

May 14, 2020



Positive Survival Data from Phase 2 Lung Cancer Trial Accepted for Presentation at 2020 American Society of Clinical Oncology (ASCO) Annual Meeting

Median overall survival (OS) of 28.7 months for HS-110 in combination with nivolumab in previously treated checkpoint inhibitor naïve non-small cell lung cancer (NSCLC) patients

DURHAM, NC / ACCESSWIRE / May 14, 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 that it has been selected to deliver a poster presentation at the ASCO Annual Meeting, to be held virtually during May 29 - 31, 2020. The ASCO Annual Meeting is the largest international conference to showcase the latest advancement in oncology. The abstracts published in advance of the ASCO Annual Meeting were made available at 5:00 p.m. Eastern Daylight Time on May 13, 2020 on the ASCO meeting website at: <https://meetinglibrary.asco.org/record/184864/abstract>

HS-110 is currently in Phase 2 trial in combination with Bristol-Myers Squibb's (BMS) Opdivo® (nivolumab) for multiple treatment settings in advanced non-small cell lung cancer (NSCLC). HS-110 is an "off-the-shelf" allogeneic cell-based therapy designed to activate patients' immune system against multiple tumor antigens to elicit a robust pan-antigen T-cell attack against tumor cells. Heat completed enrollment in this trial in July 2019.

The abstract provides an update on the efficacy data of previously treated, checkpoint inhibitor (CPI) naïve patients with advanced NSCLC. The median overall survival (OS) was 28.7 months with a median follow up of 15.7 months. This study is ongoing and 21 of the 47 patients enrolled (45%) were still alive as of this datacut. Additional subset analysis will also be presented. HS-110 has a good safety profile in over 200 patients and combination of HS-110 and nivolumab appears to be safe and well-tolerated.

Exploratory biomarker analysis on cancer testis antigens (CTAs) was performed using patients' tumor tissue at baseline. In this evaluation, improved overall survival (OS) was observed in patients whose tumors have 8 or more overlapping CTAs with the 39 CTAs overexpressed by HS-110. In addition, overexpression of zinc finger protein 492 (ZNF492) was associated with greater OS. ZNF492 is a transcription factor that is expressed in multiple cancers.

Details of Heat Biologics' ASCO poster presentation:

Abstract Title: Tumor antigen expression and survival of patients with previously treated advanced non-small cell lung cancer (NSCLC) receiving viagenpumatucl-L (HS-110) plus nivolumab

Session: Lung Cancer - Non-Small Cell Metastatic

Abstract #: 9546

Poster#: 312

Date: Friday, May 29, 2020, 8am Eastern Time

Following the presentation, a copy of the poster will be available on Heat Biologics' website at: <https://www.heatbio.com/product-pipeline/scientific-publications>

Reference:

The Human Protein Atlas - ZNF492: <https://www.proteinatlas.org/ENSG00000229676-ZNF492/pathology>

About Heat Biologics, Inc.

Heat Biologics is a biopharmaceutical company developing immunotherapies designed to activate a patient's immune system against cancer and other diseases using its proprietary gp96 platform to activate CD8+ "Killer" T-cells. Heat has completed enrollment in its Phase 2 clinical trial for advanced non-small cell lung cancer with its gp96-based HS-110 therapeutic vaccine. HS-110 is the company's first biologic product candidate in a series of proprietary immunotherapies designed to stimulate a patient's own T-cells. Heat Biologics has also launched a program in collaboration with the University of Miami to develop a vaccine designed to protect against the COVID-19 coronavirus. Heat has numerous other pre-clinical programs at various stages of development. For more information, please visit www.heatbio.com.

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 platform activating immune responses against cancer or pathogenic antigens and Heat's developing pipeline. These statements are subject to a number of risks and uncertainties, many of which are difficult to predict, including , 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, Heat's ability to obtain regulatory approvals for commercialization of product candidates or to comply with ongoing regulatory requirements, the ability of Heat together with researchers at the University of Miami to develop a proprietary COVID-19 vaccine, 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 for the year ended December 31, 2019 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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