

Sunday, May 31

- 3:00 pm Check-in
- 6:00 pm Reception (*Lobby*)
- 7:00 pm Dinner
- 8:00 pm Science Speed Dating! (*Lobby*)

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

Monday, June 1

- 7:30 am Breakfast (*service ends at 8:45am*)
- 9:00 am Session 1: Mitochondrial Trafficking/Regulation**
Chair: Kang Shen
- 9:00 am **Peter Hollenbeck**, Purdue University
The transport, turnover and life cycle of neuronal mitochondria, in sickness and in health
- 9:25 am **Thomas L. Schwarz**, Harvard Medical School
Regulating the movement and clearance of neuronal mitochondria
- 9:50 am **Franck Polleux**, Columbia University
Signaling pathways underlying axon morphogenesis through regulation of presynaptic mitochondria anchoring and function
- 10:15 am **Zu-Hang Sheng**, National Institute of Neurological Disorders and Stroke, NIH
Mechanisms regulating mitochondrial trafficking and anchoring
- 10:40 am Break
- 11:00 am Session 2: Neuronal Cytoskeleton**
Chair: Anthony Brown
- 11:00 am **Don B. Arnold**, University of Southern California
Structure and function of an actin/myosin-dependent vesicle filter
- 11:25 am **Subhojit Roy**, University of California San Diego
A novel axonal F-actin network involved in synaptic homeostasis
- 11:50 pm **Kang Shen**, HHMI/Stanford School of Medicine
*Microtubule organization and motor control in *C. elegans**
- 12:15 pm **Christophe Leterrier** UMR7286-CNRS-Aix-Marseille Université
Nanoscale architecture of the axon initial segment reveals an organized and robust scaffold
- 12:27 pm Lunch (*service ends at 1:15pm*)

The Long and Winding Road: Neuronal Trafficking in Physiology and Disease

2:00 pm **Session 3: Motor Protein Regulation I**
Chair: Erika Holzbaur

2:00 pm **Steven Gross**, University of California, Irvine
CK2: A new kinesin regulatory pathway

2:25 pm **Yasushi Okada**, RIKEN
Dissecting kinesin regulation through single molecule in cellulo measurements

2:50 pm **Bianxiao Cui**, Stanford University
Tracking vesicle transport in axons – coordination of opposite polarity motors during unidirectional transport

3:15 pm **Maria Ioannou**, McGill University
Prenylation is not required for the trafficking of Rab13 on vesicles

3:27 pm Break

4:00 pm **Session 4: Motor Protein Regulation II**
Chair: Peter Hollenbeck

4:00 pm **Casper Hoogenraad**, Utrecht University
Neuronal traffic control - Microtubule organization and motor activity

4:25 pm **Gary Banker**, Oregon Health & Science University
Investigating kinesin-mediated vesicle transport in cultured hippocampal neurons

4:50 pm **Shinsuke Niwa**, Tohoku University
A small GTPase ARL-8 regulates synapse formation by unlocking the autoinhibition of the axonal transport kinesin UNC-104/KIF1A

5:02 pm **Alex Nechiporuk**, Oregon Health & Science University
Actr10 regulates retrograde transport of mitochondria in axons

5:14 pm Poster Blitz! (5 minutes / 3 slides each)

Varuzhan Balasanyan, University of Southern California
Ewa Bomba, University of Wisconsin
Andrés Couve, Universidad de Chile
David Ye, Harvard Medical School

5:35 pm Poster Reception

7:00 pm Dinner

8:15 pm Refreshments available at Bob's Pub

5/27/15

Tuesday, June 2

- 7:30 am Breakfast (*service ends at 8:45am*)
- 9:00 am Session 5: Dyneins / Retrograde Transport / Endosomes**
Chair: Thomas Schwarz
- 9:00 am **Bettina Winckler**, University of Virginia School of Medicine
Uncovering neuronal endosome dynamics by live imaging
- 9:25 am **Erika Holzbaur**, University of Pennsylvania
Axonal transport of autophagosomes: Organelle dynamics regulate function
- 9:50 am **Iva Tolic**, Ruder Boskovic Institute
Dyneins on microtubules caught in the act
- 10:15 am **Anthony P. Barnes**, Oregon Health and Science Univ
The contribution of Rab7 in brain patterning
- 10:27 am **Avital A. Rodal**, Brandeis University
Drosophila as a model for neuronal endosomal traffic in development and disease
- 10:39 am Break
- 11:10 am Session 6: Slow Axonal Transport**
Chair: Subhojit Roy
- 11:10 am A historical perspective of slow axonal transport (Subhojit Roy)
- 11:15 am **Anthony Brown**, Ohio State University
Regulation of neurofilament transport by a dynamic cycle of polymer severing and annealing
- 11:40 am **Peter W. Baas**, Drexel University College of Medicine
Microtubule transport in the axon – New frontiers
- 12:05 pm **Alison Twelvetrees**, University of Pennsylvania School of Medicine
A molecular mechanism for the anterograde transport of dynein in the axon
- 12:17 pm **Archan Ganguly**, University of California San Diego
Slow axonal transport of clathrin – mechanism, proteome and ultrastructure
- 12:29 pm Lunch (*service ends at 1pm*)
- 1:15 pm Tour (*optional – meet at reception*)

The Long and Winding Road: Neuronal Trafficking in Physiology and Disease

- 2:15 pm** **Session 7: Synaptic Plasticity**
Chair: Casper Hoogenraad
- 2:15 pm **Andres Villu Maricq**, University of Utah
Engines of change: Kinesin, CamKII and the control of synaptic plasticity
- 2:40 pm **Kelsey Martin**, University of California, Los Angeles
Activity-dependent translocation of CRTCL1 from synapse to nucleus
- 3:05 pm **Jason Shepherd**, University of Utah
Brains and viruses: A novel trafficking pathway required for memory
- 3:17 pm **Adam Oaks**, The George Washington University
Modulation of protein trafficking during neuronal development by Cc2d1a
- 3:29 pm **Ulises Rey**, Max Planck Institute of Colloids and Interfaces
Axonal transport of Neurexin vesicles by teams of molecular motors
- 3:41 pm Break
- 4:15 pm** **Session 8: Injury and Disease I**
Chair: Frank Bradke
- 4:15 pm **Scott Brady**, University of Illinois at Chicago
Kinases and fast axonal transport: Regulation and degeneration
- 4:40 pm **Nobutaka Hirokawa**, University of Tokyo
Kinesin superfamily molecular motors, KIFs and neuronal trafficking: From regulation of learning/memory and development to diseases
- 5:05 pm **Frédéric Saudou**, Grenoble Institute of Neuroscience
Huntington's disease: Huntingtin and the control of intracellular dynamics
- 5:30 pm Poster Reception
- 7:00 pm Dinner
- 8:00 pm Group Discussion (with beer and wine!)
- 9:15 pm Refreshments available at Bob's Pub

Wednesday, June 3

- 7:30 am Breakfast (*service ends at 8:45am*)
- 9:00 am Session 9: Injury and Disease II**
Chair: Subhojit Roy
- 9:00 am **Frank Bradke**, German Center for Neurodegenerative Diseases
Systemic administration of epothilone B promotes axon regeneration and functional recovery after spinal cord injury
- 9:25 am **Shawn M. Ferguson**, Yale University
A massive accumulation of luminal protease deficient lysosomes in axons that surround amyloid plaques is a defining feature of Alzheimer's disease
- 9:37 am **Karina Vargas**, Yale University
Pathological and physiological function of alpha-synuclein
- 9:49 am **Utpal Das**, University of California, San Diego
Visualizing the APP/BACE-1 interaction – a seminal rate-limiting event in the amyloidogenic pathway.
- 10:51 am Closing Discussion / Final Remarks
- 11:30 am Lunch and departure
- 12:00 pm First shuttle to Dulles
1:00 pm Second shuttle to Dulles
2:00 pm Last shuttle to Dulles