

# MRC Centre for Neuropsychiatric Genetics and Genomics

<https://neurodegenerationresearch.eu/survey/mrc-centre-for-neuropsychiatric-genetics-and-genomics-2/>

## Principal Investigators

Professor Sir MJ Owen

## Institution

Cardiff University

## Contact information of lead PI

### Country

United Kingdom

## Title of project or programme

MRC Centre for Neuropsychiatric Genetics and Genomics

## Source of funding information

MRC

## Total sum awarded (Euro)

€ 2,395,297

## Start date of award

25/11/2014

## Total duration of award in years

5.0

## The project/programme is most relevant to:

Alzheimer's disease & other dementias|Parkinson's disease & PD-related disorders|Neurodegenerative disease in general

## Keywords

### Research Abstract

We have established a Centre of Excellence in psychiatric genetics, focusing on psychiatric and neurodegenerative disorders such as schizophrenia, bipolar disorder, depression, ADHD, Alzheimer disease and Parkinson disease. Over the next 5 years we will retain a strong focus on gene discovery in order to deliver further important insights into disease pathogenesis. We

will do this through our clinical, genetic and statistical expertise, our access to suitable patient cohorts, and our proven ability to participate in and provide leadership in large consortia. We will also continue to benefit from our structure of overlapping disease themes supported by a strong genomics, statistical and bioinformatics core. There will be an increasing focus on identifying rare mutations by NGS, and on understanding the significance of genetic findings for risk mechanisms, which will require integration with data from a variety of sources. Moreover, we are now well placed to use genetic findings to obtain greater understanding of pathogenic mechanisms, improve classification, identify biomarkers to aid prediction and intervention and identify novel treatment targets. Broadly speaking this work will take place in two settings. First we will explore the factors that mediate the effects of risk alleles on clinical phenotypes in longitudinal, population-based cohorts and identify biomarkers and modifiable markers of risk through integration of data from other risk factors, gene expression and epigenomics. Second, we will study the impact of risk alleles at molecular, cellular and systems levels through our imaging and cellular/animal models themes. Work in these areas will benefit from our access to patients carrying specific rare, high-penetrance mutations and has been greatly strengthened by our central participation in the Cardiff University Neuroscience and Mental Health Research Institute with which we will be co-located in the new Hadyn Ellis building.

### **Lay Summary**

**Further information available at:**

#### **Types:**

Investments > €500k

#### **Member States:**

United Kingdom

#### **Diseases:**

Alzheimer's disease & other dementias, Neurodegenerative disease in general, Parkinson's disease & PD-related disorders

#### **Years:**

2016

#### **Database Categories:**

N/A

#### **Database Tags:**

N/A