Biodesix Publishes Data on New COVID-19 Artificial Intelligence (AI)-Based Algorithm for Use in Clinical Decision Support Systems

February 9, 2021

New Data Show AI-Based Algorithm Rapidly Predicts Risk of Severe Outcomes for Patients Hospitalized for COVID-19 Infection

BOULDER, Co.--(BUSINESS WIRE)--Feb. 9, 2021-- Biodesix, Inc. (Nasdaq: BDSX), a leading data-driven diagnostic solutions company with a focus in lung disease, today announced a publication describing the development of a new AI-based COVID-19 algorithm and the important data from a related study. The paper, entitled, "Predicting Prognosis in COVID-19 Patients using Machine Learning and Readily Available Clinical Data," demonstrates the AI-based algorithm's ability to rapidly and accurately help physicians predict risk of severe outcomes for patients with COVID-19 infection utilizing readily available patient data collected upon hospital admission. The AI-based algorithm, designed to be easily incorporated into existing clinical decision support systems, helps identify those patients who are likely to require intervention, such as treatment with ventilators and admission to intensive care units, or those patients who may develop acute respiratory distress syndrome (ARDS), versus those who likely will not require intervention.

The machine learning, AI-based algorithm was developed using Biodesix's Diagnostic Cortex® AI platform in close collaboration with a leading academic center to stratify hospitalized COVID-19 patients by risk of severe outcomes. The study used the AI-based algorithm to predict the outcomes of 559 patients; 229 patients who were hospitalized with COVID-19 were used in algorithm development, and 330 patients with COVID-19 in a blinded, independent validation. Using 26 easily obtainable variables, such as patient characteristics, vital signs, and readily available laboratory test values, the study showed that the AI-based algorithm accurately segmented patients into those who will likely need intervention and those who will not.

"The ability to rapidly determine a patient's risk of severe COVID disease, early, easily, and accurately, can help physicians to identify those who could benefit from specialized treatment and early interventions and get them the care they require in the optimal treatment window," said Robert Georgantas III, Ph.D., Senior Vice President of Research and Translational Science at Biodesix. "At the same time, the AI-based algorithm may help to avoid unnecessary treatment for patients deemed to be at lower risk, for whom heroic interventions may cause harm."

"We are extremely excited about this algorithm based on our proprietary AI platform and its ability to support treatment of patients with COVID-19," said Scott Hutton, Chief Executive Officer of Biodesix. "Implementing this during the initial patient assessment can offer physicians the necessary insight to quickly and confidently choose the appropriate treatment for each patient. This ability is especially valuable now, during the pandemic, when timely treatment decisions are crucial and critical resources such as ICU beds and ventilators can be scarce."

Biodesix is working with a U.S.-based COVID-19 consortia and another international COVID-19 consortia consisting of major academic institutions to perform additional large, blinded, independent validation testing of the AI-based algorithm, and is currently exploring options for making this widely available for hospitals to incorporate into their clinical decision support systems.

About Biodesix

Biodesix is a leading diagnostic company with a focus in lung disease. The Company develops diagnostic tests addressing important clinical questions by combining multi-omics through the power of artificial intelligence. Biodesix is the first company to offer six non-invasive tests for patients with diseases of the lung. Biodesix launched the SARS-CoV-2 ddPCR™ test and the Platelia SARS-CoV-2 Total Ab in response to the global pandemic and virus that impacts the lung and causes COVID-19. The blood based Biodesix Lung Reflex® strategy for lung cancer patients integrates the GeneStrat® and VeriStrat® tests to support treatment decisions with results in 72 hours, expediting time to treatment. The blood based Nodify Lung™ nodule risk assessment testing strategy, consisting of the Nodify XL2® and the Nodify CDT™ tests, evaluates the risk of malignancy in incidental pulmonary nodules, enabling physicians to better triage patients to the most appropriate course of action. Biodesix also collaborates with many of the world's leading biotechnology and pharmaceutical companies to solve complex diagnostic challenges in lung disease. For more information about Biodesix, visit biodesix.com.

Note Regarding Forward-Looking Statements

This press release may contain forward-looking statements that involve substantial risks and uncertainties for purposes of the safe harbor provided by the Private Securities Litigation Reform Act of 1995. All statements contained in this press release other than statements of historical fact, are forward-looking statements. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "plan," "expect," "predict," "potential," "opportunity," "goals," or "should," and similar expressions are intended to identify forward-looking statements. Such statements are based on management's current expectations and involve risks and uncertainties. Actual results and performance could differ materially from those projected in the forward-looking statements as a result of many factors. Biodesix has based these forward-looking statements largely on its current expectations and projections about future events and trends. These forward-looking statements are subject to a number of risks, uncertainties and assumptions. Forward-looking statements may include information concerning the impact of the COVID-19 pandemic on Biodesix and its operations, it is possible or assumed future results of operations, including descriptions of its revenues, profitability, outlook and overall business strategy. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. Factors that could cause actual results to differ materially from those contemplated in this press release can be found in the Risk Factors section of Biodesix's most recent quarterly report on Form 10Q, filed December 10, 2020. Biodesix undertakes no obligation to revise or publicly release the results of any revision to such forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. All forward-looking statements are qualified in their entirety by this cautionary statement.

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