

CCNP 46th Annual Meeting

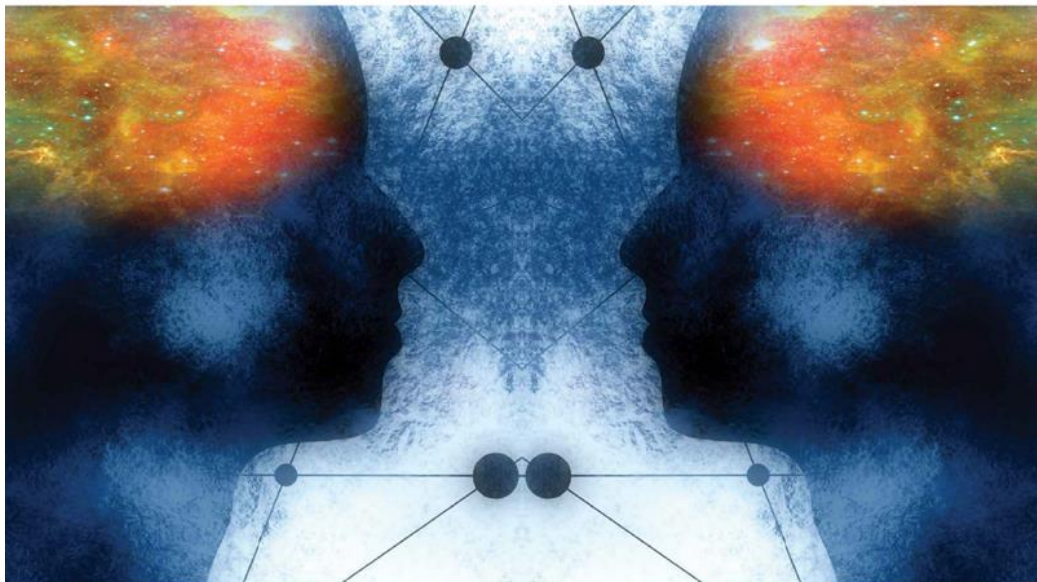
September 25-27, 2024

Calgary, AB

Conference Programm



CANADIAN COLLEGE OF NEUROPSYCHOPHARMACOLOGY
COLLÈGE CANADIEN DE NEUROPSYCHOPHARMACOLOGIE



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2024 Presidential Welcome (on behalf of the CCNP Council)

Welcome to Calgary, one of Canada's most vibrant cities, uniquely located between the Prairies in the East and the (Rocky) Mountains in the West! One could be inclined to draw a parallel with CCNP's core mission in bridging two seemingly different areas in neuroscience, namely the basic and the clinical sciences. Indeed, since 1978, CCNP has grown to become Canada's leading organization in neuroscience and clinical neuropsychopharmacology. Like no other, CCNP has facilitated networking, new collaborations, and supported trainees to build their careers. CCNP is also proud of its Awardees over the years, a true "Who is Who" of the most renowned past and current neuroscientists in Canada!

However, the CCNP's future will also depend how to address unprecedented challenges: While recovering from the aftermaths of the COVID-19 pandemic, challenges also include managing the generational turnover, to raise sustained interest in College memberships, to obtain ongoing sponsoring for the awards and conference management; among other much-needed tasks. Much of the required efforts will depend implementing ideas to rebuild, rejuvenate and modernize the College. However, for the new College to really strive, *we need you and we invite you to support the CCNP!* For example, a new mentor-mentee program should be developed, principles of EDI implemented at each level of the College. In sum, we encourage you to share your ideas, to volunteer reforming our committees, and to attend our future annual meetings. With respect to organizing future meetings, beginning with the one in 2025, this will occur in a much timely manner than this year around and thank you for your patience!

But, coming back to our Annual meeting, first a big thankyou to everyone who contributed in the organization of this meeting, in particular the Local Organizing Committee (LOC) comprised of Dr. Alexander McGirr and Dr. Darya Sargin (both University of Calgary) and the executive board members, in particular Dr. Darrell Mousseau (Secretary) and Dr. Joshua Rosenblat (Treasurer), as well as the councillors, and committee members. Last, but not least, we are extremely thankful for the assistance of Ms. Trudy Valiere. Trudy has just joined us after the 2023 meeting (replacing Rachelle Anderson after more than 25 years of service!) and her support has been invaluable in the organization of this year's conference.

The 2024 scientific program highlights recent advances in addiction research. We thank the keynote speakers Drs. Isabelle Boileau (Toronto), Jibran Khokar (London) and Christian Schütz (Vancouver) for providing us with important and exciting updates at the meeting!

We also thank everyone who is listed as speaker or poster presenter for their invaluable contribution to the conference. We are proud to note that thanks to the efforts of the LOC, all submitted symposia could be accommodated at the venue saving us [torment] feelings by not needing to send off regretful notes to any of our colleagues!

Finally, as in the past years, CCNP has received stellar applications for the Awards and we are delighted to congratulate the W.G. Dewhurst Travel Award winners and the following Awardees:

Heinz Lehman Award – Dr. Marco Leyton (Montreal)

CCNP Medal – Dr. Jane Foster (Hamilton/ Dallas)

Innovation in Psychopharmacology Award – Dr. Chad Bousman (Calgary)

Young Investigator Award – Drs. Melissa Perreault (Guelph) and Jibran Khokar (London)

Please join us in congratulating the Awardee and please do not miss the Award Session.

Thank you for attending and once again: **Welcome to the Annual Meeting, Welcome to Calgary, and let all of us enjoy the meeting now!**



2024 CCNP Annual Meeting
Calgary, Alberta
Alt Hotel University District
September 25th-27th, 2024

September 25th, 2024 - Wednesday

15h30 – 17h00	CCNP Board & Committee Chairs Meeting Alt Hotel
17h00-19h00	Registration Welcome Reception (no registration required) Alt Hotel

September 26th, 2024 - Thursday

7h30 **Breakfast/Registration**

8h30 **President's welcome address**
(Including announcement of election results)

9h00 **Keynote Speaker: Isabelle Boileau, PhD**
University of Toronto
Beyond Dopamine: PET Imaging Discoveries in Addiction Neuroscience

10h00 **Coffee break**

10h30 **Parallel Symposia #1&2**

1. Biologically-meaningful translation of preclinical research to humans

Antoine Beauchamp, Sick Kids
Cross-species spatial transcriptomics: Mapping mouse and human brains using spatial gene expression patterns

Yohan Yee, McGill University
Cross-species neuroanatomical brain networks: Understanding the biological basis of structural covariance networks and its disruption in psychosis

Kate Onuska, Western University
Cross-species cognition: The impact of ApoE4 on touchscreen cognition in unique trajectories of brain aging

Anum Rahman, University of Calgary
Cross species model development: Examining fetal brain development through a phenotypically-valid mouse model of congenital heart disease

2. Modernizing Neuromodulation: Novel Outcomes and Combinations

David Benrimoh, McGill University
Early Changes in Lassitude Differentiate Active vs. Sham and Predict Outcomes in Treatment Resistant Patients Undergoing Stanford Neuromodulation Therapy (SNT) for Major Depression

Marilena M DeMayo, University of Calgary
Neurocognitive Effects of Adjunctive D-Cycloserine and Intermittent Theta-Burst Stimulation in Major Depressive Disorder

Alban Voppel, University of Toronto
Brain Stimulation Effects on Negative Thought Disorder: A MRI and BERT Analysis

Michael Kiang, University of Toronto

Event-related brain potential markers of semantic processing as predictors of functional outcome in persons at clinical high risk for psychosis

12h00

Lunch

13h00-14h00

Keynote Speaker: Jibran Khokhar, PhD (2024 CCNP Young Investigator Award Winner)

Western University

Studying Emerging Trends in Substance Use: We're Open for Translation!

14h00-15h30

Symposium #3

3. Toward Understanding the Molecular Mechanism and Safer Prescribing of Clozapine

Reza Rafizadeh, University of British Columbia

Impact of patient-specific factors on clozapine metabolism in individuals with treatment-resistant schizophrenia or schizoaffective disorder

Daniel Müller, University of Toronto

Polygenic risk scores analyses of psychiatric and metabolic traits with antipsychotic-induced weight gain in schizophrenia

Chad Bousman, University of Calgary

(2024 Innovation in Psychopharmacology Award Winner)

Differential DNA methylation and gene expression in stem cell-derived cardiomyocytes from patients with and without a history of clozapine-Induced myocarditis

Nazanin Vaziri, University of Calgary

Examination of mitochondria- and inflammasome-mediated mechanisms of clozapine-induced myocarditis using patient-derived iPSC cardiomyocytes

14h00-16h00

4. Oral Presentations

Donovan Ashby, University of Calgary

Midline Cortical Inputs to medial Zona Incerta mediate locomotor activity

Rayyan Zuberi, University of Calgary

Impact of cannabinoid use on selective serotonin reuptake inhibitor efficacy and tolerability in adolescents

Samar Elsheikh, University of Toronto

Modelling the Interaction between Environmental and Polygenic Risk for Late-Life Depression Using Structural Equation Modelling

Alban Voppel, McGill University

Taking a look at your speech: Schizophrenia detection and symptom assessment using convolutional neural networks

Erica Kaczmarek, University of Toronto

Changes in Symptoms of Anhedonia with Psilocybin-Assisted Psychotherapy: A Secondary Analysis of a Randomized Clinical Trial for Treatment-Resistant Depression

Sara Asgharzadeh, University of Ottawa

Pcdh α C2 Gene is Required for Serotonin-Axonal Regrowth in Fluoxetine-Induced Recovery from Post-Stroke Depression

Cassie Cote, University of Toronto

Investigating Neurodevelopmental Changes in Synaptic Density: Preliminary Data from a Longitudinal PET study using [18 F]SynVesT-1 in Youth Seeking Mental Health Treatment

16h00-17h30 **Poster Setup**

16h00-17h00 **Awards Ceremony and Lectures**

Marco Leyton, McGill University; **2024 CCNP Heinz Lehman Award Winner**

(Title: “Reimagining the Diathesis-Stress Model: Temperament, Adversity, Biology”)

Melissa Perreault, University of Guelph; **2024 Young Investigator Award Winner**

(Title: "A female-specific role for cortical Eph-ephrin signaling in depression")

17h30-19h00 **Poster Session**

20h00- **Dinner (registration required)**



September 27th, 2024 - Friday

7h30 **Breakfast**

9h00 **Keynote Speaker: Christian Schütz, MD PhD MPH**
University of British Columbia
Breaking the Chains: Advances in Addiction Treatment

10h00 **Coffee break**

10h30 **Parallel Symposia #4&5**

4. Intersectional strategies to enhance neurostimulation physiological effects and clinical outcomes

Sara Tremblay, University of Ottawa
The role of physical activity and biological sex on antidepressant outcomes following theta burst stimulation for treatment-resistant depression

Joshua Brown, Harvard University
NMDA and GABA Receptor Roles in Human Corticomotor Transcranial Magnetic Stimulation

Molly Watson, University of Calgary
A pharmacokinetic study of D-Cycloserine augmentation of intermittent theta-burst stimulation in Major Depressive Disorder

Mascha van't Wout, Brown University
Synergistic application of transcranial direct current stimulation and virtual reality exposure for PTSD.

5. Advancing Understanding and Collaboration in Neurodevelopmental Disorders: Insights, Innovations, and Impacts

Karen Kelm, Fragile X Research Foundation of Canada
Strategic Insights from Real-World Experience: Inspiring Impactful Research in Fragile X Syndrome

Sarah Lippe, University of Montreal
EEG characteristics in Fragile X Syndrome: how it relates to behavior.

Kara Murias, University of Calgary
Two approaches to personalized treatment in NDD: targeting symptoms, targeting pathways

Ning Cheng, University of Calgary
Targeting ERK Signalling in Fragile X Syndrome and Autism

12h00

Lunch

13h00-14h30

Parallel Symposia #6&7

6. *Microglia and mental health*

Corina Nagy, McGill University

High-resolution omics highlight the sex-specific gene programs in normative development and alterations in major depression

Clare Beasley, University of British Columbia

Analysis of microglial characteristics and inflammatory mediators in postmortem prefrontal cortex in schizophrenia and bipolar disorder

Marie-Ève Tremblay, University of Victoria

Effects of cannabis and psychedelics on microglia

Hector J. Caruncho, University of Victoria

Reelin, microglia, and neuroinflammation in neuropsychiatric disorders: observations in animal models

7. *Recent Advances in Interventional Psychiatry*

Joshua D. Rosenblat, University Health Network

Real World Effectiveness of Intravenous Ketamine in Patients with Complex Presentations

Jennifer L. Phillips, University of Ottawa

Change in Clinical Symptoms, Metabolic and Inflammatory Markers with Esketamine Treatment:

Myren N. Sohn, University of Calgary

Intermittent theta-burst stimulation with adjunctive D-Cycloserine rapidly resolves suicidal ideation and decreases implicit association with death/suicide:

Venkat Bhat, Unity Health

Deep Brain Stimulation in Treatment Resistant Depression: A Randomized Controlled Trial

14h30-15h30

Career Development

Details TBA

15h30-17h00

Parallel Symposia #8&9

8. *Innovations in Diagnosis and Interventions of Alzheimer's Disease*

Michael F. Jackson, University of Manitoba

How to disrupt excitotoxic cascades that drive neuroinflammation in Alzheimer's disease

Satyabrata Kar, University of Alberta

Potential of native PLGA nanoparticles in the treatment and diagnosis of Alzheimer's disease

Darrell Mousseau, University of Saskatchewan

Patient-derived brain organoids as a preclinical-translational model of late-onset Alzheimer disease

Cheryl Wellington, University of British Columbia

Insights from a super seniors population: plasma biomarkers relevant to Alzheimer's Disease increase in magnitude and vary with age

9. *Improving Outcomes of Major Depressive Disorder through Multi-Level Biomarker Discovery: A 10-Year Update from the Canadian Biomarker Integration Network in Depression (CAN-BIND)*

Valerie Taylor, University of Calgary

Chair and Moderator

Leen Magarbeh, University of Toronto:

Characterizing Genetic Contributions to Antidepressant Treatment Outcomes

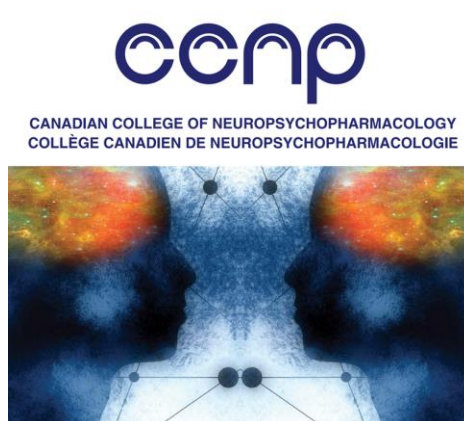
Stefanie Hassel, University of Calgary

An Overview of and Lessons Learned from the NeuroImaging Platform

17h00-17h30

President's closing remarks

(+ Outlook for the 2025 CCNP Meeting)



<https://ccnp.ca>