SHEAR INSIGHTS

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CARNOT BIOSCIENCES, A SPIN OFF OF SMARTZYME BIOPHARMA, AND HEMOSHEAR THERAPEUTICS PARTNER TO DEVELOP PROTEIN-BASED THERAPEUTICS FOR RARE METABOLIC DISEASES

- *SmartZyme BioPharma Spins Off Protein Engineering Platform into Carnot BioSciences; with the New Company's Leadership Team Comprised of Former Synageva Scientists*
- *Research Collaboration Leverages Carnot Biosciences' Protein Engineering and HemoShear Therapeutics' Disease Modeling Platforms*

HEMOSHEAR THERAPEUTICS smartzyme

HemoShear Therapeutics and SmartZyme BioPharma, an OrbiMed Advisors portfolio company, today announced a strategic agreement to develop novel protein-based therapeutics to treat rare metabolic diseases. To support the collaboration, SmartZyme will spin-off its protein engineering platform into a new company, Carnot BioSciences, which will be led by a reunited team of former Synageva and Alexion scientists and executives. Following the spin-off, SmartZyme will focus on advancing its core asset, a next-generation glucose-sensing enzyme designed to make continuous glucose monitors significantly more affordable and easier to manufacture for use by people living with Type 1 and insulin-requiring Type 2 diabetes.

HemoShear's proprietary drug discovery platform, *REVEAL-TX™*, enables HemoShear to create best-in-class, biologically relevant human disease models to uncover the underlying mechanisms of disease, translate these discoveries into drug candidates, and select the drug candidates that will treat patients successfully.

Under the terms of the agreement, Carnot will use its expertise in directed enzyme evolution to alter specific human enzymes identified by HemoShear to treat certain undisclosed inborn errors of metabolism, including enzyme deficiencies and mutations. These defects do not allow the body's systems to properly turn food into energy causing a wide range of symptoms, many of which can be lethal.

Christopher Shepard, PhD, General Manager and Chief Executive of Smartzyme BioPharma, will serve as Carnot BioSciences' Interim-General Manager and CEO. Mark Leavitt, PhD, formerly Vice President of Research and Vice President of Expression and Bioanalytics at Synageva BioPharma and Alexion Pharmaceuticals, will serve as Carnot's Chief Scientific Officer, and will collaborate with a team of former Synageva/Alexion colleagues with expertise in clinical development, regulatory affairs and market access.

"We look forward to working with the HemoShear team to leverage their *REVEAL-TX™* platform to interrogate disease pathways, select the best drug targets, and discover promising drug candidates,"

said Dr. Shepard, “This agreement provides a foundation to tackle some of the most formidable modern challenges in therapeutic protein biochemistry.”

“Carnot BioSciences’ protein engineering technology is a valuable platform for developing novel protein-based therapeutics,” said Brian Wamhoff, PhD, HemoShear co-founder and Head of Innovation. “Our research has shown that modifications to specific enzymes may improve the body’s ability to reduce toxins associated with a number of devastating diseases. We believe that application of Carnot’s directed evolution to generate these novel therapies can ultimately yield far better outcomes for patients.”

“Carnot and HemoShear possess unique and complementary scientific expertise that together are a powerful combination to discover promising new drug candidates for devastating and life threatening metabolic diseases,” stated Dr. Leavitt. “There is a significant unmet need for better treatment options and we look forward to advancing drug candidates into human clinical trials.”

Carnot and HemoShear will work together to discover drug candidates, while each company will be responsible for advancing specific programs into the clinic. Financial terms of the agreement were not disclosed.

HEMOSHEAR THERAPEUTICS

HemoShear Therapeutics discovers novel biological targets and advances drug programs to treat metabolic disorders with significant unmet patient need.