



# BioMolecular Science Gateway Student Orientation 2016

***Biochemistry & Molecular Biology; Cell & Molecular Biology Program  
Genetics Program; Microbiology & Molecular Genetics  
Pharmacology & Toxicology; Physiology***

**Monday, August 22**

- 9:30 – 9:45 a.m.**      **BMS Orientation – 1425 BPS**
- 9:45 – 10:00**      **Department and Program Introductions, 1425 BPS  
– Dr. John LaPres**
- 10:00 – 10:10**      **Biochemistry and Molecular Biology – Dr. Jon Kaguni**
- 10:10 – 10:20**      **Cell and Molecular Biology – Dr. Susan Conrad**
- 10:20 – 10:30**      **Genetics Program – Dr. Cathy Ernst**
- 10:30 – 10:40**      **Microbiology and Molecular Biology – Dr. Donna Koslowsky**
- 10:40 – 10:50**      **Pharmacology and Toxicology – Dr. Anne Dorrance**
- 10:50 – 11:00**      **Physiology – Dr. Susanne Mohr**
- 11:00 – 11:15 a.m.**      **Break**
- 11:15 – 11:30**      ***Overviews in 1425 Biomedical Physical Sciences:*  
Dr. Susan Kendall, Library Resources (MSU Libraries)**
- 11:30 – 11:45**      **Dr. Bob Roth, Institute for Integrative Toxicology Program**
- 11:45 – 12:00 noon**      **Dr. Michael Garavito, Quantitative Biology Program**
- 12:00 p.m.**      **Lunch by Noodles & Company, in 1425 Biomedical Physical  
Sciences for all new BMS graduate students**
- 1:30 p.m.**      **Student Panel Discussion 1425 BPS – how to select rotations**

## Monday Afternoon, August 22

<b>Monday August 22</b>		<b>B448 Life Sciences Student Moderator: Kevin Baker</b>
<b>Quantitative/Systems Biology and Genomics</b>		
<b>Drug Discovery and Toxicology</b>		
<b>Disease</b>		
2:15	Dr. Sophia Lunt	Cancer Metabolomics
2:30	Dr. Eva Farre	Knowing the Time: Circadian Rhythms in Plants and Algae
2:45	Dr. Ingo Braasch	What Fish Genomes Can Tell Us About Human Biology and Vertebrate Evolution
3:00	Dr. Yann Dufour	Behavior and Signaling in Pathogenic Bacteria
3:15	Dr. Robin Buell	Genomics-enabled Discoveries in Plants
3:30	Dr. Leslie Kuhn	Protein Structure-Based Drug Discovery
3:45	Dr. Jim Pestka	How Do Dietary Lipids Impact Toxicant-Triggered Autoimmune Disease?
4:00	Dr. Stephanie Watts	Pharmacology is Phat...Studies in the Vasculature (and fat!)
4:15	Dr. Karen Liby	Inflammation and Cancer
4:30	Dr. Jim Luyendyk	Factor One: A Clot Wars Story...About Blood Clotting and Tissue Repair

## Tuesday Morning, August 23

<b>Tuesday August 23</b>		<b>208 Biochemistry Student Moderator: Mitch Roth</b>
<b>Molecular Basis of Disease</b>		
8:45	Dr. Brad Day	Stomatal Immunity: A Paradigm for the Convergence of Genetic and Cellular recognition of Pathogens
9:00	Dr. Brian Gulbransen	The Brain in Your Gut
9:15	Dr. Eran Andrecheck	Breast Cancer – Genomic and Genetic Modeling
9:30	Dr. Kathy Meek	Non-Homologous End Joining: The Means to Justify the Ends
9:45	Dr. Hua Xiao	Liver Cancer and Mouse Models
10:00	Dr. Hariharam Subramanian	Mast Cells and Allergy
10:15	<b>Break</b>	
10:30	Dr. Hongbing Wang	Psychiatric Disorder, Mechanism, and Therapeutic Strategy
10:45	Dr. Laura McCabe & Dr. Nara Parmeswaran	Uncovering Mechanisms of Gut-bone Signaling a Role for Immune Cells
11:00	Dr. Jason Gallant	Electric Fish
11:15	Dr. Rupali Das	NKT Cells in Cancer Immunotherapy
11:30	Dr. Christina Chan & Dr. Ryan Thompson	Investigating Neural Differentiation of Mesenchymal Stem Cells
11:45	Kristin Parent	Viral Entry into Hosts: Structures, Mechanisms, and Evolution

**Noon – 1:00 p.m.: Lunch Provided by Qdoba for New Students and Student Mentors,  
1425 BPS**

## Tuesday Afternoon, August 23

**Tuesday  
August 23**

**1425 Biomedical Physical Sciences  
Student Moderator: Ashley Severance**

### **Reproductive and Developmental Sciences Program**

1:15	Dr. Keith Latham	Overview of research in the RDSP
1:30	Dr. Ron Chandler	Renal Stem Cells in Kidney Regeneration and Cancer
1:45	Dr. Jae Wook Jeong	Steroid hormone Regulation of Uterine Function and Dysfunction
2:00	Dr. Niraj Joshi for Dr. Asgi Fazleabas	Role of Notch and microRNA's in Reproductive Diseases
2:15	Dr. Amy Ralston	New Stem Cell Models for Investigation of Reproductive Diseases
2:30	Dr. Keith Latham	Controlling Developmental Processes in Mammalian Oocytes and Embryos
2.45	Dr. Julia Ganz	Using Zebrafish to Model Enteric Nervous System Development, Disease and Function

## Wednesday, August 24

<b>Wednesday August 24</b>		<b>1425 Biomedical Physical Sciences</b>
<b>Mandatory Office of Radiation, Chemical, and Biological Safety Training</b>		
8:30	Katie Kohn	Council of Graduate Students
8:45	Emily Frankman	GEU Representative
9:00	Stephanie Smith-Edwards	Biological Safety Training
9:15	Jean Chisnell & Joe Hattey	EHS Environmental Health & Safety
12:00	<b>Lunch</b>	Provided by McAlister's Deli
1:00	Dr. Stephanie Watts	Responsible Conduct of Research
2:00	Julie Rojewski	BEST Broadening Experience in Scientific Training (BEST) program
2:30	Dr. Chris Adami	BEACON Center for the Study of Evolution in Action
3:00	Lynne Steele & Charlene Rogers	Payroll Information
3:30	BMS Staff	Pictures of New Recruits

## Thursday, August 25, Morning

<b>Thursday August 25</b>		<b>168 Plant Biology Student Moderator: Heather Miller</b>
<b>Plant Molecular Biology</b>		
<b>Macromolecular Structure, Function and Design</b>		
8:30	Dr. Bjorn Hamberger	Synthetic Biology of Plant Specialized Metabolism
8:45	Dr. Sheng Yang He	Plant-Pathogens Interactions
9:00	Dr. Jianping Hu	Plant Energy Organelles Coordinated Dynamics and Function
9:15	Dr. Hideki Takahashi	Macronutrient and Small Peptide Signaling in Plants
9:30	Dr. David Kramer	Photosynthesis, From Radical Biology to Radical Science
9:45	Dr. Gregg Howe	Hormonal Control of Plant Growth, Development and Immunity
10:00	<b>Break</b>	
10:15	Dr. Gemma Reguera	Microbes, Cables, and an Electrical Touch
10:30	Dr. Xiangshu Jin	Molecular Interactions Regulating Autophagy
10:45	Dr. Charlie Hoogstraten	Dynamics and Function in RNA Catalysis: NMR Spectroscopy, Biophysics, and the Invention of Proteins
11:00	Dr. Zachary Burton	Evolution of Transfer RNA from the Proto-tRNA Minihelix World

**11:30 – 1:15 Lunch on your own**

## Thursday, August 25, Afternoon

<b>Thursday August 25</b>		<b>208 Biochemistry Student Moderator: Patrick Schneider</b>
<b>Microbial Metabolism and Physiology</b>		
1:15	Dr. Norma Martinez-Gomez	Living on "Rare" Earth Elements: Methyloprophs Are The New Seeds of Technology
1:30	Dr. Danny Ducat	Circadian Gating of Cyanobacterial Division Highlights Opportunities to Improve Green Energy Production
1:45	Dr. Eric Hegg	Enzymology of Biofuel Production
2:00	Dr. Neal Hammer	Metabolite Exchange Promotes Virulence of Antibiotic-resistant Staphylococcus Aureus Communities
2:15	Dr. Michaela TerAvset	Dissection and Redesign of Bacterial Respiration for Biotechnology
2:30	Dr. Chris Waters	Beautiful Microbial Signals
2:45	Dr. Rob Abramovitch	Mechanisms of Mycobacterium Tuberculosis Pathogenesis
3:00	Dr. Bill Atchison	Gene X Environment Contributions to Neurodegenerative Disease

## **Saturday, August 27**

10:00 -12:00 MSU Graduate School Resource Fair, MSU Union Ballroom

12:00 – 3:00 pm MSU Graduate School Welcome Back Picnic



For New and Returning Graduate Students and Professional Students, Post Docs, Friends and Family

Lawn between Linton Hall and Beaumont Tower

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## **Monday, August 29**

8:00 AM BMS Retreat at East Lansing Hannah Community Center

6:00 PM BMS Picnic at Patriarche Park

## **Wednesday, August 31**

Classes Begin: