Liaoyi (Luis) Xu

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EDUCATION

2022 – Present	**Ph.D. in Bioinformatics and Computational Biology** Department of Integrative Biology University of Texas at Austin, TX, USA Advisor: Arbel Harpak
2018 – 2021	**M.A. in Animal Science** Zhejiang University, Hangzhou, China
2014 – 2018	**B.A. in Life Science and Technology** Southwest University for Nationalities, Chengdu, China

HONORS & AWARDS

2023 – 2024	UT Austin Professional Development Awards
2023	ASHG 2023 Charles Epstein Award Finalist **(Top 2%)**
2023	American Chinese Geneticist Association (ACGA) Trainee Award
2021	Excellent Postgraduate Students' Award (merit honor for **Top 10%**)
2020	Sunshine Scholarship (**Top 3** students in the major)
2020	Graduate of Merit/Triple A Graduate (merit honor for **Top 5%**)
2020	Award of Honor for Graduate (merit honor for **Top 10%**)
2018 – 2020	Academic Scholarship
2018	Excellent Graduate Students' Award (merit honor for **Top 10%**)
2014 – 2018	The Agriculture & Forestry Scholarship

PUBLICATIONS

2025	Liaoyi Xu, Eucharist Kun, Devansh Pandey, Joyce Y Wang, Marianne F Brasil, Tarjinder Singh, and Vagheesh M Narasimhan. **"The genetic architecture of and evolutionary constraints on the human pelvic form"**. Science
2023	Yanhong Chen, Wei Cheng, Jia Tang, Boneng Xiao, Ming Kuang, Liaoyi Xu, and Hongying Liu. **"Mitigating cognitive impairment in aging mice: Exploring the therapeutic potential of ischelium"**. Biochemical and Biophysical Research Communications
2022	Tingyao Zhu, Liaoyi Xu, Jiacheng Peng, Ming Chen, and Haisheng Xu. **"Molecular characteristics and immune function of ubiquitin C-terminal hydrolase-L3 in Macrobrachium nipponense"**. Fish & Shellfish Immunology

2021	Liaoyi Xu, Xiefei Zhou, Peichen Wang, Qian Jin, Tingyao Zhu, Ming Chen, and Haisheng Xu. **"The novel six LIM and one PET domain-containing protein Lmpt is involved in the immune response through activation of the NF-κB signalling pathway in the crustacean, Macrobrachium nipponense"**. Developmental & Comparative Immunology
2021	Wei Zhang, Qiangqiang Chen, Liaoyi Xu, Jianfeng Cai, and Jinzhi Zhang. **"The potential role of PSMA6 in modulating fat deposition in pigs by promoting preadipocyte proliferation and differentiation"**. Gene
2021	Tingyao Zhu, Xiefei Zhou, Wei Zhang, Yue Wu, Jingjing Yang, Liaoyi Xu, Ming Chen, Weiren Dong, and Haisheng Xu. **"Multiplex and real-time PCR for qualitative and quantitative donkey meat adulteration"**. Journal of Food Measurement and Characterization
2020	Liaoyi Xu, Yue Wu, Xiefei Zhou, Peichen Wang, and Haisheng Xu. **"Characterization and immune function of decapentaplegic (Dpp) gene from the oriental river prawn, Macrobrachium nipponense"**. Fish & Shellfish Immunology
2020	Liaoyi Xu, Xiefei Zhou, Yue Wu, JingJing Yang, and Haisheng Xu. **"A novel SNW/SKIP domain-containing protein, Bx42, is involved in the antibacterial responses of Macrobrachium nipponense"**. Developmental & Comparative Immunology
2020	Yue Wu, Yuxiao Sun, Wanrong Zhang, Jingjing Yang, Xiefei Zhou, Liaoyi Xu, Peichen Wang, and Haisheng Xu. **"Molecular cloning, characterization, and expression analysis of lipopolysaccharide-induced TNF-α factor (LITAF) in the mud crab, Scylla paramamosain"**. Crustaceana

Conference Presentations

2023	Liaoyi Xu, Eucharist Kun, Marianne F. Brasil, Tarjinder Singh, Vagheesh M. Narasimhan. **Deep learning to understand the genetic architecture and evolution of the human pelvis.** *Society for Molecular Biology and Evolution (SMBE)*, Puerto Vallarta, Mexico (**Poster Presentation**)
2023	Liaoyi Xu, Eucharist Kun, Marianne F. Brasil, Tarjinder Singh, Vagheesh M. Narasimhan. **Deep learning to understand the genetic architecture and evolution of the human pelvis.** *American Society of Human Genetics (ASHG) Annual Meeting*, Washington, D.C., USA (**Oral Presentation**)

Talks

2024	**Deep learning to understand the genetic architecture and evolution of the human pelvis.** *ACGA Virtual Seminar* (Invited)
2023	**Deep learning to understand the genetic architecture and evolution of the human pelvis.** The University of Texas at Austin, *Special BASIL Meeting*, Department of Anthropology
2023	**Deep learning to understand the genetic architecture and evolution of the human pelvis.** The University of Texas at Austin, *BioTACOs*, Department of Integrative Biology

SKILLS

Computational: Python (Pandas, Polars, Matplotlib, Seaborn, PyTorch, pyMC, Numpy, Scikit-learn, JAX, Statsmodels), R (JAGS, Tidyverse, RStan, ggplot2), SQL, LaTeX, UNIX shell.

Experimental: RNA/DNA extraction and purification, PCR/qPCR, molecular cloning, siRNA and dsRNA interference, CRISPR related gene-editing, cell culture, flow cytometry, Western blot.

Languages: Mandarin (Native), English (Proficient).