



International Workshop on Chronic Pain and Itch: Mechanisms and Circuits



Final Program (revised 17/10/2021)

Wednesday, October 20th

10:00-13:45 Registration open for participants

Complejo San Juan c/ Dr. Perez Mateos s.n., San Juan de Alicante

03550. Tel. 965 653300 - Fax. 965 940818 – E-mail:(rsanjuan@psn.es),

<http://www.perezmateos.com/>

13:45-14:00 Welcome address

Félix Viana, Asia Fernández Carvajal, Guillaume Sandoz

14:00-18:15 1st SESSION. ADVANCED OPTICAL TECHNIQUES IN NEUROSCIENCE

Chair

Ana Gomis. Instituto de Neurociencias (Alicante, Spain)

Speakers

Felix Leroy. Instituto de Neurociencias (Alicante, Spain) **14:00-14:45**

Optogenetic, chemogenetic and calcium imaging tools to investigate neuronal circuits supporting social behavior

Guillaume Sandoz. Université Cote d'Azur (Nice, France) **14:45-15:30**

LAKI-1 a Light-Activated K⁺ channel inhibitor to study migraine induction

Julius Pakalniskis. SISSA (Trieste, Italy) **15:30-16:00**

Development of new voltage imaging tools for monitoring neuronal activity

16:00-16:30 Coffee Break

Joshua Levitz. Weil Cornell (New York, USA) **16:30-17:15 (Zoomed in)**

Harnessing GPCR photopharmacology to study in vivo neuromodulation

Victoria Abaira. Rutgers University (New Jersey, USA) **17:15-18:00 (Zoomed in)**

Does this hurt? Computational approaches to scale the rodent pain experience

Giovanna De Filippi. Axion BioSystems (Atlanta, GA - USA). **18:00-18:15**

Modelling pain with rodent and hiPSCs models in-a-dish with Axion BioSystems bioelectronic assays

Nicolas Bonneau, Inscopix, Inc. (Palo Alto, CA, USA) **18:15-18:30**

In vivo miniature microscopy to accelerate your neuroscience research

Thursday October 21st

8:30-10:00 Registration open for participants at Complejo San Juan

9:00-11:00 2nd SESSION. MECHANICAL/PERIPHERAL PAIN MECHANISMS

Chair

Francisco Taberner. Instituto de Neurociencias (Alicante, Spain)

Speakers

Tim Hucho. University of Cologne (Cologne, Germany) **9:00-9:30**

Electrical activity induces PKA-dependent nociceptor sensitization via L-type channels

Gerard Callejo. Universidad de Barcelona (Barcelona, Spain) **9:30-10:00**

Mechanisms driving joint inflammatory pain in mice

Aziz Moqrich. IBDM CNRS (Marseille, France) **10:00-10:30**

A role of the C-LTMRs-derived TFAA4 in pain modulation

Saad Nagi. Linköping University (Linköping, Sweden) **10:30-11:00**

Speed matters. Investigations into a novel pain pathway in humans

11:00-11:30 [Coffee Break](#)

11:30-14:00 3rd SESSION. MECHANISMS OF CHRONIC PAIN AND ITCH

Chair

David Hughes. University of Glasgow (Glasgow, UK)

Speakers

Augusto Escalante. Instituto de Neurociencias (Alicante, Spain) **11:30-12:00**

A critical period for the itch spinal cord neural circuit?

Xavier Gasull. Universidad de Barcelona (Barcelona, Spain) **12:00-12:30**

Modulation of pain and itch sensitivity by background K⁺ channels

Andreas Leffler. Hannover Medical School (Hannover, Germany) **12:30-13:00**

More than just a sensor for non-physiological high heat - new insights about TRPV2 and possible implications for pain and itch

Juan Carlos Arévalo. Universidad de Salamanca (Salamanca, Spain) **13:00-13:30**

ARMS/Kidins220 regulates NGF/TrkA axis-mediated nociception through BDNF secretion

Katie Barker. University of Cambridge (United Kingdom) **13:30-13:45**

TNF α sensitises colonic afferent responses to capsaicin and noxious distension through modulation of TRPV1 and p38MAPK signalling pathways

Simona Giorgi. IDIBE-UMH (Elche, Spain) **13:45-14:00**

Transdifferentiation and microfluidic chambers as tools to approach the in-vivo sketch of human nociceptors

14:00-15:30 [Standing lunch and visit to posters](#)

15:30-18:15 4th SESSION. CHEMOTHERAPY-RELATED PAIN / NEUROIMMUNE INTERACTIONS

Chair

Dr. Xavier Gasull. Universidad de Barcelona (Barcelona, Spain)

Speakers

Mathilde Israel. King`s College London (London, UK) **15:30-16:00**

Oxaliplatin evoked hyperexcitability

Elvira de la Peña. Instituto de Neurociencias UMH-CSIC (Alicante, Spain) **16:00-16:30**

The role of TRPA1 channels and Sigma-1 receptor in oxaliplatin-induced peripheral neuropathy

Margot Maurer. Wolfson CARD, King`s College London (United Kingdom) **16:30-17:00**

Immune contribution to fibromyalgia: the role of immunoglobulin G

Eva M^a Villalba-Riquelme. IDIBE-UMH (Elche, Spain) **17:00-17:15**

Sensitizing effects of chemotherapeutic agents on sensory neurons: long-term culture studies

Javier Aguilera-Lizarraga. KU Leuven Department of Chronic Diseases, Metabolism and Ageing (Leuven, Belgium) **17:15-17:30**

Neuro-immune interaction underlying food-induced abdominal pain

Sathish Kumar Singaravelu. Dept. of Neurophysiology, Heidelberg Uni. (Germany) **17:30-17:45**

Microglia contributes to long-term sensitization of rat spinal neurons induced by a mild-nociceptive lumbar input when preceded by adolescent restraint stress

Minji Ai. Department of Veterinary Medicine, University of Cambridge (UK) **17:45-18:00**

Human mesenchymal stem/stromal cells and derived extracellular vesicles reduce pain in 16-week DMM mice

Hanneke Willemen. UMC Utrecht (Utrecht, Netherlands) **18:00-18:15**

Mitochondrial adaptations in sensory neurons regulate the switch from acute to chronic pain.

18:15-18:30 [Short Coffee Break](#)

18:30-19:30 PLENARY LECTURE (Zoomed out to member of Institute of Neuroscience)

Paul Heppenstall, SISSA, (Trieste, Italy)

Title: *Optopharmacological methods to dissect peripheral pain and itch circuits*

Friday October 22nd

9:00-12:30 5th SESSION. TRIGEMINAL PAIN AND MIGRAINE & Short Presentations

Chair

Asia Fernández-Carvajal. IDIBE-UMH (Elche, Spain)

Speakers

Jorge Fernández-Trillo. Instituto de Neurociencias UMH-CSIC (Alicante, Spain) **9:00-9:30**
Role of Piezo2 channels in mechanical ocular pain

Carolina Roza. Universidad de Alcalá (Alcalá de Henares, Spain) **9:30-10:00**
The cold sensing mechanism in tooth nociceptors

Boris Safronov. IBMC University of Porto (Porto, Portugal) **10:00-10:30**
Processing of trigeminocervical nociceptive afferent input by neuronal circuitry in the upper cervical lamina I

Carlos Belmonte. Instituto de Neurociencias UMH-CSIC (Alicante, Spain) **10:30-11:00**
Corneal sensory detection: learning on general questions from a very peculiar structure

11:00-11:30 [Coffee break](#)

Guillaume Sandoz, Universite Cote d'Azur (Nice, France) **11:30-12:00**
K2P channels in migraine induction and its treatment

Maya Dannawi. Department of Pharmacology, University of Cambridge (UK) **12:00-12:15**
Role of Prdm12 in somatosensory development and nociception: From development till adulthood

James Higham. University of Cambridge (United Kingdom) **12:15-12:30**
Angiotensin II stimulates colonic afferents and cultured sensory neurons with a nociceptor-like phenotype via the AT1 receptor

12:30-13:30 PLENARY LECTURE (Zoomed out to members of Instituto of Neuroscience**)**

Rohini Kuner, University of Heidelberg (Heidelberg, Germany)

Title: *Sumoylation in sensory neurons regulates neuropathy and pain*

13:30-15:00 [Standing lunch and visit to posters](#)

15:00-18:30 6th SESION. CHRONIC PAIN: MECHANISMS and CIRCUITS

Chair

Guillaume Sandoz, Université Cote d'Azur (Nice, France)

Speakers

Thomas Voets. KULeuven (Leuven, Belgium) **15:00-15:30**

TRPM3 – a hotheaded channel on steroids involved in chronic pain

David Hughes. University of Glasgow (Glasgow, UK) **15:30-16:00**

Presynaptic inhibition: the overlooked player in neuropathic pain

José Antonio López García. Universidad de Alcalá (Alcalá de Henares, Spain) **16:00-16:30**

Spinal cord circuits modulating primary afferent depolarization

Emmanuel Bourinet. Institut de Génomique Fonctionnelle (Montpellier, France) **16:30-17:00**

Channeling affective touch and pain

Cedric Peirs, Neuro-Dol, Université Clermont Auvergne (Clermont-Ferrand, France) **17:00-17:30**

Pain in the dorsal horn: network or circuits?

James Poulet, Max Delbrück Center - MDC (Berlin, Germany) **17:30-18:00**

Cortical circuits of thermal perception

18:00-18:15 Short Break

18:15-18:25 Prizes for best poster and best short talk

18:25-18:45 Meeting closure

20:15 Bus departs Complejo San Juan to the Port of Alicante

20:30 Gala dinner party for signed participants at the Port of Alicante

Ocean Race Club Restaurant

MUELLE DE LEVANTE, 10 (ALICANTE)

23:45 Bus departs from the Port of Alicante to Complejo San Juan

