<table>
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<tr>
<th>Item</th>
<th>Topic</th>
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<th>Action</th>
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<tbody>
<tr>
<td>1</td>
<td>Introductions (Andrew Pinto)</td>
<td>• Andrew Pinto introduced those present via Zoom and on the phone</td>
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<td>2</td>
<td>Review and approval of May 27, 2021, draft meeting minutes (All)</td>
<td>• Minutes of the previous meeting were approved by those present</td>
<td>Approved</td>
<td>All</td>
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<td>3</td>
<td>Presentation: Cannabis Translational Research at CAMH (Bernard Le Foll)</td>
<td><strong>Burden of Disease induced in Canada:</strong>&lt;br&gt; • 287 cannabis-attributable deaths&lt;br&gt; • 10,533 cannabis-attributable years of life lost&lt;br&gt; • 55,813 cannabis-attributable years lived with disability&lt;br&gt; <strong>Cannabis Use and Cannabis Used Disorder:</strong>&lt;br&gt; • Cannabis Used Disorder = Cannabis abuse + Harmful (pattern of) cannabis use + Cannabis dependence&lt;br&gt; <strong>How to prevent Cannabis Use Disorder?</strong>&lt;br&gt; • Canada's Lower-Risk Cannabis Use Guidelines (LRCUG):&lt;br&gt;   o An evidence-based tool used to guide choices and improve the health of Canadians who use cannabis&lt;br&gt;   o <a href="https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/resources/lower-risk-cannabis-use-guidelines.html">https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/resources/lower-risk-cannabis-use-guidelines.html</a>&lt;br&gt;   o <a href="https://ajph.aphapublications.org/doi/10.2105/AJPH.2017.303818">https://ajph.aphapublications.org/doi/10.2105/AJPH.2017.303818</a>&lt;br&gt; • Psychosocial Treatment:&lt;br&gt;   o Psychological interventions for cannabis use disorder (Gates et al., 2016, Cochrane Review)&lt;br&gt;   o <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4914383">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4914383</a>&lt;br&gt; • Pharmacological Treatment&lt;br&gt;   o Pharmacotherapies for cannabis dependence (Nielson et al, 2019, Cochrane Database Syst Rev)&lt;br&gt;   o <a href="https://pubmed.ncbi.nlm.nih.gov/30687936/">https://pubmed.ncbi.nlm.nih.gov/30687936/</a></td>
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• Neurobiology Research in Patients
  o Panel b: Results from Dr Isabelle Boileau’s Lab at CAMH using CURB PET probe with patients recruiting at CAMH

CAMH driving research:
• Impact of cannabis on Driving in young drivers (CIHR, PIs Le Foll, Mann)
• Impact of cannabis in medical users of cannabis (MOT, PI Brands)
• Impact of alcohol and cannabis on driving abilities (CIHR, PIs Wickens, Brands)
• Dose Response on driving (Canada Gvt, PIs Brands/Le Foll)
• Impact of Age/Tolerance on driving (PI, Wickens)

Challenges of this type of research:
• Require multi-disciplinary teams. Expertise on multiple levels (PK, clinical, neurocognitive assessment, driving parameters, lab dosages...)
• Require robust infra-structure ex: driving simulator, negative pressure room, Research pharmacy, freezers.
• Qualified personal trained to run trials
• Access to Placebo Cannabis (Import from NIDA Drug supply program (DEA, HC, Exemption, permit...)
• Access to cannabis with the proper regulatory documents to obtain the CTA
• Enough patience to go through the complex regulatory framework

Medical use of Cannabinoid drugs:
• THC and CBD are the two main components of Cannabis

• Use of Nabiximols (THC/CBD) as a possible substitution therapy for cannabis dependence:
  o Sativex® is developed by GW Pharmaceutical
    ▪ Each 100 µl spray contains: 2.7 mg delta-9-tetrahydrocannabinol (THC) and 2.5 mg cannabidiol (CBD)

Further studies underway:
• Cannabinoid agonist (nabilone) for treatment of obesity (PI Le Foll)
• CBD for social anxiety (PI Dr Kloiber)
• CBD for alcohol (PI Dr Sloan)
### Conclusion:

- We have at CAMH a large range of investigators with expertise ranging from molecular science, imaging to clinical trials and epidemiological/policy work
- Multiple scientists have been working in this field for a long time
- We have expertise implementing complex studies, regulated studies and also developing innovative tools for research (ex PET) and working with various partners to disseminate evidence based interventions (LRCUG..)
- Involvement with national organizations ex CCIC re education
- CAMH is also hosting CRISM (Canada Research Initiative on Substance Misuse) node for Ontario, a network of addiction researchers allowing to scale projects at a national levels (CRISM 2 in preparation)

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<th>Real World Tracking of Cannabis Use in Canadian Patients (Hance Clarke)</th>
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<td><strong>Increased Cannabis Use Over the Past Years:</strong></td>
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<td>• Canada has one of the highest national rates of cannabis use in the world</td>
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<tr>
<td>o 40% of Canadians have used cannabis</td>
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<tr>
<td>o 10% of Canadians have used cannabis this past year</td>
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<tr>
<td>o 20% of Canadians aged 15-24 years used cannabis in the past year</td>
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<tr>
<td>o 70% of Canadian cannabis users are age 25 or older</td>
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<td>• Adult-Use Cannabis Sales by Month in Canada (from licensed providers):</td>
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<tr>
<td>o Pre-COVID: $120 M/month</td>
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<td>o Late Fall (March-April 2020): $180 M/month</td>
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<tr>
<td>o Summer (June 2020): Over $200 M/month</td>
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<td>• 10% of Canadians are using for a health-related quality of life improvement</td>
<td></td>
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<td>o 500-600 people have registered to purchase these products through the licensed producer</td>
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<td>o 2.5 M people are walking into a dispensary to threat whatever conditions these may have</td>
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**How do we help Canadians navigate this space?**

- How do we change this pinhole of these cannabis clinics (that typically have kickbacks) to a potential platform that we could use to start to collect some data

**Cannabis Use for Orthopedic Surgery:**

- Conducted an overview of 600 individuals coming to the Toronto Western Hospital for hip and knee related conditions
- 16.7% (N=102) currently using for management of MSK pain
- Including past use for MSK pain, 22.9% (N+140) of patients reported having used cannabis
1 in 5 patients are using or have used cannabis to manage MSK pain

Patterns of Cannabis use:

- Perioperative Pain and Addiction Interdisciplinary Network (PAIN): consensus recommendations for perioperative management of cannabis and cannabinoid-based medicine users by a modified Delphi process (Ladha et al, 2020, British Journal of Anaesthesia)
  
  https://www.bjanaesthesia.org/article/S0007-0912(20)30783-2/fulltext

- 1/3 of patients are using CBD
- 1/4 of patients don’t know what they are taking
- 2/3 of patients use cannabis daily to manage pain (60%)
- >1/3 of patients spend over $100 per month on cannabis products
- Only 1/4 of patients were advised by a physician to use cannabis
- Only 1/4 of patients obtain from a Health Canada licensed provider

Patient Flow Chart:

- Patient-reported outcomes in those consuming medical cannabis: a prospective longitudinal observational study in chronic pain patients (Meng et al, 2021, Canadian Journal of Anaesthesia)
  

  - Observational study enrolled patients between 8 September 2015 and 31 July 2018 from community-based cannabis clinics in Ontario, Canada
  - Investigated patients with chronic pain seeking medical cannabis. We assessed their demographics, patterns of cannabis use, and the long-term effectiveness of cannabis on their pain and functional domains.
    - 1000 patients enrolled
    - 757 patients completed baseline (i.e. purchased a cannabis product)
    - 230 completed 6-month follow-up (1/3 people heading down the road to using a cannabis product, stayed on it)

Revised statement from the Canadian Pain Society Guidelines: on Pharmacological management of chronic pain:

- “The cannabinoids are analgesic agents with increasing evidence of efficacy in central NeP states, with a combined NNT of 3.4”
Medical Cannabis Real World Evidence (MC RWE)

- A collaboration between UHN and Medical Cannabis by Shoppers Drug Mart (MCbS) to execute a real-world evidence study involving 2000 patients
  - Create POC for blockchain validated products
  - Build and drive standardization within the cannabis industry
- We have created an online platform and REB approved protocol (from coast to coast) and local approval for data analysis
- Study Design:
  - Population:
    - Adults > 19 years of age with valid medical documentation
    - Chronic pain, sleep and anxiety
    - Register with Medical Cannabis by Shoppers
  - Baseline data before they purchase any product
- There are specific products on the platform that have been third party tested to ensure that what is in the bottle is actually going to be consumed at 6 weeks, 12 weeks and 24 weeks (data is continued)
- Team at UHN is following and tracking these individuals in terms of data capture and reporting any issues that come up to the REB
- Informed Consent can be completed through the e-portal
- [www.MCRWE.ca](http://www.MCRWE.ca) (patient page and health care provider page)

Canadian Cannabis Syllabus:

- Developed by the Canadian Consortium for Investigation of Cannabinoids
- Comprehensive Evidence-Based Education on Cannabis and Cannabinoids as Therapeutics
- Learn about:
  - The Science of the endocannabinoid system
  - Safety and efficacy of cannabis/cannabinoids as therapeutic agents
  - How to approach cannabinoids as treatment options in patient care
  - Evidence-based information key to having informed discussions with patients
- [www.ccic-learncannabis.ca](http://www.ccic-learncannabis.ca)

### Clinical Trials update (Aashka Bhatt, Gurnoor Brar, Andrew Pinto)

- **SARTAN-AD:**
  - Looks at the hypertensive medications proving protective benefits in slowing down Alzheimer’s disease (and mild to moderate cognitive decline)
  - We have updated the new protocol and eligibility criteria
  - Currently, reconsenting physicians at UTOPIAN sites to increase our patient recruitment numbers
- **Advanced Care Planning (ACP):**
  - Recruitment is closed. UTOPIAN recruited 125 patients to this project
  - Received a 9-month extension and additional funding awarded by PCORI to help understand how to sustain ACP practices at participating sites and how to engage patient partners further in dissemination activities
• SPIDER:
  o Feasibility phase was in Toronto, the RCT phase is managed by OPEN (Ottawa)
  o Considering running this through POPLAR as the learning collaborative is now virtual

Meeting adjourned at 5:00 p.m.
Next meeting: September 29, 2021; 4:00 p.m.-5:00 p.m. (virtual)