ZHAO Wenxue

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EDUCATION

Peking University **PhD in bioinformatics** **2020–2025**

Excellent Research Award, Gu Wenyu Life Sciences Scholarship

Shandong University **Bachelor of Science in Biology Science** **2016–2020**

GPA: 90.85/100 (Top 3%)

National Scholarship, Outstanding Graduate of Shandong Province, Outstanding Student Leader

PROFESSIONAL EXPERIENCE

BioGeometry **Beijing | 2023.07–2023.11**

Computational Biology Researcher Intern

- Participated in two drug target discovery projects, cleaning and analysis of multi-omics data. Collaborated with the AI algorithm team to replicate large language models and deep learning models to identify disease targets.
- Participate in the product design department's proposal meetings, providing direction for website and software product design from a biological perspective.

Chinese Academy of Sciences Institute for Science and Technology Policy **Remote | 2022.10–2023.01**

Research Assistant in the Strategic Consulting Department

- Conducted research and summary on the development dynamics of 32 high-tech zones, with a focus on the innovative development of the biopharmaceutical industry in high-tech zones.
- Participated in communication and interviews with KOL, drafted interview outlines, and summarized Q&A.

Illumina **Beijing | 2022.07–2022.09**

Field Bioinformatics Scientist Intern

- Managed two internal bioinformatics data analysis projects, and provided detailed data interpretation and suggestions for experimental optimization to colleagues in the experimental department.
- Participated in organizing cross-departmental bioinformatics training courses, summarized common customer questions, and provided targeted training.

Peking University **Beijing | 2020.10–2022.10**

Lab manager (Part-time)

- Assisted the supervisor with the management of research funding and grant applications. Led in writing the application documents and budget for programs.
- Managed the procurement and financial reimbursement of laboratory consumables, and organized team-building activities.

ACADEMIC EXPERIENCE

Exploring the Functions of architectural proteins on the formation and maintenance of 3D genome structure

- **Background:** Investigated the relationship between the 3D genome structure and processes such as disease and aging.
- **Responsibilities:** Worked as a **team collaborator** to analyze multi-omics data, manage the data results and write scientific papers.
- **Achievements:** A co-first author SCI paper (IF: 16.5) has published, and 2 additional papers under submission.

Exploring the Impact and Mechanism of Cellular Mechanical Factors on Disease

- **Background:** Designed in vitro matrices to simulate the physiological or pathological stiffness of the liver.
- **Responsibilities:** Worked as a **team leader** to oversee the overall planning and advancement of the research project, coordinate with doctors and advisors, and submit weekly work reports; Attended academic conferences and give presentations.
- **Achievements:** The first author article published.

Development of multimodal technology for in situ spatial omics and mechanical atlas and its application

- **Background:** Developed multimodal experimental methods and built data analysis pipeline to reveal the spatial transcriptome and mechanical signature atlas of the tumor microenvironment.
- **Responsibilities:** Worked as a **team leader** to design techniques and pipelines. Coordinated the division of labor among project members and organize troubleshooting for experimental techniques.
- **Achievements:** Presented at academic conferences with both a poster and an oral presentation on two occasions.

SKILLS & HONORS

- Programming tools：Linux, R, Python；Design tools：Adobe Illustrator, Photoshop
- Poster & Presentation: National Academic Conference on Bioinformatics and Systems Biology (2023 • Qingdao), International genetically engineered machine competition (2018 • Boston)

PUBLICATIONS

(* Co-first author)

Zhao, W.*, Yuan, W.*, Dong, T.*, Qi, W., Feng, Z., Li, C., *et al.* Increased matrix stiffness promotes fibrogenesis of hepatic stellate cells through AP-1-induced chromatin priming. (2025). *Commun. Biol.* 8, 920. (IF:6)

Wu, P., Hsu, A.Y., Peng, T., **Zhao, W.**, Liu, F., Zhang, Z., *et al.* The effect of transient, constricted migration on neutrophil intracellular bacteria-killing capability. (2024). *Immunity 57*, 1713-1715. (IF:25)

Sun, Y.*, XU, X.*, **Zhao, W.***, Zhang, Y., Chen, K., Li, Y., *et al.* Rad21 is the core subunit of the cohesin complex involved in directing genome organization. (2023). *Genome Biol.* 24, 155. (IF:15)

Zhang M.***, Zhao, W.***, Xiao Z.*, Chang L., Wang, X., Bai Y., *et al.* Lamin A/C safeguards replication initiation by orchestrating chromatin accessibility and PCNA recruitment. (2025). *bioRxiv.* 2025.03

Wang, Y.*, **Zhao, W.***, Niu, J., Wang, C., Li, C., Sun, Y. The nucleoskeleton protein NuMA maintains local chromatin architecture partially through promoting linker histone H1 binding to chromatin and nucleosome stacking. (2024). **Submitted.**

Niu, J.*, Wang, X.*, **Zhao, W.***, Wang, Y., Qin, Y., Huang, X., *et al.* Perinuclear force regulates SUN2 dynamics and distribution on the nuclear envelope for proper nuclear mechanotransduction. (2024). **Submitted.**