We are hiring!

Starting date: Autumn 2019   www.molecular-neuroimaging.com

Two-years postdoc
in machine learning and AI methods applied to PET and MRI neuroimaging

Two-years research assistant
for a software engineer or computer scientist in web-based application development

Join our Molecular Neuroimaging group at King's College London

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PROJECT OVERVIEW

Synopsis: Psychotic disorders affect 1 in every 100 people and are amongst the top causes of disease burden in working-age adults. Treating psychosis is possible but almost a third of patients show limited or no response to first-line antipsychotic treatments. **There is an urgent clinical need for a biomarker to identify non-responders early to guide treatment choice.** Several lines of evidence suggest that brain dopamine synthesis (as measured with FDOPA PET) represents a neurochemical basis to stratify psychosis and predict response to treatment.

Aim: This project aims to translate FDOPA PET imaging from experimental medicine into clinical practice by **developing an automated web-based analysis framework to**: i) **quantify abnormal dopamine synthesis from FDOPA PET imaging**, and ii) **implement a prediction model for treatment stratification in psychosis**.
The platform will include all relevant clinical variables and account for experimental variability and patient heterogeneity in the prediction.

Expected impact: Our vision is to deliver a mental healthcare technology that is cost-effective and informed by the underlying neurobiology. Incorporating molecular neuroimaging into diagnosis and treatment planning has the potential to become a radical breakthrough in management of the disease. By the end of the project, we aim to deliver a stand-alone product ready to be tested for large-scale clinical trials.

Location: The post-holders will be based at the Centre for Neuroimaging Sciences of King's College London. With more than 10,000 neuroimaging acquisitions per year, the centre is a vital part of the IoPPN mental health research program.

Resources: The project is sponsored by the Wellcome Trust Digital Innovation Award. Both positions come with an independent budget for travelling and IT equipment.