

CLEARING THE AIR

Summary Report of the Medical Cannabis Research Roundtable

The challenge

The Medical Cannabis Research Roundtable was formed to advance discussion of the therapeutic benefits of medical cannabis in relieving and/or managing chronic pain.

Although Health Canada has permitted the prescription of medical cannabis by physicians for a number of years, there remains an enormous deficit of properly funded research and Canadian clinical trials into its use. This creates barriers to patient access as many medical doctors express reluctance to prescribe medical cannabis in the absence of robust, peer-reviewed research.

As the federal government examines options for legalization of cannabis for recreational use, it is imperative that momentum not be lost and opportunities not be overlooked with respect to the uses of medical cannabis.

Expert & stakeholder roundtable

To gather opinions, summarize perspectives and establish priorities, The Medical Cannabis Research Roundtable was formed, leading to discussion among experts and stakeholders into the subject of medical cannabis. Over two days in December 2015 in Vancouver, researchers, clinicians, service providers, health charities and patients discussed how best to go about investing in medical cannabis research to help those living with pain, inflammation, and associated mental health conditions related to chronic disease.

A complete list of participants can be found at the conclusion of this summary.

The roundtable discussion had three main goals.

- To better understand the current cannabis research landscape in Canada, and to identify key researchers.



- To identify research priorities for the therapeutic use of medical cannabis in the areas of basic clinical science, health services, and policy.
- To ensure cannabis research is relevant to all stakeholders involved in, and affected by, cannabis policy and services.

Research priorities

Basic research

The roundtable revealed a broad and varied range of potential basic research priorities related to medical cannabis. Through discussion, we found considerable alignment around the need for greater study of the endocannabinoid system (ECS), and the opportunities further research could offer. This approach to the ECS should be established as the ‘foundational floor’ of medical cannabis research, with further research being built on its findings.

1. **Understanding the role of the endocannabinoid system (ECS) in disease**
 - Does herbal cannabis or synthetic cannabinoids increase or decrease the effectiveness of the ECS?
 - Can the ECS be harnessed therapeutically in disease?

2. Pathophysiology

- What are the impacts of herbal cannabis and synthetic cannabinoids in pre-clinical disease models?
- What are the impacts of the many components of cannabinoids on pain and inflammation?

3. Pharmacodynamics (PD) & Pharmacokinetics (PK)

- Can cannabis or its ingredients be delivered effectively using topical, oral or others delivery strategies that do not require smoking?
- PD – effect of cannabinoid dosing on physiological function
- PK – cannabinoid absorption, distribution, metabolism, and excretion



Embedded within all of these priorities is the need for researchers to have increased access to the plant-derived materials in order to conduct studies.

Participants believed there could be many advantages to further ECS

research, such as an ability to harness its power for therapeutic potential, or the creation of alternative pain treatments.

Clinical research

The roundtable offered opportunity for deep discussion on clinical research priorities. Clinical science combines principles of medicine, chemistry, biology, and experimental science, and evaluates and investigates medical treatments, principles and methods. The roundtable discussed and outlined four key priorities in this area.

1. Safety:

- Adverse events
- Clinical end points (response, disease management and quality of life)
- Short and long-term risks
- Comparative risk to other treatments (e.g., NSAIDS)

2. Efficacy :

- Comparison of cannabis to standard treatment options
- The interaction of cannabis with other medications and treatments (including changes in lifestyle and diet)?
- Measurement across the domains of pain, fatigue, mental health and functionality

3. Dosing:

- A guided framework to standardise the amounts of active ingredients
- Dosing across different types of derivatives/strains
- Validation of approaches to self-titration/individualized dosing research to optimise symptom management
- ‘Start low, go slow and keep going’

4. Administration:

- Study the best route of administration and its relationship to dosing
- Inhaled/vaporization, topical and ingestions methods

Health services and policy

The roundtable held an in-depth discussion on health services and policy research. Policy research is designed to look for ways to improve how health care services are organized, regulated, managed, financed, used, and delivered, in the interest of improving health and quality of life for Canadians. With that in mind, we agreed on four priority areas and discussed the details of each.

1. Study the implications of medical cannabis use on Canadian society as it relates to public, social and economic health.
2. The use of knowledge translation and exchange to provide evidence-based data to inform physicians, nurse practitioners, patients and the public better.
3. The impact of legalization on medical cannabis regulation, access, and quality.
4. How best to ensure access to medical cannabis is equitable and evolves in a non-discriminatory environment.

Conclusions & recommendations

With the benefit of discussion, The roundtable has produced three principal recommendations:

1. **Federal Investment** – an immediate investment of \$25 million dollars over five years to support research into medical cannabis.
2. **Additional Investment** – a call to others in the private and not-for-profit sector to also commit ongoing resources to research. To this end, The Arthritis Society announced a doubling of its own commitment to a total of \$720,000 between 2015 and 2019. The Society also announced the creation of the Medical Cannabis Strategic Operating Grant, an ongoing annual dedication of at least \$120,000 towards medical cannabis research.
3. **Research Priorities** – in keeping with the focus of the roundtable’s discussions, a three-fold focus on Basic Science, Clinical Science and Health Services and Policy.

List of expert & stakeholder roundtable participants

Affiliation	Name
Anesthesiologist, Ottawa	Linda Robinson
BC Cancer Care	Pippa Hawley
BC Civil Liberties	Micheal Vonn
BC, Ministry of Health	Brian Emerson
BC, Ministry of Health	Kenneth Tupper
Canadian AIDS Society	Lynne Belle-Isle
Canadian Arthritis Patient Alliance	Dawn Richards
Canadian Arthritis Patient Alliance	Don Mohoruk
Canadian Association of Medical Cannabis Dispensaries	Jamie Shaw
Canadian Centre for Substance Abuse	Amy Porath-Waller
Canadian Medical Association	Joyce Douglas
Canadian Pain Coalition	Lynn Cooper
Canadians for Fair Access to Medical Marijuana	Jonathan Zaid
Cannabinoid Medical Clinic	Danial Schacter
Centre for Applied Research Simon Fraser University	Dan Bilsker
Child & Family Research Institute	Natasha Ryz
Consultant	David Hutchinson
Dalhousie University	Jason McDougall
Dalhousie University	Mary Lynch
Health Canada	Hanan Abramovici
Keynote Speaker	Ethan Russo
McGill University and Canadian Consortium for the Investigation of Cannabinoids	Mark Ware
McGill University	Mary Anne Fitzcharles

Affiliation	Name
Michael Smith Foundation for Health Research	Bev Holmes
Pain BC	Maria Hudspith
The Arthritis Society	Drew McArthur
The Arthritis Society	Janet Yale
The Arthritis Society	Joanne Simons
The Arthritis Society	Kate Lee
University of British Columbia	Jon Page
University of British Columbia	M-J Milloy
University of British Columbia	Rielle Capler
University of British Columbia	Zachary Walsh
University of Calgary	Keith Sharkey
University of Ottawa	Cory Harris
University of Toronto	Lynda Balneaves
University of Toronto	Ruth Ross

Sponsors	Name
Aphria	Gary Leong
Aphria	Olga Janek
Aphria	Sarah Dobbin
CMCIA	Neil Closner
Emerald Health Botanicals	Caroline MacCallum
Emerald Health Botanicals	Gaetano Morello
MedReleaf	Neil Closner
The Peace Naturals Project	Jennifer Caldwell
The Peace Naturals Project	Mark Goubty
Tilray	Josh Eades
Tilray	Philippe Lucas

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