



# LMU – HARVARD Young Scientists' Forum

@ HARVARD, July 19 – 22, 2014

Saturday, July 19

Northwest Building, B1 Lobby, 52 Oxford Street, Cambridge, MA 02138

8:45 AM Continental breakfast at Northwest Building, B1 lobby

9:00 **Opening Remarks** by **Kenny Blum**, Executive Director, Center for Brain Science

9:15 **Faculty Seminar: Charles Weitz**, HARVARD  
A Molecular Basis for Specificity in the Mammalian Circadian Clock Feedback Loop

10:15 Break

10:30 **Young Scientist Session One: Chronobiology to Synapses**

- Mirjam Geibel**, Merrow Lab, LMU  
Interaction of the Circadian Clock and Neurodegenerative Processes in *C. elegans*
- Anne Venner**, Saper Lab, HARVARD  
Investigating the Role of CNS Histamine in Mediating Sleep-wake States using DREADDs
- Celine Vetter**, Schernhammer Lab, HARVARD  
Clocks @ Work - Concepts, Data, and Mechanisms
- Genevieve van de Bittner**, Hooker Lab, HARVARD  
Monitoring Synaptic Density: PET Tracer Development and Neuroimaging

12:30 PM Lunch

2:00 **Young Scientist Session Two: Neural Development and Pathology**

- Francesca Vigano**, Dimou Lab, LMU  
Heterogeneity of Adult NG2<sup>+</sup>-cells: Differentiation Properties and Reaction to Injury
- Sergio Gascon**, Götz Lab, LMU  
Identification and Successful negotiation of a Metabolic Checkpoint in Direct Neuronal Reprogramming
- Lotta von Rüden**, Potschka Lab LMU  
Pharmacological and Genetic Modulation of the Endocannabinoid System in a Chronic Epilepsy Model
- Johanna Wanngren**, Lichtenthaler Lab, TUM  
Regulated Intramembrane Proteolysis and its Therapeutic Potential in Alzheimer Disease

4:00 Break

4:15 **Faculty Seminar: Stefan Lichtenthaler**, TUM  
Neuroproteomics and Neurodegeneration: Substrates and Functions of Alzheimer Secretases

5:30 **Poster Session One and Social Hour**

- Stephen Abbott**, Saper Lab, HARVARD: TBA
- Rainer Bögle**, Dietrich Lab, LMU: Age-related Decline in Functional Connectivity of the Vestibular Cortical Network
- Greg Bryman**, Do Lab, HARVARD: TBA
- Xin Duan**, Sanes Lab, HARVARD: Type II Cadherins Guide Assembly of a Direction – Selective Retinal Circuit
- Arne Fabritius**, Griesbeck Lab, MPI Neurobiology: The Evolution Machine: Improvement of Optogenetics Proteins
- Delwen Franzen**, Felmy Lab, LMU: Pre- and Postsynaptic Refinements in the MSO during Late Postnatal Development
- Sami Hassan**, Biel Lab, LMU: Two-pore Channel 2 – a Regulator of Endo-lysosomal Trafficking
- Max Koch**, Sieber Lab, TUM: Subclass-specific Capture of Maleimide-antibiotics with Customized Nucleophilic Probes
- Johannes Kohl**, Dulac Lab, HARVARD: Ultra-fast Tissue Staining with Chemical Tags
- Manuel Lehm**, Dichgans Lab, LMU: Proteome-wide Analysis for Identification of Functional SNPs
- Maria Olmedo**, Merrow Lab, LMU: High Throughput Methods for Characterisation of Lethargus in *C. elegans*
- Laura Trovo**, Misgeld Lab, TUM: Zebrafish to Study Cholesterol Involvement in Axon Degeneration
- Ziyang Zhang**, Myers Lab, HARVARD: A Practical Platform for the Synthesis of Macrolide Antibiotics

7:30 Dinner catered by Blue Ribbon BBQ outside Northwest Café

Sunday, July 20



Northwest Building, B1 Lobby, 52 Oxford Street, Cambridge, MA 02138

8:45 AM Continental breakfast at Northwest Building, B1 lobby

9:00 **Faculty Seminar: Sandeep Robert Datta, HARVARD**  
Modularity and Predictability in Naturalistic Behavior

10:00 Break

10:30 **Young Scientist Session Three: Neural Plasticity / Cancer Therapeutics**

**Judith Reichel**, Wotjak Lab, MPI Psychiatry  
Effects of Cell type-specific Manipulations on Cognitive and Emotional Behaviour in Mice  
**Sheng Hong Chen**, Lahav Lab, HARVARD  
TBA  
**Gabriela Wiedemann**, Endres Lab, LMU  
A Novel Synthetic Toll-like-Receptor 7 Agonist for Tumor Therapy  
**Christina Krupka**, Subklewe Lab, LMU  
CD33-targeted Immunotherapy in AML

12:30 PM Lunch

2:00 **Faculty Seminar: Marion Subklewe, LMU**  
Dendritic Cell Vaccination in Cancer Immunotherapy:  
From Biology to Translational Medicine

3:15 **Poster Session Two and Social Hour**  
**Stephen Abbott**, Saper Lab, HARVARD: TBA  
**Rainer Bögle**, Dietrich Lab, LMU: Age-related Decline in Functional Connectivity of the Vestibular Cortical Network  
**Greg Bryman**, Do Lab, HARVARD: TBA  
**Xin Duan**, Sanes Lab, HARVARD: Type II Cadherins Guide Assembly of a Direction – Selective Retinal Circuit  
**Arne Fabritius**, Griesbeck Lab, MPI Neurobiology: The Evolution Machine: Improvement of Optogenetics Proteins  
**Delwen Franzen**, Felmy Lab, LMU: Pre- and Postsynaptic Refinements in the MSO during Late Postnatal Development  
**Sami Hassan**, Biel Lab, LMU: Two-pore Channel 2 – a Regulator of Endo-lysosomal Trafficking  
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**Johannes Kohl**, Dulac Lab, HARVARD: Ultra-fast Tissue Staining with Chemical Tags  
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**Maria Olmedo**, Mellow Lab, LMU: High Throughput Methods for Characterisation of Lethargus in *C. elegans*  
**Laura Trovo**, Misgeld Lab, TUM: Zebrafish to Study Cholesterol Involvement in Axon Degeneration  
**Ziyang Zhang**, Myers Lab, HARVARD: A Practical Platform for the Synthesis of Macrolide Antibiotics

5:30 Dinner in Cambridge (*break into small groups hosted by HARVARD scientists*)

**Monday, July 21**

Cannon Room, Building C, 240 Longwood Avenue Boston, MA 02115

8:45 AM Shuttle bus departs Northwest Building for Longwood

9:30 Continental breakfast in Cannon Room lobby

9:45 **Faculty Seminar: Jacob Hooker, HARVARD**  
Imaging and Quantification of Chemistry in the Brain,  
From Synthesis Methods to Studies in Man

10:45 **Young Scientist Session Four: Small Molecules**

**Malgorzata Borowiak**, Trauner Lab, LMU  
Reversibly Light-controlled Antimitotics:  
Towards Intelligently Targeted Chemotherapy

**Emily Ricq**, Hooker Lab, HARVARD  
A Thiol-Based Redox Switch Regulates the Histone Demethylase LSD1/KDM1a

**Marina Santiago**, Walker Lab, HARVARD  
TBA

12:15 PM Lunch

2:00 **Faculty Seminar: Wolfgang Enard, LMU**  
Mouse Models for Human Brain Evolution

3:00 **Young Scientist Session Five: Evolution to Cognition**

**Nicolas Rohner**, Tabin Lab, HARVARD  
Pale, Small Eyes, Big Belly - the Genetic Basis of Unattractiveness - or  
Why Cavefish Prefer the Dark

**Elinor Karlsson**, Sabeti Lab, HARVARD  
Natural Selection and Cholera Resistance in Bangladesh

**Pieter Goltstein**, Hübener Lab, MPI Neurobiology  
How Learning of Visual Associations Affects Sensory Processing in  
Neocortical Networks

4:30 Break

5:00 **Faculty Seminar: Benedikt Grothe, LMU**  
Evolution of Spatial Hearing

6:15 Dinner in Boston (*break into small groups hosted by HARVARD scientists*)

**Tuesday, July 22**

8:30 AM Breakfast on second floor landing of Northwest Building

9:00 *Shuttle bus departs Northwest Building*

10:15 Wingersheek Beach <http://gloucester-ma.gov/index.aspx?nid=299>

12:45 PM *Depart beach for boat dock*

1:00 Pick-up sandwiches

1:30 7Seas Whale Watch, Gloucester, MA <http://gloucester.7seaswhalewatch.com/>

6:30 *Depart Gloucester*

7:00 Closing Dinner at Woodman's, Essex, MA <http://www.woodmans.com/>





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**Saturday, July 19** Northwest Building, B103, 52 Oxford Street, Cambridge, MA 02138

9:15 AM



**Charles Weitz**

Robert Henry Pfeiffer Professor of Neurobiology, Harvard Medical School

**A Molecular Basis for Specificity in the Mammalian Circadian Clock Feedback Loop**

4:15 PM



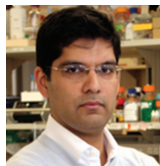
**Stefan Lichtenthaler**

Professor of Neuroproteomics (Chair), Technische Universität München

**Neuroproteomics and Neurodegeneration: Substrates and Functions of Alzheimer Secretases**

**Sunday, July 20** Northwest Building, B103, 52 Oxford Street, Cambridge, MA 02138

9:00 AM



**Sandeep Robert Datta**

Assistant Professor of Neurobiology, Harvard Medical School

**Modularity and Predictability in Naturalistic Behavior**

2:00 PM



**Marion Subklewe**

Department of Internal Medicine, LMU

**Dendritic Cell Vaccination in Cancer Immunotherapy: From Biology to Translational Medicine**

**Monday, July 21** HMS Longwood Quad, Cannon Room, Building C, 240 Longwood Avenue Boston, MA 02115

9:45 AM



**Jacob Hooker**

Assistant Professor of Radiology, Harvard Medical School

**Imaging and Quantification of Chemistry in the Brain; From Synthesis Methods to Studies in Man**

2:00 PM



**Wolfgang Enard**

Professor of Anthropology and Human Genetics (Chair), LMU

**Mouse Models for Human Brain Evolution**

5:00 PM



**Benedikt Grothe**

Professor of Neurobiology (Chair), LMU

**Evolution of Spatial Hearing**