

國立清華大學第23屆新進人員研究獎得獎人簡介

我的博士班指導教授，江安世院士曾說，神經傳遞就像河流，河水刻畫在大地上，留下時間的印記，就像是神經活動後產生的記憶，有深有淺、有短有長，也像我的研究生涯，從過去機械系、生技所、腦科學中心的不同源頭，匯流而成現在耕耘的生醫工程，正準備航向大海。我們從研究神經科學開始，到利用以及開發各種光學影像技術來加速神經科學的研究，現在又利用這樣的技術往許多不同的哺乳動物大腦及各種器官，以及臨床研究等等不同的領域伸出觸角，與台灣和世界上不同領域頂尖的科學家一起越級打怪，真的是很痛快的事情。我們的目標，是跟清大醫環系以及腦科中心的同仁，以及最優秀的學生們一起，建構世界上最快的光學影像系統，用光學影像的成像與分析，解構大腦功能、解析藥物治療的療效，讓台灣無論是基礎研究或是臨床研究都能往前快速飛進。

My PhD advisor, Academician Ann-Shyn Chiang once said that a neurocircuitry is like a river, which carved by water, leaving the imprint of time, same as the memory imprinted after neural firing. There are deep, shallow, short and long rivers and memories, but all convey into the ocean or long-term memory. My research career is very similar to this process, which combined training in Mechanical Engineering, biology, and the neuroscience, and now turned into biomedical engineering.

My current research interest is focusing on developing various optical imaging technologies to accelerate neuroscience research and disease related to neuroscience. Now my lab has used these technologies to visualize neurons activities and how the brain tumor affect the neuronal function in different mammalian brains and various organs, as well as clinical research and other fields. I really enjoy and always feel exciting to resolve mysterious scientific questions with top scientists in different fields from Taiwan and the world. We aim to collaborate with labs in BMES, BME, PME, BRC in NTHU, Academia Sinica, NTU, to build the optical imaging system with highest imaging speed, and use this new tool to resolve brain function, develop new drug and treatment to various disease. Let's wire together, fire together!