

CANADIAN BRAIN RESEARCH STRATEGY

Indigenous Initiatives Workshop Notes

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Executive Summary

Including the voices of Indigenous peoples is of paramount importance as we work to forge a unified national strategy for brain research that will benefit all Canadians. On June 28th, 2021 CBRS held its first Indigenous Initiatives Workshop with the aim to raise points of consideration and action for the Canadian Brain Research Strategy Indigenous Initiatives. The meeting, held virtually over Zoom, brought together more than 60 participants - Indigenous researchers in neuroscience and other fields, non-Indigenous researchers working with Indigenous populations, and those simply interested in learning and sharing Indigenous perspectives on brain and mental wellness.

Workshop attendees included all career stages of academia from more than 25 institutions across Canada as well as non-profit and governmental agencies. In the first part of the workshop, participants were given the opportunity to share their background, lived experience, and research in a roundtable discussion. The second part of the workshop saw participants move into sharing circles led by members of the CBRS Indigenous Knowledge Holders Group (IKHG). A publication led by the IKHG members will be developed from this workshop with the goal of sharing the important knowledge gathered here with the global community.

Introduction

This is the Canadian Brain Research Strategy's first Indigenous Initiatives Workshop. We invite you all to consider the territory we are on, where we work, live, and pray.

This workshop was made possible thanks to the support of our CIHR grant, and the efforts of our Cultural Diversity Research Assistant Caterina Marra. The members of our new Indigenous Knowledge Holder's Group (IKHG) have been invaluable in the development and creation of this workshop that aims to guide CBRS' Indigenous initiatives moving forward.

From the discussions generated during this meeting we plan to collaborate with our IKHG to create a publication for distribution in the international community. This new endeavor is one of many ongoing initiatives in this space, we have already published a paper on gaps on indexing terms on Indigenous research, a scoping review of mind and brain, and developed a framework for Indigenous teachings in neuroscience.

Overview Of CBRS

Comments from Dr. Yves De Koninck, CBRS Chair and Dr. Judy Illes, CBRS Co-Chair

The CBRS, a grassroots effort uniting more than 30 world-leading neuroscience and mental health institutes across the country to respond to the growing need to better understand the brain and create a better future for Canadians.

Mission: The mission of CBRS is to build on Canada's strengths and current investments in cutting-edge collaborative neuroscience to transform neurological and mental health for Canadians.

Vision: Innovative and collaborative brain research that drives policy, social, health and economic advancements for Canada and the world.

Canada is a potential model on how to collaborate to make major advances. Our collaborative, multidisciplinary, and multi-stakeholders' approach is key in achieving these advances. Ultimately, CBRS wants to provide a vision and mission to inspire decision makers to make investments in brain science; the CBRS is not trying to seek money for itself or become a funder or mega-network. Our role is to facilitate collaborations and build consensus. We are a group of scientists, stakeholders, community members, and initiatives looking to form a common voice and inspire investment in brain research.

A critical component to the Canadian voice is the voices of Indigenous peoples. Ensuring we include and incorporate these voices is key to the development of a representative national strategy.

We are in the process of building up this mission and vision. We have held multiple meetings with various groups. Some early objectives are: to engage with Indigenous peoples and programs, go deeper into a neuroethics perspectives, embed an ethical view in aspects developing in neuroscience, and to engage with early career researchers (ECRs) to ensure whatever we develop resonates with our future scientists.

Comments from Dr. Christopher Mushquash, IKHG member:

Dr. Mushquash is a Canadian Research Chair in Indigenous Mental Health and addiction, Clinical psychologist, and his practice is focused on rural and northern health research.

Dr. Mushquash's interest in CBRS stems from a couple places: his own developmental experiences and the trauma and disruption his clients have experienced. Looking at the nature of such disruptions and types of brain processes that are disrupted have informed his understanding of the brain. When looking at brain research, he notes that Indigenous peoples are not well represented in the research, or it's not focused on Indigenous peoples, or researchers have not had the conversation about cultural relevance.

In his work, Dr. Mushquash seeks to promote understanding of cultural based interventions to support healing, as well as cultural and traditional approaches to heal and develop skills.

Good partnerships are needed to establish these interventions in a research context, and he hopes this meeting acts as a good means to sit together and talk about a pathway forward for this type of research. If we don't find a way to include Indigenous people, the disparities that exist in these research domains may only grow.

We hope to create a paper to create a context for people to connect into and connect with.

Roundtable on Research – *led by Dr. Melissa Perreault, IKHG Member*

In this roundtable we heard about neuroscience research in Canada - from Indigenous colleagues, those focusing on Indigenous populations, those involved in Indigenous care, and a few interested in engaging with Indigenous populations. There was a great breadth in topics, from the neurotoxic effects of pollution that disproportionately affect Indigenous populations, initiatives on deploying

resources, genetic disorders, language acquisition and revitalization, ophthalmology, all the way to biophilic design. The presenters were from diverse backgrounds in terms of geographic location, career stage, and role in the scientific community.

Sharing Circles

Open discussions were held and 4 sharing circles were moderated by IKHG members. The discussions were guided by the following 2 questions:

- How should the unifying question “How does the brain learn, adapt, and remember?” be addressed through an Indigenous lens?
- What can the CBRS do for you?

Summary of discussion

Some key points raised were on how we looked at the questions “How does the brain learn, remember, and adapt?” using an Indigenous lens.

First point we raised was the idea we needed to move away from deficit, or problem-based approaches to research. The majority of health deficits in Indigenous community are highly reported on already, we need to move towards a strength-based approach to improve capacity.

Discussion focused on two-eyed seeing, learning with strengths of Indigenous knowledge in combination with western neuroscience and acknowledging both of these approaches are valid. Another point was the importance of acknowledging that First Nation, Inuit and Metis people are not all the same. There is a diversity of view, nation, communities and organizations.

We also addressed building/bridging capacity. We need to be thinking creatively about output and knowledge mobilization opportunities. Importance of connections was highlighted, as everything we do is about connections. We need to employ the various important of ways of knowing, intergenerational approaches, and more to understand brain function.

We heard both from areas the brain research communities may be aware of, deficits caused due to environmental effect and genetic studies; as well as some things which might be less expected/known in the general community related to the adaptability of the brain as an organ and how important that can be to the Indigenous community and language revitalization.

There was encouragement to see the CBRS focus on pluralism in neuroscience and brain health, make room for multiple answers. Work with and navigating different ways of knowing. We came to a revision of the question to “what are *the different ways* that the brain learns, adapts and remembers.”

Closing Remarks – *Dr. Yves De Koninck, CBRS Chair*

Many personal thanks to everyone who took part in the workshop.

The Indigenous view that connections are key is the main learning point. We are still learning who we are as a national strategy and there was a lot of rich discussion today in that area. There is a lot to look forward to in technology to reconnect. We need to see this as our initiative and connections are crucial for Canadian initiatives. After all, the power of the brain lies in its connections.

We hope this is the beginning of a long engagement. We encourage everyone to reach out to us and to each other. To move forward in understanding the brain we need a different approach and different ways of knowing. Let's continue to connect.

List of Meeting Participants

CBRS Secretariat

Jennie Z. Young, Executive Director

Yves de Koninck, Chair, Professor, Laval University

Judy Illes, Co-Chair, Professor, University of British Columbia

Caroline Ménard, ECR Cluster Leader, Associate Professor, Laval University

Marianne Bacani, Events Director

Ashley Lawson, Knowledge Translation Specialist

Caterina Marra, Cultural Diversity Research Assistant

Indigenous Knowledge Holders Group Leaders

Malcom King, Professor, Community Health and Epidemiology, University of Saskatchewan; Scientific Director, the Saskatchewan Centre for Patient Oriented Research; *Mississaugas of the Credit First Nation*

Chelsea Gabel, Associate Professor, Health, Aging & Society, McMaster University, Canada Research Chair in Indigenous Well-Being, Community Engagement, and Innovation; *Métis*

Melissa Perrault, Preclinical Neuroscience Researcher, University of Guelph; *Métis*

Christopher Mushquash, Associate Professor, Psychology, Lakehead University, Canada Research Chair in Indigenous Mental Health and Addiction, Associate Professor, Division of Human Sciences, Northern Ontario School of Medicine; *Ojibway and a member of Plays Plat First Nation*

Attendees

As a requirement of the workshop, attendees are not to be identified in public facing reports.