

Bowen Jin

PHD CANDIDATE · SYSTEM BIOLOGY AND BIOINFORMATICS

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Education

Case Western Reserve University

Cleveland, Ohio

PH.D., SYSTEM BIOLOGY AND BIOINFORMATICS

07/2018 - 05/2023

- Advisor: William S. Bush, Ph.D.
- Dissertation: "Study transcriptional variability with single-cell RNA-seq data"

Huazhong University of Science and Technology

Hubei, China

B.S., PHYSICS

09/2014 - 06/2018

- Advisor: Shengyou Huang, Ph.D.
- Thesis: "Protein-peptide docking with coarse-grained model"

Appointment

2023-
current

Postdoctoral Research Fellow, Brigham & Women's Hospital; Harvard Medical School

2018-2023

Research Assistant; Teaching Assistant, Case Western Reserve University

2017-2018

Undergraduate Research Assistant, Huazhong University of Science and Technology

Publications

PUBLISHED

Li B, **Jin B**, Capra JA, Bush WS. 2022. Integration of Protein Structure and Population-Scale DNA Sequence Data for Disease Gene Discovery and Variant Interpretation. *Annual Review of Biomedical Data Science* 5: 141–161.

Grunin M, de Jong S, Palmer E, **Jin B**, Rinker D, Moth C, Capra JA, Haines JL, Bush WS, Den Hollander AI. 2022. Spatial modeling of variants in complement genes associated with age-related macular degeneration. *Investigative Ophthalmology & Visual Science* 63: 2627.

Jin B, Capra JA, Benchek P, Wheeler N, Naj AC, Hamilton-Nelson KL, Farrell JJ, Leung YY, Kunkle B, Vadarajan B, et al. 2022. An association test of the spatial distribution of rare missense variants within protein structures identifies Alzheimer's disease-related patterns. *Genome Res* 32: 778–790.

Tang Z-Z, Sliwoski GR, Chen G, **Jin B**, Bush WS, Li B, Capra JA. 2020. PSCAN: Spatial scan tests guided by protein structures improve complex disease gene discovery and signal variant detection. *Genome Biol* 21: 217.

Zhou P, **Jin B**, Li H, Huang S-Y. 2018. HPEPDOCK: a web server for blind peptide-protein docking based on a hierarchical algorithm. *Nucleic Acids Res* 46: W443–W450.

IN REVIEW

Jin B, Feng H, Bush WS. 2022. Allelic Transcription Factor binding shape transcriptional kinetics in human cell lines. *bioRxiv* 2022.09.21.508743.

IN PREPARATION

Jin B, Bush WS. Transcriptional kinetics in human microglia

Awards

2022 **SYBB Graduate Student Travel Award**, Department of Nutrition.

2022 **Graduate Student Travel Award**, School of Graduate Studies

Presentations

TALKS

Jin B, Capra JA, Benchek P, Wheeler N, Naj AC, Hamilton-Nelson KL, Farrell JJ, Leung YY, Kunkle B, Vadarajan B. 2022. *Spatial Distribution of Rare Missense Variants Within Protein Structures is Associated with AD Risk*. Oral presentation: Alzheimer's Association International Conference, San Diego, CA.

Jin, B, Feng H, Bush WS. 2022. *Allelic-specific transcription factor binding and chromatin accessibility shape promoter kinetics in human cell lines*. Oral presentation: American Society of Human Genetics Annual Meeting, Los Angeles, CA.

Jin, B. 2022. Allelic-specific transcription factor binding and chromatin accessibility shape promoter kinetics in human cell lines. Tohoku Symposium, Cleveland, OH.

POSTER PRESENTATIONS

Jin, B, Bush WS. 2021. Transcriptomic mapping of bursting kinetics in human cells. Poster: American Society of Human Genetics Annual Meeting, Virtual Meeting

Jin B, Bush WS. 2021. Transcriptomic mapping of bursting kinetics in human cells. Poster: The Biomedical Graduate Student Symposium, Cleveland, OH

Jin B, Capra JA, Benchek P, Wheeler N, Naj AC, Hamilton-Nelson KL, Farrell JJ, Leung YY, Kunkle B, Vadarajan B. 2020. A protein structure-based association test for studying rare variants. Poster: American Society of Human Genetics Annual Meeting, Houston, TX

Jin B, Capra JA, Benchek P, Wheeler N, Naj AC, Hamilton-Nelson KL, Farrell JJ, Leung YY, Kunkle B, Vadarajan B. 2020. A protein structure-based association test for studying rare variants. Poster: The Biomedical Graduate Student Symposium, Cleveland, OH

Teaching Experience

Fall 2022	A Data-Driven Introduction to Genomics and Human Health , Teaching Assistant/Lecturer	Cleveland, OH
Summer 2022	Introduction to R Programming , Teaching Assistant/Lecturer	Cleveland, OH
Summer 2022	Introduction to Scientific Computing , Teaching Assistant/Lecturer	Cleveland, OH
Fall 2020	A Data-Driven Introduction to Genomics and Human Health , Teaching Assistant	Cleveland, OH

Professional Development

SERVICE AND OUTREACH

2022	Case Western Reserve University Undergraduate Research: SOURCE Symposium , Volunteer Judge	Cleveland, OH
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PROFESSIONAL MEMBERSHIPS

American Society of Human Genetics

Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART)

PEER REVIEW

Nucleic Acids Research

PLOS Biology