

## Pathology and Microbiology & IPID Graduate student publications 2016-2017

(Not including posters or abstracts)

### Logan Bulock:

Gries, C. M., Sadykov, M. R., Bulock, L. L., Chaudhari, S. S., Thomas, V. C., Bose, J. L., & Bayles, K. W. (2016). Potassium uptake Modulates staphylococcus aureus metabolism. *mSphere*, 1(3), 125–16. doi:10.1128/mSphere.00125-16

### Xingcheng Chen:

**Chen, X.**, Y. Chen and J. Dong (2016). "MST2 phosphorylation at serine 385 in mitosis inhibits its tumor suppressing activity." *Cell Signal* 28(12): 1826-1832. PMID: 27566175. PMCID: In progress.

**Chen, X.**, S. Stauffer, Y. Chen and J. Dong (2016). "Ajuba Phosphorylation by CDK1 Promotes Cell Proliferation and Tumorigenesis." *J Biol Chem* 291(28): 14761-14772. PMCID: PMC4938193.

### Joel Frandsen:

Choi SR, Larson MA, Hinrichs SH, Bartling AM, **Frandsen J**, Narayanasamy P. Discovery of bicyclic inhibitors against menaquinone biosynthesis. *Future Medicinal Chemistry* 8, 11-6. doi: 10.4155/fmc.15.168 (2016)

Choi SR, **Frandsen J**, Narayanasamy, P. Novel long-chain compounds with both immunomodulatory and MenA inhibitory activities against Staphylococcus aureus and its biofilm. *Scientific Reports* 7, 40077. Doi: 10.1038/srep40077 (2017)

### Tayla Heavican:

Haney SL, Upchurch GM, Opavska J, Klinkebiel D, Appiah AK, Smith L, **Heavican T**, Iqbal J, Joshi S, Opavsky R. "Loss of dnmt3a induces CLL and PTCL with distinct methylomes and transcriptomes in mice." *Scientific Reports*. 2016. Sci Rep. 2016; 6:34222. PMID: 27677595.

McKinney M, Moffitt AB, Gaulard P, Travert M, de Leval L, Nicolae A, Raffeld M, Jaffe ES, Pittaluga S, Xi L, **Heavican T**, Iqbal J, Belhadj K, Delfau-Larue MH, Fataccioli V, Czader MB, Lossos IS, Chapman-Fredricks JR, Richards KL, Fedoriw Y, Ondrejka SL, Hsi ED, Low L, Weisenburger D, Chan WC, Mehta-Shah N, Horwitz S, Bernal-Mizrachi L, Flowers CR, Beaven AW, Parihar M, Baseggio L, Parrens M, Moreau A, Sujobert P, Pilichowska M, Evens A, Chadburn A, Yeung R, Srivastava G, Choi WWL, Goodlad JR, Aurer I, Basic-Kinda S, Gascoyne RD, Davis N, Li G, Zhang J, Rajagopalan D, Reddy A, Love C, Levy S, Zhuang Y, Datta J, Dunson DB, Dave SS. "The genetic basis of hepatosplenic T cell lymphoma." *Cancer Discovery*. 2017; 7(4):369-379.

Li, Y, **Heavican T**, = Vellichirammal NN, Iqbal J, Guda C. "ChimeRScope: a novel alignment-free algorithm for fusion gene prediction from paired-end short reads." *Nucleic Acids Research*. Accepted 3 April 2017.

Bouska, A., Bi C, Lone W, Zhang W, Kidwai A, **Heavican T**, Lachel CM, Yu J, Fu K, Ferro R, Eldorghamy N, Greiner TC, Vose JM, Weisenburger DD, Gascoyne RD, Rosenwald A, Ott G, Campo E, Rimsza LM, Jaffe ES, Braziel RM, Siebert R, Miles R, Dave SS, Reddy A, Staudt LM, Song JY, McKeithan TW, Green MR, Chan WC, Iqbal J. "Comprehensive Genomic Analysis of Adult Burkitt Lymphoma identifies a Potential Therapeutic Target." *Blood*. 2017. *In revision*.

**Tramy Hoang:**

Paharik, A. E., Kotasinska, M., Both, A., **Hoang, T.-m.**, Büttner, H., Roy, P., Fey, P. D., Horswill, A. R. and Rohde, H. The metalloprotease SepA governs processing of accumulation-associated protein and shapes intercellular adhesive surface properties in *Staphylococcus epidermidis*. *Molecular Microbiology*. 2016. doi:10.1111/mmi.13594

Schaeffer CR, **Hoang TN**, Sudbeck CM, Alawi M, Tolo IE, Robinson DA, Horswill AR, Rohde H, Fey PD. Versatility of biofilm matrix molecules in *Staphylococcus epidermidis* clinical isolates and importance of polysaccharide intercellular adhesion expression during high shear stress. *mSphere*. 2016 Oct;1(5):e00165-16.

**Kai Huang:**

**Huang K**, Zhang J, O'Neill KL, Gurumurthy CB, Quadros RM, Luo X. Cleavage by Caspase 8 and Mitochondrial Membrane Association Activate Bid during Death Receptor-mediated Apoptosis. *J Biol Chem* 291(22): 11843-11851, 2016.

O'Neill KL, **Huang K**, Zhang J, Chen Y, Luo X. Inactivation of prosurvival Bcl-2 proteins activates Bax/Bak through the outer mitochondrial membrane. *Genes Dev* 30: 973-988, 2016.

J Zhang, **K Huang**, KL O'Neill, X Pang and Xu Luo. Bax/Bak activation in the absence of Bid, Bim, Puma, and p53. *Cell Death Dis* 7: e2266, 2016.

**Saraswoti Khadge:**

**Saraswoti Khadge**, J. Graham Sharp, Geoffrey M. Thiele, Timothy R. McGuire, Lynell W. Klassen, Michael J. Duryee, Holly C. Britton, Alicia J. Dafferner, Jordan Beck, Paul N. Black, Concetta C. DiRusso and James Talmadge Influence of Dietary Omega-3 and Omega-6 Polyunsaturated Fatty Acids on Hepatic Injury. (Submitted to *Journal of Nutritional biochemistry*)

**Stephen Luebker:**

**Luebker SA**, Lazenby AJ, and Koepsell SA. Proteomic profiling of patient pancreatic neuroendocrine tumors highlights heterogeneous expression patterns unrelated to grade and altered expression of proteins involved in glutamine metabolism. *International Journal of Experimental Pathology*. (Submitted)

**Edward Makarov:**

AN Bade, S Gorantla, PK Dash, E Makarov, BR Sajja, LY Poluektova et al. Manganese-enhanced magnetic resonance imaging reflects brain pathology during progressive HIV-1 infection of humanized mice. *Molecular neurobiology*, 53(5):3286-3297, 2016

**Insha Mushtaq:**

Bhattacharyya S, Rainey MA, Arya P, Mohapatra BC, **Mushtaq I**, Dutta S, George M, Storck MD, McComb RD, Muirhead D, Todd GL, Gould K, Datta K, Waes JG, Band V, Band H. Corrigendum: Endocytic recycling protein EHD1 regulates primary cilia morphogenesis and SHH signaling during neural tube development. *Sci Rep*. 2017 Mar 23;7:42320. doi: 10.1038/srep42320.

Mohapatra B, Zutshi N, An W, Goetz B, Arya P, Bielecki TA, **Mushtaq I**, Storck MD, Meza JL, Band V, Band H. An essential role of CBL and CBL-B ubiquitin ligases in mammary stem cell maintenance. *Development*. 2017 Mar 15;144(6):1072-1086. doi: 10.1242/dev.138164. Epub 2017 Jan 18.

Nadeau SA, An W, Mohapatra BC, **Mushtaq I**, Bielecki TA, Luan H, Zutshi N, Ahmad G, Storck MD, Sanada M, Ogawa S, Band V, Band H. Structural Determinants of the Gain-of-Function Phenotype of Human Leukemia-associated Mutant CBL Oncogene. *J Biol Chem*. 2017 Mar 3;292(9):3666-3682. doi: 10.1074/jbc.M116.772723. Epub 2017 Jan 12.

An W, Mohapatra BC, Zutshi N, Bielecki TA, Goetz BT, Luan H, Iseka F, **Mushtaq I**, Storck MD, Band V, Band H. VAV1-Cre mediated hematopoietic deletion of CBL and CBL-B leads to JMML-like aggressive early-neonatal myeloproliferative disease. *Oncotarget*. 2016 Sep 13;7(37):59006-59016. doi: 10.18632/oncotarget.10638.

### **Jiayu Yu:**

Andrea Moffitt, Sarah Ondrejka, Matthew McKinney, Rachel Rempel, John Goodlad, Chun Teh, Sirpa Leppa, Susanna Mannisto, Panu Kovanen, Eric Tse, Rex Au-Yeung, Yok-Lam Kwong, Gopesh Srivastava, Javeed Iqbal, **Jiayu Yu**, Kikkeri Naresh, Diego Villa, Randy Gascoyne, Jonathan Said, Magdalena Czader, Amy Chadburn, Kristy Richards, Deepthi Rajagopalan, Nicholas Davis, Eileen Smith, Brooke Palus, Tiffany Tzeng, Jane Healy, Patricia Lugar, Jyotishka Datta, Cassandra Love, Shawn Levy, David Dunson, Yuan Zhuang, Eric Hsi, and Sandeep Dave, Enteropathy associated T cell lymphoma subtypes are characterized by loss of function of SETD2. *J Exp Med*. 2017;214(5):1371-1386.

Javeed Iqbal, Hina Naushad, Chengfeng Bi, **Jiayu Yu**, Alyssa Bouska, Joseph Rohr, Wang Chao, Kai Fu, Wing C. Chan, Julie M. Vose, Genomic signatures in B-cell lymphoma: How can these improve precision in diagnosis and inform prognosis? *Blood Rev*. 2016;30(2):73-88.

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