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ETUBICS H1N1 VACCINE INHIBITS HORIZONTAL TRANSMISSION IN FERRETS

Etubics Platform Enables the Rapid Production of H1N1 Vaccine, Making It Ideal for Pandemics

SEATTLE (August 16, 2011) – Etubics Corporation, a clinical stage bio-pharmaceutical company with a proprietary platform technology that can be used to rapidly develop immunotherapeutics and preventive vaccines for a wide range of diseases, announced today that novel data from a preclinical study of its pandemic H1N1 influenza vaccine was published in *Vaccine*.

The studies demonstrated Etubics H1N1 vaccine's ability to prevent horizontal transmission in mice as well as provide 100% protection from H1N1 infection in mice and ferrets through cell mediated immunity (CMI), which plays a major role in the control of viral infection and viral clearance. The results were published in the peer-reviewed journal *Vaccine* in a paper entitled "Prevention of influenza virus shedding and protection from lethal H1N1 challenge using a consensus 2009 H1N1 HA and NA adenovirus vector vaccine."

Also noted is the potential utility of the Etubics Platform for vaccine development to protect against emerging pathogenic threats. The vaccine was produced in less than six-weeks after insert sequence identification. This rapid production could serve as a great advantage over traditional, egg-based manufacturing processes during pandemics threats.

The Etubics Platform (Ad5 [E1-, E2b-]) was outfitted with hemagglutinin (HA) and neuraminidase (NA) gene inserts from 2009 H1N1 pandemic viruses. Antigenic gene targets are cloned into the vector, which once administered in vivo infect antigen-presenting cells that express the inserted antigen gene and induce immune responses to the pathogenic target. Vaccination with Etubics H1N1 vaccines induced robust CMI and antibody responses to H1N1, which translated into complete protection from disease development.

To determine the efficacy of immunization with Etubics H1N1 vaccine, groups of mice were immunized at various intervals. Etubics' vaccine was able to induced H1N1 immune responses, which afforded protection from lethal virus challenge and showed no detectable clinical signs of disease. One hundred percent of immunized mice survived H1N1 challenge. In the control group, 100% of the mice died by day 8 post-H1N1 infection. Immunized mice were shown to have normal, healthy lungs, with no detectable H1N1. However, mice in the control group had high levels of H1N1 virus production and showed extensive signs of hemorrhagic pulmonary inflammation.

Ferrets are widely used as an animal model to predict vaccine outcome or antiviral efficacy in humans. When ferrets were vaccinated with Etubics H1N1 they remained healthy with no clinical signs of H1N1 infection (save for one who had a short lived mild nasal discharge), while ferrets in the control group presented severe clinical signs of influenza. Following this challenge study, nasal washes were performed on all the ferrets. Etubics H1N1 vaccinated ferrets contained no detectable infectious H1N1 virus as opposed to control ferrets, which had high numbers of H1N1 virus present. Reduction of clinical symptoms of influenza such as coughing or sneezing as well as potentially blocking H1N1 virus shedding can greatly reduce horizontal transmission, an important aspect in containing pandemic infectious diseases.

Dr. Frank R. Jones, founder, Chairman and Chief Executive Officer of Etubics stated, "The study reported in *Vaccine* demonstrates the potential utility of the Etubics Platform for vaccine development to protect against rapidly emerging infectious diseases. With the additional benefit of reducing horizontal transmission, we are confident that the Etubics Platform would be beneficial during times of pandemics."

To view the paper online, visit [Vaccine's ScienceDirect](#).

Etubics is developing the next generation in vaccines and immunotherapies, utilizing a patented advanced generation adenovirus vector delivery platform and a validated manufacturing human cell line, collectively the Etubics Platform. Etubics has completed a Phase I/IIa clinical trial with an immunotherapeutic product candidate to treat colorectal cancer. Etubics Phase I/IIa colorectal cancer trial has been funded primarily through grants from the National Cancer Institute (NCI). The NCI also awarded earlier grants to Etubics for its colorectal and breast cancer pre-clinical and colorectal clinical work.

About Etubics

Etubics Corporation, based in Seattle, Wash., is a next generation clinical stage bio-pharmaceutical company, which has developed a proprietary platform technology consisting of a next generation Adenovirus Vector Vaccine Platform and a manufacturing E.C7 human cell line, collectively the Etubics Platform. Clinical work to date shows that the Etubics Platform overcomes problems associated with

existing adenovirus vectors. The Company's Platform can be used to efficiently and rapidly develop immunotherapeutic drugs and preventive vaccines for a wide range of infectious diseases and cancers.
www.etubics.com

Statements herein relating to future financial, business performance, conditions or strategies and other financial and business matters, including expectations regarding future revenues and operating expenses, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act. Etubics is a private company. Etubics cautions that these forward-looking statements are subject to numerous assumptions, risks and uncertainties which change over time. Factors that may cause actual results to differ materially from the results discussed in the forward-looking statements or historical experience include risks and uncertainties, including the failure by Etubics to secure and maintain relationships with collaborators; risks relating to the early state of Etubics's product candidates under development; uncertainties relating to clinical trials; risks relating to the commercialization, if any, of Etubics proposed candidates; dependence on the efforts of third parties; dependence on intellectual property; and risks that it may lack the financial resources and access to capital to fund its operations. Further information on the factors and risks that could affect Etubics business, financial conditions and results of operations, are contained in Etubics's documents on file at the Company. These forward-looking statements speak only as of the date of this press release and Etubics assumes no duty to update forward-looking statements.

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