

WEIYI YANG

Tel: +86 15912533390 | Yang-weiyi@outlook.com

Web: <https://yang-weiyi.github.io/web/>

EDUCATION

Huazhong University of Science and Technology (HUST)	Hubei, China
<i>Master of Biological Sciences - Biophysics</i>	GPA 3.87/5 Sep 2022 - Jun 2024
China University of Geosciences (CUG)	Hubei, China
<i>Master of Biological Sciences</i>	GPA 3.67/5 (Top 9%) Sep 2018 - Jun 2022

PUBLICATION (* indicates corresponding author)

- Liyuan Ma*, **Weiyi Yang**, Shanshan Huang, Rui Liu, Huiying Li, Xinpeng Huang, Junming Xiong, Xueduan Liu*. Integrative assessments on molecular taxonomy of *Acidiferrobacter thiooxydans* ZJ and its environmental adaptation based on mobile genetic elements [J]. *Frontiers in Microbiology*, 2022, 13: 826829. doi: 10.3389/fmicb.2022.826829.
- Shanshan Huang, Xueduan Liu, **Weiyi Yang**, Liyuan Ma*, Huiying Li, Rui Liu, Jingxuan Qiu, Yiran Li. Insights into adaptive mechanisms of extreme acidophiles based on quorum sensing/quenching-related proteins [J]. *mSystems*, 2022, 7(2), e01491-21. doi: 10.1128/msystems.01491-21.

CONFERENCE

Abstract The 7th China <i>C. elegans</i> Conference	Oct 2024
Oral presentation / student guest speaker The Yangtze River Worm Online Series Forum	May 2024
Assisted in organizing The 6th Member Representative Conference of the Biophysical	Jun 2023
Abstract / Poster The 7th Youth Scholars Forum on Ion Channels and Receptors	Jun 2023

RESEARCH EXPERIENCE (Please find details on my website.)

College of Life Science and Technology, HUST	Hubei, China
<i>Independent study, Professor Jianke Gong's group</i>	2022-Present
<ul style="list-style-type: none">• Employed genetic and molecular biology techniques, behavioral assays, and calcium imaging to uncover the thermosensory role of LITE-1 in <i>Caenorhabditis elegans</i>. <i>lite-1</i> deletion mutants exhibited significantly altered calcium responses in ASH, ASI, and AWB neurons to high temperatures, suggesting LITE-1 as a potential high-temperature sensor.• Overexpression of <i>lite-1</i> in these neurons rescued the heat-induced low survival phenotype, while transcriptomic analysis revealed upregulation of MAPK pathway genes and over-phosphorylation of PMK in <i>lite-1</i> mutants post-heat shock.• Fluorescence imaging revealed that <i>lite-1</i> mutants remained in a prolonged state of endoplasmic reticulum stress and were unable to further activate this response after heat shock.	
School of Environmental Studies, CUG	Hubei, China
<i>Independent study, Professor Liyuan Ma's group</i>	2019-2022
<ul style="list-style-type: none">• Conducted prophage analysis of 94 <i>Acidithiobacillus</i> strains using Prophage Hunter, predicting the number and characteristics of prophages within their genomes.• Analyzed genomic features (fragment length, number, and GC content), and integrated OrthoANI clustering and phylogenetic taxonomy to investigate the impact of prophages on host genome evolution and	

environmental adaptation.

- Annotated functional genes of prophage fragments and assessed the effects of prophage integration on *Acidithiobacillus* genomic evolution.

HONORS and AWARDS

Excellent Postgraduate Cadre, HUST	Dec 2023
Outstanding Student, CUG	Dec 2020
Excellent interns, Zigui field ecology practice, CUG	Oct 2020
Excellent Undergraduate Cadre, CUG	Dec 2020
Team Leader: First Prize, China Undergraduate Life Sciences Contest (National level)	Aug 2022
Team Leader: College Students' Innovation and Entrepreneurship Project (Provincial level)	Apr 2021

TRAINING and CERTIFICATION

Poster The 6th IEEE EMBS International Summer School of Neural Engineering <i>ShangHai Jiao Tong University</i>	Shanghai, China Aug 2024
Poster BioBit Computational Biology Summer School / “Research Star” award <i>ZheJiang Lab</i>	Hangzhou, China Aug 2023
Special Equipment Safety Operators' Qualification	Nov 2023
Junior Red Cross First Aid Qualification	Jul 2023

RELATED PROFESSIONAL SKILL

Computer skills: Python, R, SPSS, Fiji (ImageJ2), Snapgene, GraphPad, Origin, Adobe Illustrator, WormLab
Laboratory skills: Calcium imaging, Molecular biology, Behavioral assays, Lifespan assay, qRT-PCR, Western blots, RNA interference, mRNA-seq, Confocal imaging and fluorescence quantification
Languages: English (CET-6 535), French (400+ days of self-study on Duolingo)

COURSEWORK

Biophysics: Advanced neurobiology, Genetics, Animal physiology, Biochemistry, Molecular biology, Microbiology, Psychological stress and coping... ..

Mathematical background: Advanced mathematics, Linear algebra, C programming language, Python programming language, R language and biostatistics, Multi-omics and big data processing, Bioinformatics... ..

EXTRA-CURRICULAR ACTIVITY

Volunteer Educator, Youth Winter Olympics Support Program <i>Communist Youth League of the Central Committee (Online)</i>	Jan 2022 - Mar 2022
Director of Science and Technology Department <i>University Student Science and Technology Association, CUG</i>	Sep 2019 - Jun 2020

FUTURE RESEARCH INTEREST

- Neural activity decoding for brain regulation mechanisms
- Cognitive functions and neurological disorders
- BMIs