NEWS RELEASE

SEAL Therapeutics exclusively licenses from Rutgers certain gene constructs to support its innovative gene therapy for muscular dystrophy

Basel, Switzerland, March 11, 2022 – SEAL Therapeutics announces the signing of an exclusive license agreement with Rutgers, The State University of New Jersey, in support of its SEAL technology program for the treatment of LAMA2-related muscular dystrophy (LAMA2 MD or MDC1A). Under the agreement, SEAL Therapeutics gains rights to intellectual property developed at Rutgers for certain gene constructs, which are complementary to the technology developed at the University of Basel and licensed by SEAL Therapeutics.

SEAL Therapeutics has entered into an exclusive, worldwide license agreement with Rutgers, The State University of New Jersey, in support of its innovative gene therapy approach for the treatment of LAMA2 MD. Under the terms of the agreement, SEAL Therapeutics obtains an exclusive license to specific gene sequences and constructs which are complementary to gene sequences and their therapeutic use developed at the Biozentrum, University of Basel and licensed to SEAL Therapeutics.

"SEAL Therapeutics now combined the proprietary technology developed in my laboratory over the past 20 years and licensed from the University of Basel with complementary technology developed by my colleague, Prof. Peter Yurchenco at Rutgers. With this combined intellectual property, SEAL Therapeutics now covers all the current gene sequences relevant for simultaneous expression of artificial linkers (the SEAL technology). This will hopefully support our efforts to team up with a pharma partner to advance our SEAL technology through clinical development and towards registration”, says Prof. Markus Rüegg, Co-Founder and CEO of SEAL Therapeutics. "With this comprehensive and proprietary technology, we aim to bring this potential treatment to patients and their families.”

About LAMA2 MD (Merosin-deficient congenital muscular dystrophy or MDC1A)

Congenital muscular dystrophies (CMDs) are a group of genetic muscle diseases with onset at birth or very early infancy, which cannot be treated. The more than 30 known forms of these neuromuscular diseases differ in the type of genetic defect and in the severity of disease progression. The muscles of the affected children progressively lose strength and degenerate over time. Progressive muscle weakness, joint contractures and respiratory insufficiency characterize most CMDs and patients often die before they reach adulthood.

Laminins are proteins of the extracellular matrix that are important in many tissues for the development, stability and survival of interacting cells. LAMA2-related muscular dystrophy (LAMA2
MD, also called MDC1A), is one of the most common forms of CMD. It is caused by mutations in the LAMA2 gene encoding the α2 subunit of laminin-211, a protein that stabilizes muscle fibers. Children affected by LAMA2 MD usually suffer from poor muscle tone and strength already at birth, and are therefore called “floppy infants”. Most of the affected children never learn to walk independently. The respiratory muscles are also weak and continue to degenerate, resulting in organ failure.

About the Simultaneous Expression of Artificial Linker (SEAL) technology

The innovative gene therapy approach (called SEAL technology), developed by Prof. Markus Rüegg and Prof. Peter Yurchenco and their teams over the past 20 years, overcomes the lack of laminin-α2 in muscle tissue by providing molecular connections with other laminins and with the plasma membrane of the muscle fibers. Available data demonstrate that the simultaneous expression of two specifically designed linker proteins functionally corrects the primary pathology of laminin-α2 deficiency, leads to sustained improvement in muscle histology, increased muscle mass and strength, improved body weight, and results in a remarkable increase in life span compared to untreated animals [1-8].

About Rutgers, The State University of New Jersey

Rutgers, The State University of New Jersey, is a leading national research university and the state of New Jersey’s preeminent, comprehensive public institution of higher education. Established in 1766, the university is the eighth-oldest higher education institution in the United States. More than 70,000 students and 23,400 full- and part-time faculty and staff learn, work and serve the public at Rutgers locations across New Jersey and around the world.

About SEAL Therapeutics AG

SEAL Therapeutics AG, a spin-off of the Biozentrum of University of Basel, develops proprietary SEAL technology as potential gene therapy treatment of LAMA2-related muscular dystrophy (LAMA2 MD; also called MDC1A). The Company combines technology from the Biozentrum, University of Basel and Rutgers, The State University of New Jersey. SEAL Therapeutics intends to team-up with and support a qualified pharma partner with experience in advanced gene therapy technologies for clinical development and registration with the ultimate goal to make this innovative treatment approach available to LAMA2 MD patients and their families.
References


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