RICK HANSEN INSTITUTE
ANNUAL REPORT 2016-2017
OUR VISION
A world without paralysis after spinal cord injury (SCI).

OUR MISSION
To lead collaboration across the global SCI community by providing resources, infrastructure and knowledge; and to identify, develop, validate and accelerate the translation of evidence and best practices to reduce the incidence and severity of paralysis after SCI, improve health care outcomes, reduce long-term costs, and improve the quality of life for those living with SCI.

OUR VALUES
Teamwork • Global Collaboration and Partnerships • Innovation for Impact
Integrity and Trust • Exceptional Patient-oriented Outcomes
MESSAGES FROM LEADERSHIP

In 2016-2017 we saw a wealth of exciting partnerships and initiatives for RHI. Whether we are nurturing partnerships, increasing access to valuable research data, fostering innovation and commercialization or supporting excellence in clinical care, RHI is focused on initiatives that drive research and clinical practice forward that benefits individuals living with paralysis in Canada and around the world.

This year, RHI was also recognized through Imagine Canada’s rigorous and peer-reviewed Standards Program. This standard of excellence signifies RHI’s dedication to best practices within the Canadian charity and non-profit sector and provides our stakeholders in Canada and around the world, continued assurance in supporting RHI’s work.

All of this would not be possible without support from Rick Hansen and the Foundation, Board, Staff, Committees and our local, national and international partners whose dedication, hard-work and skill are paving the way in our collective efforts to realize our vision of a world without paralysis after SCI.

We encourage you to read the following pages of this annual report to learn more about our work over the last year.

Bernie Bressler, PhD, FCAHS
Chair, Board of Directors

Spinal cord injury is one of the world’s major unsolved healthcare challenges. I want to convey my appreciation for the work of the Rick Hansen Institute and its partners and supporters. Each year, incredible progress is being made to advance research and enrich the kind and quality of care available to people with SCI. The efforts and accomplishments highlighted in this report demonstrate RHI’s dedication and determination in improving health outcomes and instilling hope for the future for those with SCI.

Rick Hansen, C.C., O.B.C.
Chief Executive Officer
Rick Hansen Foundation

from left: Bill Barrable, Rick Hansen and Bernie Bressler welcome Member of Parliament Hedy Fry in August 2016.
The Rick Hansen Institute works to integrate research into care in order to improve the outcomes of people with spinal cord injury (SCI). First established in 2004 as a program of the Rick Hansen Foundation (RHF), the Rick Hansen Institute (RHI) emerged as a separate entity and obtained charitable status as an independent non-profit in 2010. Today, RHI is a recognized leader in matching leadership with knowledge, infrastructure, and resources to facilitate one of the largest interdisciplinary SCI programs in the world.

The challenges posed by SCI are broad and complex. To help overcome this, our work is guided by our Praxis Model – a systems approach to maximizing the impact using available resources to:

• **cure** SCI
• **commercialize** ideas
• **care** for people with SCI
• **engage consumers** as equal partners in research and their own healthcare

We are based in the Blusson Spinal Cord Centre (BSCC), a state-of-the-art facility – located in Vancouver, British Columbia, Canada – that houses a multidisciplinary network of individuals working on SCI research and spine-related treatments.
ANNUAL COST OF TRAUMATIC SCI IN CANADA
A SCI can happen to anyone, at any time, and no two injuries are the same. In Canada, more than 86,000 people live with traumatic and non-traumatic SCI. Although SCI affects fewer individuals than other chronic health conditions, the economic burden is catastrophic. Here are the financial and human costs of traumatic SCI in Canada:

$2.75B*  
ECONOMIC BURDEN ASSOCIATED WITH NEW TRAUMATIC SCIs DISCHARGED INTO THE COMMUNITY EACH YEAR

1,389  
ESTIMATED NEW TRAUMATIC INJURIES EACH YEAR

$519.25M**  
ASSOCIATED WITH COMMON SECONDARY COMPLICATIONS:

$366M PRESSURE ULCERS  
$63M URINARY TRACT INFECTIONS  
$56M NEUROPATHIC PAIN  
$34M PNEUMONIA

43,974  
ESTIMATED NUMBER OF RESIDENTS WITH TRAUMATIC SCI

AND OF THAT AMOUNT...

$218.15M  
ASSOCIATED WITH HOSPITAL READMISSIONS

MORE THAN 11,477  
HOSPITAL READMISSIONS EXPECTED EACH YEAR

* Includes direct healthcare (59%) as well as indirect morbidity and mortality related (41%) costs.
** Excludes indirect costs.
All estimates are in 2015 dollars.
HIGHLIGHTS FROM FISCAL YEAR 2016/2017
RHI AT A GLANCE

MORE THAN 3,500 CANADIANS

BENEFITED FROM IMPLEMENTATION OF BEST PRACTICES

100 PROJECTS FUNDED

BEST PRACTICE TRAINING PROVIDED TO 550+ CLINICIANS

ISNCSCI ALGORITHM DOWNLOADED MORE THAN 625 TIMES IN 159 COUNTRIES

250+ GRP USERS WORLDWIDE

MORE THAN 20,000 INDIVIDUALS WITH SCI ENGAGED

ACCREDITATION CANADA HAS ACCREDITED 15 CANADIAN SCI SITES THAT MEET THE SCI STANDARDS OF CARE DEVELOPED IN PARTNERSHIP WITH RHI

200+ PEER-REVIEWED PUBLICATIONS

39 HEALTH CARE SITES AROUND THE WORLD ENGAGED

ONE CANADA RESEARCH CHAIR AND 2 FACULTY AND 8 POST-DOCTORAL FELLOWS FUNDED

6500+ PARTICIPANTS ENROLLED IN RHSCIR

2016/2017 Annual Report
Achieving a standard of excellence

Our work requires governance guided by the principles of accountability, engagement, and transparency. This involves the stewardship of public dollars entrusted to us, the implementation of strategies to generate efficiencies in all aspects of our work, and the prudent management of investment assets and risk. RHI’s participation in Imagine Canada’s Standards Program reinforces to people with SCI, our board, advisory committee members, funders and other partners, as well as the general public that we are dedicated to financial accountability and transparency. In May 2016, we became one of only 177 charities and non-profits to be granted this status out of more than 170,000 charitable and non-profit organizations nationwide.
Overcoming barriers

RHI hosted an innovative conference, *Praxis 2016: Bridging the Gaps, From SCI Research to Improved Outcomes* in Vancouver, BC, from April 25-27. The conference was designed to change the mold of a traditional scientific meeting by focusing on action and engaging a diverse group of participants.

In attendance were consumers, researchers, clinicians, and representatives of funding organizations, regulators, policy makers, and industry. Through the sharing of hard-won experiences and small group conversations, participants agreed that a paradigm shift is required to accelerate research through two translational “Valleys of Death”— from basic research to clinical research (bench to bedside) and from initial implementation to dissemination to the entire SCI community (bedside to worldwide). As a result of this conference, an Executive Committee was established to develop and implement an integrated multi-year action plan and an independent evaluation was initiated to assess the impact of the conference.

Breakdown of the Conference Participants*

- Researchers: 78
- Clinicians: 31
- Members of not-for-profit organizations: 21
- Funders: 14
- Industry representatives and/or investors: 14
- Members of consumer associations and/or advocacy groups: 10
- Knowledge translation specialists: 10
- Health care decision and/or policy makers: 8
- Members of regulatory agencies: 4
- Other: 10

* Of these 200 participants, 16 were individuals with SCI
Expanding international boundaries
This year we continued to expand our reach to 39 countries.

The Canadian Multicentre CSF Pressure Monitoring and Biomarker (CAMPER) Study completed two thirds of its recruitment target, at sites in Canada and the USA. This study serves as a foundation to establish a novel biobank and to analyze biomarkers in SCI.

The African Spinal Cord Injury Network (AFSCIN) grew to include 21 countries. AFSCIN was formed in 2015; its mission is to improve the care and quality of life of people with SCI in Africa.

The Rick Hansen Spinal Cord Injury Registry (RHSCIR) at Hadassah Medical Centre.

The Government of New Zealand adopted RHSCIR as the model for its New Zealand Spinal Cord Injury Registry (NZSCIR).

RHI participated in the BC Government’s trade mission to Israel and celebrated the launch of Rick Hansen Spinal Cord Injury Registry (RHSCIR) at Hadassah Medical Centre.

82 researchers from 10 countries collaborated on publications.

The Access to Care and Timing (ACT) team expanded its international survey to include 32 healthcare facilities in 20 countries. The purpose of this survey is to improve our understanding of healthcare delivery and patient flow throughout the SCI continuum.

“We know from the Canadian experience that the [RHSCIR] registry will have multiple benefits. These include improved understanding of risk factors, which will lead to better care and treatment, as well as improved understanding of injury trends which will lead to smarter injury prevention initiatives.”

HON. NIKKI KAYE, MINISTER ACCIDENT COMPENSATION CORPORATION NEW ZEALAND

The Access to Care and Timing (ACT) team expanded its international survey to include 32 healthcare facilities in 20 countries. The purpose of this survey is to improve our understanding of healthcare delivery and patient flow throughout the SCI continuum.
Providing technology solutions

RHI launched CliniQuick this year in partnership with the University of British Columbia’s International Collaboration on Repair Discoveries (ICORD) and the GF Strong Rehabilitation Centre. CliniQuick is a mobile, tablet-based electronic medical records (EMR) system that can be used for quality improvement in clinical settings. Future roll-out is planned in conjunction with Vancouver Coastal Health and Vancouver Island Health.

Making data accessible

Qualified access to the RHSCIR data was launched to the RHSCIR network this year. Qualified data access is the emerging standard for access to health information; it balances the spirit of open access with prevailing privacy legislation while enabling and accelerating the pace of research.

Nurturing effective partnerships

The Blusson Integrated Cures Partnership (BICP) is a collaboration between RHI and ICORD to incorporate global knowledge in our work in order to implement a cure for SCI. Established and funded by RHF in 2013, the BICP supports special initiatives including an SCI biobank for tissue samples, blood samples, and spinal cord fluid; a translational research platform to identify treatments at the pre-clinical stage that have the best chance of succeeding in human clinical trials; enriched training environments for trainees and faculty; and consumer participation in research.

With BICP funding...

2 new faculty positions in Western Canada created

>30 seed grants issued

4,500 consumers engaged in cure-focused research
Dr. West’s lab is focused on translational research and investigates the autonomic and cardio-respiratory consequences of SCI.

Research towards a cure for SCI

This year, we continued to support research projects to accelerate the identification of one or more cures for SCI. For instance, Dr. David Granville led a project to develop a pressure injury tissue and wound fluid biobank. Pressure ulcers are a major cause of discomfort and morbidity for SCI patients. This biobank will provide an invaluable tool for understanding why healing in such wounds is impaired and may aid in the identification of novel therapeutics to promote wound closure.

Supporting our Best & Brightest

In partnership with the Michael Smith Foundation for Health Research, ICORD, and the Banting Research Foundation, we continued to support up-and-coming researchers to make important contributions to the field of SCI:

• Dr. Christopher West, a BICP-supported trainee originally funded in 2014, now holds a faculty appointment at the University of British Columbia. He has successfully grown his lab to include 11 trainees, published more than 25 peer-reviewed publications, and secured more than $700K in competitive grant funding.

• Dr. Jaimie Borisoff of the British Columbia Institute of Technology and ICORD, was honoured with a five-year renewal of his Canada Research Chair in Rehabilitation Design appointment.
Fostering innovation and commercialization

In November 2016, RHI participated in the BC Government’s trade mission to Israel. Led by BC’s Minister of Finance, the Honorable Michael de Jong, the purpose of the trade mission was to expand and strengthen BC’s connection to the Israeli innovation ecosystem. Israel is a world leader in fostering innovation and commercialization of advanced technology, and trade missions are an important part of B.C.’s international engagement strategy to support economic growth in priority sectors and the B.C. Jobs Plan objectives. During the visit, RHI’s Bill Barrable and Minister de Jong participated in a celebratory event to launch RHSCIR at the Haddassah Medical Centre in Jerusalem.

“[The launch of RHSCIR] forges another link in the chain of research that will make life better for so many people.”

HON. MICHAEL DE JONG
BC MINISTER OF FINANCE

From left: Dr. Moira Stillwell, Dr. Guy Rosental, Bill Barrable, the Hon. Michael de Jong, Dr. Eyal Itshayak and Dr. Yoram Weiss in Israel as part of BC’s trade mission.
Celebrating excellence in care

In 2012, RHI partnered with Accreditation Canada to develop the Rick Hansen Institute–Accreditation Canada Qmentum Standards for Spinal Cord Injury Acute Services and Rehabilitation Services – the first comprehensive, evidence-based standards for SCI in acute and rehabilitation settings. These Standards help health care organizations improve quality, safety, and efficiency so that they can offer their patients the best possible care and service. Since then, 15 acute and rehabilitation programs in Canada have been successfully accredited.
Engaging consumers in SCI research

This year we continued to grow our Consumer Program and engage consumers in research. Dr. Keiko Honda was welcomed as the inaugural Chair of the Consumer Program and our program roadmap was published. Consumers were supported by RHI to participate as leaders at RHI’s Praxis 2016 Conference; out of which the North American SCI Consortium (NASCIC) was formed. The NASCIC, led by Dr. Kim Anderson-Erisman of the Miami Project to Cure Paralysis and Jennifer French of Neurotech Network, is the first North American voice for SCI consumer advocacy. Additionally, we continued to partner with:

- the Spinal Cord Injury Research Evidence (SCIRE) team to develop an evidence-based ‘go-to resource’ that will provide up-to-date treatment information to consumers
- the GF Strong Rehabilitation Centre to provide education sessions to consumers about participating in research, as well as;
- ICORD and SCI BC to centralize patient recruitment in BC.
**STATEMENT OF FINANCIAL POSITION**  
AS AT MARCH 31, 2017

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
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<tbody>
<tr>
<td><strong>Assets</strong></td>
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<tr>
<td><strong>Current assets</strong></td>
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<tr>
<td>Cash and cash equivalents</td>
<td>705,821</td>
<td>1,117,830</td>
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<td>Investments</td>
<td>3,719,918</td>
<td>5,772,978</td>
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<td>Accounts receivable</td>
<td>11,595</td>
<td>55,729</td>
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<td>Prepaid expenses</td>
<td>98,676</td>
<td>361,173</td>
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<td><strong>Total Current Assets</strong></td>
<td><strong>4,536,010</strong></td>
<td><strong>7,307,710</strong></td>
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<td><strong>Capital assets</strong></td>
<td>80,894</td>
<td>101,088</td>
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<tr>
<td><strong>Total Assets</strong></td>
<td><strong>4,616,904</strong></td>
<td><strong>7,408,798</strong></td>
</tr>
</tbody>
</table>

| **Liabilities**      |              |              |
| **Current liabilities** |              |              |
| Accounts payable and accrued liabilities | 306,951     | 1,982,751    |
| Due to related parties | -            | 97,185       |
| **Total Current Liabilities** | **306,951** | **2,079,936** |
| **Deferred contributions** | 3,853,486   | 4,922,573    |
| **Deferred capital contributions** | 80,894     | 101,088      |
| **Total Liabilities** | **4,241,331** | **7,103,597** |
| **Unrestricted funds** | 375,573     | 305,201      |
| **Total Liabilities** | **4,616,904** | **7,408,798** |

For the Rick Hansen Institute’s complete audited financial statements, please visit the Resources section of our website: www.rickhanseninstitute.org.
<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
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<tbody>
<tr>
<td><strong>Revenue</strong></td>
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<tr>
<td>Grants and contributions</td>
<td>10,916,707</td>
<td>10,917,607</td>
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<td>Donations and sponsorships</td>
<td>172</td>
<td>-</td>
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<td>Investment income</td>
<td>64,211</td>
<td>38,063</td>
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<td>Other income</td>
<td>60,514</td>
<td>35,618</td>
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<td>Amortization of deferred capital contributions</td>
<td>67,020</td>
<td>81,554</td>
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<td><strong>Total Revenue</strong></td>
<td>10,908,624</td>
<td>11,072,842</td>
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<td><strong>Expenses</strong></td>
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<td></td>
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<td>Translational research</td>
<td>5,652,886</td>
<td>6,235,512</td>
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<td>Best practice implementation</td>
<td>1,730,950</td>
<td>1,832,037</td>
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<td>Informatics</td>
<td>1,170,589</td>
<td>1,156,523</td>
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<td>Network development</td>
<td>751,727</td>
<td>314,779</td>
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<tr>
<td>Best &amp; brightest</td>
<td>92,875</td>
<td>88,552</td>
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<td>Consumer engagement</td>
<td>942,220</td>
<td>980,395</td>
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<td>Fundraising</td>
<td>25,879</td>
<td>52,175</td>
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<tr>
<td>Management and administration</td>
<td>471,126</td>
<td>386,651</td>
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<tr>
<td><strong>Total Expenses</strong></td>
<td>10,838,252</td>
<td>11,046,624</td>
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<td><strong>Excess of revenue over expenses for the year</strong></td>
<td>70,372</td>
<td>26,218</td>
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<tr>
<td><strong>Unrestricted fund balance - Beginning of year</strong></td>
<td>305,201</td>
<td>278,983</td>
</tr>
<tr>
<td><strong>Unrestricted fund balance - End of year</strong></td>
<td>375,573</td>
<td>305,201</td>
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</table>
THANK YOU
The RHI is grateful to the following funders – both past and present – for their generous support: the Government of Canada through Western Economic Diversification and Health Canada, the provincial governments of British Columbia, Alberta, Saskatchewan, Manitoba, and Ontario, and the Rick Hansen Foundation. We also thank the esteemed members of our Board, advisory and steering committees, as well as our scientific and consumer reviewers, staff, volunteers, network members, and partners.

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Elona Baum
Jason Coonan
Ryan Hartwell
Michael May
Hunter Peckham
Fred Rego
Chris Wagner

*Committee Chairs

A SPECIAL THANK YOU
We would like to thank
Mr. Barrington-Foote, Dr. Birch, Dr. O’Connell and
Dr. Truchon for their tireless efforts. All four retired
from the Board in 2016.
The Rick Hansen Institute is proud to be accredited by Imagine Canada.

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