Axelyf and Mote Therapeutics Form Alliance to Provide Off-the-Shelf In Vivo T-Cell Targeted Delivery for Nucleic Acids

BOSTON, MA, UNITED STATES, September 9, 2026 /EINPresswire.com/ -- Axelyf, Inc. and Mote Therapeutics today announced a cross-license agreement to provide a complete, targeted T-cell delivery solution combining Axelyf's lipid nanoparticle (LNP) technology with Mote's T-cell targeting binder. This novel delivery solution is available to third parties under a single license, an advantage to in vivo CAR-T therapy developers who previously have had to license these LNP and binder technologies separately and establish their compatibility.

"Companies developing in vivo CAR-T therapies need both a delivery particle and a targeting moiety, and until now they have not had access to an off-the-shelf solution," said Örn Almarsson, Ph.D., chief executive officer and co-founder of Axelyf. "The T-cell targeted delivery solution that we are promoting in partnership with Mote is a significant improvement over existing technologies, providing modular assembly for simpler product generation and the ability to optimize more quickly and at scale."

Axelyf's next-generation LNP platform has delivered up to 4x higher protein expression in head-to-head non-human primate studies than current clinical-stage benchmarks. Mote's bispecific antibody binder simultaneously binds the Axelyf LNP and CD8 on cytotoxic T cells. Third-party partners licensing the Axelyf-Mote T-cell delivery solution will provide the nucleic acid payload.

Earlier approaches to targeted lipid nanoparticles attached the targeting moiety to the particle surface by covalent chemistry, which introduces reaction and purification steps into drug product manufacturing. Mote's mobilize™ platform is a modular, scalable approach to functionalizing LNPs with cell-targeting specificity without covalent complexity.

"We designed our binder to attach by mixing rather than by chemistry," said Vincent Huo, CEO of Mote Therapeutics. "Pairing it with Axelyf's lipid means a developer does not have to do that integration work or negotiate two licenses before starting. With this partnership we can bring this differentiated delivery capability to partners in the cell and gene therapy space seeking scalability and flexibility."

The financial terms of the agreement were not disclosed.

"There is great promise in in vivo cell therapies such as non-viral CAR-T, but fulfilling that promise

depends on getting the payload to the right cells," said Almarsson. "The gap has been accessing a delivery solution that developers can pick up and use. Our combined targeted T-cell delivery solution will allow companies to focus on engineering their therapy for patients."

For more information, contact the Mote and Axelyf teams at bd@motetx.com and info@axelyf.com.

About Axelyf

Axelyf is a biotechnology company developing RNA therapeutics powered by its next-generation lipid nanoparticle delivery platform, AXL. AXL combines novel ionizable lipids, advanced surface chemistry and AI-informed design, and has been validated for precise, potent delivery, outperforming LP-01 – a key Phase 3 LNP clinical benchmark – with up to 4x higher protein expression in head-to-head non-human primate studies. Axelyf's lead drug candidate, AX-004, is a non-viral, highly potent, redosable in vivo CAR-T therapy targeting solid tumors – an indication where no approved CAR-T treatment currently exists. Founded by industry veterans, Axelyf, Inc. is headquartered in Brookline, Mass., with an R&D subsidiary, Axelyf ehf, in Iceland. For more information, visit www.axelyf.com.

About Mote Therapeutics

Mote Therapeutics is a next-generation nucleic acids therapeutics company focused on solving one of the most fundamental bottlenecks in genetic medicine: delivering nucleic acid payloads – particularly RNA – to cells and tissues outside the liver. The company's proprietary mobilize™ platform is a modular, scalable, and chemistry-free system for functionalizing LNPs with cell-targeting specificity. It enables targeted RNA delivery to previously inaccessible cell types, unlocking treatments for intractable diseases such as systemic lupus erythematosus, multiple myeloma, plasma cell leukemia, hematopoietic stem cell disorders and neurodegenerative diseases. Founded by Fapon Group and circular RNA pioneer Dr. Alex Wesselhoeft, Mote Therapeutics combines cutting-edge delivery science with a global footprint spanning the U.S. and China. Find more information on LinkedIn (Mote Therapeutics) or visit www.motetx.com.

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