

Positive Brain Health Now

Cohort Information Sheet
www.brainhealthnow.mcgill.ca

CIHR awards \$2,492,705 to study how to improve brain health in people living with HIV.



People living with HIV are worried about their brain, and with good reason. Even with good control of HIV infection, up to 50% may have cognitive or depressive symptoms. These changes in thinking and mood are usually mild, but they seem to matter in everyday life: they can affect functioning at work, the ability to stick to treatments, and the quality of life of both patients and their family and friends. The causes of these changes in brain health are not clear: Do they result from HIV-induced brain injury? Accelerating aging? Toxic effects of medications? Or the stress of living with a serious chronic illness? The answer may be "all of the above".

We propose that poor brain health in HIV is due to multiple factors, and aim to characterize these in a representative sample of people with HIV drawn from clinics across Canada. This is the first step in identifying ways of improving brain health and decreasing the negative impact of cognitive and depressive symptoms on activities that matter to people and, ultimately, improve quality of life.

Once the cohort is established, sub-groups will be asked to participate in specific interventional studies designed to improve brain health in those who need it the most. We will identify the elements of these programs that are most effective and work to make them widely available. This project brings experts in neuroscience, epidemiology, and HIV together in a dynamic team, to carry out innovative, action-oriented research aiming to make a real difference in brain health in HIV in Canada.

Sincerely,
Positive Brain Health Team

Why should I participate???

You should participate because

1. Poor brain health is a major challenge: you may help to decrease its negative impact on people like you
2. Everyone who participates will receive information on "Simple steps to improve brain health".
3. You will be eligible for the intervention trials

Our community partners

We have partnered with four community organizations to help us design interventions that make sense to the HIV community, and to help us transmit the important findings of the study to you.

Portail VIH/Sida	Marc Leclerc
AIDS Vancouver Island	Heidi Exner
COCQ Sida	Ken Monteith
Positive Living BC	John Bishop



Study Objectives

Our goals are to identify, understand and optimize brain health in people living with HIV.

We will focus on cognitive impairment, its measurement, contributors and consequences.

We will further the development of a computerized tool to measure cognitive ability that can be used in clinical and research settings whenever it is felt to be important to monitor changes in global cognition.

Intervention studies

This cohort will serve as a sampling frame for intervention and mechanism-based studies. We will contribute evidence for the feasibility, effectiveness potential, and acceptability of promising interventions for optimizing brain health. We expect this component of the study to grow over time. For now, the following intervention studies are planned:

- Computer cognitive training
- Comprehensive exercise program
- Computerized self-management

Mechanistic studies

We will explore the mechanisms underpinning longitudinal change in brain health.

Confirmed Participating Sites:

Montreal: Montreal Chest Institute,
Clinique Médicale L'Actuel
Vancouver: AIDS Research Program (St. Paul's Hospital)
Toronto: Maple Leaf Medical Clinic
Hamilton: Special Immunology Services Clinic

Recruitment

Main cohort 900 (within 2 years)
260 Neuropsychological tests

Type of Study

Observational, Prospective Cohort

Visits

Baseline, 9, 18, 27 months

Inclusion criteria

HIV+ for at least 1 year, >35 years old

Exclusion Criteria

Dementia, unable to participate in the follow-up of 27 months, opportunistic infection in the brain, needing IFN treatment during study duration, psychiatric disorder or severe substance abuse



Study Visits

Cognitive assessments: A research assistant will assess participants' memory, concentration and attention using a computer

Questionnaires: To assess aspects of everyday life (including stress, quality of life, health perception, social support, depression/anxiety, self efficacy, physical activity, vitality, smoking/drug/alcohol habits, sleep and physical activity)

Collection/testing of blood/saliva samples: To evaluate immunological, virological, genetic and pharmacological functions related to HIV and cognition

Basic clinical measurements: to assess current health state

Full Neuropsychological Testing: To use as a comparison of computerized cognitive assessment (*this is optional and will be performed in a subset of participants*).

The total time for each visit is about 3-4 hours. However if participants decide to complete the questionnaires at home, the time at the clinic would be 1-2 hours, and 2 additional hours at home.