



## Vical Advances RapidResponse(tm) DNA Vaccine Platform Under \$6 Million Grant From NIH

SAN DIEGO, June 18, 2009 (GLOBE NEWSWIRE) -- Vical Incorporated (Nasdaq:VICL) today announced that the company has successfully completed second-year milestones under a three-year, \$6.0 million grant awarded in 2007, and is advancing with the development of a DNA vaccine manufacturing process with the potential to produce several million doses of vaccines in a matter of days.

The RapidResponse(tm) system is designed to allow extremely rapid and large-scale production of DNA vaccines with low capital requirements. It is ideally suited to enable an immediate response against emerging diseases affecting large populations, such as H1N1 or H5N1 pandemic influenza or severe acute respiratory syndrome (SARS). The company is proceeding with the development of the RapidResponse(tm) platform under the third year of grant funding awarded by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH).

### About the RapidResponse(tm) Platform

The RapidResponse(tm) DNA vaccine manufacturing platform is intended to significantly reduce the time required to develop, manufacture and deploy vaccines against emerging diseases during the early stages of an infectious outbreak. By using a cell-free manufacturing process, the company believes that the RapidResponse(tm) DNA platform can overcome the time, capacity and cost challenges of manufacturing conventional vaccines for diseases such as influenza, which use viruses grown in chicken eggs or via cell culture, requiring months of production time in large, dedicated facilities.

RapidResponse(tm) DNA vaccine manufacturing involves a cell-free process and single-step vaccine purification. The process has the potential to be scaled up by simply using larger equipment with no increase in production time, conceivably allowing production of hundreds of millions of doses of DNA vaccine during the earliest stages of an outbreak. Such speed and scale may be crucial in addressing a naturally emerging potentially pandemic disease such as influenza or SARS, an accidental release of a dangerous pathogen such as Ebola virus or Yersinia pestis (plague bacterium) from a biological containment facility, or an intentional release of a weaponized or bioterrorist-modified pathogen designed to cause diseases such as anthrax or smallpox.

Initial research testing demonstrated 100% protection of mice against a lethal challenge with an H3N2 influenza virus after a single 2 microgram dose of Vaxfectin(r)-formulated DNA vaccine produced by polymerase chain reaction (PCR). The goals in the final year of grant funding are to complete scale-up of vaccine production and complete animal safety testing.

The PCR process produces a segment of DNA, called a linear expression cassette (LEC), which includes only those DNA sequences essential for eliciting immune responses. The bacterial fermentation process typically used for DNA vaccines produces a closed loop of DNA, called a plasmid, which includes DNA sequences required by the bacteria in the manufacturing process. Vical holds patents in the United States and in other key regions based on the company's discovery that administering polynucleotides such as DNA or RNA to tissues, without the use of viral delivery vehicles, may cause expression of the proteins encoded by the polynucleotides. Vical's patent coverage includes delivery of linear DNA as well as plasmid DNA.

Currently plasmid DNA vaccines, which are under development against pandemic influenza and other infectious diseases at Vical, are manufactured by bacterial fermentation in standardized equipment with a production time measured in weeks rather than months. While plasmid DNA vaccines offer a significant improvement over conventional vaccine manufacturing technologies, the RapidResponse(tm) DNA vaccine platform could offer further advantages, especially in greater speed of production and lower cost. The company plans to continue development of its plasmid DNA vaccine programs because the technology is much closer to commercial realization in humans.

### 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](http://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 or others will continue development of the RapidResponse(tm) DNA vaccine platform; whether the company will receive all, if any, of the NIH grant funding; whether the RapidResponse(tm) platform will reduce the time required to develop, manufacture and deploy vaccines against emerging diseases during the early stages of an infectious outbreak and overcome the time, capacity and cost challenges of manufacturing conventional vaccines; whether RapidResponse(tm) platform will successfully be scaled up to allow the production of hundreds of millions of doses of DNA vaccines during the earliest stages of an outbreak; whether the RapidResponse(tm) platform will be applicable to a broad range of emerging diseases; whether Vical will complete scale-up of vaccine production and complete animal safety testing in the final year of grant funding, if at all; whether the company's DNA vaccine candidates will be effective against emerging pathogens; whether the influenza vaccine or any other 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 influenza vaccine or any other product candidates; whether Vical or its collaborative partners will succeed in marketing any product candidates; whether the company's issued patents will be challenged and whether such challenges will have an adverse effect on the scope of the patents; whether the company will enforce its issued patents or will be successful in any enforcement efforts; whether the company will be issued additional patents on the RapidResponse(tm) process or applications; 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.

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