



20th ANNUAL RESEARCH RETREAT

October 8 – October 9, 2015

Lincoln Campus Center & Hotel
(located on the Amherst campus)

Amherst, Massachusetts

Thursday, October 8, 2015

8:00 AM – 9:00AM	Registration and Light Breakfast (Concourse – first floor) Conference Room – Campus Center Auditorium – 1st Floor
9:00 AM – 9:15 AM	<p align="center">~ Welcome and Opening Remarks ~</p> <p align="center">Terence R. Flotte, MD Celia and Isaac Haidak Professor of Medical Education Dean, Provost and Executive Deputy Chancellor</p> <p align="center">Jean A. King, PhD Professor of Psychiatry, Radiology and Neurology Associate Provost for Biomedical Science Research</p>
9:15 AM – 11:35AM (Talks 20 min. each/Q&A 5 min.)	Session 1: A. Inflammation B. New Faculty
9:15 AM – 9:20 AM	<p align="center">Moderator: Thoru Pederson, PhD Professor , Department of Biochemistry and Molecular Pharmacology Associate Vice Provost for Research</p>
9:20 AM – 9:45 AM	<p><i>"Host-Pathogen Interactions: New Insights Underlying Mechanisms of Mucosal Inflammation"</i> Beth McCormick, PhD Professor and Vice-Chair Department of Microbiology and Physiological Systems</p>
9:45 AM – 10:10 AM	<p><i>"Alzheimer Dementia as a Neuroinflammatory Disease"</i> Doug Golenbock, MD Professor and Division Chief, Infectious Disease and Immunology Co-Director, Program in Innate Immunity Department of Medicine</p>
10:10 AM – 10:35 AM	<p><i>"Nucleic Acid Sensors and Autoimmunity"</i> Katherine Fitzgerald, PhD Professor and Co-Director, Program in Innate Immunity Department of Medicine</p>
10:35 AM – 10:45 AM	Coffee Break (Concourse- 1st floor)

10:45 AM – 11:10 AM	<p><i>“Natural Selection, Disease and Genome Function in Humans and Dogs”</i> Elinor Karlsson, PhD Assistant Professor Program in Bioinformatics and Integrative Biology</p>
11:10 AM – 11:35 AM	<p><i>“The Impact of Resource Sharing on Transcriptional Regulation and Beyond”</i> Robert Brewster, PhD Assistant Professor Program in Systems Biology</p>
11:35 AM – 12:00 PM	<p><i>“Amino Acid Metabolism in Cancer”</i> Dohoon Kim, PhD Assistant Professor Department of Molecular, Cell and Cancer Biology</p>
12:00 PM – 1:30 PM	Lunch (Student Union Ballroom – 1st floor)
1:30 PM – 2:55 PM	Session 2: Chancellor’s Medal for Distinguished Research
1:30 PM – 2:30 PM	<p>Chancellor’s Medal for Distinguished Research-Keynote Address ~ Introduction ~</p> <p>Michael F. Collins, MD, FACP Senior Vice President for the Health Sciences, University of Massachusetts Chancellor, University of Massachusetts Medical School</p>
2:30 PM – 2:55 PM (Talk 20 min. /Q&A 5 min.)	Session 3: UMass Amherst Research
2:30 PM - 2:55 PM	<p>Introduction: Katherine Luzuriaga, MD Professor, Program in Molecular Medicine, Pediatrics, and Medicine Director, UMass Center for Clinical and Translational Science (UMCCTS) and Office of Global Health; Vice Provost, Clinical and Translational Research</p> <p><i>“An Adaptor Hierarchy Controls Protease Selectivity During a Bacterial Cell Cycle”</i> Peter Chien, PhD Associate Professor Department of Biochemistry & Molecular Biology</p>
2:55 PM – 5:10 PM (Talks 15 min. each/Q&A 5 min.)	Session 4: Student and Post-Doc Talks
2:55 PM – 3:00 PM	<p>Moderators: Anthony Carruthers, PhD, Dean GSBS; and Anthony Imbalzano, PhD, Director, Office of Postdoctoral Scholars</p>
3:00 PM – 3:20 PM	<p><i>“Inhibition of Sterile Danger Signals and ATP and Uric Acid Production Prevents Inflammasome Activation and Protects from Alcoholic Liver Disease”</i> Student: Arvin Iracheta-Vellve (Translational Sciences Graduate Program) Mentor: Gyongyi Szabo</p>
3:20 PM – 3:40 PM	<p><i>“Guiding Axons through a Sweet Partnership: a Glypican Modulates Netrin Signals”</i> Student: Cassie Blanchette (Neuroscience Graduate Program) Mentor: Claire Bénard</p>

3:40 PM – 4:00PM	<p><i>“Understanding Broadly Neutralizing Antibodies in Influenza”</i> Student: Kristina Prachanronarong (MD/PhD Program) Mentor: Celia Schiffer (Department of Biochemistry and Molecular Pharmacology)</p>
4:00 PM – 4:15 PM	Break
4:15 PM – 4:35 PM	<p><i>“Paternal Nicotine Exposure Alters Nicotine Tolerance in F1 Males”</i> Student: Markus Vallaster (Interdisciplinary Graduate Program) Mentor: Oliver Rando</p>
4:35 pm – 4:55 PM	<p><i>“The IFT81 Tubulin-binding Domain and the IFT74 N-terminus Individually are Dispensable but Together are Crucial for Flagellar Assembly”</i> Tomohiro Kubo Mentor: George Witman (Department of Cell and Developmental Biology)</p>
4:55 PM – 5:15 pm	<p><i>“Sex Determination is Regulated by an Embryonically-expressed MicroRNA Family in C. elegans”</i> Katherine McJunkin Mentor: Victor Ambros (Program in Molecular Medicine)</p>
5:15 PM – 5:35 PM (Talk 15 min. /Q&A 5 min.)	Session 5: Guest Speaker
5:15 Pm – 5:35 PM	<p>Introduction: Terence R. Flotte, MD Celia and Isaac Haidak Professor of Medical Education Dean, Provost and Executive Deputy Chancellor</p> <p>Stephen Paul, MD CEO, Voyager Pharmaceuticals “Alzheimer’s Disease: Genes and Therapies”</p>
5:35PM – 7:30 PM	Poster Session and Reception (Concourse – 1st floor)
7:30 PM – 9:30 PM	Dinner (Student Union Ballroom- 1st floor)
	<p>Presentation: The Dan Mullen Awards for Best Posters Anthony Carruthers, PhD, Dean GSBS; Kendall Knight, PhD Associate Dean, GSBS</p> <p>Celebration: 20th Anniversary of the Retreat Hosted by UMass Leadership, Dean Flotte and Chancellor Collins</p>
9:30 PM – 11:00 PM	Networking

Friday, October 9, 2015

<p>7:30 AM – 8:30 AM</p>	<p>Breakfast (Student Union Ballroom- 1st floor)</p>
<p>8:30 AM – 8:40 AM</p>	<p align="center">~ <i>Opening Remarks</i> ~</p> <p align="center">Katherine Luzuriaga, MD Professor, Program in Molecular Medicine, Pediatrics, and Medicine Director, UMass Center for Clinical and Translational Science (UMCCTS) and Office of Global Health; Vice Provost, Clinical and Translational Research</p>
<p>8:40 AM – 10:25 AM (Talks 20 min. each/Q&A 5 min.)</p>	<p align="center">Session 6: Diabetes</p>
<p>8:40 AM – 8:45 AM</p>	<p align="center">Moderator: Michael P. Czech, PhD <i>Professor and Chair, Program in Molecular Medicine</i></p>
<p>8:45 AM – 9:10 AM</p>	<p><i>"Homeostatic Control of Pancreatic β-Cell Number by Insulin Demand"</i> Laura Alonso, MD Associate Professor Department of Medicine</p>
<p>9:10 AM – 9:35 AM</p>	<p><i>"Type 2 Diabetes Causes Hematopoietic Stem Cell Oxidative Stress that Reduces Their Differentiation Towards Monocytes and Thereby Impairs Wound Healing"</i> Louis Messina, MD Professor Department of Surgery</p>
<p>9:35AM – 10:00 AM</p>	<p><i>"Clinical Trials at the UMass Diabetes Center of Excellence"</i> Michael Thompson, MD Clinical Professor Department of Medicine</p>
<p>10:00 AM – 10:25 AM</p>	<p><i>"Adipose Tissue Angiogenesis and Metabolic Disease"</i> Silvia Corvera, MD Professor Program in Molecular Medicine</p>
<p>10:25AM – 12:10 PM (Talks 20 min. each/Q&A 5 min.)</p>	<p align="center">Session 7: Mechanisms of Cardiovascular Development and Disease</p>
<p>10:25 AM – 10:30 AM</p>	<p align="center">Moderator : Michael R. Green, MD, PhD <i>Chair and Professor</i> <i>Department of Molecular, Cell and Cancer Biology</i></p>
<p>10:30 AM – 10:55 AM</p>	<p><i>"Zebrafish Models of Vascular Development and Disease"</i> Nathan Lawson, PhD Professor Department of Molecular, Cell and Cancer Biology</p>
<p>10:55 AM – 11:20 AM</p>	<p><i>"Molecular and Cellular Basis of Congenital Heart Disease"</i> Chinmay Trivedi, MD, PhD Assistant Professor Department of Medicine</p>

11:20 AM – 11:45 PM	<p><i>“Using Populations to Understand Mechanisms of Cardiovascular Disease”</i> Jane Freedman, MD Professor Department of Medicine</p>
11:45 AM – 12:10 PM	<p><i>“Redox Control of Vascular Homeostasis”</i> John Keane, MD Professor Department of Medicine</p>
12:10 PM – 12:40 PM	Box Lunch
12:40 PM – 2:45 PM (Talks 15 min. each/Q&A 5 min.)	Session 8: New Technology
12:40 PM – 12:45 PM	<p>Moderator: Celia Schiffer, PhD Professor Department of Biochemistry and Molecular Pharmacology</p>
12:45 PM – 1:05 PM	<p><i>“Cryo-EM”</i> Andrei Korostelev, PhD Assistant Professor Department of Biochemistry and Molecular Pharmacology</p>
1:05 PM – 1:25 PM	<p><i>“Humanized Mice”</i> Michael Brehm, PhD Associate Professor Program in Molecular Medicine</p>
1:25 PM – 1:45 PM	<p><i>“Advances in AAV-Mediated In Vivo Gene Delivery”</i> Guangping Gao, PhD Professor, Department of Microbiology and Physiology Systems Director, Gene Therapy Center</p>
1:45 PM – 2:05 PM	<p><i>“Super-Resolution Microscopy”</i> Jon Goguen, PhD Associate Professor Department of Microbiology and Physiological Systems</p>
2:05 PM – 2:25 PM	<p><i>“Small Molecule Screening”</i> Sangram Parelkar, PhD Postdoctoral Associate Department of Biochemistry and Molecular Pharmacology</p>
2:25 PM – 2:35 PM	Announcements/New Initiatives
2:35 PM – 2:45 PM	<p>~ Closing Remarks ~</p> <p>Jean A. King, PhD Professor of Psychiatry, Radiology and Neurology Associate Provost for Biomedical Science Research</p>
3:00 PM	Bus Returning to the UMass Worcester Campus