

Education

now Sep.2016	Master of Science Beijing Institute of Genomics, Chinese Academy of Sciences, China Major in Genetics and Bioinformatics, GPA=3.3/4.0
Jul.2016 Sep.2011	Bachelor of Medicine School of Public Health, Hebei Medical University, China Major in Preventive Medicine, GPA=3.3/4.0



Projects & Experiences

now Aug. 2017	Master project, Bioinformatics, Multi-omics Integration > Explored the pathogenesis of Diamond-Blackfan anemia by integrating transcriptome and genomic data to make it more reliable than traditional single-omic analysis. FastQC HISAT2 StringTie Samtools miRDeep2 STAR-Fusion GATK Plink IPA R Python Perl
Oct. 2018 Dec. 2017	Master project, Bioinformatics and Cell Experiment, Function of microRNA-185 > Verified the function of miR-185 in hematopoietic stem cell differentiation. bowtie2 mirDeep2 miRDB SPSS stem cell culture lentiviral packaging and infection flow cytometry PCR qPCR western blot Benzidine dyeing Giemsa staining
Mar. 2018 Aug. 2016	Master project, Machine Learning, Breast Cancer Detection Model > Established an effective model for breast cancer detection, which is suitable for integrating different batches of gene expression data on different platforms. > Used a variety of machine learning methods for feature selection and classification, such as recursive feature elimination, elastic network, random logistic regression, random forest and Naive Bayes, etc. R Python Perl Git
Aug. 2017 Aug. 2016	Master project, Software Engineering, Genetic Risk Assessment System > Established a genetic risk assessment system for cervical cancer, colorectal cancer and diabetes. Rstudio Shiny Git
Jul. 2016 Aug. 2015	Clinic Intern, Medicine, Clinical Department Rotation > Interned in Shijiazhuang Fifth Hospital, People's Hospital of Shijiazhuang and Center for Disease Control of Beijing Military Region. > Rotated in Internal Medicine, Surgery, Pediatrics and Radiology, etc. Epidemiological investigation Data collection Image report Pathology slice Surgical assistant
Jun. 2015 Aug. 2014	Bachelor project, Basic Experiment, hepatic stellate cells > Verified the role of eRF3b-37 in the activation of hepatic stellate cells. cell culture RT-qPCR western blotting ELISA immunohistochemistry

Professional Skills

Programming Languages : R, Python, Shell, php, SPSS, Visual Basic, Java, Ruby
 Operating Systems : Windows, Linux

Honors & Awards

- Fall 2018 certificate for clinical genetic counseling ability issued by the National Health and Family Planning Commission.
- Spring 2018 certificate for course completion from the Computer and Control Engineering College, University of Chinese Academy of Sciences.
- Fall 2017 "Excellent Student" of Life Science college, University of Chinese Academy of Sciences. (3/57)
- Fall 2017 editor of the "BIG Research" sections, Beijing Institute of genomics, Chinese Academy of Sciences.
- Fall 2016 commissary of the class 0515, Life Science College, University of Chinese Academy of Sciences. (1/57)

Publications & patent

Journal Articles

- > Zhengrong Xu, **Rudan Xiao**, Dianwu Liu, "eRF3b-37 inhibits the TGF- β 1-induced activation of hepatic stellate cells by regulating cell proliferation, G0/G1 arrest, apoptosis and migration," *Int J Mol Med*. DOI : 10.3892/ijmm.2018.3900.
- > Yadong Yang, Tao Zhang, **Rudan Xiao**, "Platform-independent approach for cancer detection from gene expression profiles of peripheral blood cells," *Briefings in Bioinformatics*. DOI : 10.1093/bib/bbz027. **(co-first author)**
- > **Rudan Xiao**, Yunxiao Ren, Xiangdong Fang, "The Advances of Gene Editing in the treatment of Sickie Cell Anemia," *J Development Med*. DOI : 10.3969/j.issn.2095-5340.2018.03.003. **(first author)**
- > Lan Ren, **Rudan Xiao**, Qian Zhang, "The synergistic regulation of K562 cells erythroid differentiation by KLF1 and KLF9," *Hereditas Beijing*. DOI : 10.16288/j.ycz.18-174. **(co-first author)**
- > Yunxiao Ren, **Rudan Xiao**, Xiaomin Lou, "The Research Advances and Application in Gene Editing Technology ," *Hereditas Beijing* . DOI : 10.16288/j.ycz.18-142. **(second author)**
- > Xunong Dong, **Rudan Xiao**, Junwei Zhu, "miR-185-5p as a Potential Regulator for Erythroid Differentiation in Human Embryonic Stem Cells and Erythroid Cells," In preparation.

Books and Chapters

- > Fang,X.D. Hu,S.N.(Eds.). (2017). *Transcriptomics and Precision Medicine*. **Chapter4** : Application of transcriptomics in the diagnosis and treatment of malignant tumors, Page :104-134.
- > He,L. Fang,X.D.(Eds.).(2018). *Genetic Counseling Today*. **Chapter 8.4.1** : Bioinformatics databases and platforms for genomic variation & **Chapter 8.4.2** : Bioinformatics databases and platforms for epigenetic modified and non-coding RNA variants.

patent

- > Obtained the **software copyright** of genetic risk assessment system for cervical cancer, colorectal cancer and type 2 diabetes.