

Sunday, November 15

- 3:00 pm Check-in
- 6:15 pm Reception (*Lobby*)
- 7:00 pm Dinner
- 8:00 pm Welcome and opening remarks (David Ginty)**
- 8:10 pm Session 1**
Chair: David Ginty
- 8:10 pm **Maria Fitzgerald**, University College London
What the young brain tells the spinal cord
- 8:40 pm **Miguel Nicolelis**, Duke University Medical Center
Neural ensemble dynamics in the mammalian somatosensory system: From rodents to man
- 9:10 pm Refreshments available at Bob's Pub

NOTE:

Meals are in the **Dining Room**
Talks are in the **Seminar Room**
Posters are in the **Lobby**

Monday, November 16

All talks are 20 minutes
+ 10 minutes for Q&A

- 7:30 am Breakfast available (*service ends at 8:45am*)
- 9:00 am Session 2**
Chair: Ellen Lumpkin
- 9:00 am **Diana Bautista**, University of California, Berkeley
Surveying natural variation in mice to identify somatosensory transducers
- 9:30 am **Gary R. Lewin**, Max-Delbrück Center for Molecular Medicine
Common genes that determine the sensitivity of touch and hearing
- 10:00 am **India Morrison**, Linköping University
Sensory and behavioral consequences of human nerve growth factor (NGF) mutation R221W
- 10:30 am Break
- 11:00 am Session 3**
Chair: Frank Rice
- 11:00 am **Michael Caterina**, Johns Hopkins School of Medicine
Contributions of keratinocytes to acute and pathological pain sensation
- 11:30 am **Richard Koerber**, University of Pittsburgh
Keratinocytes can modulate and directly initiate nociceptive sensations
- 12:00 pm **Jianguo Gu**, University of Alabama Birmingham
A whisker hair tells a touch tale: Tactile transduction in Merkel discs of mammals
- 12:30 pm Lunch (*service ends at 1pm*)
- 2:00 pm Session 4**
Chair: Fan Wang
- 2:00 pm **Daniel H. O'Connor**, Johns Hopkins University
Stimulus feature coding by trigeminal ganglion neurons during natural whisking against an object
- 2:30 pm **Dan Feldman**, University of California, Berkeley
Whisker-based encoding of object shape, studied using tactile gratings

Mammalian Circuits Underlying Somatosensation

- 3:00 pm **Carmen Birchmeier**, Max-Delbrück-Center for Molecular Medicine
c-Maf and the development and function of mechanosensory circuits
- 3:30 pm Break
- 4:00 pm Session 5**
Chair: Esther Gardner
- 4:00 pm **Ardem Patapoutian**, HHMI/Scripps Research Institute
Role of Piezo2 in somatosensory mechanotransduction
- 4:30 pm **Robert Brownstone**, University College London
Spinal sensorimotor circuits for learning
- 5:00 pm **Lee E. Miller**, Northwestern University
Development of an afferent neural interface designed to mimic natural proprioception
- 5:30 pm Poster Reception
- 7:00 pm Dinner
- 8:00 pm Session 6**
Chair: Rebecca Seal
- 8:00 pm **Victoria E. Abraira**, Harvard Medical School
Genetic dissection of dorsal horn circuits underlying touch sensation
- 8:30 pm **Martyn Goulding**, Salk Institute for Biological Studies
Functional dissection of the spinal circuitry for touch
- 9:00 pm **David I. Hughes**, University of Glasgow
Identifying the sources of axo-axonic synapses in the spinal dorsal horn
- 9:30 pm Refreshments available at Bob's Pub

Tuesday, November 17

- 7:30 am Breakfast available (*service ends at 8:45am*)
- 9:00 am Session 7**
Chair: Wenqin Luo
- 9:00 am **Blair A. Jenkins**, Columbia University
Development of Merkel-cell innervation during embryogenesis
- 9:30 am **Stephen M. Maricich**, University of Pittsburgh School of Medicine
Merkel cell-driven BDNF signaling specifies SAI neuron molecular and electrophysiological phenotypes
- 10:00 am **Jan Siemens**, Heidelberg University
Generation of hES/iPS-derived peripheral neurons: A new approach to study sensory mechanisms
- 10:30 am Break
- 11:00 am Session 8**
Chair: Robert Gereau
- 11:00 am **Sarah E. Ross**, University of Pittsburgh
Dynorphin acts as a neuromodulator to inhibit itch in the dorsal horn of the spinal cord
- 11:30 am **Robert LaMotte**, Yale University School of Medicine
An experimental model of inflammatory itch and pain in human and mouse
- 12:00 pm **Andrew Todd**, University of Glasgow
Inhibitory interneurons in the superficial dorsal horn
- 12:30 pm Lunch (*service ends at 1pm*)
- 1:00 pm Tour (*optional – meet at reception*)
- 2:00 pm Session 9**
Chair: Jeff Yau
- 2:00 pm **Roland S. Johansson**, Umeå University
Rapid use of tactile inputs during object manipulation

Mammalian Circuits Underlying Somatosensation

- 2:30 pm **Manuel Gomez-Ramirez**, Brown University
Multimodal interactions between proprioceptive and cutaneous signals in primary somatosensory cortex
- 3:00 pm **Esther P. Gardner**, NYU School of Medicine
Somatosensory cortical representation of hand actions during prehension
- 3:30 pm **Jianing Yu**, Janelia Research Campus/HHMI
Encoding of tactile information in the mouse thalamocortical circuit
- 4:00 pm Break
- 4:30 pm Session 10**
Chair: Reza Sharif Naeini
- 4:30 pm **Qiufu Ma**, Harvard Medical School
Identification of spinal circuits transmitting and gating mechanical pain
- 5:00 pm **Wenqin Luo**, University of Pennsylvania
Early RET⁺ inhibitory interneurons mediate crosstalk between touch and pain pathways
- 5:30 pm **Gregory Scherrer**, Stanford School of Medicine
Functional organization of opioid receptors in somatosensory neural circuits
- 6:00 pm Poster Reception
- 7:30 pm Dinner
- 8:30 pm Session 11**
Chair: India Morrison
- 8:30 pm **Fan Wang**, Duke University
Characterizing the parabrachial nucleus mediated emotional pain processing circuit
- 9:00 pm **Håkan Olausson**, Institute of Clinical and Experimental Medicine
C-tactile stimulation reduces heat pain perception in humans
- 9:30 pm **Alison Barth**, Carnegie Mellon University
TrpM8-mediated sensation maps to mouse insular cortex
- 10:00 pm Refreshments available at Bob's Pub

Wednesday, November 18

- 7:30 am Breakfast available (*service ends at 8:45am*)
- 9:00 am Session 12**
Chair: Dan Gardner
- 9:00 am **Vincent Hayward**, Université Pierre et Marie Curie
The physics of touch shapes the early stages of neural somatosensory processing
- 9:30 am **Sliman Bensmaia**, University of Chicago
Touch is a team effort: Interplay of submodalities in cutaneous sensibility
- 10:00 am **Jeff Yau**, Baylor College of Medicine
Touch and audition engage common frequency processing circuits in the human brain
- 10:30 am Break
- 11:00 am Session 13**
Chair: Sarah Ross
- 11:00 am **Xinzhong Dong**, HHMI/Johns Hopkins University
Coupled activation of primary sensory neurons contributes to chronic pain
- 11:30 am **Cheryl L. Stucky**, Medical College of Wisconsin
Amplified mechanically-gated currents in distinct subsets of myelinated sensory neurons following in vivo inflammation of skin and muscle
- 12:00 pm **Rebecca Seal**, University of Pittsburgh
Delineating central circuits for touch and pain
- 12:30 pm Lunch and Departure
- 1:00 pm First shuttle to Dulles
2:00 pm Second shuttle to Dulles
3:00 pm Last shuttle to Dulles