TARA Biosystems Partners with Scipher Medicine®

-Scipher to use proprietary patient molecular data analyzed by its Spectra™ platform to identify novel drug targets.
- TARA Biosystems to progress selected targets in its Biowire™ II drug discovery platform for cardiac laminopathies.
- Partnership set to reduce target discovery and validation from years down to months.

NEW YORK, NY and WALTHAM, MA November 3, 2021: TARA Biosystems, a biotechnology company harnessing human biology and data to transform cardiac drug discovery, today announced a collaboration with Scipher Medicine, a precision medicine company matching patients with the most effective therapy. The collaboration will address a critical unmet need for effective therapeutics in cardiac laminopathies.

Cardiac laminopathies, associated with mutations in the LMNA gene, can result in electrical and mechanical changes in the heart. These changes can have profound clinical consequences, including cardiomyopathy, sudden cardiac death, and end-stage heart failure. At present, therapies that correct the underlying pathologies do not exist.

"This collaboration demonstrates the transformative potential of combining biology-driven data with network biology to further drug discovery and development and unlock new medicines and therapeutics," said Misti Ushio, PhD, CEO of TARA Biosystems.

Scipher will leverage human molecular data analyzed by its Spectra™ platform, which includes data from TARA's Biowire™ II LMNA disease models, to identify novel targets for a stratified disease population. This approach aims to identify proteins upstream and downstream of LMNA signaling within the Spectra™ network model. The identified targets will be evaluated in TARA's Biowire™ II platform, which consists of induced pluripotent stem cell-derived human cardiac tissue models, including a repertoire of healthy, gene-edited, patient-derived, and drug-induced phenotypes of human disease.

"The Spectra platform uniquely integrates AI with the protein network of human cells to identify novel targets in highly complex and debilitating diseases such as laminopathy," said Slava Akmaev, PhD, CTO, and Head of Therapeutics at Scipher Medicine. "By interrogating the network neighborhood of LMNA and its relationship with the proteins appropriate for targeted therapeutics we are confident that we can identify several novel and relevant drug targets."

"The TARA platform is highly versatile and can capture robust physiologic endpoints of human cardiac function, including contractility, electrophysiology, calcium signaling, structure, as well as genomic, proteomic, and metabolic profiles," said Robert Langer, PhD, Board of Directors at TARA Biosystems. "We believe that TARA and Scipher combined efforts have the potential to lead to drug development that enables a truly personalized treatment for patients."

Under the terms of the partnership, TARA has the exclusive option to progress identified targets into drug discovery and clinical development. Scipher is eligible to receive milestone payments and royalties. TARA will retain the rights for the development, and commercialization of therapeutics for the selected targets.

"The partnership with TARA is a further example of how our disease agnostic Spectra platform can be applied to where novel targets are most needed," added Alif Saleh, CEO of Scipher. "The ability to quickly validate novel targets identified by Spectra on TARA's human tissue model platform allows us to rapidly iterate to identify most effective targets."

About TARA Biosystems, Inc.
Headquartered in New York City, TARA Biosystems harnesses innovations in stem cell biology and tissue engineering to generate in vitro biology that recapitulates human physiology with unprecedented fidelity. Our highly versatile and robust platform captures integrated physiologic endpoints of human cardiac function across a wide repertoire of cardiac disease phenotypes. Our data facilitates decisive evaluation of the efficacy and risk of novel medicines, increasing the probability of success and decreasing long timeframes associated with traditional drug discovery efforts. Safer and more effective new medicines that rapidly make it to market means better health and longer lives, and we believe that benefits people everywhere. For more information, please visit http://www.tarabiosystems.com.

About Spectra
A platform deciphering the complexity of disease by analyzing large patient molecular datasets through the unique lens of the human interactome and AI. Built upon over a decade of experimental research, the platform's backbone is the network map of human biology explaining how proteins expressed from the human genome interact to cause specific disease phenotypes, providing the wiring diagram needed to interpret dynamic individual patient molecular data to reveal actual disease biology. Spectra™ is not a model but a disease representation rooted in experimental human biology and proprietary patient molecular data, allowing us to identify a patient's unique disease signature, predict drug response to approved drugs and identify novel drug targets in patients not responding to existing therapies.

About Scipher Medicine®
Scipher Medicine, a precision immunology company, believes that patients deserve simple answers to treatment options based on scientifically backed data. Using our proprietary Spectra Network Biology platform and artificial intelligence, we commercialize blood tests revealing a persons' unique molecular disease signature and match such signature to the most effective therapy, ensuring optimal treatment from day one. The patient molecular data generated from our tests further drives the discovery and development of novel and more effective therapeutics. We partner with payers, providers, and pharma along the health care value chain to bring precision medicine to autoimmune diseases. Visit www.sciphermedicine.com and follow Scipher on Twitter, Facebook, and LinkedIn.

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