

17<sup>th</sup> International Symposium on Neural Regeneration  
Nov. 27-Dec 1, 2017

**Day 1: Monday, November 27, 2017**

**Session 1: Welcome and Opening Keynote**

6:30PM **Frank Bradke** (DZNE, Bonn) – *Mechanisms of Axon Growth and Regeneration*

**Day 2: Tuesday, November 28, 2017**

**Session 2: Axon regeneration - Dynamics of dendritic or axonal mRNA translocation and protein synthesis**

*Chair: Os Steward (UC, Irvine)*

8:15A *Chair introductions and session overview*

8:30A **Os Steward** (UC, Irvine) - *Contributions of splicing machinery to mRNA stability and transport into dendrites*

9:00A **Jeff Twiss** (South Carolina) - *Inhibiting stress granule function accelerates regeneration*

9:30A **Kimberly Raab-Graham** (Wake Forest) - *Aberrant dendritic calcium signaling in autism is mediated through local mRNA repression*

10:00A **Reiji Kuruvilla** (Johns Hopkins) - *Compartment-specific requirement for protein synthesis and prenylation in axon growth*

10:30A *Coffee Break*

11:00A **Featured Speaker: Michael McAlpine** (Minnesota) – *3D Printed Neural Regeneration Devices*

12:00P *Lunch*

1:00P **Featured Speaker: Yuh Nung Jan** (HHMI/UCSF) – *Mechanisms of axon and dendrite Regeneration*

2:00P **Data Blitz - Introduction to Posters (Session 1)**

3–5P **Poster Viewing/Judging (Session 1)**

6:00P *Dinner*

**Session 3: Genetic dissection of axonal regeneration and degeneration**

*Chair: Michael Granato (U Penn)*

7:15P *Chair introductions and session overview*

7:30P **Michael Granato** (UPenn) - *Genetic analysis of Peripheral nerve regeneration in zebrafish*

8:00P **Marc Hammarlund** (Yale) - *Cellular mechanisms of axon regeneration in C. elegans*

8:30P **Mayssa Mokalled** (Wash U) - *Mechanisms of spinal cord regeneration in zebrafish*

9:00P **Aaron DiAntonio** (Wash U) - *The axonal degeneration pathway: a therapeutic target for the maintenance of injured axons*

**Day 3: Wednesday – November 29, 2017**

**Session 4: New investigators improving spinal cord repair**

*Chair: John Gensel (Univ Kentucky)*

8:15A *Chair introductions and session overview*

8:30A **Cedric Geoffroy** (Texas A&M) - *Neuronal intrinsic and extrinsic factors modulating axon growth after SCI in young and aged mice*

8:45A **Megan Detloff** (Drexel) - *Exercise-induced changes in the DRG associated with a reduction in neuropathic pain*

9:00A **Antje Kroner-Milsch** (Med Coll Wisconsin) - *Targeting inflammation to reduce secondary damage after SCI*

9:15A **Edmund Hollis** (Burke) - *Cortical reorganization and motor recovery after SCI*

9:45A **Alexandra Byrne** (UMass) - *Intrinsic Mechanisms of Axon Regeneration in C. elegans*

10:00A **Katherine Thompson-Peer** (UCSF) – *Developmental switches in dendrite regeneration*

10:30A *Break*

11:00A **Featured Speaker: Kelly Monk** (Vollum Inst.) – *Glia in peripheral nerve injury and repair*

12-5P *Free*

6:00P *Dinner*

**Session 5: Exercise as a therapy for SCI**

*Moderator: Gordon Mitchell (Univ Florida)*

7:15P **Panel Discussants: Michele Basso, Kristine Cowley, Edelle Field-Fote, Karim Fouad, John Houle, David Magnuson, Sasha Rabchevsky, Jan Schwab** will discuss *how to move physical training from animal models to clinical implementation*

**Day 4: Thursday – November 30, 2017**

**Session 6: White matter plasticity and motor learning**

*Chair: D. Michele Basso (Ohio State)*

8:15A *Chair introductions and session overview*

8:30A **Lara Boyd** (Univ. British Columbia) - *Human white matter plasticity and learning*

9:00A **Dana McTigue** (Ohio State) - *White matter plasticity after SCI*

9:30A **Bill Richardson** (Univ. College London) - *Axon-oligodendrocyte interactions in learning and memory processes*

10:00A **Doug Fields** (NIH) - *Regulation of myelin structure and conduction velocity by perinodal astrocytes*

10:30A *Break*

11:00A **Featured Speaker: Linda Hsieh-Wilson** (California Inst. of Tech) - *Roles of chondroitin sulfate proteoglycans and the extracellular matrix in neuroplasticity and axon regeneration*

12:00P      *Lunch*  
1:00P      **Data Blitz: Introduction to Posters (Session 2)**  
2-4P      **Poster Viewing/Judging (Session 2)**

**Session 7: Emerging Topics and Closing Keynote**

4:00P      **Emerging Topics: Matthew Rasband** (*Baylor*) –  
*The functional organization of axons in neural  
repair and regeneration*

5:00P      **Closing Keynote: Kristian Franze** (*Univ. of  
Cambridge*) - *The mechanical control of neuronal  
regeneration*

7-9P      **Symposium Banquet & Awards Presentation**

**Day 5: Friday – December 1, 2017**

Departure