BAP *in vivo* training initiative – final joint report

**Pharmacology underlying oxytocin's effect on fear-motivated memory**

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In addition to established roles in lactation and partition, the neuropeptide oxytocin is a key mediator of social and emotional behaviour. Accumulating evidence implicates its dysregulation in neuropsychiatric disorders so there is considerable interest in therapeutic potential for conditions involving anxiety, fear and social dysfunction (generalised anxiety disorder; posttraumatic stress disorder; schizophrenia; autism). This project used a pharmacological approach to examine serotonergic contributions to oxytocin's effects on fear-motivated memory and concomitant aversion-related ultrasonic vocalisations in the rat. Findings will be disseminated at the BAP 2019 summer meeting and also incorporated into a manuscript submission.

**Dr Maddy King**

I was awarded funding for the above project and recruited a highly motivated neuroscience graduate with strong aspirations for a career in pre-clinical psychopharmacology, but whose undergraduate course had provided very little *in vivo* training. The two month project enabled Chanelle to obtain a personal license and gain skills in a range of rodent procedures required for her project (systemic drug administration, behavioural observation, computerised video tracking and analysis of ultrasonic vocalisations) as well as further training in experimental design and statistical analysis. To make the most of her experience Chanelle visited different research groups, for example to observe use of a Comprehensive Lab Animal Monitoring System (CLAMS) for feeding and metabolic studies. Chanelle now plans to apply for PhD positions through the BBSRC and MRC DTP schemes and I believe the experience BAP has enabled her to gain will maximise her chances of obtaining a place. I am very grateful to the BAP for supporting my participation in this extremely rewarding training programme.

**Ms Chanelle Evans**

My two-month placement started with an accredited Home Office personal licence training course, following which I obtained a category A/B personal licence. This was a particularly valuable as it allowed me to gain hands-on training and acquire key *in vivo* skills. I was able to independently carry out an associative memory paradigm, give subcutaneous and intraperitoneal injections, and record and analyse ultrasonic vocalisations. As my competence increased I helped with other ongoing research within the laboratory (including studies on novel psychoactive substances where I measured body temperature via subcutaneous microchips and recorded spontaneous behaviour in the home cage) and I even assisted in training other members of the group. I also had the opportunity to visit other *in vivo* laboratories, where I witnessed use of a Comprehensive Lab Animal Monitoring System. Overall, I believe the BAP *in vivo* initiative provided an invaluable opportunity and hope this experience will set me apart from other applicants when applying for research

opportunities, and allow me to feel more confident when I start my next role. I intend to apply for a PhD through a Doctoral Training Programme next year and kick-start my career in *in vivo* research. I support the continuation of this placement and would highly recommend it to other students.

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