Vical's Vaxfectin® Adjuvant Drives 200-Fold Increase in Antibody Responses With Sanofi-Pasteur Fluzone® Seasonal Influenza Vaccine

SAN DIEGO, Oct. 26, 2009 (GLOBE NEWSWIRE) -- Vical Incorporated (Nasdaq:VICL) announced today the publication of two articles regarding the company's Vaxfectin® adjuvant in a special issue of Vaccine.(1,2) One article highlighted preclinical data showing Vaxfectin®'s improvement of performance with Sanofi-Pasteur Fluzone® seasonal influenza vaccine; the other analyzed how Vaxfectin® works.

"Vaxfectin® is a powerful new adjuvant for a broad range of infectious disease and cancer vaccine applications," said Alain P. Rolland, Pharm.D., Ph.D., Vical's Executive Vice President of Product Development. "These latest data expand our understanding of Vaxfectin®’s mechanism of action and the breadth of its abilities as an adjuvant to increase antibody and/or T-cell responses. We are currently evaluating Vaxfectin® with DNA-, protein- and peptide-based vaccines both independently and with collaborators."

Vical authors Hartikka et al. demonstrated in mice that commercially acquired Sanofi-Pasteur Fluzone® seasonal influenza vaccine formulated with the company's patented Vaxfectin® adjuvant produced up to 200-fold higher antibody responses and at least a 10-fold dose-sparing effect compared with unformulated vaccine. Vaxfectin®-formulated vaccine also produced a more balanced T-helper cell immune response than unformulated vaccine, suggesting the ability to enhance vaccine effectiveness. In addition, a low ratio of Vaxfectin® to vaccine was found to favor T-cell immune responses, while a higher ratio of Vaxfectin® to vaccine was found to favor antibody immune responses. The authors concluded that increased T-cell or antibody responses may be preferentially induced by changing the Vaxfectin® to vaccine ratio.

Vical authors Shlapobersky et al. explored the mechanism of action of Vaxfectin® when used in combination with a protein-based seasonal influenza vaccine. They determined that the ratio of Vaxfectin® to protein changes the particle size of the vaccine, which in turn modulates the profile of immune response. The profile was determined both locally at the site of injection and systemically in serum by analyzing a panel of biomarkers by gene expression profiling. The authors concluded that some of these biomarkers may be useful in tailoring the ratio of Vaxfectin® to vaccine to produce the optimal balance between T-cell and antibody responses for specific applications.

About Vical

Vical researches and develops biopharmaceutical products based on its patented DNA delivery technologies for the prevention and treatment of serious or life-threatening diseases. Potential applications of the company's DNA delivery technology include DNA vaccines for infectious diseases or cancer, in which the expressed protein is an immunogen; cancer immunotherapeutics, in which the expressed protein is an immune system stimulant; and cardiovascular therapies, in which the expressed protein is an angiogenic growth factor. The company is developing certain infectious disease vaccines and cancer therapeutics internally. In addition, the company collaborates with major pharmaceutical companies and biotechnology companies that give it access to complementary technologies or greater resources. These strategic partnerships provide the company with mutually beneficial opportunities to expand its product pipeline and address significant unmet medical needs. Additional information on Vical is available at www.vical.com.

The Vical Incorporated logo is available at http://www.globenewswire.com/newsroom/prs/?pkgid=5768

This press release contains forward-looking statements subject to risks and uncertainties that could cause actual results to differ materially from those projected, including: whether Vical will enter into any collaborative agreements for the development or commercialization of Vaxfectin®-formulated vaccine candidates; whether Vical or others will pursue development of any Vaxfectin®-formulated vaccine candidates; whether any vaccine candidates will be safe and tolerable, or effective in eliciting immune responses; whether results in mouse studies will be predictive of results in human studies; whether formulation with Vaxfectin® will increase vaccine effectiveness or drive a particular type of immune response; whether any product candidates will be shown to be safe and effective in clinical trials; the timing, nature and cost of clinical trials; whether Vical or its collaborative partners will seek or gain approval to market the any product candidates; whether Vical or its collaborative partners will succeed in marketing any product candidates; and additional risks set forth in the company's filings with the Securities and Exchange Commission. These forward-looking statements represent the company's judgment as of the date of this release. The company disclaims, however, any intent or obligation to update these forward-looking statements.

(1) Hartikka J et al. Vaxfectin®, a cationic lipid-based adjuvant for protein-based influenza vaccines. Vaccine 2009; 27:6399 -

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