Symposium on
New Challenges in the Biomedical Sciences
Parc Thistle Hotel Cardiff, Park Place, Cardiff CF10 3UD, Wales, UK
25th and 26th March 2015

Registration (no cost) at: https://eventbrite.co.uk/event/15499884572/

WEDNESDAY 25 March, 0830 – 1800

0830-0900   Registration and coffee

Programme

Session I   Pathophysiology: Mitochondria, Calcium and Inflammation

0900       Opening remarks: Ole Petersen (Cardiff University)
0910       Keynote Lecture: Tullio Pozzan (University of Padua)
            The privileged signalling crosstalk between the endoplasmic reticulum
            and the mitochondria
0945       Discussion
0955       Anant Parekh (University of Oxford)
            Distinct sub-cellular Ca^{2+} signals activate different transcription factor
            isoforms
1020       Discussion
1025  **Julia/Oleg Gerasimenko** (Cardiff University)
*Physiological and pathological Ca\(^{2+}\) signals in exocrine pancreatic cells: pathophysiology of pancreatitis*

1050  Discussion

1055  Coffee

1115  **David Criddle** (University of Liverpool)
*Mitochondrial dysfunction in acute pancreatitis: strategies for prevention*

1140  Discussion

1145  **Daniela Riccardi** (Cardiff University)
*Development of a novel therapeutic for inflammatory lung disorders*

1210  Discussion

1215  Panel Discussion

1300  Lunch

**Session II  Translating Basic Immunology Research into Clinical Impact**

1355  Introductory remarks: **Paul Morgan** (Cardiff University)

1405  Keynote Lecture: **Adrian Hill** (University of Oxford)
*Ebola vaccines: a rapid response*

1440  Discussion

1445  **Paul Lehner** (University of Cambridge)
*Proteomic and genetic approaches to viral evasion*

1510  Discussion

1515  **Tracy Hussell** (University of Manchester)
*New concepts in the treatment of bacterial pneumonia: modulation of inflammatory tone*

1540  Discussion

1545  Tea

1600  **Simon Jones** (Cardiff University)
*Evaluating cytokine control of different forms of synovitis in rheumatoid arthritis*

1625  Discussion
1630   **Bernard Moser** (Cardiff University)  
*Correlates of skin-specific vaccination*

1655   Discussion

1700   **Andrew Sewell** (Cardiff University)  
*A systems view of T-cell immunity offers multiple opportunities for therapeutic intervention during infection, autoimmunity and cancer*

1725   Discussion

1730   Panel Discussion

1800   Conclusion

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**THURSDAY 26 March, 0900 - 1800**

**Session III  Neurogenetics**

0900   Opening remarks: **Michael Owen** (Cardiff University)
0910   Keynote Lecture: **John Hardy** (University College London)  
*Genomic analysis of Neurodegeneration*

0950   Discussion

1000   **Julie Williams** (Cardiff University)  
*Translating genetic findings in Alzheimer Disease*

1025   Discussion

1030   **Thomas Bourgeron** (Institut Pasteur, Paris)  
*From Genetic architecture to synaptic plasticity in autism*

1055   Discussion

1100   Coffee

1120   **Jeremy Hall** (Cardiff University)  
*Translating genetic findings in psychiatry*

1145   Discussion

1150   Panel Discussion

1250   Lunch
Session IV   Cerebral Cortex: Development, Function and Dysfunction

1350    Introductory remarks: **Yves Barde** (Cardiff University)
1400    Keynote Lecture: **Haruo Kasai** (University of Tokyo)

*Dendritic spine dynamics underlying animal behaviours*

1435    Discussion

1445    **Carl Petersen** (EPFL Lausanne)

*Neural circuits for goal-directed sensorimotor processing*

1510    Discussion

1515    **Isabel Martinez-Garay** (Cardiff University)

*Critical steps in cortical lamination*

1540    Discussion

1545    Tea

1600    **Kevin Fox** (Cardiff University)

*An early critical period for adult cortical plasticity*

1625    Discussion

1630    **Vincenzo Crunelli** (Cardiff University)

*Thalamo-cortical mechanisms of sleep and epilepsy*

1655    Discussion

1700    Panel Discussion

1800    Conclusion