WANG XI

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EDUCATION

Johns Hopkins University, U.S. 2022 (expected)
Ph.D., Biomedical Engineering
Thesis: Probabilistic modeling of chromatin interactions
Advisor: Mike Beer

Huazhong University of Science and Technology, China 2017
B.Sc., Biotechnology

RESEARCH EXPERIENCE

Research Assistant, Mike Beer Lab, JHU, U.S. 2017-22
Developing mathematical models to predict chromatin interactions mediated by CTCF and regulatory elements in mammalian cell nucleus.

Research Intern, Yi Xing Lab, UCLA, U.S. 2016
Assisted in developing expectation-maximum-based method for RBP-bound repetitive elements identification.

Research Assistant, Kang Ning Lab, HUST, China 2016-17
Developed QC-Bind, a pipeline to do quality control on NGS data without reference genome of target species.

Team Leader, iGEM 2015, Boston, U.S. 2015
Designed and led a synthetic biology project for eco-friendly cementation materials.

FELLOWSHIPS & AWARDS

Ph.D.

Young Investigators' Day Award (Bao Gyo Jung), JHU	2021
Graduate Student Spotlight, GSA, JHU	2021

Undergraduate

CSST Fellowship, UCLA	2016
School Merit Student, HUST	2016
School Merit Student, HUST	2015
National Fellowship, Chinese Ministry of Education	2015
iGEM Gold Medal	2015
CSC Scholarship, China Scholarship Council [$10,000]	2015
School Merit Student, HUST	2014
National Fellowship, Chinese Ministry of Education	2014

JOURNAL PUBLICATIONS

Xi, W. & Beer, M. A., "Loop competition and extrusion model predicts CTCF interaction specificity", Nature Communications, 2021.

Xi, W.*, Gao, Y.*, Cheng, Z., Chen, C., Han, M., Yang, P., Ning, K, "Using QC-Blind for quality control and contamination screening of bacteria DNA sequencing data without reference genome", Frontiers in Microbiology, 2019.

Xi, W. & Beer, M. A., "Local epigenomic state cannot discriminate interacting and non-interacting enhancer–promoter pairs with high accuracy", PLoS Computational Biology, 2018.

Tang, S.*, **Xi, W.***, Cheng, Z.*, Yin, L., Li, R., Wu, G., Liu W., Xu J., Xiang S., Zheng Y. Ge, Q., Ning K., Yan Y., Zhan Y, "A Living Eukaryotic Autocementation Kit from Surface Display of Silica Binding Peptides on Yarrowia lipolytica", ACS synthetic biology, 2016.

TALKS

Encyclopedia of DNA Elements Consortium Meeting, U.S. 2021
5th Annual Excellence in Diversity Symposium, JHU, U.S. 2021
CSHL Systems Biology: Global Regulation of Gene Expression, U.S. 2020
Cross-Disciplinary Scholars in Science and Technology, UCLA, U.S. 2016

POSTER PRESENTATIONS

VKS Higher-Order Chromatin Architecture in Time and Space, U.S. 2021
CSHL Biology of Genome, U.S. 2019
Encyclopedia of DNA Elements Consortium Meeting, U.S. 2019
Encyclopedia of DNA Elements Consortium Meeting, U.S. 2018

TEACHING EXPERIENCE

Teaching Assistant, Johns Hopkins University
EN.580.454: Methods in Nucleic Acid Sequencing Lab 2021
Instructor: Winston Timp

EN.580.644: Introduction to Data Science for Biomedical Engineering 2019
Instructor: Brian Caffo

SCIENCE OUTREACH & VOLUNTEER

Member, Fragile Nucleosome Journal Club 2021-
Coordinating discussion of recent papers and preprints on chromatin research among experts, students and postdocs

Member, ENCODE Consortium Agenda Committee 2021-22
Planning spring 2022 ENCODE consortium meeting (hybrid)

Lecturer, New Age Owls, Singapore 2020-21
Teaching introductory Biology and Data Science courses to high school students

Director of Research, hopAI, JHU 2018-20
Held Artificial Intelligence(AI) related symposiums and workshops for Hopkins students

MEDIA COVERAGE

Young Investigators' Day 2021 News1 News2