ONF-REPAR Partnership

Results of the Team Development and Research Program (2007 – 2010)

October 24, 2011

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Acronyms

ABI	Acquired Brain Injury
ASIA	American Spinal Injury Association
CIHR	Canadian Institutes of Health Research
COM-QOL	Towards Interventions Focusing on Community Living and Quality of Life for Individuals with Spinal Cord Injury
COSMO	Understanding and Measuring Integrated Cognition, Sensory, Motor and Psychosocial Functioning in Ecologically Valid Contexts, to Improve Diagnosis, Prognosis and Treatment Following TBI
CRReATe	Community Reintegration Research Action Team
FRSQ	Fonds de la recherche en santé du Québec
HIPE	Head Injury Partnership Endeavour
IMPACT	SCI Impact Team
ONF	Ontario Neurotrauma Foundation
ParQol	Participation Quality of Life
PDF	Post-doctoral fellow
REPAR	Réseau provincial de recherche en adaptation-réadaptation
SCI	Spinal Cord Injury
SCImob	Enhancing Mobility for Persons With SCI Through a Concerted Translational Rehabilitation Research Approach
TBI	Traumatic Brain Injury
TDRP	Team Development and Research Program

Executive Summary

The ONF-REPAR Partnership exists between the Ontario Neurotrauma Foundation (ONF) in Ontario and the Réseau provincial de recherche en adaptation-réadaptation (REPAR) in Québec. The partnership was formed around a common interest in neurotrauma; namely spinal cord injury and acquired brain injury rehabilitation and community-based research. The goal was to foster cross-provincial rehabilitation research collaborations and increase the collective strength of research in the two provinces.

The cornerstone of the ONF-REPAR Partnership is the Team Development and Research Program (TDRP). Through a series of planning meetings and a specifically designed funding opportunity, ONF and REPAR fostered the development of inter-provincial collaborations between rehabilitation and community-based researchers. ONF and REPAR jointly funded all partnership activity, spending a total of $759,980 for the TDRP over three years plus $80,000 between 2006 to early 2011 on travel and meetings for partnership development, fostering team collaborations and informing on progress.

Six inter-provincial research teams were funded through the TDRP from 2007 to 2010; three in spinal cord injury and three in acquired brain injury. Over the three years of TDRP funding, the six newly established teams solidified their areas of interest, pursued research and clinical activity, built capacity through training of students and post-doctoral fellows, and engaged in significant knowledge exchange activity.

Key outcomes include exchange of knowledge across disciplines and areas of expertise; from research to clinical practice, knowledge dissemination activities including 35 academic publications and 36 conference presentations, symposia and workshops the involvement/training of 66 individuals at post-doctoral and student levels, leverage funding from other sources totalling $1,136.394 in directly external funding and over $5-million from research representing team members that assist in strengthening the work of the research teams. Other key outcomes include clinician capacity building and additional research and stakeholder collaborations.

The outcomes of the six teams far outweigh the investments of the two organizations, as this has proven to be a successful method of fostering cross-provincial research, encouraging complementarity, and building capacity across disciplines and sharing knowledge. As a result of the success of the partnership and the TDRP, the ONF-REPAR Partnership will support Phase II of the work of the research teams from 2011 to 2014; aimed at further growing the expertise of the teams, building more student and clinical capacity in neurotrauma rehabilitation and moving towards implementation of research findings.

Introduction

This report outlines the ONF-REPAR Partnership between the Ontario Neurotrauma Foundation (ONF) and the Réseau provincial de recherche en adaptation-réadaptation (REPAR), and the resulting Team Development and Research Program (TDRP). The report highlights the nature of the partnership and the model of operations, as well as the outcomes of the TDRP.

The two research organizations began to work together in 2006 through a series of discussions on common areas of interest, namely spinal cord injury and acquired brain injury rehabilitation and community-based research. The partnership was formed to foster cross-provincial rehabilitation research collaborations and increase the collective strength of research in the two provinces, with the TDRP becoming the cornerstone activity of the Partnership.

Through a series of planning meetings, ONF and REPAR developed a strategy to engage interested researchers in these areas in Ontario and Québec, and created the conditions and resources to promote networking, team building and identification of joint research activity in Ontario and Québec.

Through a specially designed funding opportunity; the newly developed research teams were invited to submit proposals to the ONF-REPAR Partnership. Following review, six teams were funded by the ONF-REPAR Partnership over a period of three years to establish the base of their teams, solidify areas of interest, and pursue research and clinical activity that would address their project aims. As funders, ONF and REPAR have worked closely throughout this period with the six teams, holding meetings with the team leads and encouraging ongoing collaborations.

ONF and REPAR have learned greatly from this experience and are proud of these initiatives. Sharing this expertise with the research community and reporting explicitly on the outcomes of Phase 1 is the aim of this report.

Partners

The ***Ontario Neurotrauma Foundation (ONF)*** has been in existence since 1998 and is funded through the Ministry of Health and Long-Term Care. The ONF's broad mission is to achieve prevention of neurotrauma injuries and improvement in the quality of life for people living with an acquired brain injury or spinal cord injury. The long term outcome of the Foundation's research and knowledge mobilization program is to sustain change in practice and policy at individual, organizational, community and systemic levels.

ONF is the largest provincial funder of neurotrauma research in Canada and it's work is accomplished through strategy, innovation and partnership. As indicated in the mission, ONF's three program areas are Prevention of Neurotrauma, Acquired Brain Injury and Spinal Cord Injury (see http://www.onf.org).

Significant impact on the neurotrauma research community in Ontario and across the country has occured since its inception. Partnerships have been formed at provincial, national and international levels. ONF has evolved from a rather traditional grant funder of research to a targeted and strategic facilitator of research, capacity builder and mobilizer of knowledge to multiple stakeholder audiences, including researchers, clinical experts, practitioners and administrators, consumers, community service providers and policy-makers. ONF is also newly focused on the implementation of interventions across it's three program areas.

The ***Réseau provincial de recherche en adaptation-réadaptation (REPAR)*** or the Québec Rehabilitation Research Network is one of the eighteen research networks funded by the Fonds de la recherche en santé du Québec (FRSQ). REPAR has been in existence since 1994 and has succeeded since that time in greatly enhancing the infrastructure and capacity of rehabilitation research in the province of Québec. The aim of REPAR is to foster clinical research in rehabilitation by supporting multidisciplinary and multicenter activities in order to reduce or improve physical deficiencies, and facilitate knowledge transfer while training new researchers.

REPAR activities are grouped according to the following themes. "Competitiveness and Innovation", "Knowledge Exchange and Application" and "Training the next generation of researchers" (see http://www.repar.ca). Various scientific programs are available for each theme and members may apply for financial support to achieve the objectives of their chosen theme. Many of these benefit from national and provincial partnerships that diversify and maximize the funds available to members and promote networking on a provincial, national and international level.

Over the years, REPAR has become one of Québec's leading players in the area of research in traumatology, especially as concerns the Québec Ministry of Health and Social Services (Ministère de la Santé et des Services sociaux du Québec (MSSS)) and the Québec Automobile Insurance Board (Société de l'assurance automobile du Québec (SAAQ)).

Background

By the mid 2000's there existed some collaborations between neurotrauma researchers in Québec and Ontario, who had discovered similar areas of interest and had the opportunity to work together on grant proposals and research projects. This was beginning to grow, however, for the most part researchers in both provinces tended to work with other researchers from their own province. On a broader level, Ontario had great interest in the success of REPAR as a provincially funded FRSQ network and was working towards modeling this through the Ontario Rehabilitation Research Advisory Network (ORRAN) with the assistance of the Ontario Ministry of Health and Long-Term Care and ONF. Provincial leaders from Québec had presented on REPAR at annual ORRAN meetings, and Ontario leaders had spoken at REPAR's annual Scientific Day.

ONF and REPAR were brought together through the efforts of Dr. Richard Riopelle, MD., Chief Research Officer of ONF who was also at the time the Chair of Neurology and Neurosurgery at McGill University and Dr. Bertrand Arsenault who was the Scientific Director of REPAR (2004 to 2009). At that time in Québec, Dr. Arsenault was working with the MSSS to prioritize research themes identified by the États généraux de la recherche en traumatologie au Québec, which was a major Québec provincial consultation on research in traumatology. The discussions between ONF and REPAR began based on identified similar interests between the two organizations; in the areas of spinal cord injury (SCI) and acquired brain injury (ABI) rehabilitation and community-based research. It became quickly evident that a cross-provincial partnership would be fruitful to both provinces. The SCI and ABI research expertise that exists in Québec and Ontario is strong. Some of this expertise is similar, while some is complementary. Expertise that may be stronger in a specific discipline in one province would provide opportunities for others to learn.

Due to geographic proximity, cooperation between the provinces was viewed as extremely feasible. Facilitating teamwork of researchers from Canada's two most populous provinces would serve to increase research study populations and further enhance multi-site research. This is extremely valuable in the area of neurotrauma, as the numbers of people with spinal cord injuries are modest and the heterogeneity of brain injury can make recruitment difficult. Another perceived benefit was to reduce 'destructive competition' on a national level, and promote joint application to national funding agencies.

Establishment of the Partnership

ONF and REPAR began discussing the potential of the partnership during 2006 through a series of meetings and teleconferences. Early thinking was to engage other partners from both provinces, which led to a meeting held in Montreal in May 2006 with champions from other funding agencies and government representatives. There was interest expressed in the work of the organizations present, but this did not result in commitment to partnership activity. ONF and REPAR therefore decided to move forward together to develop an interprovincial research partnership to generate collaborative neurotrauma research.

The aim of the ONF-REPAR Partnership is to foster cross-provincial rehabilitation research collaborations in the field of neurotrauma (SCI and ABI; excluding stroke).

The Objectives of the ONF-REPAR Partnership are to:

- Foster the development of, and provide support to co-provincial research teams undertaking rehabilitation (clinical) and community-based research in the area of neurotrauma;
- Develop opportunities for research teams to interact and develop collaborations beyond their individual program areas;
- Improve and enhance the ability of experts from the two provinces to engage in multi-centre research;
- Reduce 'destructive competition' on a national level, and promote joint application to national funding agencies;
- Develop opportunities for summer student exchanges to take place between the two provinces in the area of neurotrauma.

As will be shown later in this report, from 2006 to 2007, ONF and REPAR also provided a funding opportunity for a Neurotrauma Summer Student Exchange Program whereby a student from one province was given the opportunity to work with a faculty member from the other province. This resulted in seven student exchanges over those two years in SCI and ABI. Afterwards, student capacity building became part of team activities.

The most significant element of the ONF-REPAR Partnership has been the establishment of the **Team Development and Research Program**, established in 2007.

Team Development and Research Program (TDRP)

The Team Development and Research Program (TDRP) was created as the prime activity of the ONF-REPAR Partnership and one that would accomplish several of the partnership objectives as noted above.

The general objective of the TDRP was to build capacity and a culture of research collaboration between rehabilitation-based researchers in the two provinces. The specific objectives of the TDRP were to:

- support team development and sharing of expertise between Ontario and Québec researchers in the areas of SCI and ABI that emerge from the meeting in Ottawa

- foster the development of clinical rehabilitation and community-based projects and support them so that collaborative research teams would be in a position to apply together to national funding agencies for larger scale studies in the future
- facilitate the potential for multi-site research and set the stage for future rehabilitation networks to be developed, as a means to increase study populations and decrease unnecessary duplication of funding applications

The Partners began the establishment of the TDRP by issuing a Call for Expressions of Interest to rehabilitation and community-based SCI and ABI researchers in Québec and Ontario, inviting them to declare their interest in developing cross-provincial collaborations and indicate their areas of expertise, research focus and activity.

Over 50 responses were received, and these were well balanced over the two provinces, representing individuals from various fields of rehabilitation science and health professions. A steering Committee of leaders of ONF and REPAR organized the responses into clearly common areas of focus and complementarity. A 2-day meeting was planned for May 2007 in Ottawa to which these respondents and a few additional identified researchers were invited, with the meeting organized around discussion of the collaboration opportunity, funding specifics and significant networking and planning opportunities. The meeting gave individuals with similar or complementary activity the opportunity to discuss their common research interests, and form discussion groups about types of collaborations and how they might work together. Plenary sessions occurred on issues of relevance to all participants, as well as opportunities for ONF and REPAR to discuss the Program's intent and answer questions.

The meeting was an enormous success, due to many factors. An evaluation of the meeting demonstrated that the key success factors were the uniqueness of the approach of 'matchmaking' individuals for collaboration, the deliberate effort put into planning the meeting, the amount of time provided for networking, and the fact that there was a specific and tangible funding opportunity that the various groups could plan towards.

The meeting in May 2007 resulted in six cross-provincial research teams (three in ABI and three in SCI) that collaborated over the next few months to submit proposals to the ONF-REPAR Partnership for funding (September 2007). Each proposal was submitted by Co-Principal Investigators (Co-PIs); one from each province, on behalf of their team. This joint responsibility ensured a strong balance was achieved across the two provinces and across areas of relevant and necessary expertise.

Leaders from ONF and REPAR, plus two external experts, reviewed the proposals. Four proposals were approved for funding at that time, and two teams were asked to come back with a revised proposal addressing comments and recommendations made by the reviewers. These two teams submitted revised proposals and were funded a few months later.

The composition of the teams varies greatly in terms of members' academic or clinical disciplines, team size, type of activities undertaken and type of outcomes achieved.

The six teams supported through the TDRP from 2007- 2010/11

The ONF-REPAR Partnership funded teams are listed below. A more detailed summary of the teams' program focus is provided in Appendix 1.

Towards Interventions Focusing on Community Living and Quality of Life (COM-QOL) for Individuals with Spinal Cord Injury

Co-Principal Investigators Luc Noreau, Kathryn Boschen
Co-Investigators: Line Beauregard, Normand Boucher, Amy Latimer, Kathleen Martin-Ginis, François Routhier, Sander Hitzig
$140,000 over three years

Head Injury Partnership Endeavour (HIPE Team)

Co-Principal Investigators: Bonnie Swaine, Nora Cullen
Co-Investigators: Mark Bayley, André Lavoie, Alexis Turgeon, Shawn Marshall, Marie-Josée Sirois
$79,980 over two years

Enhancing Mobility for Persons With SCI Through a Concerted Translational Rehabilitation Research Approach (SCIMob)

Co-Principal Investigators: Molly Verrier, Rachid Assaioui, Milos Popovic. Sylvie Nadeau
Co-Investigators: Dorothy Barthelemy, Eric Beaumont, Anthony Burns, Laurent Bouyer, B. Catherine Craven, Cyril Duclos, Audrey L. Hicks, Désiree Maltais, Dany Gagnon, Geraldine Jacquemin, Richard Preuss, Kei Masani
$140,000 over three years

Understanding and Measuring Integrated Cognition, Sensory, Motor and Psychosocial Functioning in Ecologically Valid Contexts, to Improve Diagnosis, Prognosis and Treatment Following TBI (COSMO)

Co-Principal Investigators: Robin E Green, Bradford MacFadyen
Co-Investigators: Deirdre Dawson, Bill McIlroy, Alain Ptito, Karl Zabjek, Lauren Dade, Carol DeMatteo, Michelle McKerral, Michelle Keightley, Cyril Schneider, Eva Kehayia, Robert Forget, Isabelle Gagnon
$120,000 over three years

Community Reintegration Research Action Team (CRReATe)

Co-Principal Investigators: Deirdre R. Dawson, Carolina Bottari, Hélène Lefebvre
Co-Investigators: Angela Colantonio, Carolyn Lemsky, Dawn Good, Denis Godbout, Hélène Carbonneau, Guylaine Le Dorze, Isabelle Gelinas, Debbie Hébert
$140,000 over three years

SCI Impact Team (IMPACT)

Co-Principal Investigators B. Catherine Craven , Fréderique J. Courtois
Co-Investigators: Anthony S. Burns, David S. Ditor, Lora M Giangregorio, Keith C. Hayes, Sander L. Hitzig, Pamela E. Houghton, Nicole Mittman, Joel Katz, Dalton L. Wolfe, Isabelle Côté, Eric Landry, Désirée B. Maltais, Luc Noreau, Daphney St-Germain, Mélanie Boulet.
$140,000 over three years

Communication and Progress

ONF and REPAR have made a concerted effort not to be arms-length funders of the TDRP, as described below in the Exchange of Knowledge Section. The model of this Partnership working in close collaboration with the teams has served the program well. ONF and REPAR have stayed in close contact with the six teams and this has served to provide support and information to the teams, and be kept up to date on the teams' progress, as well as issues of concern that arose.

A meeting of team Co-PIs with the leaders of the ONF-REPAR Partnership was held in Toronto in December 2008, one year after funding began, to hear about the teams' progress and discuss research and field related issues that they had in common. The American Congress of Rehabilitation Medicine conference in Montreal in October 2010 provided an ideal and cost effective opportunity for another meeting of the team leads with ONF and REPAR, since most were attending the conference. Discussion at this meeting focused on achievements and future plans. At this meeting it was announced by ONF and REPAR that the Partnership would continue and that the partners planned to support the next phase of the teams' work.

In March 2011, again in Montreal, ONF and REPAR met with the team leads, at which the six teams presented on their work over the three-year period of funding. Collectively the teams and the partners deliberated on how Phase II of the Program and the teams' work would unfold. This created a natural bridge between Phase I and II, as the teams developed their proposals for Phase II shortly following this meeting.

Investments of the Partners

With the exception of the Neurotrauma Summer Student Exchange, which was supported according to the respective partner in the province where the faculty member overseeing the grant was located, ONF and REPAR have jointly funded all activity flowing from the Partnership. This includes the costs of holding several meetings and related travel over a five-year period that has amounted in a total investment of $40,000 from each partner.

Total financial commitment to support the TDRP over three years was $759,980. Each partner contributed $379,990 towards this. This investment has proven to be a fruitful one, to the research teams, the

neurotrauma field, and the ONF-REPAR Partnership, as the outcomes outlined in the next section will demonstrate.

Activity Funded	ONF Funds	REPAR Funds	TOTAL
Meetings/travel partnership development, fostering collaborations and sharing progress. (2006-2011)	$40,000	$40,000	**$80,000**
Team Development and Research Program Grants (Six grants) (2007-11)	$379,990	$379,990	**$759,980**
TOTAL	**$419,990**	**$419,990**	**$839,980**

Outcomes of the TDRP

General outcomes of the Program

ONF and REPAR both recognize that the research being undertaken and the outcomes resulting from that work differ greatly. Team success is not examined by comparing outcomes against each other, rather from the broader impacts that each team has and can achieve.

The TDRP has resulted in strong quantifiable outcomes and remarkable impacts of a more qualitative nature that reflect the success of the ONF-REPAR Partnership on different levels. As one team lead reported:

> *ONF-REPAR [Partnership] seed funds for establishing interprovincial collaboration have provided many informal supports which are not evident in a typical grant report. Members of group have received formal and informal mentoring from senior leaders in both provinces (Ontario and Québec); there have been significant clinical exchanges (best practice guidelines, standing medical orders, treatment protocols, drug dosing regimens, therapeutic device training, etc.) facilitated through site visits and establishment of friendships and collaborative working relationships; and opportunities to exchange ideas were facilitated by communication funding and infrastructure supports. The products derived from the process were of greater scientific substance than if we had undertaken the projects in a conventional manner. Opportunities to co-mentor students and for graduate students to visit other research settings were provided. (Dr. Catherine Craven)*

As expected, collaboration and sharing of knowledge has increased, multidisciplinary capacity within teams has been strengthened and the teams are becoming known on a national and international basis beyond the expertise of individuals. Further, destructive competition has been reduced, with collaborative proposals to larger, national funding agencies for research funds. General outcomes against the objectives of the program are highlighted on the following page:

The ONF-REPAR Partnership: Team Development and Research Program			
Goal	Build capacity and a culture of research collaboration between rehabilitation based researchers in Ontario and Québec		
Objectives	Support team development and sharing of expertise between Ontario and Québec researchers in the areas of SCI and ABI	Foster the development of clinical rehabilitation and community-based projects and support them so that collaborative research teams can apply together to national funding agencies for larger scale studies in the future	Facilitate the potential for multi-site research and set the stage for future rehabilitation networks to be developed, as a means to increase study populations and decrease unnecessary duplication of funding applications
Outcomes	• Collaboration has enabled individual researchers to learn about what other experts are pursuing in their labs and clinical environments. • Exchange of knowledge such as sharing of best practices has translated directly to practice changes in the clinical environment. • Funding has been leveraged, as the teams have used the seed funding in effective ways to be a launch pad for larger activity. Pilot projects undertaken with the seed funds have provided the basis for larger scale funds being secured from national funding agencies. • Collaborations with external researchers from within Canada and internationally • Multiple knowledge products produced as a result of the research collaborations, an example of which is outlined below: *Clinical protocols developed in Ontario were translated into French and duplicated in the Québec site and the laboratory protocols developed in Québec were translated into English and duplicated in the Ontario site in order to have a complete infrastructure for the clinical trial in both sites*. (CRReATe Report) • Collaboration with stakeholder groups that ensures that the work of the teams is grounded in real-world, needs-based research with clinical application. Many of the researchers have connections with clinical staff at their affiliated rehabilitation institution, or are themselves clinician-scientists. As a result there has been significant bi-directional translation of knowledge between research and practice. • The teams have succeeded in experimenting with methodologies and implementing projects in the other province. They have also excelled at transferring expertise across projects or fields, which was very important in order to strengthen the team and their research projects. • Six individuals have become members of two teams; leading to sharing of knowledge between teams and natural opportunity for cross-over learning. • Training of students and exposure of these students to a multidisciplinary range of experts from different environments. • Mentoring of junior researchers to foster new leaders in neurotrauma. • Career advancement of several members of the teams, for junior as well as senior members		

Exchange of knowledge

Knowledge exchange is an often overused term and can be used to describe many degrees of information sharing. For the purposes of the ONF-REPAR Partnership, knowledge exchange has occurred in the following ways:

Within teams; through the inclusion of multiple disciplines and perspectives on each team and the sharing of information about different approaches, successes and challenges pertaining to the research that each member pursues. Knowledge exchange has led to sharing of best practices, tools and protocols. This has also occurred on issues that may be considered inter-provincial knowledge exchange, such as learning about the health policies and practices of the other province, differences in obtaining ethics approval and addressing issues within the various institutions, or in the work with stakeholder organizations in each province.

Between teams; through opportunities to meet and engage with leaders from different fields, for example ABI and SCI experts that may normally not have a chance to meet. On three different occasions, the Co-Principal Investigators of the six teams have had the opportunity to hear presentations on the work of the other teams and discuss common issues as well as differences in approach and success.

As previously mentioned, six individual research experts have become members of two different teams which has fostered the sharing of knowledge between these teams. One individual has taken the lead on a "spin-off" project that involves some members of two SCI teams; namely the ParQol project that looks at the issue of participation and quality of life.

Between the teams and the funders; from the very first meeting of experts in May 2006, the ONF-REPAR Partnership has distinguished itself as a collaborator with the teams that receive funding. The partners have set the stage for learning, respect and collaboration to occur at all levels of the endeavor which includes being receptive to the input and concerns of the research teams. This has fostered a unique sense of "we're in it together" and a sense that the research teams are truly being supported by the funders beyond the financial contribution.

Between teams and external stakeholders; which includes collaborating with researchers from locations in other parts of Canada and internationally, as well as collaborating with stakeholder groups, for instance consumer associations. Based on the work of the teams, research relationships have been strengthened with experts nationally from British Columbia and internationally from Texas, Australia and Belgium.

Some of the teams have developed collaborative relationships with community-based organizations serving the needs of people with SCI or ABI. These collaborations have led to knowledge translation with stakeholders and partners as to the real-world impact of the research and the real-world needs of the community-based organizations and their clients.

Most team members have major teaching responsibilities in health science professional programs. Thus, the research findings are being communicated to hundreds of health professionals in training. As evidence is built these faculty members are well-positioned to move this knowledge to clinicians who will in turn make the difference in the lives of people with ABI and SCI.

Knowledge Dissemination Activities

The following are the knowledge dissemination activities arising from the work of the six teams:

Peer Reviewed Published Articles	35
Peer Reviewed Articles accepted or in Press at time of Report	10
Conference Presentations, Symposia and Workshops	36
Other Publications, Book Chapters	9
Poster Presentations and Published Abstracts	70
TOTAL Knowledge Dissemination Activities	160

Lists of these can be found in Appendix 2.

Peer Reviewed Published Articles

Research undertaken by the research teams has been published in peer reviewed journals pertinent to the fields of SCI, ABI, rehabilitation research, community-based research and neurorehabilitation. Over the period of ONF-REPAR Partnership funding, **35** articles have been published in journals such as *Archives of Physical Medicine and Rehabilitation, The Journal of Spinal Cord Medicine, Topics in Spinal Cord Injury Rehabilitation, Journal of Rehabilitation Medicine, and the Canadian Journal of Occupational Therapy*.

At the time of writing of this report, an additional **10** articles were of the status “accepted” or “in press”.

Conference Presentations, Symposia and Workshops

Members of the six ONF-REPAR Partnership research teams presented their work at conferences on a national and international stage. The **36** conference presentations, symposia and workshops given by the teams were peer reviewed and include such venues as American Congress of Rehabilitation Medicine / American Society of Neurorehabilitation, International Brain Injury Association Conference and National Spinal Cord Injury Conference.

These 36 presentations by researchers and/or their students also represent many internationally invited presentations.

Poster Presentations and Published Abstracts

In addition to Conference Presentations (podium presentations), symposia and workshops, **70** poster presentations and abstracts related to the work of the research teams were given or published at national and international venues. These were presented at venues such as those mentioned above.

Venue	Number
International	32
National	18
Local *	20
Total	**70**

** Refers to a provincial venue (either Québec or Ontario) with an audience or focus that is primarily provincial*

Leverage Funding

One of the objectives of the ONF-REPAR Partnership is to reduce 'destructive competition' on a national level and promote joint application to national funding agencies. The inter-provincial collaborations developed by the six research teams in Québec and Ontario have capitalized on some of the strongest rehabilitation and community-based research minds in Canada, and led to joint application to other funding agencies.

The ONF-REPAR Partnership designates the following categories of external leverage funding:

> ***Category A*** is research or research-related funding that is approved by other funding sources, and is for activity directly related to, or arising from the work of an ONF-REPAR Partnership funded team. These funds have been awarded to members of the team from both provinces.
>
> Category A leverage funding has been obtained from the Canadian Institutes of Health Research, Craig Nelson Foundation, Physician's Services Incorporated and other agencies. Category A leverage funds totalling **$1,163,394** were obtained during the period of ONF-REPAR Partnership funding.
>
> ***Category B*** funds are also research or research-related funding that is approved by other funding sources. These funds were awarded to one or more individuals from a team for work directly related to their ONF-REPAR grant. While such awards may not include representation of the team from both provinces, the funds leverage both the team and their research program, and thus strengthen the collective ability of the ONF-REPAR team to undertake their work.

Category B leverage funds totalling **$5,293,449** were obtained during the period of ONF-REPAR Partnership funding from sources such Canadian Institutes of Health Research, FRSQ Consortium de traumatology, Rick Hansen Foundation SCI Solutions Network and Ontario Ministry of Research and Innovation..

Type of Leverage Funding	Amount of Leverage Funding
Category A	$1,136.394
Category B	$5,293.449
TOTAL LEVERAGE FUNDS	**$6,429,843**

Taking into account the total investment of ONF and REPAR of $839,980 to manage and support the Team Development and Research Program, the total external leverage funding obtained during this period of time has resulted in a **return on investment 7.65 times** that of the Partners' investment

Details of leverage funds received by each team are provided in Appendix 3.

Capacity building

The six teams funded by the TDRP involve experts at various levels of career development, knowledge and capacity. The research teams include a cadre of well-established rehabilitation researchers in Ontario and Québec who have international reputations within the fields of SCI and ABI rehabilitation research. The teams also include a number of emerging researchers and clinician-researchers who are working to build their research careers and need opportunities to do so. Lastly there are the up-and coming researchers of the future; post-doctoral fellows and trainees at PhD, Masters as well as well as undergraduate levels.

Trainee involvement

The funding for the teams is modest and does not include funds that would support post-doctoral fellows (PDF) or trainees at the level of a scholarship. Many of the faculty members on the research teams have involved and engaged their existing students in the research teams to provide them with specific learning opportunities. In some cases, a small stipend of up to $2,000 has been provided from the team grant to facilitate student involvement. Others have used money to support students working on pilot data for future funding.

In all, **66 individuals** at the post-doctoral, or trainee level were involved with the work of the six teams over the three years of ONF-REPAR Partnership funding. (See Appendix 4)

Co-investigator and Student exchanges (formal and informal)

The TDRP funds enabled both investigators and students to be exposed to other research environments, both on formal and informal levels. Exchanges occurred in the following ways within the research teams:

- Formal student exchanges where a student of one team member spent several weeks working in the lab of another team member.

- In some cases members of the teams have committed to act on the thesis committee of another investigator's student.

- Several students were co-supervised by an Ontario and Québec faculty member; providing the student access to both investigators and both labs.

- Several other exchanges occurred on a clinical level, where a member of a team was asked to train clinical experts at another rehabilitation centre on a new measurement tool or technology. Invitations also occurred to speak at Grand Rounds in other institutions.

- Informal exchanges occurred whereby site tours were provided by each of the sites hosting meetings when the full team met either in Québec and Ontario.

In addition, the ONF-REPAR Partnership made available the Summer Student Exchange Program, where faculty members could apply to recruit a student from the other province to work with them during the summer months. This program was initially offered in 2006 and 2007 and was moderately successful, resulting in seven student exchanges (Neurotrauma Summer Student Exchange Program). It was recognized that offering this opportunity was somewhat premature as it occurred before the interprovincial teams really took shape. ONF and REPAR are considering making this available to teams with the near future, if funds are available, as it has been recognized that the collaboration between investigators is more enriched at this time to facilitate the Summer Student Exchange Program.

Career development

There has been significant academic and professional success for many members of the six funded teams over the period of funding. From well-established researchers to post-doctoral fellows, numerous career development achievements occurred which served to facilitate additional opportunities for the teams. Examples of these successes are listed below:

CRReATe

- Dr. Carolina Bottari, appointed to Assistant Professor in 2010 (from post-doctoral fellow).
- Dr. Angela Colantonio, promoted to Full Professor in 2010.
- Dr. Deirdre Dawson, promoted to Associate Professor in 2009 and Senior Scientist in 2010.
- Dr. Hélène Lefebvre received a 3-year 'Chercheure boursière clinicienne sénior' from FRSQ in 2009.

HIPE

- Dr. Nora Cullen became Chief of Staff at West Park Healthcare Centre.
- Dr. Bonnie Swaine became the Scientific Co-director of the Center for Interdisciplinary Research in Rehabilitation of Greater Montreal and promoted to full Professor in 2009.

SCIMob

- Across the timeframe of the funding two post-doctoral fellows; Dr. Richard Preuss and Dr. Dany Gagnon, have now taken up faculty positions, respectively at McGill and the University of Montreal.
- Dr. Dany Gagnon received a Board of Directors Award from the Canadian Society of Biomechanics and a 4-year 'Chercheur boursier Junior 1' from FRSQ in 2010.
- Dr. Sylvie Nadeau became the Scientific Director of REPAR and promoted to full Professor in 2009.

IMPACT

- Dr. Nicole Mittmann received a capacity-building grant from the ONF to expand knowledge on economic impacts of spinal cord injury.
- Dr. Sander Hitzig was funded by the ONF/Rick Hansen Foundation Trainee Mentor Young Investigator Award.
- For Dr. Lora Giangregorio, the project facilitated training in clinical trials as part of CIHR RCT Mentoring award, applying for an Early Investigator Award, and support from University of Western Ontario (UWO) Department of Kinesiology and UWO for her application based on current productivity.
- Dr. Sander Hitzig has been instrumental in the PARQOL project, a joint project involving experts from two of the funded teams to look at the issue of participation and quality of life. Working on the PARQOL project has been a tremendous aid to his career and has raised his profile within the SCI research and clinical community

Awards received and other achievements

From students through to well-established investigators, many academic and research awards were received, as well as other notable achievements (such as media coverage) were accomplished. Following are some examples:

CRReATe

- Anne Hunt, PhD student of Dr. Deirdre Dawson, received the Beverley Jackson Fellowship from the Canadian Federation of University Women for her doctoral studies on goal setting for rehabilitation following TBI (2011).
- Arely Diaz & Janice Liew, MScOT students of Dr. Deirdre Dawson, received the Canadian Association of Occupational Therapists Student Award for Best Abstract submitted for presentation at the 2011 Conference.
- Dr. Hélène Lefebvre received the David. Strauss PhD Memorial Award by the Brain Injury Interdisciplinary Special Interest Group (BI-ISIG), American Congress of Rehabilitation Medicine (ACRM) for best poster related to community integration and TBI in 2010.
- Dr. Deirdre Dawson received the Research Award for Innovation**,** Department of Occupational Science and Therapy, Faculty of Medicine, University of Toronto in 2009.

SCImob

- Albert Vette, studying under Dr. Milos Popovic at the University of Toronto, received **over 10 awards** over the period of the grant, including fellowship awards, awards for best paper and for academic excellence.
- Four PhD Students and 6 Masters Students working under the leaders of the SCIMob team won scholarship awards ranging from $4000 to $150,000 over three years.

COM-QOL

- Valérie Lemay, a Master's degree student, was awarded the second prize (student category) for her poster presentation at the 4th SCI Conference in Niagara Falls in 2010.
- Sander Hitzig, Ph.D., Post-Doctoral Fellow, won an award for best student poster at the 9th Annual Charles H. Tator - Barbara Turnbull Lectureship Series in Spinal Cord Injury.

COSMO

- The media has had considerable interest in the work of some investigators on the COSMO team, and as a result, their research was highlighted by the media on 10 different occasions. This includes articles in The Globe and Mail and The Gazette, and radio interviews on Radio Canada and Talk Radio AM 640.

Additional research collaborations (national and international)

One of the objectives of the ONF-REPAR Partnership is to develop opportunities for research teams to interact and develop collaborations beyond their individual program areas. This has been accomplished by forming collaborations with additional researchers from Canada and internationally. A few examples are given below:

IMPACT

- Members of the Spinal Cord Injury Rehabilitation Evidence group (SCIRE group, at www.icord.org/scire) leading the work on the SCIRE tool-kit have expressed interest in determining strategies to maximize synergies between their project and the IMPACT team's work. This collaboration was initiated by Dr. William C. Miller, University of British Columbia.
- Dr Jacques Brown, M.D., and Dr Jonathan. D. Adachi, M.D., of the Canadian Multicentre Osteoporosis Study have collaborated with the team in regards to bone health.

CRReATe

- Women & TBI group, of the Brain Injury Special Interest Group, American Congress of Rehabilitation Medicine (started in part due to networking in the CRReATe team)
- Dr. Yael Goverover, Asst. Prof., NYU Steinhardt (Steinhardt School of Culture, Education and Human Development), New York, New York (co-investigator, co-presenter).
- Dr. Ben Turner, University of Queensland, Australia (co-presenter).
- Dr. Leanne Togher, University of Sydney, Australia (Dr. Guylaine LeDorze will spend part of her sabbatical in 2011 with Dr. Togher).
- Dr. Thierry Meulemans, Neuropsychologie Unit of the Faculty of Psychology and Education Science, University of Liège in Belgium. (co-investigator).

COM-QOL

- Members leading the work on the Spinal Cord Injury Rehabilitation Evidence group (SCIRE group) tool-kit have expressed interest in determining strategies to maximize synergies between their project and the COM-QOL team's work. This potential collaboration has been initiated by Dr. William C. Miller, University of British Columbia with Sander Hitzig, Ph.D. and Luc Noreau, Ph.D..

SCIMob

- Incorporation of the physical activities component (with input from Audrey Hicks into the design of the study (both languages) was undertaken to link with the exercise and physical activity component of the COM-QOL Team and the monitoring of the physical activity levels of patients by investigator Verrier in collaboration with researcher Dr. Janice Eng at the GF Strong Rehabilitation Centre, Vancouver and the University of British Columbia.

Other stakeholder collaborations (provincial, national and international)

As a means to establish connections with clinical experts, consumer-based associations and other community organizations **to broaden the reach and uptake of the research**, the ONF-REPAR Partnership teams have engaged a variety of additional stakeholders. This has served to meet one of the objectives of the ONF-REPAR Partnership; to develop opportunities for research teams to interact and develop collaborations beyond their individual program areas. Examples of such collaborations include:

CRReATe

Several members of the team work with the Ontario Brain Injury Association

Brain Injury Association of Canada (BIAC) (fostering a relationship with BIAC through inviting BIAC executive members to meet with grant PIs, and the work of Dr. Carolina Bottari and Dr. Angela Colantonio have been highlighted at the BIAC national conference).
VHA Home Healthcare, Toronto, Ontario
St. Elizabeth's Home Health Care, Markham, Ontario
Toronto Central Community Care Access Centre, Toronto, Ontario
Opportunity Centre (a joint venture of the Brain Injury Association of Waterloo-Wellington and Traverse Independence), Kitchener-Waterloo, Ontario
Centre de réadaptation Lucie Bruneau, Montréal, Québec
Institut de réadaptation Gingras-Lindsay-de-Montréal, Montréal, Québec
Centre de réadaptation Estrie, Sherbrooke, Québec
Centre de réadaptation en déficience physique Le Bouclier, Joliette, Québec
Centre Montérégien de réadaptation, Saint-Hubert, Québec

Various consumer, clinical and policy organization stakeholders were invited to the inaugural Women and TBI planning and dissemination meeting in October 2010 and were instrumental in providing input to the emerging research agenda.

The President of the Ontario Society of Occupational Therapists recently contacted three team members (Colantonio, Dawson & Hebert) to comment on the proposed changes in legislation regarding the definition of a catastrophic injury. Important to note is that these three team members were the only academic contacts made by the organization in recognition of their expertise and activity in this area.

HIPE
Relationships were established with 17 program managers in ABI/TBI programs across Québec and Ontario. These program managers agreed to champion the HIPE project at their respective facilities. Some were interviewed and provided information for the environmental scan or verbally agreed to sign departmental impact forms and help recruitment for the HIPE survey.

These relationships will be cultivated as they are asked to inform the research team about their perceptions regarding certain clinical realities. The collaborations will continue as the research team shares study results and information regarding the next steps.

COSMO
Collaboration occurred with clinicians via focus groups conducted through the period of the grant.

Mary-Kay Messier, vice president of Business Development of Cascade Sports, along with her brother, hockey legend Mark Messier, and the leaders in head protection at Cascade Sports, has helped create "The Messier Project", a public awareness and product development campaign to address the issue of concussion in hockey, change priorities in the sport and promote safe play.

SCIMob

Collaborations have been formed with Monique Provost, Moelle épinière et motricité Québec, and Peter Athanasopoulos, Canadian Paraplegic Association, Ontario. The research team work with cadre of some additional 30 physical therapists that benefit directly from the studies by informing their clinical practice about new assessments and approaches to therapeutic interventions that are being researched.

Lessons Learned

When a program is attempted for the first time, there are always lessons to be learned by the initiators of the program, in this case ONF and REPAR, as well as the recipients of the program; the research teams. Lessons can be positive, as highlighted throughout this report or challenging to address.

As previously mentioned, the ONF-REPAR Partnership developed a working relationship with the funded research teams early on, and have been receptive to learning about the facilitators as well as the challenges of working in multi-centre, cross provincial, multi-disciplinary teams.

The following represent some of the lessons learned during the three funding years of the TDRP.

- Ontario **ethics approval processes** often pose challenges. It has become apparent that the way ethics approval is set up in Québec is more effective for researchers working at multiple sites.

- All the teams have noted that **rehabilitation research** continues to suffer from a lack of presence and priority at the Canadian Institutes of Health Research.

- Natural lessons began to emerge about working in teams. Teams had to determine the optimal **number of members and balance of perspectives**, so that members were engaged and could see a role for themselves. As always there were team members that were more engaged than others. In some cases individuals pulled out when they were not contributing sufficiently.

- It was recognized that offering the the **Neurotrauma Summer Student Exchange Program** was somewhat premature in 2006 and 2007, as it occurred before the interprovincial collaborations really took shape.

- The approach taken by ONF and REPAR to "match-make" researchers with similar areas of interest and to provide the opportunity (Ottawa-May, 2007) for them to meet and begin collaborating on research ideas was one of the keys to the success of team development.

- When bringing researchers together to collaborate, it is essential to have a tangible funding opportunity for them to respond to in order to solidify their good intentions and enable true engagement.

Conclusions and Next Steps

The ONF-REPAR Partnership has proven to be a successful one; building on existing strengths of neurotrauma rehabilitation and community-based research in Québec and Ontario and taking it to the next level. The collaborative nature of the work, the outcomes, the reach and range of the teams' expertise has grown considerably as a result of the Team Development and Research Program. Rehabilitation research in SCI and ABI in the two provinces is stronger than ever before.

ONF and REPAR have succeeded in fostering research that can impact clinical practice in a manner that far outweighs the modest investments of the partners.

ONF and REPAR, in evaluating the operations and achievements of the partnership over the past four years, have concluded that there is still more to be done. The partners decided to continue to jointly support the six research teams to take their work to the next level. Phase II of the Team Development and Research Program will be focused on building even more capacity within and among teams, on further connecting research to clinical practice, and in cross-team activity. It is hoped that this continued funding will result in even further impacts to the neurotrauma field, in Ontario and Québec and beyond.

Appendix 1

TDRP Funded Projects – Summaries

COM-QOL - Towards Interventions Focusing on Community Living and Quality of Life for Individuals with Spinal Cord Injury – Noreau, Boschen et al.

The research team will focus its research on community living and quality of life (COM-QOL) in individuals with SCI. As COM-QOL are considered the ultimate outcomes of rehabilitation, the research team will concentrate the first part of its program to enhance capacities to adequately assess these concepts. The second aspect of the research program will address issues of intervention efficacy in different areas related to rehabilitation and COM-QOL. The third aspect of the research program will address the impact of social policies on COM-QOL, including those related to employment and housing.

Other intervention-related dimensions such as pain management and coping strategies have been seen as important determinants of COM-QOL and they will be considered as a priority following subsequent development to enhance is capacity to address these issues. Building capacities is a new context of inter-provincial collaboration requires prerequisites that the research team intends to establish during the funding period. First, experimenting with methodologies and implementing projects in the other province (from an operational perspective) is essential to show the capacity of the team to carry out large inter-provincial projects that have been pre-tested. Second, collecting pilot data is seen as critical to enhancing the likelihood of success in national funding competitions. Third, transferring expertise across projects of fields is important to develop or strengthen research hypotheses and methods. Therefore, the team will concentrate its efforts to meet these prerequisites to successful capacity-building.

HIPE - Head Injury Partnership Endeavour – Swaine,Cullen et al.

Rehabilitation and social integration support programs (acute care to community support) have been developed in Québec and Ontario to address the complex needs of head injury (HI) survivors. Current programs typically incorporate components that are mainly based on a large body of clinical wisdom (e.g. views of service providers, administrators, and funding agencies) and partly on the literature that provides a limited number of evidence-based standards of care. As such, it is well recognized that variation in practice exists in currents HI rehabilitation settings both within and between facilities. Moreover, there is no scientific evidence to indicate which model of care results in better outcomes.

<u>Long term goals:</u>

- identify practice variations in acute care and rehabilitation services to HI patients in Ontario and Québec
- estimate the relative extent of inter-facility verses inter-provincial differences
- provide recommendations regarding consistency and access to care across the provinces
- create a research team that will develop a project assessing the impact of differences in treatment availability in Québec and Ontario on patient outcomes that would be suitable for an application for funding to the Canadian Institutes for Health Research or Canadian Health Services Research Foundation

Short term goals:

- design and test a questionnaire regarding the scope of clinical practice provided to HI patients in both acute care and rehabilitation facilities
- conduct an environmental scan of services available to adult HI patients across Ontario and Québec including the referral processes to HI rehabilitation from tertiary care centres
- test the feasibility of using an existing tool as part of routine care to measure patients' perceptions regarding the quality of the current rehabilitation services in Ontario and Québec
- develop an inventory of exciting databases pertinent to HI service delivery and the available data elements that could be used to evaluate the services in Ontario and Québec
- recruit additional researchers in Ontario and Québec with complementary expertise to that of current team members to build capacity in this important area of HI research

SCImob: Enhancing Mobility for Persons with SCI Through a Concerted Translational Rehabilitation Research Approach –Verrier, Assaioui, Nadeau, Popovic et al.

The SCImob team was established to create, for the first time, a collaborative inter-provincial team capable of doing translational research in locomotion to inform clinical practice. Given that Ontario and Québec already have established internationally recognized individual research programs in SCI rehabilitation, SCImob decided to organize and partner their individual efforts by creating a research agenda directed towards mobility for persons with SCI (including sitting, wheeling, standing, and walking); thus providing a targeted approach to mobility needs to be developed and translated into best practices.

The SCImob teams approach will be designed to have impact on functional restoration, enhanced mobility, improved health status and quality of life for individuals with SCI. The standing/walking theme will focus on individuals with ASIA C and D SCI while wheeling/sitting theme will focus on individuals with ASIA A through C SCI. Emphasis is placed on acute and sub-acute patient populations in order to address the rehabilitation component. However, the SCImob team has a strong track record in working with chronic patients and intend to continue expanding that research program as well when it provides added value to current team activities.

COSMO - Understanding and Measuring Integrated Cognition, Motor, Sensory and Psychosocial Functioning in Ecologically Valid Contexts, to Improve Diagnosis, Prognosis and Treatment Following TBI - MacFadyen, Green et al.

The program of research is motivated by fundamental gaps in the field of traumatic brain injury (TBI) neurorehabilitation concerning (1) our understanding of the relationships between cognitive, motor, sensory and psychosocial capacities (any or all of which may be disrupted after brain injury) and (2) the role of different, personally relevant contexts for the measurement of these capacities. Interventions are suggested to facilitate reintegration into the community and improve quality of life. Impairments to individual capacities, and the functional consequences of these impairments, are typically studied and measured independently of one another, although with some exceptions. Such capacities are also often studied only at discrete periods of time rather than longitudinally. Consequently we lack an understanding of mechanisms for impaired capacities and standardized techniques to measure them as they manifest in everyday life.

The primary long-term objectives of this program of research are twofold:

- provide ecologically valid, standardized measures of disability across varying levels of TBI severity that are (i) multi-faceted, measuring concurrent operation of cognitive, sensory, motor and psychosocial functions and (ii) meaningfully contextualized and,
- develop a greater understanding of the normal and abnormal mechanisms of concurrent cognitive, sensory, motor and psychosocial functions (i) in healthy and brain injured people and (ii) during recovery from brain injury.

The primary short-term objectives include the following:

- undertake focus groups with consumers and other stakeholders to obtain insights and suggestions in relation to our objectives;
- finalize team membership and specific foci in relation to functions and populations to be targeted;
- coordinate a range of multi-centre, cross-provincial, pilot studies examining combinations of multi-modal functions.

Transforming community integration for survivors of ABI. - Dawson, Lefebvre, Bottari et al.

The problems of survivors of traumatic brain injury (TBI) experience affect not only the individual with TBI but also their family and care-givers. The problems include but are not restricted to: social isolation, lack of engagement in meaningful activity, psychosocial distress, and addiction. Even ten years after their trauma, many continue to have problems completing daily activities and are unable to develop and carry-out multi-step plans, participate in leisure activities or maintain social or family relationships.

The study's primary long-term objectives are:

- To elaborate a model of community integration for adults who have sustained moderate to severe TBI's the elucidate factors to be considered in the development of approaches in achieving successful community integration; and 2. to accumulate and build evidence for the best approaches to mediate and maintain successful community integration.

Short-term study objectives include:

- share key information in both French and English;
- clarify and explicate problems and needs by undertaking focus groups with key stakeholders including consumers, caregivers, clinicians, policy makers, etc.; and
- coordinating a range of multi-centre, cross-provincial pilot studies examining the efficacy of various approaches to enhancing community integration. The researchers will develop new approaches to community integration, and build on existing work and knowledge.

The research program will begin by combining the best elements of the Habilis Program, an intervention shown to help families, caregivers and persons with TBI develop life skills and social roles with key features of the Cognitive Orientation to Occupational Performance (CO-OP). The CO-OP approach involves identifying meaningful, individualized goals for participants and teaching them to use a strategy to achieve these, as well as other community goals. This combined approach will be piloted using single case studies with face-to-face interactions. Once the procedures are established, the study will move to single case studies using the web technology to enable the researchers to reach rural areas.

SCI Impact Team – Craven , Courtois et al.

The overall objective of the SCI-IMPACT team is to capture and address (prevent/treat) the health, psychosocial, and economic impact of secondary complications of spinal cord injury (SCI). Secondary health complication (SHC) is defined as a health condition that the person develops as a direct consequence of his/her SCI, or a health condition which may occur in the general population but with increased frequency among people with SCI. SHC's are distinct from the neurologic sequelae of injury. Common SHC following SCI include urinary tract infections, pressure sores, bowel problems, spasticity, fractures, chronic pain, depression, sexual dysfunction, and autonomic dysreflexia. The myriad of SHCs after SCI and the many ways in which they affect the health and wellbeing of people with SCI necessitates attention from a comprehensive team with diverse clinical and research expertise. The diverse expertise on the SCI-IMPACT team enables the study of SHCs from a variety of perspectives including: the prevention, treatment, measurement, and amelioration of SHC and their sequelae. There are five working group pilot projects:

1) SEXerSCI - will assess the acute and chronic effects of exercise training on autonomic dysreflexia (AD) during Vibro ejaculation in men with SCI. A parallel objective is to implement an existing line of research from Québec, regarding AD and vibro ejaculation, into an ongoing exercise study in Ontario. This prospective case series will have direct clinical application in integrating exercise training as a means to reduce or prevent autonomic dysreflexia (AD) in men with SCI undergoing ejaculation testing.

2) ParQOL - will identify and recommend the use of appropriate measures of participation and quality of life (QOL) for projects investigating the impact of SHC after SCI. The results of this systematic review will form the basis of guidelines on QOL and participation measures for SCI-related SHC research allowing for future comparison of the results across studies.

3) Neurogenic Bowel Consumer Perspective - explores both positive and negative experiences related to neurogenic bowel care from the perspective of patients with SCI and explores how the "bowel care experience" changes over time using a phenomenologic approach (qualitative study). The results of this qualitative study will inform the selection of items for inclusion in a new outcome measure evaluating neurogenic bowel care.

4) Knee DXA Dissemination - will disseminate a reliable and valid measure of knee region BMD to SCI rehabilitation centres in Québec and evaluate the success of this knowledge mobilization effort. The aim is to change the current standard of patient care related to osteoporosis in both provinces and assist in the development of infrastructure for future observational research and multi-centre intervention studies to reduce lower extremity fragility fracture incidence after SCI.

5) Pressure Sores Costing Tool - seek to develop a costing methodology for measuring the economic and personal burden of pressure sores (societal) and the incremental savings associated with Electrical Stimulation Therapy implementation in Ontario and Québec. The results of this study will assist in refining an economic outcome measure to be used in a larger scale multi-centre health services research endeavor.

Appendix 2

Knowledge Dissemination Activities

Conference Presentations, Symposia and Workshops

COSMO

Fait P. Alterations in locomotor ability in complex environments 30 days following concussion in elite athletes. In R. Green and B. McFadyen, *The need for early and accurate diagnosis of mild traumatic brain injury and advances in behavioural and neuroimaging diagnostic research.* Symposium conducted at the ACMR-ASNR Joint Educational Conference, Montreal, October 2010.

Green R. Diagnosis of single case mild traumatic brain injury using diffusion tensor imaging. In R. Green and B. McFadyen, *The need for early and accurate diagnosis of mild traumatic brain injury and advances in behavioural and neuroimaging diagnostic research.* Symposium conducted at the ACMR-ASNR Joint Educational Conference, Montreal, October 2010.

Keightley M. Sports-related mild traumatic brain injury in a pediatric population: Diagnosis and recovery. In R. Green and B. McFadyen, *The need for early and accurate diagnosis of mild traumatic brain injury and advances in behavioural and neuroimaging diagnostic research.* Symposium conducted at the ACMR-ASNR Joint Educational Conference, Montreal, October 2010

McFadyen BJ. A "Janus perspective" on diagnosing mild traumatic brain injuries. In R. Green and B. McFadyen, *The need for early and accurate diagnosis of mild traumatic brain injury and advances in behavioural and neuroimaging diagnostic research.* Symposium conducted at the ACMR-ASNR Joint Educational Conference, Montreal, October 2010.

Ptito A. On the nature of post-concussive symptoms: insights from functional neuroimaging and event-related potentials. In R. Green and B. McFadyen, *The need for early and accurate diagnosis of mild traumatic brain injury and advances in behavioural and neuroimaging diagnostic research.* Symposium conducted at the ACMR-ASNR Joint Educational Conference, Montreal, October 2010.

Messier MK.. The Messier Project (**In R. Green and B. McFadyen**), *The need for early and accurate diagnosis of mild traumatic brain injury and advances in behavioural and neuroimaging diagnostic research.* Symposium conducted at the ACMR-ASNR Joint Educational Conference, Montreal, October 2010

Green R. (2011). The reliable diagnosis of mild TBI: Clinical need, current limitations, and promising new developments using diffusion tensor imaging. *Mild Traumatic Brain Injury: Challenges and Controversies in Research,* Toronto, February

Bradbury C, **Koshimori Y, Green, R.** Improving diagnosis of mild traumatic brain injury in people with traumatic spinal cord injury. *4th National Spinal Cord Injury Conference Linking Research to Practice,* Niagara Falls, October 2010.

Bolduc-Teasdale J, Jolicoeur P, **Mckerral M.** What can electrophysiology tell us about recovery from mild TBI? *International Neuropsychological Society* Congress, Helsinki, Finland, July 2001.

Saluja RS, Chen JK, Aleong R, Leonard G, Debenham S, Paus T, **Keightley M, Gagnon I, Ptito A.** Concussions in pediatric patients: preliminary results using diffusion tensor imaging, functional MRI and neuropsychological testing. *AANS/CNS joint meeting*, Boston, December 2009.

Dade LA, Tsang C, Habib Parez O, **Zabjek K.** Divided attention while walking: The impact in children following traumatic brain injury. *National Academy of Neuropsychology*, Florida, November 2011.

SCIMOB

Popovic M, Aissaoui R, Nadeau S, Verrier M, Gagnon D, Preuss R, Duclos C., Chénier F. *Trunk Control and its Implications on Spinal Cord Injury Rehabilitation*. (1hr30 symposium), ACRM and ASNR Joint Conference, Montreal Québec , October 2010.

Gagnon D, Preuss R, and Masani K. Everything You Always Wanted to Know about Sitting and Sitting-Transfer but were Afraid to Ask (2hr workshop) , 3rd *National Spinal Cord Injury Conference* , Toronto Ontario, 2009.

Verrier M Marinho A Flett H Guy K. Posture and Mobility Assessment Benchmarks and Behavioural Outcomes in the SCI Rehabilitation, (2hr workshop) *4th National Spinal Cord Injury Linking Research to Practice.* Niagara Falls, Ontario, October 2010.

COM-QOL

Beauregard L., Noreau L., Boschen K., McColl M.A. & Tremblay J. Does Perceived Social Support relate to participation and Quality of Life? *American Spinal Injury Association's 35th Annual Scientific Meeting*. Dallas, September 23-26, 2009.

Hitzig S.L. (2010). Par-QoL: Guidelines for Evaluating the Impact of Secondary Health Conditions after Spinal Cord Injury on Participation and Quality of Life. Invited presentation to the *4th National Spinal Cord Injury Conference*, Niagara Falls, ON, October 28.

Phang S.H., Martin Ginis K.A., Lemay V. & Routhier F. (2010). Wheels in motion: mobility's relationship with self-efficacy and leisure-time physical activity in people with spinal cord injury. *Psychomotor Learning and Sport Psychology Conference*, Ottawa, Ontario. October 28-30.

Hitzig S.L., Routhier F., Craven B.C. & **Noreau L.** (2010). Par-QoL Tool-Kit: Quality of Life & Participation Measures after Spinal Cord Injury. 9th Annual Charles H. Tator - *Barbara Turnbull Lectureship Series in Spinal Cord Injury*, Toronto, ON, November 12.

Lemay V., Routhier F., Noreau L., Phang S.H. & Martin Ginis K.A. (2010). Association entre les habiletés en fauteuil roulant manuel et les déplacements en fauteuil roulant chez les personnes ayant subi une lésion à la moelle épinière. *Journée scientifique du Réseau provincial de Recherche en adaptation-réadaptation,* Centre Mont-Royal, Montréal, 7 mai.

Lemay V., Routhier F. & Noreau L. Mesure écologique des déplacements en fauteuil roulant manuel: données préliminaires. *Journée scientifique et professionnelle, Institut de réadaptation en déficience physique de Québec*, Québec, 4 juin, 2010.

Lemay V., Routhier F. & Noreau L. Mesure écologique des déplacements en fauteuil roulant manuel: données préliminaires. *5ième Journée des étudiants du CIRRIS*, Québec, Québec, Canada, 12 février, 2010.

Martin Ginis K.A. Les innovations de l'étude et de la promotion de l'activité physique pour les personnes avec des lésions médullaires. *Colloque Lésions Médullaires*, November, 2010.

Martin Ginis K.A.. SCI Action Canada: Promotion de l'activité physique pour les personnes avec des lésions médullaires. *Midi conférence du Centre Interdisciplinaire de Recherche en Réadaptation et Intégration Sociale (CIRRIS)*, Québec, QC, January 2010.

Phang S.H., Martin Ginis K.A., Lemay V. & Routhier F. Wheelchair in Motion: Wheelchair mobility and its relationship with physical activity and self-efficacy. *Patient and Family Education Session*, TRI-Lyndhurst Centre, Toronto, Ontario, April 28, 2010.

Hitzig SL. Par-QoL: Guidelines for Evaluating the Impact of Secondary Health Conditions after Spinal Cord Injury on Participation and Quality of Life. Invited presentation to the *4th National Spinal Cord Injury Conference*, Niagara Falls, ON, October 28**,** 2010.

CReEATE

Dawson D, Carbonneau, H., Turner, B. *Joint meeting of the ACRM & ASNR*. Denver, Colarado. Oct. 2009. Community integration following TBI: The importance of Meaning.

Wiseman-Hakes, C., **Colantonio A.,** Murray, B., Seyone, C., & Cullen N. Sleep-Wake Disturbances Following Traumatic Brain Injury. Symposium presented at the *American Congress of Rehabilitation Medicine*, 2010 Meeting, October, 2010, Montreal, Québec.

Hunt, A., Polatajko, H., & **Dawson, D**. *Toronto ABI Network Conference*, Toronto. November 2008. Using the Cognitive Orientation to Occupational Performance with adults with ABI: A Primer. Interactive workshop.

Dawson D, Bottari C. *Joint meeting of the ACRM & ASNR.* Toronto, ON. Oct. 2008. Community integration following TBI: International Perspectives. Symposium presentation.

Lefebvre, H. (accepté). Accompagnement Personnalisé d'Intégration Communautaire en soutien à la participation sociale et à la résilience**.** *Conférence nationale en soins infirmiers de réadaptation de l'Association canadienne des infirmières et infirmiers en réadaptation (ACIIR)*, Laval, Québec. septembre 2011.

Lefebvre, H , Levert, M.J , **Bottari, C. , Gélinas,** I. , Croteau C., **LeDorze G.,** McKerrall, M. , Naji. R. L'histoire de Jonas : Un Accompagnement Personnalisé d'Intégration Communautaire pour les personnes traumatisées crâniennes en post-réadaptation. *XIIIe Congrès international education familiale et services pour l'enfance*. AIFREF2010. Florence 17-19 Novembre 2010. 222.

Dawson D., Andre, M., Bottari, C., Dawson, D., Lefebvre, H., Carbonneau, H.,Gelinas, I., Godbout, D., Good, D., Hebert, D., Le Dorze, G., Lemsky, D., & Colantonio, A. (2009). Transforming Community Integration for Adult Survivors of Traumatic Brain Injury, *Brain Injury Association of Canada*, Montreal, 10-12 July, 2009

Kita M, **Dawson DR,** Rappolt S. *Canadian Association of Occupational Therapists annual meeting*, Ottawa, ON. June 2009. Assessing and Measuring Work Performance at the Workplace Psychosocial considerations in Cognitive Rehabilitation.

Kita M, **Dawson DR**, Rappolt S. *3rd International Conference on Vocational Outcomes In Traumatic Brain Injury*. Vancouver, BC. May, 2009. Work Performance at the Work Place following ABI. How should we be assessing it?

Tough A, Marziali E, Damianakis T, **Dawson D**. (2010). Therapy on-line: Support for caregivers of survivors of brain injury. *Canadian Association of Occupational Therapy Conference,* Halifax.

Dawson, D., Bottari, C., & Goverover Y**.** (accepted). Understanding the impact of cognitive disorders in the real world: Approaches to Naturalistic Assessment. Accepted for symposium presentation at the 2011 *American Congress of Rehabilitation Medicine*, October 2011, Atlanta Georgia.

Peer Reviewed Published Articles

IMPACT

B.C. Craven, Robertson LA,. McGillivray CF and Adachi J.D. Detection and Treatment of Sublesional Osteoporosis Among Patients with Chronic Spinal Cord Injury: Proposed Paradigms. *Top Spinal Cord Inj Rehabil* 2009; 14(4): 1–22.

Craven BC, Giangregorio LM, Robertson LA, Delparte JJ, Ashe MC, Eng JJ. Sublesional Osteoporosis Prevention, Detection and Treatment: A Decision Guide for Rehabilitation Clinicians Treating Patients With Spinal Cord Injury. *Critical Decision Making in Rehabilitation*. 2009: 20(4):277-321.

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Kim, H., **Colantonio, A.**, Bayley, M., & **Dawson, D.** Factors related to community integration following traumatic brain injury rehabilitation. Poster presented at the *American Congress of Rehabilitation Medicine - American Society of Neurorehabilitation.* 2010 Meeting, October, 2010, Montreal, Québec.

Lefebvre, H., Levert, M-J., **Gelinas, I.,** Croteau, C., **Le Dorze, G., Bottari, C.,** McKerrall, M. (2010). Personalized accompaniment for community integration for people with traumatic brain injury in postrehabilitation. *American Congress of Rehabilitation Medicine - American Society of Neurorehabilitation (ACRS-ASNR),* Montreal, QC, October 2010.

Bottari, C. (2009). Démystifier la recherche : Mieux comprendre pour mieux intervenir, *Brain Injury Association of Canada*, Montreal, 10-12 July 2009. Presented twice, once in French, once in English.

Carbonneau, H. & Dawson,.D. Éducation au loisir et traumatisme crânien, *6e Conférence annuelle de l'Association canadienne des lésés cérébraux*, 11-12 juillet 2009, Pierrefonds, Québec.

Tough, A., Damianakis, T., Marziali, E., & **Dawson, D**. Therapy Online: The Benefits of Using a Web-based Videoconferencing Support Group for Family Caregivers of Young Adults with TBI. *Toronto ABI Network Conference,* Toronto November 2008.

Appendix 3

Leverage funding

Category A is "research or research-related funding that is approved by other funding sources and is for activity directly related to the work of an ONF-REPAR Partnership funded team". Category A funds are highlighted in **blue.**

Category B funds are also research or research-related funding that is approved by other funding sources. These funds were awarded to one or more individuals from a team for work directly related to their ONF-REPAR grant. While such awards may not include representation of the team from both provinces, the funds leverage both the team and their research program, and thus strengthen the collective ability of the ONF-REPAR team to undertake their work. Category B funds are highlighted in **orange.**

COM-QOL

Investigators	Project Title	Funding Agency/Source	Dates	Amount
Martin-Ginis, K. Latimer, A.	Development, Evaluation, and Knowledge Mobilization of Physical Activity Interventions for People with Spinal Cord Injury.	Rick Hansen Foundation - SCI Solutions Network Grant	2010-11	$110,000
Beauregard, L. Noreau, L. Boucher, N. Lefebvre, H.	La contribution de l'environnement lors du retour à la communauté des personnes ayant une lésion médullaire.	FRSQ - Consortium de traumatologie	2009-11	$150,000
Hicks, A. Latimer, A.	Incorporation of Physical Activity into the Rehabilitation Process after SCI.	SCI Solutions Network	2009-12	$465,324
Latimer, A.	Developing Intervention Models and Dissemination Strategies for Promoting Physical Activity for Adults with a Mobility Impairment	Canada Foundation for Innovation - Leaders Opportunity Fund & Ontario Ministry of Research and Innovation	2009-14	$237,500
Routhier, F.	Impact des habiletés en fauteuil roulant manuel sur la participation sociale chez les personnes ayant subi une lésion de la moelle épinière: étude pilote	Fondation pour la recherche sur la moelle épinière	2010-11	$10,000
Routhier, F. Noreau, L. Gagnon, D. Boissy, P. Archambault, P.	Impact des habiletés en fauteuil roulant manuel sur la participation sociale chez les personnes ayant subi une lésion de la moelle épinière	FRSQ - Consortium de traumatologie	2010-12	$149,950

Miller, W. **Routhier, F.** Backman, C. Eng, J.	Confidence using a wheelchair as a predictor of participation in older adults: a pilot study	Canadian Institutes of Health Research – Catalyst grant	2010-11	$50,000
Latimer, A.	Optimizing the Impact of Persuasive Messages Encouraging Canadians to Participate in Physical Activity	Ontario Ministry of Research and Innovation - Early Researcher Award	2010-15	$150,000
Latimer, A.	Physical Activity Promotion and Disability	Canadian Research Chairs Program - CIHR	2010-15	$500,000
Lemay, V.	M.Sc. Grant	CIRRIS & Fondation pour la recherche sur la moelle épinière	2008-09	$10,000
Lemay, V.	M.Sc. Grant	CIRRIS	2009-10	$10,000
Martin-Ginis, K.A. Latimer, A. Arbour, K.P.	Get in Motion	Rick Hansen Foundation - SCI Solutions Network	2009-10	$35,801
Martin Ginis KA Hicks AL	Development of physical activity guidelines for people with SCI	Rick Hansen Foundation - SCI Solutions Network	2009-10	$54,000

SCI Mob

Investigators	Project Title	Funding Agency/Source	Dates	Amount
Nadeau, Verrier, Aissaoui, Burns, Craven, Duclos, Hicks, Gagnon, Jacquemin, Masani, Popovic	Understanding the links between postural control and mobility activities	Craig Neilson Foundation	2010-2012	$249,003
Gagnon; Nadeau, Popovic	Sitting pivot transfers in individuals with spinal cord injury: Minimizing upper extremity risk exposure and maximizing performance	Spinal Cord Injury Solutions Network	2009-11	$97,764
Popovic: Craven, Masani, Verrier	Neuroprosthesis for sitting for individuals with spinal cord injury	Canadian Institutes of Health Research	2009-12	$156,382
Beaumont	Function of the lumbar spinal cord after a spinal cord injury	Natural Sciences and Engineering Research Council of Canada (NSERC)	2009-10	$25,000

Barthelemy	Locomotion in spinal cord injured individuals Rôle de la voie corticospinale dans la récupération locomotrice après lésion de la moelle épinière	Canadian Institutes of Health Research (CIHR) Postdoctoral fellowship	2009	$180,000
Nadeau	Senior Research Award	FRSQ	2008-12	$352,880
Co-Applicant : **Nadeau**	Formation multi/interdisciplinaire et traitement des troubles de la mobilité et de la posture (Programme Mentor)	Canadian Institutes of Health Research (CIHR)	2009-15	$1,500,000
Nadeau, Duclos. Gagnon	Laboratory for assessment of prolonged activities linked to mobility	Canada Foundation for Innovation (CFI)	2009-12	$600,000

COSMO

Investigators	Project Title	Funding Agency/Source	Dates	Amount
R Forget J Faubert, **M McKerral,** **I Gagnon**	Visual perception deficits in children after mild traumatic brain injury: psychophysics, electrophysiology and impact on postural stability	Canadian Institutes of Health Research (CIHR)	2008-13	$685,803
Supervisor: **Karl Zabjek** Student: Andrew Schepmyer	Determinants of safe mobility in individuals who use assistive mobility devices	CIHR - Summer Studentship: Mobility, musculoskeletal, oral, and skin health and arthritis across the lifespan	2009-10	$4,950
Supervisor: **Karl Zabjek** Student: Andrew Schepmyer	Determinants of safe mobility in individuals who use assistive mobility devices	Comprehensive Research Experience for Medical Students (CREMS). Faculty of Medicine summer studentship	2008-09	$2,500

IMPACT and COM-QOL (PARQOL)

Investigators	Project Title	Funding Agency/Source	Dates	Amount
Craven BC, Boschen KA, Noreau L, Katz J, Mittmann N, Campbell K, **Hitzig, S.L. Wolfe D,**	Chronic Pain and Fractures After Spinal Cord Injury (SCI): Impact on Costs of Care and Quality of Life.	Physicians Services Incorporated Foundation (The) (PSI).	2008-11	$162,000

Stacey M, Swaine J, **Hayes K. Craven BC,** Campbell K, **Wolfe DL,** McGillivray CF, Walker K	AusCAN Risk Assessment for Sitting Acquired Pressure Ulcers	Ontario Neurotrauma Foundation (ONF) funds as a component of an international partnership with Victorian Neurotrauma Initiative and Western Australia Collaborative	2010-12	$569,250 = Australian portion

CREeATe

Investigators	Project Title	Funding Agency/Source	Dates	Amount
Bottari, C., Le Dorze, G., Gosselin, N., **Dawson, D.,** Goverover, Y., Meulemans, T.	Stratégies métacognitives qui facilitent l'indépendance dans le quotidien des personnes ayant subi un traumatisme craniocérébral	FRSQ	2011-12	$20,000
LeDorze, G., Croteau, C. **Lefebvre, H.,** Michallet, B., **Bottari, C.,** Gagon, J., **Dawson, D**	La communication avec son environnement social comme facteur déterminant de la participation sociale des personnes atteintes d'un TCC. Synthèse des connaissances pour concevoir à nouveau la réadaptation	FRSQ	2011-13	$50,000
Dawson, D., Anderson N, **Bottari, C.,** Damianakis T., Polatajko H., Zwarenstein M. et al	Managing the Dysexecutive Syndrome following traumatic brain injury: An ecologically valid rehabilitation approach.	CIHR Operating Grant	2011-14	$433,527
Colantonio A. & Harris J., Yoshida K. **Lefebvre H, Swaine B**., **Dawson D,** Kontos P & Velikonia D.	Women and Traumatic Brain Injury: Advancing the Agenda for Health	CIHR Meeting & Planning Grant	2010-11	$14,100
Lefebvre, H., Gelinas, I, Bottari, C., Ledorze, G. et collaborateurs	Évaluation d'une intervention d'accompagnement personnalisée en integration dans la communauté pour les personnes ayant un traumatisme crânien	CIHR Operating Grant	2011-12	$71,912
Carbonneau, H.	Pratiques de loisir à risque chez les hommes de 12 à 24 ans: Identification des facteurs de risques et de prévention	Emerging researcher Université du Québec à Trois-Rivières	2010	$8,000

Appendix 4

Students trained

(other than the seven trained under Neurotrauma Summer Student Exchange Program)

IMPACT

Student	Institution	Level of Study	Status
Kayla Hummel	University of Waterloo	MA	thesis defended
Julia Totosy	University of Waterloo	MA	thesis defended
Cameron Moore	University of Waterloo	B.Sc.	graduated BS (Hon.)
Dee Naidu	University of Waterloo	Undergraduate	In progress
Brian Chan	University of Toronto	M.Sc	In progress
Jacqueline Cramp	Brock University	M.Sc.	In progress
Magalie Côté	Université Laval	Ph.D	Withdrew

CReEATE

Student	Institution	Level of Study	Status
Jocelyn Harris	University of Toronto	PDF	Completed
Edith Ng	University of Toronto	MSc	Completed
Andre, Melanie	University of Toronto	MSc	Completed
Tough, Alicia	University of Toronto	MScOT	Completed
Mari, Danielle	University of Toronto	MScOT	Completed
Trueman, Megan	University of Toronto	MScOT	Completed
Ryu, Won HA	University of Toronto	MSc	Completed
Anne Marie Lanoue	Université de Montréal	MScOT	In Progress
Kai Lai Lau	Université de Montréal	MScOT	In Progress
Cloé Stuelsatz	Université de Montréal	MScOT	In Progress
Cybèle Canada	Université de Montréal	MScOT	In Progress
Noémi Bellemo	Université de Montréal	MScOT	In Progress
Si Chaib Hadjer	Université de Montréal	MScOT	In Progress
Marie Pascale	Université de Montréal	MScOT	In Progress
Jenny Desbiens	Université de Montréal	MScOT	In Progress
Marie-Pierre Lamothe	Université de Montréal	MScOT	In Progress
Courtney Brennan	University of Toronto	MScOT	Completed
Rachel Pound	University of Toronto	MScOT	Completed
Judith Villeneuve	Université de Montréal	MA	In Progress
Dominique Naud	Université de Montréal	MA	In Progress
Josée-Anne Simard	Université de Montréal	MA	In Progress
Anna Zumbansen	Université de Montréal	MA	In Progress
Mary Kita	University of Toronto	PhD	Completed
Gauvin-Lepage, Jérôme	Université de Montréal	PhD	In Progress
Anne Hunt	University of Toronto	PhD	In Progress

COSMO

Student	Institution	Level of Study	Status
Diana Frasca	University of Toronto	PhD	In progress
Justin Chee	University of Toronto	MSc	completed
Nick Reed	University of Toronto	PhD	In progress
Sanjay Prajapati	University of Toronto	M.Sc	Completed
Philip Fait	Université Laval	PhD	Completed
Yuko Koshimori	University of Toronto	MSc	Completed

COM-QOL

Student	Institution	Level of Study	Status
Hoong Phang	McMaster University	M.Sc.	Completed
Valérie Lemay	Université Laval	Masters	Completed
Gaëlle Bonnet	Université Laval	Masters	In progress
Marianne Provencher	Université Laval	Masters	In progress
Josiane Lettre	Université Laval	Undergraduate	In progress
Pier-Éric Chamberland	Université Laval	Undergraduate	Completed

SCIMob

Student	Institution	Level of Study	Status
Dr. Dimitry Sayenko	Toronto Rehab-UHN	Post docFellowship	Active
Albert Vette	University of Toronto	PhD	Graduated
Andresa R. Marinho	University of Toronto	PhD	Candidate
Sharon Gabison	University of Toronto	PhD	Candidate
Lemay, Jean-François.	Université de Montréal	MsC	Completed
Félix Chénier	École de Technologie supérieure	PhD	Candidate
Meredith Kuipers	University of Toronto	Masters	Candidate
Noel Wu	University of Toronto	Masters	Graduated
Kristina Guy	University of Toronto	Masters	Candidate
Véronique Maheu	École de Technologie supérieure	Masters	Graduated
Mateja Milosevic	University of Toronto	PhD	Candidate
Vivian Sin	University of Toronto	Masters	Graduated
Ubaldo Garcia	UnivIberoamericana, Mexico City,	Undergraduate	Graduated
Marisol Martinez	UnivIberoamericana, Mexico City,	Undergraduate	Graduated
Julie Ratelle	École de Technologie supérieure	Undergraduate	Candidate
Kevin Dubord	École de Technologie supérieure	Undergraduate	Candidate
Rasha Katob	University of Waterloo	Undergraduate	Candidate
Daley Zapparoli	University of Waterloo	Undergraduate	Candidate

Brian Pearce	University of Waterloo	Undergraduate	Candidate
Émilie Desrosiers	Université de Montréal	Undergraduate	In progress
Erin Cole	McMaster	Undergraduate	Candidate
Miyuki Tsukimoto	University of Toronto	Masters	Candidate