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PSGL-1 immunotherapy to activate anti-tumor inflammatory response

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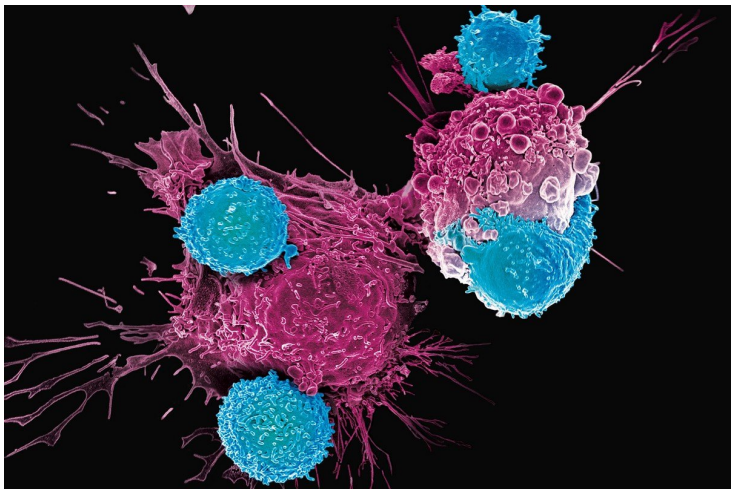
3SBio Selects Verseau's PSGL-1-targeted Antibody VTX-0811 as First Partnered Macrophage Checkpoint Modulator in Immuno-Oncology Collaboration



3SBio Inc. and Verseau Therapeutics, Inc. on 18 Nov 2019 announced the selection of VTX-0811, a monoclonal antibody targeting PSGL-1, as the first licensed program under their partnership agreement focused on the development and commercialization of novel monoclonal antibodies in the field of immuno-oncology for a broad range of cancers.

By targeting PSGL-1, an adhesion molecule that is highly expressed on tumour-associated macrophages across most tumour types, VTX-0811 reprograms macrophages to a pro-inflammatory state, activates T cells and attracts other immune cells to generate a coordinated and powerful antitumor response. Verseau's PSGL-1 antibodies demonstrate a greater inflammatory response compared to current immunotherapies in both PD-1 responsive tumours and non-responsive tumours. PSGL-1 is the first unblinded target from Verseau's pipeline of macrophage checkpoint modulators (MCMs). Verseau's MCMs reprogram macrophages to be more inflammatory or more tolerogenic depending on the disease context.

"We are pleased to have achieved our first licensing milestone in our collaboration with 3SBio. Their decision to select VTX-0811 as the first program for development validates that PSGL-1 is an important and novel immuno-oncology target with the potential to expand the number of patients benefitting from immunotherapy," said Dr Christine Bunt, Chief Executive Officer of Verseau. "Our innovative partnership is enabling Verseau to advance our industry-leading pipeline of macrophage checkpoint modulators with the first-in-class potential across a broad range of cancer therapies."

"Early data in patient-derived primary tumours suggests that PSGL-1 antibodies could generate a greater anti-tumour inflammatory response compared to current immunotherapies in both PD-1 responsive and non-responsive tumours," said Dr Jing Lou, Chairman and Chief Executive Officer of 3SBio. "By partnering with Verseau, we are now at the forefront of one of the most promising areas of innovation within immuno-oncology and are making timely progress toward our goal of bringing novel cancer therapies to patients in China. We are eager to begin development on the first program selected under our partnership and look forward to future programs around novel macrophage targets identified by Verseau's all human translational platform."

Under the terms of the agreement, 3SBio received an exclusive license to develop and commercialize a selected number of MCM antibodies for all human oncology indications in Greater China, including mainland China, Taiwan, Hong Kong and Macau ("Territory"). Verseau retains global rights to all MCM programs outside of Greater China. Verseau is responsible for the discovery and optimization of MCM antibodies for each program. 3SBio will fund and conduct antibody development, GMP manufacturing and commercialization in the Territory. Verseau and 3SBio will be eligible to receive certain milestone payments and royalties on product sales both in the Territory and globally. The selection of the first program for co-development under the partnership triggers an undisclosed milestone payment to Verseau. Sunshine Guojian Pharmaceutical (Shanghai) Co., Ltd., a subsidiary of 3SBio, will be responsible for the development and commercialization of VTX-0811 in the Territory.

About PSGL-1

PSGL-1 (P-selectin glycoprotein ligand-1) is an adhesion molecule that is involved in immune cell trafficking in response to tissue injury or inflammation. Verseau discovered that modulation of PSGL-1 can lead to macrophage reprogramming. Proprietary PSGL-1 monoclonal antibodies induce tumour microenvironment activation, T-cell activation and naïve immune cell recruitment amounting to a coordinated immune attack on tumours. In patient-derived primary tumours, PSGL-1 antibodies demonstrate a greater inflammatory response compared to current immunotherapies in both PD-1 responsive and non-responsive tumours. Given the prominent role of PSGL-1 in many tumour types, Verseau has selected PSGL-1 as the lead macrophage checkpoint modulator (MCM) program for clinical development.

About Macrophage Checkpoint Modulators

Verseau is broadening the therapeutic potential of immunotherapy by developing macrophage checkpoint modulators (MCMs) that regulate the functional shift to make macrophages more inflammatory or more tolerogenic depending on the disease context. While many patients benefit from PD-1 inhibitor therapies, they are only effective in the ~25% of cancers that involve T cell infiltration. By targeting the modulation of macrophages, which are present in ~75% of human cancers, Verseau aims to significantly expand the therapeutic benefit of immunotherapy. MCMs cause tumours to turn highly inflammatory and stimulate multiple immune cell types, including T cells. Verseau's therapies have the potential to significantly expand the number of patients benefitting from immunotherapy, including those unresponsive to PD-1 inhibitor therapies. Through its proprietary all-human translational system Verseau has validated more than two dozen targets amenable to different therapeutic modalities, including monoclonal antibodies.