**Marios Chris Panayi**

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Department of Experimental Psychology, University of Oxford, Tinsley Building, Mansfield Road, Oxford, OX1 3SR, U.K.

**Education**

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| **2010-2015**  UNSW,  Australia | **PhD, Behavioural Neuroscience**  **Title:** *The role of the rodent lateral orbitofrontal cortex in Pavlovian learning and behaviour.*  Supervisor: Prof. Simon Killcross  ***Awards:***   * The Paxinos Neuroscience Prize |
| **2006-2009**  UNSW,  Australia | **BPsychol (Hons. Class 1 and The University Medal)**  **Title:** *Animal models of compulsive behaviour in obsessive compulsive disorder: A critical analysis*  Supervisor: Prof. Simon Killcross  ***Awards:***   * The Australian Psychological Society Prize |

**Employment**

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| **2020-Present** | **Visiting Fellow -** Cellular Neurobiology Research Branch, Intramural Research Program, National Institute of Drug Abuse, Baltimore MD  **Principal Investigators:** Dr. Geoffrey Schoenbaum |
| NIDA, USA |  |
| **2016- 2020**  Oxford,  UK | **Postdoctoral Research Associate in Learning and Decision Making** – Department of  Experimental Psychology, University of Oxford, United Kingdom **Principal Investigators:** Prof. David Bannerman, Dr. Mark Walton   * **Teaching:** Statistics for undergraduate biomedical sciences (2018-2019) * **Research:** Examining the role of glutamate dysfunction as a cause of aberrant salience in psychosis and dopaminergic dysfunction using Fast Scan Cyclic Voltammetry. |
| **2015**  UNSW,  Australia | **Curriculum Development and Postdoctoral Fellow** – School of Psychology, UNSW   * **Teaching:** Creation and delivery of a new core undergraduate research methods and statistics course   + *Implementing modern blended online learning techniques* * **Research:** Establishing protocols for the use of wireless Fast Scan Cyclic Voltammetry (**FSCV**) to measure sub-second dopamine release in freely moving rats |
| **2014**  UNSW,  Australia | **Teaching and Research Fellow** – School of Psychology, UNSW   * **Teaching:** Delivery and administration of undergraduate *online* courses * **Research:** Behavioural and neural analysis of Pavlovian and instrumental learning |
| **References**  Prof. David Bannerman [david.bannerman@psy.ox.ac.uk]  Dr. Mark Walton [mark.walton@psy.ox.ac.uk]  Prof. Simon Killcross [skillcross@psy.unsw.edu.au]  Scientia Prof. Fred Westbrook [f.westbrook@unsw.edu.au]  **Awards**   |  |  | | --- | --- | | **2018** | MMiN Short Oral Communication Award – Registration funds Monitoring Molecules in Neuroscience 2018 Oxford | | **2017** | Vice-Chancellor’s Award for Outstanding Contributions to Student Learning (UNSW) – Team prize | | **2016** | The Paxinos Neuroscience Prize (UNSW) *- $1000*  For the best PhD thesis in the area of Neuroscience. | | **2012** | Postgraduate Research Competition: *Psychology faculty prize (UNSW) - $1000 travel funds*  Postgraduate Research Support Scheme Award (UNSW*)* - *$2,095.50 travel funds* | | **2010-2013** | Australian Postgraduate Award *- $23,728 P/A* | | UNSW Research Excellence Award – *$10,000 P/A* | | **2009** | University Medal in Psychology (UNSW*)* | |  | The Australian Psychological Society Prize  The Faculty of Science Dean’s List (UNSW*)* | | **2008** | The Faculty of Science Dean’s List (UNSW*)* | | |

**Research Skills**

* Behavioural testing (rodents)
* Designing novel behavioural assays, modelling associative learning and memory, behavioural/systems neuroscience, animal models of psychopathology
* Stereotaxic surgery (lesions, micro infusions, electrode implantation, histological verification)
* Data analysis (experienced with univariate, multivariate, mixed effects modelling analysis techniques using SPSS, Matlab, Excel, PSY, and R)
* Programming (experienced with Med Associates behavioural programming language,

Matlab, and some experience with Python)

* Managing undergraduate and graduate research projects
* Lab organisation and management

**Peer-Reviewed Articles**

**Panayi, M. C.,** & Killcross, S. (2018). Functional heterogeneity within the rodent lateral orbitofrontal cortex dissociates outcome devaluation and reversal learning deficits. ELife, 7. https://doi.org/10.7554/eLife.37357.001

Holmes, N. M., Pan, J., Davis, A., **Panayi, M. C.**, & Clemens, K. J. (2018). Rats choose high doses of nicotine in order to compensate for changes in its price and availability. Addiction Biology. https://doi.org/10.1111/adb.12637

Campbell-Smith, E. J., Holmes, N. M., Lingawi, N. W., **Panayi, M. C.**, Westbrook, R. F. (2015). Oxytocin signalling in basolateral and central amygdala nuclei differentially regulates the acquisition, expression, and extinction of context-conditioned fear in rats. Learning and Memory. 22(5), 247-57. *doi*: 10.1101/lm.036962.114

Hart. G., **Panayi, M. C.**, Harris, J. A., Westbrook, R. F. (2014). Benzodiazepine treatment can impair or spare extinction, depending on when it is given. Behaviour Research and Therapy. 56, 22-9. *doi*: 10.1016/j.brat.2014.02.004

**Panayi, M. C.**, Killcross, A. S. (2014). Orbitofrontal cortex inactivation impairs between- but not within-session Pavlovian extinction: An associative analysis. Neurobiology of Learning and Memory. 108, 78-87. *doi*: 10.1016/j.nlm.2013.08.002

**Conference Proceedings**

**Oral Presentations**

**Panayi, M. C.\*,** Jahans-Price, T.\*, Boerner, T., Huber, A., Walton, M. E., Bannerman, D. M.,(2018). Glutamatergic dysfunction leads to a hyper‐dopaminergic phenotype: Linking dopamine to aberrant salience. Monitoring Molecules in Neuroscience, Oxford, UK.

**Panayi, M. C.,** Killcross, A. S. (2017). The role of the orbitofrontal cortex in a Pavlovian differential outcomes effect. Associative Learning Symposium (XXI), Gregynog Hall, Cardiff, UK.

**Panayi, M. C.,** Killcross, A. S. (2015). The role of specific outcome representations in two forms of Pavlovian outcome devaluation. Australian Learning Group Annual Winter Workshop, Sydney, Australia.

**Panayi, M. C.,** Killcross, A. S. (2015). Taste aversion and satiety engage dissociable mechanisms in Pavlovian outcome devaluation. Australasian Experimental Psychology Conference (EPC), Sydney, NSW, Australia.

**Panayi, M. C.,** Killcross, A. S. (2014). A Pavlovian Differential Outcomes Effect: A novel approach to the role of the orbitofrontal cortex. Australian Learning Group Annual Winter Workshop, Sydney, Australia.

**Panayi, M. C.,** Killcross, A. S. (2013). The Rodent Lateral Orbitofrontal Cortex: Pavlovian expectations for learning versus performance. Australian Learning Group Annual Winter Workshop, Sydney, Australia.

**Panayi, M. C.,** Killcross, A. S. (2013). The Involvement of the Rodent lateral Orbitofrontal Cortex in Pavlovian Extinction Learning Processes. Associative Learning Symposium (XVII), Gregynog Hall, Cardiff, UK.

**Panayi, M. C.,** Killcross, A. S. (2012). The Rodent Lateral Orbitofrontal Cortex is Necessary for Between- but not Within-Session Pavlovian Extinction. Australian Learning Group Annual Christmas Workshop, Sydney, Australia.

**Panayi, M. C.,** Killcross, A. S. (2011). The rodent orbitofrontal cortex: Lateral orbitofrontal lesions lead to leaky learning error terms. Australian Learning Group Annual Christmas Workshop, Sydney, Australia.

**Panayi, M. C.,** Killcross, A. S. (2011). The Orbitofrontal Cortex**:** Neurological substrates of Pavlovian learning and behaviour. Australian Learning Group Annual Winter Workshop, Coffs Harbour, NSW, Australia.

**Panayi, M. C.,** Killcross, A. S. (2011). The rodent orbitofrontal cortex: Lateral orbitofrontal lesions lead to leaky learning error terms. Psychology Postgraduate Conference, Sydney, NSW, Australia.

**Panayi, M. C.,** Killcross, A. S. (2010). Animal models of psychopathology: The signal attenuation model of compulsive lever pressing. Psychology Postgraduate Conference, Sydney, NSW, Australia.

**Poster Presentations**

Blackmore, T., Stahr, L. B., Samborksa, V., Gilmour, G., Walton, M. E., Bannerman, D. M., **Panayi, M. C.** (2019). Fractionating aberrant salience in rodent models of psychosis. Society for Neuroscience, Chicago, IL, USA.

Blackmore, T., Stahr, L. B., Samborksa, V., Gilmour, G., Walton, M. E., Bannerman, D. M., **Panayi, M. C.** (2019). An exploration of the relationship between short-term habituation and locomotor activity in rodent models of psychosis and aberrant salience. British Neuroscience Association, Dublin, Ireland.

**Panayi, M. C.,** Jahans-Price, T., Boerner, T., Huber, A., Harrison, P. J., Walton, M. E., Bannerman, D. M., (2017). Glutamatergic dysfunction leads to a hyper-dopaminergic phenotype: Aberrant salience and aberrant actions. Associative Learning Symposium (XXI), Gregynog Hall, Cardiff, UK.

**Panayi, M. C.,** Jahans-Price, T., Boerner, T., Huber, A., Harrison, P. J., Walton, M. E., Bannerman, D. M., (2017). Glutamatergic dysfunction leads to a hyper-dopaminergic phenotype: a possible cause of aberrant salience. British Neuroscience Association, Birmingham, UK.

Spehar, B., **Panayi, M. C.,** Krebs-Lazendic, L., Mendoza-Diaz, A., Killcross, A. S. (2015). Usage and Effectiveness of Online Quizzes in Undergraduate Psychology Courses. Blended Learning: Past, Present and Future (UNSW). Sydney, NSW, Australia.

Clemens, C. J., Pan, J., **Panayi, M. C.,** Holmes, N. M. (2015). Rats Selectively Choose High Doses of Nicotine in Compensation for and Anticipation of Restricted Access to Nicotine. 5th International Drug and Alcohol Research Society (IDARS). Sydney, NSW, Australia.

**Panayi, M. C.,** Killcross, A. S. (2012). The rodent orbitofrontal cortex: Leaky learning error terms. 32nd Australian Neuroscience Society (ANS). Gold Coast, QLD, Australia.

**Panayi, M. C.,** Killcross, A. S. (2012). The role of the rodent lateral orbitofrontal cortex (primate area 13m/13l homolog) in learning. Australasian Experimental Psychology Conference (EPC), Sydney, NSW, Australia.

**Panayi, M. C.,** Killcross, A. S. (2012). Obsessive Compulsive Disorder and the Orbitofrontal Cortex: How rodent studies can help understanding psychopathology. UNSW Postgraduate research competition, Sydney, NSW, Australia.

**Panayi, M. C.,** Killcross, A. S. (2012). Lesions of the orbitofrontal cortex enhance behaviour in Pavlovian acquisition learning. Society for Neuroscience, New Orleans, LA, USA.

**Panayi, M. C.,** Killcross, A. S. (2012). The Rodent Lateral Orbitofrontal Cortex: Contrasting Predicted and Un-Predicted Reward. Society for Neuroeconomics, Key Biscayne, FL, USA.

**Panayi, M. C.,** Killcross, A. S. (2012). The Rodent Lateral Orbitofrontal Cortex is Necessary for Between- but not Within-Session Pavlovian Extinction. Pavlovian Society, New Jersey, NY, USA.

**Teaching and administrative skills**

* Course design and creation
* Modern teaching techniques including blended learning and online courses
* Assessment design and delivery
* Undergraduate course administration
* Lecturing, tutoring (practical, leading discussion)

**Teaching and Administration: Experience**

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|  | **Course** | **Content** | **Undergraduate level** | **Role** |
| **Oxford** |  |  |  |  |
| **2018** | Biomedical Sciences | Mathematics and Statistics | 1st year | Tutor |
| **UNSW** |  |  |  |  |
| **2015** | Measuring Mind and Behaviour | Research methods and statistics | 1st year | Course creation & design, administrator, lecturer, tutor |
|  | History and Systems | History and philosophy of psychology | 4th year | Lecturer |
| **2014** | Abnormal Psychology | Clinical psychopathology | 1st year | Administration, content creation |
|  | Psychology of Addiction | Psychology and psychopharmacology of addiction | 1st year | Administration, content creation |
|  | Clinical Perspectives on Anxiety Mood and Stress | Clinical psychopathology | 1st year | Administration, content creation |
| **2013** | Research Methods 4 | Multivariate statistical analysis | 4th year | Tutor and invited lecturer |
|  | History and Systems | History and philosophy of psychology | 4th year | Tutor |
|  | Physiological Psychology | Neuroscience and associative learning | 3rd year | Tutor |
|  | Learning and Physiological Psychology | Neuroscience and associative learning | 2nd year | Tutor |
| **2012** | Research Methods 3A | Univariate statistical analysis and parameter estimation | 3rd year | Tutor |
| **2011** | Research Methods 3A |  | 3rd year | Tutor |
|  | Research Methods 3B | Multivariate statistical analysis | 3rd year | Tutor |
| **2010** | Research Methods 3A |  | 3rd year | Tutor |
|  | Research Methods 3B |  | 3rd year | Tutor |