

For Immediate Release:
January 31, 2007

Media Contact: Andy Cutler
Cutler & Company
(401) 743-7842
andy@cutlerandcompany.com

Rhode Island Biotechnology Company Develops Tularemia Vaccine

EpiVax lead tularemia vaccine candidate confers protective immunity

January 31, 2007 (Providence, RI)--- EpiVax, Inc, a leader in genome-derived vaccines, announced today that it has developed a promising tularemia vaccine candidate (TuliVax™) that confers protective immunity. *Francisella tularensis* is a bacterium considered to be one of the most dangerous potential bioterror agents. This vaccine project was funded by a BioDefense Small Business Innovation Research (SBIR) grant by the National Institute of Allergy and Infectious Diseases (NIAID), a division of the National Institutes of Health (NIH). The animal studies, conducted at Rhode Island Hospital, showed that TuliVax™ protected mice from lethal bacterial challenge.

“Our unique ability to develop safe and effective vaccines by screening whole genomes for candidate vaccine components with computer algorithms is at the core of this research effort,” said Anne De Groot, M.D., President and CEO of EpiVax. “These study results highlight the ability of our computer-aided vaccine design (VaccineCAD) approach to create effective and innovative vaccines at an accelerated pace”.

Tularemia is rare but does occur naturally; the most lethal pulmonary form is more common in Martha’s Vineyard than in most other places in the world. EpiVax collaborated with Martha’s Vineyard Hospital to obtain bloods from people with previous tularemia infection; 95% of the study participants demonstrated robust responses to the TuliVax™ components.

Mice with “humanized” immune systems were used by Rhode Island Hospital collaborator Stephen Gregory PhD, Associate Professor of Medicine, Department of Medicine, Rhode Island Hospital and Brown Medical School, to assess the ability of the vaccine to protect against a lethal dose of *F. tularensis*. Although all of the mice that received a placebo vaccine died when exposed to tularemia, the majority of the mice that received TuliVax™ survived.

The development of a safe and effective tularemia vaccine has proven elusive; the live vaccine strain (LVS) of tularensis was the major tularemia vaccine under study for many years. Although it conferred partial protection, federal funding to license LVS has been cancelled due to safety and manufacturing concerns.¹ “There is an urgent need for a safe, effective tularemia vaccine to address both natural infections and potential biothreats. TuliVax is likely to be safe because it is composed of small synthetic parts, not the live bacterium”, says Dr. Gregory. “Preliminary results in mice are encouraging; additional experiments are required to provide the data needed for TuliVax to progress to human clinical trials.”

About Tularemia

Tularemia, in aerosol form, is considered a possible bioterrorist agent. Persons who inhale an infectious aerosol would likely experience severe respiratory illness, including life-threatening pneumonia and systemic infection, if they are not treated.

According to the Centers for Disease Control and Prevention (CDC), about 200 cases of tularemia in humans are reported each year in the United States. Tularemia is a disease caused by the bacterium *Francisella tularensis*. Tularemia is typically found in animals, especially rodents, rabbits, and hares. *Francisella tularensis* is highly infectious. A small number of bacteria (10-50 organisms) can cause the disease. If *Francisella tularensis* were to be used as a bioweapon, the bacteria would likely be made airborne. People who inhale the bacteria can experience severe respiratory illness. A “live-attenuated” vaccine for tularemia was used in the past to protect laboratory workers, but this vaccine is not currently available.

For more information on tularemia, please visit:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5109a1.htm> or

<http://www.bt.cdc.gov/agent/tularemia/tularemia-biological-weapon-abstract.asp>

About EpiVax

EpiVax, Inc. is dedicated to merging *in vitro* immunology research with bioinformatics to generate new vaccines for infectious diseases such as HIV, TB, and hepatitis, as well as new therapeutics for cancer and autoimmune diseases. Epitope mapping, the selection of target peptides from a pathogen, is a powerful resource for the development of novel vaccines. EpiVax research shows that peptides chosen by EpiMatrix™ software are highly likely to provoke an immune response when presented to T cells. Epitopes are the most concise piece of information required by the T cell to generate an immune response. For more information about EpiVax, please visit www.epivax.com.

¹article available free at <http://www.medscape.com/viewarticle/431539>

#