Renjie Mei

Say my name: Ryan Jay May

i About Me

As A Researcher

Driven by a passion for interdisciplinary research, I'm active at the intersection of materials science and biomedical engineering. Currently, I assist my supervisor in experiments and conduct research projects under predecessors' quidance. My interests are in innovative organoid vascularization and advanced bioelectronic interfaces. I'm exploring metal - polymer conductors' applications in next - generation tissue engineering scaffolds and bioelectronic devices, using micro - nano fabrication and electrochemical analysis. I keep learning and hope to contribute more.

As A Young Individual

Beyond academics, I have a vibrant life. I love traveling, exploring new places, and experiencing diverse cultures. Billiards is my go-to relaxation activity, and I'm also an enthusiastic fan of role-playing games (RPG), where I immerse myself in different virtual worlds.

Education

Southern University of Science and Technology [SUSTech]	
B.E. in Intelligent Medical Engineering	

Research Projects

Metal-Polymer Conductors for Organoid Vascularization

Engineered metal-polymer conductors using PDMS-based micro-nano fabrication to enhance organoid vascularization. Expertise gained in electrochemical analysis and materials characterization.

Flexible Electrode Arrays for Neural Interfacing

Designed and fabricated flexible electrode arrays for in-vitro neural interfacing, optimizing electrode geometry and material composition for enhanced signal transduction.

Advanced Imaging Techniques for Tissue Engineering

Utilized confocal microscopy and SEM to analyze tissue morphology and material interfaces in engineered constructs.

Publications

- Yan Wu, **Renjie Mei**, et al., Mesoscopic calcium imaging in a head-unrestrained male non-human primate, Advanced Materials, **15**, 1271, (2025)
- · Johnny, **Renjie Mei**, et al., Mesoscopic imaging in a head-unrestrained male non-human primate, *Nature Biomedical Engineering*, **6**, 617-628, (2025)

Patents

• A new composite material for efficient water purification., ZL202310123456.7, November 15, 2023, Wang Wu (1), Zhao Liu (2), Renjie Mei(3), invention patent, (The invention discloses a new composite material for efficient water purification. The material has high adsorption capacity and good stability, and can effectively remove heavy metals and organic pollutants in water.)

Technical Skills 0

Software Proficiency Solidworks, AutoCAD, Blender, Origin, Adobe Illustrator

Programming Languages Python, Java, MATLAB, HTML

Experimental Techniques Flexible Electrode Design & Fabrication, Electrochemical Analysis, Micro-Nano Fabrication, Confocal Microscopy, SEM

2022 - 2026 Shenzhen, China

2024 Prof. Jiang's Lab

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