2024 Brain Awareness Week Feeding Connections: Bringing the Brain of Tomorrow

15-16 March 2023 BRISTOL

Irene Echeverria Altuna, President of SRUK/CERU

Welcome



Neuroscience is a burgeoning field which has everything to gain from conversations between professionals of different fields and from the complementary perspectives of researchers spanning various career stages.

Due to its cross-disciplinary nature, SRUK/CERU is an unmatched forum for these conversations to emerge and, notably, the **SRUK/CERU Neuroscience Committee** has masterfully shaped the first of such exchanges. By joining forces with the **Cerebellum and Emotional Networks project** and joining the momentum of the **Brain Awareness Week**, SRUK/CERU is ecstatic to host its III **Medical Sciences Symposium**, under the theme of **"Feeding Connections: Bringing the Brian of Tomorrow"** in the vibrant city of Bristol.



Society of Spanish Researchers in the United Kingdom

About the event

The **Neuroscience Committee** from the <u>Society of Spanish Researchers in the United</u> <u>Kingdom (SRUK/CERU)</u>, with the support of the <u>Cerebellum and Emotional Networks</u> project funded by the European Union, is bringing for the first time the <u>Brain Awareness Week</u> (<u>BAW</u>) to **Bristol** on the **15th and 16th of March 2024**.

We have organised a two-day event for everyone interested as we wanted to be part of this worldwide initiative dedicated to exploring the wonders of the brain.

Our theme? "Feeding Connections: Bringing the Brain of Tomorrow". What to expect? During day 1, **Neuroscience in the Pub**, our speakers will talk about the secrets of our emotional brain and the importance of neurodiversity, then, we will enjoy a music session while we understand the benefits of music therapy. On day 2, **Neuroscience Symposium for All**, our selected speakers will bring the main challenges in Neuroscience inspiring us to find solutions and raise awareness.

Why should you come? Well, **understanding the brain is crucial**. It impacts human health, tech, ethics, and our whole knowledge of the mind. We're not just talking about brainy stuff; we're making real strides in neurodegenerative diseases, ageing and neurodevelopment.

SRUK/CERU Neuroscience Committee

This exciting initiative is a great opportunity to gather Spanish researchers in the UK working in the field of Neuroscience. Our main objectives are: collaboration, visibility and bringing neuroscience to the general public.



SRUK

Society of Spanish Researchers in the United Kingdom

Ana Luisa Gil Martinez, Chair of the SRUK/CERU Neuroscience Committee Postdoctoral Fellow in Neurogenetics at University College London



Álvaro Murillo Research associate in UK Dementia Research Institute at Cardiff University



Patricia Garcia Jareño Research Assistant (Gene Therapy) at King's College London



Marta Domínguez Prieto

Lecturer in Pharmacology at De Montfort University Leicester



Sara Alvira de Celis

Research Project Manager at University of Bristol

Cerebellum and Emotional Networks project

A Marie Sklodowska-Curie Innovative Training Network exploring the brain circuits that underlie emotional behaviour. This programme aims to bring together researchers from across Europe.



Sara Alvira de Celis Research Project

Manager at University of Bristol



Dianela Osorio Becerra MSCA PhD student at the University of Pavia Patricia Gil Parterna MSCA PhD student at the

Uppsala University





Funded by the European Union



Sristo

The name "Bristol" evolved from the Old English "Brycgstow", which means "the place at the bridge".

A historical city in the southwest of England, Bristol was founded around the year 1000 AD. Predating the settlement at the confluence of the Frome and Avon rivers were the Iron Age hillforts and Roman villas.





Today, Bristol is a forward-looking location that learns from its past. Confronting its historical ties to the slave trade, the city saw the removal of a contentious statue of the locally-born slave trader Edward Colston, in 2020, sparking crucial discussions about its past and future. Lately, thanks to its environmental advancements and recycling program, Bristol has been ranked as the most sustainable city in Great Britain.



Bristol University



About the

Founded in 1876, the University of Bristol offers a world-class learning environment. Their academic excellence is combined with an independent and forward-thinking spirit.



The Robin Hood Pub, 56 St Michael's Hill, BS2 8DX
Wills Memorial Building, Queens Rd, BS8 1RJ



Neuroscience in the pub

Friday 15 March 2024, 17.30h

The Robin Hood Pub, 56 St Michael's Hill, BS2 8DX

- 17.30 -17.40 Welcome
- 17.40 18.00 **Emotional Brain Talk** Jingjing Ye, University of Edinburgh
- 18.00 18.20 Neurodiversity Talk Vassiliemma Spatharioti, University of Bristol
- 18.20 -18.45 The use of music to support rehabilitation after stroke. Vicky Guise
 - 18.45 Music Session







MSCA PhD student at the University of Bristol

Jingjing Ye is a **Marie Sklodowska Curie Researcher** within the CEN programme. She is investigating the **relationship between the cerebellum and fear networks in autism and intellectual disability**. She has international experience in both academia and the pharmaceutical industry in Neuroscience and Molecular Biology and has worked as an engineer in MRI facilities. During her MSc studies at the University of Bristol she was involved as a Senior Resident facilitating the well-being and inclusivity of students.'

Neuroscience in the pub





MSCA PhD student at the University of Edinburgh

Vassiliemma Spatharioti is a **Marie Sklodowska Curie Researcher** within the CEN programme. She is investigating **the role of the cerebellum in susceptibility to emotional changes in pain**. She is passionate about Arts and has studied theatre, drama and dance. She has also volunteered in educational programmes that cross Arts and social rehabilitation.



Vicky Guise Music Therapist for Chroma

Vicky Guise currently works as a **Music Therapist** for Chroma working with a wide range of clients including those who have experienced brain injury, stroke and young people with additional needs. Vicky is currently exploring this interest further through a **Research Masters at Cardiff Metropolitan University**. Outside of Music Therapy, Vicky is also a **flute player and enjoys playing in bands for a number of singer/songwriters**.

Neuroscience

BS8 1RJ

Symposium For All

10.00 - 10.30 Registration Institutional Welcome 10.30 - 10.45 Irene Echeverria Altuna, President of SRUK/CERU Dr Ana Luisa Gil Martínez, Chair of SRUK/CERU Neuroscience Committee Challenge 1: How synapses are formed during development, and what 10.45 - 11.15 if something goes wrong. Prof Beatriz Rico, King's College London Challenge 2: Listening and learning: the value of the patient voice in 11.15 - 11.45 the development of advanced therapies for neurodegenerative disease. Dr Emma Lane, UCB Pharma Coffee Break (Networking) 11.45 - 12.15 Challenge 3: Exposing the biological basis of schizophrenia: Diagnosis, 12.15 - 12.45 treatment and stigma in the light of genomics. Dr Antonio Pardinas, Cardiff University **Saturday 16 March 2024, 10.00h Challenge 4: Linking across scales of neuroscience: From** 12.45 - 13.15 neurotransmitter receptors to brain-wide activity during cognition. Wills Memorial Building, Queens Rd, Dr Seán Froudist-Walsh, University of Bristol 13.15 - 14.15 Lunch and Coffee Break (Networking) Challenge 5: The South West Dementia Brain Bank: an invaluable 14.15 - 14.45 research resource. Dr Laura Palmer, University of Bristol 14.45 - 15.30 **Challenges Debate Round Table** 15.30 - 16.00 **Closing Remarks**

Dedkers

<u> Prof. Beatriz Rico</u>



Professor of Developmental Neurobiology, King's College London. Challenge 1: How synapses are formed during development, and what if something goes wrong.

She received her **PhD at the University Autónoma of Madrid** and did her **postdoctoral research at the University of California** at San Francisco.

In 2005, she became an **Assistant Professor at the CSIC** in the Institute of Neuroscience in Alicante (Spain). In 2014, she was recruited for a **Professorship position at King's College London**.

Rico's lab is interested in understanding how neuronal connections are established and organised in functional networks. Her lab is focused on three main questions: 1) How are the mammalian cortical networks built, 2) how do they respond to activity, and 3) What are the functional consequences of disrupting the development of cortical circuitries?

The European Molecular Biology Organisation has recognised her work with an EMBO YIP 2010, EMBO member 2021, and she has been granted an **ERC-Consolidator grant**, an **ERC Advanced grant**, and a **Wellcome Investigator award**.

Challenge 2: Listening and learning: the value of the patient voice in the development of advanced therapies for neurodegenerative disease.

She started there in September 2023 and is also **Honorary** Associate Professor in Neuropharmacology at Cardiff University. She started out with a PhD in the neuropharmacology of Parkinson's disease at King's College London, subsequently taking an opportunity at Lund University in Sweden to develop research in cell therapies, again for Parkinson's.

After moving to Cardiff University School of Biosciences as a **post-doctoral researcher**, she then established a successful **research group in the School of Pharmacy** developing world-leading research on improved preclinical modelling and understanding of the side effect profile of novel pharmacological and ATMP interventions for Parkinson's.

More recently, Emma initiated the **LEARN Study group**, exploring the patient experience of clinical trials, specifically in pharmacological and ATMP-based products for neurodegenerative diseases. This work included co-production of resources with trial participants to improve communication around trial delivery to enhance future recruitment and retention.

<u>Dr Emma Lane</u>

groups we created a checklist to guide decision making when

considering a trial

Global Patient Engagement Lead for gene therapy at UCB Pharma.

<u>Dr Antonio Pardinas</u>



Senior lecturer at the Centre for Neuropsychiatric Genetics and Genomics (CNGG), Cardiff University. Challenge 3: Exposing the biological basis of schizophrenia: Diagnosis, treatment and stigma in the light of genomics.

Antonio is a **senior lecturer at the Centre for Neuropsychiatric Genetics and Genomics (CNGG), Cardiff University**, and part of research team led by professors James Walters, Michael O'Donovan and Sir Michael Owen.

A former population geneticist, he completed his **PhD in Biology at the University of Oviedo (Spain)** in 2014, arriving to Cardiff shortly after. His main topic of research at the CNGG has been the use of genomic data to investigate schizophrenia, being first author of large-scale studies on the topic (PMID: 29483656, PMID: 35396580) including the first genome-wide analysis of treatment resistance in this disorder (PMID: 35019943).

He currently **leads a group of early-career researchers** working on the pharmacogenomics of clozapine (PMID: 36804072), the only evidence-based medication for those who do not respond to conventional antipsychotics.

Antonio is also a **member of the Schizophrenia Working Group of the Psychiatric Genomics Consortium** (<u>https://pgc.unc.edu/</u>) and a **co-investigator of the European Research Consortia REALMENT** (<u>https://www.realment.uio.no/</u>) **and PsychSTRATA** (<u>https://psych-strata.eu</u>).

Challenge 4: Linking across scales of neuroscience: From neurotransmitter receptors to brain-wide activity during cognition.

<u>Dr Seán Froudist-Walsh</u>

Dedkers



Research leader of the Cognition, Anatomy and Neuronal Networks (CANN) research group at the University of Bristol. Seán trained at **Trinity College Dublin**, **King's College London and New York University in Mathematics**, **Psychiatry and Neuroscience research**. He has developed methods for computational modelling and integration of brain data across scales, and species. This work has led to discoveries of principles of cortical receptor organisation and multi-scale computational models of cognitive functions including working memory and conscious perception.

Since 2022, he leads the **Cognition, Anatomy and Neural Networks (CANN) research group** at the University of Bristol. The CANN lab aims to understand how the brain's anatomy shapes our conscious experience and cognition, and how differences in anatomy across species and across people may lead to different experiences and cognitive abilities. By understanding these mechanisms, we aim to contribute to discovery neuroscience and psychiatry. Dedkers

<u>Dr Laura Palmer</u>



Manager of the South West Dementia Brain Bank (University of Bristol). Challenge 5: The South West Dementia Brain Bank: an invaluable research resource.

Laura studied at the University of Bristol where she completed her degree in Pathology & Microbiology and later her PhD in Neuroscience. In 2004 she began a technical post with the SWDBB which she now manages.

Laura undertook a part-time PhD between January 2006 and July 2014. Her PhD was **sponsored by the charity BRACE and focused on the Renin Angiotensin System (RAS)** which is an important enzyme pathway and signalling system.

Almost all of the major advances in our understanding and treatment of neurological disease have been based on the examination of human brain tissue. Yet despite much progress, the precise causes of nerve cell damage in Alzheimer's disease and other dementias remain poorly understood. Existing treatments reduce symptoms for a period of time but do not stop progression of the disease. **We have an urgent need for more research into dementia**, and **comparison of brain tissue from people who have had dementia** with that from people who have not is a crucial way for us to find out why different types of dementia occur, how they differ and how they progress. **The aim of the SWDBB is to provide researchers with access to high quality brain tissue to further our understanding of dementia.**



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