

Hong Jiang

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EDUCATION

Karolinska Institutet (KI), PhD: <u>Medical Sciences</u>	2021.11-Expected 2025.11
The Swedish National Graduate School in Medical Bioinformatics	2022.03-Expected 2025.03
University of Science and Technology of China (USTC), Master: <u>Bioinformatics</u>	2018.09-2021.06
Nanjing University (NJU) , <u>Student Internship Program</u>	2017.03-2017.10
China Pharmaceutical University (CPU)	2014.09-2018.06
Bachelor: <u>Pharmacy (National Base of Biology and Technology Education)</u> , Top-Notch Student of Pharmacy Honored	

MOTIVATION

- Unravel the conundrum of optimal maternal conditions for reproduction and transgenerational inheritance

RESEARCH EXPERIENCES

PhD. Projects, KI	2021.11-Expected 2025.11
Supervisor: AP. Qiaolin Deng, AP. Claudia Kutter and Prof. Elisabet Stener-Victorin	
➤ Revealing cell type-specific transcriptional signatures of the placenta in disease and its role in fetal programming	
Bioinformatician, KeyMed	2018.3-2018.9
➤ Preclinical validation of drug targets.	
Msc. Projects, USTC Supervisor: Prof. Xiaoyuan Song and Prof. Lau Pak-Ming	2018.9- 2021.6
➤ Characterize and classify patterns of chromatin topological structures and relate to other epigenetic, gene expression and cellular processes.	
➤ Data mining for building a piRNA-Cancer database.	
Undergraduate Thesis, USTC Supervisor: Prof. Qinghua Shi and Prof. Xiaoyuan Song	2018.2-2018.6
➤ Construct a pipeline for <i>C. elegans</i> WGS data analysis and found causal genes for specific phenotype using statistical testing.	
Intern, NJU Supervisor: Prof. Yi Cao	2017.3-2017.10
➤ Synthesize and test the physical properties of slow-released PEG hydrogel with different ratio of β - diacerein.	
Project for talent training plan, CPU Supervisor: Prof. Min Wang and Chen Luo	2017.9-2017.12
➤ Investigate the therapeutic effects of protein Regeneration2 on type 2 diabetes.	
➤ Analyze the components from sealing rubber contacted water using LC-MS.	

PUBLICATIONS

- Liu S, Wang F, Zhang C, Jiang H, Liu C. Synthesis and biological evaluation of 4-((3-(tetrahydro-2H-pyran-4-yl)-1H-pyrazol-4-yl)oxy) quinoline derivatives as novel potential transforming growth factor- β type 1 receptor inhibitors for hepatocellular carcinoma. *Bioorganic Chemistry*. 2025 Feb 1;155:108156.
- Jiang H, Derisoud E, Parreira D, Taebnia N, Jannig PR, Shafagh RZ, Zhao A, Li C, Ortiz M, Maliqueo MA, Stener-Victorin E. Decoding human placental cellular and molecular responses to maternal obesity and fetal growth. *bioRxiv*. 2025:2025-01.
- Zhao, Allan, Hong Jiang, Arturo Reyes Palomares, Alice Larsson, Wenteng He, Jacob Grünler, Xiaowei Zheng, Kenny A Rodriguez Wallberg, Sergiu-Bogdan Catrina, and Qiaolin Deng. "Appropriate Glycemic Management Protects the Germline but Not the Uterine Environment in Hyperglycemia." *EMBO Reports* 25, no. 4 (March 15, 2024): 1752–72. <https://doi.org/10.1038/s44319-024-00097-7>.
- Derisoud, Emilie[#], Hong Jiang[#], Allan Zhao, Pascale Chavatte-Palmer, and Qiaolin Deng. "Revealing the Molecular Landscape of Human Placenta: A Systematic Review and Meta-Analysis of Single-Cell RNA

Sequencing Studies.” *Human Reproduction Update* 30, no. 4 (July 1, 2024): 410–41.
<https://doi.org/10.1093/humupd/dmae006>.

5. Lu, Haojiang[#], Hong Jiang, [#] Congru Li[#], Emilie Derisoud, Allan Zhao, Gustaw Eriksson, Eva Lindgren, et al. “Dissecting the Impact of Maternal Androgen Exposure on Offspring Health through Targeting the Androgen Receptor in Developmental Programming,” December 12, 2023. <https://doi.org/10.1101/2023.12.12.569558>.
6. Pei, Yu[#], Sanjiv Risal[#], Hong Jiang, Haojiang Lu, Eva Lindgren, Elisabet Stener-Victorin, and Qiaolin Deng. “Transcriptomic Survey of Key Reproductive and Metabolic Tissues in Mouse Models of Polycystic Ovary Syndrome.” *Communications Biology* 6, no. 1 (January 18, 2023): 69. <https://doi.org/10.1038/s42003-022-04362-0>.
7. Luo, Zhengyu[#], Xiaorong Wang[#], Hong Jiang[#], Ruoyu Wang, Jian Chen, Yusheng Chen, Qianlan Xu, et al. “Reorganized 3D Genome Structures Support Transcriptional Regulation in Mouse Spermatogenesis.” *iScience* 23, no. 4 (April 2020): 101034. <https://doi.org/10.1016/j.isci.2020.101034>.
8. Luo, Zhengyu[#], Tengfei Hu[#], Hong Jiang, Ruoyu Wang, Qianlan Xu, Simo Zhang, Jun Cao, and Xiaoyuan Song. “Rearrangement of Macronucleus Chromosomes Correspond to TAD-like Structures of Micronucleus Chromosomes in *Tetrahymena Thermophila*.” *Genome Research* 30, no. 3 (March 2020): 406–14. <https://doi.org/10.1101/gr.241687.118>.
9. Cao, Jun[#], Hong Jiang[#], Ran Zhang, Amr.R. Ghanam, Honghai Xia, Yuting Zhu, Zhen Yang, and Xiaoyuan Song. “Epigenomic Profiling Identifies the Role of Nr5a2 and CYP1B1 in Hepatocellular Carcinoma Stemness Maintenance.” *Science Bulletin* 64, no. 16 (August 2019): 1132–35. <https://doi.org/10.1016/j.scib.2019.06.017>.
10. Muhammad, Azhar, Ramay Waheed, Nauman Ali Khan, Hong Jiang, and Xiaoyuan Song. “piRDisease v1.0: A Manually Curated Database for piRNA Associated Diseases.” *Database* 2019 (January 1, 2019): baz052. <https://doi.org/10.1093/database/baz052>.

DATASETS

1. Jiang, H., & Deng, Q. (2025). Decoding human placental cellular and molecular responses to maternal obesity and fetal growth [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.14549514>
2. Hong, Jiang. “Integrated and Annotated Human Placenta scRNA-Seq Matrices.” Zenodo, May 2, 2024. <https://doi.org/10.5281/ZENODO.11103744>.
3. Hong, Jiang, and Song Xiaoyuan. “Subtypes of Chromatin Topologically Associated Domains in Mouse Embryonic Stem Cell.” Zenodo, 2024. <https://doi.org/10.5281/ZENODO.12571070>.

CONFERENCE&GRANT

1. Travel grant from International Society for Computational Biology for presenting at European Conference of Computational Biology 2024
2. DMM conference travel grant for presenting at European Placenta Group 2024
3. Attending the scverse Conference 2024
4. Presenting at the Society for the Study of Reproduction conference 2024
5. Attending International Conference on Biomedical Engineering 2016