In the Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, scientists explore the evolution and interaction of genomes of diverse organisms with significant roles in environmental biology and human health. Bay Paul Center scientists integrate the powerful tools of genome science, molecular phylogenetics, and molecular ecology to advance our understanding of how living organisms are related to each other, to provide the tools to quantify and assess biodiversity, and to identify genes and metabolic processes of ecological and biomedical importance.

Publications | Staff List
Bay Paul Center Publications


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Eugene Bell Center for Regenerative Biology & Tissue Engineering

Nematostella, or starlet sea anemone) photo by Adam Reitzel, courtesy of John R. Finnerty and MBL

The Eugene Bell Center for Regenerative Biology and Tissue Engineering is uniquely positioned to move the biomedical research goal of understanding the ability of many animals to spontaneously regenerate their body parts forward. MBL researchers have studied regeneration in marine and other animals for more than a century, building expertise that will flourish and grow in the Bell Center. An understanding of tissue and organ regeneration in lower animals holds great promise for translating to medical treatments for serious human conditions, including spinal cord injury, diabetes, organ failure, and degenerative neural diseases such as Alzheimer's.

A cornerstone of the Bell Center is a new National Xenopus Resource for research on the frog, which possesses unique regenerative abilities and is a major animal model used in U.S. biomedical research.

Publications | Staff List
Bell Center Publications


Helm, RR; Siebert, S; Tulin, S; Smith, J; and Dunn, C. 2013. Characterization of Differential Transcript Abundance Through Time During Nematostella vectensis Development. BMC Genomics 14(1):266.

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1 Including persons who joined or left the staff during 2013.
The Cellular Dynamics Program aims to accelerate the knowledge of basic biology and translational medicine through the development and utilization of tools customized to shed light on essential life processes critical for both normal function and human disease. Established in 2008, the program merges the extraordinary imaging talents of the former Architectural Dynamics in Living Cells Program with the unique expertise of the former Molecular Physiology Program and its BioCurrents Shared Resource. Together, Cellular Dynamics Program faculty focus collaboratively on the dynamic properties of living cells using high-end imaging and electrophysiology approaches.

Publications | Staff List
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The Ecosystems Center

The Ecosystems Center is a world leader in research on the effects of climate change on terrestrial and aquatic ecosystems. Center scientists collaborate on projects, combining expertise from a wide range of disciplines. Together, they conduct research to answer a variety of questions at polar, temperate, and tropical field sites around the world. The center’s long-term ecological observations, experiments, and prediction models help to develop a sound foundation for environmental policy and management.

Publications | Staff List
Ecosystems Center Publications


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Samuel Kelsey
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Lisa Walley, Scientific Informatics Analyst

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Katherine Quimby, RAHSS  
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Brian Suh, SES Recruiter/Summer Research Assistant  
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Lia Tosiello, Summer Research Assistant

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Georgia Conti, Universidad Nacional de Cordoba, Argentina  
Heidi Golden, University of Connecticut  
Ines Gonzalez Viana, Instituto Espanol de Oceanografia, Spain  
Aizhen Liang, Northeast Institute of Geography and Agroecology, CAS, China  
Dongyan Liu, Yantai Institute of Coastal Zone Research, China  
Zhunjiao Liu, Nanjing Forestry University, China  
Roxanne Marino, Cornell University  
Rebecca Ryals, Brown University  
Kate Salmon, The Open University, UK  
Laura Schregg, Brown University  
Katherine Tully, Columbia University, The Earth Institute  
Hualei Yang, Nanjing University, China

**BROWN-MBL GRADUATE STUDENTS**  
Maya Almaraz
Program in Sensory Physiology and Behavior

The Program in Sensory Physiology and Behavior focuses on research in vision, balance and hearing. Researchers use marine or aquatic model organisms (cephalopods, fishes, turtles) to take advantage of the unique seawater facilities and the microscopy and imaging centers at the MBL. A central goal of this program is to synergize the multiple campus activities in sensory biology and neuroscience into a cohesive group with extensive intellectual exchange, seminars, lab and student exchanges year-round, and a bioinformatics and outreach component. We strive to integrate the Woods Hole and MBL summer activities in sensory/behavioral/neuroscience research and education with our year-round program.

Publications | Staff List
Program in Sensory Physiology & Behavior Publications

Akerboom, J; Calderón NC; Tian L; Wabneg S; Prigge M; Toló J; Gordus A; Orger MB; Severi KE; Macklin JJ; Patel R; Pulver SR; Wardill TJ; Fischer E; Schüler C; Chen T-W; Sarkisyan KS; Marvin JS; Bargmann CI; Kim DS; Kügler S; Lagnado L; Hégemann P; Gottschalk A; Schreiter ER; Looger LL. 2013. Genetically Encoded Calcium Indicators for Multi-color Neural Activity Imaging and Combination with Optogenetics. *Front Mol Neurosci* 6:2.


Anastassov, I; Shen, W; Rippis, H; and Chappell, RL. 2013. Zinc Modulation of Calcium Activity at the Photoreceptor Terminal: A Calcium Imaging Study. *Experimental Eye Research* 112:37-44.

Asrican, B; Augustine, GJ; Berglund, K; Chen, S; Chow N; Deissroth, K; Feng, G; Gloss, B; Hira, R; Hoffman, C; Kasai, H; Katarya, M; Kim, J; Kudolo, J; Lee, LM; Lo, SQ; Mancuso, J; Matsuzaki, M; Nakajima, R; Qiu, L; Tan, G; Tang, Y; Ting, JT; Tsuda, S; Wen, L; Zhang, X; and Zhao, S. 2013. Next-generation Transgenic Mice for Optogenetic Analysis of Neural Circuits. *Frontiers in Neural Circuits* 7:160.


Bell, GBB; Kuzirian, AM; Senft, SS; Mäthger, LM; Wardill, TJ; Hanlon, RT. 2013. Chromatophore Radial Muscle Fibers Anchor in Flexible Squid Skin. *Biological Journal of the Linnean Society* 109 (78) article 20130601.


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Gemmell, BJ; Costello, JH; Colin, SP; Stewart, CJ; Dabiri, JO; Tafti, D; and Priya, S. 2013. Passive Energy Recapture in Jellyfish Contributes to Propulsive Advantage over Other Metazoans. *PNAS* 110: 17904-17909.


Kreit, E; Mäthger, L; Hanlon, RT; Dennis, PB; Naik, RR; Forsythe, E; and Heikenfeld, J. 2013. Biological vs. Electronic Adaptive Coloration: How Can One Inform the Other? *Journal of the Royal Society Interface* 10 (78) article 20130601


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Morgan, JR; Jiang, J; Oliphint, PA; Jin S, Gimenez, LE; Busch, DJ; Foldes, AE; Zuo, Y; Sousa, R; Lafer, EM. 2013. Role for an Hsp70 nucleotide exchange factor in the regulation of synaptic vesicle endocytosis. *Journal of Neuroscience*. 33:8009-8021.

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Smith, JJ; Kuraku, S; Holt, C; Sauka-Spengler, T; Jiang, N; Campbell, MS; Yandell, MD; Manousaki, T; Meyer, A; Bloom, OE; Morgan, JR; Buxbaum, JD; Sachidanadam, R; Sims, C; Garruss, AS; Cook, M; Krumlauf, R; Wiedemann, LM; Sower, SA; Decatur, WA; Hall, JA; Amemiya, CT; Saha, NR; Buckley, KM; Rast, JP; Das, S; Hirano, M; McCurley, N; Guo, P; Rohner, N; Tabin, CJ; Piccinelli, P; Elgar, G; Ruffler, M; Aken, BL; Searle, SM; Muffato, M; Pignatelli, M; Herrero, J; Jones, M; Brown, CT; Chung-Davidson, Y-W; Nanlohy, KG; Libants, SV; Yeh, C-Y; McCauley, DW; Langeland, JA; Pancer, Z; Fritzsch, B; de Jong, PJ; Zhu, B; Fulton, LL; Theising, B; Flice, P; Bronner, M; Warren, WC; Clifton, SW; and Wilson, RK; Li, W. 2013. Sequencing of the Sea Lamprey (*Petromyzon marinus*) Provides Insights into Vertebrate Evolution. *Nature Genetics* 45:415-421.

Staudinger, MD; Buresch, KC; Mäthger, LM; Fry, C; McAnulty, S; Ulmer, KM; and Hanlon, RT. 2013. Defensive Responses of Cuttlefish to Different Teleost Predators. 2013. *Biological Bulletin* 225 (3): 161-174.


Ulmer, KM; Buresch, KC; Kossodo, MM; Mäthger, LM; Siemann, LA; and Hanlon, RT. 2013. Visual Background Features in the Vertical Dimension Have a Strong Influence on Cuttlefish Camouflage. *Biological Bulletin* 224(2): 110-118.

Wardill, TJ; Chen, T-W; Schreiter, ER; Hasseman, JP; Tsegaye, G; Fosque, BF; Behnam, R; Shields, BC; Ramirez, M; Kimmel, BE; Kerr, RA; Jayaraman, V; Looger, LL; Svoboda, K; and Kim, DS. 2013. A Neuron-based Screening Platform for Optimizing Genetically-Encoded Calcium Indicators. *PLoS ONE* 8: e77728.

Wardill, TJ; Gonzalez-Bellido, PT; Crook, RJ; and Hanlon, RT. 2013. Neural Control of Tuneable Skin Iridescence in Squid. *Proc. R. Soc. B.* 289: 4243-4252.


Zhu, H; Tang, X; Wei, W; Maklad, A; Mustain, W; Rabitt, RD; Highstein, SM; Allison, J; and Zhou, W. 2013. Input-output Functions of Vestibular Afferent Responses to Air-conducted Clicks in Rats. *JARO* Feb 15(1): 73-86.
Program in Sensory Physiology & Behavior Staff

**DIRECTOR**
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**ASSOCIATE DIRECTOR**
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**SENIOR SCIENTISTS**
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Stephen Highstein

**ASSOCIATE SCIENTIST**
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Robert Baker, New York University Medical School
Chuan-Chin Chiao, National Tsing Hua University, Taiwan
Charles Chubb, University of California Irvine
Sean Colin, Roger Williams University
Jack Costello, Providence College
Brad Gremmell, University of Texas/Austin
Allen Mensinger, University of Minnesota
Richard Rabbitt, University of Utah

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Enrico Nasi, MBL Adjunct Scientist (Cellular Dynamics Program)
Hanumant Singh, Woods Hole Oceanographic Institution
Edgar T. Walters, University of Texas Medical School at Houston
Jacqueline Webb, University of Rhode Island
Ebenezer Yamoah, University of California Davis
Whitman Center for Research and Discovery

For more than a century, hundreds of distinguished scientists from around the world have been gathering to do research at the Marine Biological Laboratory particularly during the summer months.

During a typical MBL summer, researchers look for basic principles of life in organisms from squid to surf clams to zebrafish. They ask how nerve cells communicate, how cells regulate their complex processes, and how they proliferate. They explore how organisms reproduce and develop, how they fight disease, how sense organs gather information, and how brains process it. The investigators who gather each summer bring a diversity of approaches and questions. Along with visiting library researchers and the large number of faculty associated with the summer courses, they make the MBL the largest and most exciting biological laboratory in the world.

Publications | Investigators
Whitman Center Publications

Anastassov, I; Shen, W; Ripps, H; Chappell, RL. 2013. Zinc Modulation of Calcium Activity at the Photoreceptor Terminal: A Calcium Imaging Study. Experimental Eye Research (112): 37-44.


Asrican, B; Augustine, GJ; Berglund, K; Chen, SS; Chow, N; Deisseroth, K; Feng, GP; Gloss, B; Hira, R; Hoffmann, C; Kasai, H; Katarya, M; Kim, J; Kudolo, J; Lee, LM; Lo, SQ; Mancuso, J; Matsuzaki, M; Nakajima, R; Qiu, L; Tan, G; Tang, YX; Ting, JT; Tsuda, S; Wen, L; Zhang, XY; Zhao, SL. 2013. Next-generation Transgenic Mice for Optogenetic Analysis of Neural Circuits. Frontiers in Neural Circuits (7): 24.


Gemmell, BJ; Costello, JH; Colin, SP; Stewart, CJ; Dabiri, JO; Tafiri, D; Priya, S. 2013. Passive Energy Recapture in Jellyfish Contributes to Propulsive Advantage over Other Metazoans. Proceedings of the National Academy of Sciences of the United States of America (110): 17904-17909.


Hennigan, RF; Moon, CA; Parysek, LM; Monk, KR; Morfini, G; Berth, S; Brady, S; Ratner, N. 2013. The NF2 Tumor Suppressor Regulates Microtubule-based Vesicle Trafficking via a Novel Rac, MLK and p38(SAPK) Pathway. Oncogene (32): 1135–1143.


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Lucas, K; Colin, SP; Costello, JH; Katija, K; Klos, E. 2013. Fluid Interactions that Enable Stealth Predation by the Upstream-Foraging Hydra medusa craspedacusta sowerbyi. Biological Bulletin (225): 60-70.


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Petry, S; Groen, AC; Ishihara, K; Mitchison, TJ; Vale, RD. 2013. Branching Microtubule Nucleation in Xenopus Egg


Song, YY; Nagy, M; Ni, WM; Tyagi, NK; Fenton, WA; Lopez-Giraldez, F; Overton, JD; Horwich, AL; Brady, ST. 2013. Molecular Chaperone Hsp110 Rescues a Vesicle Transport Defect Produced by an ALS-associated Mutant SOD1 Protein in Squid Axoplasm. *Proceedings of the National Academy of Sciences of the United States of America* (110): 5428-5433.

Tsuda, S; Kee, MZL; Cunha, C; Kim, J; Yan, P; Loew, LM; Augustine, GJ. 2013. Probing the Function of Neuronal Populations: Combining Micromirror-Based Optogenetic Photostimulation with Voltage-Sensitive Dye Imaging. *Neuroscience Research* (75): 76-81.


Yuen, MYF; Webb, SE; Chan, CM; Thisse, B; Thisse, C; Miller, AL. 2013. Characterization of Ca2+ Signaling in the External Yolk Syncytial Layer During the Late Blastula and Early Gastrula Periods of Zebrafish Development. *Biochimica Et Biophysica Acta-Molecular Cell Research* (1833): 1641-1656.
Whitman Center 2013 Investigators

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Vale, Ron, University of California, San Francisco
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Webb, Jacqueline, University of Rhode Island
Yudowski, Guillermo, Institute of Neurobiology, Puerto Rico
Zimmerberg, Joshua, National Institutes of Health
Zottoli, Steven, Williams College

**MBL RESEARCH AWARDS**
Twenty-seven investigators received awards to conduct research at the MBL in 2013.

**Sara Abrahamsson**, Postdoctoral Fellow, The Rockefeller University
"Fast, High-resolution 3D Imaging using Polarization Multi-focus Microscopy"
Supported by The Baxter Postdoctoral Fellowship Fund and The Laura and Arthur Colwin Endowed Summer Research Fellowship Fund

**Magdalena Bezanilla**, Associate Professor, University of Massachusetts, Amherst
"Imaging Spatiotemporal Regulation of a Novel Myosin in Plant Cell Division"
Supported by The Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the James A. and Faith Miller Memorial Fund

**Ona Bloom**, Assistant Professor, The Feinstein Institute for Medical Research
"Inhibitory Pathways after Spinal Cord Injury in Lamprey"
Supported by the Albert and Ellen Grass MBL Faculty Research Award (joint with Joseph Buxbaum)

**Titus Brown**, Assistant Professor, Michigan State University
"mRNAseq Analysis for Gene Content and Gene Networks in Diverse Non-model Organisms"
Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the Burr and Susie Steinbach Fellowship Fund

**Joseph Buxbaum**, Professor, Mount Sinai School of Medicine
"Inhibitory Pathways after SCI in Lamprey"
Supported by the Albert and Ellen Grass MBL Faculty Research Award (joint with Ona Bloom)

**Daniel Colon-Ramos**, Assistant Professor, Yale University School of Medicine; **Zhirong Bao**, Assistant Member, Sloan-Kettering Institute for Cancer Research; **Hari Shroff**, Chief of Laboratory, HIBIB/NIH
"An Integrated System to Monitor Complex Tissues at Single-cell Resolution"
Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the E. E. Just Endowed Research Fellowship Fund
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Project Title</th>
<th>Supporting Funds</th>
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<tbody>
<tr>
<td>Rhonda Dzakpasu</td>
<td>Assistant Professor, Georgetown University</td>
<td>“How GABA Influences High-frequency Oscillations within the Hippocampus in the in vitro 4-aminopyridine Model of Epilepsy”</td>
<td>Supported by the Albert and Ellen Grass MBL Faculty Research Award, the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the Ann E. Kammer Memorial Fellowship Fund (joint with William Lytton)</td>
</tr>
<tr>
<td>Christine Field</td>
<td>Associate Scientist &amp; Lecturer, Harvard Medical School</td>
<td>“Local Control of Cytokinesis Analyzed in a Cell-free System”</td>
<td>Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund, the Elisabet Samuelsson Director’s Discretionary Fund and the Evelyn and Melvin Spiegel Fellowship Fund (in collaboration with Amy Gladfelter)</td>
</tr>
<tr>
<td>David Gadsby</td>
<td>Professor, The Rockefeller University</td>
<td>“Mechanisms of Function and Dysfunction of the Na, K-ATPase Pump”</td>
<td>Supported by the John M. Arnold Award</td>
</tr>
<tr>
<td>Jesse Gatlin</td>
<td>Assistant Professor, University of Wyoming</td>
<td>“Investigating Mechanisms of Spindle Scaling and Aster Positioning using Microfluidic Encapsulation of Cell-free Extracts”</td>
<td>Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund (in collaboration with Christine Field and Tim Mitchison)</td>
</tr>
<tr>
<td>Andrew Gillis</td>
<td>Postdoctoral Scientist, Dalhousie University</td>
<td>“Experimental Investigation of Craniolofacial Development in the Little Skate, Leucoraja erinacea”</td>
<td>Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the Plum Foundation John E. Dowling Fellowship Fund</td>
</tr>
<tr>
<td>Amy Gladfelter</td>
<td>Assistant Professor, Dartmouth College</td>
<td>“Local Control of Cytokinesis Analyzed in a Cell-free System”</td>
<td>Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund, the Elisabet Samuelsson Director’s Discretionary Fund and the Evelyn and Melvin Spiegel Fellowship Fund (in collaboration with Christine Field)</td>
</tr>
<tr>
<td>Deborah Hogan</td>
<td>Associate Professor, Geisel School of Medicine at Dartmouth</td>
<td>“Profiling Fungi within Chronic Lung Infections: Methods Development and Analysis of Longitudinal Sample Sets”</td>
<td>Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the Lucy B. Lemann Fellowship Fund</td>
</tr>
<tr>
<td>Yishi Jin</td>
<td>Professor, University of California, San Diego</td>
<td>“Understanding Microtubule Cytoskeleton in Regenerating Axons and in Epidermal Wounding in an Intact Animal Model”</td>
<td>Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund</td>
</tr>
<tr>
<td>Wei-Lih Lee</td>
<td>Associate Professor, University of Massachusetts, Amherst</td>
<td>“Rapid Single-molecule TIRFM Screen for Motility Competent Mammalian Bynein Motor Constructs Expressed in S. cerevisiae”</td>
<td>Supported by the Robert Day Allen Fellowship Fund, the Erik B. Fries Endowed Fellowship Fund and the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund</td>
</tr>
<tr>
<td>Artur Llobet</td>
<td>Investigator, Bellvitge Biomedical Research Institute, Barcelona, Spain</td>
<td>“Rewiring of Odor Maps in the Olfactory Bulb of Xenopus tropicalis”</td>
<td>Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund, the M. G. F. Fuortes Fellowship Fund and the Stephen W. Kuffler Fellowship Fund</td>
</tr>
<tr>
<td>William Lytton</td>
<td>Professor, State University of New York Downstate Medical Center</td>
<td>“How GABA Influences High-frequency Oscillations Within the Hippocampus in the in vitro 4-aminopyridine Model of Epilepsy”</td>
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</tr>
<tr>
<td>Allen Mensinger</td>
<td>Professor, University of Minnesota</td>
<td>“Multisensory Integration in Toadfish”</td>
<td>Supported by the William D. Cohen Endowed Undergraduate Research Fund, the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the Jane C. Kaltenbach-Townsend Endowment for Undergraduate Research</td>
</tr>
<tr>
<td>Timothy Mitchison</td>
<td>Professor, Harvard Medical School</td>
<td>“Microtubule Aster Growth and Interaction”</td>
<td>Supported by the Charles Evans Foundation Research Award</td>
</tr>
<tr>
<td>Melinda Modrell</td>
<td>Postdoctoral Fellow, University of Cambridge, United Kingdom</td>
<td>“Electroreceptor Development in a Teleost, the Channel Catfish, Ictalurus punctatus”</td>
<td>Supported by the H. Keffler Hartline and Edward F. MacNichol, Jr. Fellowship Fund</td>
</tr>
<tr>
<td>Craig Radford</td>
<td>Assistant Professor, University of Auckland, New Zealand</td>
<td>“Multisensory Integration for Sound Source Localization in Fish”</td>
<td>Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the H. Keffler Hartline and Edward F. MacNichol, Jr. Fellowship Fund</td>
</tr>
<tr>
<td>Robert Rosenberg</td>
<td>Professor, Earlham College</td>
<td>“Changes in Sodium Channel Expression During Spinal Cord Regeneration in Lamprey”</td>
<td>Supported by the Charles Evans Foundation Research Award and the Fishbach Fellowship</td>
</tr>
<tr>
<td>Joshua Rosenthal</td>
<td>Associate Professor, Universidad de Puerto Rico Institute of Neurobiology</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
“Development of an MBL Resource for Transcriptomes from Marine Models”  
Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund and the Great Generation Fund for Research and Education at the MBL

Jacqueline Webb, Professor, University of Rhode Island  
“Development of the Mechasensory Lateral Line System in Embryos of the Little Skate, Leucoraja erinacea”  
Supported by the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund

Guillermo Yudowski, Assistant Professor, Universidad de Puerto Rico Institute of Neurobiology  
“Molecular Mechanisms involved in Coral Bleaching”  
Supported by the Frederik B. and Betsy G. Bang Fellowship Fund and the Laura and Arthur Colwin Endowed Summer Research Fellowship Fund

**GRASS FELLOWS**

Twelve young scientists were awarded fellowships by the Grass Foundation to conduct research in neurobiology at the MBL during the summer of 2013. The program was directed by Alberto Pereda, M.D., Ph.D., Albert Einstein College of Medicine of Yeshiva University. M. Jade Zee of Northeastern University was the Associate Director.

**Jose (Pepe) Alcami, Ph.D.,** Centre National de la Recherche Scientifique and Paris Descartes University, France  
“Role and Modulation of Electrical Synapses in Cerebellar Interneuronal Networks”

**Vijayendran Chandran, Ph.D.,** University of California, Los Angeles  
“Identification and Validation of Transcription Factors and Small-molecules Responsible for Enhanced Regeneration in the Central Nervous System of Lamprey after Spinal Cord Injury”

**Jessica Fox, Ph.D.,** University of California, Los Angeles/Case Western Reserve University  
“Electrophysiological Properties of Figure-detecting Lobula Plate Tangential Cells in the Drosophila Visual System”

**Chantelle Fourie, M.S.,** University of Auckland, New Zealand  
“Mapping Hippocampal Inhibitory Networks using Optogenetics”

**Julijana Gjorgjieva, Ph.D.,** Harvard University  
“A Computational Model for Spontaneous Wave Propagation in Developing Cortical Networks”

**Nathan Hedrick, B.S.,** Duke University  
“In vivo Imaging of Rac1 Activity Surrounding Learning”

**Wolf Huetteroth, Ph.D.,** University of Oxford  
“Influence of Internal State Signals on Memory-reinforcing Dopamine Cells”

**Jeffrey Lehrberg, B.S.,** University of California, Irvine  
“Influence of Nerve Derived BMP2 on the Proliferation of Cell Subpopulations during Salamander Limb Regeneration”

**James Olopade, Ph.D.,** University of Ibadan, Nigeria  
“The Effect of Vanadium Exposure on the Long Term Myelination Infrastructure of Embryonic Zebrafish”

**Nicolas Palacios-Prado, M.S.,** Albert Einstein College of Medicine of Yeshiva University  
“Intracellular Magnesium-dependent Modulation of Electrical Synapses and Neuronal Synchronization”

**Lucy Palmer, Ph.D.,** Charité University of Medicine in Berlin, Germany  
“Dendritic Activity of Pyramidal Neurons During Learned Behavior”

**Chih-Chieh Wang, Ph.D.,** Tulane University  
“The Role of SynGAP in NMDA Receptor-mediated Synaptic Plasticity”
2013 Scholarships

In 2013, the MBL awarded scholarships to 276 highly qualified students enabling them to participate in our discovery courses.

The Bruce and Betty Alberts Endowed Scholarship in Physiology
Liu, Chenshu , Columbia University
Lomakin, Alexis J., Harvard University Medical School
American Society for Cell Biology
Blanton, Jessica , University of California, San Diego
Bohorquez, Diego V., Duke University Medical Center
Booker, Betty M., University of California, San Francisco
Donaldson, Teraya M., University of Richmond
Heimsath, Ernest Gustavo, Dartmouth College
Heyward, Christa , Children's Hospital of Philadelphia
Ingaramo, Maria , NIBIB – NIH
Lessios, Nicolas Neva, Arizona State University
Martinez, Diana , New Jersey Institute of Technology
Maya-Ramos, Lisandro , University of California, San Francisco – CVRI
Patron, Lilian A., The University of Arizona
Rangel, Lorena Isabel, University of California Davis
Riestra, Angelica Montenegro, University of California, Los Angeles
Santiago, Felipe H., Washington University School of Medicine

American Society of Naturalists
Baker, Lydia Jeanne, University of Hawaii at Manoa
De Lima, Natacia Evangelista, University of Sao Paulo
Green, Elizabeth Ashley, University of California, Merced
Herrera, Cesar Samuel, University of Maryland
Lutz, Holly Lynn, Cornell University
McIntosh, Chelsea Lee, Washington University in St. Louis
Modahl, Cassandra Marie, University of Northern Colorado
Nye, Verity Ellen, University of Southampton
Puetz, Lara Christine, University of Victoria
Stobie, Connor Seamus, University of Pretoria
Vieira, Christophe William, Institut de Recherche pour le Developpement
Zieliński, Piotr , Jagiellonian University

American Society for Reproductive Medicine
Brayboy, Lynae Maria, Brown University/Women and Infants Hospital
Cakmak, Hakan , University of California, San Francisco
Cookingham, Lisa Marli, University of Iowa Hospitals & Clinics
Center for Modular Biology Fellows
Billings, Gabriel Humphrey, Stanford University
Kuru, Erkin , Indiana University Bloomington
Oswald, Felix , VU University Amsterdam
Tan, Jiongyi , Stanford University
Zieske, Katja , Max Planck Institute of Biochemistry

Biology Club of the College of the City of New York
Mccarthy, Jason W., Albert Einstein College of Medicine
John & Elisabeth Buck Endowed Scholarship
Jimenez-Lopez, Claudia , University of Texas- Health Science Center-Houston
Schnur, Eiat, London Research Institute Cancer Research UK
C. Lalor Burdick Scholarship
Kumar, Brijesh , IITKANPUR
Reyes, Henry Dela Cruz, University of Iowa Hospitals and Clinics
Max M. Burger Endowed Scholarship
KunttasTatlı, Ezgi , Carnegie Mellon University
Miller, Sophie Rachel, University of Cambridge

Burroughs Wellcome Fund Endowment
Einarsson, Elin , Uppsala University
Knackstedt, Sebastian Lorenz, Max-Planck Institute for Infection Biology
Leite, Ricardo , IGC – Instituto Gulbenkian de Ciencia
Burroughs Wellcome Fund-Biology of Parasitism Course
Drini, Sima , Institut Pasteur Paris
Rajendran, Esther , The Australian National University
Shears, Melanie Janet, The University of Melbourne
Singer, Mirko Sebastian, University of Heidelberg Medical School

Burroughs Wellcome Fund-Molecular Mycology Course
Beyda, Nicholas David, University of Houston College of Pharmacy
Billmyre, Robert Blake, Duke University
Dhingra, Sourabh , Dartmouth College Geisel School of Medicine
Drummond, Rebecca Anne, University of Aberdeen
Ene, Juliana Veronica, Brown University
Gerstein, Aleexa Cara, University of Minnesota
Green, Julianne Vernadette, Cincinnati Children’s Hospital
Jhingran, Anupam , Fred Hutchinson Cancer Research Center
Maeng, Shinae , Yonsei University
Mccarthy, Jason W., Albert Einstein College of Medicine
Niemiec, Maria Joanna , Umea University
Polke, Melanie , Hans-Knoell-Intitute Jena
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Wong, Koon Ho , Harvard Medical School

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Cleary, Alison Clare, University of Rhode Island Graduate School of Oceanography
Cope, Emily Kathryn, University of California, San Francisco
Cotechini, Tiziana , Queen's University
De Martini, Francesca , Arizona State University
Dhesi, Amy Shah, University of Medicine and Dentistry of New Jersey
Edlund, Johanna Sofia, Microbial Analytics Sweden
Fenelon, Jane Catherine, CRRRA, Universite de Montreal
Fisher, Jenny Carole, School of Freshwater Sciences UWM
Gawriluk, Thomas Raymond, University of Kentucky
Girard, Sylvie , University of Manchester
Goisis, Marcelo Demarchi, University of Sao Paulo
Gonzalez Herrero, Raquel , University of Calgary
Jenkins, Bethany D., University of Rhode Island
Jolic, Dino , Max Planck Institute for Developmental Biology
Kandalapeas, Demetra, Tulane University
Lafi, Feras Fawzi, King Abdullah University of Science and Technology
Landry, Mathieu , Institut de Biologie Integrative et des Systemes
Legua, Mariana U.S. Naval Medical Research Unit No. 6 (NAMRU-6)
Lin, Tzihuan Jennifer, University of Massachusetts
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Morando, Michael B., University of Southern California
Mouser, Paula J., Ohio State University
Mueller, Jaclyn April, University of Hawaii at Manoa
Neave, Matthew James, Woods Hole Oceanographic Institution
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Tan, Jiongyi, Stanford University

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O’Hare, Justin Keith, Duke University
Riddle, Misty Rose, University of California, Santa Barbara
Tintori, Sophia, University of North Carolina – Chapel Hill

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Rajendran, Esther, The Australian National University
Riestra, Angelica Montenegro, University of California, Los Angeles

**Howard Hughes Medical Institute – Microbial Diversity**
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Giao Garcia, Diego, Aarhus University
Jesus, Ederson da Conceicao, Embrapa

**Howard Hughes Medical Institute – Neurobiology**
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**Howard Hughes Medical Institute - Neural Systems & Behavior**
Staedele, Carola, Ulm University

**Howard Hughes Medical Institute – Physiology**
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Oswald, Felix, VU University Amsterdam

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Sengupta, Mohini, National Centre for Biological Sciences
Temprana, Silvio Gabriel, Fundacion Instituto Leloir

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Shi, Zhen, Massachusetts General Hospital

**Holger & Friederun Jannasch Scholarship in Microbial Diversity**
Neubauer, Cajtan, California Institute of Technology
Sorek Abramovich, Reut, University of New South Wales
Benjamin Kaminer Scholarship
Gharaei, Nava, Harvard Medical School
Reese, Louis, Ludwig-Maximilians-University Munchen

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Tapilatu, Yosmina H., Ambon Marine Life Conservation Unit – LIPI

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Ward, Kenya Latoya, The College of The Bahamas
Jacques Loeb Founders’ Scholarship Fund
De Franceschi, Nicola, VTT Medical Biotechnology
S.O. Mast Memorial Fund
Wang, Wei, The University of Alabama

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Miller, Mayumi Florence, NICHD

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Kuru, Erkin, Indiana University Bloomington
Mccarthy, Jason W., Albert Einstein College of Medicine
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Zhang, Zhongli, Harvard University

Methods in Computational Neuroscience – NIH Grant
Arzi, Anat, Weizmann Institute of Science
Barri, Alessandro, Paris Descartes University
Ben-Tov, Mor, Ben-Gurion University in the Negev
Bijanzadeh, Maryam, University of Utah
Blanchard, Tommy Charles, University of Rochester
Bouchacourt, Flora, Group for Neural Theory
Bruno, Angela M., Rosalind Franklin University of Medicine and Science
Cantu, Marcos Antonio, University of California, Irvine
Dempsey, Conor, Columbia University
Finkelstein, Arseny, Weizmann Institute of Science
Grama, Abhinav Satish, Harvard University
Hocevar Brezavscek, Ana, Rockefeller University
Kfir, Yaav, Weizmann Institute of Science
Leong, Jonathan Chit Sing, Stanford University
Lewallen, Sam Jay, Princeton University
Lewis, Laura, Massachusetts Institute of Technology
Payne, Hannah L., Stanford University
Roper, Mark, Queen Mary, University of London
Steinemann, Natalie Anna, City College of New York
Tsuda, Sachiko, Duke-NUS Graduate Medical School
Veit, Lena, University of Tubingen
Williams, Alex Henry, Brandeis University
Zagha, Edward William, Yale School of Medicine

Microbial Diversity – Department of Energy Grant
Donaldson, Teraya M., University of Richmond
Kotlcz, Nadine P., University of Michigan
Rangel, Lorena Isabel, University of California Davis
Saleska, Scott Reid, University of Arizona
Lorus J. & Margery J. Milne Scholarship
Chung, Ain, New York University
Kumar, Brijesh, IITKANPUR
Lindsay, Allia Kaye, Dartmouth College
Malas, Tareq, King Abdullah University of Science and Technology
Rodriguez, Carlos Antonio, Emory University
Smith, Laura Lindsay, Boston Children’s Hospital
Temprana, Silvio Gabriel, Fundacion Instituto Leloir
Xie, Jing Lin, University of Toronto

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Knogler, Laura Danielle, University of Montreal
O’Hare, Justin Keith, Duke University
Schulz, Alexander, Leibniz Institute for Age Research
Wei, Xing, Stanford University
Mountain Memorial Fund Scholarship
Xiong, Jing, Vanderbilt University

NASA – Microbial Diversity Course
Saleska, Scott Reid, University of Arizona

Neural Systems & Behavior Course Endowed Scholarship Fund
Chung, Ain, New York University
Keller, Corey Jacob, Albert Einstein College of Medicine
Lessios, Nicolas Neva, Arizona State University

Neurobiology – NIH Grant
Fehlhaber, Katherine Elizabeth, University of Southern California
Knogler, Laura Danielle, University of Montreal
Patron, Lilan A., The University of Arizona
Woodford, Clifford R., University of California San Diego

Neural Systems & Behavior – NIH Grant
Bhandiwad, Ashwin Anirudha, University of Washington
Liu, Daniel Fan, University of California San Francisco
Otopalik, Adriane Gerndt, Volen Center for Complex Systems
Sanders, Honi, Brandeis University
Sharple, Simon Arthur, Hotchkiss Brain Institute

National Science Foundation – Microbial Diversity
Banton, Jessica, University of California, San Diego
Buckner, Caroline Renee, UNCW- Center for Marine Science
Cardarelli, Emily Lewis, Stanford University, EESS
Heyward, Christa, Children’s Hospital of Philadelphia
Weisenhorn, Pamela, University of Minnesota

Organization for Computational Neuroscience
Dempsey, Conor, Columbia University
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Gharaei, Nava, Harvard Medical School
Jusuf, Patricia, Australian Regenerative Medicine Institute, Monash University
Martinez, Diana, New Jersey Institute of Technology
Mccarthy, Jason W., Albert Einstein College of Medicine
Smith, Laura Lindsay, Boston Children’s Hospital
Zieske, Katja, Max Planck Institute of Biochemistry

Physiology – NIH Grant
Alushin, Gregory Matthew, National Institutes of Health
Billings, Gabriel Humphrey, Stanford University
Bonazza, Daria, Institut Curie
Bor, Batbileg, University of California, Los Angeles
Ingaramo, Maria, NIBIB – NIH
Prabhakara, Chaitra, National Centre for Biological Sciences
Ruijgrok, Paul Victor, Stanford University
Ryder, Pearl Victoria, Emory University

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Blanton, Jessica, University of California, San Diego
Donaldson, Teraya M., University of Richmond
Heimsath, Ernest Gustavo, Dartmouth College
Heyward, Christa, Children’s Hospital of Philadelphia
Ingaramo, Maria, NIBIB – NIH
Lessios, Nicolas Neva, Arizona State University
Maya-Ramos, Lisandro, University of California, San Francisco – CVRI
Patron, Lilian A., The University of Arizona
Rangel, Lorena Isabel, University of California, Los Angeles
Riestra, Angelica Montenegro, University of California, Los Angeles

Lola Ellis Robertson Endowed Scholarship
Bohorquez, Diego V., Duke University Medical Center
Hayes, Beth Marie, University of Michigan Medical School
He, Enqi, CNCR, Vrije University Amsterdam
Lagerlof, Olof, Johns Hopkins University
Svahn, Adam James, Brain and Mind Research Institute

Florence C. Rose and S. Meryl Rose Endowed Scholarship Fund
Miranda-Rodriguez, Jeronimo Roberto, Instituto de Biotecnologia /UNAM
Ruth Sager Memorial Scholarship
Luo, Weiwei, Mechanobiology Institute, NUS
Wessels, Wiebe Susanne, ARC Centre of Excellence for Coral Reef Studies

Frontiers in Stem Cells & Regeneration – NIH
Aakalu, Vinay Kumar, University of Illinois at Chicago
Angileri, Krista Marie, University of Texas – Austin
Armijo, Enrique Antonio, University of Texas Health Science Center at Houston
Avila Gonzalez, Daniela, Instituto Nacional de Perinatologia
Butler, Amanda M., Mayo Clinic
Franklin, Brandon Michael, University of Kentucky
Jiao, Yuanyuan, University of Pittsburgh
Kashpur, Olga, Worcester Polytechnic Institute
Ramos-Silva, Paula, University of Amsterdam
Thomas, Ria, Institute for Anatomy and Cell Biology
Zeng, Xin-Xin, University of California, San Diego

Howard A. Schneiderman Endowed Scholarship
Lagerlof, Olof, Johns Hopkins University
Luo, Weiwei, Mechanobiology Institute, NUS
Oswald, Felix, VU University Amsterdam
Prabhakara, Chaitra, National Centre for Biological Sciences

Society for Developmental Biology
Accorsi, Alice, University of Modena and Reggio Emilia
Kenny, Nathan James, Oxford University
Kumar, Brijesh, IITKANPUR
KunttasTatli, Ezgi, Carnegie Mellon University

Segal/Mastroianni/Koide Scholarship
Dhesi, Amy Shah, University of Medicine and Dentistry of New Jersey
Milton L. Shifman Endowed Scholarship
Dupre, Christophe, Columbia University
Espinoza Sanchez, Sofia Vanesa, Yale University
Fields, Alexander Preston, Harvard University
Heimsath, Ernest Gustavo, Dartmouth College
Lomakin, Alexis J., Harvard University Medical School
Mis, Emily Kathryn, Yale University
Sinz, Fabian Hubert, Eberhard Karls University Tuebingen
Smith, Colin James, University of Pennsylvania
Zhang, Zhongli, Harvard University

Moshe Shilo Memorial Scholarship Fund
Sorek Abramovich, Reut, University of New South Wales
Marjorie R. Stetten Scholarship Fund
Bonazzi, Daria, Institut Curie

Jane Lazarow Stetten Endowed Scholarship
Gharaei, Nava, Harvard Medical School
Horace W. Stunkard Scholarship Fund
Chung, Ain, New York University
KunttasTafi, Ezgi, Carnegie Mellon University
Shyer, Amy Elizabeth, Harvard Medical School
Weisenhorn, Pamela, University of Minnesota
Yang, Tingting, University of North Carolina at Chapel Hill

Surdna Foundation Scholarship
Hosoda, Kazutaka, Kyoto University
Miranda-Rodriguez, Jeronimo Roberto, Instituto de Biotecnologia /UNAM
Miyashita, Tetsuo, University of Alberta
Ozpolat, Busra Duygu, University of Maryland

Eva Szent-Gyorgyi Scholarship Fund
Luo, Weiwei, Mechanobiology Institute, NUS

John & Madeleine Trinkaus Endowed Scholarship
Kumar, Brijesh, IITKANPUR
McClelland, Kathryn Sarah, Institute for Molecular Bioscience

Selman A. Waksman Endowed Scholarship in Microbial Diversity
Kotiarz, Nadine P., University of Michigan
Mukherjee, Dishari, Michigan State University

The Wellcome Trust
Barnard, Annette-Christi, University of Pretoria
Bisio Sabaris, Hugo, University of Uruguay
Drini, Sima, Institut Pasteur Paris
Fernandez, Esteban Rodrigo, Instituto Nacional de Parasitology
William Morton Wheeler Family Founders’ Scholarship
Ozpolat, Busra Duygu, University of Maryland
Wang, Wei, The University of Alabama

Zebrafish – NIH Grant
Booker, Betty M., University of California, San Francisco
Cousin, Margot Ann, Mayo Clinic
D’Orazi, Florence DeEtte, University of Washington
Farrell, Jeffrey Allen, Harvard University
Grimes, Daniel, Princeton University
Gubbels Bupp, Melanie R., Randolph-Macon College
Guerr, Lucia, Max Plank Institute of Immunology and Epigenetics
Harel, Itamar, Stanford University
Jusuf, Patricia, Australian Regenerative Medicine Institute, Monash University
Lambert, Nevin Alan, Medical College of Georgia, Georgia Regents University
Lopez Ramirez, Ana, Cambridge Institute for Medical Research
McMains, Emily Ann, University of Texas at Austin
Naumann, Uta, Leibniz Institute for Age Research (FLI)
Radice, Glenn, Thomas Jefferson University
Svahn, Adam James, Brain and Mind Research Institute
Tuschl, Karin, Clinical and Molecular Genetics Unit
Williams, Margot L. K., University of Virginia
Yasuda, Koji, Harvard School of Public Health
Biology of Parasitism: Modern Approaches

June 14 – August 3, 2013

COURSE DIRECTORS
Deitsch, Kirk, Weill Cornell Medical College
Striepen, Boris, University of Georgia

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Billker, Oliver, Wellcome Trust Sanger Institute
Engwerda, Christian, Queensland Institute of Medical Research
Hill, Kent, University of California, Los Angeles
Levashina, Elena, MPI for Infection Biology
Pepper, Marion, University of Washington
Sibley, L. David, Washington University
Sinnis, Photini, Johns Hopkins University
Tachezy, Jan, Charles University
Zaph, Colby, University of British Columbia

LECTURERS
Artis, David, University of Pennsylvania Perelman School of Medicine
Bates, Paul, Lancaster University
Catteruccia, Flaminia, Harvard School of Public Health
Duraisingh, Manoj, Harvard School of Public Health
Elmendorf, Heidi, Georgetown University
Gould, Sven, Heinrich-Heine University
Heussler, Volker, Institute of Cell Biology
Huston, Christopher, University of Vermont College of Medicine
Jenkins, Marc, University of Minnesota
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Macdonald, Andrew, University of Edinburgh
Raper, Jayne, Hunter College
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Sacks, David, NIH/NIAID
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Sher, Franklin, NIH/NIAID
Strand, Michael, University of Georgia
Tarleton, Rick, University of Georgia
Taylor, Terrie, Michigan State University
Tschudi, Christian, Yale University School of Public Health
Wilson, Emma, University of California, Riverside

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Antignano, Frann, University of British Columbia
Brochet, Mathieu, Wellcome Trust Sanger Institute
Costa, Giulia, MPI for Infection Biology
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Shimogawa, Michelle, University of California, Los Angeles

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Albright, Blake, University of Georgia
Williams, Jennie, College of the Holy Cross
London, Danielle, Mamaroneck High School

STUDENTS
Barnard, Annette-Christi, University of Pretoria
Bisio Sabaris, Hugo, University of Uruguay
Drini, Sima, Institut Pasteur Paris
Einarsson, Elin, Uppsala University
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fernandez, Esteban</td>
<td>Instituto Nacional de Parasitology</td>
</tr>
<tr>
<td>Hayes, Beth</td>
<td>University of Michigan Medical School</td>
</tr>
<tr>
<td>Knackstedt, Sebastian</td>
<td>Max-Planck Institute for Infection Biology</td>
</tr>
<tr>
<td>Leite, Ricardo</td>
<td>IGC – Instituto Gulbenkian de Ciencia</td>
</tr>
<tr>
<td>Lentini, Gaelle</td>
<td>UMR 5235 – D.I.M.N.P.</td>
</tr>
<tr>
<td>Lin, Sheng</td>
<td>Clemson University</td>
</tr>
<tr>
<td>Portugal, Silvia</td>
<td>NIAID, National Institutes of Health</td>
</tr>
<tr>
<td>Rajendran, Esther</td>
<td>The Australian National University</td>
</tr>
<tr>
<td>Riestra, Angelica</td>
<td>University of California, Los Angeles</td>
</tr>
<tr>
<td>Shears, Melanie</td>
<td>The University of Melbourne</td>
</tr>
<tr>
<td>Singer, Mirko</td>
<td>University of Heidelberg Medical School</td>
</tr>
<tr>
<td>Szempruch, Anthony</td>
<td>University of Georgia, Athens</td>
</tr>
</tbody>
</table>
Embryology: Concepts & Techniques in Modern Developmental Biology

June 1 – July 14, 2013

COURSE DIRECTORS
Behringer, Richard, M.D. Anderson Cancer Center
Sanchez Alvarado, Alejandro, Stowers Institute/HHMI

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Collazo, Andres, House Research Institute
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Harland, Richard, UC Berkeley
Henry, Jonathan, University of Illinois
Keller, Raymond, University of Virginia
Krumlauf, Robert, Stowers Institute for Medical Research
Ober, Eike, National Institute for Medical Research
Patel, Nipam, UC Berkeley
Piotrowski, Tatjana, Stowers Institute for Medical Research
Ronshaugen, Matthew, University of Manchester
Ross, Eric, Stowers Institute for Medical Research
Seaver, Elaine, University of Florida
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Streit, Andrea, King's College London
Trainor, Paul, Stowers Institute for Medical Research
Wikramanayake, Athula, University of Miami
Zeller, Robert, San Diego State University

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Degnan, Bernie, University of Queensland
Farber, Steven, Carnegie Institution
Franko, Maryrose, HHMI
Harirhan, Iwar, University of California Berkeley
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Stern, Claudio, UCLA
Sussel, Lori, Columbia University
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Fischer, Antje, MBL
Guo, Longhua, Stowers Institute for Medical Research
Hurless, Victoria, San Diego State University
<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iulianella, Angelo</td>
<td>Dalhousie University</td>
</tr>
<tr>
<td>Jarvis, Erin</td>
<td>University of California, Berkeley</td>
</tr>
<tr>
<td>Ladouceur, Anne-Marie</td>
<td>University de Montreal</td>
</tr>
<tr>
<td>Lyons, Deirdre</td>
<td>Duke University</td>
</tr>
<tr>
<td>Marlow, Heather</td>
<td>EMBL Heidelberg</td>
</tr>
<tr>
<td>Martik, Megan</td>
<td>Duke University</td>
</tr>
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<td>Matus, David</td>
<td>Duke University</td>
</tr>
<tr>
<td>Norris, Anneliese</td>
<td>King's College London</td>
</tr>
<tr>
<td>Null, Ryan</td>
<td>University of California, Berkeley</td>
</tr>
<tr>
<td>Pineda, Christopher</td>
<td>San Francisco State University</td>
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<tr>
<td>Schindler, Adam</td>
<td>Duke University</td>
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<tr>
<td>Stellabotte, Frank</td>
<td>House Research Institute</td>
</tr>
<tr>
<td>Truchado Garcia, Marta</td>
<td>Universidad Autonoma de Madrid</td>
</tr>
<tr>
<td>Venero Galanternik, Marina</td>
<td>Stowers Institute for Medical Research</td>
</tr>
<tr>
<td>Wang, Lingyu</td>
<td>University of Miami</td>
</tr>
<tr>
<td>Wills, Andrea</td>
<td>Stanford University</td>
</tr>
</tbody>
</table>

**COURSE ASSISTANTS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jones, Caroline</td>
<td>Long Island University Global</td>
</tr>
<tr>
<td>Jones, Samantha</td>
<td>Stowers Institute for Medical Research</td>
</tr>
<tr>
<td>Wright, Amelia</td>
<td>Oberlin College</td>
</tr>
</tbody>
</table>

**STUDENTS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accorsi, Alice</td>
<td>University of Modena and Reggio Emilia</td>
</tr>
<tr>
<td>Colasanto, Mary</td>
<td>University of Utah</td>
</tr>
<tr>
<td>Edgar, Allison</td>
<td>Duke University Medical Center</td>
</tr>
<tr>
<td>Hosoda, Kazutaka</td>
<td>Kyoto University</td>
</tr>
<tr>
<td>Kenny, Nathan</td>
<td>Oxford University</td>
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<tr>
<td>Kumar, Brijesh</td>
<td>IITKANPUR</td>
</tr>
<tr>
<td>Kunttastatli, Ezgi</td>
<td>Carnegie Mellon University</td>
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<tr>
<td>Linden, Lara</td>
<td>Duke University</td>
</tr>
<tr>
<td>Maya-Ramos, Lisandro</td>
<td>University of California, San Francisco – CVRI</td>
</tr>
<tr>
<td>McClelland, Kathryn</td>
<td>Institute for Molecular Bioscience</td>
</tr>
<tr>
<td>Miller, Sophie</td>
<td>University of Cambridge</td>
</tr>
<tr>
<td>Miranda-Rodriguez</td>
<td>Instituto de Biotecnologia /UNAM</td>
</tr>
<tr>
<td>Mis, Emily</td>
<td>Yale University</td>
</tr>
<tr>
<td>Miyashita, Tetsuto</td>
<td>University of Alberta</td>
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<td>Ozpolat, Busra</td>
<td>University of Maryland</td>
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<tr>
<td>Park, Jong</td>
<td>University of Washington</td>
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<tr>
<td>Ray, Poulomi</td>
<td>Clemson University</td>
</tr>
<tr>
<td>Riddle, Misty</td>
<td>University of California, Santa Barbara</td>
</tr>
<tr>
<td>Schock, Elizabeth</td>
<td>Cincinnati Children’s Hospital Medical Center</td>
</tr>
<tr>
<td>Shyer, Amy</td>
<td>Harvard Medical School</td>
</tr>
<tr>
<td>Stooke-Vaughan, Georgina</td>
<td>University of Sheffield</td>
</tr>
<tr>
<td>Tintori, Sophia</td>
<td>University of North Carolina – Chapel Hill</td>
</tr>
<tr>
<td>Wang, Wei</td>
<td>The University of Alabama</td>
</tr>
<tr>
<td>Wessels, Wiebke</td>
<td>ARC Centre of Excellence for Coral Reef Studies</td>
</tr>
</tbody>
</table>
Frontiers in Reproduction

April 27 – June 9, 2013

COURSE DIRECTORS
Ascoli, Mario, The University of Iowa
Christenson, Lane, University of Kansas Medical Center
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Microbial Diversity

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Neural Systems & Behavior

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June 1 – July 28, 2013

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Liu, Max, University of California, San Francisco
Luedke, Kory, University of Washington
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Physiology: Modern Cell Biology Using Microscopic, Biochemical and Computational Approaches

June 8 – July 28, 2013

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Shroff, Hari, NIH
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Vale, Ronald, University of California, San Francisco
York, Andrew, NIH

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Case, Lindsay, NIH/NHLBI
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Analytical & Quantitative Light Microscopy

May 1 – May 10, 2013

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Pampalona, Judit, Institute for Research in Biomedicine, IRB-Barcelona
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<th>Name</th>
<th>Institution</th>
</tr>
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<tbody>
<tr>
<td>Quintero, Omar</td>
<td>University of Richmond</td>
</tr>
<tr>
<td>Su, Kuan-chung</td>
<td>Whitehead Institute for Biomolecular Research</td>
</tr>
<tr>
<td>Tong, Tao</td>
<td>The Rockefeller University</td>
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<tr>
<td>Voytek, Sarah</td>
<td>Novartis Institutes for Biomedical Research</td>
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<tr>
<td>Wang, Yilin</td>
<td>Mechanobiology Institute</td>
</tr>
<tr>
<td>Wendland, Kristin</td>
<td>Charite Universitätsmedizin Berlin</td>
</tr>
<tr>
<td>Wilkins-Port, Cynthia</td>
<td>Shire Regenerative Medicine</td>
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</tbody>
</table>
Biology of the Inner Ear: Experimental and Analytical Approaches

August 4 – August 24, 2013

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Rowsell, Jennifer, Washington College

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Gale, Jonathan, University College London
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Hertzano, Ronna, University of Maryland
Holt, Jeffrey, Boston Children’s Hospital
Hudspeth, Albert, The Rockefeller University
Joris, Philip, University of Leuven
Keays, David, Institute of Molecular Pathology
Kelley, Matthew, NIH
Koepl, Christine, Carl von Ossietzky University
Lauer, Amanda, The Johns Hopkins University
Lysakowski, Anna, University of Illinois at Chicago
Mcdermott, Brian, Case Western Reserve University
Mueller, Ulrich, TSRI
Nicolson, Teresa, Oregon Health and Science University
Oertel, Donata, University of Wisconsin
Perrin, Benjamin, University of Minnesota
Richardson, Guy, University of Sussex
Sals, Felipe, Stanford University
Santos-sacchi, Joseph, Yale University School of Medicine
Von Gersdorff, Henrique, Oregon Health & Science University
Wu, Doris, NIH/NIDCD
Zuo, Jian, St. Jude Children’s Research Hospital

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Deans, Michael, The Johns Hopkins University
Kenna, Margaret, Boston Children’s Hospital
Lustig, Lawrence, University of California, San Francisco
May, Brad, Johns Hopkins University

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Gonzalez Garrido, Antonia, Universidad Autonoma de Puebla
Hartman, Byron, Stanford University
Liu, Xiao-ping, Boston Children’s Hospital
Shivatzki, Shaked, Tel Aviv University
Verschooten, Eric, University of Leuven
Walters, Brad, St. Jude Children’s Research Hospital
Zachary, Stephen, Johns Hopkins University School of Medicine

COURSE ASSISTANT
James, Gabrielle, Washington College

STUDENTS
Chou, Shih-wei, Case Western Reserve University
Cobo-cuan, Ariadna, Havana University
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gardiner, Jayne</td>
<td>Mote Marine Laboratory</td>
</tr>
<tr>
<td>Hahnwald, Stefan</td>
<td>University of Bern</td>
</tr>
<tr>
<td>Hill, Kayla</td>
<td>Medical University of South Carolina</td>
</tr>
<tr>
<td>Inoue, Maya</td>
<td>Nagoya University</td>
</tr>
<tr>
<td>Jansson, Lina</td>
<td>Stanford University</td>
</tr>
<tr>
<td>Kaur, Tejbeer</td>
<td>Washington University School of Medicine</td>
</tr>
<tr>
<td>Kozin, Elliott</td>
<td>Massachusetts Eye and Ear Infirmary / Harvard Medical School</td>
</tr>
<tr>
<td>Lauwers, Mattias</td>
<td>Research Institute of Molecular Pathology</td>
</tr>
<tr>
<td>Leal, Karina</td>
<td>OHSU Vollum Institute</td>
</tr>
<tr>
<td>Lumbreras Cruz</td>
<td>University of Miami</td>
</tr>
<tr>
<td>Mao, Beatrice</td>
<td>University of Maryland</td>
</tr>
<tr>
<td>Mateo Sanchez</td>
<td>University of Liege</td>
</tr>
<tr>
<td>Monzack, Elyssa</td>
<td>NIDCD/NIH</td>
</tr>
<tr>
<td>Requena, Maria</td>
<td>Centre for Genomics and Oncological Research (GENYO)</td>
</tr>
<tr>
<td>Shrestha, Brikha</td>
<td>Columbia University Medical Center</td>
</tr>
<tr>
<td>Tobin, Melanie</td>
<td>Rockefeller University</td>
</tr>
</tbody>
</table>
BioMedical Informatics (Spring)

May 26 – June 1, 2013

COURSE DIRECTOR
Cimino, James, NIH

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Abbott, Patti, University of Michigan
Bakken, Suzanne, Columbia University
Fiszman, Marcelo, National Library of Medicine
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Hurdle, John, University of Utah
Johnson, Kevin, Vanderbilt University
Kondrashov, Dmitry, University of Chicago
Lindberg, Donald, National Library of Medicine
Mendonca, Eneida, University of Wisconsin – Madison
Middleton, Blackford, Vanderbilt University
Starren, Justin, Northwestern University
Tachinardi, Umberto, University of Wisconsin-Madison

STUDENTS
Afarian, Hagop, Community Regional Medical Center
Bamidele, Samson, MEASURE
Boersma, Dorothy, Open Door Health Services
Bottino, Robert, Bedford VAMC
Brand, Lana, Northeast Georgia Health System
Breeden, Elizabeth, Lipscomb University College of Pharmacy
Burgess, Kristen, University of Cincinnati
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Cyrus, John, VCU Tompkins-McCaw Library for the Health Sciences
Derosa, Antonio, Memorial Sloan-Kettering Cancer Center
Forbes, Michael, Akron Children's Hospital
Frohner, Bianca, The George Washington University
Gaines, Julie, GHSU/UGA Medical Partnership
Goben, Abigail, University of Illinois Chicago
Goyal, Pawan, HP – VA-Military Health Portfolio
Hand, Marti, WellStar Health Systems
Jain, Sanjay, Harvard Medical Enterprises
Kehler, K., Vanderbilt University Medical Center
Mckelvy, Dina, Maine Medical Center
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Reed, Robyn, Penn State Hershey
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Sager, Rhonda, University of Wisconsin – Madison
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Schubert, Carolyn, James Madison University
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Swietlik, Marguerite, Ann & Robert H. Lurie Children's Hospital of Chicago
BioMedical Informatics (Fall)

September 15 – September 21, 2013

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Kawamoto, Kensaku, University of Utah
Kondrashov, Dmitry, University of Chicago
Lenert, Leslie, University of Utah
Lindberg, Donald, National Library of Medicine
Staes, Catherine, University of Utah
Weir, Charlene, University of Utah

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Attwood, Carol Ann, Mayo Clinic
Barker, Kimberley, Claude Moore Health Sciences
Callahan, Beth, University of California, Davis
Chacko, Ron, Lawndale Christian Health Center
Echeverri, Roberto, Miami Veterans Affairs Medical Center
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Jansen, Hope, CABI
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Louden, Diana, University of Washington
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Pickett, Keith, Rudolph Matas Library of the Health Sciences
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Reynoso, Ronald, Grande Ronde Hospital
Robison, Rex, National Library of Medicine
Rogers, Hannah, Swilley Library/Mercer University
Solomon, Meredith, Inova Fairfax Hospital
Tarver, Talicia, LSU Health Shreveport
Thelander, Regan, Planned Parenthood of Northern New England
Tolmie, David, Fred Hutchinson Cancer Research Center
Van Cleve, William, University of Washington
Wirtz, Jackie, Oregon Health and Science University
Zanetti, Cole, NH Dartmouth Family Medicine Residency at Concord Hospital
Computational Image Analysis in Cellular and Developmental Biology

October 13 – October 23, 2013

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Altschuler, Steven, UT Southwestern Medical Center
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Jaqaman, Khuloud, UT Southwestern Medical Center
Wu, Lani, UT Southwestern Medical Center

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Murphy, Robert, Carnegie Mellon University
Pfister, Hanspeter, Harvard University

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Rajaram, Satwik, UT Southwestern Medical Center

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Langen, Marion, UT Southwestern Medical Center
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Lumbreras, Vicente, University of Miami
Rossetti, Blair, Marine Biological Laboratory
Sullivan, Devin, Carnegie Mellon University
Troaca Luchici, Liviu Andrei, King’s College London
Vousden, Dulcie, Hospital for Sick Children
Zimmer, Anat, Weizmann Institute of Science
Frontiers in Stem Cells and Regeneration

September 29 – October 6, 2013

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Ten Have, Henk, Duquesne University

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Zon, Leonard, HHMI/Boston Children’s Hospital

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Sukhwani, Meena, Magee Women’s Research Institute
Valli, Hanna, University of Pittsburgh

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Avila Gonzalez, Daniela, Instituto Nacional de Perinatologia
Butler, Amanda, Mayo Clinic
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Thomas, Ria, Institute for Anatomy and Cell Biology
Ward, Kenya, The College of The Bahamas
Zeng, Xin-Xin, University of California, San Diego
Gene Regulatory Networks for Development

October 13 – October 24, 2013

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Peter, Isabelle, California Institute of Technology

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Small, Stephen, New York University
Stormo, Gary, Washington University School of Medicine

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Wygoda, Jennifer, Duke University

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Barozzi, Iros, European Institute of Oncology
Boulos-Owhadi, Areen, California Institute of Technology
Camargo, Maristela, University of Sao Paulo
Dominguez, Calixto, Science and Life Fundation
Dragalzew, Aline, Universidade de Sao Paulo
Farrell, Jeffrey, Harvard University
Garcia, Hernan, Princeton University
Hope, Matt, University of Chicago
Imam, Saheed, Wisconsin Energy Institute, UW-Madison
Mazutis, Linas, Harvard University
Munnalalai, Vidhya, Purdue University
Neves, Carlos, University of Aberdeen
Plavskin, Yevgeniy, Cold Spring Harbor Laboratory
Salazar, Valerie, Harvard School of Dental Medicine
Simoes-Costa, Marcos, California Institute of Technology
Suryamohan, Kushal, University at Buffalo
Tweedt, Sarah, National Museum of Natural History
Waardenberg, Ashley, Victor Chang Cardiac Research Institute
Welsh, Ian, Cornell University
Wilson-Connelly, Jenny, University of California San Diego
Windner, Stefanie, Weselyan University
Immunohistochemistry & Microscopy

March 9 – March 14, 2013

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Murphy, Kelley, University of Utah
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Sawtell, Nancy, Cincinnati Children's Hospital Medical Center
Stahl, William, The Histochemical Society

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Martinez-Rivera, Noraida, University of Puerto Rico – Rio Piedras
Serrano-velez, Jose, University of Puerto Rico – Rio Piedras
Torres-vazquez, Irma, University of Puerto Rico – Rio Piedras

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Albino-Rodriguez, Elinette, Ponce School of Medicine and Health Sciences
Balogh, Erika, University of South Carolina
Bearce, Elizabeth, University of Missouri
Delaney, Martha, University of Washington
Dwyer, Gaelen, University of Alaska, Anchorage
Gabi Rodriguez, Ashla, University of Puerto Rico
Hernandez Perez, Nildimar, HRP Labs
Hernandez-Rivera, Siomara, Ponce School of Medicine and Health Sciences
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Lydon, John, Genzyme Corporation
Lydecker, Jessica, USA Medical Research Institute of Chemical Defense
Lydon, John, Genzyme Corporation
Morschhauser, Andrew, Celgene CTC
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Negron, Celimar, University of Puerto Rico
Nelson, Michael, University of Alabama at Birmingham
Nguyen, Daniel, The Forsyth Institute
Ngou, Monica, Eastern Virginia Medical School
Ochola, Donasian, Colorado State University
Olotu, Joy, University of Port Harcourt
Peterson, Dana, University of Alabama-Birmingham
Roberts, Errin, Genzyme
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Rosado Mendez, Eduardo, University of Puerto Rico
Shimasaki, Yukio, University of Massachusetts Medical School
Snow, Debra, Astra Zeneca Pharmaceuticals LP
Townsend, Jeremy, University of Central Florida
Trevino, Michelle, Eastern Virginia Medical School
Ye, Yilin, Allergan Pharmaceuticals
Methods in Computational Neuroscience

July 31 – August 28, 2013

COURSE DIRECTORS
Fee, Michale, Massachusetts Institute of Technology
Goldman, Mark, University of California, Davis

FACULTY
Abbott, Larry, Columbia University
Bean, Bruce, Harvard Medical School
Fairhall, Adrienne, University of Washington
Miller, Kenneth, Columbia University
Paninski, Liam, Columbia University
Seung, H. Sebastian, MIT
Solla, Sara, Northwestern University
Sompolinsky, Haim, Hebrew University

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Baccus, Stephen, Stanford University
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Bell, Curtis, Retired from Oregon Science & Health University
Bialek, William, Princeton University
Brody, Carlos, HHMI / Princeton University
Chklovskii, Dmitri, Howard Hughes Medical Institute
Dayan, Peter, University College London
Deisseroth, Karl, Stanford University
Denk, Winfried, Max-Plank institute for Medical Research
Ermentrout, Bard, University of Pittsburgh
Fiete, Ila, University of Texas at Austin
Gage, Gregory, Backyard Brains
Gallant, Jack, University of California Berkeley
Ganguli, Surya, Stanford University
Hausser, Michael, University College London
Kleinfield, David, University of California San Diego
Kopell, Nancy, Boston University
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Marder, Eve, Brandeis University
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Niv, Yael, Princeton University
Pillow, Jonathan, University of Texas at Austin
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Sejnowski, Terrence, Salk Institute
Shadlen, Michael, Columbia University Medical Center
Shea-brown, Eric, University of Washington
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Wolpert, Daniel, University of Cambridge

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Aljadeff, Yonatan, Salk Institute for Biological Studies
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Wayne, Gregory, Columbia University

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Udell, Julia, Children's Hospital of Oakland Research Institute

STUDENTS
Arzi, Anat, Weizmann Institute of Science
Barri, Alessandro, Paris Descartes University
Ben-Toy, Mor, Ben-Gurion University in the Negev
Bijanzadeh, Maryam, University of Utah
Blanchard, Tommy, University of Rochester
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Molecular Biology of Aging

July 21 – August 10, 2013

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Promislow, Daniel, University of Georgia

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Meselson, Matt, MBL
Ruvkun, Gary, Massachusetts General Hospital

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Anderson, Rozalyn, University of Wisconsin-Madison
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Nelson, James, University of Texas Health Science Center at San Antonio
Phillips, Patrick, University of Oregon
Pletcher, Scott, University of Michigan
Suh, Yousin, Albert Einstein College of Medicine
Tatar, Marc, Brown University
Wallace, Douglas, Children’s Hospital Research Institute

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Leiser, Scott, University of Washington
McCormick, Mark, Buck Institute for Research on Aging
Miller, Hillary, University of Washington

STUDENTS
Belew, Micah, University of Massachusetts Medical School
Bouchard, Jill, University of California, San Francisco (UCSF)
Brace, Lear, Harvard School of Public Health
Carvalho, Sara, Instituto Gulbenkian de Ciencia
Cogswell, Alexis, Northwestern University
Cuanalo Contreras, Luz, University of Texas Health Science Center
Daugherty, Aaron, Stanford University
Delaney, Colin, University of Michigan
Duncan, Francesca, Northwestern University
Foley, Nicole, University College Dublin
Howard, Amber, Mount Desert Island Biological Laboratory
Hung, Ruei-jiun, UT Southwestern Medical Center
Kaya, Alaattin, University of Nebraska-Lincoln
Molina, Anthony, Wake Forest University School of Medicine
Nacarelli, Timothy, Drexel University
Ozkurede, Varol, University of Michigan
Rollins, Jarod, Mount Desert Island Biological Laboratory
Schosserer, Markus, Institute of Applied Microbiology, BOKU Vienna
Sutphin, George, The Jackson Laboratory
Tillmann, Anna, UCL Institute of Healthy Aging
Molecular Mycology: Current Approaches to Fungal Pathogenesis

July 31 – August 16, 2013

COURSE DIRECTORS
Alspaugh, Andrew, Duke University School of Medicine
Hogan, Deborah, Dartmouth Medical School

FACULTY
Edwards, John, Harbor-UCLA Medical Center
Gladfelter, Amy, Dartmouth College
Konopka, James, Stony Brook University (SUNY)
Kronstad, Jim, University of British Columbia
Lin, Xiaorong, Texas A&M University
Mitchell, Aaron, Carnegie Mellon University
Mylonakis, Eleftherios, Brown University
Sheppard, Donald, McGill University
Wheeler, Robert, University of Maine
White, Ted, University of Missouri at Kansas City

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Brown, Alistair, University of Aberdeen
Casadevall, Arturo, Albert Einstein College of Medicine
Cramer, Robert, Geisel School of Medicine at Dartmouth
Deepe, George, University of Cincinnati College of Medicine
Heitman, Joseph, Duke University Medical Center
Krysan, Damian, University of Rochester
Noble, Suzanne, University of California, San Francisco
Perfect, John, Duke University Medical Center

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Esquivel, Brooke, University of Missouri at Kansas City
Grahlf, Nora, Dartmouth Medical School
Gravelat, Fabrice, McGill University
Nichols, Connie, Duke University Medical Center
Solis, Norma, LA Biomed
Willger, Sven, Geisel School of Medicine at Dartmouth

COURSE COORDINATOR
Edwards, Carol, Harbor UCLA Medical Center

STUDENTS
Beyda, Nicholas, University of Houston College of Pharmacy
Billmyre, Robert, Duke University
Dhingra, Sourabh, Dartmouth College Geisel School of Medicine
Drummond, Rebecca, University of Aberdeen
Ene, Iuliana, Brown University
Gerstein, Alezza, University of Minnesota
Green, Julianne, Cincinnati Children’s Hospital
Jhingran, Anupam, Fred Hutchinson Cancer Research Center
Jimenez-Lopez, Claudia, University of Texas- Health Science Center-Houston
Lindsay, Alla, Dartmouth College
Maeng, Shinae, Yonsei University
Mccarthy, Jason, Albert Einstein College of Medicine
Niemiec, Maria Joanna, Umea University
Polke, Melanie, Hans-Knoell-Institute Jena
Santiago, Felipe, Washington University School of Medicine
Selvig, Kyla, Duke University
Wong, Koon Ho, Harvard Medical School
Xie, Jing Lin, University of Toronto
Optical Microscopy & Imaging in the Biomedical Sciences

September 29 – October 9, 2013

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Hard, Robert, University at Buffalo
Shroff, Hari, NIH/NIBIB

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Day, Richard, Indiana University School of Medicine
DePasquale, Joseph, Morphogenyx Inc.
Lanni, Frederick, Carnegie Mellon University
McNally, James, NIH
Murray, John, University of Pennsylvania
North, Alison, The Rockefeller University
Sigurdson, Wade, University at Buffalo

LECTURERS
Xu, Chris, Cornell University
York, Andrew, NIH

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Ryan, Jennifer, Indiana University School of Medicine
Skau, Colleen, NIH/NHLBI

STUDENTS
Baj, Gabriele, University of Trieste
Bhatt, Jay, University of Alabama at Birmingham (UAB)
Brissette, Vincent, McGill University Health Centre
Chin, Fei Li Jasmine, National University of Singapore
Cichon, Magdalena, Mayo Clinic
Cohen, Sarah, NICHD, NIH
Cornog, Katherine, Applied Video Research
Dai, Heng, Vanderbilt University
Dorris, David, North Carolina State University
Ducano, Nadia, IRCC-Institute for Cancer Research at Candiolo
Gant, Thomas, Recondite Falls Discovery
Ham, Hyoungjun, Mayo Clinic
Jacob Vayttaden, Sharat, National Institute of Allergy and Infectious Diseases
Liarski, Vladimir, University of Chicago
Liu, Jun, Mechanobiology Institute Singapore
Marques, Guillermo, University Imaging Centers
Mazutis, Linas, Harvard University
O’Dell, Ryan, SUNY Upstate Medical University
Padilla, Angel, University of Georgia
Spencer, Juliet, University of San Francisco
Stasiewska, Ilona, Max F.Perutz Laboratories
Tremblay, Jessy, INRS-Institut Armand-Frappier
Yamanaka, Naoki, University of Minnesota
Strategies and Techniques for Analyzing Microbial Population Structures

July 31 – August 10, 2013

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Mark Welch, David, MBL
Sogin, Mitchell, MBL

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Brown, C. Titus, Michigan State University
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Knight, Rob, University of Colorado
Martiny, Jennifer, University of California, Irvine
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Quince, Christopher, University of Glasgow
Ravel, Jacques, University of Maryland School of Medicine
Theis, Kevin, Michigan State University

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Maignien, Lois, MBL
Robbins-Pianka, Adam, University of Colorado at Boulder
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Vazquez-baeza, Yoshiki, University of Colorado at Boulder
Welcher, Chris, Michigan State University

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O'Rourke, John, New Canaan High School

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Bittleston, Leonora, Harvard University
Bobé, Alexandria, The University of Chicago
Brannock, Pamela, Auburn University
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Carlile, Amy, University of New Haven
Chappell, Phoebe, University of Rhode Island
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Cope, Emily, University of California, San Francisco
De La Providencia, Ivan, Institut de Recherche en Biologie Verte
De Martini, Francesca, Arizona State University
Edlund, Johanna, Microbial Analytics Sweden
Fisher, Jenny, School of Freshwater Sciences UWM
Gabrielsen, Tove, UNIS – University Centre in Svalbard
Gibson, Molly, Washington University School of Medicine
Herath, Lasantha, University of Aarhus
Iida, Noriho, Kanazawa University
Jenkins, Bethany, University of Rhode Island
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Lin, Tzihuan, University of Massachusetts
Lopez, Jose, Nova Southeastern University Oceanographic Center
Malas, Tareq, King Abdullah University of Science and Technology
Martinez, Ines, University of Nebraska – Lincoln
Martinez, Kristina, University of Chicago
Summer Program in Neuroscience, Ethics & Survival

June 22 – July 20, 2013

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Berger-Sweeney, Joanne, Tufts University
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Jones, Kevin, Children's National Medical Center
Martinez, Joe, University of Illinois-Chicago
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Poe, Gina, University of Michigan
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Townsel, James, Meharry Medical College

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James, Eric, Brown University
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Mendez, Ian, University of California, Los Angeles
Melendez, Miguel, Universidad Central del Caribe
Pacheco, Natasha, University of Alabama at Birmingham
Perez, Xochitl, University of Puerto Rico
Pyronneau, Alexander, Albert Einstein College of Medicine
Reyes, Cindy, Albert Einstein College of Medicine
Rivera-Aponte, David, Universidad Central del Caribe
Winter, Samantha, Drexel University
Wright, Katherine, Florida State University College of Medicine
Workshop on Molecular Evolution

July 21 – July 31, 2013

COURSE DIRECTORS
Hillis, David, University of Texas at Austin
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John O. Corliss, Bala Cynwyd, PA
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Sullivan, Daniel
Toner, Michael¹

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Marcello, James
McAleer, Chris²
Schorer, Timothy¹

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Dumais, Bruce¹
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Waller, Shaelyn
Zeien, Kendra

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