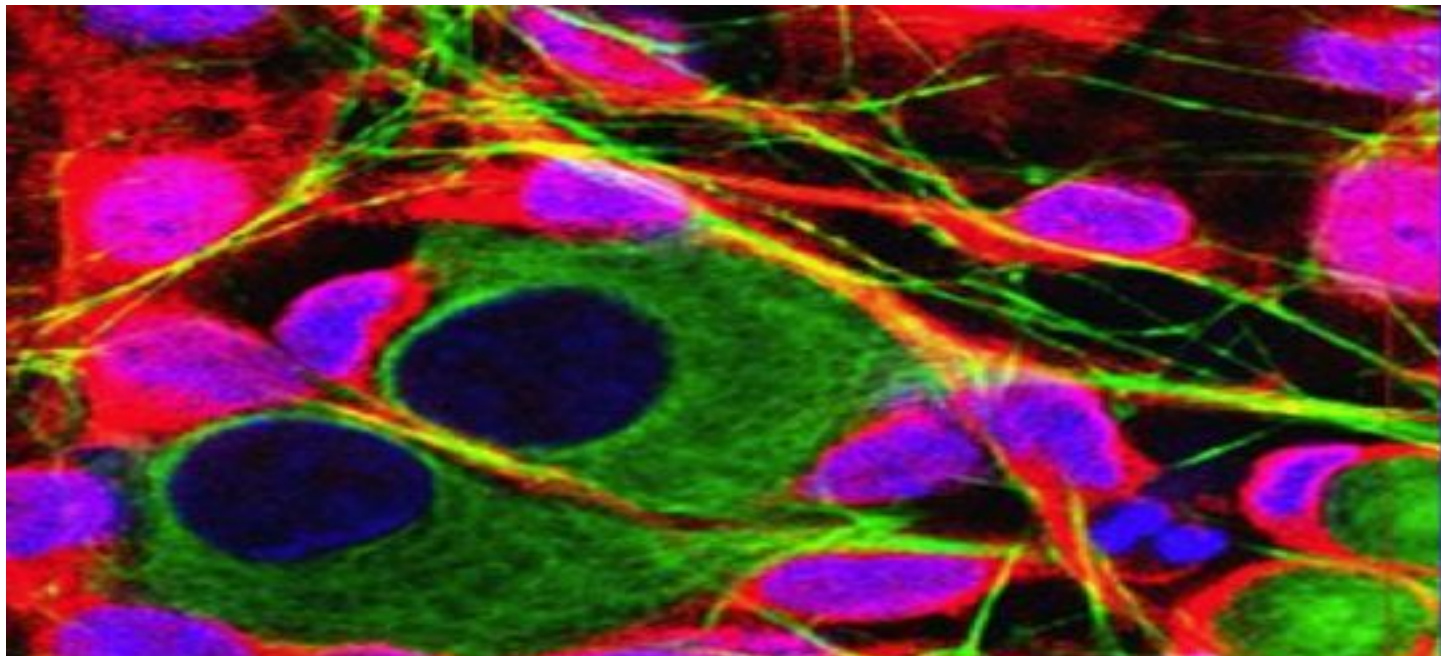


2018 Department of Biochemistry Symposium



Sponsored by the Biochemistry Student Association
and the Biochemistry Department

Tuesday, February 20, and
Wednesday, February 21, 2018

Tuesday, February 20th (Student Life Center)

- 1:00-1:30 p.m. Poster Setup & Registration
- 1:40-3:00 p.m. **Heath Patterson - Post-doc, Caprioli Lab**
Next generation histology-directed imaging mass spectrometry for rapid molecular characterization of 1000s of human kidney glomeruli
- Christian Meyer - Graduate Student, Quaranta Lab**
Quantifying Drug Synergy along Axes of Potency and Efficacy
- Frank Mason - Faculty, Kim Rathmell Lab**
Loss of the tumor suppressor SETD2 leads to ultra-fine bridges during mitosis
- 3:00-3:10 p.m. Short Break
- 3:10-4:10 p.m. **Lauren Jackson - Faculty**
Architecture of mammalian retromer dimers
- Christi Salisbury-Ruf - Graduate Student, Zinkel Lab**
Rip1 dependent necroptosis is involved in maintaining erythropoiesis
- Aaron Fidler - Post-doc, Hudson Lab**
The triple helix of collagens: a fundamental protein structure for storage and utilization of information in building scaffolds outside of cells
- 4:10-6:30 p.m. Poster Session / Wine & Cheese

Wednesday, February 21st (Student Life Center)

- 8:30-9:10 a.m. Breakfast / Registration
- 9:15-10:20 a.m. **Justin Marinko - Graduate Student, Sanders Lab**
Identification of the Factors that Mediate Plasma Membrane Trafficking of Peripheral Myelin Protein 22
- Andy Hale - Graduate Student, York Lab**
Alterations in intestinal sulfur assimilation metabolism regulates iron homeostasis
- Yi Ren - Faculty**
Molecular determinants of mRNA nuclear export
- 10:20-10:30 a.m. Short Break
- 10:30-12:00 p.m. **Michael Goodman - Graduate Student, Marnett Lab**
Dual cyclooxygenase-fatty acid amide hydrolase inhibitor exploits novel binding interactions in the cyclooxygenase active site
- Matt Albertolle - Graduate Student, Guengerich Lab**
Oxidative Regulation of Cytochromes P450
- Elizabeth Gibson - Graduate Student, Osheroff Lab**
Mechanism of Action of Mycobacterium tuberculosis Gyrase Inhibitors: A Novel Class of Gyrase Poisons
- James Pino - Graduate Student, Lopez Lab**
Automated inference of the mechanism of action of bendamustine using time-series multi-omic data
- 12:00 p.m. - 1:30 p.m. Lunch / Poster Session
- 1:30-2:30 p.m. **Ray Blind - Faculty**

Crystallographic and kinetic analyses of the human Inositol Polyphosphate Multikinase (IPMK) reveal intrinsic kinase auto-regulation mediated by disordered domains

Sarah Wessel - Post-doc, Cortez Lab

Identification and characterization of the replication fork proteome

Katie Rothamel - Graduate Student, Ascano Lab

Discovery of cellular targets of the IFIT antiviral RNA-binding protein family

2:30-2:40 p.m.

Short Break

2:40-3:00 p.m.

Chytil Award Remarks

3:00-4:00 p.m.

Cunningham Award Talks

4:00-4:10 p.m.

Short Break

4:10-5:10 p.m.

Natasha Kozlyuk - Post-doc, Chazin Lab

Designing inhibitors for RAGE-ligand interactions using fragment-based molecular discovery approach

James Dewar - Faculty

Termination of vertebrate DNA synthesis

Timothy Scott - Graduate Student, Hodges Lab

TBD

5:10-7:00 p.m.

Reception and Award Announcements at Student Life Center

Also Take Down Posters at this Time

Posters

1. Andy Hale – Graduate Student, York Lab

Alterations in intestinal sulfur assimilation metabolism regulates iron homeostasis

2. Jonathan Attalla – Staff, Hodges Lab

Leveraging cell-type specific DNA methylation patterns to identify genome-phenome relationships in non-coding regions

3. Johanna Schafer – Graduate Student, Pietenpol Lab

Combination Treatment with Bromodomain and Extra-Terminal Motif Inhibitors (BETi) in Triple-Negative Breast Cancer (TNBC)

4. Alex Trevisan – Graduate Student, Carter Lab

The role of Jedi in the development and function of sensory neurons

5. Archana Krishnamoorthy – Graduate Student, Cortez Lab

RADX regulates RAD51 to control replication fork protection

6. Leonard Harris – Post-doc, Quaranta/Lopez Lab

Bet Hedging as a Survival Strategy in Cancer Cell Populations

7. Evan Perry – Graduate Student, Fesik Lab

Discovery of Small Molecule Inhibitors of the PD-1 Immune Checkpoint Pathway

8. Petria Thompson – Graduate Student, Cortez Lab

HMCES/SRAP in DNA Replication and Repair

9. Lorena Infante – Graduate Student, Osheroff Lab

Tailor-made oligonucleotides can stabilize type II topoisomerase-mediated DNA cleavage on cancer-specific sequences

10. **Sarah Arcos – Graduate Student, Ascano Lab**
N⁶-methyladenosine-dependent regulation of RNA during Chikungunya virus infection and innate immune activation
11. **Thomas Bass – Graduate Student, Cortez Lab**
Quantitative phosphoproteomics reveal mitotic function of the ATR-activating protein ETAA1
12. **Adrian Olivares – Faculty**
Understanding nuclear mechanochemistry
13. **Kareem Mohni – Post-doc, Cortez Lab**
TBD
14. **Rose Follis – Graduate Student, Carter Lab**
Deletion of the p75 neurotrophin receptor in Schwann cells results in sensory neuron loss
15. **Darren Tyson – Faculty, Quaranta Lab**
High-throughput, unbiased analysis of dose-dependent antiproliferative drug effects
16. **Taha M Abdelkhale – Graduate Student, Cortez Lab**
Probing RADX protein interactions using affinity proteomics
17. **Vaughn Thada – Graduate Student, Cortez Lab**
Mechanism of ATR activation by TOPBP1 and ETAA1
18. **Remy Le Meur – Post-doc, Chazin Lab**
Expression, Purification and Initial Characterization of a Newly Discovered Replication Stress Response Protein: RadX
19. **Jessican Moore – Post-doc, Caprioli Lab**
Ionic Liquid Matrices for Histology-Directed MALDI MS Analysis of Tissues
20. **Blake A. Wilson – Post-doc, Lopez Lab**
Insight into the effects of tetralineoyl cardiolipin in mitochondrial membranes from all-atom molecular dynamics simulations
21. **Lindsey Redman – Graduate Student, Pietenpol Lab**
Targeting the mutant p53 adaptive state in a triple negative breast cancer isogenic setting
22. **Romell Gletten – Graduate Student, Schey Lab**
Proteomic characterization of aquaporin-5 protein-protein interactions and phosphorylation in the ocular lens
23. **Bishal Paudel – Post-doc, Quaranta Lab**
To divide or die: drug response dynamics in BRAF-mutated melanoma cells
24. **Wenpeng Liu – Post-doc, Cortez Lab**
Identification of ZNF280C as a novel fork stabilization protein
25. **Clayton Marshall – Post-doc, Pietenpol Lab**
Cigarette Smoke Shifts the balance of p73 and p63 Expression in Airway Epithelial Cells
26. **Scott Beeler – Graduate Student, Pietenpol Lab**
Tissue specific expression of p63 and p73 isoforms in humans and mice
27. **Gabriela Santos Guasch – Graduate Student, Pietenpol Lab**
The role of p73 in hormonally regulated tissues
28. **Marroof Khan Zafarr – Post-doc, Cortez Lab**

Investigating the Mechanism of ATR and Wee 1 kinase inhibitors

29. Cheryl L. Law – Graduate Student, Sanders Lab

TBD

30. Boone Prentice – Post-doc, Caprioli Lab

Visualizing the Lipidome at Cellular Resolutions Using Imaging Mass Spectrometry

31. Hyojik Yang – Post-doc, Caprioli Lab

Phosphopeptide enhancement in MALDI IMS Experiments

32. Danielle Gutierrez – Faculty, Caprioli Lab

A High-throughput Omics Pipeline for Comprehensive Analysis of Challenged Human Cells

33. Keisha N. Hardeman – Post-doc, Quaranta Lab

Fatty Acid β -oxidation in BRAF-mutated Melanomas Is Uncoupled From Proliferation

34. Nichole Lareau – Post-doc, Caprioli Lab

MALDI Imaging Mass Spectrometry for the Study of Diabetic Kidney Disease in Zebrafish