The Challenge of Chronic Pain
4-6 March 2019

Wellcome Genome Campus,
Hinxton, Cambridge, UK

Lectures to be held in the Francis Crick Auditorium
Lunch and dinner to be held in the Hall Restaurant
Poster sessions to be held in the Conference Centre

Spoken presentations - If you are an invited speaker, or your abstract has been selected for a spoken presentation, please give an electronic version of your talk to the AV technician.

Poster presentations – If your abstract has been selected for a poster, please display this in the Conference Centre on arrival.

Monday 4 March 2019

11:30-12:30 Registration with buffet lunch
Conference Centre Event Space

12:30-12:40 Welcome and Introductions
John Wood, University College London, UK

12:40-13:40 Keynote Lecture
Introduced by John Wood, University College London, UK

Cortical circuits and oscillatory rhythms in pain
Rohini Kuner
University of Heidelberg, Germany

13:40-15:10 Session 1: Pain in the brain
Chair: Rohini Kuner, University of Heidelberg, Germany

13:40 Imaging Mechanisms relate to Chronic Pain and its Relief
Irene Tracey
University of Oxford, UK

14:10 Brain circuits involved in phantom limb pain
Herta Flor
Institute of Cognitive and Clinical Neuroscience, Germany

14:40 Role of Piezo2 in trigeminal corneal mechanotransduction
Jorge Fernandez Trillo
Instituto de Neurociencias de Alicante UMH-CSIC, Spain

14:55 Human labor pain is influenced by the voltage-gated potassium channel Kv6.4 subunit
Michael Lee
University of Cambridge, UK
15:10-15:40  
**Afternoon Tea**

15:40-17:10  
**Session 2: Development and transition to chronic pain**  
*Chair: Jon Levine, University of California, USA*

15:40  
Pain in early life - setting the scene  
*Maria Fitzgerald*  
*University College London, UK*

16:10  
Mechanisms of transition to chronic pain  
*Theodore Price*  
*University of Texas at Dallas, USA*

16:40  
Pathophysiological basis of pain in fibromyalgia  
*David Andersson*  
*Kings College London, UK*

16:55  
A novel molecular mechanism underlying tumor-associated pain  
*Larry Sherman*  
*Oregon Health & Science University, USA*

17:10-18:10  
**Lightning talks**  
*Chair: John Wood, University College London, UK*

18:10-19:10  
**Poster Session 1 (odd numbers) with drinks reception**

19:10 prompt  
Dinner

**Tuesday 5 March 2019**

07:30-09:00  
**Breakfast**

09:00-10:30  
**Session 3: Genetics of pain**  
*Chair: John Wood, University College London, UK*

09:00  
Sensory neuron populations – genetics and function  
*Paul Heppenstall*  
*EMBL- Rome, Italy*

09:30  
Gene therapy for neuropathic pain: Can we dial down excitability?  
*David Bennett*  
*University of Oxford, UK*

10:00  
NIHR Bioresource - Neuropathic Pain Disorders: Analysis of 193 whole genome sequencing data to understand neuropathic pain disorders.  
*Andreas Themistocleous*  
*University of Oxford, UK*

10:15  
Attributing function to classes of colonic sensory neuron revealed by single-cell RNAseq  
*James Hockley*  
*University of Cambridge, UK*

10:30-11:00  
**Morning Coffee**
11:00-12:30 **Session 4: Neural circuits in pain and effects of opioids**  
*Chair: Rohini Kuner, University of Heidelberg, Germany*

11:00 Spinal cord circuits in touch and pain  
Rebecca Seal  
*University of Pittsburgh, USA*

11:30 Neural circuits of pain unpleasantness and its control by opioids  
Gregory Scherrer  
*Stanford University, USA*

12:00-13:30  
**Lunch**  
*Hinxton Hall Restaurant*

13:30-14:30 **Session 4 continued: Neural circuits in pain and effects of opioids**  
*Chair: Rohini Kuner, University of Heidelberg, Germany*

13:30 Opioids and brain function: Pain relief, reward, addiction  
Catherine Cahill  
*University of California, Los Angeles, USA*

14:00 The role of neuropeptide Y-expressing dorsal horn inhibitory interneurons in nociceptive and pruriceptive circuits  
Kieran Boyle  
*University of Glasgow, UK*

14:15 Spinofugal nociceptive projection neurons defined by Phox2a expression  
Artur Kania  
*IRCM / McGill University, Canada*

14:30-15:15  
**Afternoon Tea and Group Photograph**

15:15-17:00 **Session 5: Molecules and cells of nociception**  
*Chair: Cheryl Stucky, Medical College of Wisconsin, USA*

15:00 Molecules and cell biology of nociception  
Aziz Moqrich  
*Marseile University, France*

15:30 Ion channels in somatodetection and nociception  
Thomas Voets  
*Leuven, Belgium*

16:00 Skin cells detect touch and pain  
Cheryl Stucky  
*Medical College of Wisconsin, USA*

16:30 Peripheral mechanisms of cold allodynia in neuropathic pain  
Donald Ian McDonald  
*University College London, UK*
16:45  Profiling the proteome landscape of chronic pain – opportunities for mechanism-based research  
Manuela Schmidt  
MPI of Experimental Medicine and University of Goettingen, Germany

17:00-18:00  Lightning talks  
Chair: Rohini Kuner, University of Heidelberg, Germany

18:00-18:15  Comfort break

18:15-19:15  Keynote Lecture  
Introduced by Jon Levine, University of California, USA

Mechanically activated ion channels in touch and pain  
Ardem Patapoutian  
Scripps, USA

19:15-20:15  Poster Session 2 (even numbers) with drinks reception

20:15 prompt  Conference Dinner

Wednesday 6 March 2018

07:30-09:00  Breakfast

09:00-10:30  Session 6: Translation and New Therapeutics in pain  
Chair: John Wood, University College London, UK

09:00  Bench to Bedside in Pain Treatment: Following, Leading, or Misleading?  
James Eisenach  
Wake Forest, USA

09:30  Cancer-induced bone pain: understanding the Role of glial cells and the P2X7 receptor  
Anne-Marie Heegaard  
University of Copenhagen, Denmark

10:00  Escape the rodent trap: iPSC derived sensory neurons for pain research  
Angelika Lampert  
Uniklinik RWTH Aachen, Germany

10:15  Genome-wide Association Study of Multisite Chronic Pain in UK Biobank  
Keira Johnston  
University of Glasgow, UK

10:30-11:00  Closing remarks  
Rohini Kuner, University of Heidelberg, Germany
11:00 -11:30  Morning Coffee

11:45 prompt  Coaches depart to Cambridge City Centre and Train Station, Stansted Airport via Heathrow Airport