

A stylized outline map of Canada is shown in a light purple color against a darker purple background. Several colored dots (yellow, blue, green, orange, pink, and white) are placed across the map, representing research locations. Dashed white lines connect these dots to a central white dot located in the southern part of the country, illustrating a network of research efforts.

annual
report

20
22

Banting
Research
Foundation

Fondation de
recherche
Banting

contents

What's going on at the Foundation	3
We are on a mission!	5
A new health challenge partnership	7
The 2022 Discovery Award Cohort	8
Select Discovery Award research highlights	12
Thankful and flourishing	21
2022 Discovery Award Grant Panel reviewers	22
A special thank you	24
The Banting Research Foundation at 100	25

What's going on at the Foundation

Advocating for early career researchers in Canada

Our highly competitive Discovery Award Program, established in 1925, empowers early career scientists and supports them to explore bold, new ideas.

Eligible investigators are in the first three years of their faculty appointment and demonstrate:

- Innovation potential
- Scientific excellence, and
- Financial need

The Discovery Award gives new scientists a big boost at a very important time in their careers.

88% of our Awardees successfully obtain further competitive grant funding from federal granting agencies, within the first five years of receiving a Discovery Award!

Many recipients have gone on to make outstanding discoveries that have aided the understanding, diagnosis, and treatment of challenging health conditions.



"As a new principal investigator, obtaining the first grant is one of the most difficult things. Once this is achieved, one does not have to convince reviewers anymore."

Dr. Marc Pouliot, 2000 Discovery Awardee

*Axis Director, Infectious and Immune Diseases
Centre Hospitalier de l'Université Laval*



"When you're a young investigator and you don't have a lot of funding, it's hard to move to the next level..."

Dr. Janet Rossant, 1983 Discovery Awardee

*President & Scientific Director
Gairdner Foundation*



Recipients have emerged as Canada's leaders and luminaries in medical sciences including 32 Discovery Awardees to date who have been inducted into the Order of Canada.



William T. Mustard
OC, MBE
1950 Discovery Awardee

Created the 'Mustard Procedure' that is still used worldwide. The surgery corrects a complex heart defect in 'blue babies'.



Louis Siminovitch
CC, OOnt, FRS, FRSC
1958 Discovery Awardee

The Canadian founding father of human genetics research.



Mladen Vranic
OC, OOnt, MD, DSc
1966 Discovery Awardee

Best known for his work on exercise and stress in diabetes, and the prevention of hypoglycemia.



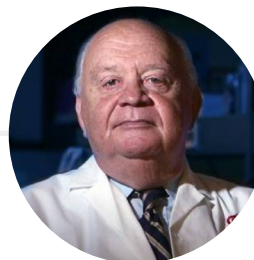
John A. Dirks
CM, FRSC, FRCPC
1967 Discovery Awardee

Famous for transforming the Gairdner Foundation International Awards into 'Canada's Nobel Prizes'.



Henry G. Friesen
CC, OM, FRSC
1972 Discovery Awardee

Research on human growth hormone made possible successful replacement therapy in hormone-deficient children. Conceptualized and founded the Canadian Institutes of Health Research.



Adolfo José de Bold
OC, FRSC
1980 Discovery Awardee

Discovered a new hormone that plays a role in regulating blood pressure, blood volume, and cardiovascular growth, and proving the endocrine function of the heart.



Brenda L. Gallie
CM, OOnt, MD, FRCSC
1983 Discovery Awardee

Discovered the genetic mutations that cause retinoblastoma — an eye cancer that commonly affects young children. She created DEPICT HEALTH.

We are on a mission!

Climate change is the biggest threat to population health today.

On January 31, 2022, the Banting Research Foundation hosted an interactive virtual open forum on the health challenges related to climate change moderated by Ivan Semeniuk, Science Reporter of The Globe & Mail. Our inspiring panelists included:

- **John Hepburn**

CEO, Mitacs

- **Stephen Scherer**

Chief of Research, The Hospital for Sick Children

- **Nomazulu Dlamini (2018 Awardee)**

*Director, Children's Stroke Program,
The Hospital for Sick Children*

- **Kate Weinberger (2020 Awardee)**

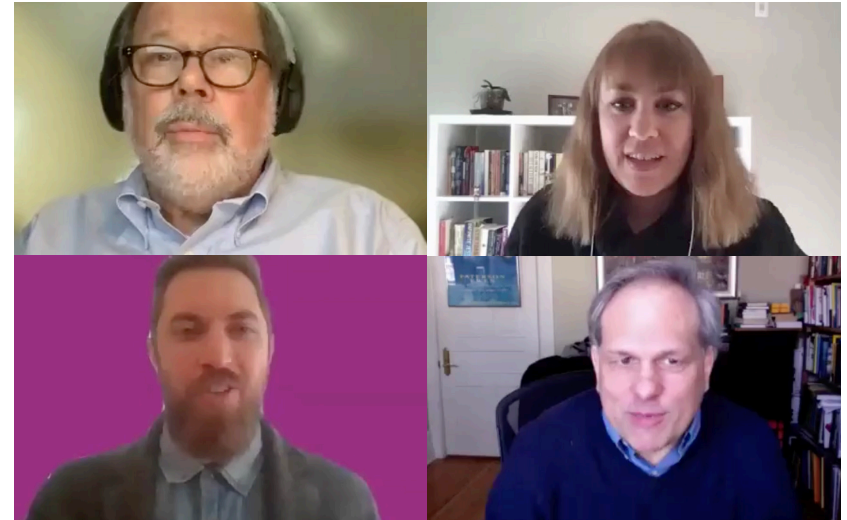
*Assistant Professor, School of Population and Public Health,
University of British Columbia*

- **Gareth Lim (2017 Awardee)**

*Associate Professor, Canada Research Chair in Adipocyte Development,
Department of Medicine, Université de Montréal*

- **Jeremy Hirota (2015 Awardee)**

*Assistant Professor, Department of Medicine,
Division of Respiriology, Faculty of Health Sciences*



Clockwise: John Hepburn, Kate Weinberger, Ivan Semeniuk, Daniel Komesh

The thoughtful conversation highlighted the diversity of health and biomedical research and its impact. Participants learned how:

- *Climate change and health are related, including how the Canadian research landscape will be impacted by climate change.*
- *Specific research programs are evolving focused on climate change.*
- *Types of supports scientists need to effectively contribute to solutions related to the environmental effects of climate.*
- *We can effectively equip our next generation of science talent for the fight against climate change and,*
- *How industry, academia and government can work together to co-design solutions.*

Participants had the opportunity to engage in fireside chats with 21 of our outstanding young investigators about their cutting-edge research. Recap of this exciting and informative event is available in our Videos & Media – Banting Research Foundation library.

Now is your chance
to help fund biomedical
investigation into the
health impacts of
climate change!



Please consider establishing a named Discovery Award in the amount of \$30,000 to help support a new climate change researcher focused on health impacts.

Or if you wish, your gift of any amount can be directed into a Climate Change Discovery Fund to help support young scientists with their work.

Please contact Maurine Kwok to learn more.

Maurine Kwok, Executive Director
ed@bantingresearchfoundation.ca
416 595 9048

Kate Weinberger, PhD **2020 Discovery Awardee**

Heat Waves and Child Health in a Warming World

"Not just coronavirus — heat also poses a threat to public health...."

Dr. Kate Weinberger is an environmental epidemiologist with an interdisciplinary background in climate science and environmental health.

Her research focuses on the links between climate change and human health, especially changes in extreme weather events and aeroallergens.

A new health challenge partnership

Mitacs and the Banting Research Foundation will address health disparity in Canada and support postdoctoral research scholars engaged in studies focused on reducing the health risks and inequities caused by climate change.

The new Mitacs-Banting Discovery Postdoctoral Fellowship will:

- *Help Canada lead the world in understanding the links between health, equity, and the impacts of climate change. Encourage young scientists to think broadly beyond their scope of expertise and equip them to be future research leaders.*
- *Offer research training and the development of transferrable skills to support innovation and long-term employability. Share recipient time between academic institutions and eligible partner organizations.*
- *Support research to examine health outcomes and inequalities among marginalized and underrepresented communities. Increase the quality of internationally competitive, leading-edge research in areas critical to the health, economic, and social well-being of Canadians.*

"We are deeply grateful for this opportunity to once again partner with Mitacs. The new Mitacs-Banting Discovery Postdoctoral Fellowship recipients have the exciting potential to increase our understanding of the health risks of climate change.

Through the big bold ideas of our diverse young scientists, we are confident that they can provide fresh insights and help alleviate urgent health challenges through discovery research."

Dr. Catharine Whiteside

Board Chair, Banting Research Foundation

"When academia and industry work together, we are equipping ourselves and future generations to better address the impacts of climate change like health risks and inequalities.

The Mitacs-Banting fellowship will help develop the cross-cutting solutions we need to ensure no Canadian is left behind as we build a healthier and more sustainable future for all."

The Rt. Hon. François-Philippe Champagne

Minister of Innovation, Science, & Industry

"The impacts of the climate crisis have become increasingly evident in recent years.

Among these, we see the direct health risks and inequities due to climate change in Canada and across the globe.

This new partnership is an investment in the research needed to mitigate those impacts."

John Hepburn

CEO, Mitacs

The 2022 Discovery Award Cohort



**Banting Discovery Award
– Jarislowsky Fellowship**
Edward Ian Patterson, PhD

*Assistant Professor
Department of Biological Sciences, Faculty of
Mathematics and Science, Brock University*

Project: Exploiting insect-specific viruses to prevent transmission of arthropod-borne viruses



**Banting Discovery Award
– Jarislowsky Fellowship**
Silvia Pozzi, PhD

*Assistant Professor,
Department of Psychiatry and Neuroscience,
Faculty of Medicine, Université Laval*

Project: Unraveling the role of PPIA/EMMPRIN pathway in the communication between Schwann cells and motor neurons in ALS

**U of T 100th Anniversary
Discovery of Insulin
Banting Award**



Mihai Duduta, PhD

*Assistant Professor,
Department of Mechanical Engineering,
Faculty of Applied Science &
Engineering,
University of Toronto*

Project: Smart micro-catheters based on electro-mechanical artificial muscles

**Banting-Mitacs
Discovery Award**



Kimberly Dunham-Snary, PhD

*Assistant Professor,
Department of Medicine,
Faculty of Health Sciences, Queen's
University*

Project: Mitochondrial-metabolomic fingerprinting in cardiometabolic disease

Banting Discovery Award



Amy Huei-Yi Lee, PhD

*Assistant Professor,
Department of Molecular Biology &
Biochemistry (MBB),
Faculty of Science,
Simon Fraser University*

Project: Integrated omics and functional analyses to expand the repertoire of surveillance and drug targets in *Pseudomonas aeruginosa*

**Banting-Dystonia Medical Research
Discovery Award**



Luka Milosevic, PhD

*Scientist, Clinical and Computational
Neuroscience, Krembil Research Institute,
University Health Network;
Assistant Professor,
Institute of Biomedical Engineering,
University of Toronto*

Project: Physiologically-informed and data-driven methods for advancing neuromodulation therapies in dystonia

2022 Discovery Awards Celebration

On the afternoon of July 8th, 2022, we celebrated the 2022 award recipients, new Board members and thanked our donors, volunteers and honored our director emeritus, Dr. Fred Lowy.

The Foundation recognized the long and outstanding contributions and deep commitment of Dr. Lowy, who was completing his final term.

This in-person event included presentations from three of our recent Awardees about their innovative work and successful launch of their research careers. We also had the opportunity to gratefully thank our Board members and to welcome new members including Alain Beaudet, Andrea Donlan, Andre Morriseau and Sheelagh Whittaker.

Another amazing volunteer Dr. Pat Brubaker who served for many years as Scientific Officer on our Grants Review Panel and will be completing her final term this coming year was thanked for her incredible service. Our volunteer Grants Review Panel Chair, Dr. Cindi Morshead was thanked for her leadership. Dr. Anthony Gramolini, a Panel member for several years has graciously agreed to serve as our next Chair.

Finally, we recognized the outstanding contributions of our most dedicated Executive Director, Maurine Kwok, without whom the Foundation would not be building momentum and impact.



Dr. Fred Lowy, Board Member, Dr. Cathy Whiteside, Board Chair



*Dr. Lowy bid farewell to everyone.
Amongst the audience, Dr. Nona MacDonald Heaslip, Honourary Patron.*



L to R: Drs. Mary Kay Lowy and Fred Lowy; Dr. Ian Patterson, 2022 Jarislowsky Fellowship-Banting Discovery Awardee and his wife, Grace Patterson.



Left to right: Bill Hewitt, Retired Board Member, Nona MacDonald Heaslip, Honourary Patron, Don Guloien, Board Member.



Hugh Furneaux, volunteer.



Left to right: Dr. Mahavir Agarwal, Panel Reviewer, Dr. Ian Patterson, 2022 Discovery Awardee, Sheelagh Whittaker, Board Member, Paulette Moser.



Left to right: Charles Best Foundation Board Members: Terrence Donnelly and Dr. Peter Lewis.



Centre: Prof. Molly Verrier, Board Member, Kimberly Dunham Snary, 2022 Banting-Mitacs Discovery Awardee. Back L: Luka Milosevic, 2022 Banting-Dystonia Awardee, Archana Castellino, National Director, Dystonia Foundation



Speaker: Dr. Mihai Duduta, U of T 100th Anniversary Discovery of Insulin Banting Awardee



Dr. Sagi Abelson, 2021 Discovery Awardee, left, and Stanley Ng.



Speaker: Dr. Daiva Nielsen, 2019 Discovery Awardee

Select Discovery Award Research Highlights



Chantelle Cappicotti

2020 Discovery Awardee

*Biomedical and Molecular Sciences
School of Medicine
Queen's University*

What intrigued or inspired you to choose this specific research question?

The biology and chemistry of sugars has always fascinated me. When I realized we could apply the tools we have been developing to study sugars to stem cells and regenerative medicine, I was inspired to explore this exciting new area.

How would you describe your work to a non-scientist?

Every cell in your body is surrounded by a sugar coating. New techniques in chemistry and biochemistry study these sugars and:

- How they are used to direct cells to specific areas of the body,
- How they are used by the immune system, and
- How pathogens like viruses use sugars to infect us.

One superpower I wish I had in the research world?

To clone my amazing students who drive all the exciting research areas!

Your most important scientific finding?

Proof-of-concept that we could apply our glyco-engineering tools to understand the biological relevance of sugars more efficiently. We have been able to apply our techniques to look at how sugars are involved in different diseases like cancer and virus infections, and better understand this very important class of biological molecule that has been very difficult to study.

How is your area of scientific discovery important for Canadians?

Carbohydrates are crucial for human health and are involved in almost every disease.

2020

Understanding how sugars interact with other biomolecules and how they are functioning in both healthy and diseased states is key to solving many health issues.

How has Banting Research Foundation helped you in your journey of scientific discovery? Anything you would like to say to our supporters to encourage them to give?

This was one of the first grants I obtained as a new researcher. I could support graduate students wanting to learn about this research area and it was important for generating preliminary data to apply our techniques to expand into multiple new areas. I am incredibly grateful for this support. It was crucial to securing additional funding and to advancing our research at such a critical stage of my career.



Left to right: Sara Fraser, Alex Golds, Daniel Whalen, Chantelle Capicciotti, Jonathan Babulic, Joshua Kofsky, Youjin Kim, Marie Boddington, Fabiola De Leon Gonzalez, Pascal Vogt.



Malika Oubaha

*2020 Jarislowsky Fellowship-Banting
Discovery Award*

*Institut de recherches cliniques de
Montréal (IRCM), Molecular Biology
and Functional Genomics*

Qu'est-ce qui vous a intrigué -ou inspiré- dans le choix de votre sujet de recherche?

Ce qui m'a intrigué dans la recherche que je fais aujourd'hui c'est le fait qu'un organe jeune comme l'œil embryonnaire peu montrer des signes de vieillissement prématuré qui peut être à la fois bénéfique pour la régénération tissulaire mais détrimental dans le cas de pathologie oculaire comme les vitréorétinopathie.

Comment décririez-vous votre travail de recherche à un auditoire non-scientifique?

L'œil embryonnaire est nourri et oxygéné par des vaisseaux fœtaux transitoires appelés hyaloïdes, qui régressent après la naissance pour être remplacés par des vaisseaux sanguins rétinien permanents. Lorsque ce processus de régression hyaloïde fait défaut, on observe des maladies caractérisées par un développement rétinien anormal avec une cécité congénitale qui peut causer la perte de vision. Les rétinopathies rares causées par la persistance des vaisseaux hyaloïdes à la naissance se caractérisent par un spectre de modifications vasculaires de la rétine à la naissance qui progressent au cours de l'enfance ou de l'adolescence pour entraîner divers degrés de déficience visuelle.

Ces maladies sont associées à un grave

défaut de la vascularisation rétinienne, il est donc impératif de comprendre le développement vasculaire de l'œil très tôt dans le développement embryonnaire.

Le but ultime de ce programme est d'identifier les cellules embryonnaires qui forment les vaisseaux sanguins de la rétine, ainsi que les molécules qui dirigent leur prolifération, leur migration et leur différenciation. Ces informations nous aideront à mieux comprendre et traiter les maladies oculaires rares mais aussi communes affectant la vue des enfants d'âges différents. J'ai récemment découvert un nouveau mécanisme de sénescence prématurée (vieillessement prématuré) des cellules rétinien dans notre modèle murin (rétinopathie induite par l'oxygène) mimant la rétinopathie du prématuré chez l'homme.

Actuellement, mes collaborateurs et moi-même explorons une voie thérapeutique très prometteuse pour traiter cette rétinopathie rare. Notre objectif est d'inverser le processus de vieillissement prématuré affectant la rétine dans la rétinopathie du prématuré et d'autres rétinopathies rares. Les stratégies de traitement actuelles comprennent la photocoagulation au laser ou l'ablation chirurgicale du corps vitré (vitrectomie précoce). Certes, ces interventions permettent une amélioration de la vision en stoppant la progression de la maladie mais la maladie persiste d'où

l'urgence et la nécessité de développer de nouvelles stratégies thérapeutiques. La découverte de nouveaux marqueurs moléculaires pour ces maladies rares aidera non seulement le diagnostic correct mais aussi le développement de thérapies efficaces améliorant la vue de ces patients.

Si j'avais un superpouvoir dans le domaine de la recherche?

Je l'utiliserais pour trouver la cible thérapeutique qui va servir à améliorer la vie principalement des patients atteints de rétinopathies vasculaires et leur familles.

Quelle a été votre contribution scientifique la plus importante?

En 2016 quand j'ai fait le marquage de la rétine d'une jeune souris avec un marqueur de cellules sénescences (vieillissantes) et tout le centre de la rétine ischémique pathologique est devenu tout bleu témoignant de la senescence cellulaire. En fait cette découverte a été publiée dans le journal Science transnational médecine en 2016. Cette étude était à la base de tout un champ d'étude qui a permis de cibler la senescence prématurée au niveau des pathologie oculaire avec des drogues nommées sénolytiques. Ces dernières font l'objet des essais cliniques depuis 2019 et là les résultats de la deuxième phase clinique viennent d'être annoncés et sont très encourageants pour passer à la prochaine étape.

En quoi votre domaine de recherche est-il important pour les Canadiens?

En 2050, plus de 61 millions de personnes souffriront de cécité. Actuellement, plus de 596 millions de personnes dans le monde souffrent de déficience visuelle, dont 43 millions de personnes aveugles. La grande hétérogénéité clinique et génétique des maladies oculaires, avec leur prévalence mondiale remarquable, est toujours intéressante pour les chercheurs généticiens, comme moi, qui peut comprendre comment une mauvaise vision peut avoir des effets négatifs sur la qualité de vie, l'éducation et l'indépendance des gens.

Bien que l'association de nombreux gènes avec les troubles oculaires ait été démontrée, le développement de meilleurs diagnostics et des stratégies thérapeutiques pour des recherches plus approfondies sont nécessaires pour identifier les molécules clés et les voies impliquées dans laprogression des déficiences visuelles.

Current treatment strategies include laser photocoagulation or surgical removal of the vitreous (early vitrectomy). Admittedly, these interventions allow an improvement of the vision by stopping the progress of the disease, but the disease persists hence the urgency and the need to develop new therapeutic strategies.

The discovery of new molecular markers for these rare diseases will help not only the correct diagnosis but also the development of effective therapies improving the eyesight of these patients. These objectives are in perfect harmony with the primary mission of our research center on orphan diseases.

Comment la Fondation Banting vous a-t-elle aidée dans la poursuite de vos objectifs scientifiques? Que diriez-vous à nos donateurs pour les encourager à contribuer davantage?

Le Banting est parmi les premières subventions que j'ai eues comme Early Career Researcher et ça m'a beaucoup aidé pour démarrer mon programme de recherche et a servi comme effet levier pour décrocher ma chaire de recherche du canada en senescence et développement vasculaire entre autres.

UN GRAND MERCI À LA FONDATION BANTING!



Dylan Kobsar

*2020 Banting-CANSSI Ontario
Discovery Award in Data Science*

*Kinesiology Department,
Faculty of Science
McMaster University*

What intrigued or inspired you to choose this specific research question?

As an undergrad, I fell in love with biomechanics research, where technology comes together with physics and biology to track how the body moves and reacts to forces.

How would you describe your work to a non-scientist?

Millions of Canadians are diagnosed with osteoarthritis, a complex disease that often puts older adults at a loss for how they can best improve their function and reduce their pain. I want to integrate biomechanical testing to support clinicians in identifying patient-specific models that can optimize treatment plans and improve quality of life.

One superpower I wish I had in the research world?

Superspeed! I'm an early career researcher, advancing towards exciting new scientific discoveries. I also teach, and I'm also a husband and father to three young boys – it is all a very delicate balancing act.

Superspeed would allow me to accomplish more. Not to mention, having this superpower in a biomechanics lab could drive some very interesting research on the mechanics and physiology behind my own powers.

Your most important scientific finding? Your most surprising finding?

I developed predictive models for treatment plans in older adults with knee osteoarthritis.

These models involved data on people's movement patterns, combined with their clinical status. Further, we were able to be translate these to a variety of clinics across the country that had access to our lab's motion capture technology.

Patients came in for their final session to say that they hadn't felt this good in years and they could do activities they thought they would never be able to do again. I was drawn to science for the behind-the-scenes discoveries – but seeing the work translated to those in need is what really makes my job special.

How is your area of scientific discovery important for Canadians?

Unfortunately, like many countries in the

world, our health care system poorly manages older adults with musculoskeletal pain and disorders.

Patients are often made to feel that this is a normal part of aging and are sent home to manage pain on their own, while awaiting a potential surgical intervention that may never come or may never improve their situation.

Developing more patient-specific recommendations of treatment using biomechanical technologies – can drastically improve how these patients can manage their osteoarthritis and improve their quality of life as they age.

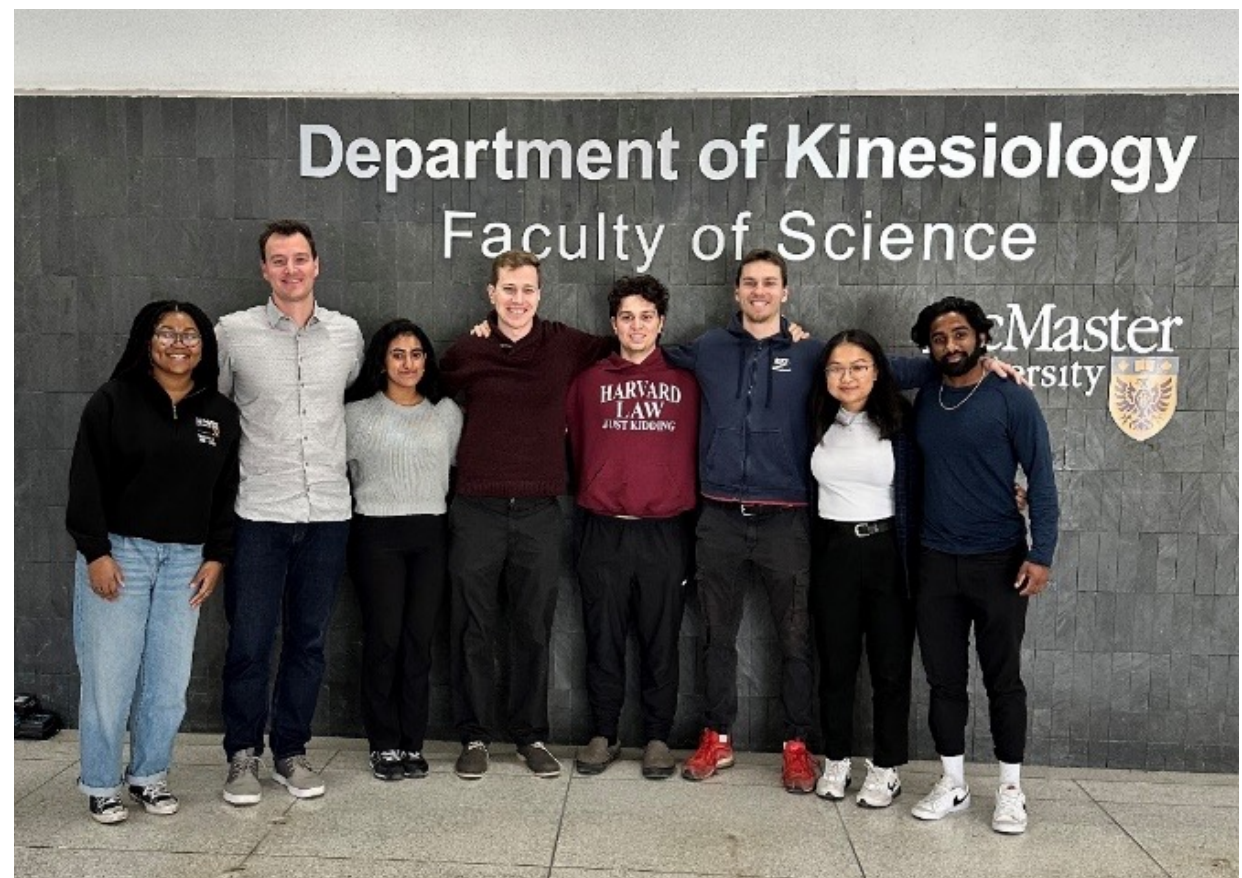
Anything you would like to say to our supporters to encourage them to give?

The Discovery Award has been a massive support in the journey of scientific discovery. It allowed me to attract some impressive talent to my lab and ask larger, more impactful questions. Further, the network and scholarly support offered by the Foundation was a true blessing throughout the COVID-19 pandemic.

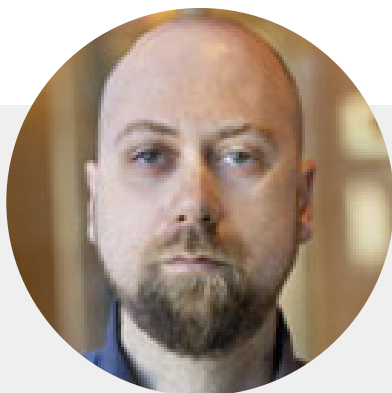
Therefore, I offer a heartfelt thank you to all the supporters. Not only for the monetary support of our work, but for the recognition of our efforts and the support

system that you have made possible.

I cannot thank you enough for this opportunity and this amazing network you have so graciously supported.



Left to right: Ese Orogun, Dylan Kobsar, Fatima Gafoor, Matthew Ruder, Chilly Gavrilov, Josh Keogh, Jenny Wu, Anil Palanisamy.



Sagi Abelson

*2021 Jarislowsky Fellowship-Banting
Discovery Award*

Ontario Institute for Cancer Research

What intrigued or inspired you to choose this specific research question?

Curiosity and a positive perspective about the future management of cancer drove me to become a researcher. With a growing aging population and the higher rates of cancer incidence in this group, there is a critical need to understand and focus on evidence-based approaches to identify new cancer vulnerabilities and markers for early detection.

How would you describe your work to a non-scientist?

We aim to discover the advantages that some cells possess, and study those biological markers in their association with cancer progression and other adverse health outcomes related to the ageing process.

We generate and analyze different types of data and develop new computational tools. Our goal is to facilitate personalized cancer treatment and prevention.

Among the different exciting data that we study is cancer genomics, which can tell us what mutations drive the initiation of cancers, and epigenetics that affects how genes are read by cancer cells. With the generous support of the Banting Research Foundation, we developed a

pan-cancer, machine learning-based tool that can infer the identities of single cells in tumour microenvironments. We aim to continue leveraging this tool to learn what genes different cell population express, and how cancer cells manipulate their environment to interact with non-cancer cells to their advantage.

One superpower I wish I had in the research world?

To become tiny! To reduce my size and teleport myself into cells to see how things really work.

I guess that's two superpowers, though.

What is your most important scientific finding? Your most surprising finding?

We discovered that harmful mutations could be detected in the blood of asymptomatic individuals, years before being diagnosed with acute myeloid leukemia.

I remember getting the raw sequencing information of the first samples. I was so anxious to see if there was any signal, so without waiting for the analysis to be complete, I skimmed through the unprocessed data looking only for the most common leukemia mutations. I jumped from my chair when I found them!

2021

Later, we provided proof for the feasibility of early detection of acute myeloid leukemia.

How is your area of scientific discovery important for Canadians?

We now know that clonal hematopoiesis encompasses a whole spectrum of conditions. These include the development of blood cancers and cardiovascular diseases as well as other adverse outcomes following cancer treatments and overall mortality. As clonality of the blood system is an ageing-related phenomenon, it affects us all. Early detection and intervention of clonal hematopoiesis can translate to healthier ageing.

Anything you would like to say to our supporters to encourage them to give?

As an early career investigator, the Discovery Award is a tremendous help for investigators to increase their scientific output, support their teams, develop early-stage research programs, and be competitive for future funding competitions.



Glen McGee

*2021 Banting-CANSSI Ontario Discovery
Award in Data Science*

*Statistics and Actuarial Science
University of Waterloo*

Research Focus:

Addressing Informative Presence Bias in Analyses of Electronic Health Records

Discovery award funding supported two student trainees via Graduate Research Studentships between July 2021 and August 2022.

The first trainee developed better longitudinal data-generating mechanisms to mimic informative presence bias and conducted simulation studies investigating the patterns of bias caused by different scenarios. This work was interrupted due to unforeseen medical reasons.

The second trainee reviewed existing correction methods for misclassification bias and is extending these methods to the case of informative presence bias. The trainee is developing several strategies, including a novel model-based

extension to SIMEX, and a multiple imputation approach, which have performed well in simulations.

In addition, this trainee has been accepted into the PhD in biostatistics program at Queen's University.

I have received access to electronic health record data from Maccabee Health Services (Israel). In collaboration with Dr. Ran Rotem (Harvard), our team plans to apply correction methods to these real data in the months to come.

Thankful and Flourishing

How we use our funds

BALANCE SHEET		
As at June 30		
	2022	2021
	\$	\$
Assets		
Cash and cash equivalents	89,044	173,691
HST recoverables	10,491	7,552
Investments, at fair value	5,152,477	5,767,345
Artwork	60,000	60,000
Total Assets	5,312,012	6,008,588
Liabilities and Fund Balances		
Liabilities		
Accounts payable and accrued liabilities	111,935	34,953
Total Liabilities	111,935	34,953
Fund balances		
General Fund	874,030	1,267,328
Restricted Fund Endowment Fund	174,796	273,359
Endowment Fund	4,151,251	4,432,948
Total Fund Balances	5,200,077	5,973,635
	5,312,012	6,008,588

The Balance Sheet is an excerpt of the audited financial statements by Baker Tilly WM LLP, Chartered Professional Accounts. Detailed FY2022 Financial Statements are available upon request.

CONDENSED STATEMENT OF REVENUE AND EXPENSES AND CHANGES IN FUND BALANCES		
Year ended June 30		
	2022	2021
	\$	\$
REVENUE		
Investment income, net	(495,063)	1,070,788
Donations	238,845	428,500
Total Revenue	(256,218)	1,499,288
EXPENSES		
Grants awarded to new investigators	291,626	172,700
Academic grants	7,500	7,500
Program Development	83,166	37,923
Professional fees	27,394	13,589
Office, general and administrative	107,654	105,442
Total Expenses	517,340	337,154
Excess (deficiency) of revenue over expenses for the year	(773,558)	1,162,134
Fund Balances, beginning of year	5,973,635	4,811,501
Fund Balances, end of year	5,200,077	5,973,635

The Condensed Statement is an excerpt of the audited financial statements by Baker Tilly WM LLP, Chartered Professional Accounts. Detailed FY2022 Financial Statements are available upon request.

2022 Discovery Award Grant Panel Reviewers

Dr. Cindi Morshead

Panel Co-Chair
Professor & Chair, Division of Anatomy and Department of Surgery
University of Toronto

Dr. Susan George Bahl, CM

Panel Co-Chair
1988 Discovery Awardee
Professor, Department of Medicine and Pharmacology & Toxicology
University of Toronto

Dr. Patricia Brubaker

Scientific Officer
Professor, Departments of Physiology and Medicine,
University of Toronto

Dr. Ali Abdul-Sater **2018 Discovery Awardee**

Assistant Professor,
Department of Kinesiology & Health Science
York University

Dr. Mahavir Agarwal

Assistant Professor,
Department of Psychiatry, University of Toronto
Medical Head, Clinical Research
Schizophrenia Division, Centre for Addiction & Mental Health

Dr. Brian Ballios

Assistant Professor, Department of Ophthalmology
& Vision Sciences, University of Toronto

Dr. Anthony Gramolini

Professor, Department of Physiology
University of Toronto

Dr. Walid A. Houry

Professor, Departments of Biochemistry and Chemistry
University of Toronto

Dr. Salim Timo Islam

2018 Discovery Awardee
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A special thank you

We are very grateful to Dr. Fred Lowy, who retired from our Board on June 30, 2022, for his long and extraordinary contributions to the Foundation. Most recently, the relationship that Dr. Lowy has fostered with The Jarislowsky Foundation enabled us to grow our Discovery Award program funding for the period 2020 to 2022.

We can't do it without the help of our volunteers, friends, partners, and donors, who contributed to our mission. We appreciate your deepest commitment in fiscal 2022.

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Many thanks to the University of Toronto Temerty Faculty of Medicine for their continued support, providing us with office space.

The Banting Research Foundation at 100


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