XIUYUAN LANG

(+86)15313933827 ⋄ Xiuyuan_Lang@163.com

EDUCATION

Case Western Reserve University, Cleveland *September 2023 - Present*
Ph.D. student

Minzu University of China, Beijing *September 2017 - June 2021*
Bachelor of Biological Science
GPA: 4.27/5.0

PUBLICATIONS

- **Xiuyuan Lang**, Yang Hu, Jinpeng Bai, Jun Wang, Xiaoyan Qin, Rongfeng Lan. (2022) *Coeloglossum viride* var. *Bracteatum* extract attenuates MPTP-induced neurotoxicity in vivo by restoring BDNF-TrkB and FGF2-Akt signaling axis and inhibiting RIP1-driven inflammation. *Frontiers in Pharmacology, 13:903235.* https://www.frontiersin.org/articles/10.3389/fphar.2022.903235/full
- Xixi Li, **Xiuyuan Lang**, Tengteng Ren, Jun Wang, Rongfeng Lan, Xiaoyan Qin. (2022) *Coeloglossum viride* var. *Bracteatum* extract attenuates Aβ-induced toxicity by inhibiting RIP1-driven inflammation and necroptosis. *Journal of Ethnopharmacology, 282:114606.* https://www.sciencedirect.com/science/article/abs/pii/S0378874121008357

RESEARCH EXPERIENCE

Center for Quantitative Biology, Peking University
Graduate Student Researcher *November 2021 - Present*
Advisor: Prof.Jingdong Han

- Systematically quantified and investigated the inter-TAD interactions.
- Identified the specific inter-TAD interactions and constructed a TADs interaction network.
- Characterized the hubs of the TADs interaction network and defined them as Super-TADs.
- Conducted a comparative analysis of the Typical-TADs and Super-TADs on intra-TAD or inter-TAD chromatin loops.
- Detected histone modifications in Super-TADs.
- Performed the expression profiles of genes located in Super-TADs and Typical-TADs.
- Conducted Gene Ontology(GO) analysis of the genes expressed in Super-TADs.
- Currently working on finding the potential organizers of the Super-TADs.

Center on Translational Neuroscience, Minzu University of China
Undergraduate Student Researcher *August 2018 - June 2021*
Advisor: Prof.Xiaoyan Qin

- Successfully established the MPTP-induced Parkinson's disease mouse model.
- Performed the pole test and traction test to verify effects of *Coeloglossum viride* var. *Bracteatum* extract (CE) on the dyskinesia improvement in MPTP-treated mice.
- Conducted IHC staining to identify the changes of dopaminergic neurons and astrocytes in substantia nigra and striatum.

- Tested the changes of pro-inflammatory factors and anti-inflammatory factors by using RT-qPCR.
- Investigated the signaling pathways involved in CE-mediated anti-PD activity by using Western blotting.
- Demonstrated the antioxidant, anti-inflammatory, and anti-PD effects of CE.
- Published a paper *Coeloglossum viride* var. *Bracteatum* extract attenuates MPTP-induced neurotoxicity in vivo by restoring BDNF-TrkB and FGF2-Akt signaling axis and inhibiting RIP1-driven inflammation as the first author.

OTHER PROJECTS

Center on Translational Neuroscience, Minzu University of China
Undergraduate Student Researcher *August 2018 - July 2020*
Advisor: Prof.Xiaoyan Qin

- Successfully established a Aβ-induced toxicity model in cultured hippocampal neurons and conducted the immunofluorescence to stain neurons and cell nuclei by using MAP2 and DAPI.
- Performed the WST-1 assay and TUNEL assay to measure cell viability and cell apoptosis.

Course Project, Peking University *August 2022 - Present*

- Receiving training on the basic usages of TensorFlow.
- Training a SVM classifier to select the features that can classify the Super-TADs and Typical-TADs.

SKILLS

Programming	R, Shell, Python
Laboratory techniques	MPTP-induced acute mouse model establishment, Behavioral test, RT-qPCR, Oxidative stress assay, Western Blotting, WST-1 assay
Software & Tools	Hi-C Pro, TADlib, Juicer tools, Juicebox, Bedtools, Samtools, Cooltools, Deeptools, STAR, Stringtie, IGV, Endnote
Visualization & Editing	Adobe illustrator, LaTex

AWARDS & SCHOLARSHIPS

- 2017-2019	National Scholarship, First-class Professional Scholarship
- 2017	Third Prize in FLTRP Cup National English Writing Competition
- 2018	Second Prize in FLTRP Cup National English Reading Competition
- 2019	First Prize in Beijing University Students Experiment Design Competition
- 2019	Academic Excellence Scholarship in Minzu University of China
- 2021	Outstanding Graduate in Minzu University of China & Outstanding Graduate in Beijing

EXTRA-CURRICULAR

College Students' Winter Vacation Social Practice Activities *March 2020*

- Conducted research and wrote a report on waste classification in the residential community around Zhongguancun South Street in Beijing.

Co-Organized Beijing University Students Biology Competition *December 2020*

- Designed posters, arranged competition flow, coordinated and maintained order on site and dealt with emergencies during the competition.