PROJECT DETAILS

Project Title:

Exploring potential genetic risk factors for adverse effects resulting from amyloid-targeting therapies for Alzheimer's disease

Project Summary: aims, significance, expected outcomes and potential research impact.

Research into Alzheimer's disease treatments has significantly progressed in recent years, with amyloid-targeting therapies reported to successfully clear Amyloid β and slow cognitive decline. With this comes an increased interest in managing any associated adverse events, the most common being Amyloid-Related Imaging Abnormalities (ARIA). This project will use bioinformatic tools to explore the effect of genetics on risk factors for ARIA, including, pre-existing microhemorrhages, small vessel disease, evidence of white matter hyperintensities, vascular conditions and neuroinflammation, all identified using neuroimaging techniques. Identifying the genetic factors associated with these conditions will assist in the development of risk stratification profiles for ARIA.

Preferred applicant skill set, describe the capabilities of the HDR applicant:

Applicants should have a high level of achievement, including an Honours or Masters by Research degree, and experience in bioinformatics and/or genetics. In addition, those with the following skills will be ideal for the project described. General understanding of research methods, and experience in projects focusing on data analysis. Knowledge of R-programming or similar statistical software, and familiarity with genetic analyses, including using software such as PLINK. Lastly, ability to evidence communication, teamwork and organisational skills will be highly meritorious.

Internship opportunity:

Currently exploring the potential for an internship opportunity for the student with an international pharmaceutical company (Eli Lily), with whom we have submitted a grant proposal for additional funding for this project. Our industry partners are escalating this through their legal team to determine if they would be able to join the supervisory team for this project.

Contact person for the project:

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