operated by Mount Sinai Services  
600 University Avenue  
6th Floor, Room 6-414  
Toronto, Ontario M5G 1X5





# Acknowledgements

We would like to express our sincerest gratitude and appreciation to the following individuals and organizations:

- The members of our Executive Committee, Training and Research Excellence Committee, Quality Education and Safety (QUEST) Committee, and Trainee Advancement and Development Committee who volunteer their time to review applications for the Centre's funding programs and implement educational initiatives on behalf of the BBDC. We are especially grateful to them during the COVID-19 pandemic as they continued to serve the BBDC and advance our mission while dealing with the challenges of working remotely and temporary laboratory closures.
- Those who participated in the 6th BBDC-Joslin Diabetes Center-University of Copenhagen Conference in Boston in October 2019.
- Everyone who participated in the second annual Joint Cardiovascular-Diabetes Symposium co-hosted by the BBDC and UHN's Peter Munk Cardiac Centre in January 2020.
- Faculty of Medicine Advancement and the Toronto General and Western Hospital Foundation who fund raise on behalf of the BBDC.



Photo: University of Toronto. All Rights Reserved.

# Our Supporters

**The Banting & Best Diabetes Centre gratefully acknowledges endowed financial support from the following:**

- > C. H. Best Memorial Fund
- > The Estate of Reuben & Helene Dennis
- > The Estate of Marion Hamilton
- > The Estate of Miriam Neveren
- > The Estate of Dr. & Mrs. Edward A. Sellers
- > The Estate of Mary E. Sharp
- > The Estate of Archie Sopman  
(Toronto General & Western Hospital Foundation)
- > The Estate of Arthur Spoerri
- > Novo Nordisk
- > Mr. Stephen Yow Mok Shing

**The Centre is also grateful to the following for contributions made in 2019/2020:**

- > Abbott
- > Amgen
- > AstraZeneca
- > Bayer
- > Boston Scientific
- > Canon Medical
- > D.H. Gales Family Charitable Foundation
- > Edwards
- > Eli Lilly / Boehringer-Ingelheim Diabetes Alliance
- > Janssen
- > Kangbuk Samsung Hospital
- > Medtronic
- > Merck
- > Novo Nordisk
- > Pfizer
- > Sir Frederick Banting Legacy Foundation
- > Toronto General & Western Hospital Foundation
- > United Way of Greater Toronto
- > Individuals who have donated to the  
Banting & Best Diabetes Centre this past year.

**The BBDC gratefully acknowledges the support of our major contributors:**



“By supporting the BBDC, you are supporting the current and the next generation of diabetes researchers who are working toward a cure for diabetes and its complications.”



# Contact

200 Elizabeth Street, Eaton Building, 12E248,  
Toronto, Ontario, Canada M5G 2C4

Phone: (416) 978-3498

E-mail: [diabetes.bbdc@utoronto.ca](mailto:diabetes.bbdc@utoronto.ca)

Web: [bbdc.org](http://bbdc.org)

✉ Visit [bbdc.org](http://bbdc.org) to subscribe to our email list.

🐦 @bbdc\_uoft

f bbdcuoft

in Banting and Best Diabetes Centre

▶ Banting and Best Diabetes Centre



Banting & Best Diabetes Centre  
**UNIVERSITY OF TORONTO**

20X/0.40  
∞/0.17 WD