

50th Annual Meeting of the American Society for Cell Biology
Dec 11th- 15th 2010, Philadelphia

Special Interest Subgroup C: Axonal Transport at the Nexus of Development, Signaling and Disease

Ballroom B

Saturday, December 11th, 2010 12:30 pm–5:00 pm

Anthony Brown, Ohio State University

Peter Hollenbeck, Purdue University

The field of axonal transport has been fertile ground for important discoveries in cell biology including the first demonstration of organelle movement along microtubules and the discovery of kinesin. This session will explore new developments in the field of axonal transport that reveal an exciting convergence of the fields of development, signaling and disease. We have assembled a dynamic roster of junior and established investigators who will address the role of axonal transport of membranous and non-membranous cargoes in neuronal and synaptic development, the interplay between signaling and axonal transport in the regulation of intracellular traffic, and the emerging importance of axonal transport in neurodegenerative disease.

Presentations:

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| 12:30-12:45 | Axonal transport: historical perspective and central questions. <i>Anthony Brown</i> , Ohio State University & <i>Peter Hollenbeck</i> , Purdue University |
| 12:45-13:15 | Microtubule transport in the axon: do mitotic kinesins drive it or brake it? <i>Peter Baas</i> , Drexel University |
| 13:15-13:45 | More than a scaffold, Sunday Driver regulates kinesin motility. <i>Valeria Cavalli</i> , Washington University |
| 13:45-14:15 | Identification of a novel pathway for the activation of cytoplasmic dynein-dependent retrograde transport in neurons. <i>Gerardo Morfini</i> , University of Illinois at Chicago |
| 14:15-14:45 | Motor and tether: dual functions of dynein in the neuron. <i>Adam Hendricks</i> , University of Pennsylvania |
| 14:45-15:00 | Break |
| 15:00-15:30 | mRNA granule trafficking in axon guidance and spinal muscular atrophy. <i>Gary Bassell</i> , Emory University |
| 15:30-16:00 | Mitochondria moving to the minus end. <i>Tom Schwarz</i> , Harvard University |
| 16:00-16:30 | Regulation of axonal mitochondria transport and its impact on synaptic function and neurodegeneration. <i>Zuhang Sheng</i> , National Institute of Neurological Disorders and Stroke |
| 16:30-17:00 | Tracking axonal transport at the single molecule level. <i>Bianxiao Cui</i> , Stanford University |