

Wenyan Ji

Research Associate

Center for Biostatistics & Health Data Science, Virginia Tech

Email: wenyanj@vt.edu

Phone: 919-946-8835

EDUCATION

University at Buffalo, The State University of New York | Buffalo, NY **May 2018**

Master of Arts in Biostatistics

Nanjing University of Technology | Nanjing, China

Master of Engineering in Biochemical Engineering

June 2014

Bachelor of Science in Biotechnology

June 2011

WORKING & RESEARCH EXPERIENCE

Center for Biostatistics & Health Data Science, Virginia Tech | Roanoke, VA **September 2021 – Present**

Research Associate (SAS, R)

Collaboration, Statistical Methodologies Support and Application, Grant Proposals and Manuscripts Preparation

Roswell Park Comprehensive Cancer Center | Buffalo, NY

August 2018 – September 2021

Biostatistician (SAS, R)

- Applied statistical methods primarily in clinical trial design, focusing on a wide variety of therapeutic areas, such as cardiovascular/metabolic, hematology and oncology.
- Participated in the collaboration with researchers and investigators on the design and analysis of clinical trial studies and projects.

Strategies used: Wilcoxon Rank Sum Test, Fisher's Exact Test, Log-rank Test, Propensity Score Method, etc.

Models used: Logistic Regression Model, Cox Regression Model, Mixed Model, etc.

Roswell Park Comprehensive Cancer Center | Buffalo, NY

June 2018 – August 2018

Laboratory Technician (SAS, R)

- Manipulated microbiome data, applied statistical approaches to demonstrate the effects of alpha diversity on treatment, SNP variant alleles, demographic and diet covariates.
- Performed existing normalization methods and differential abundance analysis to deal with the problem generated by the relative abundance of taxa.
- Applied statistical approaches to investigate the effects of five hormones on SNP variant alleles, adjusted for Body Mass Index, Baseline Age and Smoking Status.
- Developed different strategies and approaches to extract the dominant metabolic pathways, which account for the post intervention of flaxseed most and which account for race difference.

Strategies used: Mixed Model with Repeated Measure, PLS-DA, sPLS-DA, sPCA, Wilcoxon Test, Partitioning Clustering Method, Hierarchical Clustering Method.

Roswell Park Comprehensive Cancer Center | Buffalo, NY

September 2017 – May 2018

Research Apprentice (SAS, R)

- Developed new strategies and approaches on longitudinal data to extract significant demographic covariates that may correlate with the breast cancer.
- Constructed models to demonstrate associations between sociodemographic, personal characteristics, dietary habits and lignan metabolism.
- Constructed models to demonstrate associations between sociodemographic, personal characteristics, dietary habits and hormones.

- Merged, mined, categorized multiple databases from epidemiological research records.

Strategies used: Mixed Model with Repeated Measure, Model Selection, Principle Component Analysis, Decision tree, Partial Least Squares, K-means, K-medoids, etc.

Models used: simple linear model, general linear model, generalized linear model.

University at Buffalo, The State University of New York| Buffalo, NY September 2017 – February 2018

- Joined NCI-CPTAC DREAM Proteogenomics Challenge and predicted protein abundances based on genomics information, created models to predict the abundances of the K proteins from gene expression and copy number alterations.
- Assessed the effect of different hormonal contraceptives on the risk of HIV acquisition in sexually active HIV uninfected Zambian women.

Strategies used: AIC Model Selection, Partial Least Squares, Principle Component Regression, Lasso, Random Forest, etc.

Models used: Parametric Regression Model, Non-parametric Model, Cox Proportional Hazards Model.

SKILLS

- Programming: SAS (Base, Macro, SQL, IML), R, Rmarkdown, Latex, Matlab
- Software: Microsoft Office, Photoshop, CorelDRAW, 3DMAX

CERTIFICATES & AWARDS

- SAS Certified Base Programmer for SAS 9
- SAS Certified Advanced Programmer for SAS 9
- National Scholarship for Distinguished Graduate Student, China, 2014
- The Best Poster Presentation at International Symposium on Bio-catalysis and Biosynthetic Engineering, China, 2013

PATENTS & APPLICATIONS

- Jingjing Xie, **Wenyan Ji**, Hanjie Ying, Wujin Sun, Ting Guo, Yong Chen, Xiaochun Chen, Jinglan Wu. Use Of N-acetylneuraminic acid aldolase in catalytic synthesis of N-acetylneuraminic acid (Active).
- Jingjing Xie, **Wenyan Ji**, Hanjie Ying, Wujin Sun, Ting Guo, Yong Chen, Xiaochun Chen, Jinglan Wu. Use of N-acetylneuraminic acid aldolase in catalytic synthesis of N-acetylneuraminic acid (Authorized) (In Chinese).
- Hanjie Ying, **Wenyan Ji**, Jingjing Xie, Wujin Sun, Yong Chen, Xiaochun Chen, Jinglan Wu. Application of N-acetylglucosamine 2-epimerase in production of N-acetylmannosamine (Authorized) (In Chinese).
- Jingjing Xie, Wujin Sun, Hanjie Ying, Ting Guo, **Wenyan Ji**, Jiecheng Zhu, Xiaochun Chen, Yong Chen, Jinglan Wu. Codon optimization and expression of one N-acetylglucosamine 2-epimerase (Authorized) (In Chinese).

JOURNAL PUBLICATIONS

- Jason Ricciuti, Aaron Varghese, Steven Gallo, Deanna Argentieri, Wenyan Ji, Alan Hutson, Jaron Mark, Emese Zsiros (2021). Using restrictive opioid protocols for postsurgical pain management does not compromise patient reported outcomes. *Gynecologic Oncology*, 162, S325-S326.
- Emam, A., Hermann, G., Attwood, K., **Ji, W.**, James, G., Kuettel, M., & Mohler, J. (2021). Oncologic outcome of radical prostatectomy versus radiotherapy as primary treatment for high and very high risk localized prostate cancer. *The Prostate*, 81(4), 223-230.
- Gupta, M., Gosain, R., Sarma, M., Perimbeti, S., Attwood, K., **Ji, W.**, Gandhi, S., & Abdou, Y. (2021). Abstract PS7-29: Racial disparities in breast cancer outcomes: A SEER population based study. *Cancer Research*, 81(4 Supplement), PS7-29-PS7-29.
- Przepolewski, A., Muppidi, M., Freyer, C., **Ji, W.**, Cronin, T., Thota, S., Griffiths, E., Thompson, J., Ontiveros, E., Baron, J., & others (2021). Cladribine, cytarabine, and GCSF with and without mitoxantrone (CLAG ± M) is highly effective for poor risk acute myeloid leukemia with adverse karyotype and prior hypomethylating therapy. *Leukemia & Lymphoma*, 1-6.

- Gabriel, E., Kim, M., Fisher, D., Mangum, C., Attwood, K., **Ji, W.**, Mukhopadhyay, D., Bagaria, S., Robertson, M., Dinh, T., & others (2021). A pilot trial of intravital microscopy in the study of the tumor vasculature of patients with peritoneal carcinomatosis. *Scientific reports*, 11(1), 1–13.
- Mangum, C., Kim, M., Fisher, D., Attwood, K., **Ji, W.**, Mukhopadhyay, D., Bagaria, S., Robertson, M., Dinh, T., Knutson, K., & others (2021). Intravital Mroscopy in the Study of the Tumor Vasculature of Patients with Peritoneal Carcinomatosis. *ANNALS OF SURGICAL ONCOLOGY*, 28(SUPPL 1), S115-S115.
- Farrugia, M., Erickson, K., Wendel, E., Platek, M., **Ji, W.**, Attwood, K., Ma, S., Gu, F., Singh, A., & Ray, A. (2021). Change in Physical Performance Correlates with Decline in Quality of Life and Frailty Status in Head and Neck Cancer Patients Undergoing Radiation with and without Chemotherapy. *Cancers*, 13(7), 1638.
- Ricciuti, J., Gallo, S., Argentieri, D., Visco, P., Attwood, K., **Ji, W.**, Fabiano, A., Hennon, M., Kauffman, E., Wooten, K., & others (2021). Less is more: Postoperative pain management using restrictive opioid protocols in all surgical services in a comprehensive cancer center. *Journal of Clinical Oncology*, 39(15_suppl), 103-103.
- Gandhi, S., Pandey, M., Attwood, K., **Ji, W.**, Witkiewicz, A., Knudsen, E., Allen, C., Tario, J., Wallace, P., Cedeno, C., & others (2021). Phase I clinical trial of combination propranolol and pembrolizumab in locally advanced and metastatic melanoma: safety, tolerability, and preliminary evidence of antitumor activity. *Clinical Cancer Research*, 27(1), 87–95.
- Trumbull, D., Lemini, R., Vico, T., Jorgensen, M., Attwood, K., **Ji, W.**, Brady, M., Gabriel, E., & Kukar, M. (2021). Prognostic significance of complete pathologic response obtained with chemotherapy versus chemoradiotherapy in gastric cancer. *Annals of Surgical Oncology*, 28(2), 766–773.
- Peng, J., Brady, M., **Ji, W.**, Attwood, K., Kukar, M., & Hochwald, S. (2020). Is the National Surgical Quality Improvement Program Calculator Predictive of Outcomes After Minimally Invasive Esophagectomy?. *ANNALS OF SURGICAL ONCOLOGY*, 27(SUPPL 1), S166-S166.
- Peng, J., Brady, M., **Ji, W.**, Attwood, K., Hochwald, S., & Kukar, M. (2020). Predictors of Early Recurrence After Resection for Esophageal and Gastroesophageal Junction Cancer. *ANNALS OF SURGICAL ONCOLOGY*, 27(SUPPL 1), S185-S185.
- Peng, J., Brady, M., **Ji, W.**, Attwood, K., Hochwald, S., & Kukar, M. (2020). Impact of Smoking Status on Postoperative and Oncologic Outcomes After Esophagectomy for Gastroesophageal Junction Cancer. *ANNALS OF SURGICAL ONCOLOGY*, 27(SUPPL 1), S166-S167.
- Hanif, A., Khan, S., Mantri, N., Hanif, S., Saleh, M., Alla, Y., Chinta, S., Shrestha, N., **Ji, W.**, Attwood, K., & others (2020). Thrombotic complications and anticoagulation in COVID-19 pneumonia: a New York City hospital experience. *Annals of hematology*, 99(10), 2323–2328.
- Gupta, M., Gosain, R., Sarma, M., Perimbeti, S., Kristopher, A., **Ji, W.**, Gandhi, S., & Abdou, Y. (2020). Abstract PO-221: Racial disparities in breast cancer characteristics and outcomes among Hispanic and White patients. *Cancer Epidemiology and Prevention Biomarkers*, 29(12 Supplement), PO-221-PO-221.
- Abdou, Y., Elkhanany, A., Attwood, K., **Ji, W.**, Takabe, K., & Opyrchal, M. (2019). Primary and secondary breast angiosarcoma: single center report and a meta-analysis. *Breast cancer research and treatment*, 178(3), 523–533.
- Przespolewski, A., Freyer, C., **Ji, W.**, Cronin, T., Thota, S., Griffiths, E., Thompson, J., Elshoury, A., Baron, J., Walsh, M., & others. (2019). Cladribine, Cytarabine, Granulocyte Colony Stimulating Factor ± Mitoxantrone (CLAG ± M) Is Highly Effective Therapy for Secondary and Relapsed/Refractory Acute Myeloid Leukemia. *Blood, The Journal of the American Society of Hematology*, 134(Supplement_1), 1361-1361.
- Lone*, Z., Khan, H., Steele, M., Bizovi, J., Elsayed, A., Aldhaam, N., Hussein, A., **Ji, W.**, Attwood, K., Davidson, R., & others (2019). PD63-11 ART HEALS: DOES ART THERAPY HELP IN THE RECOVERY OF PATIENTS AFTER MAJOR ONCOLOGIC SURGERY?. *The Journal of Urology*, 201(Supplement 4), e1116–e1116.
- Lemini, R., Attwood, K., Almeray, T., Gunn, J., Yeager, T., Elias, A., Partain, K., Jorgensen, M., **Ji, W.**, Gabriel, E., & others (2019). Is metastasectomy a worthy option?—the role of surgery in metastatic colon cancer to liver and lungs. *Journal of gastrointestinal oncology*, 10(6), 1032.

- Yeager, T., Partain, K., Gunn, J., Almeray, T., Lemini, R., **Ji, W.**, Attwood, K., Bagaria, S., & Gabriel, E. (2019). The Prognostic Significance of the Lymph Node Ratio in Gastric Neuroendocrine Tumors. *ANNALS OF SURGICAL ONCOLOGY*, 26, S130–S130.
- Terhune, J., Fisher, D., Khushalani, N., **Ji, W.**, Attwood, K., & Skitzki, J. (2019). Identification of Immunotherapy Targets After IL-2 Treatment. *ANNALS OF SURGICAL ONCOLOGY*, 26, S162–S163.
- Sun, W., Hu, Q., **Ji, W.**, Wright, G., & Gu, Z. (2017). Leveraging physiology for precision drug delivery. *Physiological reviews*, 97(1), 189–225.
- Sun, W., **Ji, W.**, Hu, Q., Yu, J., Wang, C., Qian, C., Hochu, G., & Gu, Z. (2016). Transformable DNA nanocarriers for plasma membrane targeted delivery of cytokine. *Biomaterials*, 96, 1–10.
- **Ji, W.**, Sun, W., Feng, J., Song, T., Zhang, D., Ouyang, P., Gu, Z., & Xie, J. (2015). Characterization of a novel N-acetylneuraminic acid lyase favoring industrial N-acetylneuraminic acid synthesis process. *Scientific reports*, 5(1), 1–9.
- Sun, W., **Ji, W.**, Hall, J., Hu, Q., Wang, C., Beisel, C., & Gu, Z. (2015). Titelbild: Self-Assembled DNA Nanoclews for the Efficient Delivery of CRISPR–Cas9 for Genome Editing (Angew. Chem. 41/2015). *Angewandte Chemie*, 127(41), 12045–12045.
- Sun, W., **Ji, W.**, Hall, J., Hu, Q., Wang, C., Beisel, C., & Gu, Z. (2015). Self-assembled DNA nanoclews for the efficient delivery of CRISPR–Cas9 for genome editing. *Angewandte Chemie*, 127(41), 12197–12201.
- Sun, W., **Ji, W.**, Hall, J., Hu, Q., Wang, C., Beisel, C., & Gu, Z. (2015). CRISPR–Cas9 Delivery by DNA Nanoclews for Efficient Genome Editing. *MRS/ASM/AVS 2015*, 51.
- Sun, W., **Ji, W.**, Hall, J., Hu, Q., Wang, C., Beisel, C., & Gu, Z. (2015). Efficient delivery of CRISPR–Cas9 for genome editing via self-assembled DNA nanoclews. *Angewandte Chemie (International ed. in English)*, 54(41), 12029.
- Sun, W., **Ji, W.**, Hall, J., Hu, Q., Wang, C., Beisel, C., & Gu, Z. (2015). Cover Picture: Self-Assembled DNA Nanoclews for the Efficient Delivery of CRISPR–Cas9 for Genome Editing (Angew. Chem. Int. Ed. 41/2015). *Angewandte Chemie International Edition*, 54(41), 11877–11877.
- Sun, W., **Ji, W.**, Li, N., Tong, P., Cheng, J., He, Y., Chen, Y., Chen, X., Wu, J., Ouyang, P., & others (2013). Construction and expression of a polycistronic plasmid encoding N-acetylglucosamine 2-epimerase and N-acetylneuraminic acid lyase simultaneously for production of N-acetylneuraminic acid. *Bioresource technology*, 130, 23–29.