October 7, 2020

Heat Biologics Issued Additional Patent on gp96 Combination Platform Therapy with T-cell Co-Stimulator

New patent covers ICOS T cell co-stimulation in combination with Heat's proprietary gp96 platform

DURHAM, NC / ACCESSWIRE / October 7, 2020 /Heat Biologics, Inc. ("Heat") (NASDAQ:HTBX), a clinical-stage biopharmaceutical company focused on developing first-in-class therapies to modulate the immune system, including multiple oncology product candidates and a novel COVID-19 vaccine, today announced it has been issued a new US patent (US Patent No. 10,780,161) covering compositions of matter that are part of Heat's gp96 platform (antigen presentation, T cell activation, TLR activation) in combination with Inducible T cell Co-stimulator (ICOS) ligand or ICOSL, a T cell immune booster, in a single therapy. The goal of the combination therapy is to boost immunity to potentially overcome the immunosuppressive tumor microenvironment and address the needs of patients refractory to current therapies.

This newly issued US patent complements Heat's growing patent estate around its platform technology, which also includes a U.S. patent covering Heat's gp96 platform in combination with OX40L, a T cell costimulatory agonist. Pre-clinical studies combining Heat's secreted gp96 plus OX40L T cell co-stimulator in a single therapy, administered locally, have demonstrated superior activity compared to gp96 in combination with conventional OX40 antibody administered systemically by IV infusion.

Heat's gp96 combination with a T cell co-stimulator is expected to have utility in combating viral infections, beyond its potential in oncology. The presentation of immunogenic viral antigens via gp96 (for example the S-protein in COVID-19 infection) and induction of innate immunity along with potent activation/boost of cellular immunity via killer CD8+ T cells is expected to be instrumental in eradicating both SARS-CoV-2 infected cells or tumor cells. In pre-clinical studies, Heat's gp96 based COVID-19 vaccine has demonstrated the ability to generate lung tissue-resident memory CD8+ T cells which are vital in destroying SARS-CoV-2 infected cells. This novel COVID-19 vaccine approach may be particularly important in treating immunocompromised patient populations.

Jeff Wolf, Chief Executive Officer of Heat, commented, "This new patent strengthens our gp96 intellectual property portfolio by adding another T cell costimulatory agonist to our arsenal. We believe our novel single therapy combination approach that initiates local and specific T cell activation provides competitive advantages over conventional antibody therapies by limiting systemic toxicity and lowering the significant cost required when combining multiple biological therapies. We are progressing with our Phase 1 trials with gp96 (HS-110) in combination with local OX40L (HS-130) and checkpoint inhibition as well

as our gp96-based COVID-19 vaccine, and look forward to providing further clinical updates."

About Heat Biologics, Inc.

Heat Biologics is a biopharmaceutical company focused on developing first-in-class therapies to modulate the immune system. The company's gp96 platform is designed to activate immune responses against cancer or pathogenic antigens. The Company has multiple product candidates in development leveraging the gp96 platform, including HS-110, which has completed enrollment in its Phase 2 trial, HS-130 in Phase 1, and a COVID-19 vaccine program in preclinical development. In addition, Heat is also developing a pipeline of proprietary immunomodulatory antibodies, including PTX-35 which is enrolling in a Phase 1 trial. 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 such as Heat's gp96 combination with T cell co-stimulator platform having utility in combating viral infections beyond its promise in oncology, the presentation of immunogenic viral antigens via gp96 and induction of innate immunity along with potent activation/boost of cellular immunity via killer CD8+ T cells being instrumental in eradicating both SARS-CoV-2 infected cells or tumor cells, Heat's COVID-19 vaccine approach being particularly important in treating compromised patient populations, Heat's combination single therapy approach that initiates local and specific T cell activation providing competitive advantages over conventional antibody therapies in limiting systemic toxicity and lowering the significant cost attributed to combining multiple biological therapies, Heat's innovative gp96 platform with T cell immune boosters holding significant potential, especially in treating the vast majority of checkpoint inhibitor refractory patients, progressing with Heat's Phase 1 trials with gp96 (HS-110) in combination with OX40L (HS-130) and checkpoint inhibition and providing further clinical updates. These statements are subject to a number of risks and uncertainties, many of which are difficult to predict, including the ability to use Heat's gp96 combination with T cell co-stimulator platform to combat viral infections, including COVID-19, the ability of immunogenic viral antigens via gp96 and induction of innate immunity along with potent activation/boost of cellular immunity via killer CD8+ T cells to eradicate both SARS-CoV-2 infected cells or tumor cells, the ability to use Heat's COVID-19 vaccine approach to treat compromised patient populations, the ability of Heat's combination single therapy approach to provide competitive advantages over conventional antibody therapies in limiting systemic toxicity and lowering the significant cost attributed to combining multiple biological therapies, the ability of Heat's gp96 platform with T cell immune boosters to treat checkpoint inhibitor refractory patients, 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, 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 most recent annual report on Form 10-K 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.

Media and Investor Relations Contact

David Waldman
+1 919 289 4017
investorrelations@heatbio.com

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