

Jing Wang

jxw445@case.edu

<http://www.linkedin.com/pub/jing-wang/25/9bb/509>

Professional History

Lab Manager, Case Western Reserve University (Nov 2022 – Current)

- Independently design and execute advanced molecular biology experiments. Overseeing the execution of molecular workflows for ongoing projects.
- Collaborate with core users to develop human molecular biomarker screening assays.
- Develop and implement lab standard operating procedures.
- Maintain an electronic lab notebook for core activities.
- Manage procurement of supplies and equipment while monitoring budgets.
- Set up, maintain, and calibrate laboratory equipment.
- Train and supervise core users and staff.
- Ensure compliance with safety and biosafety regulations.

Senior Research Assistant, Brown University (Aug 2016 – Feb 2021)

- Identified mutations and polymorphisms that disrupt RNA splicing in humans using high throughput genomics techniques.
- Contributed to the development of a SARS-CoV-2 detection assay that is less invasive than the nasal swab and adaptive to high throughput methods.
- Utilized a novel high-throughput assay to determine the contribution of defective splicing to the cause of Autism.
- Investigated the contribution of mutational processes in regulatory signals.
- Assist in general lab and equipment maintenance. Place orders, and maintain records of reagents and other supplies.
- Train new staff.

Research Technician, West Virginia University Research Corporation (Feb 2014 – Jul 2016)

- Conducted research on neuromodulation of olfactory processing, including processing tissue samples, immunohistochemistry, confocal microscopy, etc.
- Developed and wrote protocols.
- Trained lab members on the correct use of equipment and experimental techniques.

Graduate Research technician, Syracuse University (May 2012 – Dec 2013)

- Assist in microbiology research
- Maintain bacteria culture

Educational History

Syracuse University, Syracuse, NY (Graduated: 2013)

Master's of Science in Biomedical Engineering and Bioengineering

Wuhan University, Wuhan, Hubei, China (Graduated: 2009)

Bachelor's of Science in Biology

Skills

Experimental skills: Molecular biology, biochemistry, DNA/RNA extraction, qPCR, Western Blot, cell culture, confocal microscopy, RNA sequencing, immunocytochemistry, molecular cloning, recombinant protein expression, HPLC, In Situ Hybridization, bioinformatics, ELISA and immunological assays, spectrophotometry, immunoprecipitation, specimen preparation.

Software: Microsoft Office, Adobe Photoshop, ImageJ, Python, R, Fluoview, Endnote, Origin, MiniTab..

Selected Published Works

O'Connell GC, Smothers CG, Wang J, Ruksakulpiwat S, Armentrout BL. Brain Expression Levels of Commonly Measured Blood Biomarkers of Neurological Damage Differ with Respect to Sex, Race, and Age. *Neuroscience*. 551(2024) 79-93.

Buerer L, Clark NE, Welch A, Duan C, Taggart AJ, Townley BA, Wang J, Soemedi R, Rong S, Lin CH, Zeng Y, Katolik A, Staley JP, Damha MJ, Mosammaparast M, Fairbrother WG. The debranching enzyme Dbr1 regulates lariat turnover and intron splicing. *Nature communications*. 15 (1) 4617.

O'Connell GC, Wang J, Smothers CG. Donor white blood cell differential is the single largest determinant of whole blood gene expression patterns. *Genomics*. 115(2023) 110708.

Duan C, Buerer L, Wang J, Kaplan S, Sabalewski G, Jay GD, Monaghan SF, Arena AE, Fairbrother WG. Efficient Detection of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) from Exhaled Breath. *J Mol Diagn*. 23:1661-1670 (2021).

Rong S, Buerer L, Rhine CL, Wang J, Cygan KJ, Fairbrother WG. Mutational bias and the protein code shape the evolution of splicing enhancers. *Nat Commun*. 11:2845 (2020).

Rhine CL, Neil C, Glidden DT, Cygan KJ, Fredericks AM, Wang J, Walton NA, Fairbrother WG. Future directions for high-throughput splicing assays in precision medicine. *Hum Mutat*. 40(9):1225-1234 (2019).