

# Yue Hu | Ph.D.

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## Education

<b>Beijing Jiaotong University</b> <i>Bachelor, Bioinformatics</i>	<b>Beijing, P.R.China</b> 2013–2017
<b>University of North Carolina at Chapel Hill</b> <i>Visiting Ph.D student, Department of Pharmacology</i> Adviser: Dr. Daniel Dominguez	<b>Chapel Hill, NC</b> 2019–2021
<b>Shanghai Institute of Nutrition and Health, CAS</b> <i>Ph.D, Computational Biology</i> Adviser: Dr. Zefeng Wang	<b>Shanghai, P.R.China</b> 2017–2023

## Research Projects

<i>RNA-binding protein splicing activity prediction model</i>	2016.11-2018.11
• Developed a machine learning method to predict the splicing regulatory activities based on amino acid sequence of RNA-binding proteins	
<i>Systematic survey of PRMTs interactome</i>	2018.5-2021.7
• Analyzed the differential splicing of PRMTs' RNA-seq data and found their regulatory roles in splicing	
<i>Integrative language model for RBP-RNA interactions</i>	2019.11-2023.7
• Developed a prediction model based on BERT to integrate both <i>in vivo</i> and <i>in vitro</i> binding experimental data of RBPs, successfully found RBPs' regulatory roles in RNA splicing and translation	
<i>Extensive Dysregulation of SLK Splicing in Cancers Impacts Metastasis</i>	2021.10-2023.3
• Conducted large-scale analysis of cancer-related splicing events, and found SLK's downstream target through RNA-seq analysis	

## Professional Experiences

<b>CirCode Biomed</b> <i>Bioinformatics Scientist, RNA design</i>	<b>Shanghai, P.R.China</b> 2023-present
<b>Shanghai Institute of Nutrition and Health, CAS</b> <i>Teaching Assistant, Biostatistics</i>	<b>Shanghai, P.R.China</b> 2019

## Skills

- |                                |                        |
|--------------------------------|------------------------|
| • R                            | • Python               |
| • Bash                         | • Pytorch              |
| • Transcriptomic Data Analysis | • Statistical Analysis |
| • C                            | • MySQL                |

## Model Developments

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**Pytorch - iBindNet:** author & maintainer (<https://github.com/jechia/iBindNet>)

## Conference Presentations

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**The 4th National Ribonucleic Acid RNA Youth Academic Conference** Lanzhou, P.R.China  
Talk, April, 2023

iBindNet - Integrative language model for RBP-RNA interactions

**RNA 2023** Singapore  
Talk, June, 2023

iBindNet - Integrative language model for RBP-RNA interactions

## Publications

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- Miaowei Mao, Yue Hu, Yun Yang, Yajie Qian, Huanhuan Wei, Wei Fan, Yi Yang, Xiaoling Li, Zefeng Wang. **Modeling and predicting the activities of trans-acting splicing factors with machine learning** *Cell systems* 7 (5), 510-520. e4,2018. doi: 10.1016/j.cels.2018.09.002
- Huan-Huan Wei, Xiao-Juan Fan, Yue Hu, Xiao-Xu Tian, Meng Guo, Miao-Wei Mao, Zhao-Yuan Fang, Ping Wu, Shuai-Xin Gao, Chao Peng, Yun Yang, Zefeng Wang. **A systematic survey of PRMT interactomes reveals the key roles of arginine methylation in the global control of RNA splicing and translation.** *Science Bulletin* 66 (13), 1342-1357,2021. doi: 10.1016/j.scib.2021.01.004
- Ning Wang, Yue Hu\*, Zefeng Wang **Regulation of alternative splicing: Functional interplay with epigenetic modifications and its implication to cancer** *Wiley Interdisciplinary Reviews: RNA* e1815,2023. doi: 10.1002/wrna.1815

## Pre-print Publication

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- Ying-Qun Yang\*, Yue Hu\*, Si-Rui Zhang\*, Jie-Fu Li, Jia-Wen Guan, Wen-Jing Zhang, Yu Sun, Xiao-Yan Feng, Jing Sun, Yun Yang, Zefeng Wang, Huan-Huan Wei. **Extensive Dysregulation of SLK Splicing in Cancers Impacts Metastasis.** *bioRxiv* 2022.10.28.514146. doi: 10.1101/2022.10.28.514146

## Awards

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Top 10 Advances in Bioinformatics 2018	2019.2
International Cooperative Training Program for Doctoral Students at UCAS	2019.7
China Scholarship Council's scholarship program	2020.8
Third Prize of "Pioneer Cup" Computing Application Grand Prix	2022.11

## Professional Service

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### Journal Review

- Molecular genetics and genomics

## References

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### Zefeng Wang

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