

# Agenus Acquires PhosImmune with a Novel Class of Cancer Neoantigens

**Offers the potential for rapid advancement of clinical programs and creation of new partnerships**

**Novel class of cancer neoantigens further differentiate AutoSynVax™ vaccine platform**

LEXINGTON, Mass.--(BUSINESS WIRE)--Agenus Inc. (NASDAQ: AGEN), an immunotherapy company developing innovative treatments for cancer, today announced that it has acquired privately-held PhosImmune Inc., a company that has discovered an entirely new portfolio of cancer neoantigens. The acquisition provides Agenus the ability to accelerate the development of new cancer vaccines and other single agent immuno-oncology approaches, as well as combination therapies.

“PhosImmune’s groundbreaking neoantigen assets significantly expand Agenus’ current efforts, and present exciting near-term opportunities for new products and partnerships,” said Dr. Garo H. Armen, Chairman and Chief Executive Officer of Agenus. “This acquisition expands our immuno-oncology pipeline and strengthens our neoantigen capabilities to enable the development of best-in-class cancer vaccines and other novel therapies.”

## Novel Neoantigens

PhosImmune’s neoantigens have unique advantages in cancer immunotherapy. The company’s phosphopeptide tumor targets (PTTs) are fragments of proteins expressed in cancer cells. These fragments are phosphorylated due to signal dysregulation involved in the development of cancers and, as a result, appear as foreign to the immune system. The approach is synergistic with Agenus’ AutoSynVax™ vaccine program for targeting patient-specific tumor neoantigens. PTTs can expand AutoSynVax and other immunotherapeutic approaches to include patients with lower levels of mutations that may not have enough neoantigens to activate the immune system effectively. PTTs can also be shared by patients with specific cancers, providing the potential for “off-the-shelf” vaccines.

PhosImmune’s scientific founders, Donald Hunt, Ph.D. and Vic Engelhard, Ph.D., both of University of Virginia, and Mark Cobbold, M.D., Ph.D., of Massachusetts General Hospital, have identified a large number of proprietary, tumor-specific PTTs. These PTTs are found on a wide variety of cancer types.

“By acquiring PhosImmune, we are accessing a capability with transformational potential for both patient-specific and off-the-shelf cancer vaccine products,” said Robert B. Stein, M.D., Ph.D., Chief Scientific Officer and Head of R&D for Agenus. “In addition, our entire portfolio will benefit from the world-class peptide analytics expertise of PhosImmune’s founders. We believe there are a number of near-term opportunities to advance potentially powerful cancer therapies into the clinic that build on and leverage the ongoing work at Agenus.”

“Agenus has deep knowledge and expertise in the immunotherapy field, and we are excited to join forces with their research and development team,” said Donald Hunt, President and Scientific Founder of PhosImmune. “We are confident that by working together we can more rapidly advance

the development of immuno-oncology products and realize the potential of our extensive research into how the immune system recognizes cancers as non-self.”

## Terms

Under the terms of the agreement, Agenus paid PhosImmune’s equity holders an upfront payment of \$2.5 million in cash and \$7.4 million in shares of Agenus common stock at closing. Additional payments of up to \$35 million in cash and/or stock at Agenus’ election are payable upon the achievement of certain milestones.

## About Neoantigens

Both genetic mutations and abnormal phosphorylation processes found in cancer cells can result in the formation of aberrant proteins with altered function. When degraded inside cancer cells, these proteins are broken up into short peptide fragments that can be presented on the cell surface. These peptides, termed *neoantigens*, have the potential to alert the immune system that a cancer is developing.

## About AutoSynVax

Agenus’ AutoSynVax (ASV) program targets cancer neoantigens with an autologous synthetic vaccine approach. By utilizing next generation sequencing and advanced bioinformatics, patient-specific tumor mutations are identified for rapid and accurate selection of neoantigens. The ASV platform generates synthetic peptide neoantigens complexed with heat shock proteins (HSPs) that shuttle these neoantigens to antigen presenting cells. The ASV program builds on Agenus’ extensive clinical experience with individualized and synthetic HSP vaccines.

## About Agenus

Agenus is an immunotherapy company focused on the discovery and development of revolutionary new treatments that engage the body’s immune system to treat patients suffering from cancer and other diseases. The company is building a broad portfolio of novel checkpoint modulators, vaccines and adjuvants to treat cancer and other diseases. The company’s broad portfolio of agents has the potential to work in combination and be integrated into standard of care to provide significant benefits to patients. By leveraging its broad platforms, Agenus has established a streamlined process for identifying an optimized target and progressing it into clinical development. Agenus’ heat shock protein-based vaccine, Prophage™, has successfully completed Phase 2 studies in newly-diagnosed glioblastoma. The company is collaborating with Merck and Incyte to develop multiple checkpoint modulators. For more information, please visit [www.agenusbio.com](http://www.agenusbio.com); information that may be important to investors will be routinely posted on our website.

## Forward-Looking Statement

*This press release contains forward-looking statements that are made pursuant to the safe harbor provisions of the federal securities laws, including statements regarding the expected benefit from the acquisition of PhosImmune and the potential for rapid advancement of clinical programs and creation of new partnerships, as well as potential future milestone payments. These forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially. These risks and uncertainties include, among others, the factors described under the Risk Factors section of Agenus’ Form 10-Q filed with the Securities and Exchange Commission on November 4, 2015. Agenus cautions investors not to place considerable reliance on the forward-*

*looking statements contained in this release. These statements speak only as of the date of this press release, and Agenus undertakes no obligation to update or revise the statements, other than to the extent required by law. All forward-looking statements are expressly qualified in their entirety by this cautionary statement.*

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