

BNA2017

Festival of Neuroscience

Birmingham International Conference Centre 10–13 April 2017

e-Programme



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British Neuroscience Association

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BNA 2017 ABSTRACT REVIEW TEAM

The BNA wishes to thank the following for their assistance with the abstract review process.

Gary Gilmour, Eli Lilly & Co (Lilly UK), Windlesham Mitul Mehta, KCL Thelma Lovick, University of Bristol Angela Bithell, University of Reading Duncan Banks, Open University Rhein Parri, Aston University Bridget Lumb, University of Bristol Mark Ungless, Imperial College London Tibur Auer, Royal Holloway, University of London Sue Deuchars, University of Leeds Trevor Bushell, University of Strathclyde Gernot Reidel, University of Aberdeen Jenni Harvey, University of Dundee Megan Holmes, University of Edinburgh Chris Martin, University of Sheffield John Jefferys, University of Oxford)

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BNA2017 LOCAL ORGANISING COMMITTEE

Rhein Parri - Aston University Eric Hill, Aston University Serena Antonio, Aston University Dan Fulton, University of Birmingham Charlotte Flavell, University of Birmingham Andy Powell, Birmingham City University

BNA2017 ORGANISING TEAM

The BNA is especially grateful to the following team without whom this Festival would not have been possible: Thelma Lovick (Chair of Programme Committee) Anne Cooke (BNA Chief Executive) Louise Tratt (BNA Executive Officer) Yvonne Allen (Project Manager, Neurofest 17) Caroline Griffiths (Exhibition Manager, Neurofest 17) Duncan Banks (Press Officer)

Other project assistants included: Lucy Lisanti and Mollie Neason (Neurofest17), and Philippa Wood and Alex Collcutt (BNA Office)

Lastly, we extend grateful thanks to Linda Best and her team at the BICC

Message from the BNA President



Dear Speakers and Delegates

Welcome to the BNA2017: Festival of Neuroscience!

In this, our third Festival of Neuroscience, we have built on the successes of London and Edinburgh to provide a spectacular neuroscientific meeting, with something special for everyone. A glance at the programme reveals a total of 36 symposia spanning 12 themes, complemented by Plenary Speakers that include the Nobel Prize winner May-Britt Moser and recent Brain Prize winner Graham Collingridge. The many hundreds of posters provide the perfect opportunity to discover and discuss new findings. Reflecting the goals of the BNA, much emphasis has been given to supporting early-career scientists. This support includes specific workshops, a careers booth, 'speed-dating' in neuroscience, and rapid-fire poster talks. At the same time, there is an extensive programme inviting the public to become more engaged in neuroscience.

One of the unique aspects of the Festival is how it brings together neuroscientists from across the discipline. This distinctive feature is made possible by the many partner societies who play such an important role in supporting the Festival and fostering cross-discipline interactions. A special thanks should go to the Physiological Society who are organising a series of symposia on Stress. Additional thanks must go to Thelma Lovick (Meetings Secretary), Yvonne Allen (Neurofest17) and the Local Organising Committee.

It is more important than ever that scientists show that the way forward is with both national and international collaborations. Come along and enjoy the science and enjoy the company. I look forward to welcoming you all.

Message from the BNA Meetings Secretary



Dear Festival-goer,

A very warm welcome to BNA2017: Festival of Neuroscience! We especially welcome the large number of international registrants who will be converging from all corners of the world. If you've not been to Birmingham before, I think you'll be impressed by the striking conference venue located right in the heart of the city next to the city's attractive canal network.

The scientific programme committee have put together a terrific programme, with a stellar group of scientists who will give plenary, public and special lectures. This year we have in excess of 200 UK and international speakers who will contribute to almost 60 symposia and special events, whilst more than 500 posters will be included in three poster sessions. We have also partnered with The Physiological Society who will hold a one-day symposium within the meeting as part of the Society's Year of Stress.

The Programme Committee reviewed over 100 high quality symposium and workshop proposals, and their guidance was indispensable when deciding which symposia to accept. The Abstract Review Group also had a mammoth task and I'm grateful to them for their attention to detail.

The financial viability of BNA meetings depends on our sponsors and exhibitors so please do visit their stands at the Exhibition. The BNA is indebted to them for their support, and extends a special note of thanks to The Wellcome Trust and to the Arts Council for their generosity.

Special thanks must go to Anne Cooke and Louise Tratt (BNA Office) who have worked tirelessly behind the scenes for the last two years, together with our Professional Conference Organiser, Yvonne Allen (and the Neurofest17 team). Thanks also to our Local Organising Committee chaired by Rhein Parri (Aston) who have devised some imaginative public engagement activities, and to our Press Officer Duncan Banks (OU) for raising the profile of the Festival with the media.

Partner Societies Listing

The BNA is extremely grateful for the enthusiastic support and financial contributions from the following societies:



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Society for Neuroscience London Chapter

http://www.sfnlondonchapter.org/

The British Psychological Society
http://beta.bps.org.uk

Festival Sponsor Listing

PRINCIPAL SUPPORTER



We're a global charitable foundation, both politically and financially independent. We support scientists and researchers, take on big problems, fuel imaginations, and spark debate.

Good health makes life better. We want to improve health for everyone by helping great ideas to thrive.

That's why we support thousands of curious, passionate people all over the world to explore great ideas, at every step of the way from discovery to impact.

We also identify strategic priorities where we can give focused, intensive support when there are real opportunities to transform lives, or we can drive reform to ensure that ideas reach their full potential.

We work to improve health by funding great ideas.

Our funding schemes support individuals, teams, resources, seed ideas, places and major initiatives in these areas:

- biomedical science
- population health
- product development and applied research
- humanities and social science
- public engagement and creative industries.

FESTIVAL PARTNER



The Physiological Society brings together over 3,500 scientists from over 60 countries.

Since our foundation in 1876, our Members have made significant contributions to our knowledge of biological systems and the treatment of disease. We promote physiology and support those working in the field by organising world-class scientific meetings, offering grants for research, collaboration and travel, and by publishing the latest developments in our leading scientific journals, The Journal of Physiology, Experimental Physiology and Physiological Reports.

Neuroscience is one of our seven core physiological Themes which brings together scientists who study the nervous system at all levels, from ion channels to single cells to whole brain areas and cellular networks. It spans a wide range of interests from brain development and plasticity to communication between the various cell types that make up the nervous system. Another focus

is the sensory functions of vision, touch, hearing and smell, and motor control. This Theme also promotes research into the healthy nervous system as well as in what goes wrong in various neurological conditions such as dementia, epilepsy, motor neuron disease and stroke.

Membership is available for all career stages, from undergraduate level to senior level scientists.

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Takeda Pharmaceutical Company Limited is a global, R&D-driven pharmaceutical company committed to bringing better health and a brighter future to patients by translating science into life-changing medicines. Takeda focuses its research efforts on oncology, gastroenterology and central nervous system therapeutic areas. It also has specific development programs in specialty cardiovascular diseases as well as late-stage candidates for vaccines. Takeda conducts R&D both internally and with partners to stay at the leading edge of innovation. New innovative products, especially in oncology, central nervous system and gastroenterology, as well as its presence in emerging markets, fuel the growth of Takeda. More than 30,000 Takeda employees are committed to improving quality of life for patients, working with our partners in healthcare in more than 70 countries.

BRONZE SPONSORS



The School of Psychology, as part of the College of Life and Environmental Sciences (CoLES) at the University of Birmingham, is one of the largest and most successful in the UK, currently ranked in the top 5 Schools in the country (REF 2014). The School has long-standing foci of research strength in cognitive and behavioural neuroscience, forensic psychology, psychosis, ingestive behaviour, life-span development, language and cognition, visual cognition, and motor control. A number of these research areas promote collaboration with another School in CoLES, Sport and Exercise Rehabilitation Sciences, who currently are ranked No. 1 (REF 2014) and provide expertise in physiological biomarkers of ageing and in programmes designed to enable older adults to maintain cognitive and physical ability. Together, these Schools' strengths are reflected in lively specialist seminars, in success across a wide range of national and international funding bodies, and in the large number of research prizes won by staff and research students. Both Schools also have a very strong collaborative and interdisciplinary ethos, encouraged through pump-priming funding for research themes that crosscut traditional research groupings and bring together researchers in pursuit of larger-scale collaborative projects.



Cardiff University is internationally recognised for its neuroscience research, having come second in the UK in the REF2014 in UOA4, Psychology, Psychiatry and Neuroscience. At Cardiff University, we pursue research in a wide range of areas, ranging from cellular and molecular neuroscience to brain imaging and from neurogenetics to further understanding mental illness. There are numerous opportunities to join our exciting research environment, we offer a Wellcome Trust four year PhD Programme in Integrative Neuroscience as well as a range of other qualifications and research opportunities.



Johnson Johnson INNOVATION

The Neuroscience Therapeutic Area of Janssen Research & Development, one of the Janssen Pharmaceutical Companies of Johnson & Johnson, <u>www.janssen.com/neuroscience/</u> is focused on discovering and developing innovative treatments for Alzheimer's disease and severe mood disorders, and we continue our legacy work in schizophrenia. We are also interested in biomarkers and companion diagnostics to drive earlier and more accurate diagnosis, treatment response, and outcome prediction in these core focus areas.

We have a strong interest in biological molecules and in developing novel strategies to address blood-brain barrier challenges to improve central nervous system penetration of large-molecule medicines. We also seek integrative solutions to achieve earlier intervention and adherence, and prevent relapse. Examples include non-pharmaceutical cognitive enhancing therapies and remote monitoring technologies.

Janssen R&D Neuroscience works very closely with Johnson & Johnson Innovation (JJI; <u>https://www.jnjinnovation.com/</u>). JJI helps scientific innovators realize their dreams of creating healthcare solutions that improve people's' lives. We work side-by-side throughout their journey, providing a robust exchange of ideas and resources to support their success. The J&J Innovation Centre in Central London is part of our global innovation network to generate transformational healthcare solutions through value-creating partnerships.

SUPPORTERS



Centre for Speech, Language and the Brain, University of Cambridge











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General Information

Meeting Venue

The Birmingham International Convention Centre (BICC) Broad Street Birmingham, B1 2EA Tel: +44 (0) 121 644 5025 Click here for <u>travel directions</u> Click here for <u>venue guide</u>

Registration

All attendees should register on arrival to collect their badge and conference pack from the registration area. This is located on level 4 foyer of the BICC and will be open during the following hours:

Monday, 10th April	11:00 - 20:00
Tuesday, 11th April	08:00 - 20:00
Wednesday, 12th April	08:00 - 20:00
Thursday, 13th April	08:00 -13:00

Attendees should note that they are requested to wear their badge throughout the meeting and will only be admitted to the lecture halls and exhibition area if their badge is clearly displayed. Lost or mislaid badges should be reported immediately to the registration desk. Please note replacement badges may not be available immediately, a refundable deposit (£25) may be requested.

Speakers must also register in the Level 4 foyer at a dedicated desk on arrival to collect their delegate badge and conference pack.

Meeting Rooms

The plenary lectures will take place in Hall 1 (Level 4).

The symposia and special events will take place in various rooms in the BICC. Details can be found in the programme materials available online (please see below) and in the **Onsite Guide**, distributed at Registration. The organisers have tried to accommodate sessions according to stated or perceived popularity, some rooms may be busier than others, stewards will be present to ensure all seats are occupied.

Speaker Preview Room

The speaker preview room will be in the Media Suite (Level 4) of the BICC, close to the Registration Desk. Speakers must take their presentations to the technicians, preferably on a USB device, AT LEAST ONE HOUR before the scheduled start of their symposium. Presentations for symposia starting at 09:00 should ideally load their presentations with the technicians the evening before.

Book of Abstracts and Personalised Programme Planner

The Book of Abstracts will be published by Sage Publishing as a special supplement of the new BNA Journal <u>Brain and</u> <u>Neuroscience Advances</u> on the first day of the meeting (10th April). Access will be available to all registered delegates prior to this as a special concession.

Please use the <u>Personalised Programme Planner</u> to search through abstracts and plan your time at the meeting. Any last minute changes to the programme will be made available on signage at the venue, on the meeting website and on Twitter (#bna2017)

Exhibition

A lively exhibition representing over 60 companies, displaying the latest books, equipment, reagents and techniques will take place in Hall 3. A <u>full listing</u> and <u>Exhibition Hall guide</u> can be found later in this document; this will also be available in the Onsite Guide, distributed to all delegates upon registration, and available at the Registration Desk as a paper handout. The Exhibition will be open as follows:

Monday 10th April	14:30 -20:30
Tuesday 11th April	09:00 - 18:00
Wednesday 12th April	09:00 - 17:00

Delegates are encouraged to attend the exhibition as *BNA2017 Festival of Neuroscience* would not be possible without the generous support given by our sponsors and exhibitors. Many exhibitors are offering Festival discounts, prizes and draws, or demonstrations and refreshments at allocated times at their stands. These will be announced daily and, for your convenience, will also be summarised as a handout, available at the Registration Desk. **Please note:** The sponsors and exhibitors have had no involvement in the organisation, content or speaker selection relating to the *BNA 2017 Festival of Neuroscience*.

Poster Presentations

Posters will be presented in Hall 3 in three sessions, each afternoon as follows:

Monday 10th April 14:40 - 16:20 (posters should be in place by 13:00 for poster preview, and removed by 20:00)

Tuesday 11th April 15:00- 16:20 (posters should be in place by 09:00 and removed by 18:00)

Wednesday 12th April 15:00- 16:20 (posters should be in place by 09:00 and removed by 18:00)

Posters should be A0 size maximally, portrait orientation, and should only be adhered to the boards with Velcro, supplied by the organisers. Your poster board number will be emailed to you prior to the meeting. Stewards will be present in Hall 3 to distribute Velcro and to help you locate your board. The <u>poster themes and relevant board numbers</u> will be in the Onsite Guide, distributed at Registration, as a paper handout, if required, at the Registration Desk, and in this e-programme below.

Citations

The Abstracts will be published as a special supplement of the BNA Journal *Brain and Neuroscience Advances* and should be cited as follows: *Brain and Neuroscience Advances* 1(2S): Pxxxx, 2017 or Sxxxx, 2017 (Pxxx should be substituted for the <u>poster reference</u>, Sxxxx is for <u>symposium reference</u> in the final programme (see below)).

Access – Information for disabled visitors

The BICC is a modern purpose-built events venue and is fully accessible for people with disabilities. Additionally, the BICC team is equalities-trained at all levels. There is disabled parking at the Barclaycard Arena, adjacent to the BICC which neighbours the EICC: http://www.sheratonedinburgh.co.uk/car-park.

Onsite assistance

The BNA Festival Organisers have arranged for an event team to help you onsite. Identified by a black outfits and red sashes, they will be able to help you with your enquiries and finding your way around the venue.

Security

Please help us by wearing your badge at all times and by not leaving unlabelled packages or luggage unattended. Delegates should note that they are responsible for their own belongings and that the conference organisers cannot accept any responsibility for lost items.

Cloakroom

Cloakroom and luggage storage will be available free of charge and will be open for delegates for the same duration as the Registration Desk (08:00 - 20:00) while events are taking place at the venue.

Catering

Refreshments will be available during the morning and afternoon breaks in Hall 3 and are included in the registration fee. Light lunches will also be available in the catering areas of Hall 3 on a cash sale basis.

Internet Access

Wi-Fi access is free for all delegates and exhibitors. To connect : (1) Open Wi-Fi search window and select 'The ICC Free-Wi-Fi'; (2) with the browser open as a web page, complete the requested information, confirming the terms and conditions; (3) select 'connect'. These instructions for access will also be available in the Onsite Guide, to be collected at Registration.

Notice Boards

Notice boards will be located near the Registration Desk (foyer, level 4). Attendees are invited to post relevant notices on this board, with permission from the organisers. Job vacancies should be posted on the boards in 'Careers Corner', Stand B, Hall 3.

Certificates of attendance/CPD certificate

Certificates of attendance and CPD certificates are available on the Festival website. Please enquire at the Registration Desk for further information and clarification. You may be required to sign an attendance sheet.

Continuing Professional Development (CPD):

The *BNA2017: Festival of Neuroscience* has been approved by the **Federation of the Royal Colleges of Physicians of the United Kingdom** for 30 category 1 (external) CPD credits. The Royal Society of Biology has approved the event for 90 CPD credits, but credits are only valid if attendees are registered on the RSB CPD Scheme.

Filming and recording

Photography, filming and recording will be permitted in the official press conferences. They will be permitted in a designated, general area of the conference centre, but are subject to authorisation from the Press Office. They are strictly forbidden in other areas including the scientific sessions, unless prior permission has been obtained. Anyone found using mobile devices or cameras for filming and photography in these areas will be asked to leave the conference. Official photographs of the Festival will be taken for the BNA website. If any delegates do not wish to appear in Festival photographs, then please make this known to the organisers at the Registration Desk.

Press

Delegates are reminded that the Press will be onsite and Press Conferences are likely to take place in the Media Suite at regular intervals

Social Programme

Welcome Reception (SE1) FREE

Monday 10th April, 19:20 -20:30, Hall 3

Let's kick off the BNA2017 Festival of Neuroscience in style! Delegates are invited to attend the welcome reception on the first night of the Festival and take the opportunity to chat with old colleagues or to meet new friends and associates over nibbles and a glass of wine amongst the large and bustling exhibition space.

An evening with British Brain Prize winners (SpE3)

Tuesday, 11th April, 19:30-20:30, Hall 11a

Your chance to meet British winners of the Grete Lundbeck European Brain Research Prize, also known as The Brain Prize, an international scientific award honouring "one or more scientists who have distinguished themselves by an outstanding contribution to European neuroscience".

In 2012 **Karen Steel** won the Brain Prize for her work that revolutionised our understanding of many forms of deafness. Her studies focus on the genetics behind deafness, and she has published phenotypic descriptions of over 80 different mouse mutants. She uses the mouse models in order to understand auditory loss in humans.

In 2016 all three winners were UK neuroscientists, and two of them former Presidents of the BNA (just going to show how good BNA membership is for your career!). The prize recognised their ground-breaking research on the cellular and molecular basis of Long-Term Potentiation (LTP) and the demonstration that this form of synaptic plasticity underpins spatial memory and learning.

Two of the three 2016 winners, **Graham Collingridge** and **Tim Bliss**, will be in conversation with 2012 winner **Karen Steel** and BNA President Professor John Aggleton over drinks and canapes, with plenty of chance for discussion with the audience.

We are extremely grateful to The Brain Prize for supporting this event. The Brain Prize is a personal research prize awarded annually by Lundbeckfonden, a leading Danish Foundation, to one or more scientists who have distinguished themselves by an outstanding contribution to European neuroscience and who are still active in research.

Ticket information:

Tickets cost £12.50 and include a drink and canape reception. Please book your ticket <u>here</u>, or enquire at the Registration Desk for availability.

Student Games Night (SE3)

Wednesday 12th April, 20:00 - late, Pitcher and Piano, Brindleyplace, Canalside

The final social evening is not to be missed!

Join in with this fun-filled event for student and early members and get into the 'Festival' spirit. Make new friends whilst taking part in a fun quiz! Tickets include a buffet, two drinks vouchers, games and dancing until the early hours!

Ticket information:

Tickets cost £15. Please book your ticket here, or ask for late availability at the Registration Desk

Useful telephone numbers

Airport

Birmingham International Airport: +44 (0) 871 222 0072

Rail

Birmingham New Street Station: +44 (0) 121 654 4243

National Rail Enquiries: +44 (0) 345 748 4950

Taxis Birmingham Taxis: +44 (0) 121 702 2000

T.O.A. Taxis: +44 (0) 427 8888

Coach

National Express Coaches: +44 (0) 871 781 8181

Parking Barclaycard Arena Car Park – 6 minute walk (480m)

Q-Park Brindleyplace – 6 minute walk (480m)

Paradise Circus Car Park – 3 minute walk (320m)

Delegate List

The final delegate list (name, affiliation and email address) will be available to delegates just prior to the meeting.

Public Festival

There is an extensive programme of public events taking place in the Hall 1 (main auditorium), the Mall, the Birmingham Rep, and the Library to celebrate the *BNA2017 Festival of Neuroscience*. For a full listing, please consult the Festival website: <u>https://www.bna.org.uk/meetings/bna2017/public-programme/</u>

Posters

SESSION 1 - MONDAY 10TH APRIL

Please note: Session 1 posters are pre-fixed by PM ('M' for Monday). They can be located in Hall 3 by their theme and poster board numbers in the table below:

Theme	Board number
Attention, motivation, behaviour	001 - 019
Sensory & motor systems	020 - 039
The neurobiology of stress	040 - 052
Neuronal, glial & cellular mechanisms	053 - 076
Novel treatments & translational neuroscience	077 - 091
Neurodegenerative disorders & ageing	092 - 116
Learning & memory	117 - 139
Developmental neuroscience	140 - 150
Psychiatry & mental health	151 - 164
Methods and techniques	165 - 171

SESSION 2 - TUESDAY 12TH APRIL

Please note: Session 2 posters are pre-fixed by PT ('T' for Tuesday). They can be located in Hall 3 by their theme and poster board numbers in the table below:

Theme	Board number
Attention, motivation, behaviour	001 - 012
Sensory & motor systems	013 - 041
Neurobiology of Stress	042 - 058
Neuronal, glial & cellular mechanisms	059 - 083
Novel treatments & translational neuroscience	084 - 092
Neurodegenerative disorders & ageing	093 - 112
Learning & memory	113 - 148
Genetics & epigenetics	149 - 154
Developmental neuroscience	155 - 162
Psychiatry & mental health	162 - 171
Methods and techniques	172 - 181

SESSION 3 – WEDNESDAY 12TH APRIL

Please note: Session 3 posters are pre-fixed by PW ('W' for Wednesday). They can be located in Hall 3 by their theme and poster board numbers in the table below:

Theme	Board number
Attention, motivation, behaviour	001 - 017
Sensory & motor systems	018 - 039
Neuronal, glial & cellular mechanisms	040 - 058
Novel treatments & translational neuroscience	059 - 075
Neurodegenerative disorders & ageing	076 - 098
Learning & memory	099 - 119
Genetics & epigenetics	120 - 130
Developmental neuroscience	131 - 142
Neuroendocrine & autonomic systems	143 - 154
Methods and techniques	155 - 166
Other (e.g. teaching, history, outreach)	167 - 173

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Plenary and Public Speakers

Plenary speakers

Masud Husain

Professor of Neurology and Cognitive Neuroscience University of Oxford <u>'When memory and motivation fade in brain</u> <u>disorders'</u>

Monday 10th April, 18:10 Sponsored by Johnson and Johnson Innovation

Masud Husain is Professor of Neurology & Cognitive Neuroscience at the University of Oxford. He holds a Wellcome Trust Principal Research Fellow and is based at the Dept of Experimental Psychology, where he leads the Cognitive Neuropsychology Centre, and the Nuffield Dept of Clinical Neurosciences.

Masud read Physiological Sciences at Oxford (1981-84) before completing his DPhil in Physiology. He went on to a postdoctoral fellowship at MIT, holding a Harkness Fellowship. After completing clinical training at Oxford and London he held a Wellcome Trust Senior Fellowship (2000-12), first at Imperial College and then at University College London. At UCL he was Deputy Director of the Institute of Cognitive Neuroscience and Head of the Dept Brain Repair & Rehabilitation at the Institute of Neurology.

His current research focuses on understanding mechanisms underlying short-term memory and motivation, in healthy people and in patients with stroke, Parkinson's disease and Alzheimer's disease.

Andrea Brand

Professor of Molecular Biology University of Cambridge <u>'Nutritional control of neural stem cells'</u>

Tuesday 11th April, 11:20 Sponsored by The Guarantors of the Brain

Andrea Brand is the Herchel Smith Professor of Molecular Biology and Wellcome Trust Senior Investigator at the Gurdon Institute, University of Cambridge, where she is Head of Wellcome Trust Laboratories. She received her BA from Oxford University and PhD from the MRC Laboratory of Molecular Biology, Cambridge. After Postdoctoral Fellowships at Harvard University and Harvard Medical School, she joined the Gurdon Institute as a Group Leader.

Andrea is a Fellow of the Royal Society (2010), Fellow of the Academy of Medical Sciences (2003) and member of EMBO (2000). She was awarded the Royal Society Rosalind Franklin Award (2006), William Bate Hardy Prize (2004), and Hooke Medal (2002). She was elected an Honorary Fellow of Brasenose College, Oxford (2104), and was recently awarded the Royal Society Darwin Trust Research Professorship (2016). Andrea studies the environmental control of neural stem cell proliferation to gain insights into tissue regeneration under normal and pathological conditions and in response to ageing.







Graham Collingridge

Professor of Neuroscience in Anatomy University of Toronto/University of Bristol 'Synaptic plasticity, memory, and molecules'

Tuesday 11th April, 16:40 Sponsored by The Brain Prize





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Graham Collingridge is the Ernest B. and Leonard B. Smith Professor and Chair of the Department of Physiology at the University of Toronto. He is also a Senior Investigator at the Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital in Toronto, and holds an appointment in the School of Physiology, Pharmacology and Neuroscience at the University of Bristol, UK.

After his undergraduate studies in Bristol, he obtained a PhD from the School of Pharmacy (now UCL) in London, UK in 1980, and then held postdoctoral positions at the University of British Columbia (Vancouver, Canada) and the University of New South Wales (Sydney, Australia). In 1983, he returned to a lectureship in the Department of Pharmacology at the University of Bristol. From 1990 until 1994 he was Chair in Pharmacology at the University of Bristol in as the Professor of Neuroscience and Departmental Chair of Anatomy (1997-1999) and then as the Director of the MRC Centre for Synaptic Plasticity (1999-2012).

Professor Collingridge has held visiting Professorships at the University of British Columbia and at Seoul National University. He served as Editor-in-Chief of Neuropharmacology from 1993 until 2010. In 1997 he was elected a Founder Fellow of the European DANA Alliance; and in 1998 he was elected a Founder Fellow of the Academy of Medical Sciences (UK). In 2001, he was elected a Fellow of The Royal Society, and from 2007 until 2009 he served as President of the British Neuroscience Association (BNA). He is currently the reviews editor for Molecular Brain and serves on the scientific advisory board of Hello Bio.

Professor Collingridge has won several prizes including the Sharpey-Shafer Prize of the Physiological Society, the Gaddam Memorial Prize of the British Pharmacological Society, The Feldberg Prize, and, most latterly, the prestigious Grete Lundbeck Brain Prize, 2016. Professor Collingridge's research focuses on the mechanisms of synaptic plasticity in health and disease, in particular, understanding synaptic plasticity in molecular terms and how pathological alterations in these processes may lead to major brain disorders, such as Alzheimer's disease.

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Alon Chen

Director of Max Planck Institute of Psychiatry Max Planck Institute of Psychiatry

<u>'Genetic and optogenetic dissection of the central stress</u> response and stress-linked psychiatric disorders'

Wednesday 12th April, 11:20 In association with The Physiology Society

Physiological Society

Alon Chen received a PhD from the Weizmann Institute of Science in the Department of Neurobiology, in 2001. Between 2001 and 2005, he served as a Research Associate in the Laboratories for Peptide Biology, at the Salk Institute for Biological Studies, La Jolla, California. In 2005, he joined the Weizmann Institute as Assistant Professor in the Department of Neurobiology. In 2013 he was nominated as Director and Scientific Member at the Max Planck Institute of Psychiatry and as the Head of the Max Planck Society - Weizmann Institute of Science Laboratory for Experimental Neuropsychiatry and Behavioral Neurogenetics.

Prof. Chen's research focuses on the Neurobiology of Stress, particularly the mechanisms by which the brain is regulating the response to stressful challenges and how this response is linked to psychiatric disorders. His lab has made discoveries linking the action of specific stress-related genes with anxiety, depression, weight regulation and diabetes. Prof. Chen and his research team use both mouse genetic models and human patients to ultimately create the scientific groundwork for therapeutic interventions to treat stress-related emotional disorders such as anxiety, post-traumatic stress, eating disorders, and depression.

May-Britt Moser

Founding Director of Centre for Neural Computation Norwegian University of Science and Technology 'Brain mechanisms for representing space'

Wednesday 12th April, 16:40 In Association with The Wolstencroft Trust

May-Britt Moser is a Norwegian psychologist, neuroscientist, and head of department of the Centre for Neural Computation at the Norwegian University of Science and Technology (NTNU). She pioneered research on the brain's mechanism for representing space together with her mentor John O'Keefe. With Edvard Moser, she shared the 2014 Nobel Prize in Physiology or Medicine with O'Keefe, awarded for work concerning the grid cells that make up the positioning system in the brain.

May-Britt Moser was awarded a degree in psychology from the University of Oslo in 1990. She thereafter was awarded her Ph.D. in Neurophysiology from the University of Oslo in 1995 under the supervision of professor Per Andersen. Moser went on to undertake postdoctoral training with Richard Morris at the Centre for Neuroscience, University of Edinburgh from 1994 to 1996, and was a visiting postdoctoral fellow at the laboratory of John O'Keefe at the University College, London for two months.

May-Britt returned to Norway in 1996 to be appointed associate professor in biological psychology at the Norwegian University of Science and Technology (NTNU) in Trondheim, and became a full professor of neuroscience at NTNU in 2000; she is now head of department of the NTNU Centre for Neural Computation. She also is a member of the Royal Norwegian Society of Sciences and Letters, Norwegian Academy of Science and Letters, and the Norwegian Academy of Technological Sciences. Her many publications, prizes and awards culminated in her joint Nobel Prize in 2014.





Sarah Jayne Blakemore

Professor of Cognitive Neuroscience University College London <u>'Adolescence as a sensitive period of brain development'</u>

Thursday 13th April, 12:00



Sarah-Jayne Blakemore is Professor in Cognitive Neuroscience at UCL. She is Leader of the Developmental Cognitive Neuroscience Group and Deputy Director of the UCL Institute of Cognitive Neuroscience. Her group's research focuses on brain development in human adolescence. Professor Blakemore studied Experimental Psychology at Oxford University and then did her PhD at UCL and a postdoc in Lyon, France. Since 2003 she has held a series of Royal Society Research Fellowships at UCL. Professor Blakemore has published over 100 papers in scientific journals and has won multiple awards for her research.

Public lectures

Paul Howard-Jones

Professor of Neuroscience and Education University of Bristol 'Neuroscience and Education: Promises and Perils'

Tuesday 11th April, 18:00-19:00, Hall 1, BICC Introduced by BNA President, Professor John Aggleton



Professor Paul Howard-Jones is well known from the <u>'Secret Life of 4,5 and 6 year olds'</u> documentaries, which give viewers an insight into the minds of children as they make their early forays in to the world and relationships around them.

His day job is as Professor of Neuroscience and Education at the University of Bristol. His research explores the benefits offered to education by emerging technologies, aided by insight into the underlying cognitive processes.

In his talk, Paul will discuss how and if we can apply our burgeoning understanding of how the brain learns to improve teaching and learning in the classroom This is a question increasingly asked by educators, scientists and policy-makers - and there is considerable debate about whether and how this might, or even should, happen.

We warmly invite everyone with an interest in neuroscience, cognition, the brain and how it learns, to come and join us for this free public lecture.

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Clive Ballard

Pro-Vice-Chancellor and Executive Dean of University of Exeter Medical School University of Exeter Anne Silk Lecture 2017:

'How neuroscience helps us understand and find treatments for dementia'

Wednesday 12th April, 18:00-19:00, Hall 1, BICC In association with the Silk Trust and the Royal Society of Medicine Introduced by RSM President, Mr B Sethia



As the age of the population increases, dementia is becoming increasingly frequent in western countries. Already there are more than 700,000 people with dementia in the UK and the number is likely to double in the next 30 years.

Professor Clive Ballard leads a diverse programme of research, ranging from basic science and post-mortem studies to drug discovery and clinical trials, focusing on Alzheimer's disease and non-Alzheimer dementias.

Clive Ballard joined the University Exeter as executive Dean and pro vice chancellor on the 2nd November 2016. He was previously Professor of Age Related Disease and Director the Biomedical Research Unit for Dementia at the Institute of Psychiatry, Psychology and Neuroscience, King's College London.

He has published more than 500 peer review papers, including key meta-analyses systematic reviews and clinical trials published in New England Journal of Medicine, Lancet, Lancet Neurology, Nature and BMJ related to brain training, treatment of psychosis, agitation, depression and pain in neurodegenerative disease, dementia with Lewy bodies, vascular dementia and the treatment of dementia in people with Down syndrome.

The Anne Silk Lecture is kindly supported by The Silk Trust, a charity founded in 2001 in memory of the late Frederick Silk. It is primarily engaged in supporting research and development in the fields of neuroscience, neurodegeneration and Motor Neuron Disease. Anne Silk, a retired clinician, will be attending the lecture herself.

Monday 10th April 2017

11:00 - Registration and set-up for poster session one

13:00-14:40 - SpE1: Cutting edge neuroscience

3-minute, rapid-fire poster talks

Sponsored by the MRC

13:00-14:40 – Symposia

1. Theme: Attention, motivation, benaviour
Hall 9
S1: Neural Networks of fear and anxiety
Chair: Dr Charlotte Lawrenson (University of Bristol)
Co-chair: Professor Richard Apps (University of Bristol)
 1.01. 13:00-13:25 - Neural mechanisms of post-traumatic stress disorder as seen through stress-enhanced fear learning - Professor Michael Fanselow (UCLA, USA). 1.02. 13:25-13:50 - Prefrontal oscillatory mechanisms of fear behaviour - Mr Nikolas Karalis (Ludwig-Maximilians University, Munich). 1.03. 13.50-14.15 - Neural mechanisms underlying recurrent fear memories in post-traumatic stress disorder - Dr Sarah Garfinkel (University of Sussex). 1.04. 14:15-14:40 - Cerebellar and periaqueductal grey contributions to fear behaviour - Dr Charlotte Lawrenson (University of Bristol).
2. Theme: Sensory and motor systems Hall 11b
S2: Spinal motor control: more than just a reflex
S2: Spinal motor control: more than just a reflex Chair: Dr Demetris Soteropoulos (University of Newcastle)
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 S2: Spinal motor control: more than just a reflex Chair: Dr Demetris Soteropoulos (University of Newcastle) Co-chair: Professor David Maxwell (Glasgow University) 2.01. 13:00-13:25 - Descending control of bilateral circuits controlling limb movement – Professor David Maxwell (University of Glasgow). 2.02. 13:25-13:50 - Bilateral organisation in the primate cervical spinal cord – Dr Demetris Soteropoulos (University of Newcastle). 2.03. 13:50-14:15 - Combinatorial approaches to promoting recovery of limb function in rats with chronic spinal cord injury – Dr Ronaldo Ichiyama (Leeds University).

Hall 10

3. Theme: Novel treatments and translational neuroscience

Hall 11a

S3: Novel targets for pain, depression and their co-morbidity

Chairs: Professor David Finn (National University of Ireland, Galway) and Professor Oliver Dolly (Dublin City University).

- 3.01. 13:00-13:25 Reciprocal interactions between pain and negative effect: Role of the endocannabinoid system Professor David Finn (National University of Ireland, Galway).
- 3.02. 13:25-13:50 The microbiota gut brain axis as a key regulator of visceral pain Dr Siobhan O'Mahony (University College Cork).
- 3.03. 13:50-14:15 Treating chronic pain by inhibiting the stress regulator FKBP51 Dr Sandrine Geranton (University College London).
- 3.04. 14:15-14:40 Dual basis for the anti-nociceptive action of SNARE proteases of botulinum neurotoxins: inhibition of the exocytosis of pain mediators and transducers Professor Oliver Dolly (Dublin City University).

This symposium is sponsored by Neuroscience Ireland

4. Theme: Neuroendocrine and autonomic nervous systems

Hall 7

S4: Hypothalamic tanycytes, the metabolic brain and adult neurogenesis

Chair: Dr Jo Lewis (University of Nottingham).

- 4.01. 13:00-13:25 Context-dependent modulation by hypothalamic tanycytes of the arcuate neuronal network controlling appetite Dr Matei Bolborea (University of Warwick).
- 4.02. 13:25-13:50 Hypothalamic stem cells and neurogenesis Professor Marysia Placzek (University of Sheffield).
- 4.03. 13:50-14:15 The role of tanycytes in energy homeostasis and stability Dr Jo Lewis (University of Nottingham).
- 4.04. 14:15-14:40 Modulation of adult hypothalamic neurogenesis by the photoperiod Professor Martine Migaud (INRA-CNRS-Université François Rabelais de Tours, France).

This symposium is sponsored by the British Society for Neuroendocrinology

14:40-16:20 – Exhibition and Poster session one

Hall 3

16:20-18:00 - Symposia

5. Theme: Attention, motivation, behaviour

S5: Disorders of motivation in brain conditions

Chair: Professor Masud Husain (University of Oxford).

Co-chair: Professor Trevor Robbins (University of Cambridge).

- 5.01. *16:20-16:45* Fractionating impulsivity: implications for brain disorders Professor Trevor Robbins (University of Cambridge).
- 5.02. 16:45-17:10 Multidimensional apathy in neurodegeneration Dr Ratko Radakovic (University of Edinburgh).
- 5.03. 17:10-17:35 Reward processing in psychiatric disorders Dr Ciara McCabe (University of Reading).
- 5.04. 17:35-18:00 Reward and effort-based decision making in health and disease Professor Masud Husain (University of Oxford).

This symposium is sponsored by the Association of British Neurologists

6. Theme: Genetics and epigenetics

Hall 11a

S6: Epigenetics: causes and consequences in neurological disorders

Chair: Dr Reinhard Stöger (University of Nottingham)

Convenor: Dr Lisa Chakrabarti

- 6.01. 16:20-17:10 The molecular basis of Rett syndrome Professor Adrian Bird (University of Edinburgh).
- 6.02. 16:45-17:10 Epigenetic studies in Alzheimer's disease Dr Katie Lunnon (University of Exeter).
- 6.03. 17:10-17:35 Stability of DNA modifications in Fragile X syndrome and Parkinson's Disease Dr Reinhard Stöger (University of Nottingham).
- 6.04. 17:35-18:00 The role of genomic imprinting in neurological disorders Professor Rebecca Oakey (King's College London).

This symposium is sponsored by the Biochemical Society

Hall 10

7. Theme: Learning and memory

Hall 7

S7: Retrosplenial cortex – a gateway to episodic memories?

Chair: Dr Anna Mitchell (University of Oxford). Co-chair: Professor Kate Jeffery (University College London).

- 7.01. *16:20-17:10* **Primate retrosplenial cortex: defining its contribution to learning and memory –** Dr Anna Mitchell (University of Oxford).
- 7.02. *16:45-17:10* **Retrosplenial cortex: on the outskirts of the spatial memory map** Dr Rafal Czajkowski (Nencki Institute of Experimental Biology, Poland).
- 7.03. 17:10-17:35 Navigating over complex terrain Professor Kate Jeffery (UCL).
- 7.04. 17:35-18:00 Retrosplenial cortex and stimulus control: investigating non-spatial functions of the rodent retrosplenial cortex Dr Andrew Nelson (University of Cardiff).

This symposium is sponsored by Axona

8. Theme: Psychiatry and mental health

Hall 11b

S8: Treating anxiety – the role of benzodiazepines and beyond

Chair: Dr Jasmina Jovanovic (UCL)

- 8.01. *16:20-17:10* Neuronal pathways and molecular targets for modulation of anxiety Professor Esa Korpi (University of Helsinki, Finland).
- 8.02. 16:45-17:10 Past, current and future drug treatments for anxiety Dr Gerry Dawson (P1Vital, Oxford).
- 8.03. 17:10-17:35 Targeting cognitive control to reduce anxiety vulnerability: implications for treatment efficacy Professor Nazanin Derakhshan (Birkbeck, University of London).
- 8.04. 17:35-18:00 Deconstructing the molecular pathways to benzodiazepine tolerance where do we stand and where do we go? Dr Jasmina Jovanovic (UCL).

This symposium is sponsored by the Society for Neuroscience, London Chapter

9. Theme: Neurodegenerative disorders and ageing

Hall 9

S9: Towards disease modifying drugs for neurodegeneration: connecting learnings from genetics, molecular and pathology studies

Co-chairs: Dr Rita Guerreiro (UCL) and Professor Karen Duff (Columbia University, USA).

- 9.01. *16:20-17:10* Using novel genetic approaches to probe the causes of neurodegenerative disease Dr Rita Guerreiro (UCL).
- 9.02. 16:45-17:10 Propagation of tauopathy: mechanisms and therapeutic opportunities Professor Karen Duff (Columbia University, USA).
- 9.03. 17:10-17:35 Alpha-synuclein trafficking as a rational mechanism for therapies in Parkinson's Disease Professor George Tofaris (University of Oxford).
- 9.04. 17:35-18:00 Industry approaches to therapeutic development for Alzheimer's Disease- Dr Michael Hutton (Eli Lilly & Co. Ltd.).

Hall 1

Hall 3

Hall 10

Plenary 1 – Professor Masud Husain (University of Oxford) 'When memory and motivation fade in brain disorders'

Introduced by Professor Russell Foster

Sponsored by Johnson and Johnson Innovation

19:20 - 20:30 SE1: Welcome Reception

Tuesday 11th April 2017

9:00-10:40 – W1: Getting grants - advice for young scientists

An informal workshop and Q&A session with major funders:

- Kate Adcock Head of Neuroscience and Mental Health, MRC
- Giovanna Lalli Acting Head of Neuroscience and Mental Health, Wellcome Trust
- Alexandra Spittle Peer Review Officer, BBSRC Science Delivery Group
- Marianna D'Arco Scheme Manager, Grants, Royal Society
- Anbalakan Paramasivam Senior Manager, UK Grants, Royal Society

9:00-10:40 – Symposia

10. Neuronal, glial and cellular mechanisms
Hall 1
S10: Microglia, neuroinflammation and psychiatric disease: biomarkers and therapeutic potential
Chair: Dr Paula Moran (University of Nottingham)
Co-chair: Professor Carmine Pariante (King's College London)
10.01. 9:00-9:25 - The functions of microglia and their diverse activation states – Professor Hugh Perry (University of Southampton).
10.02. 9:25-9:50 - Therapeutic modulation of microglia – opportunities and challenges – Dr Irene Knuesel (Roche, Switzerland).
10.03. 9:50-10:15 - Biomarkers of inflammation and treatment response in psychosis and depression – Professor Carmine Pariante (King's College London).
10.04. 10:15-10:40 - Genome-wide transcriptional profiling and structural magnetic resonance imaging in the maternal immune activation model of neurodevelopmental disorders – Dr Anthony Vernon (King's College London).

Sponsored by the British Association of Psychopharmacology

11. Theme: Attention, motivation, behaviour

Hall 11b

S11: Neuronal control of nutrition: integrating energy balance and motivation

Chair: Dr James McCutcheon (University of Leicester).

Co-chair: Dr Carrie Ferrario (University of Michigan, Michigan).

11.01. *9:00-9:25* - Neural orchestration of eating and locomotion – Dr Denis Burdakov (The Francis Crick Institute, London).

11.02. 9:25-9:50 - Sweet, light and beyond – Dr Ana Domingos (Gulbenkian Institute of Science, Portugal).

11.03. *9:50-10:15* - Why did I eat that? Differences in striatal function and motivation that contribute to obesity – Dr Carrie Ferrario (University of Michigan, USA).

11.04. 10:15-10:40 - Mesolimbic response to energy and other nutrients – Dr James McCutcheon (University of Leicester).

12. Theme: Neurodegenerative disorders and ageing

Hall 9

S12: Old brains, new insights

Chairs: Professor Lorraine Tyler (University of Cambridge) and Dr Karen Campbell (Brock University, Canada.

12.01. 9:00-9:25 - Nimble forgetfulness in healthy ageing – Professor Anna Christina Nobre (University of Oxford).

- 12.02. 9:25-9:50 Finding the ageing brain's natural capacity Dr Karen Campbell (Brock University, Canada).
- 12.03. 9:50-10:15 Multi-scale integrative network dynamics (MIND) of the ageing brain: a new model of neurocognitive ageing and function Dr Kamen Tsvetanov (University of Cambridge).
- 12.04. 10:15-10:40 Constrained moment-to-moment brain signal variability as a principled marker of the ageing brain Dr Douglas Garrett (UCL and Max Planck Institute, Germany).

Supported by a research donation from the Centre for Speech, Language and the Brain, University of Cambridge

13. Theme: Psychiatry and mental health

Hall 7

S13: Young people's mental health: uniting the sciences to find answers

Chair: Dr Sophie Dix (MQ: Transforming Mental Health, London).

- 13.01. 9:00-9:25 Early adversity and psychotic experiences: bio-psycho-social pathways and resiliencies Dr Helen Fisher (King's College London).
- 13.02. 9:25-9:50 Environmental risks and social behaviour translational approaches Dr Nichola Brydges (Cardiff University).
- 13.03. 9:50-10:15 The hidden wounds of childhood trauma: psychoneuroimmunology of early stress and the impact on mental health Dr Andrea Danese (King's College London).
- 13.04. 10:15-10:40 Genetic and environmental impact in psychosis Dr Jim van Os (Maastricht University, The Netherlands).

Sponsored by MQ: Transforming Mental Health

.4. Theme: The neurobiology of stress	
Hall	11a
S14: Neural mechanisms underlying autonomic responses to stress	
Chair: Caroline Sévoz-Couche (Sorbonne Universités, France)	
4.01. 9:00-9:25 - Control of cardiovascular responses to acute emotional stress by corticotropin-releasing factor in the bed nucleus of the stria terminalis: Involvement of local NMDA-NO-GMPc-PKG signaling mechanism – Dr Carlos Crestani (Universidade Estadual Paulista (UNESP), Brazil).	1
4.02. 9:25-9:50 - Microglia soothe the sympathoexcitatory response to seizure – Dr Paul Pilowsky (University of Sydney, Australia).	
44.03. 9:50-10:15 - Autonomic modifications induced by social defeat involve serotonin in the brainstem associated activation of the dorsomedial nucleus of the hypothalamus – Caroline Sévoz-Couche (Sorbonne Universités, France)	d to
4.04. 10:15-10:40 - Cardiac autonomic and respiratory correlates of high-anxiety behaviour in rats: potential involvement of the endocannabinoid signaling – Dr Luca Carnevali (University of Parma, Italy).	
n association with The Physiological Society	
.0:40-11:20 – Exhibition and Poster Preview Two Ha	all 3
1:20-12:20 – Plenary 2	
Ha	all 1
Plenary 2 – Andrea Brand (University of Cambridge)	
Nutritional control of neural stem cells'	
ntroduced by Professor Dimitri Kullman	
ponsored by The Guarantors of the Brain	
12:20-13:20 – Exhibition	all 3

12:20-13:20 – SpE2: Careers in Science Speed-Dating

Supported by the MRC

A chance to pick the brains of those working in academia in the space of one quick-fire session. Quiz the experts about their own career success secrets, get some hot tips for your CV and use the event as a springboard to future career success. Participants will have the chance to talk to different experts in a single session.

Tickets only. This is event is FULL.

Mezzanine Hall 3

13:20-15:00 – Symposia

15. Theme: Neuronal, glial and cellular mechanisms
Hall 1
S15: Synaptic plasticity in physiological contexts
Chair: Dr Jack Mellor (University of Bristol).
Co-chair: Dr Tara Keck (UCL).
15.01. 13:20-13:45 - TNF- α dependent spine scaling after deprivation is localized in dendritic branches that have
undergone recent spine loss – Dr Tara Keck (UCL).
15.02. 13:45-14:10 - Optogenetic STDP: shaping hippocampal networks through temporal correlations – Professor Thomas Oertner (Hamburg University, Germany).
15.03. 14:10-14:35 - The formation of hippocampal cognitive maps during novel environment exposure – Dr Mark
Sheffield (Northwestern University, USA)
15.04 14:35-15:00 - Neuromodulation of dendrites and synaptic plasticity – Dr Jack Mellor (University of Bristol)
Supported by Scientifica
16. Theme: Learning and memory
Hall 10
S16: Neuroscience informed education
Chair: Professor Paul Howard-Jones (University of Bristol).
President's Symposium - Current BNA President Professor John Aggleton FRS has selected to highlight how
neuroscience can meaningfully inform the way education is delivered.

16.01. 13:20-13:45 - Fit to study – Dr Heidi Johansen-Berg (University of Oxford).

16.02. 13:45-14:10 - Reading, phonology and the brain – Professor Usha Goswami (University of Cambridge).

16.03. 14:10 - 14:35 - Inhibitory control and the learning of counter-intuitive concepts – Professor Michael Thomas (Birkbeck, University of London).

16.04. 14:35-15:00 - Engaging the brain's reward system – Dr Katie Blakemore (University of Bristol).

Sponsored by the Experimental Psychology Society

17. Theme: Genetics and epigenetics Hall 11b S17: Genetics of language disorders: from gene mapping to biological mechanisms Chairs: Dr Silvia Paracchini (University of St Andrews) and Dr Dianne Newbury (University of Oxford). 17.01. 13:20-13:45 - Genetic associations with variation in reading and language ability: present results and future directions – Professor Tim Bates (University of Edinburgh). 17.02. 13:45-14:10 - Using extreme traits to identify genetic contributions to speech and language disorders – Dr Dianne Newbury (University of Oxford). 17.03. 14:10-14:35 - Dyslexia and cilia biology: a new link between cognition and brain asymmetries? – Dr Silvia Paracchini (University of St Andrews). 17.04. 14:35-15:00 - Model systems to understand language disorders: FOXP2 and beyond – Dr Sonja Vernes (Max Planck Institute of Psycholinguistics, The Netherlands). Supported by The Genetics Society 18. Theme: Sensory and motor systems Hall 7 S18: The relevance of invertebrate neuroscience to food security Chair: Professor Vincent O'Connor (University of Southampton). 18.01. 13:20-13:50 - Ethologically relevant signals processed by the nematode nervous system – Dr Paul Sternberg (California Institute of Technology, USA). 18.02. 13:50-14:10 - Socially induced phenotypic plasticity in the desert locust – Dr Swidbert Ott (University of Leicester). 18.03. 14:10-14:30 - Impact of neonicotinoid pesticides on bee behaviour – Professor Geraldine Wright (Newcastle University). 18.04. 14:30-14:45 - Challenges in Targeting the Neuromuscular System for Control of Agricultural Insect Pests - Dr Fergus Earley (Syngenta). 18.05. 14:45-15:00 - The challenges facing the UK food system – how can neuroscience help? - Professor Guy Poppy (University of Southampton).

Partly supported by Syngenta
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19. Theme: Developmental neuroscience Hall 11a
S19: Neurobiological roots of brain tumours
Chair: Professor Silvia Marino (Barts and the London School of Medicine and Dentistry).
Co-chair: Professor Paolo Salomoni (UCL).
19.01. 13:20-13:45 - Overlapping mechanisms in CNS development and gliomagnenesis – Professor David Rowitch (University of Cambridge).
19.02. 13:45-14:10 - A common pathway controlling cell migration in normal and neoplastic neural stem cells – Professor Paolo Salomoni (UCL).
19.03. 14:10-14:35 - Exploring the roots of paediatric brain cancers using epigenetic profiling – Dr David Jones (German Cancer Research Centre (DKEZ), Germany)
 19.04. 14:35-15:00 - Epigenetic deregulation in brain cancer – Professor Silvia Marino (Barts and the London School of Medicine and Dentistry).
Sponsored by the British Neuropathological Society and the British Neuro-Oncology Society
20. Theme: The neurobiology of stress Hall 9
S20: Imaging the emotional brain: fMRI studies in rodents and man
Chair: Professor Megan Holmes (University of Edinburgh).
Co-chair: Dr Anjanette Harris (University of Edinburgh).
 20.01. 13:20-13:45 - Vulnerability to depression and emotional processing – Dr Stella Chan (University of Edinburgh). 20.02. 13:45-14:10 - Consequences of stress on emotional processing in humans and rodents – Dr Marloes Henckens (Radboud University, The Netherlands).
 20.03. 14:10-14:35 - Stress, oxytocin and vasopressin regulation of emotion: insights from fMRI – Dr Craig Ferri (Northeastern University, USA). 20.04. 14:25:15:00. 5% of the fourth of the inside and the i
 - Dr Anjanette Harris (University of Edinburgh).

In association with The Physiological Society

15:00-16:40 – Exhibition and Poster Session Two

16:40-18:00 - Plenary 3

Hall 1

Hall 3

Plenary 3 – Graham Collingridge (University of Bristol/University of Toronto) – Brain Prize winner, 2016 'Synaptic plasticity, memory and molecules'

Introduced by Professor Kim Krogsgaard (Lundbeckfonden)

Supported by Lundbeckfonden, The Brain Prize

Hall 1

Professor Paul Howard-Jones (University of Bristol) '<u>Neuroscience and Education: Promises and Perils</u>' Introduced by Professor John Aggleton

19:30 – SpE3: Brain Prize Evening

An evening with The Brain Prize winners – with Tim Bliss, Graham Collingridge and Karen Steel In conversation with John Aggleton

Supported by Lundbeckfonden Foundation

Wine and canape reception, Hall 11 foyer from 19:15

Tickets only. Please book in advance here

Wednesday 12th April 2017

9:00-10:40 – W2: Beyond Academe

An informal workshop to discuss alternatives to the academic research pathway, from the media to publishing, and from the pharmaceutical and biotech industry to science administration:

- Victoria Gill BBC Science Correspondent
- Gary Gilmour Senior Research Scientist, Eli Lilly
- Lucy Foss Team Manager, Neuroscience and Mental Health, Wellcome Trust
- Natasha Bray Associate Editor, Nature Reviews Neuroscience
- Erica Smyth Preclinical Research scientist, Imanova Ltd

Hall 11a

9:00-10:40 – Symposia

21. Theme: Neuronal, glial and cellular mechanisms

S21: Opioids revisited: new developments and opportunities for opioid pharmacology

Chair: Dr Ilona Obara (Durham University).

Co-chair: Dr Alexis Bailey (St George's, University of London).

- 21.01. *9:00 -9:25* Mechanisms of μ-opioid receptor desensitisation and tolerance Dr Chris Bailey (University of Bath).
- 21.02. 9:25-9:50 Ligand bias at the μ-opioid receptor Professor Eamonn Kelly (University of Bristol).
- 21.03. 9:50-10:15 Biased ligand signalling for kappa opioid receptor agonists and antagonists Professor Charles Chavkin (University of Washington, USA).
- 21.04. 10:15-10:40 Circuit dynamics of in vivo dynorphin release in the nucleus accumbens shell Dr Ream Al-Hasani (Washington University School of Medicine, USA).

Sponsored by the British Pharmacological Society

22. Theme: Sensory and motor systems

S22: Information integration across the senses

Chair: Professor Uta Noppeney (University of Birmingham).

- 22.01. 9:00-9:25 The pain matrix 'reloaded': a multimodal saliency-detection system for the body and the peripersonal space Professor Giandomenico lannetti (UCL).
- 22.02. 9:25-9:50 Multiple stages of multisensory perception: evidence from local cortical oscillations and functional connectivity Dr Julian Keil (Charité Universitätsmedizin Berlin, Germany).
- 22.03. 9:50-10:15 Auditory-visual integration in auditory cortex facilitates auditory scene analysis Dr Jennifer Bizley (UCL).
- 22.04. 10:15-10:40 See what you hear how the brain forms a representation across the senses Professor Uta Noppeney (University of Birmingham).

23. Theme: Neurodegenerative disorders and ageing

S23: The APOE paradox – Pathway to Alzheimer's disease

Chair: Dr Sarah King (University of Sussex).

23.01. 9:00-9:25 - APOE4 from man to mouse – Dr Sarah King (University of Sussex).

- 23.02. 9:25-9:50 APOE4 across the ages: what changes when? MRI signatures of brain function in humans Dr Sana Suri (University of Oxford).
- 23.03. 9:50-10:15 Using APOE targeted replacement mice to probe APOE4 function Professor Daniel Michaelson (Tel Aviv University, Israel).
- 23.04. 10:15-10:40 Structural and cellular studies to elucidate the mechanisms of APOE isoform action and provide targets for therapy Professor Louise Serpell (University of Sussex).

Hall 7

Hall 9

24. Theme: Novel treatments and translational neuroscience

Hall 11b

S24: Epilepsy and precision medicine

Chair: Professor Sanjay Sisodiya (UCL).

- 24.01. 9:00-9:25 Epilepsy genetics: contributions to cause and management Professor Sanjay Sisidiya (UCL).
- 24.02. 9:25-9:50 Aberrant glutamatergic signalling in brain tumour related seizures: opportunities for precision medicine Dr Mark Cunningham (Newcastle University).
- 24.03. 9:50-10:15 Autoantibody-mediated forms of epilepsy Dr Sarosh Irani (University of Oxford).
- 24.04. 10:15-10:40 Autonomic modulation as a therapy for epilepsy: effective and non-invasive approach for future treatment Dr Yoko Nagai (University of Sussex).

Sponsored by the Association of British Neurologists

25. Theme: The neurobiology of stress

Hall 1

S25: Environment and synaptic function

Chair: Professor Kei Cho (University of Bristol).

- 25.01. 9:00-9:25 Slave to the rhythm ultradian glucocorticoid rhythms regulate distinctive gene expression profiles in the brain and pituitary Dr Becky Conway-Campbell (University of Bristol).
- 25.02. 9:25-9:50 Stress, glutamate receptor trafficking and synaptic plasticity Dr Garry Whitehead (University of Bristol).
- 25.03. *9:50-10:15* **Dopamine-mediated regulation of expression of fear memory** Dr Joung-Hun Kim (Pohang University of Science and Technology, South Korea).
- 25.04. 10:15-10:40 Strategies for preventing in vivo hippocampal synaptic plasticity disruption by stressors Professor Michael Rowan (Trinity College, Dublin, Republic of Ireland).

In association with **The Physiological Society**

10:40-11:20 – Exhibition and Poster Preview Three

Hall 3
11:20-12:20 – Plenary 4
Hall 1
Plenary 4 – Professor Alon Chen (Max Planck Institute of Psychiatry, Munich)
'Genetic and optogenetic dissection of the central stress response and stress-linked psychiatric disorders'
Introduced by Professor Stafford Lightman
In association with The Physiological Society
12:20-13:20 – Exhibition

Find out what has happened over the last year in the BNA, hear who will be the next President, and take the chance to have your say in how the association is run. Free to all BNA members.

12:20-13:20 – SpE4: Alternative Careers Speed-Dating

Supported by Imanova

An opportunity to meet experts from other science-based professions including industry, teaching, clinical trials, and charities, and find out how they changed their career paths. Tickets only. This event is now FULL.

12:20 - 13:20 - Careers Corner

Information, job vacancies and advice on careers in neuroscience can be found in Booth B, Hall 3, for the duration of the meeting. You can also arrange to talk to senior scientists here.

13:20-15:00 – Symposia

26. Theme: Methods and techniques

Chair: Professor Leslie Smith (University of Stirling).

13:20-1325: - Launch of the BNA Neuroinformatics Special Interest Group Professor Leslie Smith (University of Stirling) and Professor Marcus Kaiser (University of Newcastle) 26.01. 13:25-13:45 - Neuroinformatics tools for sharing and analysing data – Professor Leslie Smith (University of Stirling). 26.02. 13:45-14:10 - Modelling plasticity in networks – Dr Claudia Clopath (Imperial College London). 26.03. 14:10-14:35 - Statistical long-term excitatory and inhibitory synaptic plasticity – Dr Tim Vogels (University Oxford). 26.04. 14:35-15:00 - Linking network structure and function in the cerebellar cortex – Professor Angus Silver (UCL).

S26: Why neuroinformatics and computational modelling matters for neuroscience

Hall 7

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Mezzanine Hall 3

Hall 3

27. Theme: Sensory and motor systems

Hall 7

S27: Towards a causal understanding of motor learning in humans: a role for non-invasive brain stimulation

Chair: Dr Charlotte Stagg (University of Oxford).

Co-chair: Professor Edwin Robertson (University of Glasgow).

- 27.01. 13:20-13:45 Combining non-invasive brain stimulation with magnetic resonance imaging and spectroscopy to probe motor learning Dr Charlotte Stagg (University of Oxford).
- 27.02. 13:45-14:10 Using non-invasive brain stimulation to study the role of primary motor cortex in motor learning Dr Sheena Waters (UCL).
- 27.03. 14:10-14:35 Non-invasive brain stimulation to dissociate the roles of the cerebellum and motor cortex in motor learning Dr Joseph Galea (University of Birmingham).
- 27.04. 14:35-15:00 The offline brain: understanding the regulation of memory consolidation using non-invasive brain stimulation Professor Edwin Robertson (University of Glasgow).

Supported by Rogue Resolutions

28. Theme: Genetics and epigenetics

S28: Epigenetics, placenta and developmental programming: coordination of mother and offspring brain

Chair: Dr Anthony Isles (Cardiff University).

- 28.01. 13:20-13:45 Prenatal glucocorticoids and the developing brain Dr Mandy Drake (Queen's Medical Research Institute, Edinburgh).
- 28.02. 13:45-14:10 Maternal protein restriction around conception increases foetal neuronal differentiation and is associated with adult memory deficits Dr Sandrine Willaime-Morawek (University of Southampton).
- 28.03. 14:10-14:35 Sexually dimorphic programming of the developing dopamine system, with consequences for adult behaviour, by a low protein diet restricted to gestation Dr Gráinne McNamara (Cardiff University).
- 28.04. 14:35-15:00 Prenatal maternal depression and aberrant placental imprinting Dr Anna Janssen (Cardiff University).

Supported by The Genetics Society

29. Theme: Neuronal, glial and cellular mechanisms

Hall 10

Hall 11b

S29: From channelopathies to synaptopathies

Chair: Dr Kirill Volynski (UCL).

29.01. 13:20-13:45 - Inherited and acquired presynaptic channelopathies – Professor Dimitri Kullmann (UCL).

- 29.02. 13:45-14:10 What can we learn from tetanus toxin? Dr Kinga Bercsenyi (King's College London).
- 29.03. 14:10-14:35 Ca²⁺ channels modulate dopamine-autoinhibition and vulnerability of dopaminergic neurons to Parkinson's disease trigger-factors Professor Birgit Liss (Ulm University, Germany).
- 29.04. 14:35-15:00 Activity-dependent regulation of synaptic strength and cellular mechanisms of paroxysmal neurological disorders Dr Kirill Volynski (UCL).

30. Theme: Novel treatments and translational neuroscience

Hall 9

S30: Bad pharma? Improving CNS drug discovery and development with live human CNS tissue

Chair: Professor Roland Jones (University of Bath).

- 30.01. 13:20-13:45 CNS medicine discovery: starting and finishing with the patient in mind Professor Emilio Merlo-Pich (Takeda Pharmaceuticals Ltd., Japan).
- 30.02. 13:45-14:10 Age dependent changes of synaptic composition in human cortical synapses Dr Mariana Vargas-Caballero (University of Southampton).
- 30.03. 14:10-14:35 Investigating the correspondence between rodent models of epilepsy and human brain tissue from children with drug resistant epilepsy Professor Gavin Woodhall (Aston University).
- 30.04. 14:35-15:00 Experimental models of cortical rhythms in live human brain tissue: translational biomarkers for CNS drug development Dr Mark Cunningham (University of Newcastle).

Sponsored by Takeda

The British Pharmacological Society is gratefully acknowledged for supporting bursaries for this symposium

31. Theme: The neurobiology of stress
Hall 11a
S31: Long-term effects of early life activation of the hypothalamic pituitary adrenal (HPA) axis: a comparative approach
Chair: Professor Karen Spencer (University of St Andrews).
31.01. 13:20-13:45 - Epigenetic and behavioural outcomes associated with adverse caregiving – Dr Tania Roth (University of Delaware, USA).
 31.02. 13:45-14:10 - Adolescent glucocorticoid programming: long-term effects on neophobia and HPA axis regulation – Mr Michael Emmerson (University of St Andrews).
31.03. 14:10-14:35 - Early life adversity and programming of the physiological stress response – Dr Karen Spencer (University of St Andrews).
31.04. 14:35-15:00 - Resilience to developmental stress exposure in serotonin-transporter deficient female mice – Ms Magdalena Weidner (Maastricht University, The Netherlands).
In association with The Physiological Society
15:00-16:40 – Exhibition and Poster Session Three Hall 3
16:40-17.40 – Plenary 5
Hall 1

Plenary 5 – May-Britt Moser (Norwegian University of Science and Technology) – 2014 Nobel prize winner for Physiology and Medicine <u>'Brain mechanisms for representing space</u>'

Introduced by John Aggleton

In association with the Wolstencroft Trust

18:00-19:00 - Public Lecture

Professor Clive Ballard (University of Exeter) 'How neuroscience helps us understand and find treatments for dementia'

Introduced by Mr B Sethia, RSM President

In association with the Silk Trust and the Royal Society of Medicine

20:00 – SE2: VIP dinner

By invitation only.

20:00 – SE3: Eight 'till late' – Student Social and games night, Pitcher and Piano, Brindleyplace

Join in with this fun-filled event for student and early members and get into the 'Festival' spirit. Make new friends whilst taking part in a fun quiz! Tickets include a buffet, two drinks vouchers, games and dancing until the early hours!

Ticket information:

Tickets cost £15. Please book your ticket in advance <u>here</u>, or ask for availability at the Registration Desk.

Thursday 13th April 2017

9:00-10:40 – Symposia

SpE5: Breaking neuroscience

Chair: Jeff Dalley (University of Cambridge)

9:00 – 9:25 Microglial immune surveillance powered by potassium channels - Dr Christian Madry, (Department of Neuroscience, Physiology and Pharmacology, UCL)

9:25 – 9:50: Is glutamate release required for synaptic plasticity? Dr Zahid Padamsey (Department of Pharmacology, University of Oxford)

9:50 – 10:15: Sustained correction of associative learning deficits following brief, early treatment in a rat model of Fragile X Syndrome Dr Antonis Asiminas (Centre for Cognitive and Neural Systems, University of Edinburgh)

10:15 – 10:40: **The psychological and neural basis of incentive habits: relevance for our understanding of addiction** Dr David Belin (Department of Psychology, University of Cambridge)

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32. Theme: Neuronal, glial and cellular mechanisms

Hall 10

S32: Understanding microglial functional heterogeneity in the health and diseased brain

Chair: Dr Diego Gomez-Nicola (University of Southampton).

Co-chair: Dr Barry McColl (University of Edinburgh).

- 32.01. 9:00-9:25 Origin and fate of CNS macrophages Professor Marco Prinz (University of Freiburg, Germany).
- 32.02. 9:25-9:50 Multiple identities of microglia across the adult lifespan Dr Barry McColl (University of Edinburgh).
- 32.03. *9:50-10:15* Microglial self-renewal and proliferation in health and disease Dr Diego Gomez-Nicola (University of Southampton).
- 32.04. 10:15-10:40 Cellular and molecular mechanisms underpinning microglia-driven myelin regeneration Dr Veronique Miron (University of Edinburgh).

Sponsored by Alzheimer's Research UK

33. Theme: Attention, motivation, behaviour

Hall 11b

Hall 7

S33: What is special about 'social'?

Chair: Professor Bhismadev Chakrabarti (University of Reading).

33.01. 9:00-9:25 - Sociality from primates to humans – Professor Robin Dunbar (University of Oxford).

- 33.02. 9:25-9:50 Developmental perspective on 'what is special about 'social'?' Professor Mark Johnson (Birkbeck, University of London).
- 33.03. 9:50-10:15 Toward a social psychophysics of face communication Dr Rachael Jack (University of Glasgow).

33.04. 10:15-10:40 - Eye contact and social interaction – Dr Antonia Hamilton (UCL).

Sponsored by the British Psychological Society

34. Theme: Sensory and motor systems

S34: MRI at 7 Tesla: new capabilities and insights

Chair: Dr James Kolasinski (Cardiff University).

Co-chair: Dr Ivan Alvarez (University of Oxford).

- 34.01. *9:00-9:25* Somatosensory plasticity at 7T: fMRI, spectroscopy and behaviour Dr James Kolasinski (Cardiff University).
- 34.02. 9:25-9:50 From sensory experience to complex decisions: insights at 7T Professor Zoe Kourtzi (University of Cambridge).
- 34.03. 9:50-10:15 High-resolution MRI of the human visual system challenges and opportunities at ultra-high field Dr Ivan Alvarez (University of Oxford).

34.04. 10:15-10:40 - Applications of CEST and MT imaging at 7T – Professor Penny Gowland (University of Nottingham).

Supported by **Oxford Neuroscience**

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35. Theme: Psychiatry and mental health
Hall 9
S35: What the brain tells us about the mind: lessons from neuropsychiatry
Chair: Professor David Linden (Cardiff University).
 35.01. 9:00-9:25 - Disorders of visual imagery – Professor Adam Zeman (University of Exeter). 35.02. 9:25-9:50 - Impulse control disorders in Parkinson's disease – Dr Valerie Voon (University of Cambridge). 35.03. 9:50-10:15 - What amnesia tells us about memory functions – Dr Nils Muhlert (University of Manchester). 35.04. 10:15-10:40 - Brain control – scientific and clinical developments and ethical implications – Professor David Linden (University of Cardiff).
36. Theme: Neuroendocrine and autonomic nervous systems Hall 11a
S36: Early life stress: consequences for neurodevelopment and behaviour

Co-chairs: Dr Paula Brunton (University of Edinburgh) and Dr Chris Murgatroyd (Manchester Metropolitan University).

- 36.01. 9:00-9:25 The influence of prenatal stress, anxiety and depression on fetal and child neurodevelopment, and underlying biological mechanisms – Professor Vivette Glover (Imperial College London).
- 36.02. 9:25-9:50 Can the adverse effects of prenatal stress on the offspring's brain and behaviour be prevented by targeting the placenta? – Dr Paula Brunton (University of Edinburgh).
- 36.03. 9:50-10:15 Transgenerational accumulation of impairments in maternal behaviour following postnatal social stress – Dr Chris Murgatroyd (Manchester Metropolitan University).
- 36.04. 10:15-10:40 Programming effects of peripubertal stress on brain and behaviour Dr Stamatina Tzanoulinou (University of Geneva, Switzerland).

Sponsored by the British Society for Neuroendocrinology

10:40-11:00 - Refreshments

11:00-11:50 – Discussion forums

An opportunity to engage in active discussion regarding current hot topics in neuroscience and beyond. Each Discussion Forum will consist of nearly an hour of conversation between delegates and a panel of three or more experts selected for their knowledge of the relevant field.

DF1: How to engage the public about your research

Chair: Mark Ungless, BNA Education & Engagement Secretary (Imperial College London)

- Dean Burnett, Stand up comedian and science writer (Cardiff University)
- Pete Etchells, Science blog network coordinator for the Guardian, social media and writer (Bath Spa University)
- Emma Robinson, BNA Public Engagement Award Winner 2016 (University of Bristol)
- Graeme Henderson, How public engagement can directly impact your research (University of Bristol)

Hall 3

DF2: Reproducibility in neuroscience

Chair: Stafford Lightman, BNA President-Elect (University of Bristol).

- Candice Morey: Proponent of open data and preregistration, incoming chief editor of the Journal of Cognitive Psychology (University of Edinburgh)
- Andrew Rice, Longstanding interest in improving internal and external validities of animal models; reducing susceptibility to experimental bias in design, conduct, analysis and reporting of pre-clinical pain research; utility of text mining/machine learning approaches to empower systematic review and meta-analysis. (Imperial, London)
- Richard Morey: Bayesian statistical methods to improve reproducibility; study pre-registration; grassroots initiative to encourage sharing of data and materials by authors (Cardiff University)

DF3: Neuroscience post-Brexit

Chair: John Aggleton BNA President (Cardiff University)

- Mike Turner, Wellcome Trust
- Laura Bellingan, Director Policy and Public Affairs, Royal Society of Biology
- Lucy Donaldson, Chair of The Physiological Society Policy Committee (University of Nottingham)

DF4: Publishing; where and how and what next?

Chair: Anthony Isles, BNA Publications Secretary (Cardiff University)

- Paul Bolam, European Journal of Neuroscience (University of Oxford)
- Jeff Dalley, Brain and Neuroscience Advances (University of Cambridge)
- Bruno Frenguelli Neuropharmacology (University of Warwick)

DF5: Brain research, ethics, policy and society

Convened by the International Neuroethics Society, Elaine Snell will be in conversation with BNA Patron, Professor Sir Colin Blakemore, and BNA Council member Professor Irene Tracey, discussing some of the ethical considerations of neuroscience and neuroscience research.

12:00-13:00 – Poster Awards (Sponsored by Bio-techne), Plenary 6 and Closing Remarks (Professor John Aggleton, BNA President)

Plenary 6 – Professor Sarah Jayne Blakemore (UCL) *Adolescence as a sensitive period of brain development*

Introduced by John Aggleton

Hall 7

Hall 11b

Hall 1

Hall 10

Hall 11a

Speaker list

Speakers are listed in alphabetical order. Please refer to the programme for exact scheduling.

Aggleton, Professor John Cardiff University, UK.

Tuesday 11th April – PM.

Alvarez, Dr Ivan University of Oxford, UK *'High-resolution MRI of the human visual system - challenges and opportunities at ultra-high field*. Thursday 13th April – AM.

Asiminas, Dr Antonis University of Edinburgh, UK

'Sustained correction of associative learning deficits following brief, early treatment in a rat model of Fragile X Syndrome' Thursday 13th April - AM

Bailey, Dr Chris University of Bath, UK.

'Mechanisms of μ -opioid receptor desensitization and tolerance'. Wednesday 12th April – AM.

Bercsenyi, Dr Kinga

King's College London, UK.

'Nidogens are therapeutic targets in the prevention of tetanus'. Wednesday 12th April – PM.

Bird, Professor Adrian

University of Edinburgh, UK.

'The Molecular Basis of Rett syndrome '. Monday 10th April – PM.

Blakemore, Dr Katie University of Bristol, UK.

'Engaging the brain's reward system'. Tuesday 11th April - PM.

Bolborea, Dr Matei University of Warwick, UK.

'Context—dependent modulation by hypothalamic tanycytes of the arcuate neuronal network controlling appetite'. Monday 10th April — AM. Al-Hasani, Dr Ream

Washington University School of Medicine, Washington, USA. Circuit dynamics of in vivo dynorphin release in the nucleus accumbens shell'. Wednesday 12th April – AM.

Apps, Dr Richard University of Bristol, UK.

Monday 10th April – AM.

Bailey, Dr Alexis St George's University of London, UK.

Wednesday 12th April – AM.

Bates, Professor Tim University of Edinburgh, UK. *'Genetic associations with variation in reading and language ability: present results and future directions'*. Tuesday 11th April – PM.

Belin, Dr David

University of Cambridge, UK

'The psychological and neural basis of incentive habits: relevance for our understanding of addiction' Thursday 13th April - AM

Bizley, Dr Jennifer University College London, UK.

'Auditory-visual integration in auditory cortex facilitates auditory scene analysis'. Wednesday 12th April – AM.

Blakemore, Professor Sarah Jayne University College London, UK.

PLENARY – 'Adolescence as a sensitive period of brain development'. Thursday 13th April - AM

Brand, Professor Andrea University of Cambridge, UK.

PLENARY – 'Nutritional control of neural stem cells'. Tuesday 11th April – AM.

Brunton, Dr Paula

University of Edinburgh, UK.

'Can the adverse effects of prenatal stress on the offspring's brain and behaviour be prevented by targeting the placenta?'. Thursday 13th April – AM.

Burdakov, Dr Denis The Francis Crick Institute, London, UK. *'Neural orchestration of eating and locomotion '*. Tuesday 11th April – AM.

Carnevali, Dr Luca University of Parma, Italy'.

'Cardiac autonomic and respiratory correlates of high-anxiety behaviour in rats: potential involvement of the endocannabinoid signaling'. Tuesday 11th April – AM.

Chakrabarti, Dr Lisa University of Nottingham, UK.

Monday 10th April – PM.

Chavkin, Professor Charles University of Washington, Washington, USA.

'Biased Ligand Signaling for Kappa Opioid Receptor Agonists and Antagonists'. Wednesday 12th April – AM.

Cho, Professor Kei University of Bristol, UK. Wednesday 12th April – AM.

Collingridge, Professor Graham University of Bristol, UK / University of Toronto, Toronto,

Canada. PLENARY – 'Synaptic plasticity, memory, and molecules'. Tuesday 11th April – PM.

Conway-Campbell, Dr Becky University of Bristol, UK.

'Slave to the Rhythm: Ultradian glucocorticoid rhythms regulate distinctive gene expression profiles in the brain and pituitary'. Wednesday 12th April – AM.

Brydges, Dr Nichola Cardiff University, UK.

'Environmental risks & social behaviour – translational approaches'. Tuesday 11th April – AM.

Campbell, Dr Karen Harvard University, Massachusetts, USA. *'Finding the ageing brain's natural capacity'*. Tuesday 11th April – AM.

Chakrabarti, Professor Bhismadev University of Reading, UK.

Thursday 13th April – AM.

Chan, Dr Stella University of Edinburgh, UK. *'Vulnerability to depression and emotional processing'*. Tuesday 11th April – PM.

Chen, Professor Alon Max Planck Institute of Psychiatry, Germany.

PLENARY – 'Genetic and optogenetic dissection of the central stress response and stress-linked psychiatric disorders'. Wednesday 12th April – AM.

Clopath, Dr Claudia Imperial College London, UK. *'Modelling plasticity in networks'*. Wednesday 12th April – PM.

Commissar, Ms Lia

The Wellcome Trust, UK

Tuesday 11th April – PM.

Crestani, Dr Carlos Univ. Estadual Paulista-UNESP, Brazil.

'Control of cardiovascular responses to acute emotional stress by corticotropin-releasing factor in the bed nucleus of the stria terminalis: Involvement of local NMDA-NO-GMPc-PKG signaling mechanism.' Tuesday 11th April – AM. Cunningham, Dr Mark

Newcastle University, UK.

'Aberrant glutamatergic signalling in brain tumour related seizures: opportunities for precision medicine '. Wednesday 12th April – AM.

'Experimental models of cortical rhythms in live human brain tissue: translational biomarkers for CNS drug development'. Wednesday 12th April – PM.

Dalley, Jeff University of Cambridge, UK

Thursday 13th April - AM

Davies, Professor Ceri Takeda Pharmaceuticals Ltd, Japan. 'CNS Medicine Discovery: Starting and Finishing with

'CNS Medicine Discovery: Starting and Finishing with the Patient in Mind'. Wednesday 12th April – PM.

Derakhshan, Professor Nazanin Birkbeck, University of London, UK.

'Targeting cognitive control to reduce anxiety vulnerability: Implications for treatment efficacy'. Monday 10th April – PM.

Dolly, Professor Oliver

Dublin City University, Ireland.

'Dual basis for the anti-nociceptive action of SNARE proteases of botulinum neurotoxins: inhibition of the exocytosis of pain mediators and transducers'. Monday 10th April – AM.

Drake, Dr Mandy

Queen's Medical Research Institute, UK.

'Prenatal glucocorticoids and the developing brain'. Wednesday 12th April – PM.

Dunbar, Professor Robin

University of Oxford, UK

'Sociality from Primates to Humans'. Thursday 13th April – AM.

Emmerson, Mr Michael

University of St Andrews, UK.

Adolescent glucocorticoid programming: long-term effects on neophobia and HPA axis regulation'. Wednesday 14th April -PM. **Czajkowski**, Dr Rafal Nencki Institute of Experimental Biology, Poland.

'Retrosplenial cortex: on the outskirts of spatial memory map'. Monday 10th April – PM.

Danese, Dr Andrea

King's College London, UK.

'The hidden wounds of childhood trauma: psychoneuroimmunology of early stress and the impact on mental health'. Tuesday 11th April – AM.

Dawson, Dr Gerry P1Vital, Oxford, UK. *'Past, current and future drug treatments for anxiety'*. Monday 10th April – PM.

Dix, Dr Sophie MQ: Transforming mental health through research, London, UK.

Tuesday 11th April – AM.

Domingos, Dr Ana Gulbenkian Institute of Science, Portugal.

'Sweet, light and beyond'. Tuesday 11th April – AM.

Duff, Professor Karen Colombia University, New York, USA.

'Propagation of tauopathy: mechanisms and therapeutic opportunities'. Monday 10th April – PM.

Earley, Dr Fergus Syngenta, UK 'Challenges in Targeting the Neuromuscular System for Control of Agricultural Insect Pests'. Tuesday 11th April – PM.

Fanselow, Professor Michael UCLA, California, USA.

'Neural Mechanisms of Post-Traumatic Stress Disorder as seen through Stress-Enhanced Fear Learning'. Monday 10th April – AM.

Ferrario, Dr Carrie University of Michigan, Michigan, USA. 'Why did I eat that? Differences in striatal function and motivation that contribute to obesity'. Tuesday 11th April – AM.

Finn, Professor David National University of Ireland, Ireland 'Reciprocal interactions between pain and negative affect: Role of the endocannabinoid system'. Monday 10th April – AM.

Galea, Dr Joseph University of Birmingham, UK.

'Non-invasive brain stimulation to dissociate the roles of the cerebellum and motor cortex in motor learning'. Wednesday 12th April – PM.

Garrett, Dr Douglas

University College London and The Max Planck Institute, Germany

'Constrained moment-to-moment brain signal variability as a principled marker of the aging brain'. Tuesday 11th April - AM.

Gilmour, Dr Gary Eli Lilly & Co. Ltd, UK.

Monday 10th April – PM.

Gomez-Nicola, Dr Diego

University of Southampton, UK. '*Microglial self-renewal and proliferation in health and disease*'. Thursday 13th April – AM.

Gowland, Professor Penny University of Nottingham, UK. 'Applications of CEST and MT imaging at 7T'. Thursday 13th April – AM.

Hamilton, Dr Antonia University College London, UK.

'Eye contact and social interaction'. Thursday 13th April – AM.

Henckens, Dr Marloes Radboud University, The Netherlands. 'Consequences of stress on emotional processing in humans and rodents'. Tuesday 11th April – PM. **Ferris**, Dr Craig Northeastern University, Massachusetts, USA 'Stress, oxytocin and vasopressin regulation of emotion: insights from fMRI'. Tuesday 11th April – PM.

Fisher, Dr Helen King's College London, UK

'Early adversity and psychotic experiences: bio-psycho-social pathways and resiliencies'. Tuesday 11th April – AM.

Garfinkel, Dr Sarah University of Sussex, UK.

'Neural mechanisms underlying recurrent fear memories in Posttraumatic stress disorder'. Monday 10th April – AM.

Geranton, Dr Sandrine

University College London, UK.

'Treating chronic pain by inhibiting the stress regulator FKBP51'. Monday 10th April – AM.

Glover, Professor Vivette Imperial College London, UK.

'The influence of prenatal stress, anxiety and depression on fetal and child neurodevelopment, and underlying biological mechanisms '. Thursday 13th April – AM.

Goswami, Professor Usha University of Cambridge, UK.

'Reading, Phonology and the Brain'. Tuesday 11th April – PM.

Guerreiro, Dr Rita University College London, UK. *'Using novel genetic approaches to probe the causes of neurodegenerative disease'*. Monday 10th April – PM.

Harris, Dr Anjannette University of Edinburgh, UK. 'Effects of early-life stress and brain derived neurotrophic factor (BDNF) on emotional processing '. Tuesday 11th April – PM.

Holmes, Professor Megan University of Edinburgh, UK.

Tuesday 11th April – PM.

Howard-Jones, Professor Paul University of Bristol, UK. *Neuroscience and Education: Promises and Perils'* Tuesday 11th April – PM.

Hutton, Dr Michael Eli Lilly & Co. Ltd, UK.

'How does the pharmaceutical industry tackle neurodegenerative disease?' Monday 10th April – PM.

Ichiyama, Dr Ronaldo

Leeds University, UK.

'Combinatorial approaches to promoting recovery of limb function in rats with chronic spinal cord injury'. Monday 10th April – AM.

Isles, Dr Anthony Cardiff University, UK.

Wednesday 12th April – PM.

Jensen, Dr Anna

Cardiff University, UK. *'Prenatal maternal depression and aberrant placental imprinting'*. Wednesday 12th April – PM.

Johansen-Berg, Dr Heidi University of Oxford, UK.

'Fit to study'. Tuesday 11th April – PM.

Jones, Professor Roland University of Bath, UK.

Wednesday 12th April – PM.

Jovanovic, Dr Jasmina University College London, UK.

'Deconstructing the molecular pathways to benzodiazepine tolerance - Where do we stand and where do we go?'. Monday 10th April – PM. Husain, Professor Masud University of Oxford, UK

PLENARY – 'When memory and motivation fade in brain disorders'. Monday 10th April – PM.

'Reward and effort-based decision making in health and disease '. Monday 10th April – PM.

lannetti, Professor Giandomenico University College London, UK.

'The pain matrix "reloaded": a multimodal saliency-detection system for the body and the peripersonal space'. Wednesday 12th April – AM.

Irani, Dr Sarosh University of Oxford, UK

'Autoantibody-mediated forms of epilepsy'. Wednesday 12th April – AM.

Jack, Dr Rachael University of Glasgow, UK. *'Toward a social psychophysics of face communication'*. Thursday 13th April – AM.

Jeffery, Professor Kate University College London, UK.

'Navigating over complex terrain'. Monday 10th April – PM.

Johnson, Professor Mark Birkbeck, University of London, UK. 'Developmental Perspective on what is special about 'social'? '. Thursday 13th April – AM.

Jones, Dr David German Cancer Research Centre - DKFZ, Germany. 'Exploring the roots of paediatric brain cancers using epigenetic profiling'. Tuesday 11th April – PM.

Karalis, Mr Nikolas Ludwig-Maximilians University Munich, Germany.

'Prefrontal oscillatory mechanisms of fear behaviour'. Monday 10th April – AM.

Keck, Dr Tara

University College London, UK.

'TNF-a dependent spine scaling after deprivation is localized to dendritic branches that have undergone recent spine loss'. Tuesday 11th April – PM.

Kelly, Professor Eamonn

University of Bristol, UK.

'Ligand bias at the mu opioid receptor'. Wednesday 12th April – AM.

King, Dr Sarah University of Sussex, UK.

'APOE4 from man to mouse'. Wednesday 12th April – AM.

Kolasinski, Dr James University of Oxford, UK. 'Somatosensory plasticity at 7T: fMRI, spectroscopy and behaviour'. Thursday 13th April – AM.

Kullmann, Professor Dimitri University College London, UK. *'Inherited and acquired presynaptic channelopathies'*. Wednesday 12th April – PM.

Lewis, Dr Jo

University of Nottingham, UK. 'The role of tanycytes in energy homeostasis and seasonality'. Monday 10th April – AM.

Liss, Professor Brigit Ulm University, Germany.

'Ca2+ channels modulate dopamine-autoinhibition and vulnerability of dopaminergic neurons to Parkinson's disease trigger-factors'. Wednesday 12th April – PM.

Madry, Dr Christian University College, London *'Microglial immune surveillance powered by potassium channels'* Thursday 13th April - AM

Maxwell, Professor David Glasgow University, UK. 'Descending control of bilateral circuits controlling limb movement'. Monday 10th April – AM. Keil, Dr Julian Charité – Universitätsmedizin Berlin, Germany. 'Multiple Stages of Multisensory Perception: Evidence from Local Cortical Oscillations and Functional Connectivity'. Wednesday 12th April – AM.

Kim, Dr Joung-Hun

Pohang University of Science and Technology, South Korea. 'Dopamine-mediated regulation of expression of fear memory'. Wednesday 12th April – AM.

Knuesel, Dr Irene Roche, Switzerland. *'Therapeutic modulation of microglia – opportunities and challenges'*. Tuesday 11th April – AM.

Korpi, Professor Esa University of Helsinki, Finland. *'Neuronal pathways and molecular targets for modulation of anxiety'*. Monday 10th April – PM.

Lawrenson, Dr Charlotte University of Bristol, UK. *'Cerebellar and periaqueductal grey contributions to fear behaviour'*. Monday 10th April -AM.

Linden, Professor David Cardiff University, UK. 'Brain control - scientific and clinical developments and ethical implications'. Thursday 13th April – AM.

Lunnon, Dr Katie University of Exeter, UK.

'Epigenetic studies in Alzheimer's disease'. Monday 10th April – PM.

Marino, Professor Silvia Barts and The London Medical School, UK.

'Epigenetic deregulation in brain cancer.'. Tuesday 11th April - PM.

McCabe, Dr Ciara University of Reading, UK. *'Reward processing in psychiatric disorders'*. Monday 10th April – PM. **McColl**, Dr Barry University of Edinburgh, UK. *'Multiple identities of microglia across the adult lifespan'*. Thursday 13th April – AM.

McNamara, Dr Gráinne

Cardiff University, UK. 'Sexually dimorphic programing of the developing dopamine system, with consequences for adult behaviour, by a low protein diet restricted to gestation'. Wednesday 12th April – PM.

Michaelson, Professor Daniel Tel Aviv University, Israel. *'Using APOE targeted replacement mice to probe APOE4 function'*. Wednesday 12th April – AM.

Miron, Dr Veronique

University of Edinburgh, UK.

'Cellular and molecular mechanisms underpinning microgliadriven myelin regeneration'. Thursday 13th April – AM.

Moran, Dr Paula University of Nottingham, UK.

Tuesday 11th April – AM.

Muhlert, Dr Nils University of Manchester, UK.

'What amnesia tells us about memory functions'. Thursday 13th April – AM.

Nagai, Dr Yoko University of Sussex, UK.

'Autonomic modulation as a therapy for epilepsy: Effective and non-invasive approach for future treatment'. Wednesday 12th April – AM.

Newbury, Dr Dianne

University of Oxford, UK.

'Using extreme traits to identify genetic contributions to speech and language disorders'. Tuesday 11th April – PM.

Noppeney, Professor Uta University of Birmingham, UK. 'See what you hear - How the brain forms a representation across the senses'. Wednesday 12th April – AM. McCutcheon, Dr James

University of Leicester, UK.

'*Mesolimbic response to energy and other nutrients*'. Tuesday 11th April – AM.

Mellor, Dr Jack University of Bristol, UK.

'Neuromodulation of dendrites and synaptic plasticity'. Tuesday 11th April – PM.

Migaud, Professor Martine

INRA-CNRS-Université François Rabelais de Tours, France.

'Modulation of adult hypothalamic neurogenesis by the photoperiod'. Monday 10th April – AM.

Mitchell, Dr Anna

University of Oxford, UK.

'Primate retrosplenial cortex: defining its' contribution to learning and memory'. Monday 10th April – PM.

Moser, Professor May-Britt

Norwegian University of Science and Technology, Norway PLENARY – 'Brain mechanisms for representing space'. Wednesday 12th April – PM.

Murgatroyd, Dr Chris

Manchester Metropolitan University, UK.

'Transgenerational accumulation of impairments in maternal behaviour following postnatal social stress'. Thursday 13th April – AM.

Nelson, Dr Andrew

University of Cardiff, UK.

'Retrosplenial cortex and stimulus control: investigating nonspatial functions of the rodent retrosplenial cortex.'. Monday 10th April – PM.

Nobre, Professor Anna Christina University of Oxford, UK.

'Nimble forgetfulness in healthy ageing'. Tuesday 11th April – AM.

Oakey, Professor Rebecca King's College, London, UK. *'The role of genomic imprinting in neurological disorders'*. Monday 10th April – PM. **Obara**, Dr Ilona Durham University, UK. Wednesday 12th April – AM.

Oertner, Professor Thomas Hamburg University, Germany. 'Optogenetic STDP: shaping hippocampal networks through temporal correlations'. Tuesday 11th April – PM.

Ott, Dr Swidbert University of Leicester, UK. *'Socially induced phenotypic plasticity in the desert locust'*. Tuesday 11th April – PM.

Paracchini, Dr Silvia University of St. Andrews, UK. 'Dyslexia and cilia biology: a new link between cognition and brain asymmetries?'. Tuesday 11th April – PM.

Perez, Ms Monica The Miami Project to Cure Paralysis, Miami, USA. 'Plasticity in the Corticospinal Pathway after Human Spinal Cord Injury'. Monday 10th April – AM.

Pilowsky, Dr Paul

University of Sydney, Australia. *'Microglia soothe the sympathoexcitatory response to seizure'*. Tuesday 11th April - AM.

Poppy, Professor Guy University of Southampton, UK 'The challenges facing the UK food system – how can neuroscience help?'. Tuesday 11th April – PM.

Radakovic, Dr Ratko University of Edinburgh, UK. *'Multidimensional Apathy in Neurodegeneration'*. Monday 10th April – PM.

Robertson, Professor Edwin

University of Glasgow, UK.

'The offline brain: understanding the regulation of memory consolidation using non-invasive brain stimulation'. Wednesday 12th April – PM.

O'Connor, Professor Vincent University of Southampton, UK. Tuesday 11th April – PM.

O'Mahony, Dr Siobhain University College Cork, Ireland. *'The Microbiota Gut Brain Axis as a Key Regulator of Visceral Pain'*. Monday 10th April – AM.

Padamsey, Dr Zahid University of Oxford, UK *'Is glutamate release required for synaptic plasticity?'* Thursday 13th April - AM

Pariante, Professor Carmine King's College London, UK. *'Biomarkers of inflammation and treatment response in psychosis and depression'*. Tuesday 11th April – AM.

Perry, Professor Hugh University of Southampton, UK. *'Microglia dynamics in the healthy and diseased brain'*. Tuesday 11th April – AM.

Placzek, Professor Marysia

University of Sheffield, UK.

'Developmental programmes in tanycyte formation and function'. Monday 10th April – AM.

Prinz, Professor Marco University of Freiburg, Germany.

'Origin and fate of CNS macrophages'. Thursday 13th April – AM.

Robbins, Professor Trevor University of Cambridge, UK.

'Fractionating impulsivity: implications for brain disorders'. Monday 10th April – PM.

Roth, Dr Tania University of Delaware, Delaware, USA.

'Epigenetic and behavioral outcomes associated with adverse caregiving'. Wednesday 12th April – PM.

Rowan, Professor Michael

Trinity College, Ireland.

'Strategies for preventing in vivo hippocampal synaptic plasticity disruption by stressors'. Wednesday 12th April – AM.

Salomoni, Professor Paolo University College London, UK.

'A common pathway controlling cell migration in normal and neoplastic neural stem cells'. Tuesday 11th April - PM

Sevoz-Couche, Dr Caroline

Sorbonne Universités, France.

'Autonomic modifications induced by social defeat involve serotonin the brainstem associated to activation of the dorsomedial nucleus of the hypothalamus'. Tuesday 11th April – AM.

Silver, Professor Angus

University College London, UK.

'Linking network structure and function in the cerebellar cortex'. Wednesday 12th April – PM.

Smith, Professor Leslie University of Stirling, UK. 'Neuroinformatics tools for sharing and analysing data'. Wednesday 12th April – PM.

Spencer, Dr Karen University of St Andrews, UK.

'Early life adversity and programming of the physiological stress response' - Wednesday 12th April – PM.

Sternberg, Professor Paul Caltech, California, USA. *'Ethologically relevant signals processed by the nematode nervous system'*. Tuesday 11th April – PM.

Suri, Dr Sana University of Oxford, UK. APOE4 across the ages: what changes when? MRI signatures of brain function in humans.' Wednesday 12th April - AM. **Rowitch**, Professor David University of Cambridge, UK. *'Overlapping mechanisms in CNS development and gliomagenesis'*. Tuesday 11th April – PM.

Serpell, Professor Louise University of Sussex, UK.

'Structural and cellular studies to elucidate the mechanisms of ApoE isoform action and provide targets for therapy'. Wednesday 12th April - AM

Sheffield, Dr Mark Northwestern University, Illinois, USA.

'The Formation of Hippocampal Cognitive Maps During Novel Environment Exposure'. Tuesday 11th April – PM.

Sisodiya, Professor Sanjay

University College London, UK.

'Epilepsy Genetics: contributions to cause and management'. Wednesday 12th April – AM.

Soteropoulos, Dr Demetris

University of Newcastle, UK.

'Bilateral organisation in the primate cervical spinal cord'. Monday 10th April - AM.

Stagg, Dr Charlotte University of Oxford, UK.

'Combining non-invasive brain stimulation with magnetic resonance imaging and spectroscopy to probe motor learning'. Wednesday 12th April – PM.

Stoger, Dr Reinhard University of Nottingham, UK. *'Stability of DNA modifications in Fragile X syndrome and*

'Stability of DNA modifications in Fragile X syndrome and Parkinson's Disease'. Monday 10th April – PM.

Thomas, Professor Michael Birkbeck, University of London, UK.

'Inhibitory control and the learning of counterintuitive concepts'. Tuesday 11th April – PM. **Tofaris**, Professor George University of Oxford, UK.

'Alpha-synuclein trafficking as a rational mechanism for therapies in Parkinson's Disease'. Monday 10th April – PM.

Tyler, Professor Lorraine University of Cambridge, UK.

Tuesday 11th April – AM.

van Os, Dr Jim Maastricht University, Germany. *'Genetic and Environmental Impact in Psychosis'*. Tuesday 11th April – AM.

Vernes, Dr Sonja The Max Planck Institute, The Netherlands.

'Model systems to understand language disorders: FOXP2 and beyond'. Tuesday 11th April – PM.

Vogels, Dr Tim University of Oxford, UK.

'Statistical long-term excitatory and inhibitory synaptic plasticity'. Wednesday 12th April – PM.

Voon, Dr Valerie

University of Cambridge, UK.

'Impulse control disorders in Parkinson's disease'. Thursday 13th April – AM.

Weidner, Ms Magdalena

Uniklinik Würzburg, Germany / Maastricht University, The Netherlands.

'Resilience to developmental stress exposure in serotonintransporter deficient female mice'. Wednesday 12th April – PM.

Willaime-Morawek, Dr Sandrine

University of Southampton, UK.

'Maternal protein restriction around conception increases foetal neuronal differentiation and is associated with adult memory deficits'. Wednesday 12th April – PM.

Wright, Professor Geraldine

Newcastle University, UK.

'Impact of Neonicotinoid Pesticides on Bee Behaviour'. Tuesday 11th April – PM.

Tsvetanov, Dr Kamen

University of Cambridge, UK.

'Multi-scale integrative network dynamics (MIND) of the ageing brain: a new model of neurocognitive ageing and function'. Tuesday 11th April - AM.

Tzanoulinou, Dr Stamatina

University of Geneva, Switzerland.

'Programming effects of peripubertal stress on brain and behaviour'. Thursday 13th April – AM.

Vargas-Caballero, Dr Mariana

University of Southampton, UK.

'Age dependent changes of synaptic composition in human cortical synapses'. Wednesday 12th April – PM.

Vernon, Dr Anthony

King's College London, UK.

'Genome-Wide Transcriptional Profiling and Structural Magnetic Resonance Imaging in the Maternal Immune Activation Model of Neurodevelopmental Disorders'. Tuesday 11th April – AM.

Volynski, Dr Kirill

University College London, UK.

'Activity-dependent regulation of synaptic strength and cellular mechanisms of paroxysmal neurological disorders'. Wednesday 12th April – PM.

Waters, Dr Sheena

University College London, UK.

'Using non-invasive brain stimulation to study the role of primary motor cortex in motor learning'. Wednesday 12th April – PM.

Whitehead, Dr Garry

University of Bristol, UK.

'Stress, glutamate receptor trafficking and synaptic plasticity'. Wednesday 12th April – AM.

Woodhall, Professor Gavin

Aston University, UK.

'Investigating the correspondence between rodent models of epilepsy and human brain tissue from children with drug resistant epilepsy'. Wednesday 12th April – PM.

Zeman, Professor Adam University of Exeter Medical School, UK.

'Disorders of visual imagery'. Thursday 13th April – AM.

Exhibitor listing (alphabetical)

The BNA is extremely grateful to the companies and societies that choose to exhibit with us, their support is vital to the success of the Festival.

Stand Number 59





2B Scientific Ltd

Email:	sales@2Bscientific.com
Website:	2bscientific.com
Twitter:	@2BScientific
LinkedIn:	linkedin.com/company/2b-scientific-limited
Tel.	01869 238033

The life science company with a difference......

2BScientific has re-invented the development and supply of novel reagents to the life-science market.

With over forty years of experience supporting the life sciences research we appreciate how crucial it is for end-users to access the best and latest reagents (Antibodies, Kits, Proteins, Small Molecules, Beads, Expression Systems and more) – at affordable prices!

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- New discounts & Academic offers every month.
- We are co-exhibiting with one of our suppliers- LGC Biosearch Technologies:

LGC is a global leader in delivering genomic solutions for research, diagnostics, and applied markets. They provide bestin-class reagents, and services supporting qPCR, end-point PCR and RNA fluorescence in situ hybridization (RNA FISH). Products include qPCR and genotyping probes (BHQ[®] and BHQplus[®] probes) and Stellaris[®] RNA FISH, which detects, localizes, and quantifies RNA in fixed samples at the single molecule level.

With a low cost per assay, simple protocols and ability to localize mRNA and lncRNA, scientists can use Stellaris RNA FISH to address stochastic gene expression and visualize without purification, reverse transcription, or amplification.

2bscientific have a prize draw for visitors to their stand - leave your name and email address to enter a draw to win a 3D printing pen. The winner will be announced on the last break on Wednesday.

abcam

ABCAM

Website: <u>www.abcam.com</u> Twitter: <u>https://twitter.com/abcam</u> LinkedIn: <u>https://www.linkedin.com/company/abcam</u> Facebook: <u>https://www.facebook.com/Abcam/</u>

Abcam is a global life sciences company providing highly validated antibodies and other binders and assays to the research and clinical communities to help advance the understanding of biology and causes of disease.

Our mission is to serve life scientists to help them achieve their mission faster by listening to their needs, continuously innovating and improving and by giving them the tools, data, and experience they want. We continue to identify the biological pathways of greatest interest to our consumers and continuously strive to provide products of the highest quality with increased specificity, reproducibility and sensitivity. At the same time, we are expanding into new markets, identifying new technologies and applications.

Our catalogue of products includes primary and secondary antibodies, proteins, peptides, lysates, agonists, antagonists, inhibitors, immunoassays and other kits.

To find out more, please visits: <u>www.abcam.com</u>

Stand Number 13



Alzheimer's Research UK

Website: alzheimersresearchuk.org Twitter: <u>@ARUKnews</u> <u>@ARUKscientist</u>

Facebook: <u>facebook.com/AlzheimersResearchUK</u>

Alzheimer's Research UK is Europe's leading dementia research charity. We power world class studies that give us the best chance of beating dementia sooner. Our pioneering work focuses on identifying the causes of dementia, improving detection and diagnosis, developing prevention strategies, and advancing treatment opportunities.

Alzheimer's Research UK has seen continuous growth over the past 25 years and currently supports over 120 national and international projects backed by more than £25m worth of investment. Our projects have consistently led to discoveries which advance the field of dementia research.

We pride ourselves on being a flexible and responsive funder, committed to supporting the best and most innovative ideas from across the field. If you think that your studies fit with our research strategy and would like to find out more, please come and talk to us at Stand 13.

We will also be showcasing our citizen science project, Sea Hero Quest, along with our virtual reality experience, A Walk Through Dementia. Come try these out and discuss with us ways to use technology in your work.



Andor Technology

 Website:
 andor.com

 Twitter:
 @AndorTechnology

 LinkedIn:
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 Instgram:
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Andor Technology is a global leader in the pioneering and manufacturing of high performance scientific imaging cameras, spectroscopy solutions and microscopy systems for, research and OEM Markets. We have a portfolio of imaging products that have specific relevance to Neuroscience from deep imaging through to photostimulation tools for optogenetics, axotomy, and investigating dynamic events. Andor continues to innovate ground-breaking products that improve the world in which we live.



Ant Neuro

Email:	<u>sales@ant-neuro.co.uk</u>
Website:	www.ant-neuro.com
LinkedIn:	www.linkedin.com/company/ant-neuro
Facebook:	www.facebook.com/antneuro
Twitter:	https://twitter.com/ANTNeuro
YouTube:	www.youtube.com/user/antneuro

ANT Neuro is a Dutch-based, internationally established corporation specialized in the development, manufacturing and sales of medical and research applications, including EEG, EMG, MRI, TMS and MEG technology. Located in the Netherlands; Germany; UK; USA and China: ANT Neuro specializes in being a single-source provider of innovative, high performance products within neuroscience, neurocare, neuromodulation.

eego[™] product family: complete scalable research and clinical solutions for EEG / ERP / EMG / BCI, to gain deeper insights of the human brain. Our multi-modal EEG solutions provide ultimate flexibility to obtain high quality research grade EEG data, whether in a lab (**eego**[™] mylab), a mobile environment that ensures full freedom of movement (**eego**[™] sports) or from the palm of your hand (**eego**[™] mini).

visor2[™] product range meets the most demanding research and clinical requirements in neuroscience and neuromodulation, with new features for neuronavigated rTMS, multimodality functional mapping and extended EEG/EMG for the most advanced research in neuromodulation.

waveguard[™] EEG caps: the easy-to-apply EEG caps in different configurations (standard EEG, TMS, MEG and fMRI compatible) and layouts, ranging from a clinical montage to specialized high-density electrode configurations. Incorporating the latest developments on dry electrode technology, we proudly present our industry-leading waveguard[™]touch EEG cap.

General Information ANT Neuro

Colosseum 22, 7521 PT Enschede, The Netherlands. Tel: + 31 (0) 53 436 5175 F: + 31 (0) 53 430 3795

Contact UK: Dylan Jones - Email: sales@ant-neuro.co.uk Mobile:+ 44 (0) 20 78 59 49 14



BAKER RUSKINN

Aston University

Neuroscience at Aston University

Aston University has a proud history in pioneering Neuroscience research at all levels, from its role in the development of magnetoencephalography in the UK through to study of neuronal networks *in vitro* in living brain slices taken from children with intractable epilepsy. The School of Life and Health Sciences currently has more than 20 Principal Investigators working in both basic neuroscience (neuronal network function, plasticity and ion channel function), whole-brain study of dyslexia, autism and proprioception/motor control and applied neurosciences (audiology and vision sciences/optometry). Aston's strong links to clinical partners at Birmingham Children's Hospital, Queen Elizabeth and Heartlands Hospitals underpin our strength in Translational Neuroscience, and many investigators have both clinical and academic research interests. As well as receiving funding from BBSRC, MRC and charities such as Epilepsy Research UK, neuroscientists at Aston work closely with industrial partners such as Eli-Lilly, GSK and GW Pharma. Our research activity forms the core of advanced teaching on the recently introduced undergraduate BSc. in Neuroscience, which is delivered by research-active academic staff from our basic neurosciences, psychology and molecular biosciences groups.

If you are interested in neuroscience at Aston, please contact Prof. Gavin Woodhall Tel. +44 121 204 3995 Email: G.L.woodhall@aston.ac.uk

Stand Number 21

Baker Ruskinn

Email:	huw.thomas@ruskinn.com
Website:	www.ruskinn.com

Baker Ruskinn's InvivO2 line of physiological oxygen, cell culture workstations are designed and built to mimic the physiology of your subject matter, giving you the reassurance of precise results under controlled conditions. Culture as Nature Intended

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Contact: Huw David Thomas, Director Business Development Baker and Baker Ruskinn, 8 & 9 York Place, Bridgend Industrial Estate, Bridgend, CF31 3TB



Biochemical Society

Website: www.biochemistry.org

The Biochemical Society, <u>www.biochemistry.org</u>, promotes the future of molecular biosciences; facilitating sharing of expertise and supporting the advancement of biochemistry and molecular biology. Portland Press is the knowledge hub for life sciences. As a publisher wholly-owned by the Biochemical Society, we are dedicated to promoting and sharing scientific research, providing sustainable support for the advancement of science.

Read our new fully-open access journal, *Neuronal Signaling*, publishing high quality molecular and cellular neuroscience research at<u>www.neuronalsignaling.org</u>.

Stand Number 7



Enabling Legendary Discovery™

BioLegend

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Website:	http://biolegend.com
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BioLegend develops and manufactures highly recognized, world-class antibodies and reagents at an outstanding value to customers for biomedical research. Our broad product portfolio includes flow cytometry, cell biology, and biofunctional molecules for research in immunology, neuroscience, cancer, cell biology, stem cells, and more. Our aggressive product development program, accomplished through technology licensing, collaborations, and internal research and development, has produced a product offering of over 17,000 products, which have been collectively cited in over 25,000 peer-reviewed journals. BioLegend also offers a wide range of custom services including assay development, sample testing, and conjugation. BioLegend's reagents are supported by superior customer service and a quality management system dedicated to continuous improvement that is certified for ISO 9001:2008 and ISO 13485:2003.

Visit BioLegend, on stand 7, to enter into a prize draw for 15 Neurodegeneration magnetic puzzles.

biotechne

Bio-Techne

E-Mail:	info.emea@bio-techne.com
Website:	https://www.bio-techne.com/
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LinkedIn:	https://www.linkedin.com/company-beta/9434280?pathWildcard=9434280
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Bio-Techne is the new name that brings together some of the most referenced brands in life science - **R&D Systems**, **Novus Biologicals, Tocris Bioscience, and ProteinSimple**. Together as Bio-Techne we are a stronger scientific partner to help you attain your research goals and drive discovery.

We offer the widest selection of innovative, high-quality tools, including:

Bioactive proteins – R&D Systems proteins are the industry's premiere bioactive proteins, performance guaranteed and the most cited in the literature. A selection of the same high purity proteins are also available as GMP-grade, animal free or new ProDot lyophilised balls for easy preparation of cell culture medium.

Application-qualified Antibodies – a diverse and extensive analyte selection from Novus and R&D Systems, which covers 18,570 human gene products, as well as murine and multiple other species

Quantikine ELISA kits – legendary reproducibility and unrivalled reputation have made our ELISAs the gold standard Luminex assays – the largest multiplex selection available, simultaneously analysing up to 100 analytes Proteome Profiler Arrays – an easy to use, cost effective screening tool, with over 25 arrays to choose from Small molecule activators and inhibitors – a unique collection of over 3,500 compounds, everything from the latest exclusively licensed research tools to establish biochemical standards.

During the Bio-Techne stand across the 3 days they will be offering the following prizes during the break sessions:

- FREE Neuroscience T-Shirt for every completed online Survey that will be available on the stand
- · Complete our lead form template and be entered into our daily prize draw to win a FREE Giant Neuron Microbe

Stand Number 44



Biomedical Technologies

BioTekna - Biomedical Technologies

E-Mail:	info@biotekna.com
Website:	www.biotekna.com
LinkedIn:	https://www.linkedin.com/company-beta/11037045/

BioTekna - Biomedical Technologies, since 1996, is active in research and development of methods, devices and innovative and non-invasive systems targeting diagnostic and therapeutic methods (nutrition, physical activity and biofeedback) for stress, chronic inflammation and MUS (Medically Unexplained Symptoms).

In particular, BioTekna focuses on the study, analysis and impact of the regulation systems of the HPA Axis (Hypothalamic–pituitary–adrenal axis), of the autonomic nervous system and on the changes of body composition in relation to psychophysical performance, health, diseases and disorders.



The Microplate Reader Company

BMG LABTECH Ltd

Email:	uksales@bmglabtech.com
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BMG LABTECH has earned the reputation of being a world leader in microplate reading technology providing an extensive range of readers. Instruments are modular and fully upgradeable and include a range of features such as 65°C incubation, fully integrated O2/CO2 atmospheric control UV/Vis Spectrometer based absorbance and the revolutionary Linear Variable Filter monochromator. BMG's instrument range includes OMEGA, CLARIOstar[®] and PHERAstar[®] FSX providing readers for all budgets and applications including Life Science, Assay Development and High Throughput Screening in all read modes.

They provide the highest sensitivity, flexibility and reliability and all instruments are designed to be easily integrated into automated systems for higher throughput assays. All BMG's readers are supported by a fully qualified team of engineers, scientists, and technicians dedicated to bringing you high-quality products of exceptional value and performance.



British Neuro-oncology Society & British Neuropathology Society

 Email:
 administrator@bnos.org.uk
 (BNOS administrator)

 Website:
 https://www.bnos.org.uk
 http://www.bns.org.uk

 Twitter:
 https://twitter.com/bnosofficial

Brain cancer represents a major cause of cancer-related mortality and morbidity in young adults and children. In recent years, insights into the developmental neurobiology of brain tumours has had a significant impact on our understanding of the molecular and cellular pathogenesis of these tumours. In particular, it has informed the development of new strategies to better classify and stratify these tumours. This symposium on the '<u>Neurobiological and</u> <u>neurodevelopmental roots of brain cancer</u>' is timely and will offer a great opportunity to the neuroscience community to engage with a translational application of basic scientific knowledge to advance clinical practice for patient benefit.

The British Neuro-oncology Society's aim is to promote high-quality neuro-oncology research, education and multidisciplinary patient centred care. BNOS is central to promoting all branches of medicine related to neuro-oncology, leading the way in enhancing both research and clinical practice and uniting all the allied sectors, including Parliamentary and Government.

The British Neuropathological Society is a friendly and active forum for both clinical and experimental neuropathology. Through regular meetings, the Journal, and educational activities the society is bringing people together to understand diseases of the nervous system.

Stand B



British Neuroscience Association

Website: www.bna.org.uk Facebook: www.facebook.com/BritishNeuroscienceAssociation Linkedin: linkedin.com/british-neuroscience-association Twitter: @BritishNeuro

The British Neuroscience Association (BNA) is the largest UK organisation representing and promoting neuroscience and neuroscientists. The BNA aims to promote on a multidisciplinary basis the study of the development structure and function of the nervous system in health and disease. Our activities include the distribution of information via the BNA bulletin and dedicated neuroscience journal 'Brain and Neuroscience Advances', in addition to hosting a national meeting every 2 years. We support early-career researchers with travel bursaries, discounted books, prizes and reduced registration fees for meetings. We also aim to inform the public through regular lectures and events, and to promote neuroscience research to the UK government.

To explore all the benefits of a BNA membership and to register now, go to www.bna.org.uk

You can also find us on Facebook, Twitter and LinkedIn!

Stand Number: 27



British Pharmacological Society

Website:	www.bps.ac.uk
Twitter:	<u>@BritPharmSoc</u>
Facebook:	www.facebook.com/britpharmsoc
YouTube:	www.youtube.com/britpharmsoc

The British Pharmacological Society is a charity with a mission to promote and advance the whole spectrum of pharmacology – including neuropharmacology. Founded in 1931, it is now a global community at the heart of pharmacology, with over 4,000 members from more than 60 countries worldwide. The Society leads the way in the research and application of pharmacology around the world through its scientific meetings, educational resources and peer-reviewed journals. The Society is pleased to be a BNA2017 Partner Society and is sponsoring Wednesday morning's symposium on "Opioids revisited".



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Stand D



Cardiff University

Email:	School of Biosciences, Prof Frank Sengpiel SengpielF@cardiff.ac.uk
Email:	School of Psychology, Prof John Aggleton <u>Aggleton@cardiff.ac.uk</u>
Email:	Neuroscience and Mental Health Research Institute, Dr Vanessa Davies
	DaviesVJ@cardiff.ac.uk

Cardiff University is internationally recognised for its neuroscience research, coming second in the UK in REF2014 for Psychology, Psychiatry and Neuroscience.

The Neuroscience Division within the School of Biosciences pursues a broad range of neurobiological research.

We aim to better understand the mechanisms leading to disease states and translate this knowledge into pharmacological and cell-based therapies. Research within the School of Biosciences includes: molecular and cellular neuroscience, learning and memory and neurodegeneration.

Neuroscience within the School of Psychology comprises collaborative research groups (behavioural neuroscience, cognitive neuroscience and imaging science) interested in the biological and psychological foundations of cognition. CUBRIC (Cardiff University Brain Research Imaging Centre) is the largest neuroimaging centre within the UK.

The Neuroscience and Mental Health Research Institute (NMHRI) is a Cardiff University flagship Research Institute. It was established in 2010 to address one of the major societal challenges facing the world today – mental health illnesses. The NMHRI brings together expertise in psychiatry, neuroscience and psychology. The NMHRI hosts the Wellcome Trust four year PhD Programme in Integrative Neuroscience.

Cardiff University neuroscience stand will be running a photo frame competition - delegates can take photos and selfies in a promotional cardboard frame and upload their entries to Twitter live from the event by tagging @neurosciencecu or using our hashtag #NeuroscienceCardiff. The winner for 'best photo' (points will be added for making your picture relevant to neuroscience!) will be announced during the last break on Wednesday and presented with a bottle of wine as a prize.



Cell Signaling Technology

Website: <u>www.cellsignal.eu</u>

CST is a private, family-owned company, founded by scientists and dedicated to providing high quality research tools to the biomedical research community. Our employees operate worldwide from our U.S. headquarters in Massachusetts, and our offices in the Netherlands, China, and Japan. As scientists ourselves, we believe an antibody is only as good as the research it enables. For this reason, we are actively engaged in the development of technologies to facilitate signaling analysis and mechanistic cell biology research. And, the same scientists who produce and validate our primary antibodies are available to provide technical support for customers. In this way, we are able to supply customers with both the reagents and the information they need to achieve consistent, reliable results at the research bench.

Cell Signaling Technology

C/o New England Biolabs UK Ltd, 75-77 Knowl Piece, Hitchin, SG4 0TY UK

Stand Number 5



Cellular Dynamics International, a FUJIFILM company

Website: www.cellulardynamics.com

Cellular Dynamics International (CDI), a FUJIFILM company, is a leading developer and supplier of human cells used in basic and translational research, drug discovery, toxicity testing, and regenerative medicine applications. Leveraging technology that can be used to create induced pluripotent stem cells (iPSCs) and differentiated tissue-specific cells from any individual, CDI is committed to advancing life science research and transforming the therapeutic development process in order to fundamentally improve human health. The company's inventoried iCell® products and donor-specific MyCell® Products are available in the quantity, quality, purity, and reproducibility required for drug and cell therapy development.



Changchun New industries Optoelectronics Tech.Co.,Ltd.

Website:	www.cnilaser.com
E-mail:	<u>contact@cnilaser.com</u>
Tel.:	0086(431)89216078/85603799

Changchun New Industries Optoelectronics Tech. Co., Ltd. (CNI), founded in 1996, is a high-tech company based on Changchun Institute of Optics, Fine Mechanics and Physics of Chinese Academy of Science. *CNI* is dedicated to offer best quality *lasers, laser systems, optical spectrum analyzer, teaching and laboratory equipment, optical measuring equipment,laser processing equipment, machine vision and the photoelectric detection, etc. CNI* also design and manufacture precision machinery, optical components and optical coating products.

Stand Number 15



Cisbio Bioassays

Website:www.cisbio.comLinkedin:https://www.linkedin.com/company/cisbio

Cisbio develops and markets products and technologies for in vitro diagnostics and drug discovery. The company is a leader in homogeneous fluorescence detection methods with its proprietary HTRF[®] technology, and offers class-leading assays and services for drug discovery researchers. Cisbio operates globally and enables fundamental research and drug discovery projects to move faster, leveraging the support of its scientific experts. The company recently optimized a unique set of assays for neurodegenerative disease investigation, including LRRK2, Tau-aggregation, and -synuclein assays. Cisbio also offers a full range of HTRF[®] cell-based assay solutions for GPCR study, from non-radioactive ligand binding to second messengers and downstream phosphoprotein pathways.

Stop and see us at booth #15 to discover Cisbio assays for CNS and see how we make daily science easier.

Visit the Cisbio stand at the following times when they will be showing a video on Life Science assay kits & reagents for molecular screening.

- Monday 10th April 15.50
- Tuesday 11th April 15.45
- Wednesday 12th April 15.45

Visit the Cisbio stand at the following times for a talk on 'Detection of cellular total and phospho LRRK2 with HTRF® assays in BIOMIMESYS® 3D culture'

- Monday 10th April 14.50
- Tuesday 11th April 12.30
- Wednesday 12th April 10.50



Data Sciences International (DSI)

 Website:
 www.datasci.com

 Tel.:
 +44(0) 208 432 0790

DSI offers preclinical physiological monitoring solutions for respiratory, cardiovascular and CNS applications involving acute or chronic studies. Products include data collection and analysis systems coupled with hardwired amplifiers, implantable telemetry ad well as JET external telemetry.

Services include data analysis, validation and surgical services. New offerings include Data Insights, one-time use smaller telemetry implants and Buxco respiratory technology. Offices throughout Europe, USA, and Asia provide support and expertise.

Stand Number 38



Digitimer Ltd.

Email:sales@digitimer.comWebsite:www.digitimer.com

Digitimer manufactures and distributes scientific instrumentation for the research & clinical environments. We manufacture the popular NeuroLog System, which is a modular electrophysiological system, offering extracellular, intracellular and isolated amplification, signal conditioning, electrical stimulation and pulse generating functions. We also manufacture a wide range of mains and battery powered isolated electrical stimulators for every situation. Digitimer also represents a number of companies with complementary equipment, including:

AutoMate Scientific (perfusion systems), Harvard/Medical Systems (drug delivery and incubation), HEKA (patch clamp), Narishige (pipette fabrication and manipulators), Scientific Systems Design (brain slice chambers), ThorLabs (anti-vibration tables) and Quest Scientific (Humbug Noise Eliminator).

Come and see our new DS8R Isolated Biphasic Stimulator and D188 Remote Electrode Selector, both designed for human research applications, at the BNA2017 exhibition.


Domainex Ltd

Email: <u>enquiries@domainex.co.uk</u> Website: <u>domainex.co.uk</u>

Domainex is a fully integrated drug discovery service company based near Cambridge, UK serving pharmaceutical, biotechnology, academic and patient foundations_globally.

Domainex provides highly efficient and well considered scientific solutions to enable successful drug discovery programmes against a wide range of targets. Our highly experienced molecular biologists, medicinal, computation and analytical chemists have a strong success record in drug discovery, delivering on average one candidate drug every year for the past six years.

We are seeking applicants for our Discovery STAR award – bridging the gap between academic grants and drug discovery funding schemes. Come and speak to us at booth #55 about how you could apply for a chance to receive some free consultancy or virtual screening.

For further information, please visit: domainex.co.uk

Stand Number 35



Elsevier

Email:Alexander Lucas <u>a.lucas@elsevier.com</u>Website:www.elsevier.com/neuroscienceTel.:+44 01865 843671

Elsevier is a world-leading provider of information solutions that enhance the performance of science, health, and technology professionals. Elsevier's solutions include ScienceDirect, Scopus, over 2,000 journals including The Lancet and Cell, and over 33,000 book titles. Elsevier is part of RELX Group, a world-leading provider of information and analytics. **Elsevier** - The Boulevard, Langford Lane, Kidlington, Oxford, OX5 1GB UK



Enzo Life Sciences

Email: area@enzolifesciences.com Website: www.enzolifesciences.com

Enzo is a manufacturer of labelling and detection technologies from genome to whole cell analysis. Enzo's products are backed by innovative technology platforms and a deep patent portfolio.

With 40 years' experience, Enzo Life Sciences continues to provide innovative tools to help support neuroscience discovery. Enzo offers a broad range of products to advance your neuroscience research including novels tools to monitor neurodegenerative protein aggregation, quantify neuroactive peptides and second messengers, focused compound libraries for neuromodular screening and high quality IHC detection reagents and antibodies.

Stop by Booth # 31 to learn more about our innovative solutions for neurogeneration and neural signalling. **Enzo Life Sciences**

1 Colleton Crescent, Exeter EX2 4DG United Kingdom Tel. +44 (0) 1392 825 900 Fax +44 (0) 1392 825 910

Stand 20



FENS - Federation of European Neuroscience Societies

Email:	office@fens.org
Website:	www.fens.org
Facebook:	https://www.facebook.com/FENSorg/
Twitter:	https://twitter.com/FENSorg
Linkedin:	https://www.linkedin.com/groups/4075866
Instagram:	https://www.instagram.com/fens_forum/
Youtube:	https://www.youtube.com/channel/UC1HUu43hiLkXESJTM8tyTOA

Founded in 1998 at the first Forum of European Neuroscience, the Federation of European Neuroscience Societies (FENS) is the main organisation for neuroscience in Europe. FENS currently represents 43 European national and single discipline neuroscience societies with more than 20,000 member scientists from 33 European countries. FENS promotes neuroscience research

to policymakers, funding bodies and the general public, both regionally and internationally. Hence, FENS promotes excellence in neuroscience research and facilitates the exchange and networking between neuroscientists within the European Research Area and beyond.

FENS Office

Fondation Universitaire, Rue d'Egmont 11, 1000 Brussels, Belgium Tel: +32 2 545 04 06

FUJIFILM VISUALSONICS

Fujifilm Visualsonics

Website:www.visualsonics.comLinkedIn:https://www.linkedin.com/company-beta/86354/

Based out of Toronto, Ontario, Canada with operations in more than 30 countries

FUJIFILM VisualSonics designs and manufactures ultra-high frequency in vivo ultrasound imaging systems, for both research and clinical use. Our company specifically focuses on developing ultrasound technology that has been scaled to much higher frequencies than commonly found in many of the conventional ultrasound systems on the market today. As a result, our ultrasound platform provides images at resolutions that far exceed any other system available on the market; as fine as 30 micrometers, a clear advantage for healthcare professionals that require a non-invasive ultrasound solution.

FUJIFILM VisualSonics, Inc is the undisputed world leader in real-time, high-resolution, ultra-high frequency ultrasound imaging; providing the greatest level of anatomical detail for the tiniest of structures.



Harvard Biosciences

Email: <u>Thomas.swann@biochrom.co.uk</u> Orders: <u>orders@biochrom.co.uk</u> Tel: (+44) 01223 423723 Mobile: (+44) 07789 692146 Fax: (+44) 01732 863356 Website: <u>www.harvardapparatus.co.uk</u>

Harvard Bioscience is a global leader in the manufacturing and distribution of solutions to advance life science research. For over 100 years, we have served the changing needs of life scientists with our expanding portfolio; including products for surgical applications, infusion systems, microdialysis, Neuroscience, behavioral research, isolated organ and tissue bath systems. These products are sold under the brand names of Harvard Apparatus, CMA Microdialysis, Panlab, Coulbourn Instruments, MCS, TBSI, HEKA, and Hugo Sachs Elektronik.

Our Warner Instruments division has long been a world leader in Electrophysiology and Call Biology research apparatus and our Electrophysiology capabilities were further enhanced with the acquisition of HEKA in early 2015. Warner Instruments are many researchers first choice for Imaging and perfusion chambers and tissue sample / cell culture temperature control.

Implantable telemetry was added to our portfolio with the acquisition of MCS and TBSI during 2015 and these divisions of our company continue to be at the forefront of this research field with new developments being frequently added to their product ranges. Please come and discuss your requirements and see how we can assist you with your research.

During 2016 we have updated many products from our animal physiology product range and we will be displaying some new products at Neuroscience 2017 including our new Physiology monitoring system for mice and rats, the VentElite advanced safety ventilator and the new homeothermic monitoring system. All equipment which is vital in ensuring the maximum standards of animal welfare during surgical procedures.

Contact: Thomas Swann, UK Sales Manager Harvard Apparatus Biochrom Ltd, Building 1020, Cambourne Business Park, Cambourne, Cambridge CB23 6DW UK



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Have you said hello yet? Come and see us at our stand!

Hello Bio will be running a free prize draw to win a 'Fire' Tablet. At any time during the conference just come and say Hello at the Hello Bio stand, 14, to enter.



Innova Biosciences

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Innova Biosciences are world leading experts in easy-to-use, cutting-edge bioconjugation technologies and services. The Company has the flexibility to support scientists from academia through to commercial manufacturing, developing and supplying reagent products to make science easier, both off-the shelf and to customer specification. Innova's products are based on its antibody and protein labelling, gold nanoparticle and latex conjugation, and oligonucleotide labelling technologies.

All of Innova Biosciences' product ranges are of the highest quality and are designed to streamline R&D and manufacturing processes, whilst also reducing overall project costs by cutting costs associated with material waste, inhouse equipment and staff time, providing increased return on investment compared to traditional methods. Innova Biosciences' offer their expanding portfolio, including the Lightning-Link[®], InnovaCoat[®] and Thunder-Link[®]PLUS brands, as well as their custom services, to research laboratories, pharmaceutical, biotechnology and diagnostic companies worldwide.

Stand Number 25



Innova Biosciences

InterFocus Ltd (Fine Science Tools)

Email:	<u>sales@surgicaltools.co.uk</u>
Website:	<u>surgicaltools.co.uk</u>

Since pioneering the sale of fine surgical instruments by mail order, Fine Science Tools Inc has established itself as a market leader, through a commitment to quality products and unparalleled customer service. We at InterFocus aim to maintain and uphold this commitment as official distributors in the UK for Fine Science Tools.



Jinga-hi Inc

Email:	info@jinga-hi.com
Website:	www.jinga-hi.com

Jinga-hi, Inc. designs and manufactures coin size wireless neural recording devices for the neuroscience research community. Our JAGA systems are portable, affordable and can be an alternative to existing expensive cabled rack equipment for the same quality. Multiple devices can be used at the same time.



LabLogic Systems Ltd.

Email:

Anna Groom <u>agroom@lablogic.com</u> solutions@lablogic.com

LabLogic Systems Limited is a leading provider of instruments and software for measurement and analysis of radioisotopes used in pharmaceutical, academic, nuclear medicine and research laboratories. Our systems include radiochromatography detectors and software for HPLC and TLC, liquid scintillation and gamma counters, radiation monitors, and microplate readers.

The Hidex Sense, which LabLogic distributes in the UK, is a compact state-of-the-art, multi-techology microplate reader which provides a powerful and flexible platform for performing any kind of assay without limitations.

The Beta Plus version of the Sense uniquely combines liquid scintillation counting (LSC) with all common non-radiometric measurements, such as fluorescence and absorbance, into one very compact unit.

The dedicated PMT detector for LSC is also utilised to obtain ultra-high sensitivity luminescence for demanding applications and for reducing reagent use in assays such as dual luciferase. This option provides users with up to 10 times more sensitivity than other common plate readers.

In addition to instruments LabLogic produce a range of specialist applications software including Laboratory Information Management Systems for ADME studies and PET production.

LabLogic products are backed by an extensive support network providing a comprehensive installation, validation, maintenance and technical support service. The company is ISO 9001 accredited and meets all recognised GLP standards.

For further information please contact Anna Groom on or e-mail <u>agroom@lablogic.com</u>. Alternatively contact 0114 266 7267 or e-mail <u>solutions@lablogic.com</u>

Any delegate visiting the LabLogic stand (No 58) can enter their 'Easter Hamper Giveaway' draw. The winner will be announced during the last break of the day on Wednesday 12[™] April.

LAFAYETTE-CAMPDEN neuroscience

A division of Lafayette Instrument Company, Inc.

Lafayette-Campden Neuroscience

Website: lafayetteinstrument.com

Lafayette-Campden Neuroscience is the unification of two world leading neuroscience instrumentation pioneers. Both Campden Instruments and Lafayette Instrument have jointly over 100 years of precision engineering and innovation in scientific instrument applications. Campden instruments are proud to announce that we are the new UK distributors for Plexon products.

Behaviour

Listening to customer's requests, we developed an integrated *In-vivo* electrophysiology and Bussey-Saksida touchscreen system. With a choice of tethered/wireless headstages with 'time-stamped' video integrated into e.m.c. shielded chambers. The Brainhavior[™] system provides artefact free recording and temporally linked data streams for easy search/analysis.

With our development partner, Plexon Inc.; we are developing chambers for high resolution tracking and Optogenetics; utilising the powerful CineLab software suite and the flexible Plexbright system. All of these systems are designed and delivered 'ready-to-go' for immediate productivity in your lab.

We also produce the preeminent Forced/Free exercise wheels for rodents with control software and data download, drives and brakes, misstep wheels and other specials. Startle, mazes, learning and memory, motility testing and Feeding and Drinking analysis with RFID and weight measurement.

Vibrotomes and Slice Chambers

Our new Vibrotomes the 7000smz-2 and 5100mz-Plus/5100mz, with Z-axis deflection calibration and specialist blades deliver consistent healthy, high viability slices. Slice chambers have integral heater/controllers and P.I.D. algorithms available for Slice recovery, visual patching and imaging, LTP recordings and biochemistry. Campden Vibrotomes and Slice Chambers are published on many anatomies of brain, heart, lung, intestine, and smooth muscle.



LI-COR Biosciences

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LI-COR[®] Biosciences offers a complete discovery process including imaging platforms, analysis software and optimized IRDye[®] infrared dye reagents for protein and molecular imaging. Our complete solution for Western blot imaging includes the Odyssey[®] and Odyssey Fc Infrared Imaging Systems, analysis software, and unique IRDye Infrared Dye-based antibodies, and reagents. LI-COR also offers the C-DiGit[®] Blot Scanner for chemiluminescent Western blots as an affordable digital replacement for film. Molecular imaging on the Pearl[®] Trilogy, well known for its exceptional infrared fluorescent capabilities, now features a bioluminescence channel. Using revolutionary FieldBrite[™] Xi optical technology results in unparalleled dynamic range that never saturates.

LI-COR Biosciences UK Ltd.

St. John's Innovation Centre, Cowley Road, Cambridge, CB4 0WS United Kingdom

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LGC - ATCC

Website: <u>www.lgcstandards-atcc.org</u> Facebook: <u>www.facebook.com/lgc.atcc/</u>

Please drop by the ATCC stand. Our scientists are happy to give you an overview of ATCC's novel research resources, discuss any work you may be considering with cell based models and troubleshoot any bothersome cell or tissue culture issues.

Founded in 1925, <u>ATCC</u> remains the premier global biological materials resource and standards organization, providing scientists with broad ranging neurology and physiology research tools. ATCC offers a complete system of tri-lineage-capable, <u>neural progenitor cells (NPCs)</u>, <u>lineage marker-labelled NPCs</u>, as well as <u>differentiation media</u>. ATCC also offers more than 90 neuronal models, including <u>astrocytes and astrocytomas</u>, <u>brain derived cells</u>, <u>brain cancers</u>, <u>Schwann cells</u> and <u>normal and disease iPSCs</u>.

In addition to ATCC's >4000 continuous cell lines, we now offer a growing range of primary cells, numerous cancer research tools, a novel angiogenesis assay, <u>hTERT-immortalized Cells</u>, an array of toxicology models, immunology tools, an STR based cell line authentication assay and many other tools.

Contact our Field Application Specialist for with any questions: Joe Lackey, PhD, Email: <u>Joe.lackey@lgcgroup.com</u>, Tel: +44 (0) 7464 928 415

Additionally, why not enter our prize draw for a giant microbe / virus including dengue fever, hepatitis C, Zika or a neurone. We've got loads to give away!



MAVIG Research

Website: <u>www.mavig-research.com</u> Email: <u>info@vivascope.eu</u>

For more than 10 years now, MAVIG is providing in vivo confocal laser scanning microscopes and expert training in Europe. In collaboration with Caliber ID, MAVIG Research proudly launches the new confocal imaging solution RS-G4. The RS-G4 is a purpose-built, large- format, resonant-scanning confocal microscope featuring a remarkably small footprint. It offers multiple laser lines (405/488/561/640/785) for single, sequential or simultaneous image acquisition of fluorescent labels. A key advantage of the RS-G4 is its capability to collect high-quality confocal images of large biological samples (up to 80 x 120mm) in a fraction of the time that conventional confocal microscopes can achieve. For neuroscientific studies, the ability to acquire high-quality confocal images of large regions allows the imaging of entire brain slices at high resolution. Thus, both gross morphological visualization and detailed cellular level characterizations can be performed using one single image. The RS-G4's proprietary software package has been specifically designed to view morphogenesis at the macro as well as the micro scale with the same confocal clarity. The RS-G4 delivers high-speed, large format confocal imaging without sacrificing image quality and resolution. Visit us at stand number 26

and see the RS-G4 in action for yourself.

Contact: MAVIG Research

Stahlgruberring 5, 81829 Munich, Germany Phone: +49 (0) 89 / 420 96 - 319 E-Mail: <u>research@mavig.com</u>

Stand Number 62



MaxWell Biosystems

Website:	www.mxwbio.com
Contact:	<u>info@mxwbio.com</u>
Twitter:	<u>@mxwbio</u>
LinkedIn:	https://www.linkedin.com/company/maxwell-biosystems
Tel.:	+41 61 551 1070 Fax: +41 61 551 1071

MaxWell Biosystems provides high-density microelectrode array systems for high-resolution functional imaging of neuronal cell activity in vitro. Our product, MaxOne, allows recording and stimulation of every single cell in the network. MaxOne high-density microelectrode arrays are applicable for recording electrical activity in brain slices (acute and organotypic cultures), dissociated cell cultures, retina, cardiomyocytes, and other in vitro models. Visit our booth #62 for more information.



Micro Control Instruments

Website: www.mci-neuroscience.com

Micro Control Instruments Ltd. is a developer and distributor of a unique range of instruments, specifically aimed at the neuroscience community and focused on microscopy, electrophysiology and drug application.

Visit us at booth #8 to see some of our latest developments, and see our website at <u>www.mci-neuroscience.com</u> for more information.

Stand Number 11



Miltenyi Biotec

Winterry Die	
Website:	www.miltenyibiotec.com
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Fax:	+44 1483 799811
Twitter:	https://twitter.com/miltenyibiotec
Facebook:	https://www.facebook.com/miltenyibiotecofficial/
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<u>Miltenyi Biotec</u> is a global provider of products and services that advance biomedical research and cellular therapy. The company's innovative tools support research at every level, from basic research to translational research to clinical application. This integrated portfolio enables scientists and clinicians to obtain, analyze, and utilize the cell. Miltenyi Biotec's technologies cover techniques of sample preparation, cell isolation, cell sorting, flow cytometry, cell culture, molecular analysis, and preclinical imaging. Their more than 25 years of expertise

spans research areas including immunology, stem cell biology, neuroscience, and cancer, and clinical research areas like hematology, graft engineering, and apheresis. In their commitment to the scientific community, Miltenyi Biotec also offers comprehensive scientific support, consultation, and expert training. Today, Miltenyi Biotec has more than 1,700 employees in 25 countries – all dedicated to helping researchers and clinicians around the world make a greater impact on science and health.

Miltenyi Biotec will be giving visitors to their stand the chance to win one of 3 iPad Minis by taking part in a survey. People who fill out the survey at will receive a gift.

Take part in their 'Where have the Happy Cells hidden the eggs?' treasure hunt: visitors will be invited to choose a square from a gridded lab-picture to find out if they have won a chocolate egg (there will be a discount code for all participants, even if they don't win a chocolate).



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The MIT Press is a leading publisher of distinguished scholarly books and journals in neuroscience and related brain sciences. MIT Press books are known for their intellectual daring, scholarly standards and distinctive design, and are promoted and distributed worldwide. The Press is recognized for its support of emerging fields, its global reach and its culture of experimentation in digital media, sustained in partnership with remarkable authors who are drawn from throughout the global academic community.

New and forthcoming titles include: *The Distracted Mind: Ancient Brains in a High-Tech World* by Adam Gazzaley & Larry D Rosen; *Neuroplasticity* by Mo Costandi (MIT Press Essential Knowledge Series); *MATLAB for Brain and Cognitive Scientists* by Mike X Cohen; *Case Studies in Neural Data Analysis: A Guide for the Practicing Neuroscientist* by Mark A Kramer and Uri T Eden; *From Neuron to Cognition via Computational Neuroscience* edited by Michael A Arbib and James J Bonaiuto; *Computational Psychiatry* edited by A David Redish and Joshua A Gordon

To browse the full range of titles, visit: https://mitpress.mit.edu/NEU

Stand Number 52



MQ: Transforming Mental Health Website: <u>mqmentalhealth.org</u> Email: info@joinmq.org

multichannel * systems

Multi Channel Systems

Email:sales@multichannelsystems.comWebsite:www.multichannelsystems.com

Multi Channel Systems focuses on the development of precise scientific measuring instrumentation and equipment in the field of electrophysiology for research groups at universities and for the pharmaceutical industry. We provide solutions for extra-cellular recordings with microelectrode arrays *in vitro* and *in vivo* as well as for electrical stimulation and wireless recordings. Moreover, we offer devices for automatic injection and intracellular recording of oocyte ion channels as well as automatic patch clamp systems.

Warner Instruments supplies a large selection of products ideal for stem cell research, biophysics, cell biology, physiology, and neurosciences. Imaging/recording chambers, perfusion and temperature control systems, electronic instrumentation, Planar Lipid Bilayer technology and ussing chamber systems are our specialties.

HEKA Elektronik provides the finest patch clamp amplifier and acquisition systems.

Triangle Biosystems International is an expert for wireless neural recording and stimulation such as wireless, multiplexed, tethered and implantable recording solutions, along with wireless optogenetics and electrical stimulation systems. Multi Channel Systems, HEKA Elektronik, Warner Instruments and Triangle Biosystems International are all divisions of Harvard Bioscience, Inc. and offer the complete range of products for *in vivo/in vitro* electrophysiology used in cellular, neurological and cardiac sciences.

Multi Channel Systems MCS GmbH

Aspenhaustrasse 21, 72770 Reutlingen, Germany Tel. +49-7121-909 25 25 Fax +49-7121-909 25 11

Stand B



Neuroscience Ireland

Email: <u>neuroscienceireland@gmail.com</u>

Welcome to Neuroscience Ireland!

We are Ireland's national neuroscience society. Established in 2005, our aim is to advance neuroscience research and education in Ireland, to represent Irish neuroscience researchers both nationally and internationally and represent Ireland on the Governing Council of the Federation of European Neuroscience Societies (FENS).

Neuroscience Ireland supports a range of activities including travel bursaries to promote Irish neuroscience at meetings and education and public awareness through lectures and symposia throughout the year. Neuroscience Ireland also hosts two main types of conference. A two-day national conference which will be at the National University of Ireland in Galway campus in 2017 and a one day young investigators workshop focused on PhD students and post-docs.

Neuroscience Ireland is delighted to announce that the British Neuroscience Association will hold its 2019 Festival of Neuroscience in Dublin! The meeting will take place in the Convention Centre Dublin in the heart of the city. We look forward to an outstanding programme of speakers and events and look forward to welcoming the BNA members in 2019!

Come and visit Neuroscience Ireland at the BNA (stand B) to pick up information about Dublin and the plans for the 2019 Festival and meet some of the members!

neurotar

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Neurotar Oy Ltd

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Twitter:	www.twitter.com/neurotar_ltd.

Neurotar Oy Ltd develops research devices for basic research in the neurosciences. Our proprietary Mobile HomeCage devices allow neuroscientists to completely avoid the undesirable, confounding effects of anaesthetics during in vivo recordings. They make it possible to perform high precision tests (such as in vivo two-photon imaging, in vivo patch clamp, and optogenetics)

in awake, head-fixed but otherwise freely moving rodents, and to combine such tests with behavioural read-outs. Other applications include intrinsic optical imaging, microdialysis, and voltammetry. In our second line of business as a contract research organisation, we use the Mobile HomeCage for service provision to the pharmaceutical industry. The company is privately owned and operates from Helsinki, Finland, since 2009.

Do not hesitate to contact us!

Stand Number 9



Noldus Information Technology

Website:

www.noldus.com

Noldus Information Technology: powerful software tools, fully integrated labs, and expert consultancy. We have been making professional tools and instruments for animal behavior research for more than 25 years. These products enable the collection, integration, analysis, management, and presentation of behavioral and other data. Our products for neuroscience research include the renowned EthoVision XT for video tracking and The Observer XT for behavior annotation. PhenoTyper offers an integrated testing environment suitable for home cage testing, operant conditioning, and optogenetics integration, in combination with video tracking with the built-in camera. With UltraVox XT you can record and analyze ultrasonic vocalizations.

Specific products for the investigation of gait and locomotion include CatWalk XT footprint and gait analysis and ErasmusLadder motor performance and motor learning testing. We also designed products specifically for the testing of zebrafish embryos or larvae and other very small organisms. DanioVision provides a controlled environment for testing and activity tracking, while DanioScope offers tools to non-invasively measure heartbeat, morphology characteristics, and more.

Do you need some assistance? Our consultants have a strong background in behavioral sciences and can help anywhere from advising in the research set-up to performing (parts of) your study.



OpenVivo Ltd

Website:https://openvivo.co.ukContact email:info@openvivo.comTwitter:@openvivo

OpenVivo is the UK distributor for gtec medical engineering. We're here to show you a fine range of EEG and electrophysiological equipment where the data is not locked in proprietary formats and can integrate tightly with MATLAB and SIMULINK or with a range of open source software. We'll also be demonstrating recoveriX and mindBEAGLE, two novel clinical systems. recoveriX is a stroke rehabilitation system which uses functional ~electrical stimulation system coupled to a brain computer interface. mindBEAGLE is a system to assess the consciousness of those in a coma and provides a possible communication system with coma patients.

Stand Number C



Oxford Neuroscience

Email:neuroscience@medsci.ox.ac.ukWebsite:www.neuroscience.ox.ac.ukTwitter:@OxNeuro

The University of Oxford is global leader research in healthcare research and is the first British University ever to come top in the THES World University Rankings. We have over 225 PIs working in neuroscience across four campuses.

At the core of our vision for neuroscience research lies acceleration, through collaboration and the provision of outstanding facilities.

Recent strategic initiatives include: The ARUK Oxford Drug Discovery Institute; Three new Wellcome Trust Centres, including the Centre for Integrative Neuroimaging; the refunding of the our NIHR Biomedical Research Centre and the award of an additional Biomedical Research Centre specialising in mental health and dementia. Our proximity to Harwell provides access to outstanding resources including the Mary Lyon Centre and the Diamond Light Source. A new 6 floor research building opens in 2019 to house 500 researchers along with state of the art technologies.

We have a vibrant training environment including the internationally acclaimed MSc in Neuroscience, and Wellcome 4year Neuroscience MSc/DPhil programme.

Oxford is a great place to work and the Medical Sciences Division holds 16 Athena SWAN Silver awards in recognition of our commitment to developing all our staff and students.

You can be part of our future.



Phenosys

Website: phenosys.com

PhenoSys was founded in 2006 and is a dynamic R&D company based in the centre of Berlin in Germany. We engineer and market innovative technologies for animal behaviour research. Our team draws on an extensive expertise of electrical and mechanical engineering, computer science, and behavioural biology. Our close cooperation with universities and other research institutions allows us to continuously improve and develop state-of-the-art solutions. Together with a global network of partner companies we offer unique instrumentation in the field of behavioural neuroscience. This includes specialised applications of virtual reality systems and RFID-based automated solutions for animals in home cage environments. Our experimental systems are used for behavioural phenotyping, brain research, experimental psychology, research of vision, and the diagnostic characterisation of animal models for translational medicine.

Our most recent product, the qOMR, is a unique system that automatically measures the optomotor response of rodents with minimal experimental effort. It is used to assess basic visual functions employing a virtual stimulation sphere that continuously aligns with the animal's head position. Based on real-time head tracking, quantitative OMR measurements are fully automatic, accurate, and most objective.

Stand Number E



The Physiological Society

Email:	membership@physoc.org
Website:	www.physoc.org
Twitter:	<u>@ThePhySoc</u>
Facebook:	<u>physoc</u>
LinkedIn:	The Physiological Society

The Physiological Society brings together over 3,500 scientists from over 60 countries.

Since our foundation in 1876, our Members have made significant contributions to our knowledge of biological systems and the treatment of disease. We promote physiology and support those working in the field by organising world-class scientific meetings, offering grants for research, collaboration and travel, and by publishing the latest developments in our leading scientific journals, The Journal of Physiology, Experimental Physiology and Physiological Reports. Neuroscience is one of our seven core physiological Themes which brings together scientists who study the nervous system at all levels, from ion channels to single cells to whole brain areas and cellular networks. It spans a wide range of interests from brain development and plasticity to communication between the various cell types that make up the nervous system. Another focus

is the sensory functions of vision, touch, hearing and smell, and motor control. This Theme also promotes research into the healthy nervous system as well as in what goes wrong in various neurological conditions such as dementia, epilepsy, motor neuron disease and stroke.

Membership is available for all career stages, from undergraduate level to senior level scientists.

The Physiological Society

Hodgkin Huxley House, 30 Farringdon Lane, London EC1R 3AW, UK Tel: +44 (0)20 7269 5710



Plexon

Email: Website: <u>plexon-europe@campdeninstruments.com</u> <u>www.plexon.com</u>

Plexon is a pioneer and leading innovator of custom, high performance data acquisition, behavior and analysis solutions specifically designed for scientific research. We collaborate with and supply thousands of customers including the most prestigious neuroscience laboratories around the globe driving new frontiers in areas including basic science, brain-machine interfaces (BMI), neurodegenerative diseases, addictive behaviors and neuroprosthetics. Plexon offers integrated solutions for in vivo neurophysiology, optogenetics and behavioral research backed by its industry-leading commitment to quality and customer support.

Stand Number 36



Precision NanoSystems

Precision NanoSystems Inc (PNI) provides transfection solutions with unmatched performance, achieving great than 90% efficiency in primary neurons, astrocytes and iPS-neurons with no observable cytotoxicity. This innovation radically challenges current limitations to in vitro and in vivo investigations that can be undertaken, thus opening new frontiers in Neuroscience research and therapy.



Proteintech Europe

Email: <u>europe@ptglab.com</u> Website: <u>ptglab.com</u>

Proteintech: The Benchmark in Antibodies

Founded by scientists in 2001, Proteintech understands the importance of antibodies with high specificity and reproducibility. With this in mind, Proteintech manufacture and validate every antibody in-house, including the use of siRNA knockdown to demonstrate specificity. In the catalogue of antibodies against 12,000 targets, Proteintech ensure all validation data is made available to the researcher along with 24-hour expert technical support, putting the confidence back into research.

For more antibody information, neuroscience resources and free protocol guides please visit the Proteintech team at booth 61 during the exhibition, or visit <u>www.ptglab.com</u>

Stand Number 34



Rogue Resolutions Ltd

utions

Rogue Resolutions specialises in bringing together and combining technologies, techniques and services to provide integrated solutions for neuroscience. By supplying a range of state of the art equipment combined with unrivalled service and support from our experienced team of product and application specialists, we help customers around the world to conduct robust, replicable and cutting edge research.

Our broad portfolio of products includes a range of "best-in-class" devices in the categories of neuromodulation, neuroimaging, neuronavigation and neurosensory. Furthermore, our unique position, with strong links between academia and industry, ensures we are flexible and fully responsive to our customer's product requirements. For 2017 we launched the BrainBox Initiative, an exciting collaboration with academics from leading universities to provide young neuroscientists with opportunities to grow and develop.

The programme includes hands-on workshops, symposia, research prizes and a conference and is supported by a dedicated microsite: <u>brainbox.rogue-resolutions.com</u>

THE ROYAL SOCIETY PUBLISHING

The Royal Society Publishing

Email:	Helen Eaton, Senior Commissioning Editor, Philosophical Transactions
В,	helen.eaton@royalsociety.org
Website:	https://royalsociety.org/journals/
Twitter:	https://twitter.com/RSocPublishing
Facebook:	https://www.facebook.com/RoyalSocietyPublishing.FanPage/

The Royal Society journals offer a range of publishing options within neuroscience for new research, reviews and theme issues.

Proceedings B – research and reviews across biology
Philosophical Transactions B – themed issues across the life sciences
Open Biology – open access research and reviews in molecular and cellular biology
Biology Letters – short research and opinion pieces across biology
Royal Society Open Science – open access research on the basis of objective peer review across science, engineering and mathematics
Reasons to choose our journals for the publication of your work: articles handled by active, expert neuroscientists; efficient and rapid processing; rigorous, constructive peer review; open access options; promotion by a dedicated press office; and broad dissemination to an international audience.

To find out more, please visit stand 32 where Helen Eaton will be happy to answer your questions.

Do you have questions about how to get your work published? Or have you ever considered editing a journal theme issue? Meet the Senior Commissioning Editor of the journal Philosophical Transactions B at stand 32 to learn more about the Royal Society's journal portfolio and the publishing process. Helen will be available at the following times:

Monday 10th April: 14.45; 15.15; 15.45 Tuesday 11th April: 10.45; 12.30; 15.15; 15.45 Wednesday 12th April: 10.45; 12.30; 15.15; 15.45

SANDOWN SCIENTIFIC BEHAVIOURAL RESEARCH

Sandown Scientific

Email:	sandown.scientific@btinternet.com
Website:	www.sandownsci.com

Sandown Scientific, established in 1975, is a leading supplier of a wide range of behavioural testing systems including operant test chamber, 5/9 hole nose poke chambers, modular mazes, activity testing, active/passive avoidance, startle reflex/PPI, place preference, rota-rods and rotomotors, optometry systems for studying vision in rodents, touch screen systems and equipment compatible with opto-genetics. We also provide a range of rodent reward pellets including flavours on demand and lab consumables featuring a wide range of tubing, tail vein restrainers, etc.

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Stand Number 43



Thorlabs Ltd

Thorlabs designs, develops, and manufactures equipment for the Photonics and Life Sciences markets, including optics, optomechanics, motion control equipment, patch clamp micromanipulators, lasers, LEDs, and anti-vibration work stations. In addition, we also provide complete system-level solutions such as complete OCT, multiphoton imaging, and confocal fluorescence microscopy systems. Thorlabs is a leader in the development of Optical Coherence Tomography (OCT) Imaging Systems. We offer complete systems as well as a selection of components that are ideal for constructing a custom OCT system. Our series of Laser-Scanning Cytometry instruments are non-confocal systems that utilize laser-spot scanning illumination. The detection system, which combines PMTs for fluorescence detection and photodiodes for absorbance and scatter detection, offers excellent quantitative cytometric performance and imaging capabilities. Our Burleigh® line of microscope platforms, micromanipulators, and accessories provides leading edge stability and control for electrophysiology research, and our line of Optogenetics equipment includes fibre optic components and light sources for in vivo optical stimulation for neuroscience research.

Come and see us at Booth #43.



TSE Systems

TSE Systems is an expertise in developing and manufacturing life science research equipment in the fields of Metabolism, Behavior, Physiology, Inhalation and as well Telemetry.

Email: <u>info@TSE-Systems.com</u> Website: <u>www.TSE-Systems.com</u>

Stand Number 41



UGO BASILE S.R.L.

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- Thermal Plantar Test
- Dynamic Plantar Aesthesiometer
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YouTube:	https://www.youtube.com/user/unibirmingham		

The School of Psychology, as part of the College of Life and Environmental Sciences (CoLES) at the University of Birmingham, is one of the largest and most successful in the UK, currently ranked in the top 5 Schools in the country (REF 2014). The School has long-standing foci of research strength in cognitive and behavioural neuroscience, forensic psychology, psychosis, ingestive behaviour, life-span development, language and cognition, visual cognition, and motor control. A number of these research areas promote collaboration with another School in CoLES, Sport and Exercise Rehabilitation Sciences, who currently are ranked No. 1 (REF 2014) and provide expertise in physiological biomarkers of ageing and in programmes designed to enable older adults to maintain cognitive and physical ability. Together, these Schools' strengths are reflected in lively specialist seminars, in success across a wide range of national and international funding bodies, and in the large number of research prizes won by staff and research students. Both Schools also have a very strong collaborative and interdisciplinary ethos, encouraged through pump-priming funding for research themes that crosscut traditional research groupings and bring together researchers in pursuit of larger-scale collaborative projects.

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Stand Number 53



Vector Laboratories Ltd

Website:	www.vectorlabs.com
Email:	technical@vectorlabs.co.uk
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Stand Number 49



VIEWPOINT Behavior Technology

Email:	info@viewpoint.fr
Website:	www.viewpoint.fr

Pioneer in videotracking analysis system, the Company Viewpoint exists since 27 years. VIEWPOINT provides tools to automate behaviour analysis on rodents, zebrafish, primates ... VIEWPOINT offers the state of the art in automated behavior analysis. Leader in zebrafish analysis, Viewpoint provides tools to automate behavior and cardiovascular screenings : ZebraLab is a high throughput system for zebrafish behavior analysis to analyse embryos, up to 96 larvaes with our Zebrabox and adults with our Zebracube. Cardiovascular tox screenings may as well be run (Heart beat and blood flow). And our brand new application with VISIOBOX for visual behavior analysis on Zebrafish. For rodents, our VideoTrack system measures animal Locomotion & Behavior. It is the solution for rodents behavior in various mazes. GaitLab is a turnkey solution for automated quantitative assessment of catwalk analysis MARLAU Cages is made for standardized enrichment for rodents Thanks to SLEEPSCORE, you can analyse sleep deprivation on rodents VigiePrimates makes it possible to work on primates and dogs. The animals are unrestrained from additional sensors: No stress is placed on them!

See us on booth 49 and discover all our user-friendly applications.



Wellcome Trust

Website:

www.wellcome.ac.uk

We're a global charitable foundation, both politically and financially independent. We support scientists and researchers, take on big problems, fuel imaginations, and spark debate.

Good health makes life better. We want to improve health for everyone by helping great ideas to thrive.

That's why we support thousands of curious, passionate people all over the world to explore great ideas, at every step of the way from discovery to impact.

We also identify strategic priorities where we can give focused, intensive support when there are real opportunities to transform lives, or we can drive reform to ensure that ideas reach their full potential.

We work to improve health by funding great ideas.

Our funding schemes support individuals, teams, resources, seed ideas, places and major initiatives in these areas:

- biomedical science
- population health
- product development and applied research
- humanities and social science

public engagement and creative industries.

Stand number 28-30



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World Precision Instruments, Inc. (WPI) is a leading global provider of powerful, cutting-edge laboratory solutions for the life sciences, with European technical sales staff based in the UK, Germany and France. On display will be our stereotaxic frames, our UltraMicropump microinjection systems, Sensapex motorised manipulators, anti-vibration solutions and a range

of surgical tools and other consumables. Please visit our booth to discuss your requirements with our highly qualified technical sales staff.

Stand Number 46



Zantiks Ltd

Email:info@zantiks.comWebsite:www.zantiks.com

Zantiks provides solutions for academic and industrial researchers carrying out animal behavioural research. We provide small, simple to use, affordable units that can be used for monitoring locomotor activity (circadian, toxicological, genetic), simple learning experiments (e.g. startle, habituation and PPI), and operant conditioning experiments (e.g. 5CSRTT) based on appetitive or aversive stimuli. Detection of the animal(s) is by video tracking in InfraRed. Cameras, lighting, stimuli, reward delivery (both solid and liquid) and tanks/inserts are all included. All units provide an isolated, consistent environment; are networked; and are controlled from a browser enabling remote operation and viewing from networked computers, phones and tablets.

All experiments (and stimuli, and sequential resultant actions) are controlled from simple to write scripts (samples supplied; written and edited in the browser). Scripts can specify results processing (e.g. recording distance travelled, and/or behavioural outcomes) rather than just XY coordinates and logged stimuli. The results can be directly downloaded for statistical analysis.

We are currently delivering AD units for adult zebrafish and mouse operant use, and MWP units for multiwell plates and Petri dishes for *Daphnia*, *Drosophila* and zebrafish larvae. Rat operant chambers and larger fish tanks will shortly be available.



ZEISS

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ZEISS is an international leader in the fields of optics and optoelectronics. ZEISS develops and produces optical solutions for a range of industries and application areas.

ZEISS Microscopy is the world's only one-stop developer of light, X-ray and electron microscopes. The product range includes light microscopes, confocal systems for laser scanning microscopy, a full portfolio of electron and ion beam microscopes, and perfectly-tailored software solutions for image processing, image documentation and reporting.

Visit us on Stand 17 to find out more about our microscopy solutions.

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Venue Plan



Exhibition Plan

HALL 3: Numbered boxes represent booth numbers; boxes with 'P' numbers represent poster board areas.



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About the BNA

www.bna.org.uk

The British Neuroscience Association is the voice of UK neuroscience today, it is the largest UK organisation representing all aspects of neuroscience from ion channels to whole animal behaviour to neuroscience applications in the clinic.

The Aims of the BNA are to:

- promote neuroscience research
- organise lectures, symposia, meetings, events and reports
- advise on issues in neuroscience
- engage with the public and the media
- train neuroscientists and other neuroscience-related professionals
- represent UK neuroscience to Government, funding agencies, and science administration, regulation and standards organisations.

To Achieve these Aims, we:

- distribute information via the BNA Bulletin and the BNA e-bulletin
- host a **national meeting** every 2 years, publish the proceedings of that meeting and distribute them to the scientific community.
- organise a number of focused one-day symposia at UK universities each year
- contribute to training courses for young neuroscientists
- award bursaries to students and young postdoctoral workers to enable them to attend BNA, Federation of European Neuroscience Societies (FENS) and other affiliated society meetings
- award graduate and undergraduate **prizes**, and special awards to senior neuroscientists and to lay people who have contributed significantly to neuroscience research.
- negotiate special discount prices of relevant books and journals, and offer free online access to the *European Journal of Neuroscience*.
- organise **public lectures** and events
- talk to the media about neuroscience research and related issues
- represent UK neuroscience and participating in national and international science policy matters

Join the BNA

The BNA is a growing learned society with around 1800 members. These are some of the benefits you will receive by becoming a member of the BNA:

- 1. FREE registration for most BNA events.
- 2. Reduced registration fees for many other events.
- 3. Student prizes and bursaries for BNA and FENS meetings.
- 4. Reduced registration fees and FENS sponsored abstract forms for the Society for Neuroscience annual meeting.
- 5. Sponsorship of symposia at your university.
- 6. FREE online access to the European Journal of Neuroscience.
- 7. Discounts on journals and books and other occasional 'special offers'
- 8. BNA Bulletin and the latest neuroscience news, events and job vacancies.
- 9. Automatic membership of the Federation of European Neuroscience Societies (FENS) and the International Brain Research Organisation (IBRO).
- 10. Free advertising in the **BNA Bulletin**, the **BNA e-bulletin** and on the BNA Website.

To complete your application form, please click here.

For more information, please visit our website: www.bna.org.uk

The Wolstencroft Memorial Lecture

John Wolstencroft was an international expert on the pharmacology of the brain. He carried out pioneering studies on chemical transmitters of brain neurone activity in 1960s. He held a personal chair in Physiology at the University of Birmingham. He was a founder member of the British Neuroscience Association and was its President from 1977-1980. John Wolstencroft's early death in 1983 led his colleagues and family to set up a fund in 1986 to support a lecture to be given by a scientist who has made an outstanding contribution to our understanding of workings of the brain. The lecture is to be given biennially at the British Neuroscience National meeting. The purpose of the lecture is to communicate the most exciting and important advances in brain science.



John Wolstencroft 1922-1983

The 2017 Memorial Lecture will be given by Nobel Laureate May-Britt Moser