

Weiyue Wang (He/Him/His)

SRB 601A, 1825 Pressler Street, Houston, TX 77030
(312) 358-7961. wywang27@gmail.com

EDUCATION

Shanghai Medical College, Fudan University

Bachelor of Medicine (MD equivalent)

Graduation with honors

GPA (overall): 3.56/4.0 (17/208)

09/2016-06/2022

RESEARCH EXPERIENCE

Postdoctoral Research Fellow, Center for Cardiovascular Genetics, The Brown Foundation Institute of Molecular Medicine, McGovern Medical School

The University of Texas Health Science Center, Houston, TX

Advisor: Ali J. Marian, MD

09/2023-Present

- Leading multiple research projects investigating the role of cytosolic DNA in cardiovascular aging.
- Independently conducted molecular biology experiments in cell and mouse models, including but not exclusive to myocyte and fibroblast isolation and culture, Immunoblotting, Immunofluorescence staining, Immunoprecipitation, RT-PCR, RNA-Seq, DNA-Seq, genotyping, mitochondria and cytosol isolation, etc.
- Research article published at *JCI Insight*.

Research Trainee, Department of Biochemistry and Molecular Biology, Department of Cardiovascular Medicine

Mayo Clinic, Rochester, MN

Advisor: Xiaolei Xu, PhD

09/2022-09/2023

- Led a research project investigating the dysregulated signaling pathways behind *TTN*tv-DCM and discovering novel therapeutics for the disease using zebrafish genetics.
- Independently conducted the experiments, including genotyping, western blot, RT-qPCR, IF staining, echocardiography, RNA-Seq analysis, CRISPR/Cas9, etc. Responsible for zebrafish feeding and facility maintenance once per month.
- Presented the project orally at 2023 ACRE@ISHR-NAS Pre-Conference Symposium. Presented a research poster at 2023 ISHR-NAS meeting.
- Research article published at *Journal of Molecular and Cellular Cardiology*.

Undergraduate Researcher, Institutes of Brain Science

Fudan University, Shanghai, China

Advisor: Ying Zhu, PhD

03/2021-06/2021

- Assisted in a research project uncovering the differentially expressed genes in ovarian and breast cancer samples.
- Analyzed RNA-Seq data from patient samples using fastqc, fastp, STAR, featureCounts, DESeq2, etc. Performed SNP calling to identify single nucleotide polymorphism via Picard, GATK4, Annovar, etc.

Undergraduate Researcher, Department of Urology, Department of Oncology

Fudan University Shanghai Cancer Center, Shanghai, China

Advisor: Dingwei Ye, MD/PhD

02/2020-05/2020

- Assisted in a research project investigating the potential prognostic protein biomarkers using proteomic analysis in prostate cancer patients.

- Responsible for data curation and formal analysis using Gene Set Enrichment Analysis and Functional Enrichment Analysis, Microsoft Office, etc.
- Research article published at *Phenomics*.

PUBLICATIONS/PRESENTATIONS

Publications

Wang, W., Cathcart, B., Nguyen, Q. D., Lao, L. Q., Bryans, A., Coleman, S. E., Rouhi, L., Gurha, P., & Marian, A. J. (2025). Cardiac Myocyte Cytosolic Self-DNA Contributes to the Pathogenesis of Desmoplakin-Cardiomyopathy. *JCI insight*, e192283. Advance online publication.

<https://doi.org/10.1172/jci.insight.192283>

Yan, F., **Wang, W.**, Moossavi, M., Zhu, P., Noa, O., & Xu, X. (2025). Dysregulated nutrient sensing is a pathological event in zebrafish TTNtv cardiomyopathy that can be repaired via inhibiting ERK signaling. *Journal of Molecular and Cellular Cardiology Plus*, 12, 100347.

Wang, W., Gao, Y., Lee, H. K., Yu, A. C., Kipp, M., Kaddatz, H., & Zhan, J. (2025). The cGAS/STING Pathway: Friend or Foe in Regulating Cardiomyopathy. *Cells*, 14(11), 778. <https://doi.org/10.3390/cells14110778>

Anwaier, A., Zhu, SX., Tian, X. et al. Large-Scale Proteomics Data Reveal Integrated Prognosis-Related Protein Signatures and Role of SMAD4 and RAD50 in Prognosis and Immune Infiltrations of Prostate Cancer Microenvironment. *Phenomics* 2, 404–418 (2022). <https://doi.org/10.1007/s43657-022-00070-1>

Poster Presentations

Weiyue Wang, et al. “Cardiac Myocyte Cytosolic Self-DNA Contributes to the Pathogenesis of Desmoplakin-Cardiomyopathy.” The 12th Annual Cardiovascular Research Institute Symposium, 2025, Houston, TX.

Weiyue Wang, et al. “Increased cytosolic nuclear and mitochondrial DNA contributes to the pathogenesis of desmoplakin cardiomyopathy”. The 11th Annual Meeting of the North American Section of the International Academy of Cardiovascular Sciences (IACS-NAS), 2024, Houston, TX.

Weiyue Wang, et al. “ERK/MAPK inhibition exerts therapeutic effects on *ttnv* cardiomyopathy in zebrafish”. The 42nd International Society for Heart Research North American Section Meeting, 2023, Madison, WI.

Oral Presentations

Weiyue Wang. “ERK/MAPK inhibition exerts therapeutic effects on *ttnv* cardiomyopathy in zebrafish”. ACRE@ISHR-NAS Pre-Conference Symposium, 2023, Madison, WI.

Research activities

Judge. 2025 GSBS Graduate Student Research Day, Houston, TX.

Reviewer. 2025 UT Postdoc Travel Awards for Cycle III, Houston, TX.

Judge. 2025 Science and Engineering Fair of Houston (SEFH), Houston, TX.

Judge. 2024 Summer Research Program’s Fall Research Forum & C. Frank Webber Award Poster Competition, Houston, TX.

Session Chair. 11th Annual Meeting of the North American Section of the International Academy of Cardiovascular Sciences (IACS-NAS), Houston, TX.

Judge. 2024 Methodist Association for Postdoctoral & Trainee Affairs (MAPTA) 7th Annual Summer Science Symposium, Houston, TX.

Reviewer. 2023 Research Allied Health Symposium, Mayo Clinic, Rochester, MN.

TEACHING & VOLUNTEERING EXPERIENCE

Emergency Room Volunteer, Memorial Hermann Health System
Houston, TX

01/2024-05/2024

- Served a four-hour shift per week in the emergency room.
- Duties included gloves distribution, sheet and pillar cleaning, snacks distribution, etc.

Organizer/Lecturer, Shanghai USMLE Group (SHUG) Summer Course

07/2021-08/2021

Shanghai, China

- Organized, scheduled and evaluated a 2-week intensive course providing over 40 Chinese medical students with introduction to the United States Medical Licensing Examination Step 1.
- Facilitated panel of residents and attendings in the U.S. to speak about their careers and connect with students.
- Gave 3 online lectures on Physiology, Cardiovascular pathology, etc.

Volunteer, Oregon Food Bank
Portland, OR

07/2019-08/2019

- Worked with other volunteers to sort, organize, and shelve food donations.
- Responsible for distributing food to program beneficiaries, loading and unloading items, removing all spoiled food.

Volunteer Teacher, Luoma Elementary School
Hainan, China

01/2018-02/2018

- Designed special curriculum for children to understand basic medical knowledge and educated them on healthcare-related topics.
- Home-visited several students to strengthen the family's knowledge of child development, health, nutrition and community resources.

Student Coordinator/Lecturer, Parasitology Lecture Series
Zhejiang, China

01/2017-02/2017

- Organized a series of parasitology lectures in multiple places across the province, including high schools and senior communities.
- Designed posters, booklets, lectures to educate the public on common parasitology-related health issues.
- Planned, implemented, and coordinated survey to understand the public's knowledge of parasitology and provide feedback to Department of Medical Microbiology and Parasitology.

PROFESSIONAL EXPERIENCE

Visiting Scholar, Accelerated Clinical Experience Program
University of California San Diego, La Jolla, CA
Advisor: Farshad Raissi, MD/MPH/FHRS; Luis Castellanos, MD/MPH

06/2022-08/2022

- Completed a three-month integrated clinical certificate program learning about clinical practices in the U.S., under supervision of two cardiologists in both inpatient and outpatient settings.

Visiting Medical Student, Department of Neonatology
University of Illinois Chicago, Chicago, IL

03/2022-05/2022

- Completed one-month elective rotation in Neonatal Intensive Care Unit, achieving progressively more patient management responsibilities in critical care settings, under supervision of pediatricians from UI Health.

Medical Student
Huadong Hospital, Shanghai, China

01/2021-12/2021

- Completed one-year clinical rotation including Internal Medicine, Surgery, Neurology, etc., achieving progressively more patient management responsibilities.

Finalist, The 17th Inter-Medical School Physiology Quiz (IMSPQ)
University of Indonesia, Jakarta, Indonesia

08/2019

- Competed with medical students from different countries in physiology on behalf of my medical school.

PROFESSIONAL DEVELOPMENT

The United States Medical Licensing Examination Step 1: 242	10/2020
The United States Medical Licensing Examination Step 2 CK: 247	12/2022
Educational Commission for Foreign Medical Graduates Certification (ECFMG) Certification	10/2023
Basic Life Support Provider	

HONORS AND AWARDS

The Margaret Moffat Poster Award	09/2024
<ul style="list-style-type: none">Best poster award at the 11th Annual Meeting of the North American Section of the International Academy of Cardiovascular Sciences (IACS-NAS), Houston, TX.	
Graduation with honors, Fudan University (10%)	06/2022
<ul style="list-style-type: none">Recognizes outstanding graduates in the class of 2022 for excellence in academic and extra-curricular achievements	
Xu Zeng-shou Scholarship at Fudan University	09/2019
<ul style="list-style-type: none">Awarded ¥1,000 scholarship each to 25 undergraduates for excellence in service and academics	
The First Prize at the 1 st Physiology Quiz of Chinese Association for Physiological Sciences	05/2019
<ul style="list-style-type: none">Awards teams from different universities who won the competition	
Outstanding Student of the 2017-2018 Academic Year	10/2018
<ul style="list-style-type: none">Recognizes outstanding students of the year for excellence in academics, extra-curricular achievements, and morality	
Second Prize of the Scholarship for Outstanding Students at Fudan University	09/2018
<ul style="list-style-type: none">Awarded ¥1,500 scholarship for excellence in service and academics	
Outstanding Student of the 2016-2017 Academic Year	10/2017
<ul style="list-style-type: none">Recognizes outstanding students of the year for excellence in academics, extra-curricular achievements, and morality	
Tung OOCL Scholarship at Fudan University (the First Prize)	09/2017
<ul style="list-style-type: none">Awarded ¥6,000 scholarship each to 25 undergraduates for excellence in service and academics	

SKILLS AND TECHNIQUES

Dry lab skills

- RNA-Sequencing data analysis: fastqc, fastp, STAR, featureCounts, DESeq2, PCA, IPA analysis, GO analysis, GSEA analysis, KEGG analysis, DAVID analysis, etc.
- SNP-calling: Picard, GATK4, Annovar, etc.
- Software: R, Python, Visual Basic, Image J, GraphPad Prism, SnapGene, DsGenes, Photoshop, Synthego ICE CRISPR analysis, Vevo LAB, Microsoft Office, Final Cut Pro X, Pixelmator Pro, Procreate, iMovie, etc.

Wet lab skills

- Molecular Biology: PCR, RT-PCR, RT-qPCR, DNA & RNA extraction, electrophoresis, Western blot, Co-IP, DNA Sequencing, genotyping, CRISPR-Cas9, etc.
- Immunology: IHC, ELISA, IF staining, etc.

- Cellular Biology: myocyte isolation, mitochondria isolation, cytosol isolation, nuclear isolation, cell culture, cell cryopreservation & resuscitation, etc.
- Animal Research: zebrafish echocardiography, zebrafish dechoriation, zebrafish breeding, zebrafish facility maintenance; mouse colony management, intraperitoneal injection, mouse echocardiography, mouse EKG, etc.
- Others: Transmission electron microscopy, Mass spectrometry, Confocal Microscopy, etc.

Language Skills

- Mandarin Chinese: Native Speaker
- Wu Chinese: Native Speaker
- English: Full professional proficiency
- Shanghainese: Professional working proficiency
- French: Elementary proficiency