

Spring Pain 2017 (Pre-APS) *Final Schedule*

Tuesday, May 16

8:00 Welcome

8:05-9:00 Session 1 (Chair: Sarah Ross)

Integration in the Dorsal Horn

- 1) Seungwon Sebastian Choi (Harvard University)
“Molecular-genetic dissection of the mouse anterolateral tract”
- 2) Wenqin Luo (University of Pennsylvania)
“Region Specific Organization of Mammalian Nociceptive Circuits”
- 3) Rebecca Seal (University of Pittsburgh)
“A neural network for mechanical allodynia in the dorsal horn”
- 4) Sarah Ross (University of Pittsburgh)
“Molecular genetic dissection of the spinal microcircuits of wind-up”

9:00-10:00 Session 2 (Chair: Greg Scherrer and Nathan Jeske)

Delta receptor “Smack Down”

- 1) Gregory Scherrer (Stanford University)
“Neural circuits and synaptic mechanisms for mechanical pain control by delta opioid receptors”
- 2) Nathan Jeske (University of Texas- San Antonio)
“Scaffolding Interactions Regulate Peripheral Opioid Receptor Desensitization”
- 3) Aynah Pradhan (University of Illinois, Chicago)
“Delta Opioid Receptors as a Novel Therapeutic Target for Migraine”
- 4) Wendy Walwyn (UCLA)
“The multi-faceted adaptations of opioid receptors to chronic pain”

10:00-10:15 Coffee Break

10:15-11:15 Session 3 (Chair: Geoff Ganter)

Invertebrate Models of Pain

- 1) Geoff Ganter (University of New England)
- 2) William Schafer (Cambridge)
“Nociception and behavioral states in *C. elegans*”
- 3) Michael J. Galko, University of Texas- MD Anderson
“Using fruit flies to probe the transition from acute to chronic pain”
- 4) Yang Xiang (University of Massachusetts Medical Center)
“The *Drosophila* model for studying nerve lesion- and tissue injury-induced nociceptive sensitization”

11:15-12:15 Session 4 (Chair: Brian Davis)

Neuronal to Non-neuronal Communication in Pain

- 1) Brian Davis (University of Pittsburgh)
“The role of nerves in regulating B and T cell function in the setting of cancer”
- 2) DP Mohapatra (Washington University St. Louis)
“Painful Tumor-Immune-Neuron Crosstalk in Metastatic Bone Cancer”
- 3) Yuriy Usachev (University of Iowa)

“Macrophage-nociceptor crosstalk in chronic pain and its regulation by the complement system”

- 4) Catherine Cahill (University of California- Irvine)
“Glial contribution to pain and opioid effects”

12:15-12:30 Get food for working lunch (Meal provided)

12:30-1:15 Session 5 (Chair: Derek Molliver)

Adenylyl Cyclases and Sensory Neuron Plasticity

- 1) Annemieke Kavelaars (University of Texas MD Anderson Cancer Center)
“Epac signaling in neuropathic pain”
- 2) Derek Molliver (University of New England)
“A role for adenylyl cyclase 2 in intractable pain”
- 3) Val Watts (Purdue University)
“Discovery of Adenylyl Cyclase 1 Inhibitors for Inflammatory Pain”

1:15-2:15 Session 6 (Chair: Xinzhong Dong and Tor Wager)

Novel insights into pain signaling from “in vivo” imaging

- 1) Vitaly Napadow (Massachusetts General Hospital, Harvard Medical School)
“Is brain concordance associated with therapeutic alliance? A hyperscan fMRI study of clinician / patient interaction”
- 2) Marina López-Solà (University of Cincinnati, Children’s Hospital Medical Center)
“Pain, expectations, and self-fulfilling prophecy: An fMRI study”
- 3) Xiao-Ke Chen (Stanford University)
“Spinal Cord Circuit for Thermosensation and its Reorganization in Persistent Pain”
- 4) Xinzhong Dong (Johns Hopkins University)
“Imaging pain-sensing neurons in the DRG”

2:15-2:30 Coffee Break

2:30-3:30 Session 7 (Chair: Michael Morgan)

A New Era of Clinically Relevant Methods to Assess Pain in Laboratory Animals: Analysis of the Pros and Cons

- 1) Michael Morgan (Washington State University, Vancouver)
“The clinical relevance of home cage wheel running as a pain assessment tool”
- 2) Steve Negus (Virginia Commonwealth University)
“Assays of Pain-Depressed Behavior in Rats and Mice”
- 3) Anke Tappe-Theodor (University of Heidelberg)
“What gait analysis and homecage monitoring tell us about chronic pain?”
- 4) Tamara King (University of New England)
“Using motivation to assess ongoing pain: Considerations for CPA and CPP”

3:30-4:30 Session 8 (Chair: John Streicher and Michael Lark)

Biased ligands: Is basic science finally starting to pay off?

- 1) Michael Lark (Trevena, Inc.)

- “Pre-clinical TRV130 talk”
- 2) David Soergel (Trevena, Inc.)
“Clinical TRV130 talk”
- 3) William Clarke (University of Texas Health Science Center.)
“Kappa opioid receptor ligand functional selectivity in peripheral sensory neurons *in vivo* and *ex vivo*”
- 4) John Streicher (University of Arizona)
“Beyond β -arrestin2: Identifying New Signaling Regulators of the Mu Opioid Receptor for Functionally Selective Drug Discovery”

4:30-5:15 Session 9 (Chair: Greg Dussor)

Headache

- 1) Greg Dussor (University of Texas- Dallas)
“Prolactin and female migraine”
- 2) Andy Russo (University of Iowa)
“The role of CGRP in migraine”
- 3) Dan Levy (Harvard-Beth Israel Deaconess Medical Center)
“Mechanisms of post-traumatic headache”

5:30–7:30 Welcome Reception

Wednesday, May 17

8:00-9:00 Session 10 (Chair: Cheryl Stucky and Julie Christianson)

Pain Influences across the lifespan

- 1) Mark Baccei (University of Cincinnati)
“Chemotherapy-induced neuropathic pain in the developing rat”
- 2) Julie Christianson (University of Kansas)
“Investigating comorbidities in an early life stress model of urogenital hypersensitivity”
- 3) Patrick Mantyh (University of Arizona)
“Skeletal pain across the lifespan”
- 4) Cheryl Stucky (Medical College of Wisconsin)
“Mechanical sensitization of nociceptors depends on age and pain chronicity”

9:00-9:45 Session 11 (Chair: Tally Largent-Milnes)

Sex Differences in Pain

- 1) Roger Fillingim (University of Florida)
“Sex Differences in Osteoarthritis Pain”
- 2) Michael Burton (University of Texas-Dallas)
“TLR4-dependent pain depends on different cell types in males and females”
- 3) Tally Largent-Milnes (University of Arizona- Tucson)
“Hormone regulation of NHE1 expression- Implications for headache pain”

9:45-10:00 Coffee Break

10:00-11:00 Session 12 (Chair: Andrea Nackley)

Adrenergic systems and Pain

- 1) Andrea Nackley (Duke University)
“Peripheral beta-adrenergic contributions to chronic pain”
- 2) Jun-Ming Zhang (University of Cincinnati)
“Sympathetically regulated inflammatory response: implications for pain and pain management
- 3) Isabel Martins (Universidade do Porto, Porto, Portugal)
“Noradrenaline: a new player in descending pain facilitation”
- 4) Jim Eisenach (Wake Forest School of Medicine)
“Plasticity in locus coeruleus activity and implications for pain treatment”

11:00-11:45 Session 13 (Chair: H. Richard Koerber)

Opto- and chemogenetic approaches to dissect the afferent subpopulation(s) mediating acute and chronic pain

- 1) Robert Gereau (Washington University, St Louis)
“Wireless optoelectronic systems for optogenetic manipulation of primary afferents and spinal circuits.”
- 2) Phillipe Seguela (McGill University)
“Differential optogenetic and chemogenetic activation of primary afferents”
- 3) H. Richard Koerber (University of Pittsburgh)
“Optogenetic evaluation of the ability of different cutaneous afferents to evoke aversive behaviors

***** APS starts at 12:00 pm*****