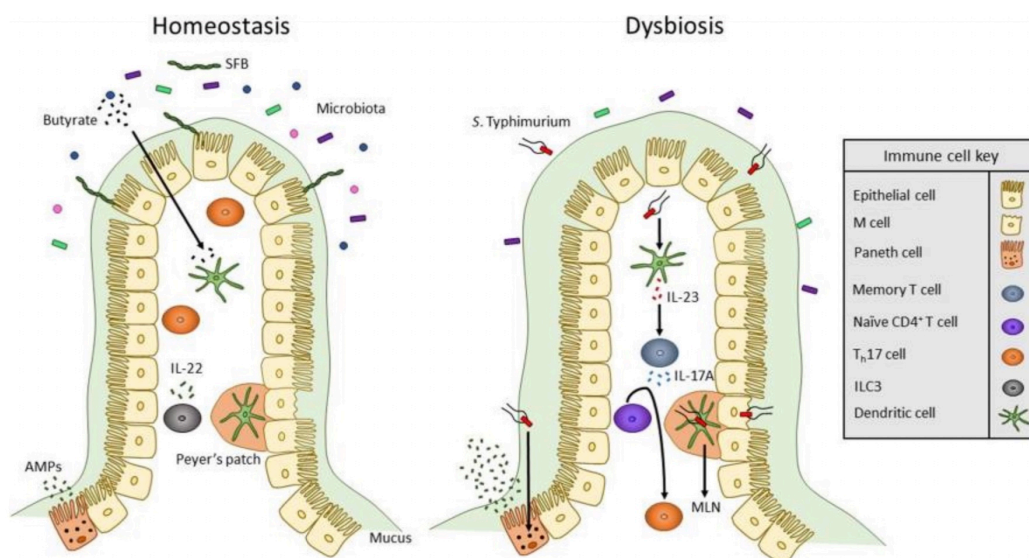


# Molecular Genetics & Microbiology Program

Summer 2019



Gaudino, S.J., and Kumar, P. (2019). *Frontiers in Immunology* PMID: [30894857](https://pubmed.ncbi.nlm.nih.gov/30894857/)

## Graduate Student Achievements

### 2019 PUBLICATIONS

Bhattacharya, S., Holowka, T., **Orner, E.P.**, and Fries, B.C. (2019). Gene duplication associated with increased fluconazole tolerance in *Candida auris* cells of advanced generational age. *Science Reports* 9(1): 5052.

Colombo, A.C., Rella, A., **Normile, T.**, Joffe, L.S., Tavares, P.M., Araujo, Glauber R. de S., Frases, S., **Orner, E.P.**, Farmoud, A.M., Fries, B.C., Sheridan B., Nimrichter, L., Roodrigues, M.L., and Del Poeta, M. (2019). *Cryptococcus neoformans* glucuronoxylomannan and sterylglucoside are required for host protection in an animal vaccination model. *mBio* 10(2): e02909-18.

**Gaudino, S.J.**, and Kumar, P. (2019). Cross-talk between antigen presenting cells and T cells impacts intestinal homeostasis, bacterial infections, and tumorigenesis. *Frontiers in Immunology*, doi 10.3389/fimmu.2019.00360.

**Kopping, E.J.**, **Doyle, C.R.**, Sampath, V., and Thanassi, D.G. (2019). Contributions of TolC orthologs to *Francisella tularensis* Schu S4 multidrug

## PUBLICATIONS (CONTINUED)

resistance, modulation of host cell responses, and virulence. *Infection and Immunity* 87(4). doi: 10.1128/IAI.00823-18.

**Medici, N.**, Rashid, M., and Bliska, J.B. (2019). Characterization of pyrin dephosphorylation and inflammasome activation in macrophages as triggered by the *Yersinia* effectors YopE and YopT. *Infection and Immunity* 87(3). doi: 10.1128/IAI.00822-18.

**Medici, N.P.** & Bliska, J.B. (2019). Methods for detection of pyrin inflammasome assembly in macrophages infected with *Yersinia* spp. Biology of *Yersinia* Infection, Methods in Molecular Biology Protocols edition, Vol. 2010. *Springer Nature*.

**Motley, M.**, Banerjee, K., and Fries, B.C. (2019). Monoclonal antibody-based therapies for bacterial infections. *Current Opinions in Infectious Diseases* 32(3): 210-216.

**Patel, H.V.**, Li, M., and Seeliger, J.C. (2019). Opportunities and challenges in activity-based protein profiling of mycobacteria. *Current Topics in Microbiology and Immunology* 420: 49-72.

**Psonis, J.J.**, and Thanassi, D.G. (2019). Therapeutic approaches targeting the assembly and function of the chaperone-usher pili. *EcoSal Plus* 8(2). doi: 10.1128/ecosalplus.ESP-0033-2018.

**Psonis, J.J.**, Chahales, P.N., Henderson, N.S., Tong, M., Rigel, N.W., Seeliger, M.A., Hoffman, P.S., and Thanassi, D.G. (2019). The small molecule nitazoxanide selectively disrupts Bam-mediated folding of the outer membrane usher protein. Submitted.

## 2019 PRESENTATIONS

**Benziger, P.T.**, **Kopping, E.J.**, and Thanassi, D.G. (2019). Role of TolC in *Francisella tularensis* Protein Secretion and Suppression of Innate Immune Responses. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

Bettke, J.A., **Tam, J.W.**, Bliska, J.B., Butler, B.P., and van der Velden, A.W.M. (2019). Essential Role for Inflammatory Monocytes in Early and Late Control of Persistent Salmonella Infection. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

## 2019 PRESENTATIONS (CONTINUED)

**Burton, E.**, Koganti, S., Li, X., and Bhaduri-McIntosh, S. (2018). Decline in TRIM28/KAP1 Sparks EBV Lytic Activation. 2018 International Conference on EBV and KSHV. July 28 - August 1, Madison, WI.

**Chikhalya, A.**, Dittmann, M., **Zheng, Y.**, Rice, C.M., and Hearing, P. (2019). Effects of Interferon-induced Protein with Tetratricopeptide 3 (IFIT3) on Adenovirus Replication. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

**Chikhalya, A.**, **Zheng, Y.**, Dittmann, M., Rice, C., and Hearing, P. (2018). Recombinant Adenovirus Vectors for Gene Therapy. Showcasing Women's Research in STEM, April 6. Graduate Women in Science and Engineering, Stony Brook, NY.

**Chikhalya, A.**, **Zheng, Y.**, Dittmann, M., Rice, C., and Hearing, P. (2018). Effect of IFIT3 on Adenovirus Replication. 37th Annual Meeting of the American Society for Virology, July 14-18, College Park, MD.

**Chu, T.H.**, Khairallah, C., Zhang, Y., **Lin, X.**, Bliska, J.B., and Sheridan, B.S. (2019). *Yersinia pseudotuberculosis* Outer Proteins Inhibit Adaptive  $\gamma\delta$  T Cell Functions. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY

Frank, D.M., Naseem, S., Russo, G.L., **Parashar, K.**, Konopka, J.B., and Carpino, N. (2019). Phagocytes from Sts-/- Mice have an Enhanced Anti-fungal Response to *C. albicans*. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

**Gaudino, S.J.**, Huang, H., Jean-Pierre, M., Beaupre, M., **Lin, X.**, and Kumar, P. (2019). Intestinal Interleukin (IL)-22RA1 Signaling Regulates the Reciprocal Control of IL-22 and Onset of High Fat Diet-induced Metabolic Disorders. Immunology 2019, American Association of Immunologists, May 9-13, San Diego, CA.

**Gaudino, S.**, Huang, H., Jena-Pierre, M., Beaupre, M., **Lin, X.**, and Kumar, P. (2019). Intestinal Interleukin (IL)-22Ra1 Signaling Regulates the Reciprocal Control of IL-22 and Onset of High Fat Diet-induced Metabolic Disorders. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

**Lin, X.**, **Gaudino, S.**, Kolls, J., and Kumar, P. (2019). Nrf2 Selectively Regulates IL-22 and IL-17A Production in Th17 Cells. Immunology 2019, American Association of Immunologists, May 9-13, San Diego, CA.

## 2019 PRESENTATIONS (CONTINUED)

**McEvoy, K.**, Normile, T., Byran, A., and Del Poeta, M. (2019). Sphingosine Kinase 1 Regulated Clearance of *Cryptococcus neoformans*  $\Delta$ *sgl1* Mutant. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

McLaughlin, P.A., Bettke, J.A., **Tam, J.W.**, Leeds, J., Bliska, J.B., Butler, B.P., and van der Velden, A.W.M. (2019). Inflammatory Monocytes Establish a Niche for *Salmonella* Expansion in the Lumen of the Gut. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

**Medici, N.P.**, and Bliska, J.B. (2019). Studies on Bacterial RhoA Modifying Toxins and their Regulation of the Pyrin Inflammasome. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

**Montoya, V.**, Luke, J.D., Torres, A., McLaughlin, P.A., **Kullas, A.L.**, Terala, H., Qiu, Z., Sheridan, B.S., and van der Velden, A.W.M. (2019). Role of Asparagine Metabolism in T Cell Activation and Function. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

**Normile, T.G.**, Colombo, A.C., Rella, A., **Bryan, A.**, and Del Poeta, M. (2019). Unraveling the Immunological basis of Protection Elicited by *Cryptococcus neoformans*  $\Delta$ *sgl1*. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

**Schutt, W.R.**, Mladinich, M.C., and Mackow, E.R. (2019). Zika Virus Post-transcriptionally Inhibits IFN $\beta$ / $\lambda$  Secretion in Order to Persistently Infect Primary Human Brain Microvascular Endothelial Cells. 2019 Symposium on Harnessing Immunity to Combat Infection and Disease, April 29, Stony Brook University, Stony Brook, NY.

## 2019 AWARDS

**Gaudino, S.J.** (2019). Travel award to present at Immunology 2019, American Association of Immunologists, May 9-13, San Diego, CA.

**Perez, R.D.** (2109). W. Burghardt Turner Dissertation Fellowship, Stony Brook University, 2019 - 2021.

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*Save the Dates*

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The annual ICB&DD symposium, chaired by Dr. Maurizio Del Poeta, will be held on October 10, 2019 in the Charles B. Wang Center. The topic for the symposium is “Frontiers of Infectious Disease Control”.

The Department of Molecular Genetics & Microbiology will hold its annual retreat at the Port Jefferson Village Center on October 25, 2019. This year’s retreat is organized by Dr. Nicholas Carpino.

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*Upcoming  
Dissertation  
Defenses*

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**Eric Burton** will defend his dissertation on August 7, 2019 at 10am in Life Sciences room 038. Eric is a PhD candidate in the lab of Dr. Sumita Bhaduri-McIntosh.

**Arielle Bryan**, a PhD candidate in Dr. Maurizio Del Poeta’s lab, will defend her dissertation on July 26, 2019 at 10am in Life Sciences room 038.

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*Recent Graduate*

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**Dr. John Psonis, PhD.** (David Thanassi’s laboratory) defended his dissertation on June 13, 2019; John, an MSTP student, will begin his clinical rotations in July.

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*Students Join Labs*

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Carla Choudhary - Konopka lab  
Cody Kempen - Obeid lab  
Kyle McEvoy - Del Poeta lab  
Lia Parkin - Seeliger lab

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*Comings and  
Goings*

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Dr. Laurie Krug, an Associate Professor in MGM and training faculty member for the past twelve years, has accepted a position at the National Institutes of Health in Bethesda, MD. Laurie’s research group will be joining the HIV and AIDS Malignancy Branch of the National Cancer Institute starting in August 2019. We wish Laurie all the best as she embarks on this new phase of her career.

Dr. David Montrose, an Assistant Professor in the Department of Pathology, has joined the MGM training faculty. His research group’s focus is on understanding and modulating host intrinsic and extrinsic factors in the GI tract to prevent and treat colorectal cancer and inflammatory bowel disease. You can read about his research at <https://renaissance.stonybrookmedicine.edu/montroselab>.



Photos from the 2019 MGM Symposium may now be viewed at  
[https://renaissance.stonybrookmedicine.edu/mgm/gallery/mgm\\_symposium\\_20](https://renaissance.stonybrookmedicine.edu/mgm/gallery/mgm_symposium_20)