Shengliang NI

2025/05/02 update
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EDUCATION

The University of Tokyo (current) **Tokyo, Japan**
PhD of Sciences (Computational Biology and Medical Sciences) Expected 2025
Supervisor: Martin Frith

The University of Tokyo **Tokyo, Japan**
Master of Sciences (Computational Biology and Medical Sciences) Received 2021
Supervisor: UI-TEI Kumiko

Zhejiang University **Hangzhou, China**
Bachelor of Agronomy (Agriculture and Biotechnology) Received 2018

RESEARCH INTERESTS

I study genomic elements such as pseudogenes, repetitive sequences, and non-coding RNA loci across various genomes—including those of eukaryotes, prokaryotes, and specialized cell lines like breast cancer—using bioinformatics and statistical approaches.

RESEARCH

If the conference is associated with journal,names of the journal will be listed.
* indicates co-first authors

(Selected research)

1. **Ni S***, Shu S*, Kato M, Saitoh N and Frith M C. Repeat elements enriched in cis-regulatory regions act in cancer cell transition to estrogen-independence. **GIW ISCB-Asia 2023 (**recommend to ***NAR Genomics and Bioinformatics*****).**
2. Frith M C, **Ni S**. DNA conserved in diverse animals since the Precambrian controls genes for embryonic development ***Molecular Biology and Evolution*****. (2023).**
3. Zhang H*, **Ni S*** and Frith M C. An immune-suppressing protein in human endogenous retroviruses ***Bioinformatics Advances*** **(2023, GIW ISCB-Asia 2022 associated).**

(Other posters and presentations)

1. **Ni S***, Shu S*, Kato M, Saitoh N, Frith M C, Palihati M, Carninci P. Repeat elements enriched in cis-regulatory regions act in cancer cell transition to estrogen-independence. **Poster. Cold Spring Harbor Asia meeting on Chromatin, Epigenetics & Transcription (2024).**
2. **Ni S***, Shu S*, Kato M, Saitoh N and Frith M C. Investigating the role of repeat elements in promoting the transition of MCF-7 cells to LTED cells. **Poster. The 46rd annual meeting of MBSJ (2023).**
3. **Ni S***, Shu S*, Kato M, Saitoh N and Frith M C. Investigating the role of repeat elements in promoting the transition of MCF-7 cells to LTED cells. **Poster. The 68th HGA (2023).**

4. **Ni S***, Shu S*, Kato M, Saitoh N and Frith M C. Investigating the role of repeat elements in promoting the transition of MCF7 cells to LTED cells. **Oral Presentation**. **The 11th IIBMP (2022).**
5. **Ni S*** and Frith M C. K The protein fossil record in prokaryote genomes: a hidden treasure. **Oral Presentation**. **The 11th IIBMP (2022).**
6. **Ni S*** and Ui-Tei K. Design and validation of antiviral siRNAs for targeting the conserved regions in coronavirus. **Poster. The 43rd annual meeting of MBSJ (2020).**
7. **Ni S*** and Ui-Tei K. Design and validation of antiviral siRNAs for targeting the conserved regions in coronavirus. **Poster. The 25th annual meeting of RNA Biology (2020).**

INTERNSHIPS AND EXPERIENCE

- Data Scientist Training/Education Program (DSTEP) 2022-2024
- Procter & Gamble 2nd IT Tech Challenge (Hackathon), Tokyo, Japan Sep 2020
- Research Student, Supervisor: UI-TEI Kumiko 2018-2019

AWARDS

- Ushio Scholarship 2022-2024
- Zhejiang Rural Credit Cooperative International Exchange Scholarship 2017
- Scholarship for Special Major, Zhejiang University 2016, 2017
- Scholarship for Excellence in Arts and Sports, Zhejiang University 2015

SKILLS

Languages: English (Fluent); Chinese (Native); Japanese

Technical Skills:

- **Programing**: UNIX shell (first priority), Python, R, MySQL, HTML5, PHP, C/C++.
- **Computational skill**:
  - Experiences and knowledge of statistics and multi-omics data analysis in bioinformatics (LAST, DESeq2, Seurat, edgeR, clusterProfiler, etc.);
  - Fundamental applications of machine learning and deep learning (scikit-learn, XGBoost);
  - Basic knowledge of quantum computation (Qiskit).