



AstraZeneca and Moderna Therapeutics Announce Exclusive Agreement to Develop Pioneering Messenger RNA Therapeutics™ in Cardiometabolic Diseases and Cancer

March 21, 2013

AstraZeneca today announced [an exclusive agreement with Moderna Therapeutics](#) to discover, develop and commercialise pioneering [messenger RNA therapeutics™](#) for the treatment of serious cardiovascular, metabolic and renal diseases as well as cancer. Messenger RNA therapeutics™ are an entirely new treatment approach that enables the body to produce therapeutic protein *in vivo*, opening up new treatment options for a wide range of diseases that cannot be addressed today using existing technologies.

Under the terms of the agreement, AstraZeneca will make an upfront payment of \$240 million. AstraZeneca will have exclusive access to select any target of its choice in cardiometabolic diseases, as well as selected targets in oncology, over a period of up to five years for subsequent development of messenger RNA. In addition, Moderna is entitled to an additional \$180 million for the achievement of three technical milestones.

Through this agreement, AstraZeneca has the option to select up to 40 drug products for clinical development and Moderna will be entitled to development and commercial milestone payments as well as royalties on drug sales ranging from high single digits to low double digits for each product. AstraZeneca will lead the preclinical, clinical development and commercialisation of therapeutics resulting from the agreement and Moderna will be responsible for designing and manufacturing the messenger RNA against selected targets.

Moderna's unique approach uses proprietary messenger RNA containing naturally occurring nucleotide analogues, which are designed to stimulate the body's natural ability to produce intracellular and secreted therapeutic proteins without triggering an innate immune response. The secreted proteins will be released into the bloodstream to potentially restore function elsewhere in the body. Using messenger RNA also has the potential advantage of dramatically reducing the time and expense associated with creating therapeutic proteins using current recombinant technologies.

Pascal Soriot, Chief Executive Officer of AstraZeneca, said: "Today's agreement signals an exciting move for AstraZeneca and our focus on innovation. Together with Moderna, we are pushing the boundaries of science in the pioneering field of messenger RNA therapeutics™. Where current drug discovery technologies can target only a fraction of the disease-relevant proteins in the human genome, we have the potential to create completely new medicines to treat patients with serious cardiometabolic diseases and cancer."

Stephane Bancel, President and founding CEO of Moderna Therapeutics, said: "This multi-year strategic agreement with AstraZeneca is a very exciting and special moment for the Moderna team. The Company's strategy is to develop, manufacture, and commercialize innovative drugs initially in rare diseases and oncology as well as to partner other therapeutic areas with best-in-class companies. We share a common vision with AstraZeneca for how mRNA therapeutics™ will enable many new innovative drugs for targets which are totally undruggable today. We look forward to this unique opportunity where Moderna can apply its research platform, broad intellectual property portfolio and know-how to potentially contribute significantly to AstraZeneca's pipeline."

Effectiveness of the agreement is contingent on expiration or termination of the waiting period under the Hart Scott-Rodino Antitrust Improvements Act.

About AstraZeneca

AstraZeneca is a global, innovation-driven biopharmaceutical business that focuses on the discovery, development and commercialisation of prescription medicines, primarily for the treatment of cardiovascular, metabolic, respiratory, inflammation, autoimmune, oncology, infection and neuroscience diseases. AstraZeneca operates in over 100 countries and its innovative medicines are used by millions of patients worldwide. For more information please visit: www.astrazeneca.com

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About Moderna Therapeutics

Moderna is a pioneering an entirely new drug modality using [messenger RNA Therapeutics™](#) to produce, *in vivo*, human proteins or antibodies inside patient cells that are in turn active intracellularly or secreted into the serum. This breakthrough platform addresses currently undruggable targets and offers a superior alternative to existing drug modalities for a wide range of disease conditions. Moderna has developed a broad intellectual property estate including 125 patent filings with 6,500 claims ranging from novel nucleotide chemistries to specific drug compositions. The company plans to

develop and commercialize its innovative mRNA drugs initially for rare diseases and oncology while partnering drug candidates in other therapeutics areas in order to rapidly maximize patient impact. Based in Cambridge MA, privately held Moderna was founded in 2010 by Flagship VentureLabs in association with leading scientists from Boston Children's Hospital and Massachusetts Institute of Technology. Visit www.modernatx.com to learn more.