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GATSBY

Neuroscience Spring Conference 2020: Translating Neuroscience Knowledge to Clinical Practice

Friday 13 March 2020
RCPsych, London

General Information

Certificates

Certificates of attendance will be emailed to delegates after the conference. Please check your junk inbox as the email will come from noreply@rcpsych.ac.uk. Please add this to your safe sender list.

Accreditation

This conference is eligible for 6 CPD hours, subject to peer group approval.

Sessions

All sessions will take place on the first floor.

Registration desk

The registration desk will be located in the reception area on the ground floor.

Feedback

A detailed online feedback form can be found at **https://www.surveymonkey.co.uk/r/NEUROSPRN20**

All comments received remain confidential and are viewed in an effort to improve future meetings.

If you wish to tweet about the conference use @RCPsych and #GWNeuro.

Lunch and refreshment breaks

Lunch and refreshment breaks will be served in the members area on the ground floor.

Queries

Please come to the conference registration desk on the ground floor if you require any assistance.

Cloakroom

The cloakroom can be found on the first floor, on the left near the entrance to Room 1.1.

Multi-faith room

This is located on the lower ground floor. Please ask a member of staff for access.

Fire exit

There is no scheduled fire alarm test for today. If the alarm sounds, please take the stairs to reception and out through the front doors (where you came in this morning). Then turn left and the assembly point is on the corner of Prescot Street and Chamber Street. There's an alternative exit at the back of the building. Diagrams can be seen on the fire route plans around the room.

Wifi

Network: RCPsych-Wifi

Password: RCP19@w1f1

Speaker presentations

Delegates will be emailed a weblink for the conference evaluation feedback form and speaker presentations (where permission has been given) after the meeting.

Exhibitors

An exhibition is available throughout the conference in member’s area, ground floor. The Royal College of Psychiatrists would like to thank the following for their valuable support of this conference:

- Cambridge University Press
- British Neuroscience Association

The presence of an exhibitor is not an endorsement of its products and exhibitors do not influence the content of the meeting.

Presentation Abstracts and Biographies

Welcome and closing remarks

Professor Wendy Burn BM, MMedSc, FRCPsych

Professor Wendy Burn was appointed as a Consultant Old Age Psychiatrist in Leeds in 1990 and currently works part-time in a community post. She set up the Yorkshire School of Psychiatry and was the first Head of School in 2007. She became President of the Royal College of Psychiatrists in June 2017 and demits office in July. She is the co-chair of the Gatsby / Wellcome Neuroscience Project, running from 2016 – 2021 and working to transform psychiatric training in the UK. RCPsych with the Gatsby Charitable Foundation and Wellcome Trust are bringing modern neuroscience into the MRCPsych and supporting the teaching and educational experience of neuroscience for trainees across the country.

Motherhood and Madness: understanding postpartum psychosis

Professor Ian Jones, Cardiff University

Ian Jones is Professor of Psychiatry and Honorary Consultant Perinatal Psychiatrist at Cardiff University. He is Director of the National Centre for Mental Health (NCMH.info) and with colleagues leads the Bipolar Disorder Research Network (BDRN.org). NCMH has recruited over 20,000 people with mental health problems to its research cohort and BDRN has involved over 7,000 people with bipolar disorder from around the UK in research. He leads the Cardiff University Psychiatry Service (CUPS) and a clinical service offering pre-conception counselling to women with severe mental illness. He is Director of BEP-C, a group psychoeducation programme for bipolar disorder. He is a Trustee of The Maternal Mental Health Alliance (maternalmentalhealthalliance.org) and a Trustee and Scientific Advisor to Action on Postpartum Psychosis (app-network.org). His research focuses on bipolar disorder and postpartum psychosis. He has authored or co-authored over 300 publications and book chapters. He has been awarded the Marcé Medal for his research on Postpartum Psychosis and was named Academic Psychiatrist of the Year at the RCPsych Awards 2013. In 2014 BEP-C was awarded the British Medical Journal (BMJ) award for innovation in medicine.

Neurodevelopmental Disorders across the ages-more than health conditions! The educational, employment outcomes, impact, and costs to society

Professor Amanda Kirby, University of South Wales

Professor Amanda Kirby is unusual, she started off as GP and working in adult psychiatry and then more than 20 years ago she set up The Dyscovery Centre, an interdisciplinary centre of health and educational professionals because of her personal experiences. She is a professor at the University of South Wales, lectured to more than 100,000 individuals worldwide, developed and delivered masters programmes and written over 100 research papers and 9 books which have been translated into more than 5 languages. Her PhD was related to Developmental Co-ordination Disorder and emerging adulthood.

She has personal reasons also for interest in Neurodevelopmental Disorders as she has neurodiverse children and grandchildren. This provides her with an understanding of neurodiversity and co-occurrence from differing perspectives and a drive to raise awareness and champion best practices.
Amanda is also the CEO of Do-IT Solutions, a tech-for-good company, who have developed unique person-centered computer profiling tools and apps to support neurodiverse children and adults in a range of contexts including education, prisons, and employment settings used nationally and internationally.
LinkedIn: profamandakirby

Towards stratification biomarkers for ASD: Neural measures of social expertise

Professor Emily Jones, Birkbeck College, University of London

Autism is a heterogeneous neurodevelopmental disorder for which there are no well-evidenced interventions. Brain-based biomarkers have the potential to stratify individuals with autism into those who may benefit from specific therapies, facilitating progress in clinical trials. I will present evidence that expertise-based electrophysiological responses to faces are slower in a large cohort of children and adolescents with ASD, are related to neural functioning in social brain circuits, and predict individual variation in later social functioning. New methods allow real-time measurement of electrophysiological signatures, suitable for clinical contexts. I will discuss how such evidence is providing a foundation for incorporating biomarkers of social processing in clinical trials of new medications targeted at social functioning in ASD.

Emily Jones is a Professor at the Centre for Brain and Cognitive Development, Birkbeck, University of London. Her research interests centre on understanding the cognitive and neural mechanisms that drive variability in developmental trajectories. In this context, she runs a number of prospective longitudinal studies of typical and atypical neurodevelopment in infants and directs electrophysiological and eye tracking acquisition across several large-scale European and Global Health studies of children and adults with neurodevelopmental conditions.

Advancing the clinical management of Obsessive-Compulsive Disorders: A translational neuroscience approach

Professor Naomi Fineberg, University of Hertfordshire

Obsessions and compulsions are common, affecting up to 20% of the general population. They are characterised by the experience of loss of control of ones thoughts or actions, and are usually designed to pre-empt harmful events. They lie along a severity spectrum with obsessive compulsive related disorders (OCRDs), representing some of the most costly, functionally disabling and treatment-resistant brain disorders. OCRDs affect up to 10% of the population. They pursue a chronic relapsing course. Of the disorders, obsessive compulsive disorder OCD is the most extensively researched. Treatment with cognitive behaviour therapy or selective serotonin reuptake inhibitor (SSRI) is effective in about 50% of cases. Continuation of SSRI provides protection against relapse and emerging evidence suggests this approach is cost effective.

However, approximately 40% of cases fail to respond to all available treatments. For SSRI-resistant OCRD, there are few reliable treatment options. Adjunctive antipsychotic agents show evidence of efficacy, but the effect is highly variable. Highly Specialized Services are helpful for the most severe and enduring cases. Considerable scope exists for translational research to identify new targets for treatment that produce better overall clinical outcomes, and for clinical or somatic markers to guide treatment selection at the level of the patient, to achieve better individualised outcomes.

Growing evidence from human and animal research suggests the neurocognitive mechanisms mediating behavioural inhibition (motor inhibition, reversal learning, set-shifting) and habit learning (shift from goal-directed to habitual responding) contribute toward vulnerability to compulsive activity in a broad range of disorders characterized by compulsivity. Brain imaging has revealed distributed neural network disruption focussed around the cortico-striatal ‘loop’ systems and associated neuro-circuitry. Further evidence identifies reduced functional connectivity in the ‘cognitive circuit’ linking the caudate, frontal cortex and associated brain regions that may account for the deficits in shifting attentional focus away from inappropriate intrusive thoughts and rituals, resulting in the perseverative behaviours observed at the clinical level and providing a valuable biomarker for OCD. Other evidence derived from studies of fear learning in OCD demonstrates inflexibility in the reversal of fear responses, linked to abnormal safety-signalling in the ventromedial prefrontal cortex (affective loop). Promising results from a small number of treatment-studies using novel pharmacological compounds, including drugs acting to modulate dopamine or glutamate neurotransmission, or neuro-modulation to target nodes within this frontal-striatal circuitry represent emerging treatment-options for refractory obsessive-compulsive disorders.

Naomi Fineberg is Professor of Psychiatry at the University of Hertfordshire, and a Consultant Psychiatrist at Hertfordshire Partnership University NHS Foundation Trust (HPFT), where she leads the HPFT centre within the NHS England, Highly Specialised Service for Obsessive Compulsive and Related Disorders (OCRD). She currently chairs the World Psychiatric Association (WPA) Anxiety & Obsessive-Compulsive Disorders Scientific Section and the European Union COST Action into Problematic Internet Usage, and is Secretary of the International College of Obsessive Compulsive Spectrum Disorders.

Professor Fineberg has a substantial track record in the investigation of the neurobiology and treatment of anxiety, obsessive-compulsive disorders and behavioural addiction. She has published widely in the field, her publications are highly cited and she holds editorial positions.

Translational Research in Movement Disorders

Dr David Okai, South London & The Maudsley/King's College, London

Dr David Okai MRCPsych MD(Res) PGDip(CBT) is Clinical Lead for the Department of Neuropsychiatry at The South London and Maudsley NHS Foundation Trust, and a Consultant Neuropsychiatrist. He also holds the position of Visiting Lecturer at the Institute of Psychiatry, Psychology and Neurosciences, and Honorary Senior Clinical Lecturer in Neurosciences in Oxford. He trained in psychiatry at the Bethlem and Maudsley Hospital, and also spent some time at Queen Square Institute of Neurology.

During his training, he undertook a diploma in Cognitive Behavioural Therapy (CBT), and completed his doctorate (MDRes) in research psychology - based on the assessment and psychosocial management of Parkinson's patients with complex neuropsychiatric conditions.

He currently serves on the board of directors for the British Neuropsychiatric Association (BNPA), and has been a founding member of the Faculty of Neuropsychiatry Movement Disorders Working Group; advisor to the All-Party Parliamentary Group on the Management of the Neuropsychiatry of Parkinson's; worked on the Clinical Advisory Panel of Parkinson's UK; and was a member of the Movement Disorders Task Force on Rating Scales in ICBs.

He teaches nationally and internationally on many different areas of neuropsychiatry and has published book chapters on neuropsychiatry and psychology. He has additional interests in factors such as the real-world validity of psychological tests of dysexecutive syndrome. He is involved with ongoing work on large prospective studies of PD progression and how this impacts on personality and behaviour in Oxford, alongside the neuropsychiatry of NMDA- receptor encephalitis.

Biomarkers for the diagnosis and monitoring of progression in Alzheimer's disease

Dr Ivan Koychev, University of Oxford

Dr Ivan Koychev is a psychiatrist in training with a strong interest in new treatments for the major psychiatric disorders. My PhD at the University of Manchester focused on the development of reliable healthy volunteer surrogate models of psychosis to aid Phase 1 clinical trials. After completing the PhD I enrolled in psychiatry training which follows the NIHR integrated academic track - an Academic Clinical Fellowship (Core Training) at the Institute of Psychiatry, Psychology and Neuroscience and South London and Maudsley NHS Trust and I am currently an Academic Clinical Lecturer (Higher Specialty Training) in Psychiatry at the University of Oxford and Oxford Health NHS Foundation Trust. During my time at IoPPN/SLaM I was involved in trials testing the efficacy of novel compounds in psychosis (Sodium Nitroprusside and Cannabidiol).

At the University of Oxford, I am working with Professor Simon Lovestone's Translational Neuroscience & Dementia Research Group on the Deep and Frequent Phenotyping study. This is a multi-center study aimed at identifying a combination of biomarkers that predict disease progression in mild and prodromal Alzheimer's disease. This work will inform stratification of patient groups in future proof of concept studies of novel compounds in Alzheimer's disease as well as the choice of biomarker outcome measures.

SAVE THE DATE

The Royal College of Psychiatrists Fifth Neuroscience Spring Conference

Friday 26 March 2021
RCPsych London

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