

**MRC Centenary & Silver Unit Celebration with Science**  
**MRC Anatomical Neuropharmacology Unit, Department of Pharmacology**  
**Wednesday 18<sup>th</sup> December 2013**

Lecture Theatre and Seminar Room, Department of Pharmacology.

- 08:30 – 09:00** REGISTRATION AND COFFEE (*Set-up posters*)
- 09:00 – 09:05** Welcoming  
*Dr Karri Lamsa*
- 09:05 – 09:15** Introduction to Science Day: MRC Centenary & Silver Unit Celebration with Science  
*Prof. Peter Somogyi*
- Session 1 (*chaired Dr Karri Lamsa*)
- 09:15 – 09:45 *Prof. John Jefferys* “Pathophysiology of high-frequency oscillations in epilepsy”
- 09:45 – 10:15 *Prof. Matthew Walker* “The realisation of the ideas of Hughlings Jackson: gene therapy for epilepsy”
- 10:15 – 10:35 *Prof. Peter Somogyi* “Dendritic inhibition, calcium and synaptic plasticity in hippocampal pyramidal cells – a hypothesis”
- 10:35 – 11:05** **COFFEE BREAK - Seminar Room**
- Session 2 (*chaired Dr. Megan Dowie*)
- 11:05 – 11:25 *Dr Karri Lamsa* “Role of CCK+ interneurons in hippocampal oscillopathy and cognitive decline in mouse SZ model?”
- 11:25 – 11:45 *Dr Marco Capogna* “What circuit of the amygdala is activated by the CA1 hippocampus?”
- 11:45 – 12:05 *Dr David Dupret* “Optogenetic-combined multichannel investigation of the hippocampus circuit: overview of recent in-house achievements”
- 12:05 – 13:00** **LUNCH - Seminar Room**
- Session 3 (*chaired Dr Tim Viney*)
- 13:00 – 13:20 *Dr Peter Magill* “What we’re doing and what we’ll do.”
- 13:20 – 13:40 *Dr Paul Dodson* “Encoding of movement by identified neurons in the external segment of the globus pallidus”
- 13:40 – 14:00 *Prof. Paul Bolam* “Organisation of the neuronal networks of the basal ganglia”
- 14:00 – 14:20 *Dr Rafal Bogacz* “Computational models of beta oscillations in Parkinson's disease”
- 14:20 – 14:40 *Dr Andrew Sharott* “Detecting electrophysiological signatures of disease-related neuronal activity using recordings from animal models and neurosurgical patients”

- 14:40 – 16:00**      **TEA BREAK & POSTERS - Seminar Room**
- 16:00– 17:00      **Poster Blitz** (*chair: Dr Peter Magill*)  
Poster blitz talks 5 min + 2 min each x 9 Posters
- 17:00 – 17:30**      1) Research Governance  
2) Concluding Remarks
- 18:30 onwards**      Unit Science Day dinner at Wadham College.  
*To be seated by 7pm.*

## **Poster Session**

**Farid Garas, Andrew Sharott & Peter J. Magill**

**Emilie Syed, Peter Brown, Peter J. Magill & Mark Walton.**

Dopamine in action: contrasting reward prediction and response initiation.

**Daniel Swiejkowski, Michael Crump & Peter Somogyi.**

Hippocampal and septal LFP oscillations and septal firing patterns during behaviour.

**John Grogan, Liz Coulthard & Rafal Bogacz.**

Dopaminergic medications differentially affect the long term memory for associations learned from positive and negative feedback.

**Daniel Dautan, Icnelia Huerta-Ocampo, Ilana B. Witten, Karl Deisseroth, J. Paul Bolam, Todor Gerdjikov & Juan Mena-Segovia.**

A major external source of cholinergic innervation of the striatum and nucleus accumbens originates in the brainstem.

**Marco Bocchio & Marco Capogna.**

Serotonin switches the firing mode of low threshold spiking neurons of the lateral amygdala.

**Michael Bazelot, David Fischer, Francesco Ferraguti & Marco Capogna.**

Hippocampal theta induces disinhibition of amygdala principal cells via GABA-B and  $\mu$ -opioid receptors.

**Van de Ven G, Tejero-Cantero A, McNamara C, Trouche S, Campo-Urriza N, Perestenko P & Dupret D**

Towards investigating the role of SWRs in the consolidation of hippocampal cell assemblies using closed-loop optogenetic feedback.

**Trouche S, Perestenko P, Campo-Urriza N & Dupret D**

Influence of hippocampal inputs on the nucleus accumbens activity.