

hope support care

Annual Report 2017–2018



A REASON TO HOPE. THE MEANS TO COPE.
SCHIZOPHRENIA SOCIETY OF CANADA
SOCIÉTÉ CANADIENNE DE LA SCHIZOPHRÉNIE
UNE SOURCE D'ESPOIR, DE SOUTIEN ET D'ENTRAIDE.



Our mission and goals are at the heart of everything we do. Through our programs and activities, we strive to: reduce stigma through education and awareness; support individuals and families; advocate for improved services and treatments; and support research.

Who we are

2017-2018 SSC Executive Committee:

Florence Budden

President

Joan Baylis

Treasurer

Donna Methot

Member-at-Large

Dr. Lori Triano-Antidormi

Member-at-Large

Chris Summerville

Ex-Officio

2017-2018 SSC Board of Directors

The Schizophrenia Society of Canada's Board of Directors is comprised of representatives associated with the provincial schizophrenia societies across Canada, as well as five directors-at-large. The SSC board is responsible to its "letters patent" in governing the affairs of SSC. SSC as well as each provincial schizophrenia society is an independent, autonomous charity with its own board of directors, by-laws, governance model, values, and CRA charitable registration number.

Our board members are:

Sylvie Maréchal

Société Québécoise de la Schizophrénie

Florence Budden

Schizophrenia Society of Newfoundland and Labrador

Donna Methot

Schizophrenia Society of Nova Scotia

Colleen Crossley

British Columbia Schizophrenia Society

Gregory Zed

Schizophrenia Society of New Brunswick

Doug Tiltman

Manitoba Schizophrenia Society

Jeff James

Schizophrenia Society of Saskatchewan

Aamir Mian

Schizophrenia Society of Ontario

Gail MacLean

Schizophrenia Society of Prince Edward Island

Dr. Lori Triano-Antidormi

Director-at-Large, Ontario

Laura Burke

Director-at-Large, Nova Scotia

Dr. Philip Tibbo

Director-at-Large, Nova Scotia

Hazel Meredith

Director-at-Large, British Columbia

Joan Baylis

Director-at-Large, Ontario

Staff:

Chris Summerville

Chief Executive Officer

Katrina Tinman

Administrative Assistant

Catherine Willinsky

Project Manager

About the Schizophrenia Society of Canada

Our Purpose:

The Schizophrenia Society of Canada (SSC) is a national registered not-for-profit charity with a mission to improve the quality of life for those affected by schizophrenia and psychosis through education, support programs, public policy and research. Founded in 1979, we are proud to celebrate more than 39 years of hope, inclusion, change and innovation.

The Board of Directors is passionate in its commitment to:

- Raising awareness and educating the public to help reduce stigma and discrimination.
- Supporting families and individuals.
- Advocating for legislative change and improved access to treatment options and services.
- Supporting research through the SSC Foundation and other independent efforts.

SSC Core Values:

The SSC values provide further clarity on what the Society stands for and what it sees as important for improving the quality of life for individuals with schizophrenia and their families. The values complement the Society's corporate objectives (purpose) and its mission. To be a member of SSC, persons need to indicate their agreement with the Society's objectives, mission and values.

The SSC's core values are as follows:

- Schizophrenia and psychosis are medical illnesses that, like other medical illnesses, have variable expressions and effects of symptoms, function and response to treatments.
- Schizophrenia and psychosis are caused by a number of different factors; from multiple genetic or environmental factors or from a combination of both.
- The SSC fully supports the important role of research in all areas related to schizophrenia and psychosis (biological, psychological, spiritual, and social determinants of health).
- Persons with schizophrenia and psychosis are entitled to person-centred, efficient multi-disciplinary and integrated

evidence-informed treatment and community support services.

- Persons at the early phases of their illness are entitled to real secondary prevention (early intervention and treatment) through specialized first episode psychosis clinics and their collaborators.
- Persons with schizophrenia and psychosis are to be included as full citizens in accessing education, employment, housing, medical services, recreation and social supports.
- Whenever possible families are essential partners in the care and the treatment and recovery plans of persons with schizophrenia and psychosis, and deserve respect and support.
- Persons with schizophrenia and psychosis must be included in their treatment planning, care and recovery plans using a shared decision approach.
- Persons with schizophrenia and psychosis and their families are not to be blamed for this illness.
- The SSC values collaboration at all levels to ensure that caring, compassion, hope, inclusion, and recovery remain at the heart of our movement.

**Recovery from
mental illness is
possible but it takes
the support of a
caring community!**



What we know about Schizophrenia and Psychosis

Schizophrenia is a serious but treatable brain disorder. No single cause has been found for schizophrenia, although there is a clear genetic link. As well, environmental and social factors are involved in the development of schizophrenia.

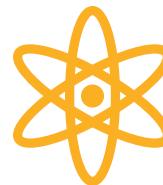
Schizophrenia usually is a long-term mental health problem. People with schizophrenia can have a range of symptoms including periods when they cannot tell the difference between what is real and what is imagined. Schizophrenia can seriously disturb the way people think, feel and relate to others.

Psychosis affects 3% of the population at any given time. While psychosis can be a symptom of a number of illnesses and conditions, it is the main feature of schizophrenia. Schizophrenia can impact anyone. It usually develops into a full-blown illness in late adolescence or early adulthood and affects an estimated 1 in 100 Canadians and their families. Men and women are affected equally; however, men tend to have their first episode of schizophrenia in their late teens or early 20s. For women, the onset is usually a few years later. In most cases, the symptoms develop gradually. In some cases the onset is rapid.

The illness is characterized by delusions, hallucinations, disturbances in thinking and withdrawal from social activity.

Schizophrenia is one of the most widely misunderstood and feared illnesses in society. The lingering stigma and myths associated with this illness often result in discrimination and, consequently, a reluctance to seek appropriate help.

Schizophrenia is treatable and recovery is possible with individuals developing positive mental health and resiliency. Patients have the choice of long-acting therapies that are available today www.psychiatryadvisor.com/schizophrenia-and-psychoses/second-generation-long-acting-injectable-drugs-effective-for-schizophrenia/article/786182/. But, it still takes a supportive and caring community of family and friends and colleagues. And the best mental health services are those closely tied to primary care and social care.



Message from the President and Chief Executive Officer of SSC

Florence Budden, President
Chris Summerville, CEO



Our History:

The Schizophrenia Society of Canada (SSC) was founded in 1979 by Bill Jefferies and his wife Dorothy. Bill had two brothers and a son who developed schizophrenia and he set out to change the world's awareness of the illness. After a 30 year teaching career he placed a small ad in an Oakville newspaper asking families with a member living with schizophrenia to attend a meeting to "share and educate". About 80 people attended that first meeting in a local church basement. At that time there was very little advocacy or supports available for families, and virtually no supports outside hospital settings for persons living with a mental illness. Mr. Jefferies knew that one of the best ways to help the person living with schizophrenia was to provide support services to struggling families.

Our Purpose:

SSC envisions a society absent of not only schizophrenia, but also one free of stigma, social prejudice, and discrimination towards people living with schizophrenia and psychosis, along with their families. Furthermore, through the Schizophrenia Society of Canada Foundation we envision a day when there is a cure for schizophrenia and psychosis.

The SSC mission of improving the quality of life for individuals living with schizophrenia and psychosis, their families, and others in their circle of support can be expressed in the following way:

- That no matter what illness a person may have, he/she is treated as a person first.
- That one experiences love and fellowship in the continuity of their life.
- That one is respected and treated with dignity.

- That one has equal access to opportunities and information that enable decision making and the exercise of applicable rights.
- That one has opportunities to learn the skills needed to participate in society.
- That one has an acceptable place to live.
- That one has meaningful employment and contributes to the community.
- That one has education opportunities throughout life.
- That one has an adequate income to provide for basic needs, plus some extras.
- That one receives access to total medical care and appropriate community support services that promote recovery.
- That one is free from the effects of stigma and discrimination.

Our Future:

It was an ambitious year for the SSC. We concluded our first environmental scan under the leadership of Neasa Martin and Associates. After consultation with stakeholders such as other mental health organizations, members of the Canadian Alliance on Mental Health and Mental Illness, the Mental Health Commission of Canada, psychiatrists, service providers, family members, and those living with schizophrenia or psychosis, the next step was conducting a survey that was distributed through the provincial schizophrenia societies and their members and constituents. The SSC Board of Directors accepted the final report and its recommendations. The board decided that the future direction of and any strategic planning by SSC, should be based upon the findings of the survey.

The survey in summary stated: The result of the environmental scan provides a clear mandate to the SSC. People see its value and want action! The need to convey a clear understanding of who the SSC represents, serves, and wants to influence was an identified priority amongst internal and external stakeholders. Setting a few agreed upon priorities was seen as essential in focusing its limited resources in order to achieve impact. As a national organization the SSC's primary focus should be on education around schizophrenia and psychosis, influencing policy and best-practice decisions by connecting community needs to national decision-making. The SSC can help to track emerging research and treatment trends and identify priority issues. It can gather and share best practice resources from across the country and internationally. This can lead to developing new tools and resources that can be shared nationwide.

Support and service delivery, engaging provincial and regional governments, and working with service providers and community supports remains the responsibility of the provincial societies. This work can be strengthened by national policy documents and educational tools. The SSC can continue to be a trusted voice on national issues and advocate for actions that will improve lives.

Organizations that do not evolve with changing times face extinction. This environmental scan provides a clear sense that the road the SSC is on is a valued one. It is time to reinvent, renew and revitalize the Society. Make it more open and inclusive. Change the narrative around schizophrenia and psychosis to remove the barriers to inclusion and fight for what are legitimate but unmet rights. Our strength will be our partnerships – with our members, our stakeholders, our government and our community partners.

Strengthening partnerships was a consistent theme across internal and external stakeholder interviews. Current financial and human resource limitations make collaboration with others working on common issues a critical means of expanding the influence of the SSC. 84% of survey participants also agreed that partnership and collaboration on national issues should be a key priority. 83% feel addressing inequalities from a human rights perspective is a priority. Some respondents recommend engagement at a provincial, regional and local level with government, planners, emergency and police services and front-line hospital staff, mental health service providers and community agencies. This is beyond the national mandate but can be important targets for the provincial schizophrenia societies

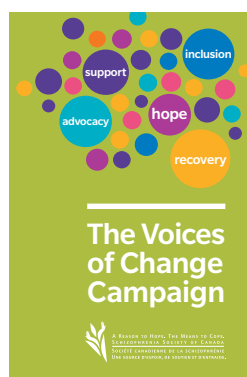
across Canada. Building national visibility and momentum can help support this local grass roots work. Some examples include: working with human rights, social justice, anti-poverty groups, and with organizations such as the Mental Health Commission of Canada, the Canadian Consortium for Early Intervention Psychosis, the Canadian Mental Health Association, the John Howard Society, the Elizabeth Fry Society, etc.

Much has changed since the formation of the Societies in 1979. Unfortunately, there have been historical divisions between the SSC and the provincial Societies. The survey and stakeholder interviews reveal that there is a greater level of agreement on core ideas such as expanding the Society beyond a family voice, the value of promoting recovery, hope and optimism, broadening the messaging on understanding and treating schizophrenia and psychosis and the importance of including mental health and wellness. Most people agree with adopting a broader focus on the social determinants of health and applying a human rights and social justice lens to advocating for equity and access to recovery-focused services. A small but vocal number of family members have created divisions that cause a loss of momentum and undermine influence with government. The SSC has its own area of responsibility that is different from the provinces. Its work will be strengthened by building a stronger partnership of mutual respect and interest. Less attention must be paid to the vocal few and more to the majority of interested stakeholders.

The Society is thankful for funding provided by Janssen Canada for this project. The report can be found at: www.schizophrenia.ca/environmental_scan_report.php

Our Financial Picture:

Another major initiative by SSC this year was the hiring of RBR Associates, a fund development company to develop a strategic fund raising strategy for SSC. This strategy includes the identification of past donors who have made significant donations to SSC, and approaching various foundations and corporations for what is called, “major gift acquisition.” Our CEO is very involved in this process meeting with various leaders across Canada this past year. A Case for Support was developed and a special infographic was created for approaching potential donors.



Our Collaborative Partners:

In addition to on-going initiatives and activities which focused on reducing stigma, increasing education, providing support to individuals and families, as well as engaging in systemic advocacy and research, here are some of SSC's activities and accomplishments in 2017-2018 through collaborative partnerships.

Canadian Psychiatric Association

Another project this past year has been the continued work on a user friendly guide for people living with schizophrenia and psychosis and

their family members based upon the new Clinical Practice Guidelines for the Treatment of Schizophrenia. These guidelines were approved by the Canadian Psychiatric Association in the fall of 2017. With the expertise of University of Calgary research associate, Emily McKenzie, SSC conducted focus groups and sent out a survey to selected people across Canada asking for input as to the 144 recommendations listed in the guidelines so as to determine what families and their loved ones regard as priority treatment areas. “Science writer” Laura Eggertson took the materials and began the editing process of the user friendly guide. Currently Kim Heidinger of the Manitoba Schizophrenia Society is conducting a grammatical edit. The guide will be translated into French and will then go to a designer, and finally be posted to the SSC web site by 2019.

We thank Dr. Don Addington for his leadership in the development of the guidelines as Chair of the Canadian Psychiatric Association working group. As well we are appreciative of grants from the Morris Foundation, The Mental Health Commission of Canada, and the Foundation of the Canadian Psychiatric Association.

Health Canada, Canadian Centre on Substance Use and Addictions, and the Canadian Consortium for Early Intervention in Psychosis

With the legalization of cannabis set for October of 2018, the SSC has been very involved with Health Canada regarding public education and awareness around cannabis and mental illness, especially psychosis and schizophrenia. SSC's CEO, Chris Summerville and board member, Dr. Phil Tibbo were invited by Health Canada to participate and present at its first **Partnership Symposium on Cannabis Public Education and Awareness** in

November of 2017. (They have been invited to attend the second symposium on October 1, 2018.)

There is now significant research to conclude there is a definite link between cannabis and psychosis. The THC in cannabis can interfere with the developing brain of a young person and emerging adult as the brain is still in development until age 25. THC can negatively affect the endocannabinoid system. People with a history of mental illness in their family have a 5 to 7 times greater risk of developing psychosis. Cannabis can lead to depression, anxiety and suicidal ideation as well in some individuals. There are other groups at risk such as women who are pregnant or breastfeeding, youth who drive under the influence of cannabis, etc.

With an \$85,000 grant from Health Canada and a \$15,000 grant from the Canadian Centre for Substance Use and Addictions, the SSC has been able to completely redevelop and redesign its cannabis and psychosis website with its partnership with the Canadian Consortium for Early Intervention in Psychosis (CCEIP). Catherine Willinsky was eager to be our Project Coordinator and did an excellent job targeting our messaging to youth. Dr. Phil Tibbo and Dr. Candice Crocker completed an evidence review for SSC which was accepted by the Canadian Centre on Substance Use and Addictions. This review assisted in the redevelopment of the cannabis and psychosis website.

www.cannabisandpsychosis.ca

Dr. Tibbo presented to the Senate around Bill C-45. And in partnership with CCEIP, SSC assisted in the development of a cannabis resource for clinicians and patients. **www.earlypsychosisintervention.ca/cannabis**

CCEIP and SSC also partnered on the following tools:

- About Schizophrenia and Psychosis:
www.earlypsychosisintervention.ca/
- IHope Tool:
www.epicanada.org/wp-content/uploads/2017/05/M241-iHope-Infographic_web.pdf
- Patient Portal:
www.epicanada.org/

Dr. Tibbo, Catherine Willinsky and Chris Summerville will present a session on “Cannabis and Psychosis” at the **Canadian Mental Health Association National Conference** in October, 2018. CMHA will be celebrating their 100th Anniversary. www.conference.cmha.ca/. Chris will also present a session on, “The Heart and Humanity of Mental Health Care: Compassionate Presence.”

SSC and CCEIP partnered with CMHA on the social media awareness campaign of National Schizophrenia and Psychosis Awareness Day this past May 24.



Through its networking abilities and opportunities, the SSC continues to provide national leadership and presence for the “schizophrenia recovery movement” and peer support for families and people living with schizophrenia and psychosis.

Mental Health Commission of Canada

SSC collaborated in an advisory capacity with the Mental Health Commission of Canada on several on-going projects:

- Exploring Policy Considerations for Expanding Access to

Counseling, Psychotherapy, and Psychological Services.

- Reducing Employment Barriers for People Living with a Mental Illness.
- Tool Kits for Survivors of Suicide Loss and Survivors of Suicide Attempts.
- Aging, Mental Health, and Home Care Services.
- Uptake of Family Caregiver Guidelines Roundtable.
- Uptake of Recovery Guidelines Roundtable.
- Advisory Group on Reducing Seclusion and Restraints.
- Reconciliation Dialogue Workshop.
- Evaluating and Improving Collaborative Mental Health Care Across Canada.
- Networking with Mental Health Advisories to the MHCC.
- Hallway Group Advisory of PWLE and Family Members.
- Cannabis Research, Education and Awareness and Mental Health.
- Provincial Mental Health Indicators.

Brock University (St. Catharines, Ontario) and Durham Regional Police

Through our CEO, SSC is assisting with “Scenario Training to Improve Interactions Between Police and Individuals in Mental Crisis: Impacts and Efficacy.” Theatre educators Drs. Natalie Alvarez and Yasmine Kandil of Brock’s Department of Dramatic Arts, and Wilfred Laurier forensic psychologist Jennifer Lavoie, alongside their cross-Canada team with specializations in mental illness and de-escalation training, are partnering with the Durham Regional Police and collaborators from the Ontario Police College. The project is guided by one over-arching research question: can scenario training improve interactions between police and people living

with mental illness (PLWMI)? This research question will be addressed in two parts: Part I advances a form of problem-based scenario training designed to improve interactions between police and PLWMI focusing in particular on de-escalation strategies and de-stigmatization. Part II investigates the outcomes and efficacy of problem-based scenario training in an effort to determine whether these methods produce marked improvements in the quality of interactions between police and PLWMI. The following four objectives best capture the overall aims of the three year project:

- 1 To develop problem-based scenario training methods that focus on de-stigmatization to dismantle perceptions that might lead to discriminatory action or a disproportionate use of force.
- 2 To advance scenarios that focus on procedural justice, effective de-escalation and communication strategies (verbal and non-verbal), and ensure police can employ these strategies effectively in the stress of the encounter.
- 3 To engage PLWMI as well as mental health professionals and organizations in the design and delivery of the scenario training curriculum as well as recruit assessment.
- 4 To foster partnerships between police training programs and university researchers in order to assess whether such scenario training methods improve interactions between police and PLWMI.

Durham Regional Police Service is serving as the pilot site for the study with collaborative participation from the Ontario Police College.

Canadian Alliance on Mental Illness and Mental Health

Both as a member of the Canadian Alliance on Mental Illness and Mental Health (CAMIMH) and on its own, SSC pursued opportunities to advocate for improved funding for and access to treatment and services by working with various federal departments, groups and organizations throughout the year. Much effort was given to advocacy around the Health Accord which became known as “A Common Statement on Principles on Shared Health Priorities.”

Florence Budden, our President finished her terms this year as Chair of the Policy Action Committee of CAMIMH. Our CEO, Chris Summerville began his third year as Co-Chair of CAMIMH with Florence becoming the other Co-Chair. As member of CAMIMH, SSC gave leadership to the CHAMPIONS of Mental Health initiative during Mental Health Day in May of 2017 and with the FACES of Mental Illness Campaign in October, 2017.

Conclusion:

With the assistance of Otsuka Canada Pharmaceutical, Inc. SSC was able to participate in the “Say Yes 2 Me Scholarship Program.” We provided the “Patient Survey/Input” to the Common Drug Review. We worked with Brain Health in the production of three articles and a video for Maclean’s Online entitled “Schizophrenia: An Evolution of Understanding” www.youtube.com/watch?v=v0-DoRHIP8k

With funding from Otsuka, we developed four new SSC videos featuring Leonard Reynen, Rhona Reynen, Dr. Ridha Joobar, and CEO Chris Summerville as they talk about schizophrenia and psychosis. www.schizophrenia.ca/four_videos.php

The SSC website will be redeveloped in the coming months through a grant from Janssen Canada. In partnership with CCEIP, Janssen also produced a video about Quentin who is living proof that with the right treatment, there’s hope for people living with schizophrenia. “Family, friends and the right treatment plan all play an important role in helping him manage symptoms, prevent relapse, and overcome some of schizophrenia’s biggest challenges.” www.earlypsychosisintervention.ca/quentins-story.

The Society has also developed and maintains several educational

websites. The information and materials on these websites have benefited millions of Canadians over a number of years. More than 360,000 Canadians have some form of schizophrenia and three percent of the population will experience psychosis at some time in their lives. All these people have family members, significant others and friends who are also affected by their illness.

We extend a heartfelt thanks to the SSC’s Board of Directors, its board committee chairs and other volunteer committee members for their dedication over the past year. Thanks to Katrina Tinman for the administrative support she provides to Chris in helping SSC operate effectively and efficiently as a “virtual” organization.

We also express our deep appreciation to our members, donors, corporate sponsors and other partners for their contributions to us and their collaborations with us, all of which helped to make 2017-2018 a meaningful and productive year.

Respectfully submitted,

Florence Budden
President

Chris Summerville
CEO

Quality of Life Report: www.schizophrenia.ca/quality_life.php

Respite Survey: www.schizophrenia.ca/respites.php

Schizophrenia and Substance Use: [www.schizophreniaandsubstanceuse.ca/Cannabis and Psychosis Project](http://www.schizophreniaandsubstanceuse.ca/Cannabis_and_Psychosis_Project): www.cannabisandpsychosis.ca/

Rays of Hope: www.schizophrenia.ca/docs/Rays_of_Hope_4th_edition.pdf

Your Recovery Journey: www.schizophrenia.ca/your_recovery_journey.php

hope

support

advocacy

inclusion

recovery

Schizophrenia Society of Canada Foundation (SSCF) 2017-2018 Annual Report

Dr. Phil Tibbo, Chair



2017-2018 SSCF Board of Directors

Dr. Phil Tibbo (Chair)
Nova Scotia

Joan Baylis (Treasurer)
Saskatchewan

Florence Budden
Newfoundland

Dr. John Gray
British Columbia

Dr. Lori Triano-Antidormi
Ontario

Donna Methot
Nova Scotia

Marie Knutson
Saskatchewan

Dr. William Honer
British Columbia

Dr. Trina Montreuil
Quebec

The SSCF was established in 1994 when the late Dr. Michael Smith made a generous donation of half of his Nobel Prize Laureate monies to the SSC. The donation helped form an endowment fund to which others could contribute and support research, now the SSCF. We are forever grateful for Dr. Smith's generosity. His legacy is an inspiration to others to invest in research initiatives.

Research to better understand the biologic basis, psychosocial determinants, as well as pharmacological and non-pharmacological treatment options for schizophrenia is absolutely vital. The SSCF is committed to fostering and supporting research in all areas related to schizophrenia (e.g. biological, psychological, and social) to ensure that recovery is possible.

SSCF Chair and SSCF activities in the 2017/2018 year include, but are not limited to, the following endeavors.

SSCF Chair maintains email contact with the SSCF Board and the SSC CEO on a regular basis on issues that arise.

SSCF Chair has partnered with the SSC CEO on outreach to organizations, and assisted with

projects that are relevant to both SSCF and SSC. This includes:

- 1 Partnering with the Canadian Consortium for Early Intervention in Psychosis (CCEIP; epicanada.org) on cannabis education materials for clinicians and patients.
- 2 Attendance in a consultant role to invited meetings with Health Canada around cannabis legalization.
- 3 Invited presentation as SSCF Chair and CPA lead on cannabis position paper to Canadian Senate.
- 4 Playing a role in the redevelopment and launching (including media contacts) of the SSC cannabisandpsychosis.ca website, funded through Health Canada.
- 5 Assisting in the partnership with CMHA, CCEIP and SSC to provide media coverage for Schizophrenia and Psychosis Awareness Week (May).
- 6 As Chair of SSCF and President of CCEIP I was asked to attend a Canadian-German think tank in July on schizophrenia care, hosted by a German Foundation.

We were fortunate to continue to receive private donations into SSCF. Important to note in 2018, the announcement was made, with media attention, of the contribution of approximately \$180,000 from the Schizophrenia Research Foundation of Saskatchewan (SRFS) to SSCF. SSCF is very thankful for these monies that will allow us to continue our research support. As stated from one of the press releases: *Marie Knutson, President, Schizophrenia Research Foundation of Saskatchewan said, "It is imperative as a Canadian Nation we all unite and work together to ensure and support mental health research."*

SSCF/CCNP 2017 Graduate Studentship for Biomedical Research in Schizophrenia and Psychosis

The Schizophrenia Society of Canada Foundation (SSCF) and the Canadian College of Neuropsychopharmacology (CCNP) formed a partnership in 2017 to offer research support in the form of a stipend and travel award (to present research results at a future CCNP annual meeting) to a doctoral (PhD) and Masters (MSc) student pursuing biomedical research related to the cause of, and interventions for, schizophrenia and related psychosis.

2017/2018 saw the first year of our SSCF/CCNP studentships. See below for more information (year-end reports attached). In the next year this studentship will be offered again, with new students anticipated being awarded for the fall 2019 start.

All applicants were evaluated on a standardized grid including assessing academic dossier and background, research project, significance to objectives of this award, research environment and letters of support. Three reviewers reviewed each file and conflicts were identified to allow a transparent and non-biased evaluation.

The review committee consisted of:

Dr. Ridha Joobar (CCNP President)
Dr. Philip Tibbo (SSCF Chair)
Dr. Patricia Boksa (CCNP)
Dr. Bill Honer (SSCF)
Dr. Tina Montreuil (SSCF)
Dr. Lena Palaniyappan (CCNP)

We were very pleased to announce the following graduate students who were successful in receiving this award:

PhD:

Franz Veru

McGill University, Montreal

"Adipose Tissue Dysregulation through Psychosocial Risk Factors in First-Episode Psychosis"

Supervisor(s): Dr. Ashok Malla and Dr. Srividya Iyer, McGill University

MSc:

T-Jay Anderson

Mount Saint Vincent University,
Halifax

"Non-invasive brain stimulation as treatment for auditory hallucinations in schizophrenia: Transcranial magnetic stimulation vs transcranial direct current stimulation"

Supervisor: Dr. Derek Fisher,
Dalhousie University

Tara Delorme

McGill University, Montreal

"The Interaction Between Circadian Disruption and Genetic Risk Factors for Schizophrenia"

Supervisor: Dr. Nicolas Cermakian, McGill University

Joan Baylis (Treasurer) has been working hard to ensure the financial integrity of the SSCF investments. To this end, she has been working in collaboration with Scotia Wealth Management to develop a strong investment portfolio. Many thanks to Joan.

The Chair wishes to thank the tireless work of Chris Summerville in his support of not only the SSC but as well, the SSCF.

Finally, this is my last term as SSCF Chair and I will be stepping down. This has been a wonderful experience – my gratitude to all that have helped me with respect to SSCF activities is difficult to express.

Respectfully submitted,

Dr. Philip Tibbo

SSCF Chair

SSCF/CCNP Graduate studentship for biomedical research in schizophrenia and psychosis 2017

Year-end Report, 2017-2018

Franz Veru

PhD. Candidate

Department of Psychiatry,
McGill University

Supervisors: Ashok Malla M.D. and
Srividya Iyer Ph.D.

A) Overview

The broader objectives of my doctoral research are: 1) to demonstrate that patients with psychotic disorders bear an increased susceptibility for the development of metabolic disorders, independent of the secondary effects of antipsychotics, and 2) to determine the extent to which such susceptibility depends on psychosocial risk factors.

B) Summary of Previous Research

The previous years had been dedicated to define and refine the objectives of my project, at the same time acquiring the skills required to take the project to a successful completion. My course workload reflects this by including three courses that provide key theoretical pillars of my project. First, I completed a course on advanced statistics, which was focused on regression models, covering the type of data on which my projects are based. Second, a course on psychiatric genetics, which provided a complementary perspective, as genetic variants

could be encompassed as competing/complementary hypotheses of my main theoretical proposition (i.e., that environmental factors are the main drivers of metabolic dysregulation in first-episode psychosis). Finally, a course on Biosociology/ Biodemography, which allowed me to gain deeper knowledge in the sociobiological aspects that affect disease, which widened my understanding by providing a population level perspective of the social determinants of disease.

The next step was to provide a tangible rationale for the exploration of adipose tissue dysregulation. In order to do so, it was necessary to demonstrate the presence of metabolic anomalies at the clinical level. The first component of my project stemmed from this premise. In it, I used data collected at the Prevention and Early Intervention Program for Psychosis Montreal (PEPP). I tested the effect of four psychosocial aspects (childhood trauma, socioeconomic deprivation, migration background, and visible minority status) on the levels of glycated hemoglobin, which is a marker of the metabolic control of glucose. This component of my project demonstrated that belonging to a minority significantly increased the levels of glycated hemoglobin (indirect indication of insulin resistance), even after controlling for BMI, which accounts for the effect of ethnicity. Physical abuse had a marginally significant effect on glycated hemoglobin as well. This part of my research has already been published in the Canadian Journal of Psychiatry [Can J Psychiatry. 2018 (In Press) Jan 1:706743718762097 doi: 10.1177/0706743718762097].

C) Progress Report of the Previous Year (2017-2018)

The main objective in the previous year was to further consolidate the theoretical basis of my project. The main endeavours conducted in the previous year are the conception, analyses and drafting of a manuscript on psychosocial adversity and blood lipid levels, and the definition, outline, planning, and associated logistics of the main component of my doctoral research, which includes the acquisition of data to test the main hypotheses of my doctoral research.

1) Manuscript: Blood lipid levels, socioeconomic deprivation and psychosis

As discussed with my supervisors, and supported by my supervisory committee, before undertaking the main part of my project a second step was necessary to enhance the understanding of metabolic changes in first-episode psychosis, and its relationship with the psychosocial environment. Along with glucose, blood lipids are central markers of the metabolic state, and chief determinants of cardiovascular risk. The objective of the second component of my research is to broaden the scope of our understanding of the relationship between psychosocial adversity and the metabolic control of lipids in first episode psychosis.

In the previous year I conducted a comprehensive literature review, in which socioeconomic deprivation emerged as the most probable environmental factor associated with disturbances of lipid metabolism. I hypothesized that higher levels of social and material deprivation would alter blood lipid levels. To test this, I compiled the database using data collected in the PEPP cohort, and analyzed it. I have already written a manuscript that encompasses this part of my research, and will submit it for publication in the following weeks.

1) Main project: Adipose Tissue Dysregulation Adipokine Levels

The previous two manuscripts demonstrated that there is metabolic dysregulation in first-episode psychosis. More importantly, this foundational part of my project provides evidence that psychosocial factors are partly responsible for such changes. As mentioned above, the first part of my research showed that being part of a visible minority, or having a history of physical abuse, increased the levels of glycated hemoglobin. The second component shows how social deprivation predicts alterations in the levels of blood lipid levels, in a way that suggests changes in cholesterol transport.

These two previous manuscripts provide evidence that there are significant metabolic disturbances at the clinical level in patients with a first episode of psychosis. The determination of the presence of clinical metabolic disturbances supports the exploration of the potential pathophysiological mechanisms responsible for such changes. This allows me to test if one of the leading theories on the origins of metabolic disease –adipose tissue dysregulation– is responsible for the metabolic disturbances observed in patients with psychotic disorders. To determine adipose tissue dysregulation, I will rely on measuring key hormones produced by this tissue: leptin, adiponectin, resistin, and chemerin.

Logistics: Signature Project

The main study of my doctoral research will be conducted using data from the Signature project. This project is based at the Institut Universitaire en Santé Mentale de Montréal –IUSMM. In brief, Signature recruits participants from the IUSMM’s emergency department, who consent to provide blood samples, and to answering questionnaires related to various aspects of mental and physical health.

In the previous year I had been working closely with the team at the Signature project. An initial project proposal was sent to Signature. A discussion of the feasibility of the proposal ensued, and changes were made according to the availability of the data at Signature. After arriving to a final version of the proposal, a research protocol was drafted and an application to the research ethics board of the IUSMM was made as well. The research protocol was successfully approved, only needing minor changes.

After approval, the team at Signature identified a total of 180 potential cases for inclusion in their database. The clinical files of these pre-selected cases were thoroughly reviewed to ensure that the participants corresponded to the inclusion criteria. Of particular importance were the confirmation of no previous episodes of psychosis, and exposure to medication (antipsychotics or antidepressants) of less than one week. This revision ensured the quality of the sample, which yielded a total of 51 cases of completely or almost drug-naïve patients with a first-episode of psychosis. A total of age-matched 40 controls were included as well.

Following the selection of the cases, a request for the following data was made: demographic information, childhood experiences of trauma

questionnaire, depression scores, diabetes diagnosis, prescriptions, diagnoses, anthropometric measures, tobacco use, and physical disability score (walking long distances). In addition, a request for the laboratory analysis of adipokine levels (indicators of adipose tissue dysregulation) from stored (frozen) serum samples: leptin, adiponectin, resistin, and chemerin. Signature has already processed the samples and sent the data. In the previous weeks I have been revising and organizing the database for analysis.

Summary of Progress in the previous year:

- Second component of doctoral project.
 - Literature review.
 - Conception, planning and hypothesis formulation.
 - Database organization (PEPP data) and data analyses.
 - Manuscript writing and editing.
- Theoretical foundation of main component of doctoral project.
 - Literature review.
 - Conception, planning and hypothesis formulation.
- Logistics of main component of doctoral project.
 - Planning, contacting and working together with Signature project team.
 - Drafting ethics protocol, and submission to the ethics board of the IUSMM.
 - Writing research protocol, and submission to the Signature Project.
 - Selection of participants from Signature through revision of clinical files according to inclusion criteria.
 - Final coordination and request for database variables.
- Implementation of main component of doctoral project.
 - Database revision and cleanup.

SSCF/CCNP Studentship Yearly Report: The Interaction Between Circadian Dysfunction and a Neuro- developmental Risk Factor for Schizophrenia

Tara Delorme

Dr. Cermakian and Dr. Srivastava
(Supervisors)

Introduction

One of the many challenges in developing effective treatments for those suffering from psychiatric disorders, including schizophrenia, is that these disorders are multifaceted in nature. They are likely triggered through a complex set of interactions between genes, environmental exposures, and developmental insults. These interactions are currently poorly understood. Our aim is to explore if circadian disturbance, an environmental exposure, contributes to the development of schizophrenia. Disrupted circadian rhythms have been reported in many psychiatric patients, affecting up to 80% of schizophrenia patients. It is likely that circadian disruption interacts with schizophrenia in two related ways. Firstly, circadian disruption may contribute to the etiology of schizophrenia, causing a worsening of the preexisting symptoms. Alternatively or conjunctively, circadian disruption may be an additive risk factor that triggers the development of schizophrenia.

To understand whether disrupted circadian rhythms contribute to schizophrenia, we are using a well-established neurodevelopmental mouse model. The viral mimic polyinosinic:polycytidylic acid (polyIC) is a synthetic analog of double stranded RNA and causes an acute systemic challenge in the animal to which it is administered. Pregnant dams thus undergo maternal immune activation (mIA) at a specific point in gestation, which leads to direct physiological changes in the fetal environment and negatively affects the course of early brain development in the offspring. Offspring exposed to polyIC in utero exhibit neurobehavioural impairments that have been shown to affect motor control, anxiety, sociability, memory, and sensorimotor gating that are reminiscent of schizophrenia symptoms.

Our central hypothesis is that circadian disturbance may contribute to the development of schizophrenia, and in conjunction with a developmental insult (i.e. polyIC exposure), might increase its incidence.

Objectives

Our hypothesis is that circadian disturbance may be an additive risk factor for schizophrenia. The first aim is to investigate if circadian disruption is a symptom of schizophrenia. Mice that were exposed to polyIC in utero are assumed to display schizophrenia-like phenotypes. I am therefore characterizing the running wheel behavior of male and female polyIC exposed mice compared to controls (experiment one). Mice in running wheels have been exposed to several different lighting environments, each for a period of at least 2 weeks. These are: LD12:12 (a typical lighting condition), a single 6-hour phase advance (like a time zone shift, to assess clock

resetting), and constant conditions, both constant darkness (DD) and constant light (LL) (environments absent of external timing cues).

The second aim is to investigate if disrupting the circadian clock of polyIC exposed mice will interact with mIA and exacerbate schizophrenia-like behavior. We know that exposure to constant light disrupts circadian behavioural rhythms by disrupting the cellular organization of the suprachiasmatic nucleus⁷. I am therefore disrupting the circadian clock with constant light exposure and then assessing schizophrenia-like behavior of male and female polyIC exposed mice compared to controls (experiment two). The four behavioural tests to assess schizophrenia-like behaviour are: Crawley's social interaction test, prepulse inhibition of acoustic startle, activity box and elevated plus maze. The mice in this experiment are from a second group of polyIC mice and controls. Mice were tested after three weeks in LD12:12 to serve as a baseline measure of behaviour. To explore the proposed interaction between circadian disruption and mIA, mice will be tested again, this time after constant light exposure. This round of testing is currently underway. Lastly, I will test mice a third time after another LD12:12 exposure, serving as a recovery treatment.

Preliminary Results

For experiment one, I have already collected wheel-running activity of polyIC/saline-exposed mice after being subjected to several lighting conditions. Of these data, I have already phenotyped the wheel-running activity of male mice when exposed to LD12:12. I found that male polyIC-exposed mice had increased daytime running compared to controls and that some male polyIC exposed mice began running a few hours before the lights turned off.

For experiment two, I have completed the baseline behavioural testing after mice are exposed to LD12:12. This included 4 behavioural tests, of which, 2 have already been analyzed in males. Our preliminary data in males showed no significant differences between groups in the open field and in the elevated plus maze. Prepulse inhibition of acoustic startle and Crawley's three chamber social interaction test still need to be analyzed. I will repeat behavioural testing in the same mice after they are exposed to LL, a condition known to disrupt circadian rhythms. Then again after exposure to a recovery LD12:12 lighting condition.

Upcoming experiments

To ensure sound results, I will be repeating all the aforementioned experiments. I will also add two control experiments.

The first control experiment is to ensure that the maternal polyIC injection did not alter post-partum maternal behavior. Differences in mother-pup interactions between groups could be a confounding variable that could later drive behavioural differences in the pups. Thus, I will videotape and score maternal behavioural in polyIC-injected dams compared to controls.

The second control experiment will serve to validate our model of maternal immune activation, as well as our lot of polyIC. For this experiment, I will collect a blood sample from pregnant dams 3 hours post polyIC/saline injection on embryonic day 9.5. I will

measure the cytokine response of each dam, by quantifying inflammatory proteins such as (IL)-1, IL-6 and TNF α . For this experiment, I have already collected blood samples from half of our desired sample size.

Significance of work

This project serves to better understand the interaction between two environmental risk factors for schizophrenia: circadian disruption and a developmental insult, maternal immune activation. Specifically, we want to know if the combination of these risk factors promoted the onset or the worsening of schizophrenia-like phenotypes. This work will also suggest new therapeutic strategies to control or prevent schizophrenia and related psychosis.

SSCF-CCNP Studentship Annual Progress Report

Recipient: T-Jay Anderson
University: Dalhousie
Program: Clinical Psychology
Year of Funding: 1

My research interests involve the treatment and monitoring of auditory hallucinations in schizophrenia with non-invasive neuroelectric methods. I am particularly interested in using electroencephalograph/fMRI brain-based measures to track treatment progress with measures

of basic sensory processing. These measurements involve the auditory mismatch negativity which is an event related potential (ERP) in response to violations of auditory schema on a preconscious level of neural processing. As for treatment, I am interested in the use of transcranial direct current stimulation and transcranial magnetic stimulation in the treatment of auditory hallucinations in schizophrenia, then being indexed by the mismatch negativity. Since these are intertwined endeavors my research interests will span the entirety of my thesis and throughout the incoming PhD.

My progress to date has largely involved the training of my foundational skills as a clinician which have covered advanced research statistics and modeling with R and MATLAB software, clinical interviewing, assessment, and therapeutic skills. Along with my clinical training I have been undergoing the beginnings of researching how the mismatch negativity is associated with symptoms before moving on to how it changes with treatment. I have been finishing a project on the effects of caffeine on basic auditory processing and have been going through steps to get clearance from Dalhousie and Mount Saint Vincent on the ethical level as well as for the use of my comprehensive projects in my research of the mismatch negativity in a schizophrenia spectrum starting with sub-clinical schizotypy.

\$7 billion

The cost to the Canadian economy due to hospitalization, disability payments, income security, and lost productivity each year



People hospitalized and in care with schizophrenia occupy one out of twelve hospital beds



Twice as prevalent as Alzheimer's disease



Five times as prevalent as Multiple Sclerosis



Six times as prevalent as Diabetes



Sixty times more prevalent than Muscular Dystrophy



50% are not receiving appropriate health and social care

\$1.2 million

Voices of Change campaign will bring renewed actions

2x

More likely to die prematurely than the general population

360,000

Canadians living with schizophrenia



Treasurer's Report

Joan Baylis

I am pleased to report on the Schizophrenia Society of Canada financial statement for the year ending March 31, 2018. Our revenue for the year was **\$368,356**. Net assets at the end of the year were **\$406,181**.

Net Assets for the SSC Foundation were **\$1,494,712**.

Working with ScotiaWealth Management and the Investment Policy Statement for SSC and SSCF, the two Boards continue to look for ways to diversify and expand our base of individual, corporate, and government funders. SSC continues to support individuals and family members with an array of innovative programs and initiatives for those

living with schizophrenia and other related mental illnesses. While SSC continues to be conservative in their spending, the CEO and board continue to look for ways to increase the revenue in our society to allow improvement in the cash flow thus allowing the society to have continued growth and fulfill its Mission Statement.

I wish to thank our CEO, staff and Board Members for the opportunity to serve on the Board and I continue to look forward to working with each of you in the future. A copy of the SSC and AAC Foundation audited Financial Statements for the year ending March 31, 2018 can be found at **www.schizophrenia.ca**.

For more information on the Schizophrenia Society of Canada and the Schizophrenia Society of Canada Foundation, please contact us at:

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Schizophrenia Community Radio: **www.schizophrenia.ca/schizophrenia_community_radio.php**



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