CURRICULUM VITAE



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EDUCATION

2017-2023	Doctor of Philosophy in Bioinformatics
	Zhejiang University, Hangzhou, China
2013-2016	Master of Philosophy in Biomedical Engineering
	Tianjin Medical University, Tianjin, China
2009-2013	Bachelor of Science in Biomedical Engineering
	Shandong First Medical University (Shandong Academy of Medical Sciences), Taian, China

EXPERIENCE

2023-2024	Research Assistant
	College of Life Sciences, Zhejiang University, Hangzhou, China
2016-2017	Research Assistant
	School of Biomedical Engineering, Tianjin Medical University, Tianjin, China

ACADEMIC HONORS & AWARDS

2017-	Bioinformatics Society of Zhejiang Province of China, membership
2019	Zhejiang University Award of Honor for Graduate
2018	Zhejiang University First-Class Scholarship for Doctoral Mid-term Examination (¥20,000)
2018	Zhejiang University Award of Honor for Graduate
2017	Zhejiang University Excellent Doctoral Freshman Scholarship (¥10,000)
2017	Certificate of Reviewing for Computational Biology and Chemistry
2014	The Sixth National Conference on Bioinformatics & Systems Biology of China,
	Second-Class Prize for Excellent Poster
2011	Shandong First Medical University & Shandong Academy of Medical Sciences,
	Second-Class Scholarship
2010	Shandong First Medical University & Shandong Academy of Medical Sciences,
	Third-Class Scholarship

JOURNAL PEER REVIEW

Science China-Life Sciences (IF = 9.1), Bioinformatics (IF = 8.3), International Journal of Intelligent Systems (IF = 7.2), Frontiers in Neuroscience (IF = 5.2), Molecular Neurobiology (IF = 5.1), Scientific Reports (IF = 4.9), IEEE/ACM Transactions on Computational Biology and Bioinformatics (IF = 4.5), Current Bioinformatics (IF = 4.0), Frontiers in Neurology (IF = 3.9), PLOS ONE (IF = 3.8), BMC Medical Genomics (IF = 3.2), Journal of Molecular Neuroscience (IF = 3.1), Computational Biology and Chemistry (IF = 3.1)

PUBLICATIONS & PREPRINTS

1. Z Wu[#], C Feng[#], **YS Hu**, Y Zhou, S Li, S Zhang, Y Hu, Y Chen, H Chao, Q Ni, M Chen*. HALD, a human aging and longevity knowledge graph for precision gerontology and geroscience analyses. *Scientific Data*, 2023, 10(1):851. (IF = *10.8*)

DOI: 10.1038/s41597-023-02781-0

C Feng*, RX Tie*, SG Xin*, Y Chen, S Li, X Hu, Y Zhou, Y Liu, Y Hu, YS Hu, H Pan, Z Wu, H Chao, S Zhang, Q Ni, J Huang, W Luo*, H Huang*, M Chen*. Systematic single-cell analysis reveals dynamic control of transposable element activity orchestrating the endothelial-to-hematopoietic transition. bioRxiv, 2023.06.19.545461. (Under Review in BMC Biology, IF = 7.1)

DOI: 10.1101/2023.06.19.545461

3. Y Chen*, **YS Hu***, X Hu, C Feng, M Chen*. CoGO: a contrastive learning framework to predict disease similarity based on gene network and ontology structure. *Bioinformatics*, 2022, 38(18):4380-4386. (IF = **8.3**)

DOI: 10.1093/bioinformatics/btac520

4. H Chen, X Hu, **YS Hu**, J Zhou, M Chen*. CoVM²: Molecular Biological Data Integration of SARS-CoV-2 Proteins in a Macro-to-Micro Method. *Biomolecules*, 2022, 12(8):1067. (IF = 5.8)

DOI: 10.3390/biom12081067

5. B Tan, S Xin, **YS Hu**, C Feng*, M Chen*. LBD: a manually curated database of experimentally validated lymphoma biomarkers. *Database*, 2022, Volume 2022, baac051. (IF = **5.8**)

DOI: <u>10.1093/database/baac051</u>

6. WY Wu, Y Wu, DH Hu, YC Zhou, **YS Hu**, YJ Chen, M Chen*. PncStress: a manually curated database of experimentally validated stress-responsive non-coding RNAs in plants. *Database*, 2020, Volume 2020, baaa001. (IF = 5.8)

DOI: <u>10.1093/database/baaa001</u>

7. TY Wang, P Song, TT Zhong, XJ Wang, XP Xiang, Q Liu, HY Chen, T Xia, H Liu, YM Niu, **YS Hu**, L Xu, YK Shao, LJ Zhu, HY Qi, J Shen, TJ Hou, R Fodde*, JM Shao*. The inflammatory cytokine IL-6 induces FRA1 deacetylation promoting colorectal cancer stemness and malignancy. *Oncogene*, 2019, 38:4932-4947. (IF = 8.8)

DOI: <u>10.1038/s41388-019-0763-0</u>

8. **YS Hu,** J Xin, Y Hu, L Zhang*, J Wang*. Analyzing the genes related to Alzheimer's disease via a network and pathway-based approach. *Alzheimer's Research & Therapy*, 2017, 9(1):29. (IF = **9.2**) DOI: 10.1186/s13195-017-0252-z

9. **YS Hu,** Z Pan, Y Hu, L Zhang*, J Wang*. Network and Pathway-Based Analyses of Genes Associated with Parkinson's Disease. *Molecular Neurobiology*, 2017, 54(6):4452-4465. (IF = *5.1*)

DOI: <u>10.1007/s12035-016-9998-8</u>

10. Y Hu, Y Yang, Z Fang, **YS Hu**, L Zhang*, J Wang*. Detecting pathway relationship in the context of human protein-protein interaction network and its application to Parkinson's disease. *Methods*, 2017, 131:93-103. (IF = 4.8)

DOI: <u>10.1016/j.ymeth.2017.08.001</u>

11. ZH Fang, YC Yang, **YS Hu**, MD Li*, J Wang*. GRONS: a comprehensive genetic resource of nicotine and smoking. *Database*, 2017, Volume 2017, bax097. (IF = *5.8*)

DOI: 10.1093/database/bax097

- 12. TY Ling, YC Zhou, CF Xu, XT Shao, **YS Hu**, KF Ding*, M Chen* (*In Preparation*). Colorectal cancer computer-aided image analysis: the teenager in the new era of deep learning.
- 13. YC Zhou, **YS Hu**, DH Hu, C Feng, MA Ahsan, YJ Liu, TY Ling, SD Li, XC Yang, R Hofestädt, M Chen* (*In Preparation*). DaTo: a repertoire dedicated to biological online resources.

- 14. **YS Hu**^{#*}, YH Chen[#], Y Hu, M Chen^{*} (*In Preparation*). DeePAX: Decrypting human biochemical pathway crosstalk landscape in a deep learning architecture.
- 15. **YS Hu***, YM Hu, M Chen* (*In Preparation*). AWmeta empowers adaptively-weighted meta-analysis for gene expression data.
- 16. **YS Hu***, BT She, ZN Yin, XJ Yu, W Wu, M Chen* (*In Preparation*). Systems biology framework unravels molecular substrates underlying comorbidity between Parkinson's and Crohn's disease.
- 17. YC Zhou, JT Xue, MA Ahsan, DH Hu, **YS Hu**, Y Liu, Y Jiang, W Ni, M Chen* (*In Preparation*). CytoSEE: a web-based toolkit for automatic computation and evaluation of cytometry data.
- 18. **YS Hu***, ZH Fang, J Wang*, M Chen* (*In Preparation*). A systems biology framework identifies latent molecular relationships between Alzheimer's and Parkinson's disease.

CONFERENCE PROCEEDINGS

- 1. YS Hu*, J Wang*, M Chen. Analyzing the genes related to Alzheimer's disease via a network and pathway-based approach. First Sino-Russian Workshop on Integrative Bioinformatics and Systems Biology (WIBSB-2018) @ Novosibirsk, Russia
 - DOI: 10.18699/WIBSB-2018-28
- YS Hu, Z Pan, Y Hu, J Wang*. Network and pathway based analyses of genes associated with Parkinson's
 disease. The Seventh National Conference on Bioinformatics and Systems Biology @ Chengdu, China
 Availability: ResearchGate Link
- 3. Y Hu, YS Hu, Y Yang, Z Fang, J Wang*. Uncovering the common pathogenesis in neurodegenerative and psychiatric disorder via network approaches. *The Seventh National Conference on Bioinformatics and Systems Biology* @ Chengdu, China
 - Availability: ResearchGate Link
- 4. Z Fang, Y Yang, Y Hu, YS Hu, J Wang*. Identifying the enriched biological pathways in genes related to nicotine dependence via a network-based gene-weighting algorithm. *The Seventh National Conference on Bioinformatics and Systems Biology* @ Chengdu, China
 - Availability: ResearchGate Link
- 5. **YS Hu**, R Fan, X Li, M Liu, X Liu, X Yi, T Zhang, J Wang*. Common characteristics of Alzheimer's disease and Parkinson's disease based on AlzGene and PDGene databases. *The Sixth National Conference on Bioinformatics and Systems Biology* @ Nanjing, China
 - Availability: ResearchGate Link
- 6. X Liu, X Li, M Liu, R Fan, **YS Hu**, Y Hu, X Yi, T Zhang, J Wang*. Computing the phenotype similarity based on OMIM database and MESH vocabulary. *The Sixth National Conference on Bioinformatics and Systems Biology* @ Nanjing, China
 - Availability: ResearchGate Link
- 7. X Li, M Liu, X Liu, R Fan, **YS Hu**, Y Hu, X Yi, T Zhang, J Wang*. TarPriGO: a new method to prioritize miRNA targets based on Gene Ontology. *The Sixth National Conference on Bioinformatics and Systems Biology* @ Nanjing, China
 - Availability: ResearchGate Link
- 8. M Liu, X Liu, X Li, R Fan, **YS Hu**, Y Hu, X Yi, T Zhang, J Wang*. A comprehensive pathway and network analysis of candidate genes associated with nicotine addiction. *The Sixth National Conference on Bioinformatics and Systems Biology* @ Nanjing, China
 - Availability: ResearchGate Link
- 9. R Fan, M Liu, X Li, X Liu, **YS Hu**, Y Hu, X Yi, T Zhang, J Wang*. The functional divergence analysis of neuronal nicotinic acetylcholine receptor subunits. *The Sixth National Conference on Bioinformatics and Systems Biology* @ Nanjing, China

Availability: ResearchGate Link

ACADEMIC TALKS

09/2019 Zhejiang University-Bielefeld University Joint Symposium @ Bielefeld, Germany

08/2018 First Sino-Russian Workshop on Integrative Bioinformatics and Systems Biology (WIBSB-2018)

@ Novosibirsk, Russia

POSTERS

 YS Hu, Z Pan, Y Hu, J Wang*. Network and pathway based analyses of genes associated with Parkinson's disease. *The Seventh National Conference on Bioinformatics and Systems Biology* @ Chengdu, China DOI: 10.13140/RG.2.2.20162.27844

2. YS Hu, R Fan, X Li, M Liu, X Liu, X Yi, T Zhang, J Wang*. Common characteristics of Alzheimer's disease and Parkinson's disease based on AlzGene and PDGene databases. *The Sixth National Conference on Bioinformatics and Systems Biology* @ Nanjing, China

DOI: <u>10.13140/RG.2.2.14971.82725</u>

PATENTS

1. 一种生化通路串话识别方法 (Chinese Patent)

Inventor: 陈铭, 胡言石(YS Hu), 陈俞皓

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