**EMBARGO COPY – CONFIDENTIAL**

**EMBARGO ENDS 11:30am ET June 14, 2022**

Written Testimony Submission

Prepared by

**Council for Federal Cannabis Regulation (CFCR)**

Submitted by

**Dr. Vicki Seyfert Margolis**

**Chair of CFCR’s Science and Regulatory Affairs Committee**

**&**

**Dr. Reggie Gaudino, Co-Chair**

June 14, 2022

**Testimony:**

Good morning/afternoon. My name is Dr. Vicki Seyfert-Margolis and I chair the Council for Federal Cannabis Regulation (CFCR)’s Scientific and Regulatory Affairs Committee (SRAC). In addition to serving in this capacity, I am also the President/CEO of My Own Meds (MOM), a highly customizable platform for distributed data collection and analyses for clinicians and researchers. Prior to these two roles, I was the Senior Advisor for Science Innovation and Policy in the Office of the Commissioner of the FDA. While at the FDA, I also oversaw the development and execution of an agency-wide strategic plan for regulatory science

The Council for Federal Cannabis Regulation is a nonprofit organization working to educate federal policymakers and regulators about the unique issues and challenges related to cannabis that must be addressed to develop a sound, science-based regulatory framework for drugs, foods, dietary supplements, veterinary products, and cosmetic products. CFCR fully appreciates how truly unprecedented the transition from total prohibition and stigmatization to regulation has been and will continue to be for cannabis. For that reason, CFCR has assembled a team of leading scientists, entrepreneurs, regulatory lawyers and representatives of hemp, pharmaceutical, nutraceutical, consumer packaged goods, wellness, cannabis and other enterprises, and patient advocacy organizations, all of whom are stakeholders to ensure a safe and well-regulated cannabis market.

Our other key SRAC members include my Co-chair, [**Dr. Reggie Gaudino**](https://www.uscfcr.org/about), who is here today. Dr. Gaudino is a molecular geneticist focused on biochemical networks in plant phytochemistry. Dr. Gaudino joined the first and at one time largest commercial cannabis testing lab in the world, Steep Hill, Inc. Now at Front Range Biosciences as the Chief Science Officer and Director of IP, Dr. Gaudino manages a team that has included as many as 20 scientists, field agronomists, breeders, and growers that carry out sophisticated breeding programs for hemp and cannabis, directed by multidisciplinary scientific support.

CFCR is working to support FDA’s access to: a) desperately needed resources, b) independent scientific and regulatory science experts; and c) the most current data and research on cannabinoids. In order for FDA to operate within and advance a 21st century approach to regulating the wide variety of beneficial products yielded by a plant that has been federally illegal for eight decades, the U.S. must have a regulatory framework with safety and sound science at its coreconsistent with FDA’s mission and mandate.

While CFCR recognizes that FDA has already developed a regulatory approach to cannabinoids via the drug pathway, including the approval of a drug for the treatment of epilepsy (Epidiolex), the wide-spread utilization of the cannabis plant under the state legalization programs has created challenges for the potential use of *Cannabis* (THC-predominate) or cannabis derived products such as CBD, as well as other terpenoid containing products formulated from isolated or biosynthetically made cannabinoids and terpenes . Existing research indicates that the use of CBD and other cannabinoids hold great promise as therapeutics in disease treatment or prevention, and it appears likely that a drug development pathway will be utilized to address these pharmaceutical uses, including the use of drug claims, for cannabinoids.

Importantly, and unlike most new drugs, cannabinoids have a long history of use both prior to and after legalization in multiple US states as well as countries. We believe this broad utilization affords cannabinoids the opportunity to use historical data, conventional studies, and more rapid real-world approaches to obtaining data about the safety and benefits associated with cannabinoids. We also believe there needs to be significant attention placed on developing standards for purity and doses of CBD and other cannabinoid products to better evaluate risks and benefits of cannabinoids for consumers.

The goal of CFCR this morning/afternoon is to raise and discuss with the Science Board and FDA the creation of a foundational set of data with respect to CBD and the other cannabinoids that address dose-related safety events in humans for the benefit of streamlining regulatory approvals of these promising and widely used products.

To date, the vast majority of evidence suggests a relatively benign safety profile of cannabinoids even at relatively high dosage levels currently in wide-spread use. We propose the further evaluation of animal and human toxicity data to date, identification of data gaps for the development of a master protocol to address dose-response safety events in healthy humans.

Per the FDA label for Epidiolex the most common adverse reactions (10% or more for EPIDIOLEX and greater than placebo) in patients with Lennox-Gastaut Syndrome or Dravet Syndrome are: somnolence; decreased appetite; diarrhea; transaminase elevations; fatigue, malaise, and asthenia; rash; insomnia, sleep disorder, and poor quality sleep; and infections. The most common adverse reactions (10% or more for EPIDIOLEX and greater than placebo) in patients with tuberous sclerosis complex are: diarrhea; transaminase elevations; decreased appetite; somnolence; pyrexia; and vomiting.

Additional data on the safety of CBD was recently described in a publication by Crippa et al., in the Journal of the American Medical Association. In this study 120 healthy health care professionals were treated with 300mg of CBD daily with or without standard of care for 28 days to assess the ability of CBD to reduce stress and emotional exhaustion brought on by the care of patients during the pandemic. Five of the participants experienced adverse events characterized by an increase in liver enzymes. This resolved after discontinuation of the treatment. Importantly, the publication did demonstrate benefit with respect to decreases in emotional exhaustion.

The study’s findings suggest that CBD may act as an effective agent for the reduction of emotional exhaustion and burnout symptoms among frontline health care professionals, although it is necessary to balance the benefits with potential undesired effects when making decisions regarding the use of CBD.[[1]](#footnote-1)

Importantly, CBD and purified cannabinoids are widely used today, to address a variety of conditions in healthy people, including, but not limited to, stress, insomnia, pain, anxiety, and inflammation. These uses also would benefit from standardization of product quality, consistency, and a maximum dose for utilization in products that are regulated as supplements or foods. Again, there is significant historical data, albeit limited in standardized products, as well as newly emerging data in healthy people that can be used to support restricted benefit claims in the dietary supplement or food regulatory rubric, including health claims, qualified health claims and structure-function claims. It goes without saying that any and all product claims would require the necessary evidence to support same, as outlined in FDA regulation.

The ability to leverage the above-mentioned master protocol to establish dose-response safety signals for drug and non-drug pathways, should provide the necessary data to define the maximum dose allowed in the non-drug pathways, i.e., for supplements and food, as well as any evidence that would prohibit use in vulnerable populations. Benefit claims are also currently being identified with real-world studies in healthy people who are reporting in standardized surveys benefits that they are deriving from CBD use, for example. Clearly, more work needs to be done to support claims in both the food and supplement sectors/categories.

To that end, CFCR has begun to outline critical elements of data that exist, and data needed to assist in the regulation of cannabinoids. We have engaged scientists and policy experts across the country and globally to begin to assemble a catalogue of existing data with respect to mechanisms of action of cannabinoids, information regarding effective dose, information regarding safety in both animal models and humans, and information about patient reported or studied benefits of CBD and other cannabinoids. Our goal is to continue to build this base of knowledge, identify areas where more data is needed and to work with FDA to define the best strategies for how to obtain such data most efficiently and cost effectively.

I appreciate the time allotted to me to speak on behalf of CFCR. Dr. Gaudino and I would welcome any questions the Science Board may have.

1. Efficacy and Safety of Cannabidiol Plus Standard Care vs Standard Care Alone

   for the Treatment of Emotional Exhaustion and Burnout Among Frontline

   Health CareWorkers During the COVID-19 Pandemic

   A Randomized Clinical Trial

   Jos. Alexandre S. Crippa, PhD; AntonioW. Zuardi, PhD; Francisco S. Guimar.es, PhD; Alline Cristina Campos, PhD; Fl.via de Lima Os.rio, PhD; Sonia Regina Loureiro, PhD;

   Rafael G. dos Santos, PhD; Jos. Diogo S. Souza, MD; Juliana Mayumi Ushirohira, MD, MSc; Julia Cozar Pacheco, RPh; Rafael Rinaldi Ferreira, PhD, RPh;

   Karla Cristinne Mancini Costa, MSc; Davi Silveira Scomparin, MSc; Franciele Franco Scarante, MSc; Isabela Pires-Dos-Santos, VMD; Raphael Mechoulam, PhD;

   Fl.vio Kapczinski, PhD; Benedito A. L. Fonseca, PhD; Danillo L. A. Esposito, PhD; Karina Pereira-Lima, PhD; Srijan Sen, PhD; Maristela Haddad Andraus, MSc, RPh;

   Jaime E. C. Hallak, PhD; for the Burnout and Distress Prevention With Cannabidiol in Front-line Health CareWorkers Dealing With COVID-19 (BONSAI) Trial Investigators [↑](#footnote-ref-1)