Program

Wednesday, January 21, 2015

09.00am - 09.30am	A. Nazlı Başak, Justin Fallon: Introduction and Welcome to Students
09.30am - 10.15am	**Anne Hart:** New Genome Editing Tools & Neurodegenerative Disease Models I
10.15am - 10.45am	Coffee Break
10.45am - 11.30am	**Anne Hart:** New Genome Editing Tools & Neurodegenerative Disease Models II
11.30am - 12.15pm	**John Davenport:** Communicating Science for Fame and Fortune I
12.15pm - 01.30pm	Lunch
01.30pm - 02.15pm	**Robert Reenan:** Modeling Human Genetic Disease in the Fruit Fly, *Drosophila* I
02.15pm - 02.45pm	Coffee Break
02.45pm - 03.30pm	**Robert Reenan:** Modeling Human Genetic Disease in the Fruit Fly, *Drosophila* II
03.30pm - 04.15pm	Wrap-up and Preview of Next Day's Sessions
06.00pm - 09.00pm	Dinner with all attendants – TBA

Thursday, January 22, 2015

09.00am - 09.45am	**David Berson:** Contemporary Methods in Neuroanatomy and Imaging I
09.45am - 10.15am	Coffee Break
10.15am - 11.00am	**David Berson:** Contemporary Methods in Neuroanatomy and Imaging II
11.00am - 11.45am	**Gilad Barnea:** The Use of Mice to Model Human Diseases I
11.45am - 01.00pm	Lunch
01:00pm - 01.45pm	**Gilad Barnea:** The Use of Mice to Model Human Diseases II
01.45pm - 02.30pm	**Justin Fallon:** From Model Organism to Therapy I
02.30pm - 03.00pm	Coffee Break
03.00pm - 03.45pm	**Justin Fallon:** From Model Organism to Therapy II
03.45pm - 04.15pm	Wrap-up and Discussion
04.15pm - 05.00pm	**John Davenport:** Communicating Science for Fame and Fortune II
07.00pm - 10.00pm	Dinner for Brown faculty

Friday, January 23, 2015   Formal Seminars on Research Topics

09.00am - 09.20am	**A. Nazlı Başak:** The Distinct Genetics of ALS in Turkey
09.20am - 09.40am	**Anne Hart:** *C. elegans* Models of Familial ALS
09.40am - 10.00am	**Robert Reenan:** Forward-Reverse-Forward: Toward Understanding How to Cure ALS
10.00am - 10.30am	Coffee break
10.30am - 10.50am	**David Berson:** What the Eye Tells the Brain
10.50am - 11.10am	**Gilad Barnea:** Tango: Trans-synaptic Mapping and Manipulation of Neural Circuits
11.10am - 11.30am	**Justin Fallon:** A Novel BMP Co-receptor that Shapes Transcriptional Output in Myogenic Cells

Workshop I: Evaluation of Exome Data (NDAL Graduate Students, Özger Arnas Hall)

12.00pm – 01.00pm Session I

01.00pm – 02.00pm Session II

Workshop II: Database mining (Brown Graduate Students, Demir Demirgil Hall)

12.00pm – 01.00pm Session I

01.00pm – 02.00pm Session II

End of Meeting – Evening free

Anne Hart, Ph.D., Professor of Neuroscience

Dr. Anne Hart obtained her Ph.D. in Neuroscience at UCLA with Dr. S.L. Zipursky working on cell fate specification in the Drosophila eye. She undertook her post-doctoral training in C. elegans genetics with Dr. J. Kaplan at Massachusetts General Hospital and Harvard Medical School. Dr. Hart established her own laboratory at MGH and was a professor in the Department of Pathology for 13 years before moving to the Department of Neuroscience at Brown University in 2009. Her laboratory uses *C. elegans* to delineate 1) conserved molecular and cellular sensory mechanisms and 2) pathological mechanisms underlying neurodegenerative diseases, including Huntington's disease and Spinal Muscular Atrophy.

John Davenport, Ph.D., Associate Director of Brown Institute for Brain Sciences

R. John Davenport, PhD, is an Associate Director of the Brown Institute for Brain Science at Brown University. A graduate of Williams College, Dr. Davenport received his Ph.D. in chemistry from the University of Oregon, where he developed and applied innovative biophysical techniques to study the movement of enzymes and the interaction between proteins and nucleic acids. As a science writer, his journalistic work has appeared in Science, Cell, Newsweek, Wired, HHMI Bulletin, and other publications. Prior to coming to Brown, he was the associate editor of Science Magazine's Web site on the biology of aging. At Brown, he oversees the operations of the interdisciplinary Institute for Brain Science and stimulates collaborative research among the more than 100 Brown faculty members who study the brain and nervous system. He works with faculty members to secure funding to support interdisciplinary research, student training, and facilities.

Robert Reenan, Ph.D., Professor of Biology

Robert Reenan trained as a graduate student in the laboratory of Dr. Richard Kolodner at Harvard Medical School where he studied the process of DNA repair in yeast, discovering genes that would become important in human cancer. He then pursued post-doctoral work in the Laboratory of Genetics at University of Wisconsin-Madison under Dr. Barry Ganetzky. There, he started a lifelong love affair with behavioral neurogenetics studying, in particular, ion channel genes in the fruit fly. He began his independent career at the University of Connecticut Medical School in the Department of Genetics where he discovered the process of RNA editing in the nervous system of the fly. Reenan joined the faculty at Brown University in the summer of 2006.

David Berson, Ph.D., Professor of Medical Science

David Berson has done undergraduate and postdoctoral studies at Brown University before joining the faculty in 1985. He conducts basic research on the structure and function of the visual system and teaches neuroanatomy and neurophysiology to undergraduate, graduate and medical students. His lab studies what the eye tells the brain with a focus on retinal neurons that send information directly to visual centers of the brain. There are roughly twenty types of these output cells, each with anatomical and physiological features matched to the requirements of specific visual behaviors. His lab recently discovered that some of them are true photoreceptors; they respond directly to light like rods and cones and synchronize the biological clock and constrict the pupil. They also study retinal output cells that stabilize our view of the world and trying to understand how these cells work and how their signals are used by the brain.

Gilad Barnea, Ph.D., Assistant Professor of Neuroscience

Dr. Gilad Barnea obtained his Ph.D. in Pharmacology from New York University, where he worked with Dr. Joseph Schelessinger on cloning and characterization of a new family of receptor tyrosine phosphatases. He then switched fields to Neuroscience and moved to Columbia University, where he studied the molecular organization of the mammalian olfactory system with Dr. Richard Axel. In 2007, Dr. Barnea established his own laboratory at Brown University. The main focus of his research is on understanding how the olfactory system detects and identifies odor stimuli and how this information is translated into behavioral outputs. The Barnea lab is developing molecular strategies for trans-synaptic labeling of neural circuits and for selectively recording the activation of specific dopamine receptor subtypes *in vivo* both in mice and in flies.

Justin Fallon, Ph.D., Professor of Neuroscience

Justin Fallon, professor of medical science, has a longstanding interest in developmental neurobiology and the mechanisms underlying neurological disease. More recently, he has been directly involved in developing therapeutics for muscular dystrophy. After his Ph.D. work in cell motility at the University of Pennsylvania, he spent three year as an NIH Postdoctoral Fellow at University College London, where he worked on axonal guidance and regeneration with Martin C. Raff. Fallon gained further training with U.J. McMahan at Stanford University, where he began his interest in synapse formation and plasticity. He had own laboratory at the Worcester Foundation for Experimental Biology for 10 years before moving to Brown in 1996.

Brown Graduate Students

Aslı Şahin
PhD Student
Reenan Lab

Altar Sorkaç
PhD Student
Hart Lab

Mustafa Talay
PhD Student
Barnea Lab

Rana Özdeşlik
PhD Student
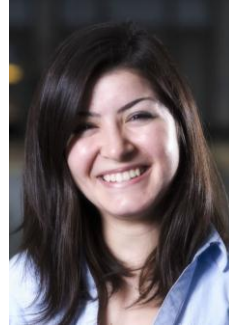**Oancea Lab**

Ozan Baytaş
PhD Student

NDAL Graduate Students

Suna Lahut
PhD Student

Ceren İskender
PhD Student

Ece Kartal
MSc Student

Nesli Ece Şen
MSc Student

Cemile Koçoğlu
MSc Student

Hamid Hamzeiy
MSc Student

Fulya Akçimen
MSc Student