November 30, 2021

Heat Biologics Unveils RapidVax®, A Novel Cellular Vaccine Platform Targeting Known and Unknown Emerging Biological Threats

Designed for rapid "plug and play" programming and stockpiling against emerging infectious agents and viral mutations

Emergence of Omicron and other COVID-19 variants underscores the need for a rapid, safe, and effective response to potential biological threats

RapidVax Presentation at the 2021 World Vaccine & Immunotherapy Congress West Coast and World Antiviral Congress 2021

DURHAM, N.C., Nov. 30, 2021 (GLOBE NEWSWIRE) -- **Heat Biologics, Inc. ("Heat") (NASDAQ: HTBX)**, a clinical-stage biopharmaceutical company focused on developing first-in-class therapies to modulate the immune system, today unveiled its new RapidVax® cellular vaccine platform at the 2021 World Antiviral Congress. RapidVax is designed as a rapid programmable vaccine to target a comprehensive range of emerging biological threats. Heat is showcasing a poster presentation highlighting RapidVax at the World Vaccine & Immunotherapy Congress West Coast and World Antiviral Congress, November 30 to December 2, 2021.

RapidVax is designed to enable an accelerated response to a wide variety of infectious agents by providing a flexible "plug and play" vaccine platform that can be stockpiled in advance, and then rapidly customized, manufactured, and deployed to address imminent and future biological threats. This platform has the potential to shorten the timelines needed to develop and test novel vaccines against emerging infectious agents.

David Lasseter, former Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction and a member of Heat's Biothreat Advisory Board, commented, "Neutralizing the threat of biological weapons or emerging infectious diseases has been elusive due to the number of potential agents and the timeline required to develop viable vaccines. The current COVID-19 pandemic has underscored societal risks and vulnerabilities to battle biological threats, whether by an intentional attack, accidental release, or naturally occurring infectious disease. RapidVax aims to provide a proven, safe, vaccine strategy that can be quickly engineered and adapted to address emerging biological threats."

RapidVax leverages the immune-activating properties of heat shock protein gp96, a danger-signal associated protein. This protein normally chaperones activation peptides to antigen-presenting cells under cellular stress. These peptide-gp96 complexes then stimulate antigen

cross-presentation, leading to a broad array of innate and adaptive immune responses to confer cellular and humoral immunity against a wide range of pathogens. RapidVax also co-expresses a potent T-cell costimulatory molecule, OX40L, which contributes to the generation of long-lasting T-cell memory and B-cell neutralizing antibody production via the development of T follicular helper cells upon enhanced stimulation of professional antigen-presenting cells.

Jeff Wolf, Chief Executive Officer of Heat, commented, “We are excited to unveil RapidVax, a potentially disruptive approach that leverages our vast experience developing our gp96 platform in both cancer and infectious disease. Heat has treated over 250 patients using its gp96 platform in multiple oncology clinical trials. Furthermore, our gp96-based cellular vaccines demonstrated prophylactic protection in mice and primate models against a range of infectious threat agents, including malaria, HIV/SIV, Zika and SARS-CoV-2 in multiple DOD and NIH-funded studies. The emergence of COVID-19 variants, such as Omicron, further highlights the urgent need for a novel cellular vaccine platform designed to provide a rapid, safe, and effective response to biological threats. We also look forward to leveraging the relationships, experience, and knowledge across our Biothreat Advisory Board as we advance the RapidVax platform.”

About Heat Biologics, Inc.
Heat Biologics is a biopharmaceutical company focused on developing first-in-class therapies to modulate the immune system. Heat’s gp96 platform is designed to activate immune responses against cancer or infectious diseases. The Company has multiple product candidates in development leveraging the gp96 platform, including HS-110, which has completed enrollment in a Phase 2 trial, various infectious disease/biological threat programs in preclinical development and a pipeline of proprietary immunomodulatory antibodies and cell-based therapies, including PTX-35 and HS-130 in Phase 1 clinical trials.

For more information, please visit: www.heatbio.com, and also follow us on Twitter.

Forward Looking Statement
This press release includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 on our current expectations and projections about future events. In some cases, forward-looking statements can be identified by terminology such as "may," "should," "potential," "continue," "expects," "anticipates," "intends," "plans," "believes," "estimates," and similar expressions. These statements are based upon current beliefs, expectation, and assumptions and include statements regarding, RapidVax enabling an accelerated response to a wide variety of infectious agents and potentially shortening the timelines to develop and test novel vaccines against emerging infectious agents, RapidVax providing a proven, safe, vaccine strategy that can be quickly engineered and adapted to address emerging biological threats, and leveraging the relationships, experience, and knowledge across Heat’s Biothreat Advisory Board as it advances the RapidVax platform. These statements are subject to a number of risks and uncertainties, many of which are difficult to predict, including the ability of RapidVax to enable an accelerated response to a wide variety of infectious agents and potentially shortening the timelines to develop and test novel vaccines against emerging infectious agents, the ability of RapidVax to provide a proven, safe, vaccine strategy that can be engineered and adapted to address emerging biological threats, Heat’s ability to leverage the relationships, experience, and knowledge across Heat’s Biothreat Advisory Board as it advances the RapidVax platform, the ability of

Heat's therapies to perform as designed, to demonstrate safety and efficacy, as well as results that are consistent with prior results, the ability to enroll patients and complete the clinical trials on time and achieve desired results and benefits, especially in light of COVID-19, Heat's ability to obtain regulatory approvals for commercialization of product candidates or to comply with ongoing regulatory requirements, regulatory limitations relating to Heat's ability to promote or commercialize its product candidates for specific indications, acceptance of its product candidates in the marketplace and the successful development, marketing or sale of products, Heat's ability to maintain its license agreements, the continued maintenance and growth of its patent estate, its ability to establish and maintain collaborations, its ability to obtain or maintain the capital or grants necessary to fund its research and development activities and its cash and short-term investments providing significant runway to fund Heat's current clinical programs and further expand Heat's therapeutic portfolio , its ability to continue to maintain its listing on the Nasdaq Capital Market and its ability to retain its key scientists or management personnel, and the other factors described in Heat's annual report on Form 10-K for the year ended December 31, 2020 filed with the SEC, and other subsequent filings with the SEC. The information in this release is provided only as of the date of this release, and Heat undertakes no obligation to update any forward-looking statements contained in this release based on new information, future events, or otherwise, except as required by law.

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Source: Heat Biologics