

Agenus' Novel Cancer Vaccine Platform: PhosphoSynVax™ (PSV™)

Agenus' PSV™ Platform is Based on Our Proprietary Phosphopeptide Tumor Targets (PTTs)

PTTs are small protein fragments unique to cancers that arise from dysregulated cell signaling associated with cancer development and progression. Due to their specificity to cancer, PTTs are considered as tumor neo-antigens, and are ideal for the development of off-the-shelf cancer vaccines. PTTs are among the most promising candidates for anti-cancer immunity, as patients with PTT immunity have been shown to have better outcomes than those without PTT immunity.

Agenus has amassed a proprietary library of more than 2,000 PTTs. Many of these PTTs are shared among many cancer patients and across multiple tumor types. We are using these PTTs for developing multiple off-the-shelf vaccines that will use our proprietary QS-21 Stimulon® adjuvant.

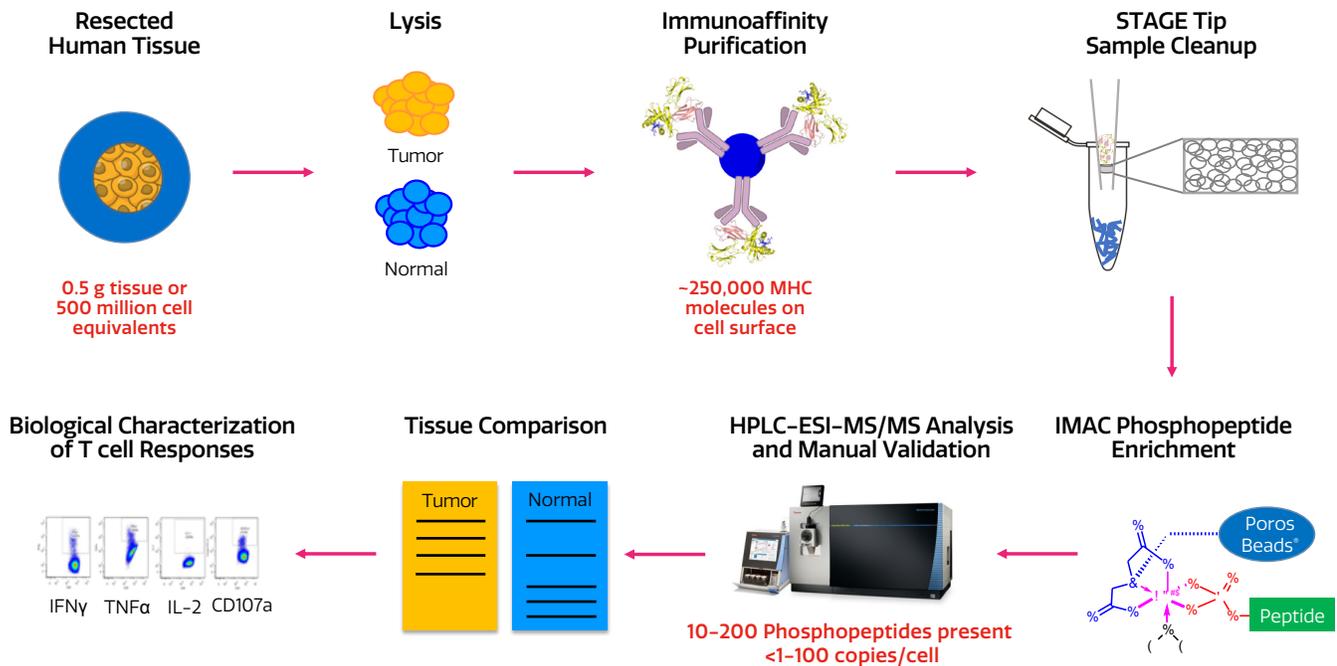
PhosphoSynVax™ (PSV™): Agenus' Off-the-shelf Neoantigen Vaccine Platform

PSV™ is Agenus' neoantigen vaccine platform for targeting cancer-specific PTTs shared among a majority of cancer patients. PSV is designed to train the patient's immune system to recognize and kill tumor cells in order to promote lasting anti-tumor immunity and improved survival. PSV targets multiple PTTs and is designed to stimulate a broad anti-tumor immune response that can address tumor escape mechanisms and prevent relapse. PSV has been designed to target shared neoantigens, enabling an off-the-shelf (or pre-manufactured) cancer vaccine with potential efficacy, operational, and cost advantages relative to individualized neoantigen vaccine approaches.

PSV is based on Agenus' vaccine platform and includes our proprietary QS-21 Stimulon adjuvant and heat-shock protein backbone. Agenus is developing multiple indication-specific PSV offerings, with lead programs in acute myeloid leukemia (AML) and colorectal cancer (CRC). By leveraging our proprietary vaccine platform which has already demonstrated clinical safety and immunogenicity¹, Agenus is positioned to advance multiple PSV formulations to the clinic in 2019.

¹ Clinically validated in viral indication.

State-of-the-Art Analysis Identifies PTTs from Patient Samples



PSV™-AML: An Off-the-shelf Vaccine for Acute Myeloid Leukemia (AML), Progressing Towards the Clinic

Standard-of-care in AML has remained relatively unchanged, with a 5-year mortality rate of over 75%. Responses to standard of care chemotherapy are usually transient, and many patients relapse within one year. There are no currently approved immunotherapies for AML. Vaccines in development have been limited to i) single antigen approaches—which limit the target patient population and the robustness of immune response, or ii) individualized formulations—which have considerable manufacturing and operational disadvantages.

Agenus initially plans to evaluate PSV™-AML as a maintenance therapy for high-risk AML patients in complete remission after induction and consolidation chemotherapy. Further treatment settings such as second-line therapy for patients with refractory or relapsed disease may also be explored.

PSV™-CRC

Additional PSV formulations are in development for a variety of solid tumors—including colorectal, lung, cervical, head & neck, and ovarian cancer. **Agenus will be presenting data on its PSV-CRC program at SITC 2018 (Poster P178).**