Why we believe in this Partnership.

And why you should, too.

HEART & STROKE FOUNDATION
Canadian Partnership for Stroke Recovery

2015-16 Annual Report

About Us

The HSF Canadian Partnership for Stroke Recovery is a joint initiative of the Heart and Stroke Foundation and Canada's leading stroke recovery research centres. Headquartered at the University of Ottawa, the Partnership is restoring lives through research.

To learn more about the Partnership, visit **www.canadianstroke.ca**

Like us on Facebook **www.facebook.com/CanadianStroke**

Follow us on Twitter **www.twitter.com/HSFCSR**

- ***Game-Changing Research***
- ***Committed Researchers***
- ***Invested Partners***
- ***Innovative Tools and Resources***
- ***Top Training Program***
- ***Engaged Stroke Community***

Management Message

Meet our management team and find out what motivates them:

Barry Cracower

Traveler, photographer, volunteer

CPSR Chair of the Board

During my time on the Board, I've visited many stroke recovery research centres and I've seen and heard how CPSR scientists change lives. Our success stories (and there are many) lay a path for new, more effective, research-proven approaches to rehabilitation and recovery.

Stroke happens far too often and affects too many families. Hundreds of thousands of Canadians live with the physical, mental and emotional challenges of stroke recovery, not only as patients but as care partners. They are our neighbours, friends, loved-ones, and even some of my colleagues on the CPSR Board.

Advances can't come soon enough.

As a businessman and a family man, I believe this unique partnership is a blue-chip investment for Canada that will deliver meaningful results for individuals and society.

A bit about Barry:

A successful businessman who founded Rexall Drug Stores, Barry is well-respected for his volunteer work to benefit society. He has chaired the CPSR Board for three years and served on the Board of the Heart and Stroke Foundation for more than a decade. He has also been a member of the Board of Baycrest Health Sciences and he is Chair of the Board of DAREarts, a foundation that empowers at-risk kids with life skills to become leaders using the arts.

Success Story

Ken Clift was only 51 when two sudden strokes left him with blindness in one eye, an immobile left arm and hand, and a weak left leg. "If somebody had told me I would have a stroke, I would have laughed at them," says the former customer service representative with a Newfoundland flooring company. His life literally changed overnight. Three years later, Mr. Clift continues to battle back from stroke as a participant in a Memorial University research trial, funded by CPSR, into cognitive and physical exercise post-stroke. Since joining the study, he can walk up steps, his knee and ankle are stronger and he is no longer dragging his toes. "I find a big difference since I started this," Mr. Clift says. What does improved recovery mean to him? He can take his cane and walk around the duck pond near his home. Inside the house, he can move around unaided. "I can't stand relying on anyone," he says. More research into recovery is needed to help the 405,000 Canadians living with long-term stroke disability, Mr. Clift says.

In the last three years:

CPSR has developed into a vibrant, productive, national research network in stroke recovery.

- Catalyzed national research collaborations
- Developed a vibrant base of more than 100 trainees
- Leveraged $3M in external funding
- Added three new institutions in three different provinces

Dr. Dale Corbett

Neuroscientist, skier, hiker, cat-lover

CPSR Scientific Director and CEO

For the vast majority of people who have a stroke, rehabilitation offers the greatest hope. My research looks at how the brain reorganizes and "rewires" itself after injury. Such knowledge is essential to make rehabilitation more effective.

Stroke recovery and brain repair is a complex problem that requires the efforts of scientists and clinicians from a variety of disciplines working in partnership.

Management Message

Meet our management team and find out what motivates them:

In the last three years:

CPSR has added value to all key stakeholders: stroke community, clinicians, researchers, and research institutions.

- Implemented evidence-based clinical practice
- Developed a knowledge translation program
- Involved the stroke community in setting priorities and evaluating research proposals
- Developed four national research platforms covering the continuum of research from basic to clinical

The CPSR's basic and clinical scientists, many of whom are world leaders in stroke recovery, work in a highly collaborative research environment. Their research is guided by the most pressing problems facing individuals with stroke. This "Bedside-to-Bench-and-Back" approach is what sets the CPSR apart from other organizations around the world.

As Scientific Director, I strongly believe that we can develop game-changing therapies to dramatically improve the lives of people living with stroke and, for me, this an opportunity of a lifetime.

A bit about Dale:

As a faculty member at Harvard University, Dale became friends with a pediatric cardiac surgeon who was looking for a way to protect the brains of children at risk for a stroke-like injury during heart surgery. His work inspired Dale to enter the stroke field. The rest is history - later at Memorial University Dale's lab discovered that mild hypothermia, if applied for hours, protects the brain against injury. Today, therapeutic hypothermia is used worldwide for treating cardiac arrest, perinatal asphyxia with trials in stroke underway. Dale now brings the same inspiration and creativity to his research on stroke recovery.

Katie Lafferty

Business owner, artist, power-walker

CPSR Executive Director

For me, making a difference in the lives of people affected by stroke has always been a very personal mission. When I was 14, my grandfather died suddenly from a stroke. We never really had a chance to say goodbye. In my 20s, my great aunt suffered a stroke.

A couple of years later, my beloved grandmother, a practising internist and cardiologist, had a stroke. While her physical impairments weren't grave, her cognitive challenges and aphasia caused a dramatic change to her personality. A vibrant, sharp, energetic and passionate person by nature, she became withdrawn, depressed, and in need of support. Occasionally I would look into my grandmother's eyes and she would look like she was apologizing. As a doctor she knew what had happened to her, but was powerless to fix it.

Not long after her passing, I was offered a chance to work in a management role at the Canadian Stroke Network. Twelve years later, I eagerly joined the HSF Canadian Partnership for Stroke Recovery. It was an opportunity to focus all my attention on the part of stroke that was always the most meaningful to me: recovery.

Recovery and rehabilitation researchers in Canada are nothing short of inspiring. It is just a matter of time before we have some breakthroughs that will make a dramatic difference for those living with stroke and their families. For me this is not a job, it is a mission. If my parents, my in-laws, or my husband or I have a stroke, I want my son and daughter to know there is hope. Recovery is possible.

A bit about Katie:

Katie Lafferty led one of Canada's most successful-ever Networks of Centres of Excellence and championed the establishment of the Canadian Stroke Strategy and the Canadian Stroke Congress. Katie is on the Board of Governors of The Ottawa Hospital and she and her pharmacist-husband own two independent community pharmacies in Ottawa.

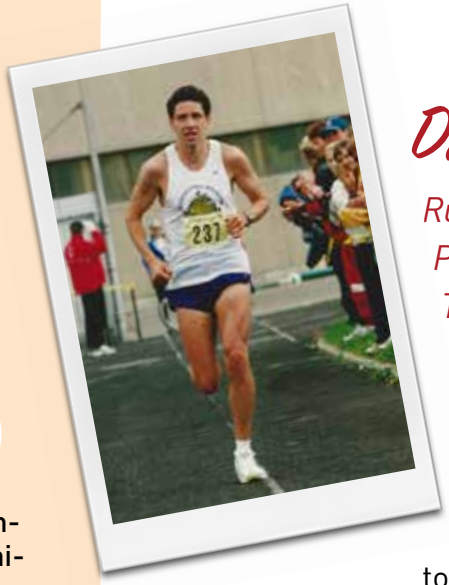
In the next five years:

CPSR is well-positioned for game-changing discoveries and practices

- Expanded research base, specifically in clinical and implementation science fields
- Regarded as the leader in stroke recovery research nationally and a model for other countries (Australia, Sweden)
- Experienced management team
- Strong governance structure and committed, skills-based Board

Research

Meet some of our researchers and find out why they believe in the CPSR:



Dr. Mark Bayley

Runner, cyclist, sailor
Physician and clinical trial leader
Toronto Rehabilitation Institute

I became interested in the field of stroke rehabilitation and recovery from my experience as a runner where I saw the benefit of setting goals, tailoring the training to the event and working with teams to motivate each other to achieve better results. I soon learned that how the brain recovers from injury is far more challenging than I had imagined.

Before studying medicine, I studied engineering and recognized the importance of building a well-integrated system to deliver care. It is not just good enough to find new interventions but we have to also ensure that all Canadians have access to them.

I believe that the Canadian Partnership for Stroke Recovery has assembled a team of Canada's best researchers. While our team may be geographically spread out across the country, we have a common interest in improving the quality of life after stroke.

This is an important time to develop a network of centres of research excellence that can study important questions in the field of stroke recovery. We need to run large clinical trials that have enough people with varying backgrounds living with the effects of stroke to be certain that we have found an important answer. Building a team across the country is essential to achieving our goals of completing this marathon.

The FLOW Trial:

The CPSR is ready to embark on a promising clinical trial in stroke recovery, called FLOW (FLuoxetine to Open the Critical Time Period Window to Improve Motor Recovery after Stroke). Set to begin in 2017, the study will look at the role of an anti-depressant, called fluoxetine, in combination with intensive exercise training to try to reopen the recovery window in the brain once progress has stalled.
A common concern among people recovering from stroke is the slowdown in progression of recovery three or four months after the stroke. The hope is this trial will provide new insight into opening and extending the window for stroke recovery.

Dr. Paul Albert

Cyclist, hiker, travel photographer
Neuroscientist and depression researcher
The Ottawa Hospital Research Institute

Although the physical effects of stroke are the most obvious, the agitation, anxiety and depression that follows stroke can last for years, and is often not recognized. More than a third of people who have a stroke experience some degree of depression and/or anxiety, which is a big problem because these conditions can worsen recovery.

This is an area where I really want to make a difference. Until now, depression and anxiety after stroke have been treated in the same way as non-stroke-related major depression, but they're very different. Post-stroke depression (PSD) results from a loss of cells that change the brain's circuitry, while regular depression does not.

With resources and seed funding from the CPSR, my lab at the uOttawa Brain & Mind Research Institute is the only one in the world using an emerging technology, called optogenetics, in a mouse model that we've developed. We're hoping to reset the balance in brain circuitry by inserting genes into brain cells that, when activated by light from an optical fibre, alter their activity and relieve PSD.

Optogenetics brings a greater level of precision and sophistication to deep-brain stimulation, which sounded like sci-fi a decade ago but is now in clinical use. Thanks to CPSR, we have a new and promising angle to improving stroke recovery and we are devising better strategies to treat the disease. CPSR has helped to transform our research direction to improve stroke recovery.

Securing research grants

In 2015, the CPSR and Canadian Stroke Consortium were awarded a $1.5M five-year grant from the Canadian Institutes of Health Research to establish a pan-Canadian clinical trial infrastructure, called CaSTOR (Canadian Stroke Trials for Optimized Results). The two organizations are working together to develop and build a vibrant and productive Canadian stroke trial community that is world class in generating and applying new knowledge in stroke prevention, treatment and recovery.

In 2016, CPSR was successful in securing $1.5M over three years from Brain Canada to support the development of its clinical trial infrastructure. Overall, CPSR will be investing $1M per year for three years (from its own budget, the Brain Canada funding, and CaSTOR funding) into developing an eight-site network of clinical trial sites.

Research

Meet some of our researchers and find out why they believe in the CPSR:

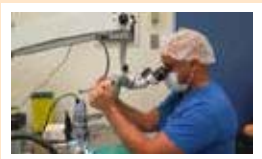
Providing tools and resources accessible to all researchers and trainees

1) **Animal Stroke Model and Preclinical Brain Imaging Facility**
A state-of-the art preclinical research facility at the University of Ottawa provides powerful new insight into the processes of physical and cognitive recovery in rodent models of stroke.

2) **Human Brain Imaging Analysis Pipeline**
Developed over the past 10 years at Sunnybrook, this platform uses a standardized imaging protocol to provide reliable and efficient quantifiable data of structural and functional human brain damage to be used in analyses.

3) **Clinical Trials Platform**
A network of partnerships with rehabilitation institutes improves patient recruitment and expands capacity to implement translational studies.

4) **Stroke Patient Recovery Research Database (SPReD)**
A highly secure, scalable, shareable, high-capacity database developed by Baycrest researchers, collects a wide range of data related to stroke risk factors, stroke recovery and clinical trials.



Animal stroke model and preclinical brain imaging facility

Dr. Michelle Ploughman

Dog-lover, yogi and fisherperson
Exercise and cognition researcher
Memorial University of Newfoundland

I became involved in stroke research after working about 15 years as a frontline physiotherapist in a stroke rehabilitation centre. Over that time, I had treated about 500 people with stroke and wanted to find more ways to optimize recovery.

I went 'back to the bench', so to speak, so that I could better understand the brain mechanisms that were the underpinnings of the recovery that I had witnessed in patients. I created intensive training programs in a rat model of stroke that now inform the clinical research that I do at Memorial University in St. John's, Newfoundland & Labrador.

Every day I look around my lab at the students and patients with stroke who are participating in our research studies. I think about how important CPSR has been to stroke recovery research in this province. We opened the Recovery & Performance Laboratory in September 2014. As the only stroke recovery research lab in the province, we have become the hub where patients have the opportunity to participate in cutting edge research to help maximize their recovery.

Two of my graduate students, one Masters and one doctoral student, are supported by CPSR training grants and travel awards. By supporting trainees, I feel that CPSR is investing in future Canadian stroke researchers. This support ensures that the field of stroke recovery research continues to advance for the benefit of people with stroke.

Meet some of the partners and learn why University of Calgary and UBC joined the CPSR this year:

Dr. Sean Dukelow

Ironman competitor, photographer
Neuroscientist/physician and robotics researcher
University of Calgary

I got involved with stroke research and care, in part, because I come from a family with a strong history of stroke. When I was much younger, I watched my grandfather suffer a stroke. I was in the room when it happened. At the time, the family doctor came out to the house and there was little he could do but tell us that if things got worse he needed to go to the hospital and if they got better we could look after him in the home. This was before the days of (the clot-busting drug) tPA or any interventional treatment. His stroke was one in a series that eventually led to his hospitalization and demise. This led me to pursue my PhD in Neuroscience and eventually I came back to studying stroke.

The HSF Canadian Partnership for Stroke Recovery represents a group of researchers and clinicians from across the country who have come together to collectively help to solve the problems faced by stroke survivors. That's why, in 2016, the University of Calgary was anxious to get involved in the CPSR as a full partner.

There's no question that collaboration between basic and clinical scientists has the ability to tremendously advance the field. Coordination and partnership across several sites for clinical trials creates the ability for the type of multi-site stroke recovery trials that are necessary to advance practice.

OUR PARTNERS:

In 2015-16:

- Partner institutions have committed $3.1M for the coming year.
- Two institutional partners increased their level of cash commitment to the CPSR
- UBC and University of Calgary joined the CPSR and made additional investments
- $3M in funding was secured from CIHR and Brain Canada to support the implementation of a national clinical trial network in stroke recovery

Partners

Meet some of the partners and learn why University of Calgary and UBC joined the CPSR this year:

OUR PARTNERS:

University of Calgary joined the CPSR in 2016 with a commitment of $1.2M over three years. Researchers bring unique expertise in pediatric stroke, robotics and clinical trials.

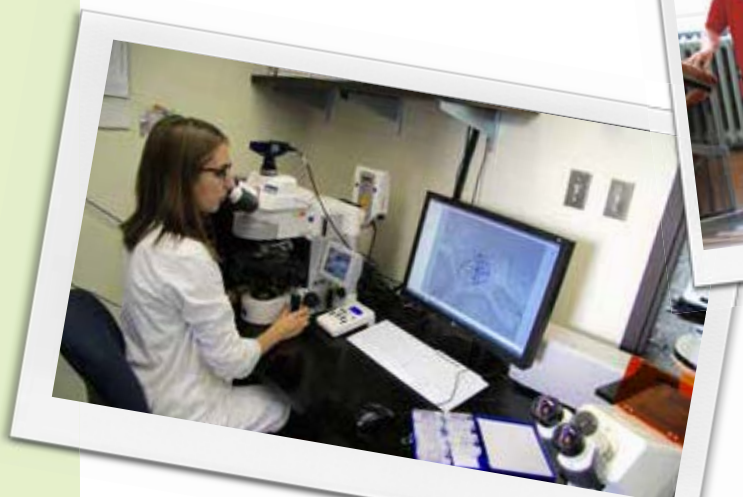
In September 2015, the University of British Columbia officially joined the CPSR with a financial commitment of $1.5M over three years. In adding UBC, CPSR gained many experienced clinical and basic researchers in stroke recovery.

Dr. Janice Eng

Skate-skier, snowshoer, kayaker
Canada Research Chair in Neurological Rehabilitation, University of British Columbia

I am first and foremost enthusiastic about CPSR due to the training opportunities. The CPSR will enable UBC to elevate the level of training for our stroke recovery graduate students and postdoctoral fellows through networking, workshops and scholarships. Personally, I find the mentoring of trainees to be the most rewarding part of my job, and CPSR will help UBC's trainees to advance their skills.

Secondly, CPSR brings together researchers to tackle important problems that we could not do so alone. As such, our UBC researchers will have the opportunity to collaborate across the country, and be involved in high-impact research that makes a difference to people living with a stroke.



On her boat 'Counting Stars'

Dr. Julie Bernhardt

Sailor, camper, lover of the Outback
Leader of the AVERT Trial
University of Melbourne, Australia

Working in the field of stroke for over 30 years, I'm constantly surprised that despite the human and financial burden of stroke, it seems hard to gain traction to the extent warranted. I firmly believe that greater international coordination and collaboration of efforts could make the difference.

I'm excited about working globally with CPSR and I think it's time we aspired to "cure stroke".

Dr. Dale Corbett speaks at the Asia Pacific Stroke Conference, where he was awarded an Honorary Life Membership in the Stroke Society of Australasia.

Leading a global community

CPSR co-hosted the first international Stroke Recovery Research Roundtable in Philadelphia in May 2016 with more than 60 scientists from 10 countries. Together, they developed recommendations for stroke recovery research to ensure collective knowledge about effective practices and techniques is being shared broadly. A number of papers will be published based on this meeting.

Knowledge Translation

Learn about our innovative tools and resources:

Sharing the evidence

In 2015, the Evidence-Based Review of Stroke Rehabilitation **(EBRSR.com)** was redesigned, revamped and relaunched. Funded by the CPSR, EBRSR.com provides valuable research evidence into stroke recovery, feeds academic research and informs best practices. **EBRSR.com** includes in-depth reviews of more than 2,000 studies, including more than 1,400 randomized controlled trials. It is the go-to site for stroke recovery researchers and academics in Canada and around the world.

Dr. Annie Rochette

Book-lover, cook, soccer mom
Rehabilitation researcher and leader of Stroke Engine
Université de Montréal, CRIR

As a researcher, professor and former clinician, I see huge value in being part of a national partnership focused on stroke recovery. Thanks to the CPSR, Stroke Engine – an important tool that provides clinicians and families with the latest research evidence on post-stroke recovery – is supported and growing. And, French-language content has been expanded. There are more than 500 daily users of **www.strokengine.ca** because the CPSR recognized its importance and got behind it.

Since our national and international research team partnered with CPSR in 2014, the website has gone through a major rebuild to make it easier to navigate. And, because of the ongoing support we get from CPSR, our team can plan continuous content updates. We involve rehabilitation students as part of these updates and this contributes to their training and to capacity-building in stroke rehabilitation.

The CPSR is an organization that seeks out and supports research that needs to get done; research with real impact. Every week, I receive emails from clinicians, patients and families

around the world who thank us for making this critical information available through Stroke Engine.

CPSR brings people together. It is a champion to all those concerned with stroke recovery – from the academics and researchers to those most affected of all, the patients and their families.

Dr. Ada Tang

Lover of nature, paddling, travelling
Rehabilitation researcher, CPSR Knowledge Translation Advisory Committee member
McMaster University

Having worked as a physiotherapist in the Neurorehab Program at Toronto Rehab for many years, it was an easy decision to pursue stroke recovery research. It was a natural extension of my clinical practice, and my research continues to be informed by clinically-relevant questions.

I'm involved in CPSR activities because it's an organization that brings like-minded individuals together - from researchers,

Capturing stroke prevalence

CPSR (in collaboration with the Ontario Stroke Network and Heart and Stroke Foundation) commissioned a 2015 study to refresh the statistics on the number of people living with stroke. The project recalculated the number of people estimated to be living with long-term disability as a result of stroke in Canada. The previous number, generated at least a decade ago, was 315,000. The 2013 number, calculated using a similar methodology, was 405,000. Of greater concern is the projection that, by 2038, the number will increase to 725,000 (an 80% increase). The results of this report were publicized widely in the national media and have defined a new benchmark for the prevalence of long-term stroke disability. In July 2015, the results of this study were published in the journal *Stroke*.

Knowledge Translation

Learn about our innovative tools and resources:

Creating videos to educate public, professionals

Watch our recent videos on Stroke Recovery and Stem Cells, the Stages of Stroke Recovery, Carole's Story, and Lessons Learned from the AVERT Trial. Click on the VIDEOS tab on the homepage of our website, **www.canadianstroke.ca.**

trainees, clinicians, community members - all working towards a common goal to advance our knowledge in stroke recovery, which we hope ultimately improves the lives of people living with stroke.

By being involved with CPSR, I hope that we can better understand stroke recovery and help the lives of people living with stroke.

CPSR's strength is in its people. We are fortunate in Canada to have a great wealth of people who are leading the way globally in stroke recovery research. This is why I'm involved. Great things can be accomplished when we work together. This idea is even reflected in the name. The organization is truly a partnership.

Over the past three years:

- 80 scientists have received CPSR research funding from all grant sources
- 106 journal articles have been published as a direct result of CPSR research and trainee funding; 52 manuscripts are in submission or preparation
- 116 oral presentations and 1161 poster presentations have been made as a direct result of CPSR research and trainee funding
- 505 journal articles have been published by CPSR researchers in related areas of stroke recovery, including such high-ranked journals as *Neuron*, the *New England Journal of Medicine*, and the *Journal of Neuroscience*, as well as in highly relevant specialty journals such as *Stroke* and *Neurorehabilitation & Neural Repair.*

- Findings from catalyst grants have been used to successfully secure 33 external grants, totaling $11,876,063 (ranging from one to five years in duration); 21 grant applications are currently in submission

- 104 trainees have been supported by the CPSR (an investment of $2,514,111) including 30 Post-doctoral Fellows, 50 graduate students (MSc/PhD), and 24 summer/co-op students

- Of the 104 trainees funded through CPSR, 29 have received external awards totaling $1,221,000

- 155 trainees from eight provinces are actively involved in the CPSR National Trainee Association

- Annual trainee workshop (SPiN) is rated as "outstanding" or "excellent" by more than 95% of attendees

- 70 catalyst grants totaling $3.2M have been funded since 2012.

Dr. Dale Corbett underscores the importance of stroke recovery research at an awareness event on Parliament Hill in early 2016. At left, Health Minister Dr. Jane Philpott.

Making News

CPSR researchers conducted more than 90 media interviews over the past three years. In 2015, CPSR and HSF worked on a joint news release promoting the new projections of the number of people living with stroke. This release garnered significant media attention from national news sources, including CTV National news, CTV Newsnet, Global News, Radio Canada and Canadian Press and more than 30 online news sites.


'Alarming' increase forecast in people disabled by strokes

Training

Meet young research stars and find out why they're part of the CPSR National Trainee Association:

Dr. Andrew Robertson

Newlywed, softball player, traveller
Postdoctoral fellow, CPSR trainee
Sunnybrook Research Institute

I grew up on my family's apple orchard just outside the Village of Iroquois in Eastern Ontario. My interest in the vascular system stems from a senior-level high school project on the heart. In 2013, I completed my doctorate from the University of Waterloo where I studied the effects of vascular aging and had the opportunity to participate in two studies with the Canadian Space Agency. Over the course of my graduate training, I became increasingly curious about the complexities (and mysteries) of the brain. I felt that brain-related research would lead to a stimulating and ever-changing career path.

I was compelled to pursue stroke research because of its interconnectedness with both brain and cardiovascular health. Ultimately, I hope to make a difference in the course of recovery for patients. My postdoctoral research at Sunnybrook examines the role of aerobic exercise in stroke recovery.

I have attended the CPSR's Stroke Program In Neurorecovery (SPiN) twice and have been paired as a mentor in the NTA mentoring program. SPiN was extremely valuable to me as I transitioned from my graduate work as a Vascular Physiologist to my current position in stroke research. It provided a well-rounded glimpse into the world of neuroscience and a peek into current state-of-the-art research. Meeting other trainees and researchers at SPiN has led to relationships that will develop into future collaborations.

Training the next generation

The CPSR National Trainee Association has 155 members:

- 43 Post-Doctoral Fellows (28%)
- 60 PhD graduate students (39%)
- 38 MSc graduate students (25%)
- 4 Undergraduate students (3%)
- 10 Other (e.g., recently graduated) (6%)
- In total, eight provinces are involved in the NTA. Clinical members make up 58% of the association, with the remaining 42% from basic science. It is a highly diverse and dynamic group, which translates into innovative value-added programming for the trainees.

Dr. Kris Langdon

Physician, neuroscientist, hockey player, CPSR trainee
Western University

I'm from a community in rural Central Newfoundland and Labrador of 3,500 named Botwood. I've been interested in neurosciences for as long as I can remember, reading the works of Oliver Sacks and V.S. Ramachandran in high school. The concept of neuroplasticity was fascinating to me as a primary school student and, I guess, this solidified my interests in studying the brain.

In 1999, I attended the University of Prince Edward Island on a hockey scholarship. During my undergraduate science degree at UPEI, my grandfather suffered a stroke and I think that this pushed me in the direction of learning more about cerebrovascular diseases and the brain's ability to heal and change. Fortunately, I met some fantastic mentors along the way who have shaped my knowledge and fostered my interests in stroke research.

After a Master's, PhD, and post-doctoral work, I completed medical school at Memorial University.

Taking early-career researchers for a SPiN

At CPSR's very popular Stroke Program in Neurorecovery (SPiN), 40 trainees from stroke recovery research centres across Canada interact with leading stroke recovery researchers, take part in hands-on lab sessions that expose them to the newest research and meet people who directly benefit from their research.

Some of the reviews:

"The 2015 SPIN conference was a remarkable experience for learning what the researchers at Sunnybrook and Toronto Rehab can offer for project collaboration."

"Toronto Rehab and the iDAPT facilities... highlight of the course."

"It was an excellent experience."

"...thank you and the team for putting together such a great 2 days. I thoroughly enjoyed myself and learned a lot too!"

"The highlight of my time, however, was hands down the lunch talk [with stroke survivors] we had today. It was such a powerful way to tie together the workshop"

Training

Meet promising researchers and find out why they're part of the CPSR National Trainee Association:

At the present time, I am a resident in Neuropathology at Western University in London, ON. Ultimately, I would like to combine a career of clinical/academic medicine and research.

The National Trainee Association (NTA) offers a fantastic opportunity for students to meet and network. This is an important part of developing a future research career. The NTA also puts trainees in close contact with other PIs who can serve as mentors, supervisors and future colleagues.

Jessica Powers

Book-lover, math tutor, runner
CPSR trainee, Toronto Rehabilitation Institute

I am a first year MSc student in the Rehabilitation Sciences Institute and am conducting my research at Toronto Rehabilitation Institute. My research investigates the extent to which visual feedback can influence motor learning of a walking task, and the frequency in which it should be provided. Understanding of motor learning principles post-stroke can be used in clinical practice to improve gait outcomes for patients and inform design of future interventions.

Ultimately, I hope to pursue a career in health care as a physical therapist and hope to specialize in stroke recovery.

Being part of the National Trainee Association offers a platform for us to interact with our peers across Canada and share our passion for stroke recovery. The NTA provides a variety of opportunities for professional development, including peer mentoring, funding competitions and events. This year I had the opportunity to attend the SPiN Workshop, which was absolutely awesome.

Find out why the Stroke Community is counting on us:

Erin Nokes

Runner, stroke survivor, activity-juggler member of the CPSR Stroke Community Advisory Committee

I was just another busy mom with two young children, ages four and one, doing errands, driving kids to activities and playgroups, juggling a home-based business, housekeeping, child-rearing, and exercising. I was gearing up to do intense triathlon training, my daughter was over one, and I was ready for the next challenge.

Little did I know that my next challenge would be surviving a massive stroke. It happened right before Christmas in December 2013. I was in the hospital, so I was going to be ok, right? Surviving was one thing. But within three months I was sent home, barely in a walker, and not able to care for myself, let alone my family.

This moment was the scariest moment in my life. Not knowing if I would ever get better. If I could every play with my children again. How mobile would I become? Would I ever be able to walk again? Run again? Would I ever become self-sufficient? Would I ever be able to fully care for my children again?

Involving the community

The stroke community is part of everything we do. Our 10-member Stroke Community Advisory Committee helps vet new research ideas, participate in special projects, review proposals and develop new tools for patients and families.

From left, some of the members of the Stroke Community Advisory Committee: Erin Nokes, Stephanie Spooner, Garima Dwivedi, Nathalie Michaud, Hector Mackenzie, Carole Laurin.

Community

Find out why the Stroke Community is counting on us:

Using new approaches

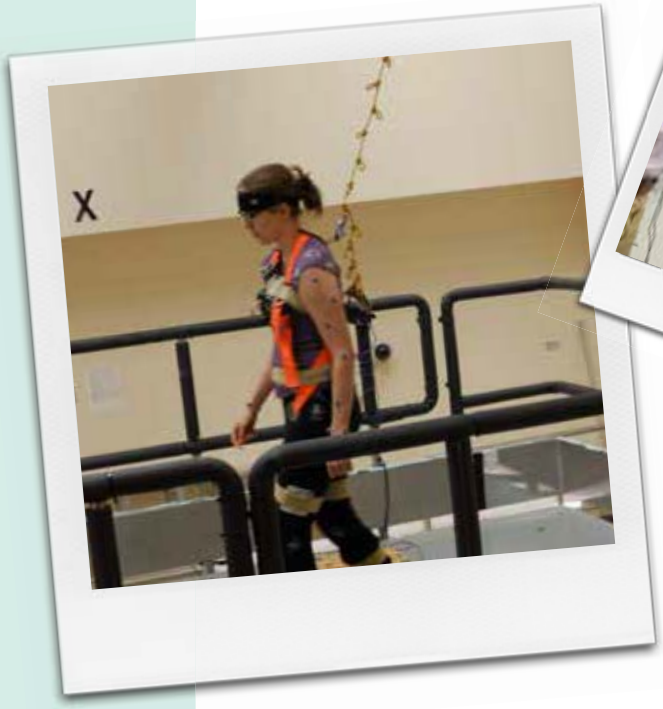
CPSR is funding seven telerehabilitation projects looking at novel ways to deliver post-stroke rehabilitation to remote and rural communities. Preliminary results provide interesting new findings.
For example, one study led by Baycrest researchers, involving 40 Manitobans with chronic post-stroke communication problems has found that therapy delivered over video and audio linkup is just as effective as face-to-face sessions.

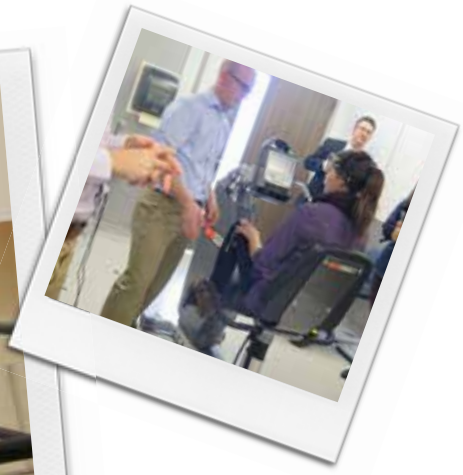
Post-stroke recovery makes the difference between surviving and living. With all the rehabilitation options made available through research, I proudly say that I am now living my life again.

As a stroke survivor, research into stroke recovery is so vital to the quality of life, and has not only improved my life but also my children's.

Today I am a single mom, I have full custody of my children, and am able to feed them, entertain them, and care for them. I am independent, I participate in several physical and social activities, and have many new hobbies to enjoy. And I am running again!

I am getting stronger every day, and I will continue to take advantage of new therapies that will improve my rehabilitation and quality of my life.





Financials

With lean management and low overhead for networking, meetings, communications and travel, the CPSR is able to invest 84% of its funds directly into research and programs.

84%
Research/programs

16%
Administration

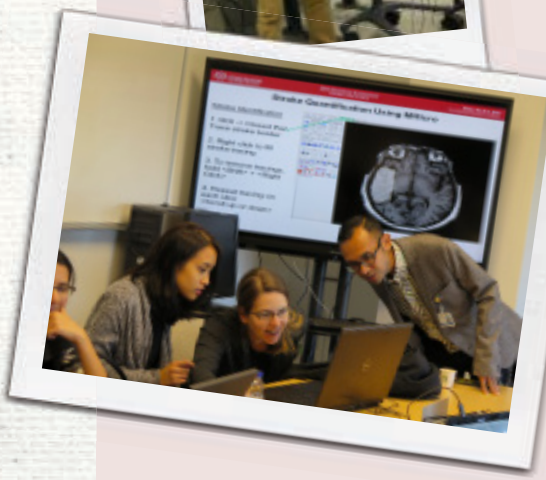
Read the full audited financial statements here:
www.canadianstroke.ca/en/about-us/annual-report

CPSR's progress has been significant. CPSR has stimulated impactful, strategic research, nurtured a new generation of stroke recovery researchers, and made stroke recovery research accessible to the stroke community. With committed partners, additional sources of revenue, and a strong sense of purpose, CPSR is poised to make meaningful gains in restoring the lives of those living with stroke.

To support the CPSR, visit our website at www.canadianstroke.ca and click DONATE NOW.

Fact about the CPSR:

$4.3 million in annual research spending, including **$921,000** in catalyst grants, trainee awards & collaborative projects



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HEART & STROKE FOUNDATION
Canadian Partnership for Stroke Recovery