CURRICULUM VITAE
Yuguang Ban

1. *Date:* 05/03/2020

I. Personal

2. Name: Yuguang Ban, Ph.D.

3. Office Phone: 305-243-4704

4. Address: 1120 NW 14th Street (Clinical Research Bldg, 10th Floor), Miami, FL 33136

5. Current Job Title: Research Assistant Professor

5A. Current Track of Appointment: N/A

6. Primary Department: Department of Public Health Sciences

7. Secondary or Joint Appointment: N/A

II. Higher Education

8. Institutional:

2007	BS in Mathematics
	Lewis-Clark State College, Lewiston, ID
2009	MS in Mathematics
	Boise State University, Boise, ID
2013	PhD in Computational Science and Statistics
	South Dakota State University, Brookings, SD

9. Non-Institutional: N/A

10. Certification and Licensure: N/A

III. Experience

11. Academic:

2013—2015	Postdoctoral Fellow	Department of Statistics Northwestern University, Evanston, IL
2015—2018	Assistant Scientist	Biostatistics and Bioinformatics Shared Resource Sylvester Comprehensive Cancer Center University of Miami Miller School of Medicine
2018—2020	Associate Scientist	Biostatistics and Bioinformatics Shared Resource Sylvester Comprehensive Cancer Center University of Miami Miller School of Medicine

12. *Hospital Appointments:* N/A

13. *Non- Academic:* N/A

14. *Military:* N/A

IV. Publications

1. Jing, Y., Chavez, V., Khatwani, N., **Ban, Y.,** Espejo, A. P., Chen, X., & Merchan, J. R. (2020). In vivo antitumor activity by dual stromal and tumor-targeted oncolytic measles viruses. *Cancer Gene Ther*. doi:10.1038/s41417-020-0171-1

2. Li, L., Hu, X., Eid, J. E., Rosenberg, A. E., Wilky, B. A., **Ban, Y.,** Sun, X., Galoian, K., DeSalvo, J., Yue, J., Chen, X. S., Blonska, M., & Trent, J. C. (2020). Mutant IDH1 Depletion Downregulates Integrins and Impairs Chondrosarcoma Growth. *Cancers (Basel), 12*(1). doi:10.3390/cancers12010141

3. Dheer, R., Davies, J. M., Quintero, M. A., Damas, O. M., Deshpande, A. R., Kerman, D. H., Sawyer, W. P., Pignac-Kobinger, J., **Ban, Y.,** Fernandez, I., Burgueno, J. F., Phillips, M. C., & Abreu, M. T. (2019). Microbial signatures and innate immune gene expression in lamina propria phagocytes of inflammatory bowel disease patients. *Cell Mol Gastroenterol Hepatol*. doi:10.1016/j.jcmgh.2019.10.013.

4. Winterbottom, E. F., **Ban, Y.**, Sun, X., Capobianco, A. J., Marsit, C. J., Chen, X., Wang, L., Karagas, M. R., & Robbins, D. J. (2019). Transcriptome-wide analysis of changes in the fetal placenta associated with prenatal arsenic exposure in the New Hampshire Birth Cohort Study. *Environ Health, 18*(1), 100. doi:10.1186/s12940-019-0535-x

5. Caslini, C., Hong, S., **Ban, Y. J.,** Chen, X. S., & Ince, T. A. (2019). HDAC7 regulates histone 3 lysine 27 acetylation and transcriptional activity at super-enhancer-associated genes in breast cancer stem cells. *Oncogene, 38*(39), 6599-6614. doi:10.1038/s41388-019-0897-0.

6. Zhang, L., Meng, J., **Ban, Y.,** Jalodia, R., Chupikova, I., Fernandez, I., Brito, N., Sharma, U., Abreu, M. T., Ramakrishnan, S., & Roy, S. (2019). Morphine tolerance is attenuated in germfree mice and reversed by probiotics, implicating the role of gut microbiome. *Proc Natl Acad Sci U S A, 116*(27), 13523-13532. doi:10.1073/pnas.1901182116.

7. Toomer, K. H., Lui, J. B., Altman, N. H., **Ban, Y.**, Chen, X., & Malek, T. R. (2019). Essential and non-overlapping IL-2Ralpha-dependent processes for thymic development and peripheral homeostasis of regulatory T cells. *Nat Commun, 10*(1), 1037.

8. Birnbaum, M. D., Zhao, N., Moorthy, B. T., Patel, D. M., Kryvenko, O. N., Heidman, L., Kumar, A., Morgan, W. M., **Ban, Y.**, Reis, I. M., Chen, X., Gonzalgo, M. L., Jorda, M., Burnstein, K. L., & Zhang, F. (2019). Reduced Arginyltransferase 1 is a driver and a potential prognostic indicator of prostate cancer metastasis. *Oncogene, 38*(6), 838-851.

9. Yan, A., **Ban, Y.**, Gao, Z., Chen, X., & Wang, L. (2018). PathwaySplice: an R package for unbiased pathway analysis of alternative splicing in RNA-Seq data. *Bioinformatics, 34*(18), 3220-3222.

10. Ward, N. C., Yu, A., Moro, A., **Ban, Y.**, Chen, X., Hsiung, S., Keegan, J., Arbanas, J. M., Loubeau, M., Thankappan, A., Yamniuk, A. P., Davis, J. H., Struthers, M., & Malek, T. R. (2018). IL-2/CD25: A Long-Acting Fusion Protein That Promotes Immune Tolerance by Selectively Targeting the IL-2 Receptor on Regulatory T Cells. *J Immunol, 201*(9), 2579-2592.

11. Srinivasan, S., Totiger, T., Shi, C., Castellanos, J., Lamichhane, P., Dosch, A. R., Messaggio, F., Kashikar, N., Honnenahally, K., **Ban, Y.**, Merchant, N. B., VanSaun, M. N., & Nagathihalli, N. S.

(2018). Tobacco Carcinogen-Induced Production of GM-CSF Activates CREB to Promote Pancreatic Cancer. *Cancer Res*.

12. Patel, R., Zhang, L., Desai, A., Hoenerhoff, M. J., Kennedy, L. H., Radivoyevitch, T., **Ban, Y.**, Chen, X. S., Gerson, S. L., & Welford, S. M. (2018). Mlh1 deficiency increases the risk of hematopoietic malignancy after simulated space radiation exposure. *Leukemia*.

13. Garg, B., Giri, B., Modi, S., Sethi, V., Castro, I., Umland, O., **Ban, Y.**, Lavania, S., Dawra, R., Banerjee, S., Vickers, S., Merchant, N. B., Chen, S. X., Gilboa, E., Ramakrishnan, S., Saluja, A., & Dudeja, V. (2018). NFkappaB in Pancreatic Stellate Cells Reduces Infiltration of Tumors by Cytotoxic T Cells and Killing of Cancer Cells, via Up-regulation of CXCL12. *Gastroenterology*, *155*(3), 880-891 e888.

14. Wang, J., Mouradov, D., Wang, X., Jorissen, R. N., Chambers, M. C., Zimmerman, L. J., Vasaikar, S., Love, C. G., Li, S., Lowes, K., Leuchowius, K. J., Jousset, H., Weinstock, J., Yau, C., Mariadason, J., Shi, Z., **Ban, Y.**, Chen, X., Coffey, R. J. C., Slebos, R. J. C., Burgess, A. W., Liebler, D. C., Zhang, B., & Sieber, O. M. (2017). Colorectal cancer cell line proteomes are representative of primary tumors and predict drug sensitivity. *Gastroenterology*.

15. Samaranayake, G. J., Troccoli, C. I., Huynh, M., Lyles, R. D. Z., Kage, K., Win, A., Lakshmanan, V., Kwon, D., **Ban, Y.**, Chen, S. X., Zarco, E. R., Jorda, M., Burnstein, K. L., & Rai, P. (2017). Thioredoxin-1 protects against androgen receptor-induced redox vulnerability in castration-resistant prostate cancer. *Nat Commun, 8*(1), 1204.

16. Li, Z., Zhang, P., Yan, A., Guo, Z., **Ban, Y.**, Li, J., Chen, S., Yang, H., He, Y., Li, J., Guo, Y., Zhang, W., Hajiramezanali, E., An, H., Fajardo, D., Harbour, J. W., Ruan, Y., Nimer, S. D., Yu, P., Chen, X., Xu, M., & Yang, F. C. (2017). ASXL1 interacts with the cohesin complex to maintain chromatid separation and gene expression for normal hematopoiesis. *Sci Adv, 3*(1), e1601602.

17. Jing, Y., Chavez, V., **Ban, Y.**, Acquavella, N., El-Ashry, D., Pronin, A., Chen, X., & Merchan, J. R. (2017). Molecular Effects of Stromal-Selective Targeting by uPAR-Retargeted Oncolytic Virus in Breast Cancer. *Mol Cancer Res*.

18. **Ban, Y.**, An, L., & Jiang, H. (2015). Investigating microbial co-occurrence patterns based on metagenomic compositional data. *Bioinformatics, 31*(20), 3322-3329.

19. Ling, M. H., **Ban, Y.**, Wen, H., Wang, S. M., & Ge, S. X. (2013). Conserved expression of natural antisense transcripts in mammals. *BMC Genomics*, *14*, 243.

20. Wilson, T. J., Lai, L., **Ban, Y.**, & Ge, S. X. (2012). Identification of metagenes and their interactions through large-scale analysis of Arabidopsis gene expression data. *BMC Genomics*, *13*, 237.

21. Gedye, K., Gonzalez-Hernandez, J., **Ban, Y.**, Ge, X. J., Thimmapuram, J., Sun, F. J., Wright, C., Ali, S., Boe, A., & Owens, V. (2010). Investigation of the Transcriptome of Prairie Cord Grass, a New Cellulosic Biomass Crop. *Plant Genome, 3*(2), 69-80.

15. Books and Monographs Published: N/A

16. Juried or Refereed Journal Articles or Exhibitions: N/A

17. Other Works, Publications and Abstracts: N/A

18. Other Works Accepted for Publication: N/A

V. Professional

19. Funded Research Performed:

Ongoing Research Support (funded grants)

2R01DK099076-10 NIH Title: Role of TLR4 and the microbiome in colitis associated neoplasia Role: Bioinformatician, 15% effort	Abreu, Maria (PI)	4/4/2019-2/28/2023
2004-03822 Leona M. and Harry B. Helmsley Charitable Trust Grant Title : A holistic diet intervention for people with Crohn's disease Role: Bioinformatician, 10% effort	Abreu, Maria (PI)	11/15/2019-10/14/2022
R01AI131648 NIH-NIAID Low dose IL-2 and human regulatory T cells Role: Bioinformatician, 10% effort	Malek, Thomas (PI)	12/1/2017 - 11/30/2022
1R01AI14867501 NIH-NIAID IL-2R-dependent mechanisms in regulation of Treg homeostasis and autoimmunity Role: Bioinformatician, 10% effort	Malek, Thomas (PI)	12/1/2019 - 11/30/2024
9AZ20 FL-DOH (Ed and Ethel Moore Alzheimer's Disease Research Program) Role of Gut Microbiota on the Brain Metabolism, Cognition, Immune Function and Inflammation in Alzheimer's disease: Novel Biomarkers and Understanding Mechanisms Role: Biostatistician, 4% effort	Govind, Varan (PI)	12/1/2017 - 11/30/2022
P30CA240139-01 NIH The Sylvester Cancer Center Core Support Grant - CCSG Grant P30 Role: Bioinformatician, 20% effort	Nimer, Stephen (PI)	7/1/2019 – 6/30/2024

8BC07 Bankhead Coley Gut Microbiome Creates Pre-Metastatic Niche in Liver for Cancer Metastases Role: Bioinformatician, 8% effort	Saluja, Ashok (PI)	3/1/2018 - 2/28/2021
7R01CA138833-08 NIH-NCI Regulation of the Oncogenic Stress Response in Helicobacter pylori-infected cells Role: Bioinformatician, 8% effort	Zaika, Alexander (PI)	7/1/2018 - 6/30/2022
1R33CA214310-01A1 NIH-NCI Live Tumor Culture Core and Tissue Specific Culture (TSC) System for Human Cancers Role: Bioinformatician, 5% effort	Ince, Tan (PI)	9/1/2017 - 8/31/2020
1R01DA047089-01 NIH-NIDA Title: Role of gut microbiome in HIV/opioid induced peripheral neuropathy Role: Bioinformatician, 4% effort	Roy, Sabita (PI)	7/1/2018 – 6/30/2023

Ongoing Research Support (collaboration plan)

Statistical and bioinformatics support for metagenomic data analysis Role: Biostatistician, 20% effort	Roy, Sabita (PI)	10/01/2017 -
Identification of Ras-p53 cooperative signaling pathways that promotes immune exclusion in pancreas adenocarcinoma using public data sets Role: Bioinformatician, 5% effort	Datta, Jashodeep (PI)	03/01/2020 -

Completed Research Support

1R21ES028397-01 NIH-NIEHS Elucidating the effects of arsenic exposure on human fetal development Role: Biostatistician, 10% effort	Robbins, David (PI)	7/1/2017 - 6/30/2019
PROPOSALM1700605 Bristol-Myers Squibb	Malek, Thomas (PI)	3/20/2017 - 2/19/2018

Identification of IL-2 dependent transcriptomes ex-vivo using a mouse model - MECHANISMS OF ACTION OF IL-2/CD-25 FUSION PROTEINS
Role: Bioinformatician, 20% effort

M1601748 George, Sophia (PI) 6/1/2016 - 5/31/2017
NIH-NIEHS
Targeted cancer panel testing in ovarian cancer in the setting of neoadjuvant chemotherapy
Role: Bioinformatician, $10,000

20. Editorial Responsibilities:

Journal Reviewer

2016 - 2018	*Bioinformatics*
2016	*International Journal of Genomics*
2013	*iConcept Press Pocket Journal*
2013	*Packt Publishing*

21. Professional and Honorary Organizations:

2015 - present	Member, International Society for Computational Biology
2015 - 2016	Member, International Chinese Statistical Association
2014 - 2015	Member, American Statistical Association

22. Honors and Awards:

2015	Poster and travel award. NSF Conference: Statistics for Complex Systems. Madison, WI.
2005 - 2006	Presidential Out-of-State Tuition Scholarship. Lewis-Clark State College.

23. Post-Doctoral Fellowships: N/A

24. Other Professional Activities:

Presentations

2015	(Contributed) Investigating Microbial Co-occurrence Patterns Based on Metagenomic Compositional Data. *DTRA/NSF Workshop Algorithm for Threat Detection. Arlington, VA.*

2015	(Invited) Investigating Microbial Co-occurrence Patterns Based on Metagenomic Compositional Data. *Joint 24th ICSA Applied Statistics Symposium and 13th Graybill Conference. Fort Collins, CO.*
2014	(Contributed) Evaluating Correlation Measures for Inferring the Co--Occurrence Network in Microbial Communities. *Joint Statistical Meetings (JSM). Boston, MA.*
2013	(Contributed) The impact of CpG islands in promoters on evolution of gene expression in mammals. *Annual MidSouth Computational Biology and Bioinformatics Society (MCBIOS) Conference. Columbia, MO.*
2013	(Contributed) The impact of CpG islands in promoters on evolution of gene expression in mammals. *Annual SDSU Symposium on Biological Research Computing. South Dakota State University.*
2012	(Contributed) Selective constraints on divergence of gene expression. *Computational Science and Statistics Seminar. Department of Mathematics and Statistics, South Dakota State University.*

Posters

2015	Investigating Microbial Co-occurrence Patterns Based on Metagenomic Compositional Data. *NSF Conference: Statistics for Complex Systems. Madison, WI.*
2013	The impact of CpG islands in promoters on evolution of gene expression in mammals. *NSF EPSCoR Bioinformatics Workshop. Little Rock, AR.*
2008	Analyses of Alternative Splicing Sites of Fibrillar Collagen Using ESTs Information and Exon Database. *IDeA Networks of Biomedical Research Excellence (INBRE) annual research conference. Boise, Idaho.*

VI. Teaching

25. Teaching Awards Received: N/A

26. Teaching Specialization:

2007 - 2009	Teaching Assistant for *Intermediate Algebra* Boise State University, Boise, Idaho Responsibility: Prepared and gave lectures, handouts, and graded tests

27. Thesis and Dissertation Advising/Post-doctoral Student Supervision: N/A

VII. Service

28. University Committee and Administrative Responsibilities: N/A

29. Community Activities: N/A