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MEDICURE ANNOUNCES AGGRASTAT® SHOWS PROMISE IN TREATING THROMBOTIC COMPLICATIONS DUE TO COVID-19 IN EARLY CLINICAL REPORTS

WINNIPEG, CANADA – (August 24, 2020) Medicure Inc. ("**Medicure**" or the "**Company**") (TSXV:MPH, OTC:MCUJF), a pharmaceutical company, is reporting that early investigator sponsored clinical reports evaluating the efficacy of AGGRASTAT® (tirofiban hydrochloride) show promise for preventing and treating thrombotic complications due to COVID-19. AGGRASTAT® is not currently indicated for use in patients with COVID-19.

Notably, a non-randomized, case-controlled, investigator sponsored proof of concept study (n=10) evaluating AGGRASTAT® in combination with standard of care in patients with severe COVID-19 and hypercoagulability found that enhanced platelet inhibition improves hypoxemia (https://clinicaltrials.gov/ct2/show/NCT04368377). Treated patients experienced a mean reduction in alveolar-arterial oxygen gradient and an increase in PaO_2/FiO_2 (ratio of partial arterial pressure of oxygen to fraction of inspired oxygen) at 24h, 48h and 7 days after treatment. Seven other small clinical reports have recently been published exploring the clinical efficacy of AGGRASTAT® in patients with COVID-19.

Medicure is evaluating sponsorship of further US-based randomized clinical studies to rapidly assess the efficacy and safety of using AGGRASTAT® for preventing thrombotic complications due to COVID-19.

“These initial results are sufficiently positive to warrant further investigation to more clearly understand the potential role of AGGRASTAT® to reduce thrombotic effects which are observed in many COVID-19 patients”, commented Medicure’s CEO, Dr. Albert D. Friesen. “We believe there is reason to sponsor this type of clinical research due to the emerging understanding of the role of thrombosis in the pathophysiology of COVID-19.”

The Company is not making any express or implied claims that its product has the ability to eliminate, cure or contain COVID-19 (or SARS-2 Coronavirus) at this time. A list of the reports referred to can be provided upon request.

About AGGRASTAT®

AGGRASTAT® is not indicated for use in patients with COVID-19, nor has the safety or efficacy been established in this patient population. AGGRASTAT® is an IV antiplatelet medication indicated to reduce the rate of thrombotic cardiovascular events (combined endpoint of death, myocardial infarction, or refractory ischemia/repeat cardiac procedure) in patients with non-ST elevation acute coronary syndrome (NSTE-ACS). AGGRASTAT® is currently the most widely used GP IIb/IIIa inhibitor in the U.S. and has several administration benefits including room temperature storage, a 3-year shelf life and is available in pre-mixed formats. Please refer to the **IMPORTANT SAFETY INFORMATION** below.

About Medicure Inc.

Medicure is a pharmaceutical company focused on the development and commercialization of therapies for the U.S. cardiovascular market. The present focus of the Company is the marketing

and distribution of AGGRASTAT® (tirofiban hydrochloride) injection and ZYPITAMAG™ (pitavastatin) tablets in the United States, where they are sold through the Company's U.S. subsidiary, Medicure Pharma Inc. For more information on Medicure please visit www.medicure.com. For additional information about ZYPITAMAG™, refer to the full Prescribing Information.

Important Safety Information for AGGRASTAT® (tirofiban hydrochloride)

Indications and Usage
AGGRASTAT® is indicated to reduce the rate of thrombotic cardiovascular events (combined endpoint of death, myocardial infarction, or refractory ischemia/repeat cardiac procedure) in patients with non-ST elevation acute coronary syndrome (NSTE-ACS).

Dosage and Administration
Administer intravenously 25 mcg/kg within 5 minutes and then 0.15 mcg/kg/min for up to 18 hours. In patients with creatinine clearance ≤60 mL/min, give 25 mcg/kg within 5 minutes and then 0.075 mcg/kg/min.

Contraindications
Known hypersensitivity to any component of AGGRASTAT®, history of thrombocytopenia with prior exposure to AGGRASTAT®, active internal bleeding, or history of bleeding diathesis, major surgical procedure or severe physical trauma within previous month.

Warnings and Precautions
AGGRASTAT® can cause serious bleeding. Most bleeding associated with AGGRASTAT® occurs at the arterial access site for cardiac catheterization. Minimize the use of traumatic or potentially traumatic procedures such as arterial and venous punctures, intramuscular injections, nasotracheal intubation, etc. Concomitant use of fibrinolytics, anticoagulants and antiplatelet drugs increases the risk of bleeding. If bleeding cannot be controlled, discontinue AGGRASTAT®. Thrombocytopenia: Discontinue AGGRASTAT® and heparin.

Adverse Reactions
Bleeding is the most commonly reported adverse reaction.

For more information on AGGRASTAT®, please refer to Full Prescribing Information available at www.aggrastatHDB.com.

To be added to Medicure's e-mail list, please visit:
http://medicure.mediaroom.com/alerts

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Forward Looking Information: Statements contained in this press release that are not statements of historical fact, including, without limitation, statements containing the words "believes", "may", "plans", "will", "estimates", "continues", "anticipates", "intends", "expects" and similar expressions, may constitute "forward-looking information" within the meaning of applicable Canadian and U.S. federal securities laws (such forward-looking information and forward-looking statements are hereinafter collectively referred to as "forward-looking statements"). Forward-looking statements, include estimates, analysis and opinions of management of the Company made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors which the Company believes to be relevant and reasonable in the circumstances. Inherent in forward-looking statements are known and unknown risks, uncertainties and other factors beyond the Company's ability to predict or control that may cause the actual

results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements, and as such, readers are cautioned not to place undue reliance on forward-looking statements. Such risk factors include, among others, the Company's future product revenues, the ability of AGGRASTAT® to provide benefits to COVID-19 patients, expected future growth in revenues, stage of development, additional capital requirements, risks associated with the completion and timing of clinical trials and obtaining regulatory approval to market the Company's products, the ability to protect its intellectual property, dependence upon collaborative partners, changes in government regulation or regulatory approval processes, and rapid technological change in the industry. Such statements are based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions about: general business and economic conditions; the impact of changes in Canadian-US dollar and other foreign exchange rates on the Company's revenues, costs and results; the timing of the receipt of regulatory and governmental approvals for the Company's research and development projects; the availability of financing for the Company's commercial operations and/or research and development projects, or the availability of financing on reasonable terms; results of current and future clinical trials; the uncertainties associated with the acceptance and demand for new products and market competition. The foregoing list of important factors and assumptions is not exhaustive. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking statements or the foregoing list of factors, other than as may be required by applicable legislation. Additional discussion regarding the risks and uncertainties relating to the Company and its business can be found in the Company's other filings with the applicable Canadian securities regulatory authorities or the US Securities and Exchange Commission, and in the "Risk Factors" section of its Form 20F for the year ended December 31, 2019.

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