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MyMD Pharmaceuticals Announces Issuance of New U.S. Patent Covering MYMD-1 in a Method of Treating Sarcopenia

Expands intellectual property portfolio for lead drug candidate MYMD-1 to 3 U.S. patents related to aging and extending healthy lifespan, 16 patents in total

BALTIMORE--(BUSINESS WIRE)-- [MyMD Pharmaceuticals, Inc.](#) (Nasdaq: MYMD) ("MyMD" or "the Company"), a clinical stage pharmaceutical company committed to extending healthy lifespan by delaying aging, announced that the U.S. Patent and Trademark Office (USPTO) awarded to the company U.S. Patent 11,219,620 B2, titled "Method of Treating Sarcopenia." The patent will be issued on January 11, 2022.

"This patent issuance is rewarding and timely as we launch our Phase 2 trial of MYMD-1 as a therapy for sarcopenia, frailty, and aging, which is currently recruiting patients," said Chris Chapman, M.D., President, Director and Chief Medical Officer of MyMD. "The issued claims protect the use of MYMD-1 in a method of treatment for the progressive and generalized loss of skeletal muscle mass and strength known as sarcopenia. Affecting up to 40% of the elderly, sarcopenia is strictly correlated with physical disability, poor quality of life and death.¹

"We all know that aging cannot be prevented. However, aging *can* be delayed by targeting its mechanism of action, which is what we intend to demonstrate as MYMD-1 advances through the clinic," Dr. Chapman added. "With our strong IP protection and clinical progression, we believe that MyMD has the potential to dominate any and all regulatory drug development for delaying aging and prolonging healthy lifespan."

In the United States, the estimated cost of hospitalizations in individuals with sarcopenia is estimated at \$40.4 billion,² and the mortality rate of older adults with sarcopenia is 41% higher than those without sarcopenia.³ MyMD believes that there are no FDA-approved drugs for treating aging disorders and extending healthy lifespan in humans, a market expected to be at least \$600 billion by 2025 according to a major investment bank.⁴

The latest patent adds to MyMD's intellectual property portfolio of 16 granted patents (13 U.S. and three foreign) covering MYMD-1 in methods of reversing the normal aging process and extending lifespan, and treating chronic inflammation, autoimmune disorders, diabetes, multiple sclerosis (MS), viral infections, addictions, fibrosis, asthma, and other disorders. MyMD also holds three patents for its synthetic cannabidiol (CBD) derivative Supera-CBD. An additional 29 patent applications are pending worldwide.

In addition to the Phase 2 trial of MYMD-1 as a therapy for sarcopenia, frailty, and aging, MYMD-1's distinct action in regulating the immune system and treating chronic inflammation is being developed for the treatment of autoimmune diseases, including rheumatoid arthritis (RA) and inflammatory bowel diseases. MyMD is in ongoing preparation with IQVIA for an Investigational New Drug (IND) and protocol for a Phase 2 study of MYMD-1 for rheumatoid arthritis in early 2022.

About MYMD-1

Originally developed for autoimmune diseases, MYMD-1's primary purpose is to slow the aging process, prevent sarcopenia and frailty, prophylax against diseases of old age, and extend healthy lifespan. Because it can cross the blood-brain barrier and gain access to the central nervous system (CNS), MYMD-1 is also positioned to be a possible treatment for brain-related neurodegenerative and neuroinflammatory disorders. Its mechanism of action and efficacy in diseases including multiple sclerosis (MS) and autoimmune thyroiditis have been studied through collaborations with several academic institutions. MYMD-1 also shows promise in pre-clinical studies as a potential treatment for post- COVID-19 complications and as an anti-fibrotic and anti-proliferation therapeutic.

MYMD-1 has shown effectiveness in pre-clinical studies in regulating the immune system by performing as a potent inhibitor of tumor necrosis factor-alpha (TNF- α) signaling, a key driver of chronic inflammation. Unlike other anti-TNF- α therapies, MYMD-1 has been shown in these pre-clinical studies to selectively block TNF- α when it becomes overactivated in autoimmune diseases and inflammatory circumstances like cytokine storms, but not block it from doing its normal job of being a first responder to routine types of infection. MYMD-1's ease of oral dosing is another differentiator compared to currently available TNF- α blockers, all of which require delivery by injection or infusion. No approved TNF inhibitor has ever been approved for oral dosing. In addition, MYMD-1 has not been shown to cause the serious side effects, common with traditional therapies that treat inflammation, even after daily dosing for a year in preclinical studies.

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 rather than only addressing the symptoms. [MYMD-1](#) is a drug platform based on a clinical stage small molecule that regulates the immune system to control TNF- α , which drives chronic inflammation, and other pro-inflammatory cell signaling cytokines. MYMD-1 is being developed to delay aging, increase longevity, and treat autoimmune diseases and COVID-19- associated depression. The Company's second drug platform, [Supera-CBD](#), is being developed to treat chronic pain, addiction and epilepsy. Supera-CBD is a novel synthetic derivative of cannabidiol (CBD) and is being developed to address and improve upon 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 September 30, 2021, filed by MyMD on November 12, 2021 (as amended on November 15, 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.

¹ The prevalence of sarcopenia in community-dwelling older adults, an exploration of differences between studies and within definitions: a systematic review and meta-analyses; Mayhew et al. 2019

² Goates et al. 2019

³ Koon Yee-Lee et al. 2021

⁴ <https://www.cnbc.com/2019/05/08/techs-next-big-disruption-could-be-delaying-death.html>

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