It is my pleasure to introduce our August 2019 Newsletter, my last as President. The countdown is almost complete for our upcoming biennial meeting to be held on August 28th to 31st in the Melia Hotel, Braga, Portugal. Our 2019 meeting is poised to be another fantastic showcase of cutting edge behavioural pharmacology research along with plenty of opportunities for meeting friends old and new. Along with our four Plenary Lectures and two Award Lectures we will have 21 symposia programmed in parallel. In addition, there will be dedicated oral sessions for young investigators and evening poster sessions spread across two days. I’m particularly happy to say that we have more female than male speakers across the symposia and that we have speakers working in > 20 different countries which bodes well for the diversity of the Society moving forward.

I would like to extend my gratitude to the Local Organising Committee (LOC) led by Nuno Souso and ably assisted by Luisa Pinto, Ioannis (John) Sotiropoulos, Patrícia Patricio, Joana Silva and others for all their hard work over the past months.. I would particularly like to thank the LOC for jumping on the idea (and funding) a hands-on workshop dedicated for Yong Scientists. “From Networks to Behaviour and Back”. I’m sure the 24 researchers lucky enough to earn a place on this course will find it invaluable and I also hope it will continue at future EPS meetings. Once again, we had a large number of applicants for Travel Awards and I would also like to congratulate the ten winners. Thanks also to Louk Vanderschuren and Full Committee members Daniele Caprioli and Véronique Deroche-Gamonet for their unenviable task of selecting the Awardees. Moving forward I would especially encourage young investigators to check out our vibrant society, become members and get involved in all things behavioural pharmacology.

This newsletter is one of farewells – Terry Robinson leaves the Executive Committee where he has been a wonderful colleague, Past-President & Distinguished Scientist Awardee. Daniela Binder who has been helping the society’s administration since the time the late Werner Schmidt was President is retiring and we wish her well and extend our thanks to her for many years’ service. We have held advisory elections for President for the first time and the name of the proposed new President will be presented to the general membership in Braga for ratification.

It is an exciting yet challenging time for Behavioural Pharmacology and thus I’m happy to announce that together with EBBS, IBANGS & the Molecular and Cellular Cognition Society (MCCS) we will be having a joint Satellite symposium to the FENS meeting in Glasgow next July to tackle the big questions about the future of Behavioural Neuroscience. Stay tuned in coming newsletters for more details.

It has been an enormous pleasure and privilege to serve as President for EBPS. The highlight of which has been working with a wonderful team of Officers on the Executive Committee (Past & Present). In particular, I want to thank our former executive members Christian Chiamulera and Anne Jackson who worked tirelessly for the benefit of the Society and made my transition so easy. I also owe enormous gratitude to Shelly Flagel (our General Secretary) without whom I don’t believe this role would be feasible. I will pass on the post of President to the very capable hands of Louk Vanderschuren and know you will give him the full support that I have received.

With that, I must applaud Anand Gururajan once again for his fantastic efforts putting together this newsletter. Enjoy…and I look forward to seeing many of you in Braga. I hope those of you coming #EPBS2019 will enjoy the wonderful Portuguese hospitality.

John F. Cryan PhD MRIA
President EBPS
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EBPS Biennial Meeting
28/8-31/8 2019, Braga, Portugal
Congratulations to our 2019 EBPS Travel Awardees!

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EBPS Braga: Our Plenary Speakers

Prof. Alcino J. Silva  
Genetic Manipulations of CCR5 and the Multifaceted Molecular, Cellular and Circuit Mechanisms of Cognitive Enhancement: A Cautionary Tale  
28th Aug, 4:30-5:30pm

Prof. Harriet de Wit  
Promises and Pitfalls of Translational Research in Addiction  
28th Aug, 6:00-7:00pm

Prof. Paul Kenny  
Habenular Regulation of Obesity Related Abnormalities in Food Preference and Motivation  
29th Aug, 3:30-4:30pm

A/Prof. Asya Rolls  
How Neuronal Circuits Can Shape “Immune Behaviour”  
30th Aug, 2:00-3:00pm

Prof. Markus Heilig  
How We Got Alcohol Addiction Wrong: One Lever at a Time  
31st Aug, 8:30-9:30am

EBPS Braga: Special Workshop

Prior to the start of the conference, on the 28th of August, there will be a special, free EBPS workshop at ICVS for early career researchers on techniques to analyze rodent behaviour as well as to record and/or manipulate the activity of relevant brain networks. Organised by Professor Nuno Sousa, the program will consist of a range of hands-on sessions for participants to train in the use of various behavioural paradigms, ex-vivo and in-vivo circuit manipulation techniques as well as instruments to record local field potentials in freely moving rodents. The following ECRs have been selected to attend.

1. Charalampos Brakatselos  
2. Maria Coccia  
3. Niclas Konig  
4. Marie Le May  
5. Sofiia A. Lopez  
6. Ludovica Maddalena Rossi  
7. Ana Rita Salgueiro Pereira  
8. Lauren Seabrook  
9. Catherine Thomas  
10. Crystal Carr  
11. Evelyn Guilherme  
12. Chao Guo  
13. Allyson Andrade  
14. Karolina Nowortya-Sokolowska  
15. Aimilia Lydia Kalafateli  
16. Carmen Ferrer Perez  
17. Christine Fulling  
18. Paola Palombo  
19. Joana Pereira  
20. Miguel Ferreira  
21. Ana Paula Ventura-Silva  
22. Loreto Olavarria  
23. Miguel Lujan  
24. Lee Nara

ICVS, University of Minho
Meet our new EBPS President!

Prof. Louk Vanderschuren
Faculty of Veterinary Medicine, Utrecht University
I am Professor of Behavioural Neuroscience at the Faculty of Veterinary Medicine of Utrecht University, the Netherlands. Throughout my research career, I have been fascinated by the brain mechanisms underlying emotions and cognition. In particular, our research team investigates the neural underpinnings of social play behaviour, addictive behaviour, and impulsivity. During my undergraduate training in medical biology at Utrecht University, I first became intrigued in behavioural pharmacology after attending lectures about how drugs can change mood states and behaviour by influencing signal transduction mechanisms in the brain. Subsequently, I was fortunate to be able to follow my interest in psychopharmacology during my PhD project, studying the role of opioid neurotransmission in social play behaviour in rats, under supervision of Jan van Ree at Utrecht University.

It was during my time as a PhD student, when Jan van Ree’s work on drug addiction caught my interest. Clearly then, I did not have to think twice when I considered applying for the position of President of EBPS and accept the challenge of leading our society.

Throughout my career, I have been privileged to work with inspiring colleagues and mentors who have helped me develop as a scientist, including Jan van Ree, Ton Schoffelmeer, Taco de Vries and Barry Everitt – as well as many students, post-docs and assistant professors in my own team, of whom Viviana Trezza, Heidi Lesscher and Marijke Achterberg deserve a particular mention.

My association with EBPS dates back to attending the biennial EBPS meeting in Berlin, in 1994. Since that time, I have enjoyed participating in many more EBPS meetings and workshops, serving on the Executive Committee as General Secretary from 2005-2009, and organizing the 2011 EBPS biennial meeting in Amsterdam together with Taco de Vries. Since 2009, I am Editor of Behavioural Pharmacology, which was the official journal of EBPS until 2015. In view of my long-standing involvement in EBPS, I consider it an honour to be appointed President, and I look forward to helping the society prosper in the upcoming years.

I like to spend my spare time with my family -my wife, two sons, and dog-, on music-listening, writing short reviews for a local magazine and playing my guitar-, and on sports -running and coaching my sons’ football teams.

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Is your membership current?
Just a reminder to check that your membership is current and if not, please renew here. Full membership remains at €70 and the student fee at only €15. The benefits are numerous and include discounted registration at this year’s Braga conference!

www.ebps.org
www.ebps.org

Professor Harriet de Wit
Harriet is the winner of the 2019 EBPS Distinguished Investigator Award. She is the current Professor and Director of Psychiatry of the Human Behavioural Pharmacology Laboratory at the University of Chicago. With over 200 publications, field of clinical psychopharmacology, she is a pioneer in the field of clinical psychopharmacology.

Firstly, congratulations Harriet on receiving this year’s Distinguished Investigator’s Award! A well-deserved accolade! Tell us how important this award is to you.

I am deeply honored to receive this award from EBPS. Looking at previous recipients, and knowing the credentials of other EBPS psychopharmacologists, I feel truly privileged to have been selected. EBPS has always been one of my favorite meetings, a meeting where the research discussions are always innovative and stimulating.

Looking back on your prolific career, what do you see as the most interesting and significant findings?
I have taken particular pleasure from applying procedures used in laboratory animals to human subjects. This will be a focus of my plenary talk. I will give examples of studies of drug abuse-related studies that have parallels in both rodent models and humans, and I will discuss both the challenges and some of the successes in doing this work.

What research questions are your lab looking to answer at the moment?
One question that has caught my interest is not directly related to drug abuse at all. Instead, it is related to the possible therapeutic applications of drugs that we know better as drugs of used in recreational contexts. For example, MDMA is used recreationally especially in social contexts, but it also appears to improve the outcome of psychotherapy for certain psychiatric disorders. What does the drug do at a behavioural level to improve the psychotherapeutic process, and is this related to its attractiveness to users for nonmedical purposes? Another example is very low, “microdoses” of LSD. LSD is known mainly for producing extraordinary psychological and sensory experiences, at relative high doses. However, very low doses of LSD taken every 3-4 days appear to improve negative mood and perhaps also cognition. This makes sense from the drug’s receptor actions as a serotonin agonist. But until now, the evidence has been limited to uncontrolled (i.e., nonblinded) user reports. I am interested in testing its potential antidepressant effects under controlled conditions. I do not have any results to report on this topic yet.

In your opinion, what are some of the challenges the field needs to address in developing therapies for treating drug abuse?
Treating drug abuse is extremely complex and challenging. By the time people develop problems controlling their drug use they have undergone a wide array of lasting behavioural and neural changes that are extremely difficult to reverse. These involve different forms of learning and conditioning, both implicit and explicit, perhaps personality changes, changes in cognitive processes and adaptations in brain receptors and circuits. Research is needed at all levels, from genetic and neurobiological to behavioural and psychological, to understand how the compulsive use develops and how it can be undone.

Harriet will deliver her plenary titled, ‘Promises and Pitfalls of Translational Research in Addiction’ on the 28th of August, 6-7pm.

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Professor Terry Robinson heads the Behavioural Neuroscience Lab in the Department of Psychology at the University of Michigan. He served as a member of the executive committee from 2013 and was EBPS president from 2015-2017. We interviewed Terry to ask him about some of the highlights during his time on the committee and he also shares his advice to EBPS early career researchers.

**Firstly, you have been on the executive committee from 2013, including President 2015-2017. What were some of the highlights?**

I would say that the highlights, as is often the case, was working with some really great people. When I came onboard Aldo Badiani was Past-President, Dora Duka was President, Cristiano Chiamulera was the General-Secretary and Anne Jackson was the Treasurer. These were all really great people to work with, and they made my job easy. Probably the major event in the early years, besides planning for the Crete meeting with George Panagis and his local organizing committee, was the establishment of the journal Psychopharmacology as the official journal of the EBPS. That move was initiated by Aldo and completed during Dora’s term as President, and when I was President-Elect. In the past year working with all the new members of the Executive Committee and the local organizing committee in planning the upcoming Braga meeting has been another highlight.

**You’ve had a long and successful career in behavioural neuroscience. Could you tell us about some of your most memorable moments?**

Indeed, so long there are too many to recount. Probably one of the most significant was when I thought we had discovered the phenomenon of behavioural sensitization. I was working with Jill Becker on experiments designed to determine the effects of gonadal steroid hormones on dopamine-mediated behaviour by removing the source of the hormones and then re-placing them. The behavioural model we were using involved amphetamine-induced rotational behaviour. The experiment did not work because we found that the control animals showed a large increase in amphetamine-induced rotational behaviour after having received only a single injection of amphetamine a month earlier. This indicated that a single exposure to amphetamine had changed whatever brain system mediated rotational behaviour for a very long period of time. However, I knew nothing of that literature at the time and thought I’d discovered this interesting form of drug-induced plasticity. But when I read the literature it was clear that this phenomenon of behavioural sensitization had already been described. But relatively few people were working on it at the time as much of the emphasis was on the phenomenon of tolerance. I remember I was reading a book called “Advice to Young Scientists”, by BF Skinner, at the time and he had made the comment to the effect, when you see something more interesting than what you are studying, drop everything else and study that. I took that advice and began a series of studies on the phenomenon of sensitization – which set the stage for much of my research career. I still think that was good advice.

The other major highlight of my career was the development of Incentive-Sensitization Theory with Kent Berridge. It’s interesting that in the 1980s and 1990s we published over 20 papers on the phenomenon of behavioural sensitization, including the sensitization of dopamine neurotransmission, and in not one of those papers was the word addiction mentioned. Instead they referred to the phenomenon of amphetamine psychosis. It was only when Kent did a study on the role of dopamine in reward in 1989, and suggested dopamine did not mediate “liking” for rewards, but instead “wanting” them; that is, motivation to obtain them, that we put these two ideas together to suggest that a sensitized “wanting” system may mediate the pathological desire for drugs in addiction. We have been very pleased with the attention that view of addiction has received over the years, and that very recent studies using intermittent access cocaine self-administration procedures are proving to be very consistent with the notion of incentive-sensitization.

Other lines of research that I would consider memorable include those on contextual control of sensitization (many with Aldo Badiani), studies on drug-induced structural plasticity with my friend, Bryan Kolb, on individual differences in the propensity to attribute incentive salience to reward cues – the sign-tracker/goal-tracker story (many of these with Shelly Flagel), and most recently studies on the effects of intermittent access cocaine self-administration.

I have been fortunate to work with many talented scientists and students over the years, and they have provided many memorable moments.

**What do you think are some of the unanswered questions in the field of drug addiction and abuse?**

I think one of the most important questions still not well understood is what factors confer vulnerability or resistance to making the transition from casual drug use to addiction, and what is different about the brains of those more or less vulnerable.

**Looking out at the young EBPS early career researchers that are coming up the ranks today, what advice would you have for them?**

Be persistent, follow the data, keep an open and prepared mind, and being lucky does not hurt. Junior people should also be aware of the fact that no matter how successful a senior scientist they all have experienced many setbacks over the years - papers not accepted, grants not funded, experiments a bust - but the successful ones are those that overcame the setbacks and kept looking forward.

**What are you most looking forward to at the Braga meeting?**

As usual, seeing old friends, and hearing about new science. The EBPS has always been one of my very favorite meetings.

**And finally, what do you like to do in your spare time?**

Spare time? What an intriguing concept!

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We observed that greater alcohol consumption impaired empathy. Individuals reported feeling positively towards sad faces but negatively towards happy faces, an inappropriate response pattern similar to individuals with psychopathic traits who have impaired emotional contagion. Despite being less empathic, both moral judgments and moral actions were unaffected by alcohol consumption. Supporting our previous research, participants were more utilitarian in VR, supporting a disparity between what people say they would do versus what they actually do in these provocative situations.

The finding that drinking larger quantities of alcohol impaired empathy but did not influence moral decision-making. Our findings suggest that facets beyond or in addition to deficits in affective empathy play a role in shaping our moral compass and influence the relationship between alcohol consumption and utilitarian endorsements (Duke & Begue, 2015). For example, it might be that deficits in social processing and diminished aversion to harm derive, instead, from low anxiety and fearlessness.

1. According to a deliberation-focused hypothesis: with alcohol increasing emotional reactivity and decreasing cognitive functioning, more non-utilitarian responses would be predicted.
2. According to a social processing hypothesis: if alcohol causes deficits in social processing (reduced aversion to harm) more utilitarian responses would be predicted.

In a sample of 48 participants, we randomly assigned to a low alcohol dosage (0.80g/kg), or a placebo. We measured a low alcohol dosage (0.40g/kg), a moderate alcohol dosage (0.80g/kg), or a placebo. We measured paired empathy. Individuals reported feeling positively towards sad faces but negatively towards happy faces, an inappropriate response pattern similar to individuals with psychopathic traits who have impaired emotional contagion. Despite being less empathic, both moral judgments and moral actions were unaffected by alcohol consumption. Supporting our previous research, participants were more utilitarian in VR, supporting a disparity between what people say they would do versus what they actually do in these provocative situations.

The finding that drinking larger quantities of alcohol impaired empathy may be unsurprising given the inappropriate behaviours we often witness between intoxicated individuals. However, how should we interpret the finding that alcohol does not impair moral decision-making? While alcohol may influence social processing and state-dependent empathy, it is unlikely that small to moderate dosages of alcohol would alter core moral principles that are shaped by social and moral norms. After all, moral traits play an important role in shaping our personal identity. While we might be able to blame our inappropriate behaviours in social settings on having a drink or two, this research suggests that immoral behaviours cannot always be blamed on levels of intoxication.