



## PureTech Health Collaborator Publishes in Journal Nature Regarding New Insights into Key Role of Brain Lymphatics in Alzheimer's and Other Neurodegenerative Diseases

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*Related intellectual property exclusively licensed to PureTech Health and being advanced as part of growing internal research and development division*

PureTech Health plc (LSE: PRTC) ("PureTech Health"), a clinical-stage biopharmaceutical company developing novel medicines for dysfunctions of the Brain-Immune-Gut (BIG), today notes the publication of foundational science in [Nature](#) which underlies its new internal programme focused on treating central nervous system (CNS) disorders via modulation of the brain's lymphatic system.

The approach is based on the work of Jonathan Kipnis, PhD, Harrison Distinguished Teaching Professor and Chair, Department of Neuroscience, and Director, Centre for Brain Immunology and Glia, at the University of Virginia School of Medicine. In 2015, Dr Kipnis published his original discovery of lymphatic vessels in the brain in [Nature](#). Building on that discovery, Dr Kipnis' latest publication reveals the potential role of these lymphatic vessels, including in Alzheimer's disease, Huntington's disease, and age-associated cognitive decline. The publication presents preclinical models that suggest modulation of lymphatic function in the brain may prevent or delay diseases associated with aging.

"Dr Kipnis' original work completely changed the way we view immune privilege in the brain – the unique biological properties that protect certain areas of the body from inflammatory immune responses," said Joseph Bolen, PhD, Chief Scientific Officer at PureTech Health. "This new discovery once again offers novel insights into the lymphatics' role in maintaining brain homeostasis and suggests that neurodegeneration may be tied to drainage issues in the brain. Because neurodegeneration is associated with so many devastating conditions, these findings provide us with a unique opportunity to develop treatments that address one of the world's highest global disease burdens."

PureTech Health has exclusively licensed this intellectual property from the University of Virginia (UVA) Licensing & Ventures Group and is developing it in collaboration with Dr Kipnis at UVA and as a part of PureTech's internal research and development division, which is focused on lymphatics and immune cell trafficking.

Dr Kipnis commented on this announcement, "Our work exploring the function of lymphatic vessels has shed light on novel therapeutic approaches that complement the lymphatics focus of PureTech's research and development work. I look forward to building on a great partnership with the team at PureTech Health to further advance these findings and translate them into first-in-class therapies that could fundamentally change the way we intervene in neurodegenerative disease."

PureTech's Internal division is advancing a pipeline fuelled by recent discoveries in lymphatics and immune cell trafficking to modulate disease in a tissue-specific manner. This division, which includes the CNS lymphatics technology, has generated compelling pre-clinical data and secured key intellectual property for its lymphatic and immune cell trafficking programmes.

### **About the CNS Lymphatics Technology**

The central nervous system (CNS) was previously thought to be devoid of lymphatic vasculature; however, research published in [Nature](#) in 2015 identified the meningeal lymphatic and glymphatic systems as key maintenance organs within the brain. The biological crosstalk at the CNS-immune interface has been further supported by evidence published in [Nature](#) in 2018, which demonstrated that modulation of lymphatic function in the brain may potentially prevent or delay diseases associated with neurodegeneration, including Alzheimer's disease, Huntington's disease, and age-associated cognitive decline. These insights underlie PureTech's approach to designing novel categories of therapeutics to address debilitating and devastating CNS disorders.

### **About PureTech Health**

PureTech Health (LSE: PRTC) is an advanced, clinical-stage biopharmaceutical company developing novel medicines for dysfunctions of the Brain-Immune-Gut (BIG). The Company has developed deep insight into the connection between these systems and the resulting role in many chronic diseases, which represent the majority of healthcare spend and have proven resistant to established therapeutic approaches. By harnessing this emerging field of human biology, PureTech Health has developed new categories of medicines with the potential to have great impact on people with serious diseases.

PureTech Health is advancing a rich pipeline of innovative therapies across two divisions. Its Affiliates division includes two product candidates that are preparing for potential regulatory approval in the United States and Europe and a number of clinical and pre-clinical programmes. These affiliates have developed ground-breaking platforms and therapeutic candidates in collaboration with some of the world's leading scientific experts.

PureTech's Internal division (Ariya) is advancing a pipeline fuelled by recent discoveries in lymphatics and immune cell trafficking to modulate disease in a tissue-specific manner. These programmes build on a new understanding of the transport and biodistribution of various immune system components in order to develop targeted therapies for diseases with major unmet needs including cancer and autoimmune and neuroimmune disorders. One of these programs, which is focused on the oral administration of nucleic acids and other biologics using milk exosomes, is being advanced in collaboration with Roche for the potential application across their antisense oligonucleotides platform.

For more information, visit [www.puretechhealth.com](http://www.puretechhealth.com) or connect with us on Twitter [@puretechh](https://twitter.com/puretechh).

### **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 forward-looking 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.