Diabetes and Alzheimer's disease PhD Scholar at the University of Oxford

We are pleased to invite UK applications for a doctoral degree within the Oxford Dementias Platform UK group, at Department of Psychiatry of the University of Oxford. The 3-year doctoral degree will start in October 2022.

The focus of the research will be on exploring the contribution of central nervous system insulin resistance on cognitive outcomes in type 2 diabetes mellitus (T2DM). It will feature secondary data analysis and an experimental component. For the former, an analysis of 3 Dementias Platform UK population cohort datasets (UK Biobank, Memento, English Longitudinal Study of Ageing) will be conducted to investigate the effects of T2DM on cognitive functioning, Alzheimer's disease-specific biomarkers and neurodegeneration. The former will feature an MRI experiment whereby patients with T2DM will receive intranasal insulin to estimate central insulin resistance through their hypothalamic blood response to the insulin. The participants will be assessed for Alzheimer's disease biomarkers in blood and will be followed up in terms of cognitive function using a smartphone app.

The DPhil programme will be supervised by Dr Ivan Koychev and Dr Sarah Bauermeister who are clinician scientist and senior data analyst for Dementias Platform UK. Dementias Platform UK is an academia-industry collaboration led by the University of Oxford that provides a world-class repository and analysis environment for dementia-optimised cohort data. It gives access to high-quality, multi-modal data from more than 50 population and clinical cohort studies, comprising records for over 3.5 million people. Available data includes lifestyle information, cognitive test results, brain imaging, and genetics. The programme will also be supervised by Professor Amanda Adler, Professor of Diabetic Medicine and Director of the Oxford Diabetes Trials Unit. Founded in 1985, DTU conducts a range of T2DM trials ranging from proof-of-concept and proof-of-efficacy translational studies (Phase IIA/B), to large-scale Phase III/IV randomised clinical outcome trials of therapeutic interventions. The programme is co-funded by Dementias Platform UK industrial partner Five Lives which has developed a smartphone app to determine and track risk of future dementia in ageing adults.

The scholarship funds course fees, a tax-free stipend (currently £15,609 per annum), plus additional support for research expenses, conference attendance, and consumables. This is supported by the Dementias Platform UK grant and the Five Lives company.

Applicants should have at least an upper second-class honours degree in a field relevant to medical science. Interests should include dementia research, epidemiological data analyses and experimental medicine studies.

Applications should be sent with a CV and a covering letter to Tracy Lindsey at tracy.lindsey@psych.ox.ac.uk or via post to Tracy Lindsey, University Department of Psychiatry, Warneford Hospital, Headington, Oxford. OX3 7JX.

Deadline for submission of applications: Friday 22nd April 2022

Interview date: w/c 6th June 2022

Studentship Code: 22PSYCH02WEB