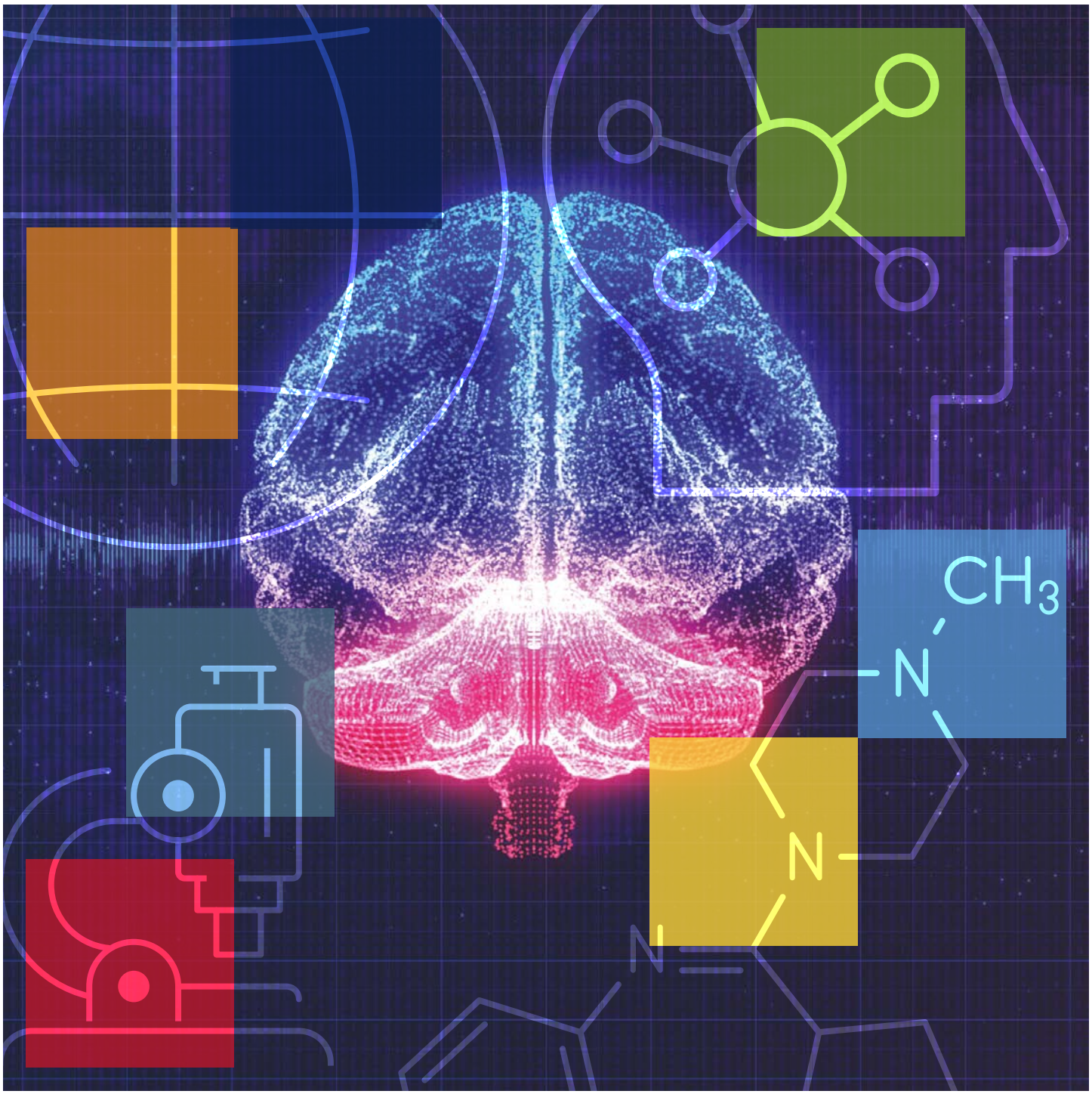
Department of Psychiatry

UNIVERSITY OF OXFORD

Department of Psychiatry – **Annual Report 2019-2020**



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Welcome

The **Department of Psychiatry** conducts world-class research, teaches psychiatry to medical students, develops future researchers in a graduate programme, teaches doctors in training, promotes excellence in clinical practice, and develops and provides innovative clinical services.

From Head of Department

"The Department continually develops the capacity, infrastructure and collaborations that we need to exploit major advances in scientific knowledge and to translate these into benefits for patients."

1 Aerial view of Warneford site

We celebrated the Department of Psychiatry's 50th year in March 2019, welcoming old and new colleagues and friends to a full two-day event which showcased the groundbreaking research that has been taking place at Oxford over the past five decades.

It was with heavy hearts that we began the event with remembrance of the late Professor Michael Gelder who founded the Department in 1969 and led it until his retirement in 1996. Michael clearly set the course for the Department's research on delivering advances for patients, through innovation in all forms and modalities of prevention and treatment, which we maintain today.

The Department continually develops the capacity, infrastructure and collaborations that we need to exploit major advances in scientific knowledge and to translate these into benefits for patients. While neuroscience is our core scientific discipline, clinical research needs to exploit the full range of biomedical advance and indeed further across the physical and social sciences and into humanities. There is surely no better place than Oxford to conduct such collaborative, interdisciplinary work and Psychiatry is now working across all four University academic divisions, and with Gardens, Libraries and Museums and Continuing Education. In addition to generating innovative research, these collaborations provide rich opportunities for increasing the involvement of patients and the public in our work. Our experience and continued research also demonstrates the clear benefits of industry involvement and collaboration.

The University and Oxford Health NHS Foundation Trust are working on plans to develop the Warneford site as a major centre for translational neuroscience, with new research and clinical facilities. The shared aspiration is to create a unique campus on the Warneford site, integrated with the rest of the Headington clinical academic campus and with strong links to the local community.

I would like to thank everyone working in the Department, our funders, and those who have and continue to collaborate with us, for your support, commitment and excellent work in driving forward discovery, understanding and treatments for mental health conditions.

Professor John Geddes

The Department of Psychiatry Team

© Vivacious Mel Photography, 2019

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#OxPsych50 hashtag. Evaluation shows more than 600 people engaged online with over 2,600 tweets linked to the event and 36 million Twitter impressions were recorded.

© Vivacious Mel Photography, 2019

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The 50th Anniversary event was focused around four main areas of research including psychological treatments, epidemiology and data science, experimental medicine and neuroscience, psychiatry and Oxford medicine.

Celebrating successes, the winners of the Department's Award for Public Engagement with Science Communications were announced, Dr **Jessica Scaife** and Dr **Amy Gillespie**. Professor Emeritus of Psychiatry **Chris Fairburn**, Professor Emeritus of Psychiatry **Guy Goodwin** and Professor of Psychiatry **Keith Hawton** were honoured during presentations. For the first time the Department live streamed the event with the #OxPsych50 hashtag. Evaluation shows more than 600 people engaged online with over 2,600 tweets linked to the event and 36 million Twitter impressions were recorded.

"I have never before experienced so much support and interest in mental health research. It's a terrific time to be active and we really need to make it count for all people who suffer from these devastating illnesses."
Professor John Geddes.

Developing our people is an important part of what we do in the Department. Having received the silver **Athena SWAN** award for the second time, we're working hard and looking forward to trying for the gold award in the future. This year has seen the appointment of a Professor of Developmental Clinical Psychology, **Cathy Creswell**, working across the Department of Psychiatry and the Department of Experimental Psychology.

Professor Creswell is leading research and development for the future of psychological therapies for children and young people with anxiety disorders. Since starting work in Oxford she has been working with Oxford Health NHS Foundation Trust to launch an NIHR Programme Grant to improve identification of childhood anxiety problems and create a seamless pathway to effective and efficient support, **www.i-cats.co.uk**. Professor Creswell also leads the **UKRI Emerging Minds Network Plus** which aims to facilitate research that has the potential to reduce the prevalence of mental health problems in children and young people, and is co-lead with Professor Andrea Cipriani of the **NIHR Applied Research Collaboration Oxford and Thames Valley** – Mental health across the life course.

We are proud to have announced a new Professorship in Mindfulness and Psychological Science this year with a generous gift from The Sir John Ritblat Family Foundation. The post is held by the Director of the **Oxford Mindfulness Centre**, Professor **Willem Kuyken**.

1 Department of Psychiatry team photo at the 50th Anniversary event

2 Prof J Geddes with the Winners of the 2018 Department Award for Public Engagement and Science Communications, Dr J Scaife and Dr A Gillespie.

3 Athena SWAN logo

4 Oxford Mindfulness Centre logo

Industry Activity

1

"Akrivia Health presents a real opportunity for accelerating and translating new discovery medicine, including prevention and treatment, into better health outcomes."
Mike Denis, CEO

True Colours

2

Commercial spinouts from the Department in 2018–2019 attracted major external investment.

The National Institute for Health Research (NIHR) Invention for Innovation (i4i) Programme supports the preclinical and clinical development of medical devices in areas of existing or emerging patient need. Professor **Daniel Freeman's** project was awarded £4 million in 2018 to enable state-of-the-art psychological therapy to be delivered via virtual reality (VR) in the NHS. It is also supported by the NIHR Oxford Health Biomedical Research Centre (BRC). The project brings together a team of NHS Trusts, universities, a mental health charity, the Royal College of Art and a University of Oxford spinout company. His team's research in virtual reality has led to **gameChange, the largest ever clinical trial of virtual reality for a mental health disorder.** Automated delivery of therapy using VR has the potential to transform NHS provision of psychological therapy.

True Colours is a remote monitoring system, which allows patients to record and monitor their feelings and symptoms, using text, email and the internet. While the system has been used for over a decade in patients attending local clinics, a newly formed strategic group within the Department is developing further infrastructure so the system can be implemented at a larger scale across the NHS.

Akrivia Health is a new Oxford spinout enterprise, formed in May 2019. It seeks to accelerate evidence-based innovation for treatments and services in mental health and dementia. Developed as a sustainable way to accelerate the UK CRIS programme, Akrivia Health operates a managed service for secure access to one of the world's largest repositories of de-identified patient data relating to mental health and dementia conditions. Mike Denis, CEO, said, "Akrivia Health presents a real opportunity for accelerating and translating new discovery medicine, including prevention and treatment, into better health outcomes."

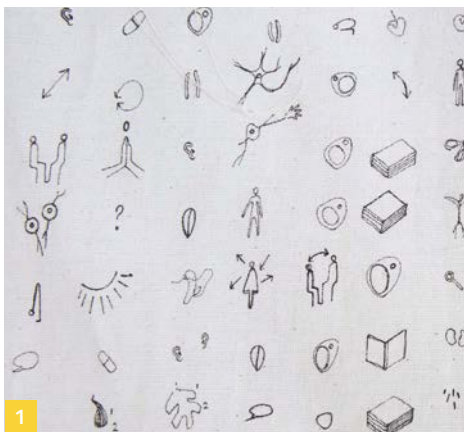
1 © gameChange, University of Oxford

2 True Colours logo

Public Engagement with Research

Switching Perceptions is an exhibition of artwork and concepts which were created in collaboration with people experiencing psychosis.

The project won a Vice-Chancellor's Public Engagement Award – engaging through art in psychiatric illnesses. Associate Professor **Liz Tunbridge** and artist Eleanor Minney worked together on the project, conducting a series of workshops with people experiencing psychosis, in collaboration with the National Psychosis Unit. Their work was recognised in the Projects Awards category for activities that have engaged in public dialogue and consultation. **"Psychiatric genetics has a murky history and mental health conditions remain associated with stigma and misunderstanding. Our project aims to promote dialogue with those affected by psychosis to give a voice to this largely neglected group,"** said Professor Tunbridge.



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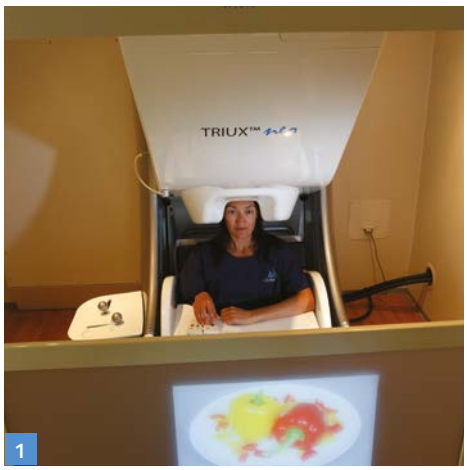
1 © From Segment of aself, artwork Eleanor Minney, 2018

Research Impact

Taken together, DPUK collaborates with over 280 researchers engaged in more than 100 studies involving 59 institutions from 14 countries.



1 © MEG scanner, OHBA, University of Oxford

A major study comparing 21 commonly used antidepressants for the short-term treatment of depression was published in The Lancet in early 2018.

Professor **Andrea Cipriani** led the network meta-analysis of 522 trials which included 116,477 participants. This study showed that antidepressants are an effective and acceptable tool to treat adults with moderate-to-severe major depression. Their effectiveness is on average modest, but antidepressants are not all created equal. This information is needed to guide the shared decision making process between patients, carers and clinicians. Gaining worldwide coverage, the study represents the best currently available evidence base to guide the choice of pharmacological treatment for adults with acute depression. These findings also materially helped to fight stigma about depression in mass media. The hashtag #medsworkedforme was begun on the back of an article about the study's findings in **The Guardian**.

In October 2019 we completed the installation of the new TRIUX™ neo, a next-generation magnetoencephalography scanner (MEG) at the Oxford Centre for Human Brain Activity (OHBA). The 'neo' joins OHBA's armamentarium for studying the human brain as a highly sensitive non-invasive method for recording brain activity with millisecond resolution.

"MEG can transform translational human neuroscience. Its sensitivity to synaptic activity can reveal specific deficits in the activity patterns and communication within human brain networks related to different neurodegenerative and neuropsychiatric conditions," said Professor **Kia Nobre**, Director of OHBA.

In hosting the **Dementias Platform UK** (DPUK), the Department acts as a catalyst for dementia research throughout the UK and beyond. The DPUK public-private-partnership model brings together 11 academic and nine industry partners to provide a strong pre-competitive environment for a programme of innovative dementia-focused clinical studies. DPUK's world-leading Data Portal enables rapid data access to 35 research cohorts representing around 3 million participants and supports national networks for structural and molecular brain imaging, bio-informatics, and induced pluripotent stem cells. Taken together, DPUK collaborates with over 280 researchers engaged in more than 100 studies involving 59 institutions from 14 countries. This year DPUK launched the datathon programme where early career researchers, supported by expert analysts, work in teams to analyse cohort data over an intense three-day period. This provides experience in handling complex multi-modal data and creates opportunities for their first publications. Internationally DPUK facilitates an alliance of dementia data platforms extending from the US and Canada through continental Europe through to South Korea in East Asia.

Global Impact

© UK Department of Health and Social Care

1 Young People's Campaign for the Lancet Commission.

2 Young Leaders for the Lancet Commission on Global Mental Health and Sustainable Development.

Professor Alan Stein and his team are leading a series of major initiatives in Global Mental Health to develop sustainable psychological interventions in low and middle income countries (LMICs).

- Large randomised trial in rural South Africa using a combined intervention to both treat depression and enhance early child development in pregnant mothers who are depressed and HIV positive (Joint Global Health Trials: MRC/Wellcome/DFID).
- Driving a digital initiative to treat adolescent depression on the South African/Mozambique border, and Uganda.
- Large adolescent follow-up study indicating that adolescents with HIV are at increased risk of depression, and that depression itself increases the risk of HIV incidence.
- Multi-country (Guatemala, Philippines, Brazil and South Africa) project to identify the early childhood and adolescent antecedents of adult cognitive function and mental health, especially in the context of adversity (The Bill and Melinda Gates Foundation).
- Partner in a £20 million UKRI GCRF Accelerating Achievement for Africa's Adolescents Hub aiming to significantly improve the health and life prospects of a generation of Africa's youth.
- Large international consortium awarded an ESRC Global Challenges Research Fund grant to elucidate a range of critical factors in the early years of children's lives that predict school educational outcomes. Across 137 LMICs in collaboration with UNICEF, WHO and the World Bank.

Professor **Charles Newton** and Associate Professor **Arjune Sen** have been awarded a £4.9 million NIHR Research and Innovation in Global Health Transformation grant, to conduct studies on epilepsy in sub-Saharan Africa. They plan to work with colleagues in Ghana, Kenya and Tanzania to:

- Better understand the history of epilepsy, investigate why people with epilepsy are so disadvantaged, and then set out to improve the situation.
- Prevent epilepsy in southern Tanzania.
- Develop an app to help healthcare workers to better diagnose epilepsy, especially non-convulsive epilepsy, allowing earlier treatment.
- Determine if text messaging can increase the number of people who take their medication correctly.
- Train primary care staff in the care of people with epilepsy.
- Develop students and other people to lead future projects in epilepsy.

This project could dramatically change the lives of people with epilepsy in sub-Saharan Africa and the results will be shared with international organisations, such as the International League Against Epilepsy and the WHO.

The Young People's Campaign for the Lancet Commission on Global Mental Health and Sustainable Development was launched at the Global Mental Health Ministerial Summit in October 2018. The event brought together policymakers from around the world to discuss the strategy for encouraging progress and equality in global mental health. Professor **Ilina Singh**, a Commissioner at the Summit, said, "This is an exceptional campaign for young people to help support mental health. I'm really proud of the work my team has done in researching and promoting this important issue, helping to highlight both ways to prevent and the treatments available for mental health disorders." The Lancet Global Young Leaders represent 15 countries from around the world, including the US, UK, South Africa, Rwanda, Kenya and India. Since its launch the campaign has engaged hundreds of thousands of young people online with the hashtag #mymindourhumanity.

NIHR Oxford Health BRC

The NIHR Oxford Health Biomedical Research Centre, a partnership between Oxford Health NHS Foundation Trust and the University of Oxford, is now mid-way through its development.

With the aim of transforming discovery science into new treatments which will deliver personalised, precision care, the BRC is harnessing digital and new technologies to ensure solutions can have a global reach.

The BRC has supported 156 studies in its second year and the submission of 23 approved grants to further its work. It has also continued to support initiatives within the **NIHR Oxford Cognitive Health Clinical Research Facility** including the development of Treatment Resistant Depression (TRD) clinics to increase opportunities for patients to become involved in translational research.

The new **Brain Health Centre** will open next year. Its role will be to integrate research into clinical services and improve the diagnosis, management and care of patients with mental health disorders.

There are six themes in the BRC: Adult Mental Health, Older Adults and Dementia, Precision Psychological Treatments, Clinical Research Infrastructure and Neuroimaging, Cognitive Neuroscience, and Informatics and Digital Health. The MRC Pathfinder grant broadened the scope of the Informatics and Digital Health theme to make better use of mental health data from both adults and adolescents. Foundation work is underway to develop a platform for psychological therapies. An internet-based clinical decision making tool to help doctors and patients choose the best antidepressant for them is also being developed. The project is called PETRUSHKA. Using advanced statistical and machine learning approaches to analyse datasets from randomised and observational studies about efficacy, acceptability and tolerability of antidepressants, and incorporating patients' preferences, it will be possible to tailor the choice of medication to the specific needs of each individual in routine clinical care.

Teaching

Oxford Medical School has been voted the world's best institution for medical and health teaching and research for the ninth consecutive year (Times Higher Education) and training the next generation of psychiatrists forms a central part of our Department's activity.

We **teach medical students** at all stages of their training and our Year 5 course in clinical psychiatry is one of the highest rated courses across the medical school. This is reflected in the continued high rates of recruitment into core training in psychiatry. Members of the Department also contribute to teaching in Biomedical Sciences, Experimental Psychology and the MSc in International Health and Tropical Medicine.

At postgraduate level we run the Oxford Postgraduate Psychiatry Course which provides a stimulating and thorough grounding in the basic and clinical sciences relevant to psychiatry and prepares candidates for the MRCPsych examinations. In collaboration with the Oxford University Clinical Academic Graduate School we support a number of academic foundation doctors and Academic Clinical Fellows.

In October 2019 we launched our new one year taught **MSc course in Clinical and Therapeutic Neuroscience.** The aim of the course is to provide graduate students with the knowledge and necessary skills in advanced technologies so that they can then conceptualise and run research projects which will develop and test novel treatments for brain disorders. We have 23 students learning through lectures, tutorials and research projects on the neurobiology/pathology of mental and neurological disorders, diagnostic and therapeutic strategies, state-of-the-art approaches to design/screen, as well as ways to develop and initially test new agents and interventions, clinical trials and digital health.

Our year in figures

Research

£64m
Total grant value

£12.1m
Research spend

44
Funding bodies

452
Research publications and outputs

134
Research grants

100+
Public engagement with research activities undertaken

Staff

238
Staff

28
Staff nationalities

161
Research staff

77
Professional and Support staff

22
Professors

8
Associate Professors

35
Principal Investigators

32
Honorary Senior Clinical Lecturers

90
DPhil/MSc Students

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