



BANTING

RESEARCH FOUNDATION

Annual Report 2017

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The Banting Research Foundation invests in the early careers of researchers who demonstrate excellence and creativity in health and biomedical sciences.

La Fondation de recherche Banting investit dans le début de carrière de chercheurs qui font preuve d'excellence et de créativité en sciences de la santé et en sciences biomédicales.

Message from the Chair



The Banting Research Foundation continues to fulfill its mission **to invest in the early careers of Canadian researchers who demonstrate excellence and creativity in health and biomedical sciences**. This year 53 applicants were assessed by our Grant Review Panel and 6 outstanding candidates were chosen to receive the Banting Research Foundation Discovery Award. Each year, the awardees report on their innovative research projects that led to successful competitive funding from prestigious sources such as our Canadian federal granting agencies, including the Canadian Institutes of Health Research. We frequently receive letters attesting to the importance of funding from the

Banting Research Foundation as pivotal for these investigators to complete pilot and feasibility studies that enable them to be competitive for larger grants. Our Board is very proud of supporting over 1300 grants since 1925 with a total of \$7.6 million.

This process reflects the experience of Dr Frederick Banting when he received support from the University of Toronto, Department of Physiology, to pilot his initial studies leading to the discovery of insulin. It is this legacy that the Banting Research Foundation promotes through its Discovery Award program by supporting some of Canada's most promising young investigators.

In the Fall of 2016, the Banting Research Foundation was pleased to sponsor a Roundtable held in Ottawa featuring Dr Janet Rossant, the 2016 Friesen Prize Awardee and also a former Banting Discovery Award recipient. A brief report of the event organized by the Friends of CIHR, led by Dr Aubie Angel (also our Trustee and Vice-Chair), is found in this annual report.

In September of this year our Board hosted an event "Investing in Our Future" to celebrate the accomplishments of our awardees and the volunteer contributions of our Grant Review Panel. At this event, held at the Faculty Club at the University of Toronto, we welcomed awardees, past and present, as well as members of the Panel, recognizing those who have served for many years volunteering their expertise. The Board is particularly grateful for the generous efforts of Dr Reinhart Reithmeier who organizes and chairs the Grant Review Panel. Dr Pat Brubaker, the vice-chair of the Panel, provides helpful feedback to

the applicants in the form of an analytic report following the review. A number of guests who support the good work of our Foundation joined us to meet our awardees.

Our guest speakers at this event included Dr Stephen Scherer, an internationally recognized scientist in medical genetics at The Hospital for Sick Children (HSC) in Toronto. He told the story of the early years following his PhD with appointment as an independent scientist at HSC and the valuable support he received for his novel ideas. This initial funding launched his path to the discovery of the genetic basis of many conditions. He was the first to identify autism risk genes. Stephen emphasized the critical importance of the Banting Research Foundation Discovery Awards in similarly assisting young Canadian scientists. Our other guest speaker was Dr Kaitlyn McLachlan, Assistant Professor in the Department of Psychology at the University of Guelph and recipient of a 2016 Discovery Award. She spoke to us of her exciting work developing neurotechnologies to identify markers of fetal alcohol syndrome in adults who are overrepresented in the criminal justice system. This innovative work heralds a new approach to diagnosis and therapy for some of our most vulnerable Canadians. We wish Kaitlyn, and all of our recent awardees, every success as they launch their most promising careers.

This year, thanks to the hard work of our Executive Director Ramona Rea and expert advice from our Board member Alexandra Harris, the Banting Research Foundation website has been updated. Evidence of the impact of our Foundation is now displayed in a more user-friendly venue. Effective communication is a critical success factor for sustaining our Foundation and growing our assets.

Many thanks to Trustees and Campaign Cabinet members for their volunteer engagement and support of the Banting Research Foundation. This year we doubled our donor support and signed agreements with other charitable foundations to share in our Discovery Award program to potentially increase the number of our awards. I look forward to the coming year when our Foundation will continue to “Inspire Health Science Discovery – Building on the Banting Legacy.”

Catharine Whiteside, CM MD PhD FRCP(C) FCAHS
Chair, Board of Trustees
The Banting Research Foundation

Board of Trustees 2016-17

Dr Catharine Whiteside

Chair of the Board

Emerita Professor and former Dean of Medicine
University of Toronto

Dr Aubie Angel

Vice-Chair

Professor Emeritus
Senior Fellow, Massey College
University of Toronto
President, Friends of CIHR

Dr Paul M Cadario

Distinguished Fellow in Global Innovation
Munk School of Global Affairs/Faculty of Applied Science and Engineering
University of Toronto

Dr Avrum I Gotlieb

Professor, Department of Laboratory Medicine and Pathobiology
University of Toronto

Ms Alexandra Harris

PhD Candidate, Lawrence S Bloomberg Faculty of Nursing
Junior Fellow, Massey College
University of Toronto

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Mr William Pashby

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Retired Partner
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Ms Elizabeth Vosburgh

Former Governor
Governing Council
University of Toronto

Recent Chairs of the Board of Trustees

John S Floras (2009-2015)

John M Burnes (2000-2009)

John G Ambrose (1994-2000)

Dorothy M Hellebust (1990-1994)

John H Watson (1987-1990)

Elizabeth H Pearce (1981-1987)

William J Farmery (1977-1981)

John K Macdonald (1960-1977)

Grant Review Panel 2017

Dr Reinhart Reithmeier, Chair

Professor
Department of Biochemistry
University of Toronto

**Dr Patricia Brubaker, Vice-Chair
and Scientific Officer**

Professor
Departments of Physiology and
Medicine
University of Toronto

Dr Dawn Bowdish

Associate Professor
Department of Pathology and
Molecular Medicine
McMaster University

Dr Robert Chen

Professor, Department of Medicine
University of Toronto

Dr Karen Davis

Professor, Department of Surgery
University of Toronto

Dr Rodrigo Fernandez-Gonzalez

Associate Professor, Institute of
Biomaterials & Biomedical
Engineering
University of Toronto

Dr Anthony Gramolini

Professor, Department of Physiology
University of Toronto

Dr Susan Jaglal

Professor, Department of Physical
Therapy
University of Toronto

Dr Robert Maunder

Professor, Department of Psychiatry
University of Toronto

Dr Arthur Mortha

Assistant Professor, Department of
Immunology
University of Toronto

Dr Jonathan Rocheleau

Associate Professor, Institute of
Biomaterials & Biomedical
Engineering
University of Toronto

Dr Robert Tsushima

Associate Professor and
Chair, Department of Biology
York University

Dr Christopher Yip

Professor, Department of Chemical
Engineering and Applied Chemistry
Director, Institute of Biomaterials &
Biomedical Engineering
University of Toronto

Discovery Awards 2016-17

Jeanette Boudreau, PhD, Dalhousie University

Directing natural killer cell cytotoxicity to the tumour's susceptibilities

Natural killer (NK) cells are white blood cells that kill tumours. The potential of each NK cell to kill tumours is counterbalanced by its ability to be inhibited by healthy cells through its inhibitory receptors. Dr Boudreau aims to tip the balance in favour of NK cells killing, rather than inhibition, when they encounter a tumour cell. Each NK cell has a unique sensitivity to the “on” and “off” signals given by a tumour. She is using different cancer types to understand how they act to turn NK cells on or off. She will test whether it is possible to predict and optimize tumour killing by screening and selecting NK cells based on their expression of certain receptors. She expects that in time this will allow clinicians to use NK cells as cancer therapies.

Christopher Dennison, PhD, University of Alberta

Impact severity metric for focal head and diffuse brain injury

Whether or not today's helmets protect the wearer from concussions is a topic of intense debate, especially in the helmet standards and certification community. Typically, debate centers on how helmet test methods might change in response to the emerging knowledge on the biomechanical forces associated with head impact and resulting brain injury. How will helmet certification and test methods change, and what impact-severity measures best assess a helmet's ability to mitigate severity and likelihood of brain injury? Dr Dennison is using data from over 1000 hockey and cycling helmet impacts to develop new metrics suitable for helmet testing relative to brain injury. These metrics may eventually be adopted by standards communities, resulting in testing protocols that assess helmet protection against both severe and mild brain injury.

Jeffrey Gagnon, PhD, Laurentian University

Investigating the role of H₂S in the regulation of ghrelin secretion

Ghrelin, a hormone produced in the stomach, regulates several aspects of metabolic health, including appetite and energy storage. Meals high in the amino acid cysteine have been shown to reduce ghrelin secretion. Foods rich in cysteine also lead to increased production of the bioactive gas hydrogen sulfide (H₂S). H₂S has been shown to regulate many aspects of health, including inflammation, cardiovascular health, and endocrine control. Dr Gagnon believes that ghrelin cells can metabolize cysteine to produce H₂S, and that this H₂S reduces ghrelin secretion and reduces appetite. He will show how H₂S and cysteine regulate ghrelin secretion, and will then examine how they can suppress food intake through the suppression of ghrelin. Results will provide important information on how ghrelin and appetite are regulated by H₂S, which may lead to new strategies in weight management.

Kaitlyn McLachlan, PhD, University of Guelph

Evaluating novel neurobiomarkers in the identification of adults with FASD using portable eye tracking and EEG technology

Individuals with fetal alcohol spectrum disorder (FASD) are overrepresented in the criminal justice system. To reduce recidivism and the resulting high social, health, and economic costs, there is an urgent need to identify neurobiomarkers of FASD and individuals at risk. Novel use of neurotechnologies, such as portable eye movement control tracking and EEG, may aid in identifying patterns of brain-based deficits in offenders with FASD. Dr McLachlan aims to use these neurotechnologies to evaluate whether they can reliably identify adult offenders at risk of having FASD. She will also evaluate relationships between performance on eye movement control tasks and patterns of EEG activation. Findings will be used to develop and implement fast, non-invasive, and affordable screening protocols to aid in large-scale screening for FASD in order to better support those with the disability.

Noam Miller, PhD, Wilfrid Laurier University

Exploring neural mechanisms of social behavior using zebrafish (Danio rerio)

This research study uses zebrafish to explore mechanisms of social behaviour. Zebrafish, a small freshwater species of fish commonly used in genetic and developmental research, spend most of their time in groups. They have complex social interactions, including learning from each other, making collective decisions about where to search for food, and communicating about the presence of predators. Using a series of behavioural tests of zebrafish social behavior, Dr Miller explores how social behaviour is controlled in the brain by exposing individual members of the group to drugs that affect specific brain systems. This helps to identify novel drugs that may have beneficial effects on human social disorders.

Roxane Paulin, PhD, Université Laval

Targeting ErbB2 by TAK-165 reverses pulmonary hypertension in vitro and in vivo

In pulmonary hypertension (PHT; high blood pressure in the lungs), cells forming the walls of arteries in the lungs proliferate like cancer cells, narrowing the arteries and making it difficult for blood to pass through. There is also evidence of inflammation, similar to that in infections, and evidence of insulin resistance, as in diabetes. Dr Paulin hypothesized that circulating factors could be responsible for these problems occurring in organs otherwise unconnected. She found that levels of a factor called prohibitin (PHB) are increased in the blood of humans and animals with PHT, and that PHB binds to a receptor to enhance cell proliferation and induce PHT. In this project, she is studying and testing the potential of a therapy targeting this PHB receptor, aiming to reveal new ways to treat PHT.

Discovery Awards 2017-18

These project were approved for funding in the 2017-18 year.

Florian Bentzinger, PhD, Université de Sherbrooke

Niche regulation of muscle stem cell specification

Jennifer Gordon, PhD, University of Regina

HPA axis dysregulation in the etiology of perimenopausal depression

Catherine Larochelle, MD PhD, CRCHUM, Université de Montréal

Molecular mechanisms underlying T lymphocytes interactions with oligodendrocytes in neuroinflammation

Gareth Lim, PhD, CRCHUM, Université de Montréal

Evaluating the therapeutic potential of 14-3-3 ζ for the treatment of obesity

Adena Scheer, MD, St Michael's Hospital, University of Toronto

Cross-cultural communications in breast cancer treatment

Julien van Grevenynghe, PhD, INRS – Institut Armand-Frappier, Université du Québec

Autophagy regulates CD8 T-cell killing activity during chronic HIV-1 infection

CSCI-CITAC Young Investigators Forum

For the last four years, the Banting Research Foundation has sponsored the oral abstract and poster presentation awards in the Young Investigators Forum at the annual meeting of the Canadian Society for Clinical Investigation and the Clinician Investigator Trainee Association of Canada. Young clinician investigators presented research posters in several categories, and some were invited to present their research orally. Prizes were awarded to the highest-ranked presenters. These young clinician investigators in training represent the future of clinical research in Canada, and we're pleased to offer our support.

Some research results from our 2016 Discovery Award recipients

Jeanette Boudreau's research group (Dr Helmi Alfarra, Nardeen Grace) has established a bank of samples from healthy human donors that enables study of the effect of genetic variation in immune response on the function of natural killer (NK) cells. Their work to match NK cells with individual cancers continues towards the project's aims of tailoring NK-cell-based immunotherapies for precise control of cancer.

"I am extremely grateful to the Banting Research Foundation for this funding, which helped to establish my laboratory and provided a springboard from which to apply for further funding. Already, preliminary data from this project has been used to secure funding from [other agencies]."

Christopher Dennison reported that his PhD student Brooklynn Knowles completed over 1500 impact experiments to hockey and football helmets. This research estimated mechanical deformation of the brain, a measure of injury risk. Early analysis showed that simple mechanical measures in impact experiments can be efficient predictors of brain deformation and resulting injury risk. This is an important step in developing an assessment metric for helmets. This metric addresses the need for new helmet assessment measures relating to brain injury, something that many helmet certification organizations have highlighted as necessary.

"The Banting Research Foundation Discovery Award has benefited our research group's productivity and research profile. Please accept our sincere thanks and trust that these funds were central in advancing our work on head protection."

Noam Miller described his research group's (Ramy Ayoub, Eric Armstrong) study on social learning in zebrafish that helps us understand how conformity and other forms of social influence operate in the vertebrate brain. They are exploring how these types of social influence function in the brain and are now exposing the test fish to pharmacological agents that may alter their choices. There is a high degree of similarity between zebrafish and human brains, and if we can tease apart the neural mechanisms of conformity in the fish, we will know more about the drivers of social interaction in ourselves.

"Thank you for supporting this research and my career."

Events

The Banting Research Foundation sponsored the Henry G Friesen International Prize in Health Research awarded to Sir Paul Nurse in 2015 and Janet Rossant in 2016. Dr Nurse spoke of the value of discovery science in the creative process. Dr Rossant described her research career and the ethical challenges in her field of developmental biology. She has acknowledged that funding by the Banting Research Foundation was very helpful in her early career. Dr Henry Friesen was also funded by the Banting Research Foundation early in his career.



Noam Miller, Kaitlyn McLachlan (2016 Discovery Awardees) and Michael Suits (2015 Discovery Awardee) spoke about their research at a public science lecture organized by the Royal Canadian Institute for Science.



Kaitlyn McLachlan spoke about her research on fetal alcohol spectrum disorder at our September 2017 recognition event, Investing in Our Future. Dr Stephen Scherer provided the keynote address where he spoke of the importance of supporting researchers early in their careers.

BALANCE SHEET

As at June 30

	2017	2016
	\$	\$
ASSETS		
Cash and cash equivalents	28,788	27,012
HST recoverable	6,292	5,922
Investments, at fair value	4,402,920	4,184,741
	4,438,000	4,217,675
LIABILITIES AND FUND BALANCES		
Liabilities		
Accounts payable and accrued liabilities	17,327	14,776
Fund balances		
General Fund	664,555	577,825
Endowment Fund	3,756,118	3,625,074
Total fund balances	4,420,673	4,202,899
	4,438,000	4,217,675

CONDENSED STATEMENT OF REVENUE AND EXPENSES AND CHANGES IN FUND BALANCES

Year ended June 30

	2017	2016
	\$	\$
REVENUE		
Investment income, net	430,920	107,217
Donations	38,964	19,670
	469,884	126,887
EXPENSES		
Grants awarded to new investigators	146,000	175,000
Other grants	14,500	14,500
Professional fees	70,493	55,013
Accounting and audit fees	10,964	10,964
Office, general and administrative	10,153	9,305
	252,110	264,782
Excess (deficiency) of revenue over expenses for the year	217,774	(137,895)
Fund balances, beginning of year	4,202,899	4,340,794
Fund balances, end of year	4,420,673	4,202,899

This summarized financial information is derived from financial statements that were audited by Ernst & Young LLP, Chartered Professional Accountants.

Complete financial statements are available upon request.

Donors, Partners and Sponsors

The Banting Research Foundation was established in 1925 to fund biomedical research innovation. From its endowment, interest and new donations the Foundation has now funded more than 1300 awards. Currently, only 10-12% of Discovery Award applicants from across Canada are funded due to our limited resources. We aspire to ensure that every opportunity to support excellent new investigators is achieved. To this end we aim to double the number of awards over the next 5 years.

Your contribution will go a long way to help launch the careers of our young scientists whose research promises to have major impact on improving health. We are interested in providing opportunities for sponsors who wish to partner with the Foundation targeting research in a specific health or biomedical field.

The Banting Research Foundation gratefully acknowledges donations from the following individuals and corporations during the 2017 fiscal year:

Mr John Burnes
Ms Sheila Jarvis
Dr Stephen Scherer
Dr Catharine Whiteside
Mr Griffith R Lloyd
Anonymous

The Henry White Kinnear Foundation
The William and Nona Heaslip
Foundation
Donors through CanadaHelps
Donations in memory of Florence
Banting

Thank you!

Your donations have supported innovative health and biomedical research projects by outstanding early-career investigators.

Many thanks to the University of Toronto Faculty of Medicine for the in-kind contribution of our office space.

Charitable registration number 108072927 RR 0001



Frederick Grant Banting

1923 Nobel Prize in Physiology or Medicine,
for the discovery of insulin

“The Banting Research Foundation commemorates the discovery of insulin, and the hope is that through its opportunities other discoveries will be made, which, like insulin, will bring alleviation to human suffering.”

Sir Robert Falconer, KCMG LL.D.
First Chairman of The Banting Research Foundation
President of the University of Toronto
June 23, 1925

Banting Research Foundation

10 – 6 Queen's Park Crescent West
Toronto ON M5S 3H2

416.595.9046

info@bantingresearchfoundation.ca

BantingResearchFoundation.ca

Financial statements

The Banting Research Foundation

June 30, 2017



Building a better
working world

Independent auditors' report

To the Members of
The Banting Research Foundation

Report on the financial statements

We have audited the accompanying financial statements of **The Banting Research Foundation**, which comprise the statement of financial position as at June 30, 2017, and the statements of revenue and expenses and changes in fund balances and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of **The Banting Research Foundation** as at June 30, 2017, and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.



Report on other legal and regulatory requirements

As required by the *Corporations Act* (Ontario), we report that, in our opinion, Canadian accounting standards for not-for-profit organizations have been applied on a basis consistent with that of the preceding year.

Toronto, Canada
November 9, 2017

Ernst + Young LLP

Chartered Professional Accountants
Licensed Public Accountants

The Banting Research Foundation

Statement of financial position

As at June 30

	2017 \$	2016 \$
Assets		
Cash and cash equivalents	28,788	27,012
HST recoverable	6,292	5,922
Investments, at fair value <i>[note 3]</i>	4,402,920	4,184,741
	4,438,000	4,217,675
Liabilities and fund balances		
Liabilities		
Accounts payable and accrued liabilities	17,327	14,776
Commitment <i>[note 7]</i>		
Fund balances		
General Fund	664,555	577,825
Endowment Fund <i>[note 5]</i>	3,756,118	3,625,074
Total fund balances	4,420,673	4,202,899
	4,438,000	4,217,675

See accompanying notes

On behalf of the Board:

Trustee

Trustee

The Banting Research Foundation

Statement of revenue and expenses and changes in fund balances

Year ended June 30

	General Fund		Endowment Fund		Total	
	2017	2016	2017	2016	2017	2016
	\$	\$	\$	\$	\$	\$
Revenue						
Investment income, net <i>[note 6]</i>	299,876	97,648	131,044	9,569	430,920	107,217
Donations	38,964	19,670	—	—	38,964	19,670
	338,840	117,318	131,044	9,569	469,884	126,887
Expenses						
Grants awarded to new investigators	146,000	175,000	—	—	146,000	175,000
Other grants	14,500	14,500	—	—	14,500	14,500
Professional fees	70,493	55,013	—	—	70,493	55,013
Accounting and audit fees <i>[note 4]</i>	10,964	10,964	—	—	10,964	10,964
Office, general and administrative	10,153	9,305	—	—	10,153	9,305
	252,110	264,782	—	—	252,110	264,782
Excess (deficiency) of revenue over expenses for the year	86,730	(147,464)	131,044	9,569	217,774	(137,895)
Fund balances, beginning of year	577,825	725,289	3,625,074	3,615,505	4,202,899	4,340,794
Fund balances, end of year	664,555	577,825	3,756,118	3,625,074	4,420,673	4,202,899

See accompanying notes

The Banting Research Foundation

Statement of cash flows

Year ended June 30

	2017 \$	2016 \$
Operating activities		
Excess (deficiency) of revenue over expenses for the year	217,774	(137,895)
Add (deduct) non-cash items		
Realized loss (gain) on sale of investments	(6,496)	35,519
Decrease (increase) in unrealized gain	(301,576)	31,631
Changes in non-cash working capital balances related to operations		
Increase in HST recoverable	(370)	(2,418)
Increase (decrease) in accounts payable and accrued liabilities	2,551	(2,621)
Cash used in operating activities	(88,117)	(75,784)
Investing activities		
Proceeds on sale of investments, net	89,893	13,307
Cash provided by investing activities	89,893	13,307
Net increase (decrease) in cash during the year	1,776	(62,477)
Cash and cash equivalents, beginning of year	27,012	89,489
Cash and cash equivalents, end of year	28,788	27,012

See accompanying notes

The Banting Research Foundation

Notes to financial statements

June 30, 2017

1. Description of organization

The Banting Research Foundation [the "Foundation"] was incorporated under the *Corporations Act* (Ontario) by Letters Patent in 1925. The Foundation supports talented young medical researchers in Canada conducting a broad range of medical research. As its principal focus, the Foundation will help initiate the careers of new investigators who are within the first three years of their first university or research institute appointment.

The Foundation is a registered charity [charitable number 108072927RR0001] and, as such, is exempt from income taxes under the *Income Tax Act* (Canada).

2. Summary of significant accounting policies

The financial statements of the Foundation have been prepared in accordance with Canadian accounting standards for not-for-profit organizations. The significant accounting policies are as follows:

Fund accounting

The Foundation follows the restricted fund method of accounting for contributions. The Foundation ensures, as part of its fiduciary responsibilities, that all funds received with a restricted purpose are expended for the purpose for which they are provided.

For financial reporting purposes, the accounts have been classified into the following funds:

[a] Endowment Fund

The Endowment Fund accounts for the resources that are required by the donor to be maintained by the Foundation on a permanent basis and resources transferred by the Board of Trustees [the "Board"].

[b] Restricted Fund

Restricted Funds account for resources with restrictions imposed by the donor or the Board with respect to the purpose of the funds or when the funds can be spent. Restricted Funds report, as revenue and expenses, the receipt and the use of funds restricted by donors.

[c] General Fund

The General Fund accounts for the other revenue and expenses of the Foundation. The General Fund reports unrestricted resources available for immediate purposes.

Cash and cash equivalents

Cash and cash equivalents consist of cash on deposit and short-term investments with a short term to maturity of approximately three months or less from the date of purchase unless they are held for investment rather than liquidity purposes, in which case they are classified as investments.

The Banting Research Foundation

Notes to financial statements

June 30, 2017

Financial instruments

Investments reported at fair value consist of equity instruments that are quoted in an active market as well as investments in pooled funds and any investments in fixed income securities that the Foundation designates upon purchase to be measured at fair value. Transaction costs are recognized in the statement of revenue and expenses and changes in fund balances in the period during which they are incurred.

Investments in fixed income securities not designated to be measured at fair value are initially recorded at fair value plus transaction costs and are subsequently measured at amortized cost using the straight-line method, less any provision for impairment.

All investment transactions are recorded on the trade date.

Other financial instruments, including receivables and payables, are initially recorded at their fair value and are subsequently measured at cost.

Revenue recognition

Donations are recorded as revenue when received since pledges are not legally enforceable claims. Donor-restricted donations for endowment purposes are recognized as revenue in the Endowment Fund. Other donor-restricted donations are recognized as revenue in Restricted Funds and unrestricted donations are recognized as revenue in the General Fund.

Income from investments, which consists of interest, dividends, distributions from pooled funds and realized and unrealized gains and losses, is recorded as revenue in the statement of revenue and expenses and changes in fund balances. Realized and unrealized gains (losses) earned on endowments externally restricted by donors are recorded as income (loss) of the Endowment Fund. Other investment income that must be spent on donor-restricted activities is recognized as income of Restricted Funds. All other investment income (loss) is recognized as income (loss) of the General Fund.

Grants

Grants distributed by the Foundation are recorded as an expense when approved and all conditions to be complied with before payment is made have been met by the grantee. Grants returned to the Foundation are recorded as revenue when the Foundation becomes aware that the grantee is going to return the funds because it is unable to meet the grant conditions.

Contributed materials and services

Contributed materials and services are not recognized in the financial statements.

The Banting Research Foundation

Notes to financial statements

June 30, 2017

3. Investments

Investments, at fair value, consist of the following:

	2017 \$	2016 \$
Cash	11,484	51,862
Phillips, Hager & North Canadian Money Market Fund	10,484	—
Phillips, Hager & North Bond Fund	567,589	590,364
Phillips, Hager & North Mortgage Pension Trust Fund	628,028	638,447
Phillips, Hager & North Canadian Equity Fund	665,695	620,835
RBC Qube Low Volatile Canadian Equity Fund	631,228	618,025
RBC Emerging Markets Equity Fund	234,103	209,185
RBC Global Equity Focus Fund	1,654,309	1,456,023
	4,402,920	4,184,741

The asset mix of investments is as follows:

	2017 %	2016 %
Cash and cash equivalents	0.5	1.2
Canadian bonds	27.2	29.4
Total cash and fixed income	27.7	30.6
Canadian equities	29.4	29.6
Global equities	42.9	39.8
Total equities	72.3	69.4
	100.0	100.0

4. Related party transactions

The University of Toronto [the “University”] provides facilities to the Foundation for which no rent is paid. In addition, the University provides accounting services for a fee of \$4,000 [2016 – \$4,000]. In the event of dissolution of the Foundation, all of its remaining assets [after the payment of debts and liabilities] would be distributed to the University to form part of its Connaught Fund.

The Banting Research Foundation

Notes to financial statements

June 30, 2017

5. Endowment Fund

The Endowment Fund consists of the following:

	2017 \$	2016 \$
Externally restricted by the donor	1,455,304	1,324,260
Internally restricted by the Board	2,300,814	2,300,814
	3,756,118	3,625,074

The portion of the Endowment Fund externally restricted by the donor was derived from the initial seed capital contributed in 1925 of \$456,438. The portion of the Endowment Fund internally restricted by the Board was substantially derived from a \$1,000,000 donation from the estate of Kate Taylor, contributed in 1952. The appreciation of the portion of the Endowment Fund externally restricted by the donor has been achieved through realized and unrealized gains in investment income, while the appreciation of the portion of the Endowment Fund internally restricted by the Board has been achieved through Board-approved transfers from the General Fund.

6. Investment income, net

Investment income, net consists of the following:

	2017 \$	2016 \$
Distributed income reinvested in pooled funds		
Interest and dividends	103,634	111,577
Capital gain distribution	50,659	93,467
Realized gain (loss) on sale of investments	6,496	(35,519)
Increase (decrease) in unrealized gain	301,576	(31,631)
Investment management fees	(31,445)	(30,677)
	430,920	107,217

Investment income is allocated to the funds as follows:

	2017 \$	2016 \$
Total investment income reported above	430,920	107,217
Deduct 36.53% [2016 – 36.36%] of the realized gain and increase in unrealized gain allocated to the Endowment Fund	(131,044)	(9,569)
Investment gain allocated to the General Fund	299,876	97,648

The Banting Research Foundation

Notes to financial statements

June 30, 2017

7. Commitment

The Foundation has committed to grant awards totaling \$157,065 in the next fiscal year.

8. Financial instruments

Currency risk

The Foundation is exposed to currency risk with respect to the underlying investments held by pooled funds denominated in foreign currencies because the fair value and future cash flows will fluctuate due to the changes in the relative value of foreign currencies against the Canadian dollar.

Credit risk

The Foundation is exposed to credit risk in connection with its pooled funds that hold fixed income securities because of the risk that one party to the financial instrument may cause a financial loss for the other party by failing to discharge an obligation.

Interest rate risk

The Foundation is exposed to interest rate risk with respect to the underlying investments in fixed income securities held by the pooled funds because the fair value will fluctuate due to changes in market interest rates.

Other price risk

The Foundation is exposed to other price risk through changes in market prices [other than changes arising from interest rate or currency risks] in connection with its investments in pooled funds.

