SIWA Therapeutics, Inc. Presents New Data at the Nov. 2022 AACR Aging and Cancer Conference

CHICAGO, IL, UNITED STATES, November 28, 2022 /EINPresswire.com/ -- The aging-related and cancer cell-derived oxidatively-stressed tumor microenvironment and other cell damages drive cell senescence and other oxidative cellular responses. Tumor fibrosis reduces the effectiveness of anti-cancer immune responses and senescent cells (SCs), in turn, promote immune suppression, tumor progression, and metastasis. Hence, according to a study conducted by Translational Genomics Research Institute on behalf of SIWA Therapeutics, Inc. as presented by Dr. Gabriela Rossi, Chief Research Officer of SIWA Therapeutics, Inc. ("SIWA") at the AACR Special Conference: Aging and Cancer November 17 -20, 2022, targeting damaged cells, including SCs and cancer cells, with SIWA318H, presents an attractive approach for cancer therapy.

SIWA318H is a monoclonal antibody that selectively targets an advanced glycation end product oxidative stress biomarker on the surface of dysfunctional cells exhibiting both (a) aerobic glycolysis and (b) oxidative stress. The SIWA318H biomarker is associated with cancer cells, SCs, oxidatively-damaged cells, and infected cells. SIWA318H has been shown to exhibit strong binding to pancreatic cancer patient derived xenograph tumors as demonstrated by immunochemistry bind to an ADCC inducing human IgG FcγR3 receptor to enable ADCC as a mechanism of action for SIWA318H.

In an in vivo study using a humanized mouse xenograft model for pancreatic cancer, it was shown that treatment with SIWA318H (both high and low dose groups) statistically significantly reduced tumor growth compared to the isotype antibody control group ($P < 0.0001$). In addition, there was a significantly higher number of mice that had complete remission in the SIWA318H-treated groups compared to the isotype control group: 37.5% in high dose group ($P = 0.0325$) and 43.8% in low dose group ($P = 0.0143$). Moreover, mice treated with SIWA318H had a median overall survival of > 45 days compared to 26 days for the isotype control mice. There was no difference in animal body weight between the SIWA318H-treated mice and the isotype control mice indicating that the treatment with SIWA318H was well tolerated.

Immunohistochemical analysis of tumor tissues taken from the in vivo study showed that SIWA318H treatment significantly reduced (a) tumor fibrosis as measured by the area of αSMA+ staining and (b) the number of senescent cells in the tumor stroma as measured by the number of p16INK4a positive cells in αSMA+ areas.

In summary, the SIWA results demonstrate that SIWA318H is a novel antibody that exhibits potent preclinical antitumor activity against pancreatic cancer. SWA318H is currently under development for a first-in-human clinical trial.

You can view the poster here.

Misty Gruber
SIWA Therapeutics, Inc.
media@siwacorp.com
