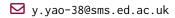
YUELIN YAO



y @yaoyuelin11

https://yuelinyao.github.io/

Education

Nov 2020 - Ongoing

Ph.D. Bioinformatics, University of Edinburgh, UK

School of Informatics, IANC: Machine Learning, Computational Neuroscience, Computational Biology.

Thesis title: Machine learning for investigating molecular mechanisms underlying cancer initiation and progression.

Sep 2019 - Sep 2020

M.Sc. Bioinformatics, University of Edinburgh, UK

School of Biological Sciences, Graduated with Distinction.

Thesis title: Comparative transcriptome in large-scale human and cattle populations.

Sep 2015 - Jun 2019

B.Sc. Plant Protection, Zhejiang University.

College of Agriculture and Biotechnology, GPA: 3.63/4.0.

Thesis title: Functional analysis of genes related to development and reproduction of Nilaparvata lugens.

Experience

Biomedical AI Lab

Nov 2020 - Ongoing

- Developed state-of-the-art pipeline and computational tool for **scRNA-seq** data analysis.
- Estimated **mutational interactions** across pancancer from WGS data.
- Received training in Causality in Biomedicine Course, and Neuromatch Deep Learning Course.

Jan 2022 - Ongoing

Teaching. Tutor and marker of **Methods for Causal Inference Course.**

Nov 2022

Presented poster at **CSHL The Biological Data Science conference**, New York State, US.

Jun 2022

Summer School. **Dynamics and Statistics of Cancer Evolution: Applying Mathematics to Experimental and Clinical Data** Summer School in Marseille, France.

May 2021

Presented poster at **CSHL The Biology of Genomes virtual conference**.

Quantitative Genetics Lab

Jan 2020 - Sep 2020

- Systematic comparison of **transcriptional landscape & eQTL** of all orthologous genes across major tissues among mammals.
- Integrative analysis of characterised regulatory elements with **large-scale GWAS** to understand shared & divergent genetic architecture underlying complex phenotypes.

Awards and Achievements

2023 Chinese government award for outstanding self-financed students abroad

■ IGC POGS event best poster

2022 | IGC early career award

■ IGS PGR travel fund

Experience (continued)

2020 School of Informatics PhD Scholarship, University of Edinburgh

Skills

Coding R, Python, Java, SQL, HTML, Shell, Docker, Git, Nextflow, LTFX.

Technical Skills Machine learning, Statistical modelling, High-throughput bioinformatics analysis.

Languages Strong reading, writing and speaking competencies for English, Mandarin Chinese.

Publications

- Z. Pan*, **Y. Yao***, H. Yin, *et al.*, "Pig genome functional annotation enhances the biological interpretation of complex traits and human disease," *Nature communications*, vol. 12, no. 1, p. 5848, 2021.
- Y. Yao, S. Liu, C. Xia, et al., "Comparative transcriptome in large-scale human and cattle populations," *Genome Biology*, vol. 23, no. 1, pp. 1–24, 2022.
- S. H. Waddell*, **Y. Yao***, P. Olaizola, *et al.*, "Primary cilia loss promotes reactivation of morphogenesis and cyst-fission through a deregulated $tgf\beta$ -ecm-integrin axis in polycystic liver disease.," *bioRxiv*, pp. 2022–04, 2022.
- S. Waddell*, **Y. Yao***, S. Macmaster, *et al.*, "Loss of cholangiocyte primary cilia drives reorganisation of the biliary tree and accelerates tumorigenesis," in *JOURNAL OF HEPATOLOGY*, ELSEVIER RADARWEG 29, 1043 NX AMSTERDAM, NETHERLANDS, vol. 75, 2021, S248–S249.
- S. Liu, Y. Gao, O. Canela-Xandri, ..., **Y. Yao**, *et al.*, "A multi-tissue atlas of regulatory variants in cattle," *Nature genetics*, vol. 54, no. 9, pp. 1438–1447, 2022.
- W. Yang, J. Yu, **Y. Yao**, *et al.*, "Comparative immune-relevant transcriptome reveals the evolutionary basis of complex traits," *Iscience*, vol. 25, no. 12, p. 105 572, 2022.
- 7 D. Guan, Z. Bai, X. Zhu, ..., **Y. Yao**, *et al.*, "The chickengtex pilot analysis: A reference of regulatory variants across 28 chicken tissues," *bioRxiv*, pp. 2023–06, 2023.
- T. Jinyan, Y. Gao, ..., **Y. Yao**, *et al.*, "A compendium of genetic regulatory effects across pig tissues," *bioRxiv*, pp. 2022–11, 2022.
- 9 W. Wang, R.-R. Yang, L.-Y. Peng, L. Zhang, **Y.-L. Yao**, and Y.-Y. Bao, "Proteolytic activity of the proteasome is required for female insect reproduction," *Open Biology*, vol. 11, no. 2, p. 200 251, 2021.
- S. Mi, Y. Tang, ..., **Y. Yao**, *et al.*, "Protective roles of folic acid in the responses of bovine mammary epithelial cells to different virulent staphylococcus aureus strains," *Biology*, vol. 10, no. 11, p. 1164, 2021.