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David H. Murdock Research Institute

PRESS RELEASE

DHMRI Awarded Gates Foundation Grant Based on Maranz Study

Kannapolis, NC, Wednesday, November 30, 2011 -- The David H. Murdock Research Institute (DHMRI), located on the North Carolina Research Campus (NCRC), was recently awarded a \$100,000 Grand Challenges Exploration grant funded by the Bill & Melinda Gates Foundation. The grant was presented to Dr. Steven Maranz, a DHMRI visiting scientist, to further develop an innovative approach to combat vitamin A deficiency in infants and pregnant mothers within the sub-Saharan region of Africa.

Dr. Maranz spearheads the *Pro-Vitamin A Biosynthesis by Gut Microbiota* research project with hopes of reducing the mortality and morbidity rates in developing countries that result from a lack of Vitamin A and other nutrients. The project is based on the idea that probiotic bacteria can be engineered to biosynthesize the pro-vitamin A carotenes that are required for vitamin A to be produced in the human body. Since the bacteria involved are also used in yogurt cultures, yogurt can serve as an economical means for multiplying and delivering the enhanced microbes. The goal is to bypass the bottleneck of poverty and poor diet by directly supplying the missing nutrients via gut microbes. Vitamin A is essential not only for normal, healthy growth and development, but also for priming the immune system against infectious diseases, which are also a major problem in developing countries. "I am interested in the interface between infectious disease and nutrition," says Dr. Maranz. "Vitamin A deficiency is a big problem in developing countries," he adds. Dr. Maranz joined DHMRI in September 2011, following post-doctoral work at Weill Cornell Medical College and nearly ten years of research in sub-Saharan Africa.

DHMRI unites researchers from public and private sectors, providing access to scientific laboratories and instrumentation. Dr. Maranz will continue his research on the campus by taking advantage of such accessibility. "DHMRI has great facilities and lots of instruments that are state-of-the-art and very helpful for advancing my research," he notes. The facility offers a customer-focused environment that allows researchers in the life science fields to advance discovery at the intersection of agriculture, nutrition, and

health. DHMRI President, Dr. James L. Oblinger, affirms, "The institute supports the research efforts of Dr. Maranz and all DHMRI partners by leveraging campus expertise and advanced instrumentation in order to deliver high quality results in the area of global health."

The DHMRI

DHMRI is a 501(c)3 life sciences research organization established by David H. Murdock to promote public/private research opportunities in agriculture, nutrition, and health. The Institute provides extensive laboratory services and scientific expertise to researchers from academia, government, and industry.

The 110,000-square-foot-laboratory was completed in 2008 at the North Carolina Research Campus, and features world-class life science instrumentation and experienced researchers from diverse disciplines with backgrounds in biotechnology and pharmaceutical sciences. DHMRI is designed to augment capabilities or provide turn-key research solutions in a trans-disciplinary environment. DHMRI's collaborative approach integrates genomic, analytical, cellular, immune and *in-vivo* sciences.

The Grand Challenges Explorations

Initiated in 2008 by the Bill and Melinda Gates Foundation, The Grand Challenges Explorations (GCE) is a \$100 million program intended to encourage research and innovation in the area of global health. The program has since awarded 603 grants to a range of researchers in over 40 countries. GCE is open to anyone in any discipline looking to improve upon the global health issues outlined in the organization's specified round of topics.

Learn more at: www.dhmri.org and www.grandchallenges.org

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