MyMD Pharmaceuticals Accelerates Pace of New Patient Dosing in Phase 2 Clinical Trial of MYMD-1 as a Therapy for Delaying Aging and Extending Healthy Lifespan

28-day dosing regimen completed by several patients to date

Efficacy data from fully funded Phase 2 trial is expected infirst half of 2022

BALTIMORE, Md.--(BUSINESS WIRE)-- MyMD Pharmaceuticals, Inc. (Nasdaq: MYMD) ("MyMD" or "the Company"), a clinical stage pharmaceutical company committed to extending healthy lifespan, today announced an acceleration in the pace of new patient dosing in the Company's fully funded Phase 2 clinical trial of lead drug candidate MYMD-1 as a therapy for delaying aging and expanding healthy lifespan. The Phase 2 double-blind, placebo controlled, randomized study (NCT05283486) investigates the efficacy, tolerability and pharmacokinetics of MYMD-1 in the treatment of participants aged 65 years or older with chronic inflammation associated with sarcopenia/frailty.

MYMD-1 is a drug platform based on a clinical stage small molecule that regulates the immune system to control tumor necrosis factor-alpha (TNF- α), which drives chronic inflammation, and other pro-inflammatory cell signaling cytokines. Chronic inflammation is a common factor in aging and all aging-related diseases including frailty, sarcopenia (loss of muscle tissue), and autoimmunity.

"We are encouraged by the pace of enrollment in our study and pleased with the completion of the 28-day regimen by several patients so far," said Chris Chapman, M.D., President, Director and Chief Medical Officer of MyMD. "Unlike similar therapies, none of which are FDA approved for aging and aging-related diseases, MYMD-1 is selectively immunosuppressive, dosed orally rather than by injection, and has not been shown to cause serious side effects common with traditional treatments for inflammation. Based on these key differentiators and earlier outcomes in pre-clinical and clinical trials, we are optimistic that MYMD-1 could become a first of its kind, high-value next-generation immune regulator for autoimmune and age-related diseases."

MyMD representatives have stated 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 2025¹ according to a major investment bank. TNF-α blockers are the most prescribed drugs by revenue, a global market of approximately \$40 billion per year,² and, according to *Nature Aging* journal,³ a slowdown in aging that would increase life expectancy by one year is worth \$38 trillion and by 10 years is worth \$367 trillion.

About MYMD-1

Originally developed for autoimmune diseases, MYMD-1's primary purpose is to slow the

aging process, prevent sarcopenia and frailty, 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 disorders. Its mechanism of action and efficacy in diseases including multiple sclerosis (MS) and thyroiditis have been studied through collaborations with several academic institutions. MYMD-1 is also showing 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 and clinical studies in regulating the immune system by performing as a selective inhibitor of tumor necrosis factor-alpha (TNF- α), a driver of chronic inflammation. Unlike other therapies, MYMD-1 has been shown in these studies to selectively block TNF- α when it becomes overactivated in autoimmune diseases and cytokine storms, but not block it from doing its normal job of being a first responder to any routine type of moderate 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 dosed orally. In addition, the drug is not immunosuppressive and has not been shown to cause the serious side effects common with traditional therapies that treat inflammation.

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 proinflammatory 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 Company's Annual Report on Form 10-K for the year ended December 31, 2021, filed by MyMD on March 31, 2022. 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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¹ https://www.cnbc.com/2019/05/08/techs-next-big-disruption-could-be-delaying-death.html

 $^{^2}$ October 9, 2019, Tumor Necrosis Factor (TNF) Inhibitor Drugs Market, Acumen Research and Consulting

³ Nature Aging | VOL 1 | July 2021 | p. 616–623