

## **Sanaria Inc. Receives Multi-Year U.S. NIH Phase II Small Business Innovation Research Grant to Develop a Genetically Attenuated Whole Parasite Malaria Vaccine**

ROCKVILLE, MD. February 23, 2010-- Sanaria Inc. has received additional support from the National Institute of Allergy and Infectious Diseases (NIAID) of the National Institutes of Health in the form of a Phase II Small Business Innovation Research (SBIR) Grant. The three-year award totaling approximately \$3 million will support collaborative research by investigators at Sanaria and Columbia University. This new funding extends previous NIAID supported efforts at Sanaria and Columbia to develop genetically modified strains of the human malaria parasite *Plasmodium falciparum* that are unable to cause disease, yet stimulate protective immunity when administered as a live, whole parasite malaria vaccine. "There is considerable excitement about whole parasite malaria vaccines, and research towards developing genetically modified strains for such vaccines is at the cutting edge of this field," states Dr. Christian Loucq, Director of the PATH Malaria Vaccine Initiative.

Sporozoite stage parasites that have been weakened (attenuated) by exposure to radiation confer high-level protection against malaria when introduced by the bite of infected mosquitoes. The attenuated parasites invade host tissues, but cannot complete differentiation and therefore do not replicate or cause disease. Sanaria has developed technologies and built a facility to manufacture a radiation attenuated sporozoite vaccine that can be administered by injection and has met FDA regulatory standards for initial clinical evaluation. This vaccine candidate, the Sanaria™ PfSPZ Vaccine, is now being assessed in clinical trials. According to Dr. Stephen L. Hoffman, Sanaria's founder and chief scientist, "Sanaria is uniquely positioned at this time to expand the pipeline of candidate sporozoite vaccines to include vaccines based on precisely gene-altered parasites that are highly potent in inducing protective immunity against malaria and are unable to cause disease."

"Sanaria's proven ability to manufacture whole sporozoite vaccines in compliance with FDA standards means that promising new strains of the malaria parasite that are being developed in our research laboratory can be efficiently translated into prototype candidate vaccines suitable for testing in the clinic," says Dr. David Fidock of Columbia University. Dr. Robert Sauerwein of the Radboud University Nijmegen Medical Centre, whose laboratory in collaboration with Sanaria has generated several genetically attenuated strains of *Plasmodium falciparum* concurs, stating, "This is a very exciting opportunity to make significant strides that will facilitate translation from the laboratory to clinical studies of a viable, genetically attenuated, sporozoite vaccine inoculated by needle and syringe."

### **About Sanaria Inc.**

Sanaria Inc. was founded in 2003. The company's primary mission is to develop and commercialize attenuated whole-parasite malaria vaccines that confer high-level, long-lasting protection against *Plasmodium falciparum*, the parasite responsible for most of the malaria-associated severe illness and death worldwide. Sanaria's radiation attenuated sporozoite vaccine, Sanaria™ PfSPZ Vaccine, entered clinical trials in 2009. Sanaria's corporate headquarters, administrative, research, development, and manufacturing operations are located in Rockville, Maryland. The company's Web site is <http://www.sanaria.com>.

Except for historical information, this news release contains certain forward-looking statements that involve known and unknown risk and uncertainties, which may cause actual results to differ materially from any future results, performance or achievements expressed or implied by the

statements made. These forward-looking statements are further qualified by important factors that could cause actual results to differ materially from those in the forward-looking statements.

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