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MyMD Pharmaceuticals Announces New Data Demonstrating 8,000 Times Higher Potency of Novel Synthetic Supera-CBD over Plant-Derived CBD

Data indicates potential of drug candidate to deliver an extremely potent therapeutic benefit at a very low non-toxic dose

New data will be presented at the 4th Annual International Cannabinoid-Derived Pharmaceuticals Summit in Boston

BALTIMORE--(BUSINESS WIRE)-- MyMD Pharmaceuticals, Inc. (Nasdaq: MYMD) ("MyMD" or "the Company"), a clinical stage pharmaceutical company committed to extending healthy lifespan, today announced new data demonstrating Supera-CBD's superior potency over CBD by factor of 8,000 times. Supera-CBD is MyMD's pre-clinical patented synthetic cannabidiol (CBD) derivative that is being developed as a pharmaceutical drug to address anxiety, pain, and neurodegeneration. The study was conducted by Eurofins Discovery, a Eurofins Scientific (EUFI.PA) company.

Supera-CBD targets the cannabinoid receptor type 2 (CB2), a protein mainly expressed in the immune system and which is associated with the therapeutic effects of CBD, including its anxiolytic, anticonvulsant, antipsychotic, neuroprotective and anti-inflammatory properties. CB2 receptors do not create an intoxicating negative psychotropic reaction (e.g. a high). In contrast, CB1 is usually expressed in the brain and distributed throughout the central nervous system to deliver an intoxicating effect. A vast majority of CBD developers are pursuing compounds targeted to CB2 that have minimal CB1 affinity. Watch how Supera-CBD works.

"We believe that the new data we are revealing today is an extraordinary achievement in the field of pharmaceutical cannabinoids," said Adam Kaplin, M.D., Ph.D., Chief Scientific Officer of MyMD. "We already knew from earlier pre-clinical studies conducted by a major medical school that Supera-CBD presents a dramatically higher binding affinity for the CB2 receptor as compared with plant-derived CBD – a factor of four times. But what happens after binding is what is most important to the efficacy of CBD. Once the CBD binds to CB2, it must activate the receptor in order to effect its action as a therapeutic agent. The new data demonstrates what we believe to be the strikingly effective ability of Supera-CBD to bind to and activate CB2 to potentially deliver an extremely potent therapeutic benefit at a very low non-toxic dose.

"Our drug candidate, with low CB1 affinity and four-fold increased CB2 binding, is 8,000 times more potent a CB2 agonist (activator) than regular CBD," Dr. Kaplin continued. "As we

are working to make Supera-CBD a major value creator for our shareholders moving forward, we couldn't be more excited about a research discovery of this magnitude at this stage of development."

In comparison to Supera-CBD, the synthetic cannabinoid CP 55940, another highly potent activator of CB2, is also a highly potent activator of CB1, delivering an intoxicating effect to the user. For this reason, the compound was abandoned by its developer and never marketed. Supera-CBD is estimated by MyMD to be between 40 to 500 times the potency of the first discovered and best-characterized endocannabinoids anandamide and 2-arachidonoyl glycerol, which are produced naturally inside the body.

Plant-derived CBD has almost no activity at the CB2 receptor, and therefore has nearly zero potency as a medicinal drug.

Chris Chapman, M.D., President, Director and Chief Medical Officer of MyMD, stated, "Building on CBD's enormous pre-existing market acceptance and the FDA's declared receptiveness to moving forward in this space, we believe that Supera-CBD can become not only a prescription drug alternative to unregulated CBD, but the pinnacle of the cannabinoid landscape. At 8,000 times the potency of regular CBD, we believe that Supera-CBD shows strong potential as a therapeutic for high-threat diseases and conditions like Alzheimer's, psychosis, neuropathic pain, addiction, and anxiety. The markets for these indications are massive, and given Supera-CBD's high potency with minimal toxicity, production costs for very small yet highly effective doses would be low. Given the remarkable data we are announcing today, we are optimistic that the future opportunity for our synthetic CBD drug candidate is enormous. We look forward to providing continuing updates as we advance this drug candidate in the clinic."

Dr. Kaplin will deliver an oral presentation of the new Supera-CBD data today at the 4th Annual International Cannabinoid-Derived Pharmaceuticals Summit in Boston, Massachusetts. His presentation, "Synthetic Superactive Supera-CBD Supersedes CBD," will be delivered before a prestigious audience of expert scientists, thought leaders, and delegates representing premier institutions and corporations worldwide.

Supera-CBD is currently on a path toward human clinical trials as a therapy for epilepsy, followed by chronic pain.

About MyMD Pharmaceuticals, Inc.
MyMD Pharmaceuticals, Inc. (Nasdaq: MYMD), a clinical stage pharmaceutical company committed to extending healthy lifespan, is focused on developing two novel therapeutic platforms that treat the causes of disease and decline rather than only addressing the symptoms. MYMD-1 is a drug platform based on a clinical stage small molecule that regulates the immunometabolic system to control TNF-α, a driver of chronic inflammation, and other pro-inflammatory cell signaling cytokines. MYMD-1 is being developed to treat aging and longevity, autoimmune diseases, and COVID-19-associated depression and cytokine elevation. The Company's second drug platform, Supera-CBD, is being developed to treat chronic pain, addiction and epilepsy. Based on a novel synthetic derivative of cannabidiol (CBD), Supera-CBD is being developed to address the rapidly growing CBD market, which includes both FDA approved drugs and CBD products not currently regulated as drugs. For more information, visit www.mymd.com.

Cautionary Statement Regarding Forward-Looking Statements
This press release may contain forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to be materially different from any expected future results, performance, or achievements. Forward-looking statements speak only as of the date they are made and none of MyMD nor its affiliates assume any duty to update forward-looking statements. Words such as "anticipate," "believe," "could," "estimate," "expect," "may," "plan," "will," "would" and other similar expressions are intended to identify these forward-looking statements. Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, without limitation: the timing of, and MyMD's ability to, obtain and maintain regulatory approvals for clinical trials of MyMD's pharmaceutical candidates; the timing and results of MyMD's planned clinical trials for its pharmaceutical candidates; the amount of funds MyMD requires for its pharmaceutical candidates; increased levels of competition; changes in political, economic or regulatory conditions generally and in the markets in which MyMD operates; MyMD's ability to retain and attract senior management and other key employees; MyMD's ability to quickly and effectively respond to new technological developments; MyMD's ability to protect its trade secrets or other proprietary rights, operate without infringing upon the proprietary rights of others and prevent others from infringing on MyMD's proprietary rights; and the impact of the ongoing COVID-19 pandemic on MyMD's results of operations, business plan and the global economy. A discussion of these and other factors with respect to MyMD is set forth in the Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2021, filed by MyMD on August 16, 2021. Forward-looking statements speak only as of the date they are made and MyMD disclaims any intention or obligation to revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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