

MRC Centre for Neuropsychiatric Genetics and Genomics

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Title of project or programme

MRC Centre for Neuropsychiatric Genetics and Genomics

Principal Investigators of project/programme grant

Title	Forname	Surname	Institution	Country
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Address of institution of lead PI

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Country

- United Kingdom

Source of funding information

Medical Research Council

Total sum awarded (Euro)

3253685.72

Start date of award

03-08-2009

Total duration of award in months

60

The project/programme is most relevant to

- Alzheimer's disease and other dementias
- Parkinson's disease
- Huntington's disease

Keywords

Research abstract in English

The overarching mission of the proposed Centre will be to use genetics and genomics to inform our

understanding of the aetiology, pathogenesis and classification of the major psychiatric and neurodegenerative disorders, and to train a cadre of clinical and non-clinical scientists capable of delivering the discovery and translational agenda.

Research will focus upon common psychiatric and neurodegenerative disorders. It will be organised around 5 major themes.

1. Psychosis and Major Affective Disorders- schizophrenia, bipolar and unipolar mood disorders;
2. Neurodegenerative Disorders- Alzheimer's disease, Huntington's disease, Progressive Supranuclear Palsy, Parkinson's Disease;
3. Developmental Disorders- dyslexia, ADHD, childhood depression, pre-natal environmental influences on behaviour;
4. Genetic Mouse Models- genetics of impulsive behaviours, familial dementias (Alzheimer's Disease, FTDP-17), sex chromosome effects on behaviour, genomic imprinting, behavioural epigenetics;
5. Biostatistics and Bioinformatics- this supports research in the above areas. This will be consolidated and developed, particularly in regard to bioinformatics, by institutional and MRC support if Centre status is awarded.

Our objectives over the next five years are to deploy the new opportunities afforded by technological advances and large sample sizes to identify new risk genes for psychiatric disorders and to explore the impact of specific genes across diagnostic boundaries and in relation to specific symptoms and dimensions. While much of the Centre's work will remain focused on the identification of risk genes, we envisage an increasing emphasis on translational work over the next 5 years. The latter will be built upon a number of existing projects as well as several new strategic appointments and collaborations.

We request funding in order to: 1) enhance our training capability in particular by establishing a 4 year Centre PhD programme, 2) establish a new senior post in Bioinformatics at Lecturer/Senior Lecturer level in order to enhance our ability to compete in a very data rich environment, and to deliver the added value arising from our synergistic research programmes as well as to our training agenda, 3) establish an innovative public engagement and communications strategy in order to bring the results of our research closer to the patient and to application, 4) develop collaborations allowing us to explore the factors that mediate the effects of risk genes on clinical phenotypes in longitudinal, population-based cohorts.

Lay Summary