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Texas House Public Health Committee
Texas House of Representatives
Austin, Texas

RE: H.B. 2107 (Price)

Members:

Thank you for the opportunity to speak with you today in support of H.B.2107.

My name is Bryon Adinoff. I am a member of the faculty at UT Southwestern Medical Center, but am here strictly as private citizen expressing my own opinions. I am an addiction psychiatrist and have been living in Dallas since 1995. I have published and spoken widely on the biological effects and treatment of addictive disorders¹ and I am the Editor of *The American Journal of Drug and Alcohol Abuse*. My research has been funded by the National Institute on Drug Abuse (NIDA), the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the Department of Veterans Affairs.

Last session, the Texas Legislature took a giant leap forward in approving the Compassionate Use Program. This law allows for the use of cannabidiol, one of over 100 active cannabinoids, for the treatment of epilepsy. However, marijuana, or “botanical cannabis,” has several known cannabinoids that are potentially useful in a number of additional debilitating conditions. In a recent report, the National Academy of Sciences reported that there was *conclusive or substantial evidence* that cannabis or cannabinoids are effective for the treatment of chronic pain in adults and multiple sclerosis spasticity.³ In a recent review in the *New England Journal of Medicine* by the director of NIDA, “clinical conditions with symptoms that may be relieved by treatment with marijuana or other cannabinoids” include chronic pain, inflammation, multiple sclerosis, AIDS-associated anorexia and wasting syndrome, glaucoma, and nausea.⁴

The usefulness of botanical cannabis regulation for medicinal purposes is impressive. *JAMA Internal Medicine* reported that states with medical marijuana laws saw a 25% decrease in opioid overdose deaths compared to states that did not have medical marijuana.⁵ It is estimated there are more than 1.2 million legal medical marijuana patients, and patient surveys consistently find that over half report using marijuana to reduce reliance on prescription drugs, primarily opioids.⁶ Furthermore, from a pharmaceutically perspective, botanical cannabis is a very safe drug. In the U.S., tobacco killed over 480,000 people last year, alcohol killed almost 90,000.^{7,8} The opioid epidemic caused 33,000 overdose deaths last year.⁹ In contrast, to my knowledge, nobody has ever died from a marijuana overdose.

Thus, while the Compassionate use act was a wonderful first step, there are several debilitating conditions that botanical cannabis may be useful for. Last week, while giving invited talks at the

NIDA and the National Institute on Alcohol Abuse, I had the pleasure of meeting with one of the world's preeminent scientists in endocannabinoid research. This is a very exciting area of investigation and many pharmaceuticals using the human body's own cannabinoid receptor system are in development. However, the path to FDA approval is a very long and arduous process; it will likely be at least a decade before these compounds are available for use. Meanwhile, there is an *urgent need* to increase the availability of botanical cannabis for those presently suffering.

It is important that we do not further delay the ability of patients to obtain a potentially life-saving drug. I urge your support of H.B. 2107.

Sincerely,

Bryon Adinoff, M.D.

1. Adinoff publications: <https://www.ncbi.nlm.nih.gov/pubmed/?term=adinoff+b>
2. The American Journal of Drug and Alcohol Abuse: <http://www.tandfonline.com/toc/iada20/current#.VafsK7ftTwQ>
3. Committee on the Health Effects of Marijuana: An Evidence Review and Research Agenda (2017) *The health effects of cannabis and cannabinoids: a report from the National Academies of Sciences, Engineering and Medicine*. The National Academies Press: Washington, D.C. <https://www.nap.edu/download/24625>
4. Volkow ND, Baler RD, Compton WM, Weiss SR (2014) Adverse health effects of marijuana use. *N Engl J Med* 370:2219-2227. <https://www.ncbi.nlm.nih.gov/pubmed/24897085>
5. Bachhuber MA, Saloner B, Cunningham CO, Barry CL (2014) Medical cannabis laws and opioid analgesic overdose mortality in the United States, 1999-2010. *JAMA internal medicine* 174:1668-1673. <https://www.ncbi.nlm.nih.gov/pubmed/25154332>.
6. See, i.e.: Amanda Reiman, "Cannabis as a substitute for alcohol and other drugs," *Harm Reduction Journal* (2009) Philippe Lucas et al, "Cannabis as a substitute for alcohol and other drugs: A dispensary-based survey of substitution effect in Canadian medical cannabis patients," *Addiction Research and Theory* (2012); Donald Abrams et al., "Cannabinoid-opioid interaction in chronic pain," *Clinical Pharmacology & Therapeutics* 90, no. 6 (2011); Smart R. *Essays on the Effects of Medical Marijuana Laws* [PhD Dissertation]. Los Angeles, CA: University of California, Los Angeles; 2016; Smart R, *Smoke and Mirrors: Why Medical Marijuana Markets Matter*. Working paper [Previous version available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2574915], 2017.
7. <https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm>
8. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/
9. <https://www.cdc.gov/drugoverdose/>