

# Molecular Genetics & Microbiology Graduate Program Newsletter

Summer 2016 Vol. 9, No. 2



## New Publications

**Bhagwat, A.S.**, Roe, J.S., Mok, B.Y., Hohmann, A.F., Shi, J., and Vakoc, C.R. 2016. BET bromodomain inhibition releases the mediator complex from select *cis*-regulatory elements. *Cell Reports* 15(3): 519-530.

**Bryan, A.M.**, Del Poeta, M., and Luberto, C. 2015. Sphingolipids as regulators of the phagocytic response to fungal infections. *Mediators of Inflammation* 2015: 640540.

**Bridges, R.G.**, Sohn, S.Y., Wright, J., Leppard, K.N., and Hearing, P. 2016. The adenovirus E4-ORF3 protein stimulates SUMOylation of general transcription factor TFII-I to direct proteasomal degradation. *MBio* 7(1): e02184-15.

**Chahales, P.**, Hoffman, P.S., and Thanassi, D.G. 2016. Nitazoxanide inhibits pilus biogenesis by interfering with folding of the usher protein in the outer membrane. *Antimicrobial Agents and Chemotherapy* 60(4): 2028-2038.

**Chung, L.K.**, and Bliska, J.B. 2016. Yersinia vs. host immunity: how a pathogen evades or triggers a protective response. *Current Opinion in Microbiology* 29: 56-62.

**Espaillet, M.P.**, Adada, M.M., Shamseddine, A.A., Hannun, Y.A., and Obeid, L.M. 2015. Ceramide and sphingosine-1-phosphate in cancer, two faces of the sphinx. *Translational Cancer Research* doi: 10.3978/j.issn.2218-676X.2015.10.01

**Ivanova, E.**, and Carpino, N. 2016. Negative regulation of TCR signaling by ubiquitination of Zap-70 Lys-217. *Molecular Immunology* 73: 19-28.

Jain, N., Bouklas, T., Gupta, A., Varshney, A.K., **Orner, E.P.**, and Fries, B.C. 2015. ALL2, a homologue of ALL1, has a distinct role in regulating pH homeostasis in the pathogen *Cryptococcus neoformans*. *Infection and Immunity* 84(2): 439-451.

**Nomakuchi, T.T.**, Rigo, F., Aznarez, I., and Krainer, A.R. 2016. Antisense-oligonucleotide-directed inhibition of nonsense-mediated mRNA decay. *Nature Biotechnology* 34(2): 164-166.

Pham, T., Henderson, N.S., **Werneburg, G.T.**, Thanassi, D.G., and Delcour, A.H. 2016. Electrostatic networks control plug stabilization in the PapC usher. *Molecular Membrane Biology* 16: 1-10.

## ☒ Publications (continued)

Schoberle, T.J., **Chung, L.K.**, McPhee, J.B., Bogin, B., and Bliska, J.B. 2016. Uncovering an important role for YopJ in the inhibition of caspase-1 in activated macrophages and promoting *Yersinia pseudotuberculosis* virulence. *Infection and Immunity* 84(4): 1062-1072.

Torres, A., Luke, J.D., **Kullas, A.L.**, Kapilashrami, K., botbol, Y., Koller, A., Tonge, P.J., Chen, E.I., Macian, F., and van der Velden, A.W. 2016. Asparagine deprivation mediated by *Salmonella* asparaginase causes suppression of activation-induced T cell metabolic reprogramming. *Journal of Leukocyte Biology* 99(2): 387-398.

**Zheng, Y.**, Stamminger, T., and Hearing, P. 2016. E2F/Rb family proteins mediate interferon-induced repression of adenovirus immediate early transcription to promote persistent viral infection. *PLoS Pathogens* 12(1): e1005415.

## ☒ 2016 Presentations

**Bridges, R.G.**, Sohn, S.-Y., Wright, J., Leppard, K.N., and Hearing, P. The Adenovirus E4-ORF3 Protein Stimulates SUMOylation of the General Transcription Factor TFII-I to Direct Proteasomal Degradation. DNA Tumor Virus Meeting 2016. July 18-23, Montreal, Canada.

**Chung, L.** Infection by Injection: How Pathogenic *Yersinia* Activate and Subvert Immune Responses. Provost's Graduate Student Lecture Series. March 24, 2016, Stony Brook, NY.

**Espaillet, M.P.** The Lipids in Your Gut: Defining the Role of Sphingolipids in Inflammatory Bowel Disease. Research Café Series, Center for Inclusive Education. March 21, 2016. Stony Brook, NY.

Fan, G., Bonham, C., **Zhang, S.**, Haque, A., and Tonks, N.K. Interplay between PARP1 and PTP1B Modulates Signaling in Insulin-Resistant HepG2 Cells. The PARP Family and ADP-Ribosylation. April 13-16, 2016. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.

**Kopping, E.J.**, and Thanassi, D.B. TolC-Dependent Modulation of Host Cell Death by *F. novicida*. Gordon Research Conference on Microbial Toxins and Pathogenicity. July 10-15, 2016. Waterville Valley, NH.

**Werneberg, G.** Dissection of Usher-Chaperone-Subunit Interactions during Pilus Biogenesis in *Escherichia coli*. Provost's Graduate Student Lecture Series. March 24, 2016, Stony Brook, NY.

**Zhang, S.**, Hao, Y., Hammell, M., Wilkinson, J.E., and Tonks, N.K. A Functional Study in Animal Models Identifies PTPN23 as a Tumor Suppressor in Breast Tumorigenesis through Modulation of FYN Activity. 81<sup>st</sup> Cold Spring Harbor Laboratory Symposium on Quantitative Biology. June 1-5, 2016. Cold Spring Harbor, NY.

## 2016 Awards

**Kopping, E.** (2016). Distinguished Travel Award, \$700. Graduate Student Organization.

## 2016 Graduations

Dr. Anand Bhagwat, PhD (Mentor: Christopher Vakoc). Anand has started the clinical phase of the Medical Scientist Training Program at Stony Brook University.

Dr. Lawton Chung, PhD (Mentor: James Bliska). Lawton has accepted a postdoctoral research position in the laboratory of Dr. Manuella Raffatellu in the Department of Microbiology and Molecular Genetics at the University of California, Irvine, School of Medicine.

Dr. Elitza Ivanova, PhD (Mentor: Nicholas Carpino). Ellie has accepted a postdoctoral research position at Stony Brook University.

Dr. Tomoki Nomakuchi, PhD (Mentor: Adrian Krainer). Tomoki has started the clinical phase of the Medical Scientist Training Program at Stony Brook University.

Dr. Hirel Patel, PhD (Mentor: Jessica Seeliger). Hiren, a member of the Medical Scientist Training Program, will begin the clinical phase of his medical school training beginning May 31, 2016.

Dr. Glenn Werneberg, PhD (Mentor: David Thanassi). Glenn has started the clinical phase of the Medical Scientist Training Program at Stony Brook University.

Dr. Yueting Zheng, PhD (Mentor: Patrick Hearing). Ting graduated in December 2015 and has recently accepted a postdoctoral position at the Center for Cell and Gene Therapy at Baylor College of Medicine.

## First-Year MGM Students Join Labs

Aniska Chikhalya - Patrick Hearing's laboratory

Ramon Perez - Sumita Bhaduri-McIntosh's laboratory

## Save the Date ~ Annual MGM Retreat

The 38<sup>th</sup> annual retreat of the Department of Molecular Genetics & Microbiology will be held **Friday September 23, 2016** at the Port Jefferson Village Center. The faculty organizer of this year's retreat is Nancy Reich-Marshall.

## Welcome to the Incoming Class of 2016

Peter Benziger, B.A. in Biology, Hartwick College

Steven Ketchum, B.A. in Biochemistry, Drew University

Nicole Loeven, B.A. in Biochemistry and Molecular Biology, Wells College

Valeria Montoya, B.S. in Biochemistry, Stockton University

William Schutt, B.S. in Biology, SUNY Geneseo

Kyle Smith, B.S. in Biology and Psychology, University at Buffalo; M.A. in Biology, Queens College

Michael Motley, B.S. in Biological Sciences, Cornell University (MSTP student; Michael has joined Bettina Fries' laboratory)

Pedro Perez, B.S. in biology, Florida International University (MSTP student; Pedro has joined Brian Sheridan's laboratory)

Thank you to everyone who participated in the recruitment of this outstanding class! A welcoming reception will be held the week of August 22<sup>nd</sup>.

## 2016 - 2017 Rotation Dates

Fall        August 29 - November 18

Winter    November 21 - February 10

Spring    February 13 - May 5

## New MGM Student Representatives

Nick Van Skike will take over as the MGM student representative in September 2016 and Erika Orner will serve as representative 2017-2018. Congratulations to both Nick and Erika and many thanks to Rebecca Bridges for her work at student rep!