NEWS RELEASE

SEAL Therapeutics receives funding from the Swiss Foundation for Research on Muscle Diseases (SFRMD/FSRMM)

Basel, Switzerland, March 23, 2022 – SEAL Therapeutics announces that it receives funding of CHF 1 million by the Swiss Foundation for Research on Muscle Diseases (SFRMD/FSRMM) in support of its program to develop a treatment of LAMA2-related muscular dystrophy (LAMA2 MD or MDC1A). Prof. Sandro Rusconi joins the Board of SEAL Therapeutics AG as a representative of FSRMM.

SEAL Therapeutics has signed agreements to receive CHF 1 million in funding by the Swiss Foundation for Research on Muscle Diseases (SFRMD/FSRMM) in support of its program for LAMA2 MD. Under the agreement, FSRMM will become shareholder of SEAL Therapeutics AG and is eligible to participate from potential income by SEAL Therapeutics from a future license agreement with a Pharma partner. In addition, FSRMM is eligible to nominate one Board member and appointed Prof. Sandro Rusconi, PhD, a recognized expert in gene therapy.

"We are delighted about the collaboration with the Swiss Foundation for Research on Muscle Diseases and their investment in SEAL Therapeutics", says Prof. Markus Rüegg, Co-Founder and CEO of SEAL Therapeutics. "The foundation has supported my research over many years and thereby helped develop the SEAL technology, which now has matured to allow formal development towards clinical use. We as SEAL Therapeutics and FSRMM are motivated by the same goal, which is the advancement of this innovative and unique gene therapy to become the first treatment option for patients with LAMA2 MD."

"Our financial engagement in SEAL Therapeutics clearly shows our commitment in supporting cutting-edge research and innovative treatment options to fight neuromuscular diseases," said Alain Pfülg, President of FSRMM. "The foundation and other patient organizations have supported the research of Prof. Rüegg and Dr. Reinhard at the Biozentrum, University of Basel for many years. We are proud to have helped this team to develop a potential therapy for LAMA2 MD at its early stage. With the current funding we want to continue supporting the next steps to advance this promising and unique gene therapy approach towards clinical development and hopefully registration as treatment for patients with LAMA2 MD."
"The continued support by the FSRMM over the past years was instrumental in advancing our research," explained Dr. Judith Reinhard, Co-Founder and CSO of SEAL Therapeutics. "The comprehensive data developed in our laboratory show that the simultaneous expression of designed linker proteins leads to sustained improvement in muscle histology, increased muscle mass and strength, improved body weight, and a remarkable lifespan increase in a mouse model of LAMA2 MD. Importantly, more recent experiments demonstrate that these linker proteins can be delivered with conventional adeno-associated viral vectors, which opens the possibility for the application of this technology in patients with LAMA2 MD."

"I am honored to support SEAL Therapeutics with its unique and unprecedented gene therapy approach to overcome laminin α2-deficiency, the primary pathology of patients with LAMA2 MD", commented Prof. Sandro Rusconi. "I am pleased that FSRMM could support the company in its attempt to bring the technology developed over years by Prof. Rüegg and his team at the Biozentrum of the University Basel to patients and their families."

"We welcome Prof. Rusconi as Board member of SEAL Therapeutics," added Dr. Thomas Meier, Co-Founder and Chairman of SEAL Therapeutics. "Prof. Rusconi is an expert in gene therapy with a long-standing career as principal investigator at the University of Zürich and at the University of Fribourg. He also led the Swiss National Research Program on somatic gene therapy."

**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 Linkers (SEAL) technology

The innovative gene therapy approach (called SEAL technology), developed by Prof. Markus Ruegg 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 the Swiss Foundation for Research on Muscle Diseases (SFRMD/FSRMM)

The Swiss Foundation for Research on Muscle Diseases was founded 1985 by the parents of two boys with Becker Muscular Dystrophy, with the goal to promote basic, biomedical and translational research on neuromuscular diseases in Switzerland. To this end, the privately financed foundation has so far provided CHF 31 million for 191 research projects in all main Swiss universities and medical centers. For more information, please visit www.fsrmm.ch

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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