

Daniel J Smith

Chair of Psychiatry and Head of the Division of Psychiatry, University of Edinburgh. Honorary Consultant Psychiatrist, NHS Lothian. Email: d.smith@ed.ac.uk

Summary:

I have conducted work on the classification, genetic epidemiology and treatment of bipolar disorder. I have also been active in data science approaches and in work to understand the complex interface between major mental illness and cardiometabolic disease. My current research is focused in two main areas: circadian neuroscience and metabolic psychiatry. I lead the interdisciplinary MRC-funded UK Circadian Mental Health Network and I am PI for two major Wellcome Trust programme grants on bipolar disorder, called AMBIENT-BD and HELIOS-BD. I also co-lead a new Wellcome Discretionary Award called ENERGISE-BD: *"Evaluating Nutritional Ketosis versus NHS EatWell Guidelines for Bipolar Depression: Randomised Controlled Trial."* I also lead the interdisciplinary MRC Hub for Metabolic Psychiatry (2024-2029), part of the UKRI Mental Health Platform, and I am part of several global research collaborations, including the Psychiatric Genomics Consortium and the Consortium for Lithium Genomics. I am Co-Director of the Chronobiology Task Force of the International Society for Bipolar Disorder.

Education and Qualifications:

- 1994 BSc (Hons) Biochemistry, University of Edinburgh
- 1996 MB ChB, Bachelor of Medicine and Surgery, University of Edinburgh
- 2002 MRCPsych, Member of the Royal College of Psychiatrists, UK
- 2006 MSc Affective Neuroscience, Maastricht University
Dissertation: *"Personality dimensions as endophenotypes for major depression."*
- 2006 MD, Doctor of Medicine, University of Edinburgh
Thesis: *"A clinical and neurocognitive study of recurrent depression and bipolar spectrum disorder in young adults."*
- 2006 CCT Completion of Certificate in Clinical Training in Psychiatry
- 2013 FRCPsych Fellow of the Royal College of Psychiatrists

Employment:

- 2021 - Chair of Psychiatry and Head, Division of Psychiatry, University of Edinburgh
- 2014-2021 Professor of Psychiatry, University of Glasgow
- 2012-2014 Reader in Psychiatry, University of Glasgow
- 2010-2012 Senior Lecturer/Honorary Consultant Psychiatrist, Cardiff University
- 2007-2010 NIHR Postdoctoral Fellow and Senior Lecturer, Cardiff University

Awards and prizes:

- The Saltire Society, Fletcher of Saltoun Award for Science, 2025
- Lister Institute Prize Fellowship, 2016
- BMJ Innovation Team Award, 2014
- Brain and Behaviour Research Foundation Independent Investigator Award, 2014
- National Institute of Health Research (NIHR) Postdoctoral Fellowship, 2007
- NARSAD Young Investigator Award, 2007 and 2009
- American Psychiatric Association Young Minds in Psychiatry Award, 2007

Current Research Funding:

Wellcome Trust Discretionary Award (2026-2031) ENERGISE-BD: Evaluating Nutritional Ketosis versus NHS EatWell Guidelines for Bipolar Depression: Single Blind Phase III Randomised Controlled Trial. PIs D Smith and R Reynolds. Value £8m.

UKRI/MRC (2024-2029) Hub for Metabolic Psychiatry. PI D Smith with multiple co-investigators. Value £4m.

Wellcome Trust (2023-2028) Ambient and passive collection of sleep and circadian rhythm data in bipolar disorder to understand symptom trajectories and clinical outcomes (AMBIENT-BD). PI D Smith, Co-Is A Millar, T Tsanas, R Riha. Value £3m.

Wellcome Trust (2023-2028) Lithium's mechanism in bipolar disorder: investigating the light hypersensitivity hypothesis (HELIOS-BD). PI D Smith, Co-Is: B Dhillon, R Riha, I Campbell, J Martinovic. Value: £3.5m.

Previous Research Funding (selected):

Baszucki Brain Research Fund. Pilot study to assess the effectiveness of the ketogenic diet on the symptoms of bipolar disorder (2021-2023). Co-PIs DJ Smith, H Campbell and I Campbell. Value \$320k.

MRC Mental Health Data Platform "DATAMIND" (2021-2023). PIs John and Stewart plus 10 UK co-investigators, including Smith DJ. Value £2m.

MRC Mental Health Data Pathfinder Award (2018-2020). PI: DJ Smith, Co-applicants: J Pell, L Moore, SA Cooper, C McCowan. Value: £1m.

MRC Adolescent Mental Health Engagement Award (2020-2021). PI: DJ Smith, Co-applicants: M von Schantz, A Gregory, C Wyse, B Cullen, J Inchley, L Lyall, H Sibley, S Chan, S Simpson. "Sleep, circadian rhythms and mental health in schools (SCRAMS)". Value: £100,000.

Lister Institute Research Prize Fellowship (2016-2021). "Investigating the overlap between bipolar disorder and hypertension to identify repurposed medications for bipolar disorder." PI: DJ Smith. Value £200,000.

Chief Scientist Office Scotland Translational Clinical Studies funding (2016-2018).

“Antihypertensives as repurposed treatments for mood disorders: Scottish national linkage and UK Biobank investigation.” PI: DJ Smith, co-applicants: J Pell, D Mackay, S Padmanabhan. Value £250,898.

Brain and Behaviour Research Foundation (NARSAD). Independent Investigator Award 2014-17.

“Genome-wide association studies of depression and cardiometabolic disease.” PI: DJ Smith, Value: \$100,000.

National Institute of Health Research (Department of Health) Personal Award Scheme:

Postdoctoral Fellowship: ‘Improving outcomes in major depression: focus on bipolarity’. 2007-2010, PI: D.J. Smith, Co-applicant: N. Craddock. Value: £434,047

MRC/Welsh Assembly Government Research Partnership Award: ‘Unrecognised bipolar spectrum disorders in primary care patients with depression’. 2008-2010, PI: D.J. Smith, Co-applicant: N. Craddock. Value: £121,909.

Leadership and Advisory Roles

- Head of Division of Psychiatry, University of
- UKRI Future Leaders Fellows panel member (2026)
- MRC Neurosciences and Mental Health Board (2021-2024)
- MRC Population Health Sciences Group (2022-2024)
- Medical Research Foundation Review Panel for Launchpad Grants in Mental Health (2023)
- Co-Director, Chronobiology Task Force of the International Society for Bipolar Disorders (ISBD)
- Medical Advisor for Bipolar Scotland
- Bipolar UK Clinical Advisory Panel
- Chair of the Trial Steering Committee for RCT of Cognitive Remediation in Bipolar Disorder (CRiB2)
- Mental Health Research, Development & Innovation Leadership Group, The Scottish Government

Doctoral Supervision

Current PhD students:

Duncan Swiffen (PhD): Understanding how sleep, circadian and metabolic factors impact on clinical and functional outcomes in bipolar disorder. Clinical Research Training Fellowship funded by AMBIENT-BD

Christina Steyn (PhD): Metabolism and major mental illness through a circadian lens. Wellcome Trust Translational Neuroscience Doctoral Training Programme.

Nicole Needham (PhD): Circadian rhythms and light sensitivity in bipolar disorder. Clinical Research Training Fellowship funded by HELIOS-BD

Matthew Whelan (PhD): Artificial intelligence approaches to using sleep and circadian data in mental illness. AI in Biomedicine Doctoral Training Programme.

Morven Baker (MD, part-time): Investigating metabolic interventions in severe mental illness. Funded by Wellcome ENERGISE-BD grant.

Previous PhD students:

Reesha Zahir (PhD): Investigating the mechanisms underlying sleep problems and mental ill health in autistic children and adolescents. Wellcome Translational Neuroscience Doctoral Training Programme. Co-supervisor.

Charlotte Greene (PhD): Antidepressant and antipsychotic drug use and microvascular morbidity, cardiovascular morbidity, and all-cause and cause-specific mortality in mental illness comorbid with diabetes (MRC Precision Medicine Doctoral Training Programme Studentship, co-supervisor).

Natasha Sanghu (PhD): Integrating circadian, genomic and imaging data to understand mood disorders. MRC Precision Medicine Doctoral Training Programme Studentship. Passed 2024

XingXing Chen (PhD): Imaging genomics of physical and mental health comorbidity. Chinese Government PhD Scholarship. Passed 2023.

Joey Ward (PhD) Genomic Investigations of Psychiatric Conditions via Research Domain Criteria Traits (main supervisor). Passed 2021.

Nick Graham (PhD): The genetic interface between mood and cardiometabolic disorders (Aitchison Family Fellowship, 2015-2019, main supervisor).

Natalie Chalmers (PhD): Developing a lifestyle intervention for adults with bipolar disorder (MRC SPHSU PhD Studentship, 2015-2019, co-supervisor).

Keira Johnson (PhD): Genetic epidemiology of chronic pain and major depression (MRC Precision Medicine Doctoral Training Programme Studentship, 2018-2021, co-supervisor).

Karl Ferguson (PhD): Diagram based analysis of Causal Systems for understanding the causes of alcohol problems (MRC Doctoral Training Programme PhD Studentship, 2015-2019, co-supervisor).

Sumit Mistry (PhD): Polygenic profile scores and features of bipolar disorder (MHRUK PhD Studentship, 2015-2019, co-supervisor with Prof S Zammit at Cardiff University).

Amy Ferguson (PhD): Identification of novel endophenotypes for bipolar disorder using genetic risk score analysis (MRC Doctoral Training Programme PhD Studentship). Passed 2019.

Moirra Hansen (PhD): "Melancholy and low spirits are half my disease": Physical and mental health in the life and works of Robert Burns (Lord Kelvin Adam Smith Interdisciplinary Studentship). Passed 2019.

Breda Cullen (PhD): Cognitive outcomes in people with behavioural and brain disorders within UK Biobank (Chief Scientist Office Research Training Fellowship, 2014-2017, co-supervisor). Passed 2018.

Daniel Martin (MD): Investigating the causes and outcomes of cardiometabolic diseases in bipolar affective disorder. Passed 2018.