

# Molecular Genetics & Microbiology Graduate Program Newsletter

Winter, 2014 Vol. 7, No. 4



## 2014 Publications

Bailey, J.M., **Delgiorno, K.E.**, and Crawford, H.C. 2014. The secret origins and surprising fates of pancreas tumors. *Carcinogenesis* 35(7): 1451-1460.

**Bhagwat, A.S.**, and Vakoc, C.R. (2014). A new bump in the epigenetic landscape. *Molecular Cell* 53(6): 857-858.

**Bryan, A.M.**, Farnoud, A.M., Mor, V., and Del Poeta, M. 2014. Macrophage cholesterol depletion and its effect on the phagocytosis of *Cryptococcus neoformans*. *JoVE*, in press.

**Chung, L.K.**, Philip, N.H., Schmidt, V.A., Koller, A., Strowig, T., Flavell, R.A., Brodsky, I.E., and Bliska, J.B. 2014. IQGAP1 is important for activation of caspase-1 in macrophages and is targeted by *Yersinia pestis* type III effector YopM. *mBio* 5(4): e01402-14.

**DelGiorno, K.E.**, Hall, J.C., Takeuchi, K.K., Pan, F.C., Halbrook, C.J., Washington, M.K., Olive, K.P., Spence, J., Sipos, B., Wright, C.V., Wells, J.M., and Crawford, H.C. 2014. Identification and manipulation of biliary metaplasia in pancreatic tumors. *Gastroenterology* 146: 233-244.

**DelGiorno, K.E.**, Tam, J.W., Hall, J.C., Thotakura, G., Crawford, H.C., and van der Velden, A.W.M. 2014. Persistent salmonellosis causes pancreatitis in a murine model of infection. *PLoS One* 9(4): e92807.

DelGiorno, K.E., **Tam, J.W.**, Hall, J.C., Thotakura, G., Crawford, H.C., and van der Velden, A.W.M. 2014. Persistent salmonellosis causes pancreatitis in a murine model of infection. *PLoS One* 9(4): e92807.

**Doyle, C.R.**, Pan, J.A., Mena, P., Zong, W.X., and Thanassi, D.G. 2014. TolC-dependent modulation of host cell death by the *Francisella Tularensis* live vaccine strain. *Infection and Immunity* 82(5): 2068-2078.

**Gardin, J.**, Yeasmin, R., Yurovsky, A., Cai, Y., Skiena, s., and Futcher, B. 2014. Measurement of average decoding rates of the 61 sense codons in vivo. *eLife* 10.7554/eLife.03735.

Ma, Z., Banik, S., Rane, H., Mora, V.T., Rabadi, S.M., **Doyle, C.R.**, Thanassi, D.G., Bakshi, C.S., and Malik, M. 2014. EmrA1 membrane fusion protein of *Francisella tularensis* LVS is required for resistance to oxidative stress, intramacrophage survival and virulence in mice. *Molecular Microbiology* 91(5): 976-995.

**Miles, B.**, Abdel-Ghaffar, K.A., Gamal, A.Y., Baban, B., and Cutler, C.W. 2014. Blood dendritic cells: "canary in the coal mine" to predict chronic inflammatory disease? *Frontiers in Microbiology* 5: 6.

**Miles, B.**, Zakhary, I., El-Awady, A., Scisci, E., Carrion, J., O'Neill, J.C., Rawlings, A., Stern, J.K., Susin, C., and Cutler, C.W. 2014. Secondary lymphoid organ homing phenotype of human myeloid dendritic cells disrupted by an intracellular oral pathogen. *Infection and Immunity* 82(1): 101-111.

## ✦ 2014 Publications (continued)

**Minkah, N.**, Chavez, K., Shah, P., MacCarthy, T., Chen, H., Landau, N., and Krug, L.T. 2014. Host restriction of murine gammaherpesvirus 68 replication by human APOBEC3 cytidine deaminases but not murine APOBEC3. *Virology* 454:215-226.

Newman, T.N., Liverani, E., **Ivanova, E.**, Russo, G.L., Carpino, N., Ganea, D., Safadi, F., Kunapuli, S.P., and Tsygankov, A.Y. 2014. Members of the novel UBASH3/STS/TULA family of cellular regulators suppress T-cell-driven inflammatory responses in vivo. *Immunology and Cell Biology*, in press.

Sahashi, K., Ling, K.K., Hua, Y., Wildinson, J.E., **Nomakuchi, T.**, Rigo, F., Hung, G., Xu, D., Jiang, Y.P., Lin, R.Z., Ko, C.P., Bennett, C.F., and Krainer, A.R. 2014. Pathological impact of SMN2 mis-splicing in adult SMA mice. *EMBO Molecular Medicine* 5(10): 1586-1601.

**Tam, J.W.**, Kullas, A.L., Mena, P., Bliska, J.B., and van der Velden, A.W. 2014. CD11b<sup>+</sup> Ly6Chi Ly6G<sup>-</sup> immature myeloid cells recruited in response to *Salmonella enterica* Serovar Typhimurium exhibit protective and immunosuppressive properties. *Infection and Immunity* 82(6): 2606-2614.

Tam, J.W., **Kullas, A.L.**, Mena, P., Bliska, J.B., and van der Velden, A.W. 2014. CD11b<sup>+</sup> Ly6Chi Ly6G<sup>-</sup> immature myeloid cells recruited in response to *Salmonella enterica* Serovar Typhimurium exhibit protective and immunosuppressive properties. *Infection and Immunity* 82: 2606-2614.

Toledo, A., **Crowley, J.T.**, Coleman, J.L., LaRocca, T.J., Chiantia, S., London, E., and Benach, J.L. 2014. Selective association of outer surface lipoproteins with the lipid rafts of *Borrelia burgdorferi*. *Mbio* 5(2): e00899-14.

**Ucisik-Akkaya, E.**, Leatherwood, J.K., and Neiman, A.M. 2014. A genome-wide screen for sporulation-defective mutants in *Schizosaccharomyces pombe*. *G3* 4(6): 1173-1182.

Wang, X., **Parashar, K.**, Sitaram, A., and Bliska, J.B. 2014. The GAP activity of type III effector YopE triggers killing of *Yersinia* in macrophages. *PLoS Pathogens* 10(8): e1004346.

**Zheng, Y.**, and Hearing, P. 2014. The use of chromatin immunoprecipitation (ChIP) to study the binding of viral proteins to the adenovirus genome *in vivo*. *Methods in Molecular Biology* 1089: 79-87.

## ✦ 2014 Conferences

**Bryan, A.M.**, Farnoud, A.M., and Del Poeta, M. 2014. Cholesterol depletion from alveolar macrophages affects their infectivity with *Cryptococcus neoformans*. American Society for Microbiology General Meeting. May 17-20, Boston, MA.

**Gardin, J.M.**, Previti, M.L., Futcher, B., and Seeliger, J.C. 2014. Re-Coding Genes for Live Attenuated *Mycobacterium tuberculosis* Vaccine. World TB Day Symposium: Countdown to 2015, March 24, New York, NY.

**Gardin, J.M.**, Yeasmin, R., Yurovsky, A., Cai, Y., Skiena, S., and Futcher, B. 2014. Measurement of Translation Rates of All Individual Codons In Vivo. Translational Control, Cold Spring Harbor September 2-6, Cold Spring Harbor, NY.

## 2014 Conferences (continued)

**Gardin, J.M.**, Honey, S., Yan, S., Kepler-Ross, Ward, C., Mueller, S., Skiena, S., Wimmer, E., and Futcher, B. 2014. Mechanisms of Codon Pair Bias. Translational Control. September 2-6, Cold Spring Harbor, NY.

Gardin, J.M., Honey, S., **Yan, S.**, Kepler-Ross, Ward, C., Mueller, S., Skiena, S., Wimmer, E., and Futcher, B. 2014. Mechanisms of Codon Pair Bias. Translational Control. September 2-6, Cold Spring Harbor, NY.

**Santana, A.**, and Krug, L.T. 2014. The Interplay of RTA and NF- $\kappa$ B Signaling in  $\gamma$ Herpesvirus Infection. Viral Manipulation of Nuclear Processes. October 30 - November 2, Washington, D.C.

**Minkah, N.**, Macaluso, M., Oldenburg, D., McBride, K., and Krug, L.T. 2014. A Role for the Viral Encoded Uracil DNA Glycosylase in  $\gamma$ Herpesvirus Pathogenesis. 33<sup>rd</sup> Annual Meeting of the American Society for Virology. June 21-25, Fort Collins, CO.

**Patel, H.V.**, and Seeliger, J. 2014. Towards the Functional Characterization and Inhibition of Hydrolase Enzymes in Mycobacteria. ASBMB Experimental Biology 2014. April 24-30, San Diego, CA.

**Werneburg, G.T.**, Henderson, N.S., and Thanassi, D.G. 2014. Dissection of Usher-Chaperone-Subunit Interactions During Pilus Biogenesis in *Escherichia coli*. Gordon Research Conference on Bacterial Cell Surfaces. June 22-27, 2014, Mt. Snow, VT.

**Werneburg, G.T.**, Henderson, N.S., and Thanassi, D.G. 2014. Dissection of Usher-Chaperone-Subunit Interactions During Pilus Biogenesis in *Escherichia coli*. American Association for Clinical Investigation/Association of American Pathologists Annual Meeting. April 25-27, Chicago, IL.

**Zheng, Y.**, and Hearing, P. 2014. Both Type I and Type II Interferons Inhibit Human Adenovirus Type 5 Replication by Direct Repression of E1A Transcription in Normal Human Diploid Fibroblasts. 11<sup>th</sup> International Adenovirus Meeting. July 16-20, San Diego, CA.

## 2014 Awards

**Bhagwat, A.** 2014. National Cancer Institute, National Institutes of Health F30 National Research Service Award (2014 - 2018).

**Bryan, A.M.** 2014. Outstanding Poster Award. American Society for Microbiology General Meeting. May 17-20, Boston, MA.

**Bryan, A.M.** 2014. Travel award from the Medical Mycology Society for the Americas to attend the American Society for Microbiology General Meeting. May 17-20, Boston, MA. \$500.

**Chahales, P.** 2014. Teresa Haire Memorial Award. Department of Molecular Genetics & Microbiology. \$250.

**Minkah, N.** 2014. Graduate Student Organization Distinguished Travel Award to attend the 33<sup>rd</sup> Annual Meeting of the American Society for Virology. June 21-25, Fort Collins, CO. \$1,500.

**Santana, A.** 2014. W. Burghardt Turner Travel Award to attend the Conference on Viral Manipulation of Nuclear Processes. October 30 - November 2, Washington, D.C. \$1,155.

## 2014 Awards (continued)

**Santana, A.** 2014. American Society for Microbiology Student Travel Award to attend the Conference on Viral Manipulation of Nuclear Processes. October 30 - November 2, Washington, D.C. \$500.

**Tam, J.** 2014. Abrahams Award for Outstanding Achievement by a Graduate Student. Department of Molecular Genetics & Microbiology. \$500.

**Werneburg, G.** 2014. Travel grant to attend the American Society for Clinical Investigation/Association of American Pathologists National Meeting. April 25-27, Chicago, IL. Directors' Travel Grant Receipt, \$750.

**Werneburg, G.** 2014. Stony Brook University Graduate School and Graduate Student Organization Distinguished Travel Award to attend the Gordon Research Conference on Bacterial Cell Surfaces. June 22-27, Mt. Snow, VT. \$1,500.

**Werneburg, G.** 2014. Best Poster Award, Department of Molecular Genetics and Microbiology Annual Retreat. October 10, 2014. \$75.

**Werneburg, G.** 2014. National Institute of Allergy and Infectious Diseases, National Institutes of Health F30 National Research Service Award (2014 - 2018).

**Zheng, Y.** 2014. Stony Brook University Graduate School and Graduate Student Organization Distinguished Travel Award to attend the 11<sup>th</sup> International Adenovirus Meeting. July 16-20, San Diego, CA. \$1,500.

**Zheng, Y.** 2014. Sigma Xi travel award to attend the 11<sup>th</sup> International Adenovirus Meeting. July 16-20, San Diego, CA. \$100.

## 2014 Graduates

Dr. Christopher Doyle, postdoctoral fellow in the laboratory of Dr. Liise-anne Pirofski at the Albert Einstein College of Medicine.

Dr. Esma Ucisik-Akkaya.

## Congratulations

Congratulations to Laurie Krug upon being named the first Stony Brook University Discovery Prize Fellow! Laurie was selected from a final field of four early career scientists at the University to receive a \$200,000 award for her "high-risk, high-reward" research proposal. Read more at <http://www.mgm.stonybrook.edu/index.shtml>