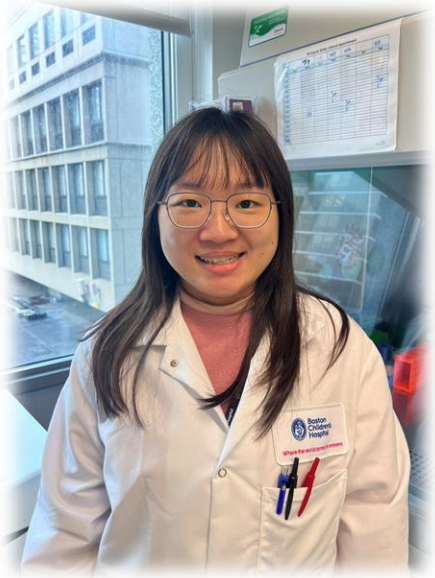
魏詩晏 助理教授(甲組)-生醫材料與組織工程實驗室



現職:
11/2024~迄今 美國波士頓兒童醫院博士後研究員

學歷與經歷:

09/2013-06/2017 大學: 國立新竹教育大學應用科學系材料組

02/2017-07/2024 博士: 國立清華大學材料科學工程學系

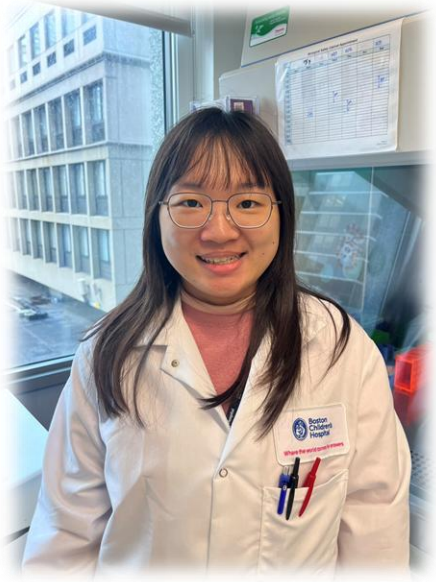
10/2023~06/2024 研究學者 :美國北卡羅來納州立大學分子生物醫學科學系

08/2024-07/2025 博士後 :國立清華大學材料科學工程學系

研究專長:
生醫材料、生物製造、組織工程、微血管化、神經肌肉介面

聯絡方式:
shihyen.wei2025@gmail.com
Shih-Yen.Wei@childrens.harvard.edu

Prof. Shih-Yen Wei-Biomaterials & Tissue Engineering Lab



Current job:

11/2024~ Department of Cardiac Surgery, **Boston Children's Hospital**, Boston, USA

Education and Working experience:

09/2013-06/2017 College: Department of Applied Science, **National Hsinchu University of Education**

02/2017-07/2024 Ph.D.: Department of Materials Science and Engineering, **National Tsing-Hua University** –Prof. Ying-Chieh Chen

10/2023~06/2024 Visiting research scholar : Department of Molecular Biomedical Sciences, **NC State University**, Raleigh, USA

08/2024-07/2025 Postdoc : Department of Materials Science and Engineering, **National Tsing-Hua University**

Research area:

Biomaterial, Biomanufacturing, tissue engineering and regeneration, Microvascularization Neuromuscular Interfaces

Contact information:

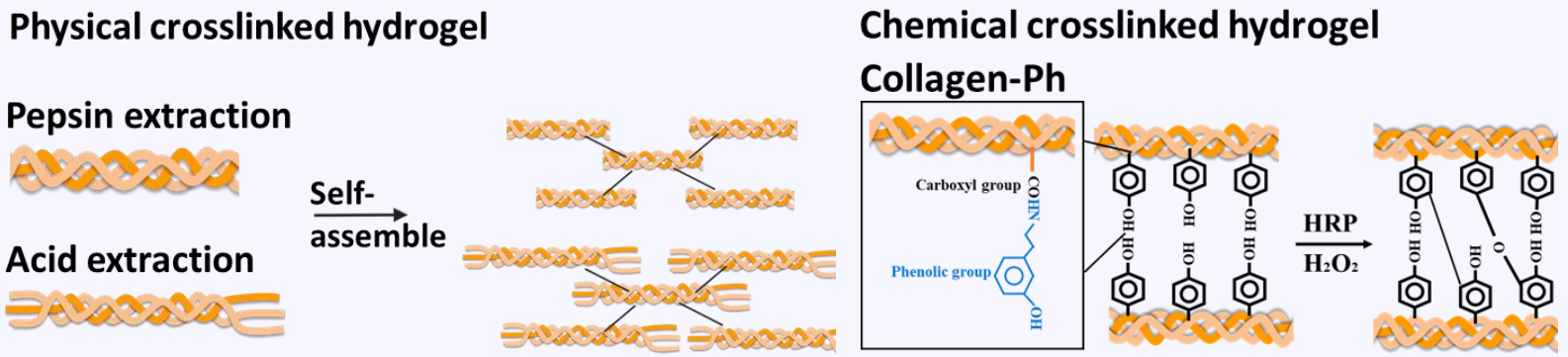
shihyen.wei2025@gmail.com
Shih-Yen.Wei@childrens.harvard.edu

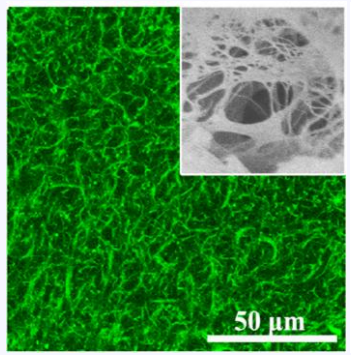
Biomaterials & Tissue Engineering Lab

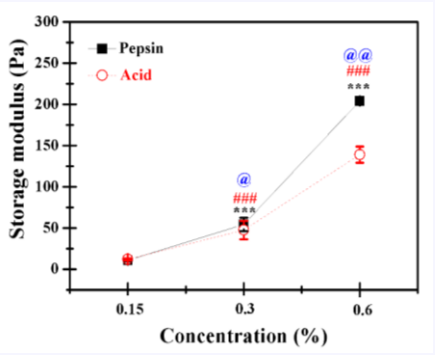
本實驗室的研究主題為開發經化學官能基修飾之多功能性天然蛋白質水凝膠材料，建立具有不同交聯機制的水凝膠系統。。透過調控材料的機械性質與微結構，引導血管生成相關幹細胞分化與生長，促進功能性血管化組織形成，並應用於缺血性組織修復與再生醫學。

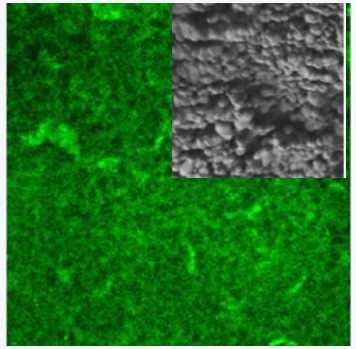
Multifunctional Biomaterials Design

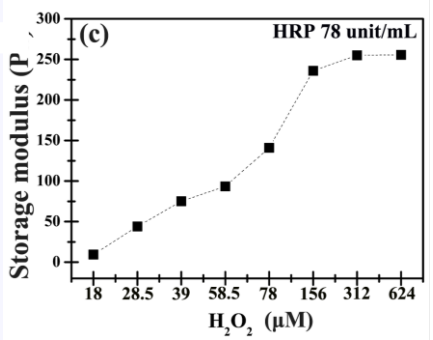
自行萃取具物理交聯特性的天然蛋白水凝膠，並開發經化學官能基改質後之酵素交聯型水凝膠，建立具有不同微結構且可調控機械性質的水凝膠系統。





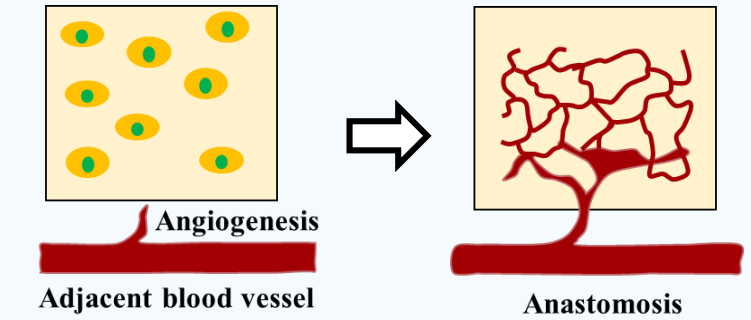


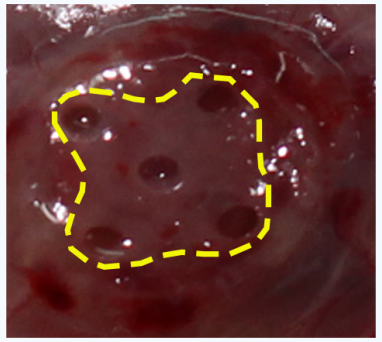


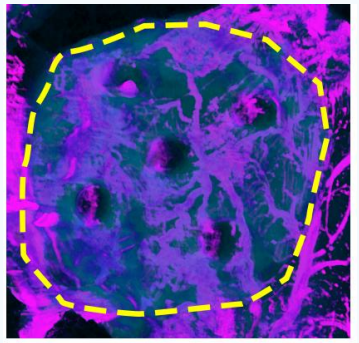


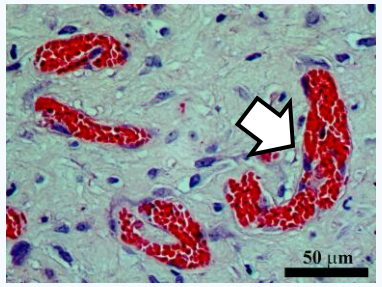
J Tissue Eng, 2022. 13: 20417314221084096. (IF=7, Q1)

Vascularized tissue









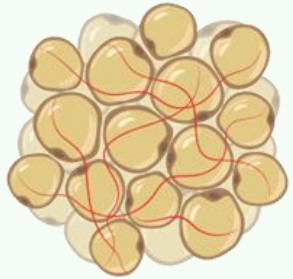
Biomaterial, 2023, 303: p. 122402..(IF=12, Q1)

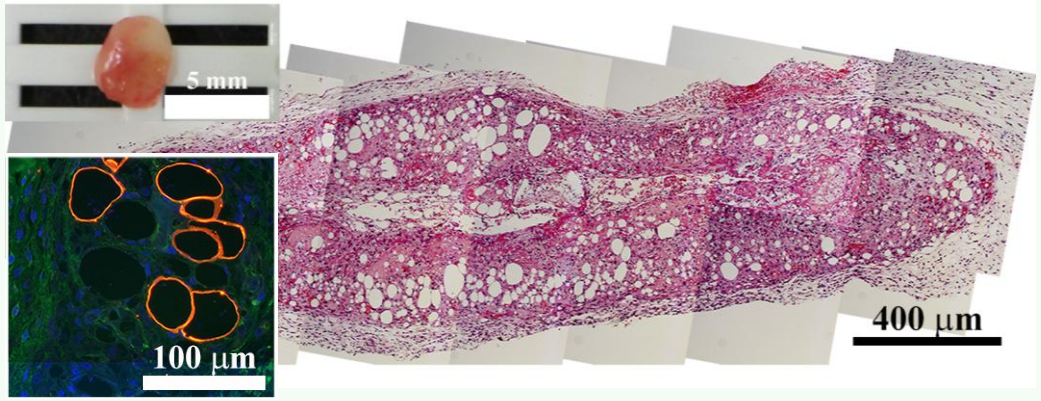
Biomaterials & Tissue Engineering Lab

Tissue engineering

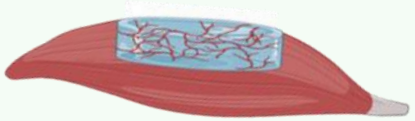
血管化組織可為脂肪細胞、神經細胞與肌肉細胞提供所需的氧氣與養分。本實驗室在小鼠體內建立血管化脂肪組織與神經血管化組織，並證實血管化組織能促進肌肉缺損的修復。

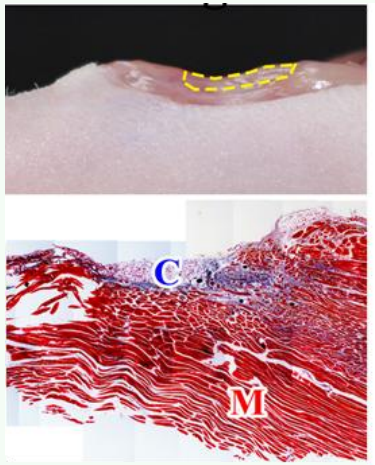
Vascularized adipose tissue





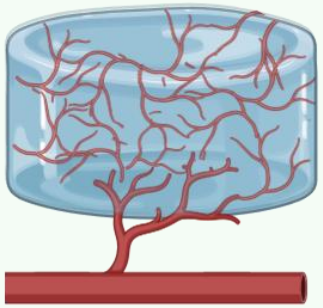
Muscle repair



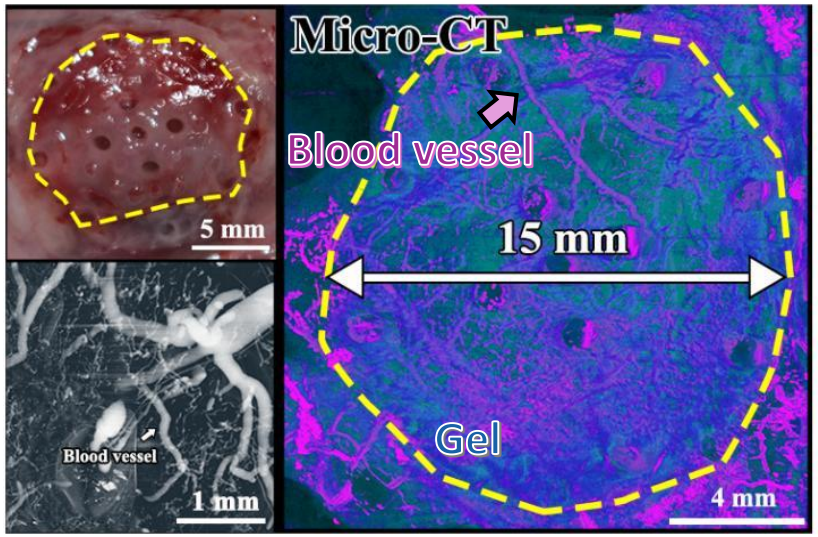


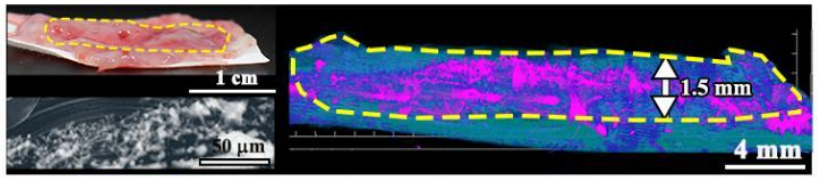
Connective tissue； Muscle

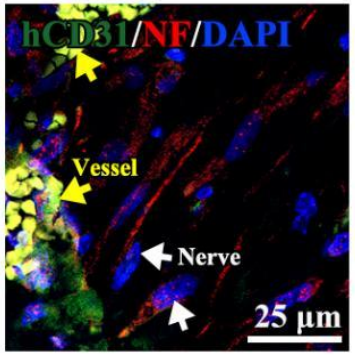
Large-sized vascularized nerve tissue

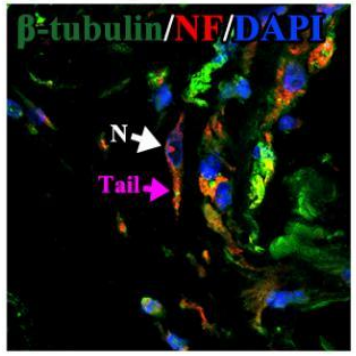


Less than 1 week









Biomaterial, 2023, 303: p. 122402..(IF=12, Q1)； Advance Health care, 2024:e2303320.. (IF=9.6, Q1)