

USPTO Allows First In a Series of Selecta Patents for Immune Tolerance

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Selecta Biosciences Announces Allowance of the First in a Series of Patents on the Induction of Antigen-Specific Immune Tolerance Using Selecta's Novel Immunotherapies

Watertown, Mass. — December 9, 2013 – Selecta Biosciences, Inc., a clinical stage biotechnology company developing a novel class of targeted antigen-specific immune tolerance treatments, today announced that the US Patent and Trademark Office (USPTO) has allowed the issuance of a Selecta owned patent with the title "Tolerogenic Synthetic Nanocarriers For Inducing Regulatory B Cells", the first in a series of patent filings on antigen-specific tolerogenic immunotherapies.

Selecta is underpinning its leadership position in developing immunotherapies that induce robust and durable antigen-specific tolerance with the creation of a field-defining patent portfolio. A total of 32 patent filings encompassing more than 2,500 unique claims have been filed by Selecta, covering key aspects of composition, use, formulation and biologic activity of antigen-specific tolerogenic immunotherapies.

"Antigen-specific immune tolerance therapies could offer tremendous benefits for patients in many situations, where undesired immune responses are occurring, including autoimmune diseases and allergies as well as development of antibodies against biologic drug therapies and rejection of organ transplants," said Kei Kishimoto, PhD, Chief Scientific Officer of Selecta. "For the first time, Selecta's targeted tolerogenic Synthetic Vaccine Particles (t²SVP) allow for the treatment of the root causes of these growing diseases and adverse events in an antigen-specific way, thereby avoiding the systemic immunosuppressant effects of most general immunotherapies in use today."

Selecta has successfully demonstrated the efficacy of its antigen-specific immune tolerance products in animal models for several drug candidates, including SEL-201, a candidate for the treatment of undesirable neutralizing immune responses to Factor VIII replacement therapies in Hemophilia A.

"Hemophilia is one example of an orphan disease where Selecta's tolerogenic immune therapies could make a decisive difference in patients' life expectancy and quality of life," said Ulrich von Andrian, MD, PhD, co-founder of Selecta and Mallinckrodt Professor of Immunopathology at Harvard Medical School. "There are numerous other orphan indications, where life sustaining protein or gene replacement therapies become ineffective as a result of an undesired immune response. With the ability to create antigen-specific immune tolerance treatments, the Selecta team has developed a novel approach that could offer tremendous potential to make biologic therapies more effective and safer."

In addition to its own program in an orphan indication, Selecta is partnering with the Juvenile Diabetes Research Foundation (JDRF) on a program for Type 1 Diabetes, a chronic autoimmune disease, and, with [Sanofi](#), on a program to address the root causes of severe food allergies.

About Selecta Biosciences

Selecta Biosciences, Inc. is a clinical-stage biopharmaceutical company developing an entirely new class of targeted vaccines that induces an antigen-specific immune activation or antigen-specific immune tolerance for therapeutic and prophylactic applications. Selecta was founded based on complementary research by three academic pioneers, the technology innovations of Professors Robert Langer (M.I.T.) and Omid Farokhzad (Harvard Medical School) combined with the immunological insights of Professor Ulrich von Andrian (Harvard Medical School). Selecta's proprietary Synthetic Vaccine Particle (SVP™) platform creates a new paradigm in vaccine development, enabling completely new therapeutic and prophylactic applications while offering the potential of improved efficacy and safety profiles.

Selecta's fully synthetic engineering of novel vaccines offers a number of compelling benefits, including flexible modular vaccine design and accelerated development timelines using robust manufacturing processes. Selecta's SVP™ platform technology is readily adaptable to enable diverse tolerogenic immunotherapies and vaccines based on their proprietary

antigen-specific *targeted tolerogenic* Synthetic Vaccine Particles (t^2 SVPTTM) and antigen-specific *targeted* Synthetic Vaccine Particles (t SVPTTM).

Targeted tolerogenic Synthetic Vaccine Particles (t^2 SVPTTM) are designed to induce antigen-specific immune tolerance. Examples for applications include autoimmune diseases, allergies, as well as the inhibition of drug induced immune reactions such as anti-drug antibodies (ADA), anaphylaxis and injection site reactions.

Targeted Synthetic Vaccine Particles (t SVPTTM) activate immune responses to a wide array of relevant antigens, including small molecules, peptides, oligosaccharides, and proteins. These particles can target humoral or cellular pathways of the immune system. Examples for applications include cancer, infectious diseases and addiction.

Selecta's pipeline currently contains tolerogenic immunotherapies for type-1 diabetes, allergies and drug induced immunogenicity as well as vaccines for smoking cessation, malaria and cancer. Building on the company's novel approach, Selecta's product candidates have the potential to become first-in-class or best-in-class therapeutics to treat and prevent diseases. Selecta Biosciences, Inc. is based in Watertown, Massachusetts, USA. For more information, please visit www.selectabio.com.

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