PureTech Health Teams with Siddhartha Mukherjee to Launch Vor BioPharma to Advance Novel Targeting Platform to Expand Applicability of CAR T-Cell Immunotherapies in Immuno-Oncology

May 9, 2016

Joseph Bolen, Sanjiv Sam Gambhir, Dan Littman and Derrick J. Rossi support development of novel immunotherapies pipeline

Boston, Massachusetts, May 9, 2016 – PureTech Health plc ("PureTech," LSE: PRTC) today announced the launch of Vor BioPharma, an immuno-oncology company dedicated to developing a new class of targeted cell therapies. The company, which is advancing a novel approach to chimeric antigen receptor (CAR) T-cell therapy, has licensed its core technology from the lab of Vor scientific co-founder, Siddhartha Mukherjee, M.D., Ph.D., Assistant Professor of Medicine at Columbia University and Pulitzer Prize-winning author of The Emperor of All Maladies: A Biography of Cancer.

"CAR T-cell therapies have shown remarkable progress in the clinic, yet their applicability beyond a small subset of cancers is currently very limited," said Sanjiv Sam Gambhir, M.D., Ph.D., Vor Scientific Advisory Board Member, Professor of Radiology and Bioengineering, Chair of the Department of Radiology, Director of the Canary Center for Cancer Early Detection and Director of the Molecular Imaging Program at Stanford University. "This technology seeks to address bottlenecks that prevent CAR T-cell therapy from becoming more broadly useful in treating cancers outside of B-cell cancers."

Researchers continue to make big advances in using the immune system to fight cancer. CAR T-cell therapy, which modifies the body's own immune cells (T-cells) to recognize and kill cancer cells, has emerged as a promising therapy for patients with advanced B-cell leukemias. These approaches have focused on targeting markers that are present on all B-cells, both healthy and cancerous. While the body can safely function without B-cells, using CAR T-cell therapy to treat other cancers—which would involve targeting cells necessary for survival—remains elusive. Furthermore, CAR T-cell therapy has shown more limited results in treating solid tumors. Vor is developing an entirely new approach to CAR T-cell therapy that seeks to broaden its applicability in other cancers, particularly those with limited therapeutic options, by removing key barriers generated by current modalities.

"We continue to make great strides in developing new ways to treat cancer using the body's immune system," said Dr. Mukherjee. "The positive clinical response researchers have achieved with CAR T-cell therapies in B-cell leukemias has led to great interest within the oncology community and is something we hope to achieve in other cancers over time."

"PureTech is excited to be collaborating with Sid Mukherjee and to have the support of a world-class team of immunologists and oncologists," said David Steinberg, Executive Vice President of PureTech Health and Co-Founder of Vor BioPharma. "We look forward to advancing this technology that has the potential to expand immuno-oncology to currently untreatable, fatal malignancies."

Leading oncologists and immunologists are supporting Vor in developing its pipeline of novel immunotherapies. The company's team of scientific founders and Scientific Advisory Board (SAB) members includes:

- Joseph Bolen, Ph.D. – Scientific Advisory Board member and acting Chief Scientific Officer of Vor BioPharma and former President and Chief Scientific Officer of Moderna Therapeutics. Dr. Bolen has more than 30 years of industry and research experience and has been at the forefront of cancer and immunology research. He began his career at the NIH, where he contributed to the discovery of a class of proteins known as tyrosine kinase oncogenes as key regulators of the immune system. Dr. Bolen most recently oversaw all aspects of research and development for Moderna. Previously, he was Chief Scientific Officer and Global Head of Oncology Research at Millennium: The Takeda Oncology Company. Prior to joining Millennium in 1999, Dr. Bolen held senior research and development positions at Hoechst Marion Roussel, Schering-Plough, and Bristol-Myers Squibb.
- Sanjiv Sam Gambhir, M.D., Ph.D. – Professor of Radiology, Materials Science & Engineering, and Bioengineering at Stanford University, where he is also the Chair of the Department of Radiology, Director of the Canary Center for Cancer Early Detection and Director of the Molecular Imaging Program. His research focuses on interrogating cellular and molecular events in living subjects through imaging and on the early detection of cancer. He is the recipient of over $90M in NIH funding as the principal investigator and served on the NCI Board of Scientific advisors for eight years. Dr. Gambhir

has received several awards including the Hounsfield Medal, Tesla Medal, Holst Medal, and is an elected fellow of the National Academy of Medicine, as well as the National Academy of Inventors. He has co-founded several startups and is an advisor to several large corporations and biotechnology startups.

- Dan Littman, M.D., Ph.D. – Howard Hughes Medical Institute Investigator and the Helen L. and Martin S. Kimmel Professor of Molecular Immunology and Professor of Pathology and Microbiology at New York University (NYU) School of Medicine. Dr. Littman has made numerous groundbreaking discoveries in the field of virology and immunology, including identification and isolation of receptors required for human immunodeficiency virus (HIV) entry, molecular mechanisms of immune cells that mediate autoimmunity and the role of specific members of the gut microbiota in T-cell differentiation. Dr. Littman is a Fellow of the American Academy of Arts and Sciences and is a Member of the National Academy of Sciences. He was awarded the 2004 New York City Mayor's Award for Excellence in Science and Technology.
- Siddhartha Mukherjee, M.D., Ph.D. – Assistant Professor of Medicine at Columbia University and oncologist. Dr. Mukherjee is the author of The Emperor of All Maladies: A Biography of Cancer, winner of the 2011 Pulitzer Prize in general nonfiction, and The Laws of Medicine. He has published distinguished articles in numerous publications, including Nature, The New England Journal of Medicine, Cell and The New York Times.
- Derrick J. Rossi, Ph.D. – Associate Professor in the Stem Cell and Regenerative Biology Department at Harvard Medical School and Harvard University. Dr. Rossi is an investigator in the Program in Cellular and Molecular Medicine at Boston Children’s Hospital, and is also a principal faculty member of the Harvard Stem Cell Institute. TIME Magazine cited Dr. Rossi’s discovery of modified-mRNA reprogramming as one of the top ten medical breakthroughs of 2010. TIME Magazine also named Dr. Rossi as one of “People Who Mattered” in 2010, and as one of the 100 Most Influential People (Time 100) in 2011. Dr. Rossi co-founded Moderna Therapeutics and Intellia Therapeutics.

About Vor BioPharma

Vor BioPharma is an immuno-oncology company dedicated to developing a new class of targeted cell therapies to treat highly fatal malignancies. The company is advancing a novel approach to chimeric antigen receptor (CAR) T-cell therapy that has the potential to broaden its applicability and success rate in other cancers. Co-founded by PureTech Health (“PureTech”, LSE: PRTC), Vor is working with some of the world’s leading oncologists and immunologists to develop a pipeline of potentially life-altering immunotherapies that extend beyond what is possible with current treatments.

About PureTech Health

PureTech Health (PureTech Health plc, PRTC.L) is a cross-disciplinary healthcare company developing innovative products that could improve the lives of billions of patients. PureTech is focused on areas of growing scientific and technical insights that it believes are at an important inflection point, including the central nervous, gastro-intestinal and immune systems, and the interactions and signaling between them. PureTech has a pipeline of more than 30 programs and has approximately 20 clinical studies across its pipeline, targeting multi-billion dollar market opportunities. PureTech’s advanced programs include five with human proof-of-concept and multiple with pivotal or registration study readouts in the next two years. PureTech has over 220 patents and patent applications. PureTech's leading team and board, along with an advisory network of more than 60 expert founder-scientists and advisors across multiple disciplines, gives PureTech access to potentially ground-breaking science and technological innovation. With healthcare undergoing major transformation, PureTech believes it is well positioned to develop and launch medicines for the 21st century. For more information, visit www.puretechhealth.com and connect with us on Twitter.

Forward Looking Statement

This press release contains statements that are or may be forward-looking statements, including statements that relate to the company's future prospects, developments and strategies. The forwardlooking statements are based on current expectations and are subject to known and unknown risks and uncertainties that could cause actual results, performance and achievements to differ materially from current expectations, including, but not limited to, those risks and uncertainties described in the risk factors included in the regulatory filings for PureTech Health plc. These forward-looking statements are based on assumptions regarding the present and future business strategies of the company and the environment in which it will operate in the future. Each forward-looking statement speaks only as at the date of this press release. Except as required by law and regulatory requirements, neither the company nor any other party intends to update or revise these forward-looking statements, whether as a result of new information, future events or otherwise.