





## Who are we?

A joint research centre of McMaster University and St. Joseph's Healthcare Hamilton, the Michael G. DeGroot Centre for Medicinal Cannabis Research was launched in 2017 to advance the science of cannabis in response to dramatic increases in medical cannabis use and impending recreational cannabis legalization in Canada. The MGD CMC seeks to advance the knowledge base on cannabis and be an authoritative source of evidence-based information about medical cannabis and cannabis in general. To do so, the MGD CMC has created a network of researchers and clinicians at McMaster and St. Joe's, providing infrastructure and funding to conduct scientifically innovative and clinically important research.



### **Vision**

An evidence-based understanding of medicinal cannabis, encompassing both its potential therapeutic effects and associated risks

### **Mission**

To leverage the highest standards of research methodology to advance the understanding of medicinal cannabis

## **Leadership & Faculty Affiliates**

James MacKillop, PhD, Director

Jason Busse, DC, PhD, Associate Director

Iris Balodis, PhD Knowledge Translation Lead

Jeremy Hirota, PhD, Respiratory Effects Lead

Jennifer Brasch, MD, Co-Chair, Medical Advisory Board

Ramesh Zacharias, MD, Co-Chair, Medical Advisory Board

### *Faculty Affiliates*

Anthony Adili, MD | Suzanne Archie, MD | Ali Ashkar, PhD | Mohit Bhandari, MD, PhD | Jennifer Brasch, MD | Philip Britz-McKibbin, PhD | Eric Brown, PhD | Gary Chaimowitz, MB, MBA | David Collister, MD | Nicole Dalmer, PhD | Michael DeVillaer, MASc | Bernice Downey, PhD | Benicio Frey, MD, PhD | Chelsea Gabel, PhD | Christine Grant, MD | Saara Greene, PhD | Michel Grignon, PhD | Emmanuel Guindon, PhD | Michael Gupta, MD | Gordon Guyatt, MD, MSc | Terence Ho, MD, MSc | Laura Katz, PhD | Michele Karsouii, MD | Mitch Levine, MD, MSc | Anthony Levinson, MD | Kim Madden, PhD | Jakob Magolan, PhD | Randi McCabe, PhD | Catharine Munn, MD | Vikas Parihar, PharmD | Stuart Phillips, PhD | Sandeep Raha, PhD | Elyanne M. Ratcliffe, MD, FRCPC | Karen Rowa, PhD | Harsha Shanthanna, MD | Alison Shea, MD, PhD | Gurmit Singh, PhD | Jean-Eric Tarride, PhD | Michael Van Ameringen, MD | Meredith Vanstone, PhD | Michael Walsh, MD | Han Zhang, MD

**Program Committee:**

Bradley T. Conner, Ph.D., Conference Program Committee Chair, RSMj Executive Board Member

Kristina T. Phillips, Ph.D., Conference Program Committee Member, RSMj Board Member, Submissions Team Lead

Jeffrey D. Wardell, Ph.D., Conference Program Committee Member, Toronto Ground Team Lead, Submissions Team Member

Jamie E. Parnes, Ph.D., Conference Program Committee Member, Trainee Program Committee Lead, Submissions Team Member

Lauren Micalizzi, Ph.D., Conference Program Committee Member, Submissions Team Member

Sophie G. Coelho, Conference Program Committee, Trainee Program Committee Member, Toronto Ground Team Member, Submissions Team Member

Kyra N. Farrelly, Conference Program Committee, Trainee Program Committee Member, Toronto Ground Team Member, Submissions Team Member

Stephanie Penta, Conference Program Committee, Trainee Program Committee Member, Toronto Ground Team Member, Submissions Team Member



The Downtown Toronto  
Hilton  
Meeting Space

Our program will be  
offered on the Convention  
Level with:

Keynotes and Symposia in  
The Toronto III

Symposia in Tom  
Thomson and Carmichael  
Posters in Toronto II

and

Breakfast, Drinks, and  
Conference Registration  
in the Toronto Foyer



## THURSDAY JULY 18, 2024

<b>9:00 AM – 5:00 PM</b>	<b>Michael G. DeGroot Centre for Medicinal Cannabis Research Virtual Continuing Education Sessions</b>
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<b>6:00 PM – 9:00 PM</b>	<b>Pre-Conference Social Event at the Bar Hop Brewco., 137 Peter St, Toronto (Badge Pick Up, Cash Food and Bar)</b>
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## FRIDAY JULY 19, 2024

<b>Room:</b>	<b>Toronto Ballroom III</b>	<b>Tom Thomson</b>	<b>Carmichael</b>	<b>Toronto Ballroom II</b>
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<b>8:00 AM – 5:00 PM</b>	<b>Conference Registration and Badge Pick Up, Toronto Ballroom Foyer</b>
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<b>8:00 AM – 9:00 AM</b>	<b>Continental Breakfast and Coffee and Drink Service, Toronto Ballroom Foyer</b>
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<b>9:00 AM – 9:15 AM</b>	Opening Remarks: Adrian Bravo and James MacKillop	--	--	Poster Session 1 Setup Throughout the Day
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<b>9:15 AM – 10:30 AM</b>	Keynote: Sherry Stewart			
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<b>10:30 AM – 10:45 AM</b>	<b>Break: Coffee and Drink Service, Toronto Ballroom Foyer</b>			
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<b>10:45 AM – 12:00 PM</b>	The Effects of Cannabinoids in Different Contexts, Age Groups, and Conditions: New Neuroscientific and Behavioral Directions Symposium (Pearlson)	Retail Cannabis Dispensaries: Examining Purchasing Behavior and Exposure to Product Marketing Symposium (Pedersen)	Cannabis Use Among Older Adults Paper Session (Balodis)	--
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<b>12:00 PM – 1:30 PM</b>	<b>Break for Lunch (on your own)</b>			
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<b>1:30 PM – 2:45 PM</b>	Advancing Science on Cannabis' Potential Harms and Therapeutic Benefits: Insights from Experimental Cannabis Administration Studies Symposium (Berey)	Advances in Understanding Antecedents and Consequences of Cannabis and Alcohol Co-Use: Insights from Momentary Data in Young Adults Symposium (Gunn)	Cannabis and Tobacco Co-Use Paper Session (Padovano)	--
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<b>2:45 PM – 4:00 PM</b>	Student Award Winner Flash Talks (Trainee Program Committee)	Highlighting the Research in <i>Cannabis</i> (Pedersen)	--	--
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<b>4:00 PM – 5:00 PM</b>	--	--	--	Poster Session I
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<b>5:00 PM – 7:00 PM</b>	<b>Social Event at Chef's Hall, 111 Richmond St W, Toronto (Light Food Provided, Cash Bar)</b>			
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## SATURDAY JULY 20, 2024

<b>Room:</b>	<b>Toronto Ballroom III</b>	<b>Tom Thomson</b>	<b>Carmichael</b>	<b>Toronto Ballroom II</b>
<b>8:00 AM – 5:00 PM</b>	<b>Conference Registration and Badge Pick Up, Toronto Ballroom Foyer</b>			
<b>8:00 AM – 9:00 AM</b>	<b>Continental Breakfast and Coffee and Drink Service, Toronto Ballroom Foyer</b>			
<b>9:00 AM – 10:15 AM</b>	Keynote: Jason Busse	--	--	Poster Session 2 Setup Throughout the Day
<b>10:15 AM – 10:30 AM</b>	<b>Break: Coffee and Drink Service, Toronto Ballroom Foyer</b>			
<b>10:30 AM – 11:45 AM</b>	Cannabis and Physical Activity Symposium (Zeiger)	Reaching the Modern Cannabis Consumer: Using Research to Guide Messages and Strategies to Close Knowledge Gaps and Catch Up to Rapidly Changing Cannabis Policy Landscapes Symposium (Okey)	Cannabis and Other Drug Co-Use Paper Session (Metrik)	--
<b>11:45 AM – 1:15 PM</b>	<b>Break for Lunch (on your own)</b>			
<b>1:15 PM – 2:30 PM</b>	New Directions in the Use of the Marijuana Purchase Task to Assess Behavioral Economic Demand for Cannabis: Meta-analytic, Laboratory, and Neuroimaging Findings Symposium (Amlung)	Making Decisions about Cannabis Use Before, During, and After Pregnancy Symposium (Micalizzi)	Grant Funding in Cannabis Research: Perspectives Across Training Stages and US and Canadian Mechanisms Panel (Smith-Lecavalier)	--
<b>2:30 PM – 2:45 PM</b>	<b>Break: Coffee and Drink Service, Toronto Ballroom Foyer</b>			
<b>2:45 PM – 4:00 PM</b>	Career Paths in Cannabis: Mentorship Meet and Greet about Graduate School, Postdoc, Academia, Clinical Practice, and More Mentoring Circles (Trainee Program Committee)	Cutting Through the Haze: Bridging the Gap Between Regulators and Researchers to Inform Effective Cannabis Policy Symposium (Johnson)		--
<b>4:00 PM – 5:00 PM</b>	--	--	--	Poster Session 2

**SUNDAY JULY 21, 2024**

<b>Room:</b>	<b>Toronto Ballroom III</b>	<b>Tom Thomson</b>	<b>Carmichael</b>	<b>Toronto Ballroom II</b>
<b>8:00 AM – 12:00 PM</b>	<b>Conference Registration and Badge Pick Up, Toronto Ballroom Foyer</b>			
<b>8:00 AM – 9:00 AM</b>	<b>Continental Breakfast and Coffee Service, Toronto Ballroom Foyer</b>			
<b>9:00 AM – 10:15 AM</b>	A Within-Subjects and Placebo-Controlled Observational Assessment of Self-Administered Cannabis Edibles Symposium (Smith)	--	--	--
<b>10:15 AM – 10:30 AM</b>	<b>Break: Coffee and Drink Service, Toronto Ballroom Foyer</b>			
<b>10:30 AM – 11:45 AM</b>	Cannabis-Related Policy in Canada Paper Session (Rundle)	--	--	--
<b>11:45 AM – 12:00 PM</b>	Concluding Remarks: Adrian Bravo and James MacKillop	--	--	--

## **Thursday, July 18, 2024**

9:00 am – 4:00 pm

### **Michael G. DeGroot Centre for Medicinal Cannabis Research Virtual Continuing Education Sessions**

These sessions are intended for any health professional to learn about the science of cannabis and to have access to the most current research and guidance regarding its use in healthcare practices. Any healthcare professional, with any level of education or professional requirement, will be able to attend and benefit from the sessions.

This one-credit-per-hour Group-Learning program meets the certification criteria of the College of Family Physicians of Canada and has been certified by the McMaster University Continuing Professional Development Program for up to 4.0 Mainpro+ credits.

This activity is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada and approved by McMaster University Continuing Professional Development Program. You may claim a maximum of 4.0 MOC Section 1 hours (credits are automatically calculated). These sessions are also accredited for four hours of continuing education through the Ontario Psychological Association

9:00 am – 10:00 am

#### **Session #1: Cannabis and Cannabinoid Fundamentals**

Presented by: Dr. James MacKillop

This session will introduce learners to cannabis as medicine and estimate the scope of recreational and medical cannabis use in Canada.

11:00 am – 12:00 pm

#### **Session #2: State of the Evidence on Medical Cannabis**

Presented by: Dr. Jason Busse

This session will allow learners to describe and critically appraise the moderate to high certainty evidence of cannabis use for various medical conditions.

1:00 pm – 2:00 pm

#### **Session #3: Risks and Harms from Cannabis**

Presented by: Dr. James MacKillop

This session will explain the evidence to inform both short and long-term harms associated with use of medical cannabis – including overall prevalence, psychiatric events, dependence and withdrawal syndrome, and serious events leading to discontinuation.

3:00 pm – 4:00 pm

#### **Session #4: Practical Considerations for Treating Chronic Pain with Medical Cannabis**

Presented by: Dr. Ramesh Zacharias and Dr. Mahmoud Siyam

This session will describe the practical applications of cannabis for medical purposes: with specific examples drawn from the area of chronic pain, including an examination of drug interactions.

## **Thursday, July 18, 2024**

6:00 pm – 9:00 pm

### **Pre-Conference Social Event**

*Bar Hop Brewco, 137 Peter St, Toronto*

Please Join Us for a Pre-Conference Welcome

Food and Drinks are available for purchase.

*We will have conference badges with us as well as locals who can provide good tips on how best to enjoy Toronto.*

## **Friday, JULY 19, 2024**

8:00 am – 5:00 pm

### **Check-In/Registration**

*Toronto Ballroom Foyer, Convention Level*

8:00 am – 9:00 am

### **Continental Breakfast**

*Toronto Ballroom Foyer, Convention Level*

9:00 am – 9:05 am

### **Conference Opening/Introduction**

*Toronto Ballroom III, Convention Level*

Bradley Conner (*Colorado State University*)

9:05 am – 9:15 am

### **Opening Remarks**

*Toronto Ballroom III, Convention Level*

Adrian J. Bravo, President of RSMj (*William & Mary*)  
James MacKillop, Director of the Michael G. DeGroot Centre for  
Medicinal Cannabis Research, (*McMaster University*)

9:15 am – 10:30 am

### **Keynote Address**

*Toronto Ballroom III, Convention Level*

**Trauma Cue Reactivity Paradigms as a Tool for Studying Affective and  
Cognitive Mechanisms Contributing to PTSD – Cannabis Use Disorder  
Comorbidity**

Sherry H. Stewart (*Dalhousie University*)



Dr. Stewart is a Tier 1 Canada Research Chair in Addictions and Mental Health and a Professor in the Departments of Psychiatry, Psychology and Neuroscience, and Community Health and Epidemiology at Dalhousie University. Dr. Stewart is a Fellow of the Royal Society of Canada and the Canadian Academy of Health Sciences. Dr. Stewart founded the Centre for Addiction Research at Dalhousie (CARD). She is also the NPI for the new Atlantic node of the CIHR-funded Canadian Research Initiative in Substance Misuse (CRISM).

10:30 am – 10:45 am

### **Break**

*Toronto Ballroom Foyer, Convention Level*

Coffee, soft drinks and water provided



## **Friday, JULY 19, 2024**

10:45 am – 12:00 pm

### **Symposium**

*Toronto Ballroom III, Convention Level*

**The Effects of Cannabinoids in Different Contexts, Age Groups, And Conditions: New Neuroscientific and Behavioral Directions**

Chair: Godfrey D. Pearlson (Yale University/Institute of Living)

The symposium focuses on a series of new directions in emerging neuroscience research, investigating two of the best-studied cannabinoids - THC and CBD. Although the field is poised to use cannabinoids to modify behavior in a wide variety of circumstances, there is a clear need to quantify the real-world impact of potential risks (e.g. cognitive impairment, motor vehicle crashes) versus benefits (e.g. clinical treatment of a wide variety of medical and psychiatric conditions). In turn, these risks and benefits are likely to differ across different populations, doses and at different life stages. Similarly, cannabinoid effects may vary significantly across different cognitive domains, and differentially affect underlying neurobiological mechanisms. Different effects across the adult age spectrum are particularly important to study. Increasing numbers of older individuals are beginning to use cannabis both recreationally and medicinally, yet reported evidence is contradictory (e.g., THC is reported to improve certain aspects of memory in aging rodents, but impairs immediate memory function in younger human laboratory participants). This symposium focuses on using neuroscience tools to quantify cannabinoid effects on brain and behavior at different doses and in different age and diagnostic groups. We report on five diverse questions: 1) cannabis-related driving behavioral and subjective impairment, 2) THC effects on resting state fMRI, 3) THC effects on memory and subjective effects across the adult age span, 4) potential therapeutic effects of CBD on memory function in psychosis, and 5) THC impairment of mental timekeeping mechanisms.

### **PRESENTERS:**

**Cannabis-Impaired Driving: Insights from a Randomized, Placebo-Controlled, Double-Blind Driving Simulator Study**

Shashwath A. Meda (Yale U./Institute of Living), Godfrey D. Pearlson (Yale U./Institute of Living), Erwin Boer (Entropy Control Inc.), Nicholas Ward (U. of Montana), Marilyn Huestis (Institute for Emerging Health Professions/Thomas Jefferson University), Nina Fernandez (Institute of Living), Cole Arnold (Institute of Living), & Michael C. Stevens (Institute of Living/Yale U.)

**THC Affects Resting State Brain Network Connectivity Differently in Older and Younger Adults**

Michael C. Stevens (Institute of Living/Yale U.), Shashwath A. Meda (Yale U./Institute of Living), Cole Arnold (Institute of Living), Nina Fernandez (Institute of Living), & Godfrey D. Pearlson (Yale U./Institute of Living)

**Acute Effects of THC On Memory Performance and Related Brain Activation Across The Adult Age Spectrum**

Shashwath A. Meda (Yale U./Institute of Living), Godfrey D. Pearlson (Yale U./Institute of Living), Nique Pichette (Institute of Living), Nina Fernandez (Institute of Living), Cole Arnold (Institute of Living), & Michael C. Stevens (Institute of Living/Yale U.)

**Exploring Cannabidiol Effects on Memory Dysfunction in Psychosis: A Pilot fMRI Study**

Godfrey D. Pearlson (Yale U./Institute of Living), Michael C. Stevens (Institute of Living/Yale U.), Cole Arnold, (Institute of Living), Nina Fernandez, (Institute of Living), Tremearne Hotz (Institute of Living), & Shashwath A. Meda, (Yale U./Institute of Living)

**New Insights into How THC Disrupts Our Estimation of Time**

Michael C. Stevens (Institute of Living/Yale U.), Shashwath A. Meda (Yale U./Institute of Living), Erwin Boer, (Entropy Control Inc.), Nicholas Ward (U. of Montana), & Godfrey D. Pearlson, (Yale U./Institute of Living)

## **Friday, JULY 19, 2024**

10:45 am – 12:00 pm

### **Symposium**

*Tom Thomson Room, Convention Level*

### **Retail Cannabis Dispensaries: Examining Purchasing Behavior and Exposure to Product Marketing**

Chair: Eric R. Pedersen (Keck School of Medicine, University of Southern California)

Cannabis retail dispensaries have proliferated in the United States in recent years, making it an important time for conducting research on purchasing behaviors and exposure to product marketing within these environments. Purchasing behaviors may be driven by how consumers in dispensaries view and interpret cannabis product packaging, including how they view the health benefit claims and warning labels displayed on the products. Storefront employees are also promoters of the products and the claims employees make could influence purchase decisions. Thus, it is important to better understand how cannabis products are marketed to consumers within dispensaries. In this series of four talks, presenters will describe research studies conducted within cannabis dispensaries to examine regulatory compliance (e.g., age verification), health warnings displayed, promotion of health benefits, and purported effects on mood and behavior (e.g., sleep, energy). Researchers will discuss a variety of methods to obtain their findings, including self-report surveys, observations, qualitative interviews, and experimental manipulation of products within controlled settings. In addition to informing methods for the future of cannabis dispensary research, findings have implications for policy around dispensary locations and regulation within these environments.

### **PRESENTERS:**

#### **Young Adults' Experiences with Cannabis Retailer Marketing and Regulatory Compliance: Differences by Sociodemographic Characteristics and Associations with Cannabis Use-Related Outcome**

Carla J. Berg (Milken Institute School of Public Health, George Washington Cancer Center, George Washington University), Katelyn Romm (TSET Health Promotion Research Center, Stephenson Cancer Center, University of Oklahoma Health Sciences Center), Cassidy R. LoParco (Milken Institute School of Public Health, George Washington University), Matthew E. Rossheim (School of Public Health, University of North Texas Health Science Center), Yuxian Cui (Milken Institute School of Public Health, George Washington University), Darcey McCready (Milken Institute School of Public Health, George Washington University), Y. Tony Yang (George Washington Cancer Center, School of Nursing, George Washington University), Elizabeth Platt (Center for Public Health Law Research, Temple University Beasley School of Law), & Patricia A. Cavazos-Rehg (Washington University School of Medicine)

#### **Point-of-Sale Cannabis Marketing: Findings from a Direct Observation Study of Recreational Cannabis Outlets in Massachusetts**

Kristina M. Jackson (Rutgers Addiction Research Center, Rutgers Robert Wood Johnson Medical), Michelle L. Rogers (Survey Research Center, Brown University School of Public Health), Elizabeth R. Aston (Center for Alcohol and Addiction Studies, Brown University School of Public Health), Katie M. Yetter (Center for Alcohol and Addiction Studies, Brown University School of Public Health), Jennifer Merrill (Center for Alcohol and Addiction Studies, Brown University School of Public Health), Holly K. Boyle (Center for Alcohol and Addiction Studies, Brown University School of Public Health), & Jane Metrik (Center for Alcohol and Addiction Studies, Brown University School of Public Health, Providence VA Medical Center)

## **Budtender Recommendations of Cannabis Products for Therapeutic and Recreational Use: A Cannabis Retailer Surveillance Study**

Jane Metrik (Center for Alcohol and Addiction Studies, Brown University School of Public Health, Providence VA Medical Center), Elizabeth R. Aston (Center for Alcohol and Addiction Studies, Brown University School of Public Health), Holly K. Boyle (Center for Alcohol and Addiction Studies, Brown University School of Public Health), Jennifer Merrill (Center for Alcohol and Addiction Studies, Brown University School of Public Health), Katie M. Yetter (Center for Alcohol and Addiction Studies, Brown University School of Public Health), Michelle L. Rogers (Survey Research Center, Brown University School of Public Health), & Kristina M. Jackson (Rutgers Addiction Research Center, Rutgers Robert Wood Johnson Medical School)

## **Developing a Retail Cannabis Shop for Research: Exploring Employee Messaging and Consumer Decisions on Cannabis Products**

Eric R. Pedersen (Keck School of Medicine, University of Southern California), Mark A. Prince (Colorado State University), Bethany Gray (Colorado State University), Ireland M. Shute (Keck School of Medicine, University of Southern California), Megan B. Brown (Keck School of Medicine, University of Southern California), Keegan Buch (Keck School of Medicine, University of Southern California), & John Monterosso (University of Southern California)

# **Friday, JULY 19, 2024**

10:45 am – 12:00 pm

## **Paper Session**

*Carmichael Room, Convention Level*

## **Cannabis Use Among Older Adults**

Chair: Iris M. Balodis (Michael G. DeGroote School of Medicine, McMaster University)

### **PRESENTERS:**

#### **Exploring "Wake-and-Bake" Practices and Problematic Cannabis Use in Older Adults**

Juliamaria Coromac-Medrano (University of Colorado Colorado Springs), Elizabeth Anquillare (University of Colorado Colorado Springs), Adrianna C. Neiderman (University of Colorado Colorado Springs), & Rachel E. Thayer (University of Colorado Colorado Springs)

#### **The Role of Cannabis, Opioids, and Clinical Factors in Mild Cognitive Impairment (MCI) Among Older Adults With HIV**

Jason S. DeFelice (University of Florida), Mark K. Britton (University of Florida), Eric C. Porges (University of Florida), Gladys E. Ibañez (Florida International University), Charurut Somboonwit (University of South Florida), Robert L. Cook (University of Florida), Ronald A. Cohen (University of Florida), & Joseph M. Gullett (University of Florida)

#### **Cannabis Use in Parkinson's Disease: Patient Access to Medical Cannabis and Physician Perspective on Product Safety**

Symone Griffith (Arizona State University), Kendra Conrow (Arizona State University), Michael Go (University of Pennsylvania), Mindy McEntee (Arizona State University), Raminta Daniulaityte (Arizona State University), Majia Nadesan (Arizona State University), Mathew Swinburne (University of Maryland), Holly Shill (Barrow Neurological Institute), & Maxwell Leung (Arizona State University)

#### **Bud Talks: Knowledge Translation Materials to Reduce Cannabis Harms in Older Adults**

Balodis, I.M. (Michael G. DeGroote School of Medicine, McMaster University), Querney, D., Joubert, J. P., Brassard, S., Barkovich, L., Pangborn, N., Meneguzzi, C., & Dye, E.

12:00 pm – 1:30 pm

## **LUNCH ON YOUR OWN**



# Master of Addiction Science

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Addiction Science bridges the gap between science, practice, and policy.

## A TRANSDISCIPLINARY PROGRAM:

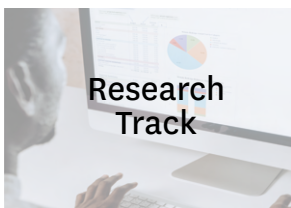
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Study the nature, causes, consequences, prevention, and treatment of addiction-related problems and obtain a broader and deeper understanding and skill set that considers **addiction from the 'cell-to-society' perspective.**

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Questions?

Contact Jillian Boelke at [boelke@usc.edu](mailto:boelke@usc.edu)



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School of Social Work

Keck School of  
Medicine of USC

## **Friday, JULY 19, 2024**

1:30 pm – 2:45pm

### **Symposium**

*Toronto Ballroom III, Convention Level*

#### **Advancing Science on Cannabis' Potential Harms and Therapeutic Benefits: Insights from Experimental Cannabis Administration Studies**

Chair: Benjamin L. Bery (Providence VA Medical Center; Brown University)

Recreational and medical cannabis use is now legal in 76% and 48% of US states, respectively, and historical trends indicate that past-month and near-daily cannabis use among adults ages 19-55 has increased substantially since 2013. Contemporaneously, burgeoning access to novel and increasingly potent products necessitates a deeper understanding of cannabis' potential harms and factors linked to the progression from initial to hazardous use. Experimental cannabis administration studies using fixed-dose or self-administration paradigms are ideal for examining how individuals use cannabis within a session, identifying formulation-specific psychopharmacological and potential therapeutic effects, and testing behavioral and pharmacotherapy intervention efficacy. These talks will highlight the utility of different experimental methodologies to identify how different populations use cannabis, risk-factors for hazardous cannabis use, and inform future prevention and intervention efforts. Dr. Elder will present on methodological considerations for human laboratory cannabis, cannabinoid, and phytochemical studies including blinding, route of administration, and drug preparation. Dr. Bery will present data on individual-difference and state affective predictors of cannabis smoking behaviors in the laboratory. Dr. Lisano will present research exploring the moderating effects of physical activity on affective changes among adults with mild-to-moderate anxiety randomized to three different cannabis chemovars for ad libitum use over four weeks. Dr. Aston will present data characterizing the effects of behavioral economic demand and delay discounting on cannabis smoking topography in the laboratory. Dr. Metrik will synthesize findings from these studies by discussing the utility of various experimental paradigms to advance knowledge concerning cannabis use etiology, prevention, and intervention.

#### **PRESENTERS:**

**Best Practices for Human Lab Studies of Cannabis and Cannabis Constituents: Considerations for Blinding and Drug Preparation for Different Routes of Administration**

Harrison J. Elder (Johns Hopkins University) & Tory R. Spindle (Johns Hopkins University)

**Using Experimental Laboratory Methods to Identify Affective and Individual-Difference Predictors of Cannabis Smoking Topography**

Benjamin L. Bery (Providence VA Medical Center, Brown University), Holly K. Boyle (Brown University), & Elizabeth R. Aston (Brown University)

**Synergistic Effects of Physical Activity and Cannabis Use on Negative Affect: Exploration in a Sample with Elevated Anxiety Symptoms**

Jonathon K. Lisano (University of Colorado Boulder), Paige Phillips (University of Colorado Boulder), Greg Giordano (University of Colorado Boulder), Marco Ortiz Torres (University of Colorado Boulder), Angela D. Bryan (University of Colorado Boulder), & L. Cinnamon Bidwell (University of Colorado Boulder)

**Leveraging Experimental Methods to Assess Cannabis Reinforcer Pathology via Smoking Topography**

Elizabeth R. Aston (Brown University), Benjamin L. Bery (Providence VA Medical Center; Brown University), James MacKillop (McMaster University), & Jane Metrik (Brown University; Providence VA Medical Center)

**Discussant:** Jane Metrik (Brown University; Providence VA Medical Center)



## Friday, JULY 19, 2024

1:30 pm – 2:45 pm

### Symposium

*Tom Thomson, Convention Level*

Advances in Understanding Antecedents and Consequences Of Cannabis and Alcohol Co-Use: Insights From Momentary Data in Young Adults

### Symposium

Chair: Rachel L. Gunn (Brown University)

Research on the widespread use of cannabis with alcohol (co-use) and specifically, simultaneous use (using cannabis and alcohol together so that their effects overlap), has generated compelling data suggesting that co-use is associated with increased alcohol and cannabis consumption and greater risk of substance-related consequences. The increased prevalence of cannabis use among young adults in the wake of expanding legalization has raised important questions about the impact of cannabis use on alcohol-related risk in this population, who have the highest prevalence of co-use. However, given the complexity and heterogeneity of cannabis use patterns, the impact of co-use (and simultaneous use) is nuanced and evolving. In particular, there is significant variability from between- (individual-level) and within-person (event-level) patterns of use and parsing these effects is critical to furthering our understanding of co-use. In this symposium, we will present four studies on co-use that provide new insight into these complex substance use behaviors, with a focus on daily and momentary studies that disentangle between- and within-person variance in co-use. This symposium takes a thorough look at predictors of simultaneous use, in-the-moment changes in subjective response during use episodes, and next day consequences. We provide a nuanced analysis of cognitive, social, and physiological predictors of co-use patterns and consequences. We will also synthesize competing findings to understand how co-use may confer specific risks relative to cannabis-only and alcohol-only events. Findings reflect cutting-edge research in the area and discussion will include clinical, policy, and public health implications of this work.

### PRESENTERS:

A Systematic Review of Proximal Antecedents and Acute Outcomes of Simultaneous Alcohol and Cannabis Use: Findings from Within-Person Studies

Kyra N. Farrelly (York University), Tahmina Amini (York University), Sophie G. Coelho (York University), Nicolle Fox (York University), Nicole Dimitrova (York University), Christian S. Hendershot (University of North Carolina-Chapel Hill), & Jeffrey D. Wardell (York University, University of Toronto)

Descriptive Norms for Simultaneous Cannabis and Alcohol Use Predict Simultaneous Use Patterns Assessed via Daily Surveys

Sophie G. Coelho (York University), Christian S. Hendershot (University of North Carolina-Chapel Hill), Roisin M. O'Connor (Concordia University), John A. Cunningham (Kings College London, Institute for Mental Health Policy Research, University of Toronto), & Jeffrey D. Wardell (York University, University of Toronto)

Exploring Planned vs. Unplanned Cannabis Use on Cannabis Only and Alcohol Co-Use Days: Cannabis Outcomes and Order Effects

Lindy K. Howe (Brown University), Holly K. Boyle (Brown University), Jane Metrik (Brown University), Timothy J. Trull (University of Missouri), Sharon Lipperman-Kreda (Pacific Institute for Research and Evaluation), & Rachel L. Gunn (Brown University)

Within-Episode Relations Among Simultaneous Alcohol and Cannabis Use and Continued Drinking: The Role of Momentary Subjective Responses, Craving, and Drinking Context

Jack T. Waddell (Arizona State University), William R. Corbin (Arizona State University), Kevin J. Grimm (Arizona State University), Jane Metrik (Brown University), Christine M. Lee (University of Washington), & Timothy J. Trull (University of Missouri)

Discussant: Jeffrey D. Wardell (York University)



## **Friday, JULY 19, 2024**

1:30pm – 2:45 pm

### **Paper Session**

*Carmichael Room, Convention Level*

### **Cannabis and Tobacco Co-Use Paper Session**

Chair: Hayley Treloar Padovano (Brown University)

#### **PRESENTERS:**

#### **Disparities in Blunt Use at the Intersection of Multiple Social Identities Among US Adults**

Allison M. Glasser (Rutgers Institute for Nicotine & Tobacco Studies), Jessica K. Jensen (Rutgers Institute for Nicotine & Tobacco Studies), Kymberle L. Sterling (Rutgers Institute for Nicotine & Tobacco Studies), & Andrea C. Villanti (Rutgers Institute for Nicotine & Tobacco Studies)

#### **Associations between e-cigarette marketing exposure and vaping nicotine and cannabis among U.S. adults, 2021**

Julia Chen-Sankey (Rutgers Institute for Nicotine and Tobacco Studies), Kathryn La Capria (Rutgers Institute for Nicotine and Tobacco Studies), Allison Glasser (Rutgers Institute for Nicotine and Tobacco Studies), Alisa A. Padon (Public Health Institute), Meghan B. Moran (Johns Hopkins Bloomberg School of Public Health), Kimberly G. Wagoner (Wake Forest University School of Medicine), Kristina M. Jackson (Rutgers Robert Wood Johnson Medical School), & Carla J. Berg (George Washington University Milken Institute School of Public Health)

#### **Cannabis Use Frequency Impacts Youth Use of Alternative Tobacco Products in an Experimental Tobacco Marketplace**

Mariel S. Bello, Ph.D. (Center for Alcohol and Addiction Studies, Brown University School of Public Health), Suzanne M. Colby, Ph.D. (Center for Alcohol and Addiction Studies, Brown University School of Public Health), & Rachel N. Cassidy, Ph.D. (Center for Alcohol and Addiction Studies, Brown University School of Public Health)

#### **Disentangling In-The-Moment Effects of Cannabis Co-Use on Antecedents and Responses to Cigarette Smoking and Alternative Tobacco Product Use Among Youth**

Hayley Treloar Padovano (Brown University), Suzanne M. Colby (Brown University), Jennifer W. Tidey (Brown University), & Rachel N. Cassidy (Brown University)

## **Friday, JULY 19, 2024**

2:45 pm – 4:00 pm

### **Award Winners and Honorable Mentions**

*Toronto Ballroom III, Convention Level*

#### Flash Talks

Chaired by Jamie E. Parnes (Brown University School of Public Health & E. P. Bradley Hospital)

#### **PRESENTERS:**

##### **Student Research Award Winner**

Impact of Cannabis Use During Adolescence and Young Adulthood on Academic Achievement: A Systematic Review and Meta-analysis of Observational Studies

Olsen Chan (University of Toronto)

##### **Student Research Award Winner**

Perceived Effectiveness of Cannabis Use for Pain Management in People Living with HIV: An Observational Pilot Study

Nicole Dimitrova (York University)

##### **Student Research Award Winner**

Pain as a predictor of cannabis initiation among emerging adults: Results from the Population Assessment of Tobacco and Health (PATH) Study

Callon M. Williams (Binghamton University)

##### **Underrepresented Student Award Winner**

The Impact of Cannabidiol (CBD) Placebo on Neural Responses to an Acute Stressor

Mikaela A. Ethier-Gagnon (Dalhousie University)

##### **Underrepresented Student Award Winner**

The Impact of Cannabis on Psychosis Among Young People in Black Racialized Communities: Fostering Awareness Through Knowledge Translation Video Games

Nima Karimi (McMaster University)

##### **Underrepresented Student Award Winner**

Food Restriction on Cannabis Use Days: An Assessment of Consequences and Motivations for Compensatory Eating Behaviors

Ireland Shute (University of Southern California)

##### **Honorable Mention**

Associations Between Affect and Simultaneous Use of Alcohol and Cannabis in Young Adults: The Role of Depression, Anxiety, and Stress

Petra Legaspi (York University)

##### **Honorable Mention**

Sustained Effects of Daily Cannabidiol Administration on Anandamide Plasma Concentration in Individuals with Cocaine Use Disorder: Exploratory Findings From a Randomized Controlled Trial

Amani Mahroug (Research Center, Centre Hospitalier de l'Université de Montréal)

##### **Honorable Mention**

Using Triple Network Theory of Psychopathology to identify potential biomarkers of Cannabis Use Disorder

Peter Najdzionek (McMaster University)

##### **Honorable Mention**

Investigating Daily Harms Associated with Cannabis and Alcohol Co-use Among Transgender and Gender Diverse Youth Who Drink

Stephanie Penta (Toronto Metropolitan University)

## **Friday, JULY 19, 2024**

2:45 pm – 4:00 pm

### **Symposium**

*Tom Thomson Room, Convention Level*

#### **Highlighting the Research in *Cannabis***

Chair: Eric R. Pedersen (Keck School of Medicine, University of Southern California)

#### **PRESENTERS:**

##### **Overview of the Journal**

Eric R. Pedersen (Keck School of Medicine, University of Southern California)

##### **Changes in Cannabis Use Patterns in Psychiatric Populations Pre- and Post-Legalization of Recreational Cannabis Use in Canada: A Repeated Cross-Sectional Survey**

Maryam Sorkhou (Institute of Medical Sciences, University of Toronto)

##### **Legal Recreational Cannabis Sales and Opioid-Related Mortality in the 5 Years Following Cannabis Legalization in Canada: A Granger Causality Analysis**

André J. McDonald (Peter Boris Centre for Addictions Research, McMaster University)

##### **Potential Risks from Cannabis-infused Beverages: A Critical Review**

Anna Marie Froude and Nikki Pangborn (Peter Boris Centre for Addictions Research, McMaster University)

##### **Mental Health and Dispositional Predictors of Simultaneous versus Concurrent Cannabis and Alcohol Use in a Canadian Context**

Jenna Vieira (Toronto Metropolitan University)

## **Friday, JULY 19, 2024**

4:00 pm – 5:00 pm

### **Poster Session I**

(see pages 32 - 36 for details)

*Toronto Ballroom II, Convention Level*

## **Friday, JULY 19, 2024**

5:00pm – 7:00 pm

### **Friday Evening Social Event**

*Chef's Hall, 111 Richmond St W, Toronto*

*Please Join Us for a Happy Hour Social Event*

Appetizers are provided, drinks are available for purchase.

## **Saturday, JULY 20, 2024**

8:00 am – 5:00 pm

### **Check-In/Registration**

*Toronto Ballroom Foyer, Convention Level*

8:00 am – 9:00 am

### **Continental Breakfast**

*Toronto Ballroom Foyer, Convention Level*

9:00am – 10:15 am

### **Keynote Address**

*Toronto III Ballroom, Convention Level*

### **Cannabis for Medical Purposes and Chronic Pain: A Clinical Practice Guideline**

Jason W. Busse, D.C., Ph.D. (Michael G. DeGroote Centre for Medicinal Cannabis, McMaster University)



Dr. Busse, is an Associate Professor in the Departments of Anesthesia and Health, Evidence and Impact at McMaster University, Director of the Michael G. DeGroote National Pain Centre, and Associate Director of the Michael G. DeGroote Centre for Medicinal Cannabis Research. He holds a Canadian Research Chair in the prevention and management of chronic pain from the Canadian Institutes of Health Research.

10:15 am – 10:30 am

### **Break**

*Toronto Ballroom Foyer, Convention Level*

Coffee, soft drinks and water provided

# **Saturday, JULY 20, 2024**

10:30 am – 11:45 am

## **Symposium**

*Toronto Ballroom III, Convention Level*

### **Cannabis and Physical Activity**

Chair: Joanna S. Zeiger, Ph.D. (Canna Research Foundation)

Studies have shown that cannabis and physical activity are used concomitantly among people of all ages and athletic ability. Cannabis is being used for reduction in anxiety, pain relief, sleep improvement, and enjoyment of exercise, among other reasons. This symposium will focus on cannabis use and physical activity. Abstracts will focus on studies that are cross-sectional, observational, longitudinal, or clinical trials. Topic areas include, but are not limited to: differences in cannabis use in athletes with varying demographic and athletic backgrounds, impact of route of administration on athletic performance, cannabis use and mental health, impact of physical activity on cannabis use, metrics of athletic performance while using cannabis.

#### **PRESENTERS:**

#### **Moderating Effect of Physical Activity on Cannabis Use and Psychological Distress in a National Cohort**

Joanna S. Zeiger (Canna Research Foundation), Robert S. Zeiger (Kaiser Permanente Bernard J. Tyson School of Medicine, Canna Research Foundation), & Bradley T. Conner (Colorado State University)

#### **Can Physical Activity Manage Cannabis Use? Findings from Conducting Experimental and Intervention Research**

R. Lorraine Collins, Ph.D. (University at Buffalo, SUNY)

#### **Towards Precise Mental Health Screening in College Athletics and Associations with Cannabis Use and Other Health-Risk Behaviors**

Samuel R. Davis (Ohio State University), Sydney Mack (Ohio State University), & Mark A. Prince, (Colorado State University)

#### **Association Between Physical Activity and Cannabis Use: A Cluster Analysis**

Joanna S. Zeiger (Canna Research Foundation), Robert S. Zeiger, (Kaiser Permanente Bernard J. Tyson School of Medicine, Canna Research Foundation), & Bradley Conner, Ph.D. (Colorado State University)

**Discussant:** Joanna S. Zeiger (Canna Research Foundation)

# **Saturday, JULY 20, 2024**

10:30 am – 11:45 am

## **Symposium**

*Tom Thomson Room, Convention Level*

**Reaching the Modern Cannabis Consumer: Using Research to Guide Messages and Strategies to Close Knowledge Gaps and Catch Up to Rapidly Changing Cannabis Policy Landscapes**

**Chair: Sarah Okey (Washington State Liquor and Cannabis Board)**

Cannabis policy has outpaced the scientific knowledge on cannabis. As a result, misinformation about cannabis use is a concern and exists at both the industry- and consumer- level. This symposium will discuss current dissemination practices of evidence-based health and safety cannabis information to consumers. The first presentation by LoParco et al will explore the quickly evolving online cannabis market space and share findings on the prevalence and change in health warnings, benefits, and promotions across 175 U.S. cannabis retailers with online storefronts. The second presentation by Williams et al will explore the extent to which consumers recognize and remember health warning labels on cannabis packaging across three-years using the International Cannabis Policy Study. The third presentation by Okey et al will discuss current knowledge levels on cannabis, potential avenues for education, and areas of interest for both consumers and retail employees. All presentations will discuss differences between important subgroups, such as gender, race, age, and cannabis use patterns. Finally, discussant Kristen Haley, who is currently the Public Health Education Liaison at the Washington State Liquor and Cannabis Board and who has previously worked in public health for over a decade overseeing instrumental marketing campaigns to promote health education will integrate these three presentations. She will highlight the importance of increasing effective education among legal cannabis users to reduce harm and promote safety. She will additionally discuss the importance of continued collaboration across regulators, researchers, and public health professionals within this quickly evolving cannabis landscape.

### **PRESENTERS:**

#### **Non-Medical Cannabis Online Retail Practices in 5 US Cities: 2022 to 2023**

Cassidy LoParco (George Washington University), Yuxian Cui (George Washington University), Zongshuan Duan (Georgia State University), Katie Vinson (George Washington University), Katelyn Romm (University of Oklahoma Health Sciences Center), Yan Wang (George Washington University), Patricia A. Cavazos-Rehg (Washington University), Erin Kasson (Washington University), Y. Tony Yang (George Washington University), & Carla J. Berg (George Washington University)

#### **Health Warning Labels Awareness and Recall and Health Beliefs in Washington State**

Jason Williams (University of Washington), Sharon Garrett (University of Washington), Beatriz Carlini (University of Washington), & David Hammond (University of Waterloo)

#### **Current Knowledge Levels and Interest in Education Among Cannabis Consumers and Retail Employees in Washington State**

Sarah Okey (Washington State Liquor and Cannabis Board), Kristen Haley (Washington State Liquor and Cannabis Board), Brian McQuay (Washington State Liquor and Cannabis Board), Jordan Arias (Washington State Department of Health), Nikki Meline (Washington State Department of Health), Sally Riggs (Washington State Department of Health), & Mary Segawa (Washington State Liquor and Cannabis Board)

**Discussant:** Kristen Haley (Washington State Liquor and Cannabis Board)



# **Saturday, JULY 20, 2024**

10:30 am – 11:45 am

## **Paper Session**

*Carmichael Room, Convention Level*

### **Cannabis and Other Drug Co-Use Paper Session**

Chair: Jane Metrik (Brown University & Providence VA Medical Center)

#### **PRESENTERS:**

##### **The Impact of Cannabis Legalization on Drug-related Offenses in Washington State**

Guangzhen Wu (University of Utah), & Roarke R. Cullenbine (University of Maryland Francis King Carey School of Law)

##### **Investigating Daily Harms Associated with Cannabis and Alcohol Co-use Among Transgender and Gender Diverse Youth Who Drink**

Stephanie M. Penta (Toronto Metropolitan University), Alexandra Uhrig (Toronto Metropolitan University), Theo Quinn (Toronto Metropolitan University), Jeffrey D. Wardell (York University), & Sarah S. Dermody (Toronto Metropolitan University)

##### **Tripping on Weed: A Pilot Study for Understanding Cannabis and Hallucinogen Co-use**

Bethany A. Gray (Colorado State University), Mark A. Prince (Colorado State University), & Bradley T. Conner (Colorado State University)

##### **A prospective examination of cannabis and alcohol use associations during COVID-19 pandemic**

Faiyaz S. Omerjee (Brown University), Rachel L. Gunn (Brown University), Elizabeth R. Aston (Brown University), Christopher W. Kahler (Brown University), & Jane Metrik (Brown University & Providence VA Medical Center)

11:45 am – 1:15 pm

## **LUNCH ON YOUR OWN**

# **Saturday, JULY 20, 2024**

1:15 pm – 2:30 pm

## **Symposium**

*Toronto Ballroom III, Convention Level*

### **New Directions in the Use of the Marijuana Purchase Task to Assess Behavioral Economic Demand for Cannabis: Meta-Analytic, Laboratory, and Neuroimaging Findings**

Michael Amlung (University of Kansas)

The Marijuana Purchase Task (MPT) is an efficient and ethical method of measuring behavioral economic demand for cannabis (i.e., hypothetical cannabis consumption across escalating prices, reflecting the relative reinforcing value of cannabis). Nearly a decade of research using the MPT has characterized associations between cannabis demand and cannabis use and severity of cannabis-related problems at the trait level. More recently, experimental studies using state-based MPTs have begun to examine how cannabis demand fluctuates in response to internal and external factors (e.g., cue-elicited craving, next day responsibilities, and other experimental manipulations). This symposium will feature three talks by behavioral economists and cognitive neuroscientists who are expanding the use of the MPT in several new directions. First, Dr. James MacKillop will review the trait cannabis demand literature, including findings from a recent meta-analysis documenting the concurrent validity of MPT indicators of cannabis demand in relation to cannabis use and cannabis use disorder severity. Second, Dr. Michael Amlung will present findings from three laboratory and crowdsourcing studies investigating contextual influences on cannabis demand, including cannabis-related cues, next day responsibilities, and everyday cannabis use scenarios. Third, Dr. Iris Balodis will present findings from a neuroeconomics study using functional MRI to investigate the neural correlates of cannabis demand in individuals with heavy cannabis use. Finally, Dr. R. Lorraine Collins (Discussant), will integrate these findings and discuss the proliferation of cannabis demand research and priorities for the future.

#### **PRESENTERS:**

#### **Cannabis Reinforcing Value in Relation to Cannabis Use and Misuse: A Meta-Analysis of Trait-Level Cannabis Demand and Cannabis Involvement as Measured by a Marijuana Purchase Task**

James MacKillop (McMaster University), Alba González-Roz (University of Oviedo), Víctor Martínez-Loredo (University of Sevilla), Elizabeth R Aston (Brown University), Jane Metrik (Brown University), James Murphy (University of Memphis), Iris Balodis (McMaster University), Roberto Secades-Villa (University of Oviedo), & Kyla Belisario (McMaster University)

#### **Laboratory and Crowdsourcing Studies Investigating Contextual Influences on Cannabis Demand**

Michael Amlung (University of Kansas), Brandon P. Miller (University of Kansas), Elizabeth R. Aston (Brown University), William Davis (Johns Hopkins University), Benjamin L. Bery (Brown University), Ashley N. Dowd (Johns Hopkins University), & Tory R. Spindle (Johns Hopkins University)

#### **Exploring the Neural Substrates of Valuation in Cannabis Use Disorder**

Iris Balodis (McMaster University)

**Discussant:** R. Lorraine Collins (University at Buffalo)



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## **Saturday, JULY 20, 2024**

1:15 pm – 2:30 pm

### **Symposium**

*Tom Thomson Room, Convention Level*

### **Making Decisions about Cannabis Use Before, During, and After Pregnancy**

Chair: Lauren Micalizzi (Brown University)

The prevalence of cannabis use during pregnancy mirrors the upward trend seen in the general population, despite potential risks to both the pregnant person and child. It is therefore imperative and timely to delve into decision-making surrounding cannabis use before conception, in pregnancy, and postpartum. This symposium serves as a platform to present a comprehensive array of empirical findings, encompassing qualitative, quantitative, and mixed-method studies conducted on both local and national levels. Dr. Gunn will present a qualitative analysis of symptom management posts from an online pro-cannabis forum for expecting parents. Ms. Denson will share insights from a mixed-method study examining motives for cannabis use and information sources among women planning to conceive or in the early postpartum phase. Dr. Mian will present findings from a mixed-methods study exploring clinical decision-making around intervention and impact on intervention engagement from the perspectives of mental health clinicians working with pregnant patients who use cannabis. Dr. Micalizzi will report on a national study of disclosure to providers and sources of information regarding cannabis use during pregnancy. Discussant, Dr. Mermelstein will synthesize findings and explore pathways for evaluating perinatal cannabis use and for providing stigma-free information about cannabis use before, during, and after pregnancy. This symposium brings together researchers studying perinatal cannabis use through diverse lenses and methods, shedding light on provider and patient perspectives to provide a balanced understanding of the needs and concerns of individuals who engage in cannabis use while also identifying avenues to mitigate potential adverse effects.

#### **PRESENTERS:**

#### **Use of Cannabis to Manage Symptoms of Mental Health and Physical Conditions during Pregnancy: Analysis of a Pro-Cannabis Pregnancy Forum**

Rachel L. Gunn (Brown University), Elizabeth R. Aston (Brown University), Lia Artis (Brown University), Jacqueline Nesi (Brown University), & Lauren Micalizzi (Brown University)

#### **Beliefs, Message Sources and Message Impact About Pre- and Postnatal Cannabis Exposure**

Rebecca K. Denson (University of Illinois Chicago), Natania A. Crane (University of Illinois Chicago), Mayra Guerrero (University of Illinois Chicago), & Robin J. Mermelstein (University of Illinois Chicago)

#### **Mental Health Clinicians' Perceptions on Patient Motivations and Intervention Engagement for Prenatal Cannabis Use: A Mixed Methods Study**

Maha N. Mian (University of California, San Francisco; Kaiser Permanente Northern California), Monique B. Does (Kaiser Permanente Northern California), Andrea Altschuler (Kaiser Permanente Northern California), Andrea Green (Sacramento Medical Center, Kaiser Permanente Northern California), Deborah R. Ansley (Regional Offices, Kaiser Permanente Northern California), Carley Castellanos (Regional Offices, Kaiser Permanente Northern California), Derek D. Satre (University of California, San Francisco; Kaiser Permanente Northern California), & Kelly C. Young-Wolff (University of California, San Francisco; Kaiser Permanente Northern California)

#### **Prenatal Cannabis Use: Disclosure and Sources of Information**

Lauren Micalizzi (Brown University), Lia Artis (Brown University), Eric Pedersen (University of Southern California), & Rachel Gunn (Brown University)

**Discussant:** Robin J. Mermelstein (University of Illinois Chicago)

## **Saturday, JULY 20, 2024**

1:15pm – 2:30 pm

### **Panel Session**

*Carmichael Room, Convention Level*

**Grant Funding in Cannabis Research: Perspectives across training stages and US and Canadian mechanisms**

Chair: Kirstyn Smith-LeCavalier (University of Washington)

Grant funding plays a crucial role for psychologists in advancing research, clinical care, and professional careers. In research settings, grant funding provides support for understanding, addressing, and solving current issues by covering various research-related expenses including researcher and staff income, participant compensation, lab materials and equipment, and travel for collaborations and research activities. Clinically, grant funding can assist in better serving communities by providing, maintaining, and expanding programs, interventions, and resources. Professionally, experience and skill in writing and obtaining grants can increase an individual's competitiveness for future job and promotion opportunities, academic productivity and contributions, and breadth of training experiences for mentors and mentees. However, the grant funding process is becoming increasingly competitive and there is a lack of accessibility to training and collaborations in grant writing. Therefore, it is imperative that efforts are made to increase accessibility, transparency, and education about the grant writing process for those interested in obtaining funding, such as discussing strategies, barriers, and solutions for securing funding. This panel discussion will focus on writing and obtaining grants in cannabis research across career stages with inclusion from US and Canadian researchers. Panelists are successful, grant-funded researchers with experience in various mechanisms at the national, local, and university level. Panel members will provide unique perspectives on grant writing during the predoctoral (Smith-LeCavalier, US), postdoctoral (Parnes, US), and independent investigator (Metrik, US; Wardell, Canada) stages as well as mentoring training grants (Metrik, US; Wardell, Canada). Panelists will provide an overview of grant mechanisms, discuss strategies for grant writing, and explore current barriers and solutions to obtaining grant funding.

### **PRESENTERS:**

Kirstyn N. Smith-LeCavalier, MS (University of Washington), Jamie E. Parnes (Brown University & Bradley Hospital), Jane Metrik (Brown University & Providence VA Medical Center), & Jeffrey D. Wardell (York University, Centre for Addiction and Mental Health, & University of Toronto)

## **Saturday, JULY 20, 2024**

2:30 pm – 2:45 pm

### **Break**

*Toronto Ballroom Foyer, Convention Level*

Coffee, soft drinks and water provided



## **Saturday, JULY 20, 2024**

2:45 pm – 4:00 pm

### **Trainee Event**

*Toronto Ballroom III, Convention Level*

**Career Paths in Cannabis: Mentorship Meet and Greet about Graduate School, Postdoc, Academia, Clinical Practice, and More Mentoring Circles**

**Co-Chairs: Sophie Coelho (York University), Kyra Farrelly (York University), & Stephanie Penta (Toronto Metropolitan University)**

Are you a student, fellow, trainee, or someone else eager to learn about the diverse career paths available for people in the cannabis field? Maybe you've begun your career journey and want personalized input and direction on where to go next? Look no further! This mentorship meet-and-greet event provides a fantastic opportunity to connect with cannabis experts across various career paths and other trainees in the cannabis field. During this session, we will have stations available focused on: 1) graduate school and postdoctoral fellowships, 2) academic careers, 3) clinical practice, and 4) non-academic cannabis careers (e.g., non-profit research centers). Come meet with panelists at each station to have individualized discussions about how to navigate your career. Panelists have experience in US and/or Canada settings. Through informal conversations, you can learn about how to find, select, and be competitive for educational and fellowship opportunities, navigate academia, conduct clinical practice, find or develop research opportunities, and much more! Don't miss out on this chance to shape your career journey from experts who have successfully navigated it. Bring your questions, curiosity, and excitement, and we'll take it from there.

### **PRESENTERS:**

Michael Amlung (University of Kansas), Matthew Keough (York University), Jamie E. Parnes (Brown University & Bradley Hospital), Sabrina Syan (McMaster University), Joanna Zeiger (Canna Research Foundation) & more...



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## **Saturday, JULY 20, 2024**

2:45 pm – 4:00 pm

### **Symposium**

*Tom Thomson Room, Convention Level*

#### **Cutting Through the Haze: Bridging the Gap Between Regulators and Researchers to Inform Effective Cannabis Policy**

Chair: Gillian Schauer (Cannabis Regulators Association)

Cannabis is illegal at the federal level, hindering research, and leaving state-enacted legalization efforts to proceed in the face of many scientific unknowns. Regulators are left to write and implement policy in the absence of verified research and data and, as emergencies like the Vaping Lung Injury crisis that peaked in 2019 have shown, these research gaps can contribute to major regulatory challenges. As the science on cannabis progresses, it becomes even more important that we understand how research informs law and regulation, ensuring policy evolves with the science. Regulatory science is urgently needed to help guide policy. However, research being conducted in the field often does not reflect the most urgent regulatory science needs, and typically does not account for the nuance that exists in the cannabis policy landscape. Combining regulatory knowledge and data with research expertise can fill gaps around best-practices for regulating an industry as safely and equitably as possible. This timely panel brings cannabis regulators and state and academic researchers together to discuss regulator/researcher partnerships, opportunities, and research findings resulting from these collaborations. Each panelist brings specialized knowledge in an area of policy or research in Canada, Minnesota, Utah, and Massachusetts. The goal of this symposium is to (1) provide regulatory insight to help guide researchers in understanding where science is urgently needed, (2) share different research-regulatory models and collaborations that can work to increase the development of regulatory science, and (3) to provide examples of scientific findings that have come from regulatory and research-based collaboration.

#### **PRESENTERS:**

##### **Regulatory Insights to Improve Cannabis and Cannabinoid Research and Regulatory Science - From Research Questions to Policy Modeling**

Gillian Schauer (Cannabis Regulators Association), & Julie K. Johnson (Commonwealth of Massachusetts)

##### **Cannabis Research and Surveillance in Canada: Past, Present and Future**

Hanan Abramovici (Health Canada)

##### **Benefits of Medical Cannabis in Pain Patients Registered to the Minnesota Medical Cannabis Program**

Grace M. Christensen (Minnesota Department of Health), Susan Park (Minnesota Department of Health), & David Rak (Minnesota Department of Health)

##### **Patient Experience with Medical Cannabis: Development of the Utah Medical Cannabis Prospective Cohort Evaluation**

Alan T. Kelley (University of Utah School of Medicine), Carter Reeves (University of Utah School of Medicine), Lirit Franks (University of Utah School of Medicine), Michael A. Incze (University of Utah School of Medicine), Adam J. Gordon (University of Utah School of Medicine), & Gerald Cochran (University of Utah School of Medicine)

**Discussant:** Julie K. Johnson (Commonwealth of Massachusetts)

## **Saturday, JULY 20, 2024**

4:00 pm – 5:00 pm

### **Poster Session II**

(see pages 37 – 40 for details) *Toronto Ballroom II, Convention Level*

## **Sunday, JULY 21, 2024**

8:00 am – 12:00 pm

### **Check-In/Registration**

*Toronto Ballroom Foyer, Convention Level*

8:00 am – 9:00 am

### **Continental Breakfast**

*Toronto Ballroom Foyer, Convention Level*

9:00 am – 10:15 am

### **Symposium**

*Centennial Ballroom, Salon B, 3<sup>rd</sup> Floor*

### **A Within-Subjects and Placebo-Controlled Observational Assessment of Self-Administered Cannabis Edibles**

Chair: Emma E. Smith (Colorado State University)

The present study is a double-blind, placebo-controlled investigation of the subjective and objective intoxication onset from different THC forms in edibles among 20 regular cannabis users across three sessions in a mobile laboratory. Participants consumed regular-acting THC gummies (10mg THC), fast-acting THC gummies (10mg THC), and placebo gummies (0mg THC) they purchased from dispensaries. The study measured subjective and objective intoxication and biological outcomes at 13 time points before and after ingestion, aiming to determine if fast-acting gummies induced quicker intoxication compared to regular-acting and placebo gummies by assessing blood concentrations of THC and its metabolites, THC-OH, and THC-COOH. Participants were screened for cannabis use and other drug use at each session, and those meeting inclusion criteria underwent a series of intoxication measures and blood draws via an intravenous port placed by researchers at the beginning of each session. The research sought to provide empirical evidence on the effects of THC in edible forms, contributing to the understanding of typical intoxication profiles of THC compounds in legally marketed edibles and their public health implications. This observational study aimed to close gaps in cannabis science, particularly around the onset of intoxication from THC, offering insights into safer consumption practices and informing future cannabis research and policy.

### **PRESENTERS:**

#### **Methods and Recruitment in a Mobile Cannabis Van Study: An Overview**

Kira Sturgess (Colorado State University), Emma E. Smith (Colorado State University), Samuel M. DiCecco (Colorado State University), Katelyn Weldon (Colorado State University), Hollis C. Karoly (Colorado State University) & Bradley T. Conner (Colorado State University)

#### **Subjective and Objective Intoxication of Self-Administered Cannabis Edibles Over Time**

Emma E. Smith (Colorado State University), Samuel M. DiCecco (Colorado State University), Katelyn Weldon (Colorado State University), Kira Sturgess (Colorado State University), Hollis C. Karoly (Colorado State University) & Bradley T. Conner (Colorado State University)

#### **Exploring Objective Physical Health Measures During Cannabis Edible Consumption**

Katelyn Weldon (Colorado State University), Emma E. Smith (Colorado State University), Samuel M. DiCecco (Colorado State University), Kira Sturgess (Colorado State University), Hollis C. Karoly (Colorado State University) & Bradley T. Conner (Colorado State University)

#### **Acute Cognitive and Behavioral Effects of Self-Administered Cannabis Edibles**

Samuel M. DiCecco (Colorado State University), Emma E. Smith (Colorado State University), Katelyn Weldon (Colorado State University), Kira Sturgess (Colorado State University), Hollis C. Karoly (Colorado State University) & Bradley T. Conner (Colorado State University)

**Discussant:** Bradley T. Conner (Colorado State University)

## **Sunday, JULY 21, 2024**

10:30 am – 11:45 am

### **Paper Session**

*Toronto Ballroom III, Convention Level*

#### **Cannabis-Related Policy in Canada Paper Session**

Chair: Samantha M. Rundle (*University of Waterloo*)

#### **PRESENTERS:**

**Help-Seeking Behaviours Among Cannabis Consumers in Canada and the United States: Findings from the International Cannabis Policy Study**

Samantha M. Rundle (*University of Waterloo*) & David Hammond (*University of Waterloo*)

**Youth Cannabis Use in Canada Post-Legalization: Recommendations from Youth, Parents, and Service Providers**

Toula Kourgiantakis (*Université Laval*) & Angie Hamilton (*Families for Addiction Recovery*)

**Examining the potential impact of recreational cannabis legalization on individuals receiving treatment for substance use disorder: An interrupted time series study**

Emily Britton (*Homewood Research Institute*), Radia Taisir (*Homewood Research Institute*), Yelena Chorny (*Homewood Health Centre*), James MacKillop (*Homewood Research Institute; St. Joseph's Healthcare Hamilton; Michael G. DeGroote Centre for Medicinal Cannabis Research; Peter Boris Centre for Addiction Research*), & Jean Costello (*Homewood Research Institute*)

**Evaluating the Impact of Canadian Cannabis Legalization on Cannabis Use Outcomes in Emerging Adults: Comparisons to a US Sample via a Natural Experiment**

Amanda Doggett (*Peter Boris Centre for Addictions Research, Department of Psychiatry and Behavioural Neurosciences, McMaster University*), Kyla Belisario (*Peter Boris Centre for Addictions Research, Department of Psychiatry and Behavioural Neurosciences, McMaster University*), André J. McDonald (*Peter Boris Centre for Addictions Research, Department of Psychiatry and Behavioural Neurosciences, McMaster University*), Scott T. Leatherdale (*School of Public Health Sciences, University of Waterloo*), James G. Murphy (*Department of Psychology, The University of Memphis*), & James MacKillop (*Peter Boris Centre for Addictions Research, Department of Psychiatry and Behavioural Neurosciences, McMaster University*)

## **Sunday, JULY 21, 2024**

11:45am – 12:00pm

### **Concluding Remarks**

*Toronto Ballroom III, Convention Level*

Adrian J. Bravo, President of RSMj (*William & Mary*) & James MacKillop, Director of the Michael G. DeGroote Centre for Medicinal Cannabis Research, (*McMaster University*)

## POSTER SESSION I: TORONTO BALLROOM II, CONVENTION LEVEL

**FRIDAY, JULY 19, 2024, 4:00 PM – 5:00 PM**

Posters are to be displayed on the board that corresponds to the number of your poster. You can put your poster up any time during the day on Fri. by 4:00pm. Please remove your poster at 5:00pm.

- An Innovative Model? Exploring how Uruguay Designed its Cannabis Supply System through Hybridisation**  
Rachel Barry (University of Bath)
- Anxiety Symptoms and Coping-with-Anxiety Motives Serially Mediate the Link Between Psychotic-Like Experiences and Cannabis-Related Problems in Emerging Adult Cannabis Users**  
Haley C. R. Bernusky (Dalhousie University; York University), Philip G. Tibbo (Dalhousie University), Patricia J. Conrod (Université de Montréal), Fakir M. Yunus (Dalhousie University), Matthew T. Keough (York University), Kara D. Thompson (St. Francis Xavier University), Marvin D. Krank (University of British Columbia), Allyson F. Hadwin (University of Victoria), & Sherry H. Stewart (Dalhousie University)
- An examination of alcohol and cannabis protective behavioral strategies among simultaneous, concurrent, alcohol-only, and cannabis-only users**  
Katherine A. Berry (University of Wyoming), Alison Looby (University of Wyoming), & Harm Reduction Research Team
- Cannabis Protective Behavioral Strategies and Eating Disorder Symptoms: A Closer Look at Muscular Dysmorphia and Cannabis Use Disorder Among Male and Female College Students**  
Megan E. Brown (University of Southern California), Ireland M. Shute (University of Southern California), Keegan Buch (University of Southern California), Stuart B. Murray (University of Southern California), Mark A. Prince (Colorado State University), & Eric R. Pedersen (University of Southern California)
- Avoiding Driving Under the Influence of Cannabis: A Longitudinal Study Testing the Theory of Planned Behavior and an Extended Model Including Social Norms**  
Fermín Fernández Calderón (University of Huelva), José Carmona Márquez (University of Huelva), Adrian J. Bravo (William & Mary), Claudio Vidal Giné (Asociación Bienestar y Desarrollo, Energy Control, Spain), Bella M. González Ponce (University of Huelva), & Carmen Díaz Batanero (University of Huelva)
- The Predictive Value of the Theory of Planned Behavior over Cannabis Use Frequency among Young Adults Who Use Cannabis: Adding Past Behavior and Habit within the Framework of Dual-Process Models**  
Fermín Fernández Calderón (University of Huelva), Alberto Parrado González (University of Huelva), José Carmona Márquez (University of Huelva), Lucía Vélez Pérez (University of Huelva), Adrian J. Bravo (William & Mary), & Óscar M. Lozano Rojas (University of Huelva)
- Cannabis Use Timing and Motives: When You Get High Depends on Why You Get High**  
Brenna A. Carter (Colorado State University), Siena Ho Shue (Colorado State University), Paige Strait (Colorado State University), Hollis C. Karoly (Colorado State University), & Bradley T. Conner (Colorado State University)
- We Don't All Like Being Stoned the Same Way: Cannabis Use Across Sexual Orientation**  
Paige D. Strait (Colorado State University), Brenna A. Carter (Colorado State University), Hollis C. Karoly (Colorado State University), & Bradley T. Conner (Colorado State University)

9. **Exploring Associations Between Cannabis Exposure and Neuropsychological Functioning in People Living With HIV: Effects of Lifetime, 12-Month, and 30-Day Use**  
Victoria O. Chentsova (San Diego State University; University of California San Diego), Thomas D. Marcotte (University of California San Diego), Jennifer E. Iudicello (University of California San Diego), J. Hampton Atkinson (University of California San Diego), Igor Grant (University of California San Diego), Mariana Cherner (University of California San Diego), The HIV Neurobehavioral Research Center (HNRC) Group & The Center For Medicinal Cannabis Research (CMCR) Group (University of California San Diego)
10. **Individuals' Values and Preferences Regarding Medical Cannabis for Chronic Pain: A Descriptive Qualitative Study**  
Hanson Cummings (McMaster University), Moizza Zia Ul Haq (McMaster University), Amne Dargham (McMaster University), Nauman Shekel (McMaster University), Jason W. Busse (McMaster University, Michael G. DeGroot Centre for Medicinal Cannabis Research), Andrea J. Darzi (McMaster University), & Elizabeth Alvarez (McMaster University, Centre for Health Economics and Policy Analysis)
11. **Cannabis Use among Emerging Adults in US States with and without Legal Cannabis Sales using the International Cannabis Policy Study (ICPS) Wave 4 2021 Data**  
Cara Drake (University of Nevada, Reno), Jennifer L. Pearson (University of Nevada, Reno), Kristen Clements-Nolle, (University of Nevada, Reno), Sung-Yeon Park (University of Nevada, Reno), Peter Reed (University of Nevada, Reno), Laura Crosswell (University of Nevada, Reno), Elle Wadsworth (RAND Europe), & David Hammond (University of Waterloo)
12. **Just-in-time adaptive intervention (JITAI) for young adults using cannabis and alcohol: Initial development and qualitative feedback**  
Catherine Erickson (Kaiser Permanente Hawaii), Kara Tsuzaki (Kaiser Permanente Hawaii), Michael M. Phillips (University of Hawaii Manoa), Mark A. Prince (Colorado State University), Trent L. Lalonde (State of Colorado), Jonathan Lai (Kaiser Permanente Hawaii), Michael D. Stein (Boston University), & Kristina T. Phillips (Kaiser Permanente Hawaii; Kaiser Permanente Bernard J. Tyson School of Medicine)
13. **Making sense of population trends in adolescent cannabis use and emotional concerns: strengthening, staying the same, or weakening?**  
Jillian Halladay (McMaster University), Matthew Sunderland (University of Sydney), Cath Chapman (University of Sydney), Ruth Repchuck (McMaster University), Katholiki Georgiades (McMaster University), Angela Boak (University of Toronto), Hayley A. Hamilton (University of Toronto), Maree Teesson (University of Sydney), & Tim Slade (University of Sydney)

### **Research Award Honorable Mention**

14. **Sustained Effects of Daily Cannabidiol Administration on Anandamide Plasma Concentration in Individuals with Cocaine Use Disorder: Exploratory Findings from a Randomized Controlled Trial**  
Francois-Olivier Hebert (Research Center, Centre Hospitalier de l'Université de Montréal (CRCHUM)), Violaine Mongeau-Pérusse (Université de Montréal, CRCHUM), Elie Rizkallah (Université de Montréal, CRCHUM), Amani Mahroug (Université de Montréal, CRCHUM), Hamzah Bakouni (Université de Montréal, CRCHUM), Florence Morissette (Université de Montréal, CRCHUM), Suzanne Brissette (Université de Montréal, CRCHUM), Julie Bruneau (Université de Montréal, CRCHUM), Simon Dubreucq (Université de Montréal, CRCHUM), & Didier Jutras-Aswad (Université de Montréal, CRCHUM)



15. **Knowledge and Beliefs About Blunts Among Youth in the U.S.**  
Sarah D. Kowitt (University of North Carolina (UNC) at Chapel Hill), Michael Jetsupphasuk (UNC at Chapel Hill), Sonia A. Clark (UNC at Chapel Hill), Kristen L. Jarman (UNC at Chapel Hill), Adam O. Goldstein (University of North Carolina at Chapel Hill), James F. Thrasher (University of South Carolina), Rime Jebai (Boston University), Leah M. Ranney (University of North Carolina at Chapel Hill), & Jennifer Cornacchione Ross (Boston University)
16. **Latent Class Analysis of Cannabis Use Characteristics and Associations with Problematic Use Outcomes, Quitting-Related Factors, and Mental Health among US Young Adults**  
Cassidy R. LoParco (George Washington University), Carla J. Berg (George Washington University), Yuxian Cui (George Washington University), Katelyn F. Romm (University of Oklahoma Health Sciences Center), Darcey M. McCready (George Washington University), Yan Wang (George Washington University), Hannah Szlyk (Washington University at St. Louis), Y. Tony Yang (George Washington University), Erin Kasson (Washington University at St. Louis), Rishika Chakraborty (George Washington University), & Patricia A. Cavazos-Rehg (Washington University at St. Louis)
17. **Cannabis Products in Vape Shops: United States, 2023**  
Matthew E. Rossheim (University of North Texas Health Science Center), Cassidy R. LoParco (George Washington University), Kayla K. Tillett (University of North Texas Health Science Center), Ryan D. Treffers (Pacific Institute for Research and Evaluation), Melvin D. Livingston (Emory University), & Carla J. Berg (George Washington University)
18. **Age-Dependent Association of Cannabis Use with Risk of Psychotic Disorder**  
André J. McDonald (McMaster University; University of Toronto, Centre for Addiction and Mental Health), Paul Kurdyak (University of Toronto, Centre for Addiction and Mental Health; ICES), Jürgen Rehm (University of Toronto, Centre for Addiction and Mental Health; Technische Universität Dresden; Sechenov University), Michael Roerecke (University of Toronto, Centre for Addiction and Mental Health), & Susan J. Bondy (University of Toronto)
19. **Examining Moment-To-Moment Associations Between Cannabis Use, Context, and Problems in College Students**  
Brandon P. Miller (University of Kansas), Noah N. Emery (Colorado State University), & Michael Amlung (University of Kansas)
20. **Using Phenomenography to Understand Native American Perspectives on Cannabis Use for Pain Management**  
Sara R. Mills (Washington State University), Marian L. Wilson (Washington State University), Ashlin Parsons (Washington State University), Naomi Bender (Washington State University), Ross Bindler (Washington State University), Crystal Smith (Washington State University), Marjorie Matheson, Melissa Owens, & Stephanie Negley
21. **Endocannabinoid Science: Cannabis, Sex, and Therapeutic Insights**  
Hiral Mistry (Ontario Tech University)
22. **Cannabis Cigarette Smoke Impairs Syncytiotrophoblast and Mitochondrial Function and Dysregulates Endocannabinoid System Homeostasis**  
Cristina Monaco, Tina Podinic, & Sandeep Raha (McMaster University)
23. **Positive Childhood Experiences and Prospective Cannabis Use Frequency and Quantity in Adolescent and Emerging Adult Females by ACE Dimension**  
Susette A. Moyers (Oklahoma State University, Center for Health Sciences), Emily A. Doherty (Oklahoma State University, Center for Health Sciences), Erica K. Crockett-Barbera (Oklahoma State University, Center for Health Sciences), Hannah S. Appleseth (Oklahoma State University), Quinn Leffingwell (Oklahoma State University, Center for Health Sciences), & Julie M. Croff (Oklahoma State University, Center for Health Sciences)

24. **Cannabis Use Among a Statewide Sample of Young Adults: Is Student Status a Risk Factor?**  
Adriana Raass (University at Buffalo), Kenneth E. Leonard (University at Buffalo), Gregory G. Homish (University at Buffalo), Bonnie M. Vest (University at Buffalo), & Jessica A. Kulak (University at Buffalo)

#### **Underrepresented Student Research Award Winner**

25. **Food Restriction on Cannabis Use Days: An Assessment of Consequences and Motivations for Compensatory Eating Behaviors**  
Ireland M. Shute, (University of Southern California, Keck School of Medicine), Megan E. Brown, (University of Southern California, Keck School of Medicine), Keegan Buch, (University of Southern California, Keck School of Medicine), Reagan E. Fitzke (Colorado State University, Colorado Springs), Mark A. Prince (Colorado State, University), Stuart B. Murray (University of Southern California, Keck School of Medicine), & Eric R. Pedersen (University of Southern California, Keck School of Medicine)
26. **Emotion Dysregulation Mediates the Association between Adverse Childhood Experiences and Problem Cannabis Use Among Postsecondary Students High in Affective Impulsivity**  
Lindsey A. Snaychuk (Toronto Metropolitan University), Jenna L. Vieira (Toronto Metropolitan University), Jana Milicevic (Toronto Metropolitan University), David C. Hodgins (University of Calgary), N. Will Shead (Mount Saint Vincent University), Matthew T. Keough (York University), & Hyoun S. Kim (University of Calgary, Toronto Metropolitan University)
27. **Inhaled Cannabis for Medical Purposes for Chronic Pain: A Systematic Review and Meta-Analysis of Randomized Clinical Trials**  
Li Wang (McMaster University), Kevin Shao (McMaster University), Vahid Ashoorion (McMaster University), Fares Hayek (McMaster University), Wenjun Jiang (McMaster University), Vivian Chen (Cornell University), Cody Tran (McMaster University), Henry Kwon (Wayne State University, School of Medicine), Rachel J. Couban (McMaster University), & Jason W. Busse (McMaster University, Michael G. DeGroote Centre for Medicinal Cannabis Research)
28. **Non-Inhaled Medical Cannabis or Cannabinoids for Chronic Pain: A Systematic Review and Meta-Analysis of Randomized Clinical Trials**  
Li Wang (McMaster University), Vahid Ashoorion (McMaster University), Kevin Shao (McMaster University), Wenjun Jiang (McMaster University), Vivian Chen (Cornell University), Lucas Lorimer (Western University), Wahaj Khan (McMaster University), Rachel J. Couban (McMaster University), & Jason W. Busse (McMaster University, Michael G. DeGroote Centre for Medicinal Cannabis Research)

#### **Student Research Award Winner**

29. **Perceived Effectiveness of Cannabis Use for Pain Management in People Living with HIV: An Observational Pilot Study**  
Nicole Dimitrova (York University), Sophie G. Coelho (York University), Joel D. Katz (York University; University of Toronto), Sergio Rueda (University of Toronto, Centre for Addiction and Mental Health), & Jeffrey D. Wardell (York University; University of Toronto; Centre for Addiction and Mental Health)

#### **Research Award Honorable Mention**

30. **Associations Between Affect and Simultaneous Use of Alcohol and Cannabis in Young Adults: The Role of Depression, Anxiety, and Stress**  
Petra Legaspi (York University), Nicolle Fox (York University), Christian S. Hendershot (University of North Carolina at Chapel Hill), & Jeffrey D. Wardell (York University; University of Toronto, Centre for Addiction and Mental Health)



31. **The Role of Cannabis Motives in the Association Between Medicinal Cannabis Use and Cannabis Related Outcomes**

Christina Simms (York University), Kyra N. Farrelly (York University), & Jeffrey D. Wardell (York University; University of Toronto, Centre for Addiction and Mental Health)

**Student Research Award Winner**

32. **Pain as a predictor of cannabis initiation among emerging adults: Results from the Population Assessment of Tobacco and Health (PATH) Study**

Callon M. Williams (Binghamton University), Nadine R. Mastroleo (Binghamton University), Mark F. Lenzenweger (Binghamton University), & Emily L. Zale (Binghamton University)

## POSTER SESSION II: TORONTO II BALLROOM, CONVENTION LEVEL

**SATURDAY, JULY 20, 2024, 4:00 PM – 5:00 PM**

Posters are to be displayed on the board that corresponds to the number of your poster. You can put your poster up any time during the day on Sat. by 4:00pm. Please remove your poster at 5:00pm.

- Cannabis Treatment Outcomes Across Health Conditions: A Systematic Review of Sex Differences in Clinical Trials**  
Joseph Antony (Health Canada), George Mammen (Health Canada), Austin Mayers (Health Canada), Sophie-Anne Lamour (Health Canada), & Hanan Abramovici (Health Canada)
  - Systematically Testing the Evidence on Marijuana (STEM)**  
Chelsea Ayers (VA Portland Health Care System), Beth Shaw (Oregon Health & Science University), Snehapriya Yeddala (Oregon Health & Science University), Shannon Robalino (Oregon Health & Science University), Shauna Durbin (Oregon Health & Science University), Rachel Ward (VA Portland Health Care System), & Devan Kansagara (VA Portland Health Care System; Oregon Health & Science University)
  - Cannabis and ADHD Symptoms in Emerging Adulthood: A Within-Person Analysis**  
Camara Azubuike (University of Toronto), Alexandra Shifrin (University of Toronto), & Abby L. Goldstein (University of Toronto)
  - Personality Traits as Mediators in the Association Between Adverse Childhood Experiences and Cannabis Consequences: A Cross-National Examination Among College Students from Six Countries**  
Megan E. Brown (University of Southern California), Laura Mezquita (Universitat Jaume I), Mark A. Prince (Colorado State University), Adrian J. Bravo (William & Mary), Generós Ortet (Universitat Jaume I), Maria Ibáñez (Universitat Jaume I), & Cross-Cultural Addictions Study Team
  - Cannabis Use, Consequences, and Protective Behavioral Strategies among Sexual and Gender Minority College Students**  
Keegan Buch (University of Southern California), Ireland M. Shute (University of Southern California), Megan E. Brown (University of Southern California), Reagan E. Fitzke (University of Colorado, Colorado Springs), Mark A. Prince (Colorado State University), & Eric R. Pedersen (University of Southern California)
- Student Research Award Winner**
- Impact of Cannabis Use During Adolescence and Young Adulthood on Academic Achievement: A Systematic Review and Meta-analysis of Observational Studies**  
Olsen Chan (University of Toronto), Ahad Daudi (McMaster University), David Ji (McMaster University), Mathias Wang (McMaster University), Jeremy P. Steen (McMaster University), Parsia Parnian (McMaster University), Crystal Li (McMaster University), Annie Xiong (McMaster University), Wei Zhang (McMaster University), Luciane Cruz Lopes (University of Sorocaba), James MacKillop (McMaster University), Jason W. Busse (McMaster University), Michael G. DeGroot (Centre for Medicinal Cannabis Research), & Li Wang (McMaster University)
  - Five Years In: An Updated Look at Demographics of the Massachusetts Cannabis Industry**  
Alexander M. Colby (Cannabis Control Commission, Commonwealth of Massachusetts), Graelyn Humiston (Cannabis Control Commission, Commonwealth of Massachusetts), Hailey Pensky (Cannabis Control Commission, Commonwealth of Massachusetts), Samantha Doonan (New York University, Grossman School of Medicine), & Julie K. Johnson (Cannabis Control Commission, Commonwealth of Massachusetts)

8. **A Naturalistic Study of Cannabis Use and Sleep Among Young Adult Females: A Pilot Study Using Wearable Sleep Data**  
Emily A. Doherty (Oklahoma State University, Center for Health Sciences), Hannah Appleseth (Oklahoma State University), Quinn Leffingwell (Oklahoma State University, Center for Health Sciences), Susette A. Moyers (Oklahoma State University, Center for Health Sciences), Erica K. Crockett-Barbera (Oklahoma State University, Center for Health Sciences), & Julie M. Croff (Oklahoma State University, Center for Health Sciences)
  9. **Guiding Cannabis Researchers and Regulators Through Complex Industry Testing Standards and Data**  
Graelyn B. Humiston (Cannabis Control Commission, Commonwealth of Massachusetts), Alexander M. Colby (Cannabis Control Commission, Commonwealth of Massachusetts), Hailey Pensky (Cannabis Control Commission, Commonwealth of Massachusetts), & Julie K. Johnson (Cannabis Control Commission, Commonwealth of Massachusetts)
  10. **Opioids & Cannabis: Pain in the Outpatient Setting**  
Thomas A. Clobes (California State University, Channel Islands), Matthew Kraybill (Cottage Health), Sean Himbebaugh (California State University, Channel Islands), Bryce Jones (Cottage Health), & Madison Jaskolka (Cottage Health)
- Underrepresented Student Research Award Winner**
11. **The Impact of Cannabidiol (CBD) Placebo on Neural Responses to an Acute Stressor**  
Mikaela A. Ethier-Gagnon (Dalhousie University), Robin N. Perry (Dalhousie University), Jessica Liebmann (Dalhousie University), Sherry H. Stewart (Dalhousie University), & Sean P. Barrett (Dalhousie University)
  12. **Cannabis Vaping and Perceived Harm: Exploring the Impact On Cannabis Use Frequency Among Young Adult Females**  
Samantha A. Fitzer (Old Dominion University), Kendra L. Rigney (Old Dominion University), & Sarah J. Ehlke (Old Dominion University)
  13. **Gender Differences in Cannabis Use Frequency, Severity, and Consequences Among Trauma Survivors**  
Reagan E. Fitzke (University of Colorado, Colorado Springs), Kaylin Muller (University of Colorado, Colorado Springs), & Colin T. Mahoney (University of Colorado, Colorado Springs; Lyda Hill Institute for Human Resilience)
  14. **Mindfulness Profiles and Substance Use Outcomes Among College Students**  
Folly Folivi (William & Mary), Adrian J. Bravo (William & Mary), & Cross-Cultural Addictions Study Team
  15. **Characterization of the Salivary Metabolome from Cannabis and Tobacco Users: Biochemical Insights to Drug Dependence Risk**  
Claire Gillespie (McMaster University), Meera Shanmuganathan (McMaster University), Zachary Kroezen (McMaster University), Iris Balodis (McMaster University, Michael G. DeGroote Centre for Medicinal Cannabis Research), & Philip Britz-McKibbin (McMaster University, Michael G. DeGroote Centre for Medicinal Cannabis Research)
  16. **Effects of an Adult-Use Cannabis Law on Blunt and Other Cannabis Use in New Jersey Young Adults**  
Allison M. Glasser (Rutgers Institute for Nicotine & Tobacco Studies), Andrea C. Villanti (Rutgers Institute for Nicotine & Tobacco Studies; Rutgers School of Public Health), Daniel Gundersen (Rutgers Institute for Nicotine & Tobacco Studies; Robert Wood Johnson Medical School), Kevin Schroth (Rutgers Institute for Nicotine & Tobacco Studies; Rutgers School of Public Health), & Mary Hrywna (Rutgers Institute for Nicotine & Tobacco Studies; Rutgers School of Public Health)

## **Underrepresented Student Research Award Winner**

17. **The Impact of Cannabis on Psychosis among Young People in Black Racialized Communities: Fostering Awareness Through Knowledge Translation Video Games**  
Nima Karimi (McMaster University), Sarah Maginga (St. Joseph's Healthcare Hamilton; McMaster University), Sandi Johnson (McMaster University), Angela Jaspan (McMaster University), Anthony Olagunju (McMaster University), Heather McNeely (McMaster University), & Suzanne Archie (McMaster University)
18. **Demography & Health History of Dogs with Cannabidiol and Hemp Use in the Dog Aging Project**  
Maxwell C.K. Leung (Arizona State University), Kendra D. Conrow (Arizona State University), Richard Haney (Arizona State University), Yi Su (Banner Alzheimer's Institute), Noah Snyder-Mackler (Arizona State University), Kathleen Kerr (University of Washington), Daniel Promislow (Tufts University), Julia Albright (University of Tennessee), & Emily Bray (University of Arizona)
19. **Derived Psychoactive Cannabis Use among a National Sample of US Young Adults**  
Cassidy R. LoParco (George Washington University), Matthew E. Rossheim (University of North Texas Health Science Center), Yuxian Cui (George Washington University), Darcey M. McCready (George Washington University), Katelyn F. Romm (University of Oklahoma, Health Sciences Center), Yan Wang (George Washington University), Y. Tony Yang (George Washington University), Patricia A. Cavazos-Rehg (Washington University at St. Louis), & Carla J. Berg (George Washington University)
20. **Popular Brands of Intoxicating Cannabis Products Sold in Vape Shops Across the United States, 2023**  
Kayla K. Tillett (University of North Texas Health Science Center), Cassidy R. LoParco (George Washington University), Carla J. Berg (George Washington University), & Matthew E. Rossheim (University of North Texas Health Science Center)
21. **Derived Psychoactive Cannabis Product Online Retail: Age and Shipping Restrictions**  
Cassidy R. LoParco (George Washington University), Kayla K. Tillett (University of North Texas Health Science Center), Carla J. Berg (George Washington University), & Matthew E. Rossheim (University of North Texas Health Science Center)
22. **A Marketing Analysis of Four Prominent US Cannabis Companies**  
Darcey McCready (George Washington University), Cassidy R. LoParco (George Washington University), Yuxian Cui (George Washington University), Matthew E. Rossheim (University of North Texas Health Science Center), Julia Chen-Sankey (Rutgers University), Katelyn F. Romm (University of Oklahoma), Yan Wang (George Washington University), Y. Tony Yang (George Washington University), Patricia A. Cavazos-Rehg (Washington University), & Carla J. Berg (George Washington University)

## **Research Award Honorable Mention**

23. **Using Triple Network Theory of Psychopathology to Identify Potential Biomarkers of Cannabis Use Disorder**  
Peter Najdzionek (McMaster University) & James MacKillop (McMaster University)
24. **Digital Education for Canadians with Chronic Pain Using Mlearning and Edutech for Teaching About Therapeutic Cannabis And Chronic Pain: A Canadian Study**  
Judy Parnell (Athabasca University)
25. **Comparison Of Legal and Illegal Cannabis Vapes and Extracts that Contain Novel Intoxicating Cannabinoids by LC-MS/MS and LC-HRMS**  
Renee R. V. Robinson (Health Canada), Joshua Marleau-Gillette (National Research Council Canada (NRCC)), Andrew Wayne (Health Canada), Ashley Cabecinha (Health Canada), Michelle Farhat (NRCC), Jeremy E. Melanson (NRCC), & Hanan Abramovici (Health Canada)

26. **The Highs & Lows: Cannabis Use & Bipolar Spectrum Disorders in a Large Sample of Emerging Adults**

Luiza Rosa (University of Colorado, Boulder), Gerald Young (University of California, Berkeley), Stevi G. Ibonie (University of Colorado, Boulder), Joelle LeMoult (University of British Columbia), Iris B. Mauss (University of California, Berkeley), Lauren B. Alloy (Temple University), Jessica L. Borelli (University of California, Irvine), Sarah R. Holley (San Francisco State University), Ellen Jopling (University of British Columbia), Jay Van Bavel (New York University), Daniel Moriarity (Temple University), Robin Nusslock (Northwestern University), Gregory Strauss (University of Georgia), Cynthia M. Villanueva (University of Colorado, Boulder), L. Cinnamon Bidwell (University of Colorado, Boulder), & June Gruber (University of Colorado, Boulder)

27. **Who is Asked About Marijuana Use During Pregnancy? Identifying Racial Differences In A Sample Of Pregnant Women With STI Risk**

Golfo Tzilos Wernette (University of Michigan), Ananda Sen (University of Michigan), Dongru Chen (University of Michigan), Kristina Countryman (University of Michigan), Okeoma Mmeje (University of Michigan), Katherine Gold (University of Michigan), Melanie Herschel (University of Michigan), Kalli Mulholland (University of Michigan), & Caron Zlotnick (Brown University; Women and Infants Hospital)

28. **Consumer Perceptions of FDA Prohibited Claims in CBD Advertisements**

Kimberly Wagoner (Wake Forest University, School of Medicine), Olivia Horton (Wake Forest University, School of Medicine), Cindy Suerken (Wake Forest University, School of Medicine), Allison J. Lazard (University of North Carolina at Chapel Hill), Edgar Alfonso Romero-Sandoval (Wake Forest University, School of Medicine), & Beth Reboussin (Wake Forest University, School of Medicine)



## EDITOR

Eric R. Pedersen

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Keegan Buch

# *Cannabis*

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