Molecular Genetics & Microbiology Graduate Program Newsletter

Fall, 2010 Vol. 3, No. 3

Publications

Bublitz, D.C., Noah, C.E., Benach, J.L., and Furie, M.B. (2010) *Francisella tularensis* suppresses the proinflammatory response of endothelial cells via the endothelial protein C receptor. Journal of Immunology (185): 1124-1131.

Bombardelli, L., Carpenter, E.S., Wu, A.P., Alston, N., Delgiorno, K.E., and Crawford, H.C. (2010) Pancreas-specific ablation of beta1 integrin induces tissue degeneration by disrupting acinar cell polarity. Gastroenterology (138): 2531-2540.

Czura, C.J., Schultz, A., Kaipel, M., Khadem, A., Huston, J.M., Pavlov, V.A., Redl, H., and Tracey, K.J. (2010) Vagus nerve stimulation regulates hemostasis in swine. Shock (33): 608-613.

Feres, K,J., and Hayman, M.J. (2010) RON-expressing MCF-10A breast epithelial cells exhibit alterations of hyaluronan expression, promoting RON-mediated early adhesion events. Biochemical and Biophysical Research Communications (391): 1604-1609.

Gunasekera, A., Alvarez, F.J., Douglas, L.M., Wang, H.X., Rosebrock, A.P., and Konopka, J.B. (2010) Identification of GIG1, a GlcNAc-induced gene in C. albicans needed for normal sensitivity to the chitin synthase inhibitor nikkomycin z. Eucaryotic Cell, in press.

Li, Q., Ng, T.W., Dodson, K.W., Shu Kin So, S., Bayle, K.M., Pinkner, J.S., Scarlata, S., Hultgren, S.J., and Thanassi, D.G. (2010) The differential ability of the usher for chaperone-subunit complexes is required for assembly of complete pili. Molecular Microbiology (76): 159-172.

Liu, Y., Wang, C., Mueller, S., Paul, A.V., Wimmer, E., and Jiang, P. (2010) Direct interaction between two viral proteins, the nonstructural protein 2CATPase and the capsid protein VP3, is required for enterovirus morphogenesis. PLoS Pathogens (6): e1001066.

Mulligan, E.A., Hatchwell, E., McCorkle, S.R., and Dunn, J.J. (2010) Differential binding of *Escherichia coli* McrA protein to DNA sequences that contain the dinucleotide m5CpG. Nucleic Acids Research (38): 1997-2005.

Navin, N., and Hicks, J. (2010) Tracing the tumor lineage. Molecular Oncology (4): 267-283.

Navin, N., Krasnitz, A., Rodgers, L., Cook, K., Meth, J., Kendall, J., Riggs, M., Eberling, Y., Troge, J., Grubor, V., Levy, D., Lundin, P., Månér, S., Zetterberg, Z., Hicks, J., and Wigler, M. (2010) Inferring tumor progression from genomic heterogeneity. Genome Research (20): 68-80.

Noah, C.E., Malik, M., Bublitz, D.C., Camenares, D., Sellati, T.J., Benach, J.L., and Furie, M.B. (2010) GroEL and lipopolysaccharide from Francisella tularensis live vaccine strain synergistically activate human macrophages. Infection and Immunity (78): 1797-1806.

Platz, G.J., Bublitz, D.C., Mena, P., Benach, J.L., Furie, M.B., and Thanassi, D.G. (2010) A tolC mutant of *Francisella tularensis* is hypercytotoxic and elicits increased proinflammatory responses from host cells. Infection and Immunity (78): 1022-1031.

Quigley, B.R., Hatkoff, M., Thanassi, D.G., Ouattara, M., Eichenbaum, Z. and Scott, J.R. (2010) A foreign protein incorporated on the tip of T3 pili in *Lactococcus lactis* elicits systemic and mucosal immunity. Infection and Immunity (78): 1294-1303.

Ucisik-Akkaya, E., and Dorak, M.T. (2010) Environment, Genetic Immunology and Childhood Cancer. In Deodutta Roy and Dorak M. Tevfik (Eds.), *Environmental Factors, Genes, and the Development of Human Cancers*. New York: Springer.

Yount, J.S., Tsou, L.K., Dossa, P.D., Kullas, A.L., van der Velden, A.W., and Hang, H.C. (2010) Visible fluorescence detection of type III protein secretion from bacterial pathogens. Journal of the American Chemical Society (132): 8244-8245.

Zeituni, A.E., McCaig, W., Scisci, E., Thanassi, D.G., and Cutler, C.W. (2010) Native 67 kDa minor finbriae of *Porphyromonas gingivalis*: a novel glycoprotein with DC-SIGN-targeting motifs. Journal of Bacteriology (192): 4103-4110.

Conference Presentations

Navin, N., Kendall, J., Cook, K., Troge, J., Stepansky, A., Esposito, D., Hicks, J., and Wigler, M. 2010. Tumor Progression Revealed by Sequencing 100 Single Cells in a Heterogeneous Breast Carcinoma. James Watson Cancer Symposium, Suzhuo, China.

Shin, H.Y., Iyer, J., and Reich, N. 2009. STAT5a Nuclear Trafficking. Tri-Society Annual Conference (Society for Leukocyte Biology, International Cytokine Society, and International Society for Interferon and Cytokine Research).

Wang, C., Jiang, P., Sand, C., Paul, A., and Wimmer, E. 2010. Functional Analysis of Poliovirus Protein $2C^{ATPase}$ Using Alanine Scanning Mutagenesis. American Society for Virology 29^{th} Annual Meeting, Bozeman, MT.

Zeituni, A.E., McCaig, W., Scisci, E., Carrion, J.A., Thanassi, D.G., and Cutler, C.W. 2010. Native 67 kDa Minor Fimbriae of *Porphyromonas gingivalis is* a Novel Glycoprotein with DS-SIGN-Targeting Motifs. National Institute of Dental and Craniofacial Research Trainee Day, Bethesda, MD.

Zeituni, A.E., McCaig, W., Scisci, E., Carrion, J.A., Thanassi, D.G., and Cutler, C.W. 2010. DC-SIGN Targeting Carbohydrate Moieties Identified on 67 kDa Mfa-1 Fimbriae of Mucosal Pathogen Porphyromonas gingivalis. Annual Meeting of the American Association of Immunologists 2010, Baltimore, MD.

Zheng, Y., Lilo, S., and Bliska, J.B. 2010. The Effector $YopJ^{KIM}$ Activates Caspace-1 and Induces Caspace-1 Independent Necrotic Death in *Yersinia*-infected Macrophages. Gordon Research Conference on Cell Death, Newport, RI.

First-Year Students Join Labs

Patrick McLaughlin: Ando van der Velden
Brodie Miles: Christopher Cutler
Nana Minkah: Laurie Krug
Esma Ucisik-Akkaya: Aaron Neiman
Yueting Zheng: Patrick Hearing

Awards

Congratulations to Chunling Wang for receiving travel awards from the American Society for Virology ($500) and Sigma Xi ($100) to attend the 29th annual meeting of the American Society for Virology at Montana State University in Bozeman, MT.

Recent Graduates

Congratulations to Nicholas Navin on the successful defense of his dissertation, "Inferring Tumor Progression from Genomic Heterogeneity" on July 9, 2010. Nick is continuing his work in Michael Wigler's group at Cold Spring Harbor Laboratory as a postdoctoral fellow.

Amir Zeituni defended his dissertation, "The Specific Interactions Between Dendritic Cells and *Porphyromonas gingivalis*", on August 24, 2010 and will graduate in December. Amir will conduct his postdoctoral research at the National Institutes of Health in the laboratory of Carole Long. Congratulations!

Save the Dates

The 32nd Annual Retreat of the Department of Molecular Genetics and Microbiology will be held on Friday, October 1 at the Port Jefferson Village Center. In addition to oral presentations, there will be a poster session and the presentation of graduate student awards. Graduate students should all plan to present a poster.

Students will be hosting Dr. David Raulet from UC Berkeley on Monday, October 11th. The title of Dr. Raulet's seminar is "Natural Killer Cells and Natural Killer Cell Receptors in Tumor Immune Surveillance." Please make a note of this special seminar. If you would like to speak with Dr. Raulet during his visit, please contact hosts DeAnna Bublitz (deannabublitz@gmail.com) or Alexis Santana (Alexis.Santana.77@gmail.com).

Rotations for 2010-2011

Fall	August 30 – November 26
Winter	November 29 – February 11
Spring	February 14 – May 13

New Training Faculty Members

Dr. Sumita Bhaduri-McIntosh, M.D., a new Assistant Professor of Pediatrics and Molecular Genetics & Microbiology, has joined the Program. Dr. Bhaduri-McIntosh trained in the laboratory of George Miller at Yale University and her research focus is on the early events that occur upon infection of B lymphocytes by Epstein-Barr virus and the regulation of the latent-lytic cycle switch. Her lab is located on the first floor of the Life Sciences Building, room 161.

Dr. Jessica Seeliger, Ph.D. has joined our training program. Dr. Seeliger, a new Assistant Professor in the Department of Pharmacological Sciences, conducted her postdoctoral research in the laboratory of Carolyne Bertozzi at the University of California, Berkeley. Her laboratory will investigate mycobacterial cell wall and membrane biogenesis.

Please help us welcome Drs. Bhaduri-McIntosh and Seeliger to the Program!

New web site

The MGM web site has been redesigned. Check it out at http://www.mgm.stonybrook.edu/index.shtml.