



MORNINGSIDE



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News Release

Vesigen Therapeutics launches with USD 28.5 million Series A investment led by Leaps by Bayer and Morningside Ventures

- Investment addresses today's challenge to efficiently transport next-generation therapeutics such as cell and gene therapy to the target and unlock their full potential as innovative therapies for patients
- Vesigen's ARMMs technology enables translation of new modalities such as RNAs and gene-editing complexes into novel treatments for multiple diseases

Cambridge, Massachusetts, USA / Berlin, Germany, July 22, 2020 – Vesigen

Therapeutics launched today with the objective to overcome the hurdle of targeted intracellular drug delivery of next-generation therapeutics, such as CRISPR-cas9, RNA molecules and other therapeutic proteins, by using a proprietary delivery technology. Leaps by Bayer and Morningside Ventures led the company's Series A financing with USD 28.5 million and were joined by Linden Lake Ventures and Alexandria Venture Investments.

New modalities, such as gene editing, mRNA replacement, and RNA interference, have huge potential for future therapies and even curative treatments. However, delivery of these modalities to target disease in specific cells and tissues has proven difficult. As more than 80 percent of identified and biologically validated drug targets are located within a human cell, there is a high need for innovative intracellular delivery technology to transport these molecules to the target and unlock the full potential of new therapeutic modalities. Vesigen is developing a novel delivery technology that addresses this hurdle and opens new pathways to transformative treatment options for patients.

"Our mission is to realize the therapeutic potential of many of the new modalities, such as RNA interference, mRNA replacement, and gene editing, that have been used to identify

and validate targets, but have proven difficult to translate into functional therapeutics due to delivery barriers,” said Robert Millman, Co-Founder and CEO of Vesigen Therapeutics.

Vesigen is developing drugs based on the proprietary ARRDC1-mediated microvesicles (ARMMs) technology, a class of fusogenic extracellular vesicles that nature evolved to package and deliver communication signals between cells and tissues. ARMMs possess unique properties, making them better suited for producing and delivering therapeutic agents. Vesigen and its scientific founders have demonstrated a wide range of therapeutic payloads can be packaged in ARMMs, including RNA, protein, and gene-editing systems and functionally delivered intracellularly in vitro and in vivo.

“Leaps by Bayer is investing in transformative biotechnologies with the ability to move the paradigm from treatment to cure,” said Juergen Eckhardt, MD, Head of Leaps by Bayer. “We believe that Vesigen’s ARMMs technology has the potential to do exactly that, to help enable new curative treatments in a large spectrum of disease areas.”

“Vesigen’s engineered extracellular vesicles show versatility and we will be supporting their development in a wide range of indications, including oncology, neurology, ophthalmology, and other localized applications – We look forward to seeing their work translated into a clinical context,” said Gerald Chan, Sc.D, Morningside Ventures.

Vesigen will use the capital raised to build out the ARMMs platform as well as to advance numerous therapeutic agents into preclinical and clinical development. With the financing, Vesigen has named Gerald Chan of Morningside Ventures as Chairman, while Stephen Bruso of Morningside Ventures and Juergen Eckhardt and Jak Knowles of Leaps by Bayer have been named to its Board of Directors.

The company’s Scientific Advisory Board will include:

- Quan Lu, PhD, Scientific Co-Founder, Vesigen Therapeutics
- Stephen Haggarty, PhD, Massachusetts General Hospital
- Thomas Reh, PhD, University of Washington

“We engineered the ARMMs system as a platform capable of delivering several agents into specific tissues or cells that others have been exploring for years,” said Quan Lu, PhD, Professor of Environmental Genetics and Physiology at the Harvard T.H. Chan

School of Public Health. “I’m hopeful that our work may enable new therapies that save lives.”

About Bayer and Leaps by Bayer

Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. Its products and services are designed to benefit people by supporting efforts to overcome the major challenges presented by a growing and aging global population. At the same time, the Group aims to increase its earning power and create value through innovation and growth. Bayer is committed to the principles of sustainable development, and the Bayer brand stands for trust, reliability and quality throughout the world. In fiscal 2019, the Group employed around 104,000 people and had sales of 43.5 billion euros. Capital expenditures amounted to 2.9 billion euros, R&D expenses to 5.3 billion euros. For more information, go to www.bayer.com.

Leaps by Bayer, a unit of Bayer AG, leads impact investments into solutions to some of today’s biggest challenges in health and agriculture. The investment portfolio includes more than 30 companies. They are all working on potentially breakthrough technologies to overcome some specific challenges such as, e.g. regenerating lost tissue function, reducing the environmental impact of farming, preventing or curing cancer, and others. For more information, go to www.leaps.bayer.com

About Morningside Ventures

Founded in 1986 by the Chan family, Morningside is a technology and life science venture investment firm. With offices in Boston, Shanghai and London, the firm invests globally. Its portfolio emphasizes spin-outs from universities. In 2014, the founders of Morningside made a gift to Harvard University which renamed its public health school the Harvard T.H. Chan School of Public Health. To learn more, visit www.morningside.com.

About Vesigen Therapeutics

Vesigen Therapeutics is a biotechnology company advancing groundbreaking therapies directed to intracellular targets using a fusogenic extracellular vesicle delivery technology. Our patented technology, called ARMMs (ARRDC1 Mediated Microvesicles), enables the delivery of a wide range of payloads, including RNAs (mRNA, shRNA, ribozymes), proteins (signaling proteins, enzymes, antibody fragments), and gene-editing complexes (Cas9/gRNA) directly into the cytoplasm of target cells, expanding the universe of druggable targets. The team is committed to leveraging ARMMs technology to develop

transformative medicines and address currently unmet medical needs. For additional information visit www.vesigentx.com

About ARMMs

ARMMs vesicles (ARRDC1-mediated microvesicles) are a class of fusogenic extracellular vesicles produced by cells to package and deliver communication signals between cells and tissues. The ARMMs cellular machinery is hijacked by many enveloped viruses, such as HIV and Ebola, to produce envelope packages of viruses which bud out of host cells and have specific targeting properties. ARMMs possess unique properties not found in other classes of extracellular vesicles (e.g. exosomes), making them better suited for producing therapeutic agents. It could be demonstrated that a wide range of labile and difficult to deliver therapeutics agents, including RNAs (mRNA, shRNA, ribozymes), proteins (signaling proteins, enzymes, antibody fragments), and gene-editing complexes (Cas9/gRNA) can be packaged into ARMMs and functionally delivered intracellularly in vitro and in vivo. ARMMs vesicles have been discovered and engineered into a drug delivery system in the lab of Quan Lu, PhD, Professor of Environmental Genetics and Physiology at the Harvard T.H. Chan School of Public Health with support in particular from Harvard's Blavatnik Biomedical Accelerator. Vesigen will advance the ARMMs platform to develop innovative medicines for patients through an exclusive license agreement with Harvard University.

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Forward-Looking Statements

This release may contain forward-looking statements based on current assumptions and forecasts made by Bayer management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports which are available on the Bayer website at www.bayer.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.