Prior to starting the fellowship at GBHI Wilby Williamson worked in a combined clinical academic role in sports and exercise medicine and cardiovascular medicine. In an outpatient clinical setting he treated patients presenting for management of hypertension and primary prevention of heart disease and stroke. In the hospital setting he helped patients with acute cognitive and physical rehabilitation following intensive care admissions with the focus on promoting physical activity. This work was completed at the John Radcliffe hospital part of the Oxford University Hospitals Trust. Wilby is a Clinical Research Fellow at the University of Oxford.

The Irish longitudinal Study on Ageing (TILDA) identified that 60% of Ireland’s over 50 population have hypertension. The population burden is likely to be higher with 1 in 5 young adults and 40% of 40 year olds in the hypertensive range. TILDA identified that the lowest rates of awareness and highest rates of uncontrolled blood pressure were in the under 64 years old population. Wilby believes that midlife prevalence of hypertension and poor control are major concerns, as they are the biggest risk factors for accelerated brain aging, cognitive decline and cerebrovascular events.

“Lifestyle choices and exposure to modifiable risk factors in early and mid-life, decades prior to disease onset, are some of the major determinants of future risk of stroke and dementia. To date, the discussion and focus on disease prevention and risk assessment for dementia has focused on the older adult. If we are to address the global burden of dementia and cognitive decline we need to embrace a life-course model of disease aetiology and learn how to deliver prevention strategies earlier. We also need to create flexible and adaptive models of primary prevention that can translate the current understanding of the benefits of a healthy lifestyle for future brain health. To drive innovation in dementia and cerebrovascular risk prevention we need multistage, parallel approaches to drive improvement in; prevention policy, public awareness, access to health care and personalized approaches for health promotion and chronic disease management. The focus of my research has been on understanding the impact of modifiable risk factors on heart-brain health in young adults using advances in
medical imaging to risk assess individuals and deliver personalized lifestyle interventions focusing on investigating the benefits of exercise and physical activity. The objective is to understand and quantify the burden of modifiable risk factors early in the life course but also demonstrate the potential benefits on brain health earlier than waiting for changes in cognitive health or clinical symptoms. Through the fellowship at GBHI I wish to learn how to engage public and professional audiences in the discussion about early promotion of heart-brain health. I also wish to develop the leadership and communication skills to influence stakeholders and drive investment and innovation to revolutionize research and clinical practice in heart-brain health.”

Bio: Wilby Williamson graduated in Medicine from the University of Nottingham in 2005 followed with an MSc (Distinction) in Sport and Exercise Medicine, from the University of Nottingham in 2007. Wilby then completed clinical rotations in internal medicine and acute critical care through University College Hospitals London before undertaking higher specialist clinical training in Sports and Exercise Medicine at Cambridge University Hospitals in 2010. He then moved to Oxford in 2012 to further his dual clinical academic training. In 2014 Wilby was awarded a Wellcome Trust Clinical Research Training Fellowship to undertake doctoral studies in Cardiovascular Medicine at the University of Oxford. Wilby completed higher specialist clinical training in Sports and Exercise Medicine in 2018.