In this bumper newsletter we whet your appetite for our Biennial Meeting in beautiful Braga in Portugal. I hope you agree that we have an exciting programme covering a wide range of topics and speakers from 24 different countries. If you haven’t registered yet, please do soon. Also the local Braga team have a wonderful pre-meeting Workshop organised for Young Scientists “From Networks to Behaviour and Back”. Alcino Silva from UCLA will give the plenary and this lecture is open to all registrants. We are now soliciting applications to host the next Workshop and Biennial meeting. Moreover, for the first time we have an open nomination process for the next President to take office following the term of my successor Louk Vanderschuren. We look forward to hearing from you on these three issues. Also in this edition we profile our Communications Officer Dr. Anand Gururajan who has been doing great work in increasing the Society’s visibility on social media and putting newsletters together. We encourage all members to follow us on Twitter @EurBehavPharm and Facebook. If you have any ideas for future newsletter items do get in touch. I hope you enjoy the summer and that I will see you in sunny Portugal in August.

John F. Cryan PhD MRIA
President EBPS

Getting to and staying in Braga

Porto Airport
Braga is located 1hr northeast of Porto and can be accessed by bus (€14) from the airport or train from the city (approx. €20). Taxis are also available from the airport (approx. €50).

Lisbon Airport
Lisbon Airport is located further southwest. Train rides from Lisbon city are about 3-4hrs (€30 to €50). Bus rides take about 4-5hrs (approx. €20).

Melia Hotel
The Melia Hotel in Braga is the official venue for the conference. Email for reservations and refer to the EBPS Meeting 2019 in the subject line. EBPS Meeting reservations at Hotel Meliá will not be possible through any other booking system. Should you be looking for an alternative hotel in Braga, please contact the AIM Group International.

Free childcare at EBPS2019
Thinking about attending EBPS but need help with taking care of the kids? Cast these worries aside! EBPS is one of few societies that offers free childcare! You can leave the kids with our sitters who will ensure they are well looked-after and entertained while you make the most out of the conference. And it’s all free of charge!
Full program

DAY 1 (August 28th)

16h00 -17h00 Young Scientists Workshop Plenary Lecture (Open to all)
Genetic manipulations of CCR5 and the multifaceted molecular cellular and circuit mechanisms of cognitive enhancement: a cautionary tale
Speaker: Alcino Silva (USA)

17h30 - 18h00 Opening Ceremony

18h00 - 19h00 Opening Lecture
Promises & Pitfalls of Translational Research in Addiction.
Speaker: Harriet de Wit (University of Chicago, USA), EBPS Distinguished Achievement Awardee
Chair: John F Cryan (University College Cork, Ireland)

19h00 - 21h00 Welcome Reception - Cocktails

DAY 2 (August 29th)

08h30 - 10h30 Symposia I
Chair/Speaker - Charles Bradberry (USA).
Speakers: Marcelo Febo (USA), Rita Goldstein (USA), Hugh Garavan (USA)

Room 2: Neuropharmacology and Neurogenetics of Aggression As Reward.
Chair - Klaus Miczek (USA) & Rosa M. M. de Almeida (Brazil)
Speakers: Dayu Lin (USA), Jozef Haller (Hungary), Sam Golden (USA), Herbert Covington III (USA)

Room 3: Orexin as a Critical Mediator of Cortical and Subcortical Regulation of Motivated Behaviors.
Chair/Speakers - Paolo Campus (USA) & Ben Boutrel (Switzerland)
Speakers: Alessandra Matzeu (USA), Morgan James (USA)

10h30 - 11h00 Coffee Break

11h00 - 13h00 Symposia II
Room 1: Modelling Comorbidity of Chronic Pain and Affective Disorders: Towards Improved Mechanistic Understanding and Treatment.
Chair/Speaker - Hugo Leite-Almeida (Portugal).
Speakers: David Finn (Ireland), Esther Berrocoso (Spain), Ypek Yalcin (France)

Room 2: Novel Insights Into the Molecular Mechanisms and Cell Ensembles Regulating the Neural Circuits Underlying Negative Emotion.
Chair - Andrew Holmes & Carmen Sandi (UK)
Speakers: Shona Chatterji (India), Gisella Vetere (France), Andrew Holmes (USA), Meltem Weger (Switzerland)
Full program

DAY 2 (August 29th, cont’d)

Room 3: Recent Insights Into Mesocorticolimbic Circuit Mechanisms of Appetitive Behaviors.
Chair - Eisuke Koya (UK)
Speakers: Mihaela Iordanova (Canada), Jamie McCutcheon (UK), Kate Wassum (USA), Leslie Whitaker (USA)

13h00 - 14h00 Lunch

14h00 - 15h30 Poster Session I

15h30 - 16h30 Plenary Lecture
Habenular Regulation of Obesity-Related Abnormalities in Food Preference & Motivation.
Speaker: Paul Kenny (Icahn School of Medicine at Mt Sinai, USA)
Chair: Louk Vanderschuren (Utrecht University, The Netherlands)

16h30 - 17h00 Coffee Break

17h00 - 17h30 EBPS Young Investigator Award Lecture
Speaker: Marco Venniro (National Institute of Drug Abuse, USA)

17h30 - 18h30 Oral Presentations - Travel Awardees

DAY 3 (August 30th)

08h30 - 10h30 Symposia III
Room 1: Taking a Rewarding Trip Down Memory Lane Paved With Ensembles and Engrams.
Chair - Leslie Whitaker (USA).
Speakers: Denise Cai (USA), Michael Vanden Oever (The Netherlands), Karine Guillem (France), Rajtarun Madangopal (USA)

Chair/Speaker - Mark Geyer (USA)
Speakers: Herbert Meltzer (USA), Joanna Neill (UK), Agnieska Nikiforuk (Poland)

Room 3: Reward, Stress and Effort in Food Related Decision Making.
Chair/Speaker: Merce Correa Sanz (Spain) & Roger Adan (The Netherlands)
Speakers: Harriet Schellekens (Ireland), Fiona Peris-Sampedro (Sweden), Laura Lopez-Cruz (UK)

10h30 - 11h00 Coffee Break
European Behavioural Pharmacology Society
Biennial Meeting
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Braga, Portugal

Full program

DAY 3 (August 30th, cont’d)

11h00 - 13h00  Symposia IV
Room 1: **Putting the Effort in: Translational Models of the Allocation and Application of Effort and Its role in Psychiatric Illness.**
Chair/Speakers - Catherine Winstanley (USA) & Jared Young (USA).
Speakers: Roshan Cools (The Netherlands), Renee Rotolo (USA)

Room 2: **Opioids and Opioid Use Disorder: What We know and What We (still) Don’t Know.**
Chair/Speaker - Aldo Badiani (UK) & Fernando Boix Escolan (Norway)
Speakers: Marie Eikemo (Norway), Primavera Spagnolo (USA)

Room 3: **Emerging Strategies for the Treatment of Stress-Related Psychiatric Disorders.**
Chair/Speaker - Olivia O’Leary (Ireland)
Speakers: Irwin Lucki (USA), Connie Morillo Sanchez (Denmark), Sayamwong Hammack (USA)

13h00 - 14h00  Lunch

14h00 - 15h00  Plenary Lecture
**How Neuronal Circuits Can Shape “Immune Behavior”.**
Speaker: **Asya Rolls** (Israel Institute of Technology, Israel)
Chair: **Nuno Sousa** (University of Minho, Portugal)

15h00 - 16h30  Poster Session II

16h30 - 18h30  Symposia V
Room 1: **A Role for the Insular Cortex in Alcohol and Substance Use Addictions?**
Chair - Wolfgang Sommer (Germany)
Speakers: Yavin Shaham (USA), Dora Duka (UK), Petri Hyytia (Finland), Angelo Bifone (Italy)

Room 2: **Punishment and Aversive Decision-Making: Basic Mechanisms and Clinical Applications.**
Chair - Gavan McNally (Australia)
Speakers: Rutsuko Ito (Canada), Nathan Marchant (The Netherlands), Chiara Giuliano (UK), Philip Jean-Richard Dit Bressel (Australia)

Room 3: **Peripheral Mediated Changes to Motivational Salience.**
Chair/Speaker - Richard O’Connor (USA)
Speakers: Dana Small (USA), Suzanne Dickson (Sweden), Ivan De Araujo (USA)

1930 - Gala Dinner
European Behavioural Pharmacology Society
Biennial Meeting
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Braga, Portugal

Full program

DAY 4 (August 31st)

08h30 - 09h30  Plenary lecture
How We Got Alcohol Addiction Wrong: One Lever at a Time.
Speaker: Markus Heilig (Linkoping University, Sweden)
Chair: Christelle Baunez (Institut de Neurosciences de la Timone, France)

09h30 - 11h30 Symposia VI
Room 1: Role of Neuroinflammation and Glial Mechanisms in Anxiety and Depression: Novel Therapeutic Approaches.
Chair/Speaker - Nicolas Singewald (Austria)
Speakers: Raffaella Molteni (Italy), Raz Yirmiya (Israel), Luisa Pinto (Portugal)

Room 2: The Need for Weed: Emerging Roles of Cannabis and Cannabinoids in Reward-Related Behaviors.
Chair/Speaker - Steven Mahler (USA)
Speakers: Daniele Piomelli (USA), Rita Fuchs (USA), Donna Calu (USA), Sade Spencer (USA)

Room 3: Brain Circuits of Prosocial Behavior.
Chair/Speaker - Louk Vanderschuren (The Netherlands)
Speakers: Siri Leknes (Norway), Christian Keysers (The Netherlands), Marijn van Wingerden (Germany), Alexa Veenema (USA)

11h30 - 12h00  Coffee break

12h00 - 14h00 Symposia VII
Room 1: Novel Opioid Agonist-Based Medications for Pain and Opioid Addiction.
Chair - Yavin Shaham (USA)
Speakers: Drew Townsend (USA), Steven Husbands (UK), Nurulain Zaveri (USA), Jennifer Bossert (USA)

Chair/Speaker - Giovanna Paolone (Italy)
Speakers: Ioannis Sotirioupolos (Portugal), Marianne Amalric (France), Tommy Pattj (The Netherlands)

Room 3: The Transcriptomic Basis of Neuronal Function and Behaviour.
Chair/Speaker - Anand Gururajan (Australia)
Speakers: Dan Ohtan-Wang (Japan), David Slattery (Germany), Iiris Hovatta (Finland)

14h00 - 14h30  Closing Ceremony

Dates to Remember

Early Registration - Ends 30th of June
Late Registration - 1st July to 20th August
Workshop Application - 15th of June

www.ebps.org
**EBPS Workshop 28th August 2019**

**From Networks to Behavior and Back Workshop** participants will be offered an overview on the most updated techniques to analyze rodent behavior and record and/or manipulate the activity of relevant brain networks. Participants will have the opportunity to operate equipment and conduct small experiments in hands-on sessions. The plenary session will provide an integrated view on how techniques can be combined. **Deadline to participate is 15th of June.**

**Program**

08h00 - 08h15 Registration

08h20 - 08h50 Opening Address
Speakers: Nuno Sousa & Ioannis Sotiropoulos

08h50 - 09h45

**Rodent behaviour: constructs, paradigms and open source tools.**
Speaker: Hugo Almeida

09h45 - 10h00 Coffee Break

10h00 - 12h30

**Hands-on Session I**

12h30 - 13h00 Lunch Break

13h00 - 13h45

**Dissecting brain networks and their behavioral implications.**
Speaker: Ana Joao Rodrigues & Patricia Monteiro

13h45 - 16h00

**Hands-on Session II**

16h00 - 17h00 Special Lecture

**Genetic manipulations of CCR5 and the multifaceted molecular cellular and circuit mechanisms of cognitive enhancement: a cautionary tale**
Speaker: Alcino Silva

**Hands-on Session Topics:**

Behavioural paradigms (navigation, spontaneous and conditioned paradigms, instrumental behaviors), ex-vivo and in-vivo circuit manipulation with optogenetics, local field potential in freely moving rodents.

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**EBPS Calls!**

**EBPS President 2021-2023**

We are seeking nominations for President-Elect of EBPS, to follow current President-Elect Louk Vanderschuren, who will be serving as President from 2019 - 2021. The individual will serve as President-Elect from 2019 - 2021, President from 2021-2023 and Past-President from 2023 - 2025. A list of previous Presidents can be found [here](#). Individuals who are nominated will be reviewed by the Executive Committee and there will then be an advisory election held via an online voting system. The Committee will present their recommendation for President-Elect to the General Assembly meeting at the EBPS Biennial Meeting in Braga. Please send your nominations, including a nomination letter and CV of the nominee, to the general secretary with the subject line “Nomination for President” by **June 30, 2019**. Note that both the member who nominates and the nominee should be paid-up members of EBPS.

**EBPS Workshop 2020**

Our biennial workshops are held every two years, with a focused theme. Aside from it being an opportunity for experts in the specific field to share their vision and provide direction, it is also a chance for early career researchers to present their research findings and expand their academic networks. Recent workshops have been held in the UK and in The Netherlands. If you’ve got an idea for what the next workshop should be on, where it should be held and if you’d like to play a key role in its organisation, submit your proposal with the subject line “EBPS Workshop” to the general secretary by **June 30, 2019**.

**EBPS Conference 2021**

EBPS Conferences present members with an opportunity to visit a new country, present and share their research findings, expand their academic networks, socialise and have fun! The last three meetings have been held in France, Italy, Greece and is in Portugal this year! The next one is slated for August/September 2021 but we’d like to offer members a say in deciding where it should be held. So if you’d like propose a location and take a leading role in the organisation, submit your proposal with the subject line “EBPS Conference 2021” to the general secretary by **June 30, 2019**. And a reminder, EBPS is a global society so submissions from countries outside the Europe will most definitely be considered if it is economically viable.
Naqvi and collaborators (2007) were one of the first to highlight the relationship between the insular cortex and the interoceptive component of craving (i.e. the urge to take drug). Indeed, they showed that after an insular lesion, patients were more likely to “not feel the urge to smoke anymore” and to quit smoking. The insular cortex – from island in Latin- supports the representation of motivational feelings through the integration of information coming from within the body –also known as interoceptive information.

Interoceptive accuracy -i.e. objective measure of interoception- is impaired in alcohol dependent and heavy alcohol users. In a more diffuse context, alcohol use is associated with reduced insular volume and disrupting insular connectivity. Such changes seem to underpin exaggerated sensitivity to cues regulating alcohol consumption. In alcohol use disorders, functional brain abnormalities may be attributable to changes at the neurochemical level. Alcohol interacts with glutamatergic neurotransmission, suppressing excitatory synaptic signalling. A sharp reduction or cessation of alcohol consumption can induce rebound neuronal hyperexcitability, leading to excitotoxicity and neuronal death (i.e. atrophy). In humans, it is possible to quantify neurochemicals in vivo, including glutamate, using magnetic resonance spectroscopy (MRS). However, in the literature, the impact of alcohol use on glutamate concentration seems to be mixed - potentially region-specific. On one-hand, in alcohol-dependent patients, glutamate concentration is increased within the left dorsolateral prefrontal or the anterior cingulate cortices (ACC) following detoxification, and correlates with rated intensity of alcohol compulsion/craving. On the other hand, reduced glutamate concentration within the ACC is observed in the early stages of stopping drinking and such reduction is associated with recent episodes of heavy drinking.

In this present study, we combined MRS with behavioral and psychometric ratings to explore the relationship between alcohol-related measures (i.e. severity, using the Alcohol Use Disorders Identification Test), craving, and compulsion (using the Obsessive Compulsive Drinking Scale), as well as, right middle insular cortex neurochemistry (glutamate/glutamine and TNAA metabolite concentrations) in alcohol users. We were also interested in associations between alcohol-related measures, insular neurochemistry and insular morphology (volume and surface gyrification). In a sample of twenty-three alcohol users -drawn predominantly form a healthy population-, we combined MRS with voxel and surface-based morphometry (VBM, SBM) to test the hypothesis that the neurochemical and structural properties of the insula relate to alcohol use and compulsion. We tested for predictive associations between these neuroimaging and behavioral/psychometric measures, using Bayesian statistics.

We observed that alcohol compulsion was associated with a reliable reduction in insular glutamate-glutamine concentration. With less confidence, we observed that alcohol use severity was associated with reduced insular glutamate-glutamine concentration. Next, we found that alcohol use severity was associated with a reduction in insular gyrification. Despite their suprathreshold significance, Bayes factors for these effects indicate the need for more substantive validation.

Our findings advance the literature within psychiatry and neuroscience, demonstrating that insular cortex integrity is disrupted in medium level of alcohol-related problems, and not only in severe alcohol use disorder. These neurobiological characteristics within this critical substrate for motivational behaviour, can contribute to loss of control toward compulsive drinking with prolonged excessive alcohol use. We think that our findings are novel as they highlight the potential role of interoception in progression toward alcohol addiction, and could inform the development of new therapies targeting interoceptive processes, for treatment of alcohol/substance use disorder. Moreover, the paper also illustrates the value of applying Bayesian approaches to questions and inferences of clinical importance in human neuroscience.
Meet our Communications Officer

Dr Anand Gururajan, The Lambert Initiative for Cannabinoid Therapeutics, Brain & Mind Centre, University of Sydney

Anand Gururajan obtained his Bachelor’s Degree in Pharmacy from the University of South Australia and obtained his registration in 2007. Following a year of National Service with the Singapore Armed Forces, he started his research career at the Monash Institute of Pharmaceutical Sciences (Australia). His doctoral research focus was on the behavioural pharmacology of cannabidiol with a view to evaluating its antipsychotic potential. His first postdoc was at the Florey Institute of Neuroscience & Mental (Australia) where he examined the longterm effects of adolescent stress in transgenic rats. For his second postdoc, he ventured overseas to join John Cryan’s group in Ireland. There, he landed himself the Marie-Sklodowska-Curie Fellowship which enabled him to carry out a research project to examine the central and peripheral basis of stress resilience. In 2018, with a heavy heart, Anand left Ireland. He moved back to Australia and was awarded a second research fellowship by the University of Sydney to examine the neurobiology of the endocannabinoid system in post-traumatic stress disorder. Anand is the current communications officer for EBPS and is thoroughly enjoying his role in broadcasting the latest society and research news via social media platforms such as Twitter and Facebook. In his spare time, Anand enjoys reading non-fiction books on science and politics, listens to podcasts, watches re-runs of Family Guy and recording DJ sets on trusty Pioneer decks. He will be there at this year’s conference in Braga and is looking forward to catching up with old friends and making new ones!

E: anand.gururajan@sydney.edu.au
T: @anandgururajan

Job Postings

Open Rank, Term Tenure-Track Positions, Department of Behavioural Science, MD Anderson Cancer Centre, The University of Texas

Applications are being accepted for an open rank, term tenure-track positions in the areas of Energy Balance and Mobile Health in the Department of Behavioural Science at the University of Texas MD Anderson Cancer Centre. For more information, W: Jobs.mdanderson.org/creative/careers-faculty E: BehSciFacultySearch@mdanderson.org

PhD & Postdoctorate Fellowships PI: Francesco Papaleo Instituto Italiano Di Technologia

We are seeking a highly motivated and creative candidate with a strong background and interest in neuro-immunological processes and neurodevelopmental disorders for a Post-Doctoral fellowship to join the “Genetics of Cognition” Research Line. Previous expertise in flow cytometry and cell sorting, immune system, astrocytes and microglia functioning, or single cells sequencing are highly valued prerequisite. Applications, including detailed CV, a cover letter and details of 2 referees, to be submitted in PDF format via email. Deadline for PD positions is 30th July and 31st August 2019 for PhD positions.

EBPS Committee

Executive Committee:
President - John F Cryan (IE)
President Elect - Louk Vanderschuren (NL)
Past President - Terry Robinson (US)
General Secretary - Shelly Flagel (US)
Treasurer - Mohammed Shoaib (UK)
Meeting Secretary - Nuno Sousa (PT)
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Committee Member - T.J de Vries (NL)
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