

CV of Invited Faculty



Kai-Chien YANG

Position

Professor and Attending Physician

Department, Affiliation

Division of Cardiology, Department of Internal Medicine, National Taiwan University, Taipei, Taiwan

Major Field

General Cardiology, Molecular Genetics and Genomics, Cardiac Fibrosis and Regeneration

**Professional Activities:
(Career or membership)**

- Board certified in Cardiology and Internal Medicine
- Fellow of the European Society of Cardiology (FESC)
- Joint Associate Research Fellow (2020-) Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan
- Visiting Professor (2023-2024), Department of Medicine, University of Chicago, Chicago, IL, USA

Short Bio (in 150 words):

As a physician-scientist with extensive training in clinical medicine and basic science research, I'm dedicated to tackling important biological questions linked to human diseases and eager to translate novel experimental findings into clinically useful therapeutics. Since establishing my lab in 2014, my research has focused on identifying novel mediators/pathways of cardiovascular diseases, particularly in cardiac and organ fibrosis, atherosclerosis, and cardiac regeneration.

Short Bio (in 150 words):

Using a multidisciplinary approach that includes systems biology, molecular, cellular, and animal studies, we have identified several novel molecular determinants, including long noncoding RNAs (Circulation 2014) and the ER protein TXNDC5 (Circ Res 2018), that are critical to the development of cardiac fibrosis and cardiomyopathy. These results not only shed new light on the pathogenesis of cardiovascular diseases but also hint at novel therapeutic opportunities by targeting these pathogenic mediators/pathways. We have applied our findings to non-cardiac fibrotic disorders, including pulmonary, kidney, liver and even tumor fibrosis (Nat Commun 2020, JCI 2021, Gut 2022). Additionally, we have revealed a critical role of TXNDC5 in disturbed flow-induced endothelial dysfunction and atherosclerosis (Sci Adv 2022). Our development of nanomedicine targeting endothelial TXNDC5 offers a new treatment for atherosclerosis. Currently, we are actively pursuing multiple projects aimed at understanding cardiac regeneration and the role of RNA modification in cardiovascular diseases (Nat Commun 2025).

***The information will be shown on the website and conference materials only.**