

January 13, 2020

The Honorable John A. Sarbanes  
Congressman  
2370 Rayburn House Office Building  
Washington, DC 20515

Dear Congressman Sarbanes:

This week the US House Committee on Energy and Commerce will be holding a legislative hearing on *"Cannabis Policies for the New Decade."* As the interim president of the University of Maryland, Baltimore (UMB), Maryland's only public health, law, and human services university, I have significant interest in *H.R. 601, the Medical Cannabis Research Act of 2019* and *H.R. 3797, the Medical Marijuana Research Act of 2019* which are among the bills being discussed during this upcoming hearing.

Due to the federal prohibition on the possession and research on the strains of medical cannabis grown within the United States, there is an alarming gap on the science, policy and therapeutic benefits of medical cannabis. Specifically, health care professionals report significant gaps in cannabis-related knowledge, and the degree of this educational gap has been the focus of a number of studies. Published surveys of physicians, medical students and residents, nurse practitioners, pharmacists, and pharmacy students have described similar perceived knowledge gaps.

The University of Maryland, Baltimore (UMB) is essentially prevented from possessing marijuana and allowing our researchers to purify, characterize, synthesize and alter its derivatives so that it could be used for research. Federal law prohibits us from any action that aids or abets these activities as well as receiving funding from state-licensed marijuana companies. In effect, federal law not only prevents us from studying marijuana in the research lab, it also prevents us from clinical research on the effects of any chemical derived from the cannabis plant. Violations of these regulations could jeopardize UMB—our large federally sponsored research grants are estimated at \$250 million, and our US Department of Education student aid funding.

Throughout medical history, native plants have been the source for many important medical discoveries. Antibiotics to cure infections, digitalis to treat heart failure, drugs to stop cancers, narcotics to control pain, medications to induce anesthesia allowing surgeries to be performed—and many others. Plants often have complex chemistry, which often produce miracle drugs to improve our health and well-being. The cannabis plant may also be one of these plants, and further and extensive research is crucial.

Cannabis is known to have over 400 unique chemicals in its composition. We know that one of these chemicals components produces the psychoactive effects known as a high, but we also know of another chemical in cannabis that can control nausea and loss of appetite seen during cancer chemotherapy treatment. The cancer drug has transformed care in certain instances. Another chemical entity prevents seizures in children. There are other compounds with active effect, although less proven. The

remaining chemicals need research as well. In addition, we need to develop ways to measure levels of the drug in the body, a critical part of performing high quality clinical trials.

In 2017, the National Academies of Sciences, Engineering, and Medicine<sup>i</sup> released a comprehensive report based on the review of more than 10,000 scientific abstracts from cannabis health research. This report made approximately 100 conclusions related to the therapeutic and health effects of cannabis and suggested approaches to stimulate and improve cannabis research. The report presents a national research agenda for cannabis, including a focus on research standards for medical cannabis, and for federal agencies to reduce the impact of regulatory barriers on cannabis research.

As a corollary, the University of Maryland School of Pharmacy (UMSOP) began offering a Master of Science in Medical Cannabis Science and Therapeutics beginning this past fall of 2019. As the number of states legalizing medical cannabis continues to grow, so does the need for an educated workforce to respond to the patient inquiries regarding the therapeutic effects of medical cannabis. In a 2015 survey<sup>ii</sup> of health care providers (physicians, nurse practitioners, and pharmacists), a large knowledge gap was found related to medical cannabis dosing, the development of therapeutic treatment plans, knowledge on the similarities and differences between cannabis products, education related to safety, risks and precautions for medical cannabis use, and the laws and regulations surrounding medical cannabis. For example, we do not even know simple things like safe dosing practices. A related survey<sup>iii</sup> found lack of education regarding medical cannabis reported by 87% of respondents as a barrier to use in clinical practice, with 76% of respondents ranking the need for education to be strong or very strong. The UMSOP Master of Science in Medical Cannabis Science and Therapeutics will cover the principles of drug action and cannabinoid pharmacology; drug delivery and pharmaceuticals; clinical use and effects of medical cannabis; current state and federal laws along with elective courses in research methodology, basic sciences, therapeutics, and policy.

I do hope that you and your colleagues take into consideration the need to allow research on marijuana and eliminate the barriers and onerous regulations to study this potentially useful plant to improve human health.

Sincerely,



Bruce A. Jarrell

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<sup>i</sup> The Health Effects of Cannabis And Cannabinoids: The Current State of Evidence and Recommendations for Research. Washington, D.C.: The National Academies Press; Online document at: [www.nap.edu/read/24625/chapter/1](http://www.nap.edu/read/24625/chapter/1), accessed February 15, 2019

<sup>ii</sup> Ziemianski D, Capler R, Tekanoff R, et al. Cannabis in medicine: A national educational needs assessment among Canadian physicians. BMC Med Educ 2015;15:52

<sup>iii</sup> Ziemianski D, Tekanoff R, Luconi F, Ware M. Cannabinoids in clinical practice: experiences and educational needs. In: Proceeds of the Canadian Pain Society 2012. Pain Research and Management 2012;17(3):229