CURRICULUM VITAE

Lei Xiong, Ph.D.

School of Life Sciences
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EDUCATION

2015-2020 **Ph.D. in Bioinformatics**, **Tsinghua University**
2011-2015 **B.Sc. in Biology**, **Shitsan Pai Talent Program in Life Sciences**, **Univ. of Science and Technology of China**

RESEARCH EXPERIENCE

2015-2020 Ph.D. student supervised by Prof. **Qiangfeng Cliff Zhang**,
School of Life Sciences, **Tsinghua University**
Topics:
Developed artificial intelligence algorithm **SCALEX** for single-cell data integration. (manuscript)
Developed artificial intelligence algorithm **SCALE** for single-cell ATAC-seq analysis, including visualization, clustering, imputation and downstream motif identification.
Network analysis for structural PPI network for disease and drug research. (Bayer-Tsinghua Collaboration, BTC-PPI).

2014-2015 Bachelor thesis supervised by Prof. **Nieng Yan**,
School of Medicine, **Tsinghua University**
Topic: Structural biology for GLUT3.

AWARDS AND HONORS

2020 **SCALE** method was selected as
"**Top Ten Advances in Bioinformatics in China**" in 2019 and
"**Top Ten Algorithms and Tools for Bioinformatics in China**" in 2019
by Genomics, Proteomics & Bioinformatics
2019 Outstanding Fellowship of
the Beijing Advanced Innovation Center of Structure Biology at **Tsinghua University**
2016 Innovation Fellowship of
the Beijing Advanced Innovation Center of Structural Biology at **Tsinghua University**
2011-2013 Student Scholarship, Univ. of Science and Technology of China

PUBLICATIONS

** for equal authorship, # for corresponding authorship.*

1. **Lei Xiong**, Kui Xu, Kang Tian, Yanqiu Shao, Lei Tang, Ge Gao, Michael Zhang, Tao Jiang & Qiangfeng Cliff Zhang#. (2019). SCALE method for single-cell ATAC-seq analysis via latent feature extraction. *Nature Communications* 10:4576.
2. Dong Deng*, Pengcheng* Sun, Chuangye Yan, Meng Ke, Xin Jiang, **Lei Xiong**, Wenlin Ren, Kunio Hirata, Masaki Yamamoto, Shilong Fan, Nieng Yan#. (2015) Molecular basis of ligand recognition and transport by glucose transporters. *Nature* 526:391-396.

SKILLS

1. Artificial intelligence
2. Single-cell data analysis
3. Network analysis