HemoShear Therapeutics Identifies Novel Drug Target to Treat NASH in Drug Discovery Partnership with Takeda

Drug Target Will Advance into Takeda's Discovery Portfolio as Part of Ongoing Collaboration

Charlottesville, Va. – December 10, 2020 – HemoShear Therapeutics, LLC, a privately held clinical stage biotechnology company, has achieved a research milestone in its discovery and development collaboration with Takeda Pharmaceutical Company Limited ("Takeda") to advance its first nonalcoholic steatohepatitis (NASH) target into Takeda's discovery portfolio. Using the company's *REVEAL-Tx™* human disease modeling platform, HemoShear is collaborating with Takeda to identify and validate novel drug targets for treating NASH. In accordance with the collaboration agreement executed in October 2017, HemoShear will receive an undisclosed milestone payment.

"NASH remains an area with immense unmet need with no approved therapies," said Gareth Hicks, Ph.D., GI Drug Discovery Unit Head at Takeda. "We are excited to advance the novel drug target identified in collaboration with HemoShear into our discovery portfolio and look forward to making rapid progress toward the clinic."

"Achieving this milestone in our collaboration with Takeda helps validate our scientific approach to modeling human disease and leveraging data-driven drug targeting," said Brian Wamhoff, PhD, chief operating officer and head of innovation. "Our platform has enabled us to combine insights from our biological and computational models to identify a drug target for Takeda that inhibits key disease-driving processes. We have also presented data that demonstrate inhibition of this target may be superior to other targets being pursued preclinically and clinically by the industry."

HemoShear's *REVEAL-Tx™* platform has been utilized to create a model of NASH that recapitulates hallmark features of liver fat build up, increased cell stress and inflammation, and extracellular matrix signaling that was published in the [Journal of Clinical Investigation Insight](). In addition, [Nature Scientific Reports]() published the company's research analyzing gene expression at various stages of nonalcoholic fatty liver disease.

Under the terms of the [original agreement](), HemoShear received upfront payments and R&D funding, and Takeda received exclusive access to HemoShear's proprietary disease modeling platform to discover and develop best-in-class therapeutics for specific liver diseases. HemoShear is eligible to receive milestone payments of potentially $470 million and royalties.

NASH, one of the leading causes of transplantation, is a serious, chronic liver disease that is estimated to impact over 16 million people in the United States alone. NASH is characterized by inflammation and excessive fat accumulation in the liver that may progress to fibrosis, cirrhosis, liver cancer, and eventually liver failure. There is currently no FDA approved therapeutic available for NASH and liver fibrosis patients.

About HemoShear's *REVEAL-Tx™* Platform

Existing human experimental disease models do not reliably represent human biology. HemoShear has developed a transformational platform, *REVEAL-Tx™*, which applies principles of physiological blood flow to tissue from patients to recapitulate disease. *REVEAL-Tx™* provides unprecedented insights into complex pathophysiological pathways by replicating human disease with great accuracy. HemoShear's human disease models, in combination with its advanced proprietary computational biology tools, identify novel treatment approaches and reduce risk of failure by enabling HemoShear's scientists to deeply interrogate disease pathways, test hypotheses and select meaningful targets in physiologically accurate disease conditions.

About HemoShear Therapeutics

HemoShear Therapeutics is a privately held clinical stage company developing treatments for rare metabolic disorders with significant unmet patient need. HemoShear's drug discovery platform, *REVEAL-Tx™*, enables the Company's scientists to create best-in-class, biologically relevant human disease models to uncover the underlying mechanisms of disease, translate those discoveries into drug targets, and select candidates that may treat patients successfully. In addition to the Company's proprietary rare disease programs, HemoShear has exclusive partnerships to identify novel therapeutic approaches in nonalcoholic steatohepatitis (NASH) and an undisclosed rare liver disease with Takeda, and in gout with Horizon Therapeutics. For more information visit www.HemoShear.com.