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July 10, 2018

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July 10, 2018 Emeryville, Ca, USA — MedImmune, the global biologics research and development arm of AstraZeneca, and 4D Molecular Therapeutics (4DMT), a world-leader in Therapeutic Vector Evolution for adeno-associated virus (AAV) gene therapy vector discovery and product development, today announced a collaboration to develop and commercialize a gene therapeutic for patients with chronic lung disease, utilizing 4DMT's novel discovery platform to generate optimized AAV vectors.

AAV vectors are a leading delivery vehicle for transporting genes to accessible tissues in the body for in-vivo expression and therapeutic application. They target both dividing and nondividing cells without integrating genetic material into the host genome. The genetic material transferred by AAV vectors into cells is the blueprint for the production of a protein whose function targets pathological processes contributing to diseases.

The collaboration will leverage 4DMT's expertise in vector discovery and engineering, optimization and process development. MedImmune will conduct product development beginning from early clinical stages, drawing on the company's extensive expertise in respiratory science.

Roland Kolbeck, Vice President, Research & Development Respiratory, Inflammation and Autoimmunity at MedImmune, said: "Rapid advances in AAV therapy make this a promising tool to advance innovation in chronic lung disease, particularly in areas of high unmet need. This collaboration strategically pairs 4DMT's expertise in AAV with MedImmune's leadership in respiratory science, focused on early intervention and disease modification."

David Kirn MD, CEO and co-founder of 4DMT, added: "This exciting collaboration may open the door to significant advancements in treatment for respiratory patients. Our progress in customized AAV vectors enables us to unlock the potential of gene therapy and, with MedImmune's expertise in protein engineering, we will continue to push boundaries in proprietary gene delivery to tissues and cells."

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About MedImmune
MedImmune is the global biologics research and development arm of AstraZeneca, a global, innovation-driven biopharmaceutical business that focuses on the discovery, development and commercialization of small molecule and biologic prescription medicines. MedImmune is pioneering innovative research and exploring novel pathways across Oncology, Respiratory, Cardiovascular, Renal and Metabolic Diseases, and Infection and Vaccines. The MedImmune headquarters is located in Gaithersburg, Md., one of AstraZeneca's three global R&D centres, with additional sites in Cambridge, UK and South San Francisco, CA. For more information, please visit www.medimmune.com.

About 4D Molecular Therapeutics (4DMT)
4DMT is focused on the discovery and development of targeted, customized and proprietary next-generation AAV gene therapy products for use in patients with severe genetic diseases with high unmet medical need. Our robust discovery platform, termed Therapeutic Vector Evolution, empowers us to create customized gene delivery vehicles to deliver genes specifically to any tissue or organ in the body, by optimal clinical routes of administration, at manageable doses and with resistance to pre-existing antibodies. These proprietary and targeted products allow us to treat both rare genetic diseases and complex large market diseases. 4DMT is creating a diverse and deep product pipeline through its own internal 4D products, as well as partnered programs.

About 4DMT's Therapeutic Vector Evolution
4DMT is advancing the field of targeted and optimized AAV vector technology by deploying principles of evolution and natural selection to create vectors that efficiently and selectively target the desired cells within the diseased human organ via clinically optimal routes of administration, at manageable doses and with resistance to pre-existing antibodies in the population. Our Therapeutic Vector Evolution platform deploys over 100 million unique AAV variants from over 35 unique and proprietary 4DMT AAV libraries with extensive diversity. After defining the Target Product Profile, and the associated Target Vector Profile, 4DMT then applies proprietary methods to identify lead vectors from within our AAV libraries. The result is a customized, novel, and proprietary pharmaceutical-grade product uniquely designed for targeted therapeutic gene delivery and efficacy in humans.

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