

17th International Symposium on Neural Regeneration
Nov. 27-Dec 1, 2017
Asilomar Conference Grounds - Pacific Grove, CA

Monday: November 27, 2017

Session 1: Welcome and Opening Keynote

6:30PM **Keynote Speaker:** Frank Bradke – *Mechanisms of Axon Growth and Regeneration*

Tuesday: November 28, 2017

Session 2: Axon regeneration - dynamics of dendritic or axonal mRNA translocation and protein synthesis
[Chair: Os Steward]

8:15A *Chair introductions and session overview*

8:30A Os Steward - *Contributions of splicing machinery to mRNA stability and transport into dendrites*

9:00A Jeff Twiss - *Inhibiting stress granule function accelerates regeneration*

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

10:00A Rejji Kuruvilla - *Compartment-specific requirement for protein synthesis and prenylation in axon growth*

10:30AM *Coffee Break*

11:00AM **Featured Speaker** – Michael McAlpine - *3D Printed Neural Regeneration Devices*

12:00PM *Lunch*

1:00PM **Featured Speaker** – Yuh Nung Jan – *Mechanisms of axon and dendrite regeneration*

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

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

6:00PM *Dinner*

Session 3: Genetic dissection of axonal regeneration and degeneration [Chair: Michael Granato]

7:15PM *Chair introductions and session overview*

7:30PM Michael Granato - *Genetic analysis of peripheral nerve regeneration in zebrafish*

8:00PM Marc Hammarlund - *Cellular mechanisms of axon regeneration in C. elegans*

8:30PM Mayssa Mokalled - *Mechanisms of spinal cord regeneration in zebrafish*

9:00PM Aaron DiAntonio - *The axonal degeneration pathway: a therapeutic target for the maintenance of injured axons*

Wednesday – November 29, 2017

Session 4: Young investigators improving spinal cord repair [Chair: John Gensel]

8:15AM *Chair introductions and session overview*

8:30AM Cedric Geoffroy - *Neuronal intrinsic and extrinsic factors modulating axon growth after SCI in young and aged mice*

8:45AM Megan Detloff - *Exercise-induced changes in the DRG associated with a reduction in neuropathic pain*

9:00AM Jessica Lerch - *Glucocorticoid-glucocorticoid receptor interactions and their role in nerve-injury induced sensory neuron plasticity and pain*

9:15AM Athanasios (Thanos) Didangelos - *Comparative-omics approaches for SCI repair*

9:30AM Antje Kroner-Milsch - *Targeting inflammation to reduce secondary damage after SCI*

9:45AM Edmund Hollis - *Cortical reorganization and motor recovery after SCI*

10:30AM *Break*

11:00AM **Featured Speaker:** Kelly Monk – *Glia in peripheral nerve injury and repair*

12-5PM *Free*

6:00PM *Dinner*

Session 5: Panel Discussion: Exercise as a therapy for SCI: *How to successfully move physical training from animal models to clinical implementation*

7:15PM **Panel:** Michele Basso, Kristine Cowley, Edele Field-Fote, Karim Fouad, John Houle, David Magnuson, Sasha Rabchevsky, Jan Schwab

Moderator: Gordon Mitchell

Thursday – November 30, 2017

Session 6: White matter plasticity and motor learning [Chair: D. Michele Basso]

8:15AM *Chair introductions and session overview*

8:30AM Lara Boyd - *Human white matter plasticity and learning*

9:00AM Dana McTigue - *White matter plasticity after SCI*

9:30AM Bill Richardson - *Axon-oligodendrocyte interactions in learning and memory processes*

10:00AM Doug Fields - *Regulation of myelin structure and conduction velocity by perinodal astrocytes*

10:30AM *Break*

11:00AM **Featured Speaker: Linda Hsieh-Wilson** - *Roles of chondroitin sulfate proteoglycans and the extracellular matrix in neuroplasticity and axon regeneration*

12:00PM *Lunch*

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

2-4PM **Poster Viewing/Judging (Session 2)**

Session 7: Emerging Topics and Closing Keynote

4:00PM **Emerging Topics:** Matthew Rasband – *The functional organization of axons in neural repair and regeneration*

5:00PM **Closing Keynote Speaker:** Kristian Franze - *The mechanical control of neuronal regeneration*

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

Friday – December 1, 2017

Departure