

Zhenyu Liu (刘振宇)

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北京大学
PEKING UNIVERSITY

EDUCATION

Peking University (PKU)

Sep 2021 - Jul 2025

PhD in Biology, School of Life Sciences

Beijing, China

- "4 plus 4" Undergraduate-PhD Program

Peking University (PKU)

Aug 2017 - Jul 2021

Bachelor in Biological Sciences, Yuanpei College

Beijing, China

- GPA: 3.714/ 4.0 (10/80, top 15%)
- Undergraduate Scientific Research Training Program of PKU
- Relevant Coursework: Statistical Analysis of Genomics Data (97), Technologies for Genome Biology (96), Methods in Bioinformatics (95), Mathematical Modeling in the Life Sciences (92), Genetics (90), Biochemistry (90), etc.

RESEARCH EXPERIENCE

Single-cell sequencing reveals clearance of chromosomal mosaicism in IVF babies

Sep 2020 - Present

PhD Student, Fuchou Tang Lab, Biomedical Pioneering Innovation Center (BIOPIC), PKU Beijing, China

- Bioinformatics analysis of single cell RNA-Seq and Whole Genome Sequencing (WGS).
- Identify cell type based on scRNA-Seq data.
- Evaluate chromosome ploidy in each single cell.
- Manuscript under review.

Novel Single-cell RNA-Seq Method Based on Nanopore Sequencing

Oct 2020 - Present

PhD Student, Fuchou Tang Lab, Biomedical Pioneering Innovation Center (BIOPIC), PKU Beijing, China

- Build bioinformatics pipeline of SCAN-Seq2
- Systematic evaluation on technical performance of SCAN-Seq2.
- De novo transcript assembly and identification of novel transcripts.
- Identify V(D)J recombination of immunoglobulin and lymphocyte surface receptors.

Mechanisms of Chromatin Remodeling in Pancreatic Lineage Differentiation

Feb 2019 - Jun 2020

Undergraduate, Chengran Xu Lab, School of Life Sciences, PKU

Beijing, China

- Processed raw data from single cell RNA-Seq, ChIP-Seq and ATAC-Seq
- Identify binding sites of different transcription factors and their distinct roles in chromatin remodeling and transcription regulation.
- Depicted the epigenetic dynamics at regulatory elements during cell differentiation.
- Proposed the model for the transcription factor determined cell fate commitment.

LEADERSHIP EXPERIENCE

Table Tennis Association, Peking University

Sep 2017 - Jul 2019

Department Head, Department of Competition

Beijing, China

- Host several school-wide table tennis competitions, including the Peking University Cup, Freshmen Cup.
- Co-organizer of "2018 AYTTO Beijing Table Tennis Summer Camp" organized by the American Youth Table Tennis Organization (ATTYO) at Peking University

HONORS & AWARDS

- Outstanding Graduates, Yuanpei College (2021.7)
- Award for Academic Excellents, Peking University (2018.12)
- The Second Prize of Freshman Scholarship, Peking University (2017.12)

SKILLS LIST

- Programming: Python, MATLAB, Linux Shell, C++; Statistics and data visualization: R.
- Language: GRE 325 points (Verbal 155, Quantification 170, Analytical Writing 3.5); TOEFL 103 points (Reading 29, Listening 28, Speaking 23, Writing 23).
- Sports: Table tennis (PKU school team for non-sports student).