

Selecta Biosciences to Accelerate Program for Novel Dual Action Vaccine for Malaria with support from the Bill & Melinda Gates Foundation

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Grant from the Bill & Melinda Gates Foundation to Leverage Synthetic Nanoparticle Vaccine Platform to Enable Potent, Durable, Dual-Action Vaccines

Watertown, Mass. – June 17, 2014 – Selecta Biosciences, a clinical stage biotechnology company developing a novel class of targeted antigen-specific immune therapies, announced today that it has been awarded a \$1.25 million grant from the Bill & Melinda Gates Foundation. The grant supports the research by Selecta for a novel dual action, immune-activating Synthetic Vaccine Particle (SVP) for malaria.

Selecta's proprietary SVP technology can be designed to activate the immune system in order to enable dual action vaccines by individually optimizing nanoparticles against multiple antigens and by allowing their combinatorial testing. If successful, a dual action, immune-activating SVP nanoparticle vaccine could offer the potential to protect against malaria by both fighting the parasite during early infection, and simultaneously blocking malaria transmission via infected mosquitoes. The biodegradable nanoparticle also permits targeted delivery and controlled release of immune boosting adjuvants to relevant immune cells, thereby shielding the adjuvants from interactions with other cells that may induce the undesirable side-effects associated with other adjuvants.

Selecta's lead formulation for malaria has been developed by systematically optimizing the immune response to various key parameters, such as adjuvant release rate, antigen and adjuvant load and nanoparticle size. The candidate was designed and selected based upon its demonstrated ability in preclinical rodent studies to outperform benchmarks in terms of antibody levels and protection in a malaria parasite challenge model. Selecta's malaria program will build on [efforts](#) that began in 2011 under a Leidos' (formerly SAIC) Malaria Vaccine Production and Support Services contract with the National Institute of Allergy and Infectious Diseases (NIAID).

"Working with a global leader in vaccines, such as the Bill & Melinda Gates Foundation, will allow us to maximize our platform's capabilities in the next stage of preclinical studies, in which we aim to show proof of concept for robust and durable responses to two diverse targets relevant to malaria," said Werner Cautreels, Ph.D., President and CEO of Selecta Biosciences. "This collaboration accelerates our ability to evaluate our technology to treat a range of diseases that impact human health."

About Selecta

Selecta Biosciences, Inc. is a clinical-stage biotechnology company developing novel drugs that use immune modulating nanomedicines to generate targeted antigen-specific immune responses to prevent and treat disease. Selecta's proprietary Synthetic Vaccine Particle (SVP™) platform creates a novel paradigm in immunotherapeutics and vaccines, enabling completely new applications while offering the potential of improved efficacy and safety profiles.

Selecta's immunomodulatory SVPs can induce antigen-specific immune tolerance, enabling them to be applied in a variety of therapeutic areas with large unmet medical need. The company is focused on three key near-term applications: inhibition of immunogenicity for biologic therapies, treatment of allergies, and treatment of autoimmune diseases. Immunogenicity adversely affects the safety and efficacy profile for many biological therapies, and has caused the termination of a number of promising biological therapies in clinical development. Selecta's SVP is a product engine that has the potential to unlock the full therapeutic value of biological therapies.

Through proprietary products and collaborations with leading pharmaceutical companies and research organizations, Selecta is building a pipeline of product candidates to address unmet medical needs in serious and chronic diseases. Selecta Biosciences, Inc. is based in Watertown, Massachusetts, USA. For more information, please visit www.selectabio.com.

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