December 6, 2022

ADDING MULTIMEDIA MyMD Pharmaceuticals® to Present Data on Oral TNF-a Inhibitor MYMD-1® at the British Society for Immunology (BSI) Congress 2022

- Preclinical and early clinical studies of MYMD-1®, an oral, small-molecule, selective TNF-α inhibitor, suggest future potential to disrupt the Rheumatoid Arthritis market -

BALTIMORE--(BUSINESS WIRE)-- MyMD Pharmaceuticals, Inc.® (Nasdaq: MYMD) ("MyMD" or "the Company"), a clinical stage biopharmaceutical company developing groundbreaking therapies for the treatment of serious and debilitating autoimmune and inflammatory diseases, is presenting data today at the 2022 British Society for Immunology (BSI) Congress in Liverpool, England. Results from preclinical and clinical studies showed that MYMD-1 was safe and well-tolerated in healthy subjects and significantly reduced inflammation in a mouse model compared to the widely used arthritis treatment etanercept (Enbrel®). These findings support the continued evaluation of MYMD-1® for autoimmune and inflammatory disorders.

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The studies were designed to investigate the safety and pharmacology profile of MYMD-1. In a preclinical study, repeat oral administration to mice in a collagen antibody induced arthritis (CAIA) model at 450 mg/kg/day significantly reduced the clinical score and paw swelling when compared to the CAIA disease control. In-life results showed percent change of inflammation relative to control was reduced by 37% with MYMD-1 while reduction was 29% with etanercept at 10 mg/kg/day. In a clinical study of healthy adults, single daily oral doses each of 150 mg, 300 mg, and 450 mg for 3 days and multiple daily doses of 600 mg for 6 days were safe and well-tolerated.

"These data are exciting and suggest that, with its differentiated oral administration and selectivity, MYMD-1 holds promise as a potentially new and meaningful therapeutic solution for patients with rheumatoid arthritis who are not served by current TNF-α inhibitors," said Christopher Chapman, MD, President, Director, and Chief Medical Officer at MyMD Pharmaceuticals. "We look forward to continuing to explore MYMD-1 in upcoming studies to determine its full potential in RA and other autoimmune and inflammatory disorders."

Late-breaking abstract P-639 entitled "Pharmacology and clinical profile of MYMD-1® (isomyosamine), an oral, selective, next-generation, tumor necrosis factor-alpha (TNF- α) inhibitor that crosses the blood brain barrier," is scheduled for poster presentation on December 6, 2022, at 6pm GMT.

MYMD-1 is an oral next-generation TNF-α inhibitor with the potential to transform the way that TNF-α-based diseases are treated due to its selectivity and ability to cross the blood brain barrier. Its ease of oral dosing is a significant differentiator compared to currently available TNF-α inhibitors, all of which require delivery by injection or infusion. MYMD-1 has also been shown to selectively block TNF-α where it is overactivated without preventing it from doing its normal job of responding to routine infection. It has not been associated with serious side effects common with traditional immunosuppressive therapies that treat inflammation.

“We are encouraged by the reduction of TNF-α along with the favorable safety profile demonstrated in these studies,” said Dr. Leonard Dunn, Poster Coauthor and MYMD-1 Investigator. “An oral treatment that selectively reduces TNF-α and inflammation would be a welcomed advance.”

In addition to early-stage trials for rheumatoid arthritis, MyMD-1 is currently being evaluating in Phase 2 studies for sarcopenia/frailty, a result of the aging process, and has the potential to be the first drug approved by the FDA for the condition.

About MyMD Pharmaceuticals
MyMD Pharmaceuticals, Inc. (Nasdaq: MYMD), is a clinical stage biopharma company developing groundbreaking therapies for the treatment of serious and debilitating autoimmune and inflammatory diseases. MyMD’s lead clinical candidate, MYMD-1®, is an orally available next-generation TNF-alpha inhibitor with the potential to transform the way that TNF-alpha based diseases are treated. MYMD-1®, with its small molecule design, improved safety profile and ability to cross the blood brain barrier, has the promise to provide meaningful therapeutic solutions to patients not served by current TNF-alpha inhibitors and as a potential therapy for CNS-based inflammatory and autoimmune diseases. MYMD-1 has demonstrated the potential to slow the aging process and extend healthy lifespan. The company is evaluating MYMD-1® in Phase 2 studies for sarcopenia/frailty, a result of the aging process, as well as early-stage trials for rheumatoid arthritis (RA), with the potential to expand into other applications. MyMD’s second therapeutic candidate is Supera-CBD, a novel, synthetic, non-toxic cannabidiol (CBD) analog that is 8000 times more potent a CB2 agonist (activator) than plant-based CBD. In addition to its potential role in managing addiction, anxiety, chronic pain and seizures, Supera-CBD has also been shown to have anti-inflammatory effects. 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, as may be supplemented or amended by the Company's Quarterly Reports on Form 10-Q. 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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