



# Asep Medical Holdings Inc. Announces an Exclusive Licensing Arrangement for a Patented and Novel AI-Driven Sepsis Diagnosis Technology Developed at the University of British Columbia (UBC)

VANCOUVER, BC, Feb. 2, 2022 /CNW/ - **Asep Medical Holdings Inc. ("Asep Inc." or the "Company")** (CSE: ASEP) is pleased to announce that it has finalized an exclusive licensing arrangement with UBC for a patented and potentially groundbreaking AI-driven sepsis diagnosis technology. The technology, developed under the direction of leading UBC microbiologist and the Company's Founding Director and COO, Dr. Robert E.W. Hancock, enables early and accurate diagnosis of the deadly disease sepsis, which caused 11 million deaths globally in 2017<sup>1</sup> and is also a major contributing factor in COVID-19 morbidity<sup>2</sup>. The patent covers the subject matter of an academic paper recently published on January 10, 2022, in the prestigious medical journal, *eBioMedicine*<sup>3</sup>.

The paper demonstrates that sepsis, a difficult-to-diagnose disease because of extensive variability in symptoms and outcomes, can be divided into five separate subtypes/endotypes according to the underlying biological mechanisms that drive the disease. The research behind the paper confirms that patients hospitalized with life-threatening COVID-19 also fit into these same endotypes, indicating that many COVID-19 patients have severe sepsis. Two endotypes were particularly associated with more severe sepsis and accompanying organ failure and patients falling into these two subtypes were more likely to die. The most severe form of sepsis, occurring in up to one-half of all hospitalized COVID-19 patients, can lead to multi-organ failure, the requirement for mechanical ventilation, and in many cases death. Furthermore, many patients who recover from severe sepsis suffer from chronic medical issues which are very similar to those issues that afflict patients that suffer from long-term COVID-19 disease, termed long COVID. Being able to classify sepsis into the five sepsis endotypes could provide key information to physicians regarding the underlying mechanisms of disease and help guide personalized treatment options for those patients at greatest risk of severe sepsis.

The Company is addressing this disease head-on with its novel diagnostic test called Sepset<sup>ER</sup>™. The test senses the dysfunctional immune response underlying sepsis at the time that patients first enter the emergency room. The test is a blood-based gene expression assay that is straightforward to implement, and results are obtained in about an hour in the emergency room or intensive care unit. Current diagnostic tools deliver results after approximately 24-36 hours often delaying the initiation of treatment. Sepset<sup>ER</sup> is designed to enable physicians to quickly predict the severity of the disease and thus define better, more immediate treatment options for the patient. The refinement of the technology is based on data from over 200 patients. The patent licensing arrangement gives Asep Inc.'s subsidiary, Sepset Biosciences Inc., exclusive rights to develop the sepsis severity endotypes into a diagnostic test and bring the test to market.

Dr. Robert E.W. Hancock added, "This technology will enable us to make a major impact on the lives of patients who acquire this deadly syndrome. Early and accurate diagnosis is vital to saving lives and we expect this technology to be widely used in hospitals and clinics around the world."

Rudy Mazzocchi, Asep Inc.'s Chairman and CEO stated, "We are extremely pleased with the continued partnership with UBC and their valuable role in expanding our patent portfolio and advancing our technologies as we make plans for the initiation of clinical studies to support a regulatory filing for commercial approval later this year. We have a controlling interest in Sepset Biosciences Inc. and the subsidiary is well funded and tasked with taking this groundbreaking technology to market quickly and efficiently."

## ABOUT SEPSIS

Sepsis is the body's dysfunctional response to infection and is very common, occurring in 49-million individuals globally. Recently the situation has worsened since sepsis is the cause of death in most patients who die from COVID-19. Sepsis is tremendously complex and early symptoms are relatively non-specific, including fever, fatigue, hyperventilation and a fast heart rate — symptoms that can also occur in other diseases. The most severe form of the disease, which occurs for up to one-half of all patients with suspected sepsis, leads to multi-organ failure and in 23% of cases death. Current diagnostic tools deliver results after approximately 24-36 hours often delaying the initiation of treatment.

## ABOUT ASEP MEDICAL HOLDINGS INC.

Asep Inc. is dedicated to addressing antibiotic failure by developing novel solutions to large unmet medical needs. It represents the consolidation of two existing private companies (Sepset Biosciences Inc. and ABT Innovations Inc.) that are in the advanced development of both proprietary diagnostic tools, enabling the early and timely identification of severe sepsis, and broad-spectrum therapeutic agents to address multidrug-resistant biofilm infections. The diagnostic technology involves a patient gene expression signature that predicts severe sepsis, one of the major diseases leading to antibiotic failure since antibiotics are the major treatment for sepsis. Despite this, sepsis is responsible for nearly 20% of all deaths on the planet. The Sepset<sup>ER</sup> test is identified in the blood and assessable by nucleic acid amplification technologies/PCR. This proprietary diagnostic technology differs from current diagnostic tests in enabling diagnosis of severe sepsis within 1-2 hours of first clinical presentation (i.e., in the emergency room), while other diagnostics only provide diagnosis after 24-36 hours. Asep Inc. believes this will enable critical early decisions to be made by physicians regarding appropriate therapies and reduce mortality and morbidity.

ABT Innovations Inc.'s peptide technology covers a broad range of therapeutic applications including bacterial biofilm infections (medical device infections, chronic infections, lung, bladder, wound, dental, skin, ear-nose and throat, sinusitis, orthopedic, etc.), representing two-thirds of all infections, anti-inflammatories, anti-infective immune-modulators and vaccine adjuvants.

## FORWARD-LOOKING STATEMENTS

This news release contains certain "forward-looking statements" within the meaning of such statements under applicable securities law. Forward-looking statements are frequently characterized by words such as "anticipates", "plan", "continue", "expect", "project", "intend", "believe", "anticipate", "estimate", "may", "will", "potential", "proposed", "positioned" and other similar words, or statements that certain events or conditions "may" or "will" occur. Forward-looking statements in this news release include, but are not limited to the completion of successful clinical testing of our Sepsis diagnostic test and its intended filing for regulatory approval; the undertaking of pre-clinical studies on our lead therapeutic, with the expectation that this will lead to fast track clinical trials; the ability of our diagnostic testing kit to diagnose sepsis within the stated timelines; that early testing and diagnosis of sepsis will spare expensive and unnecessary antibiotic treatment; and that the timely test results will allow doctors to make more effective treatment decisions. Various assumptions were used in drawing the conclusions or making the predictions contained in the forward-looking statements throughout this news release, including the assumption that our diagnostic testing kits will be adopted and used by doctors in diagnosing and treating sepsis. Forward-looking statements are based on the opinions and estimates of management at the date the statements are made and are subject to a variety of risks (including those risk factors identified in the Asep Medical Inc.'s prospectus dated November 9, 2021, and Asep Inc.'s most recent Management Discussion & Analysis) available for review under the Company's profile at [www.sedar.com](http://www.sedar.com) and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements. Asep Inc. is under no obligation, and expressly disclaims any intention or obligation, to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by applicable law.

## Citations

1. Rudd, K. E. et al. Global, regional, and national sepsis incidence and mortality, 1990-2017: Analysis for the Global Burden of Disease Study. *Lancet* 395, 200–211 (2020)
2. Vincent, J.-L. COVID-19: it is all about sepsis. *Future Microbiol* 10.2217/fmb-2020–0312 doi:10.2217/fmb-2020-0312
3. Baghela, A. et al. Predicting sepsis severity at first clinical presentation: The role of endotypes and mechanistic signatures. *eBioMedicine* January 10, 2022

<https://www.prnewswire.com/news-releases/asep-medical-holdings-inc-announces-an-exclusive-licensing-arrangement-for-a-patented-and-novel-ai-driven-sepsis-di>

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