DukeNUS Medical School

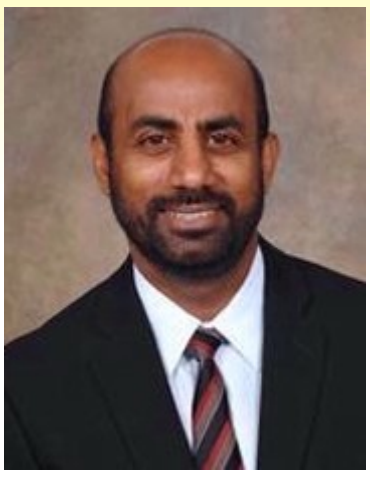
Signature Seminar Series

Molecular Mechanism Of Hypertrophic Cardiomyopathy In Populations Of South Asian Descendants

ABOUT THE LECTURE

Over the past two decades, the Sadayappan Lab has significantly contributed to understanding the development of HCM. This has comprised a variety of clinical and animal strategies, including poison polypeptide, haploinsufficiency, inflammation, and oxidative stress. The long-term objective is to understand the pathogenesis of MYBPC3 genetic variants (MYBPC3 Δ25bp) known to cause contractile dysfunction and HCM in South Asian descendants. Secondly, in collaboration with Dr. Litsa Kranias, the lab is engaged in determining the comorbidity of histidine-rich Ca 2+ -binding protein variant (HRC S96A) and MYBPC3 Δ25bp variant in the pathogenesis of diastolic dysfunction, HCM, arrhythmias and sudden cardiac death using knock-in mouse models (single and double variants). In particular, the present studies are focused on determining the molecular mechanism underlying the pathogenicity of MYBPC3 and MYH7 mutations using human iPSC-CMs, organoids, and mouse models, leading to the discovery of cardioprotective agents to prevent or ameliorate HCM and heart failure.

Speaker: **Prof Sakthivel Sadayappan, PhD, MBA, FAHA**
Vice Chair, Basic Research
Department of Internal Medicine
University of Cincinnati College of Medicine



Host: **Prof Wang Yibin**
Programme Director
Programme in Cardiovascular & Metabolic Disorders
Duke-NUS Medical School

Date: **Tuesday, 13 December 2022**

Time: **12.00 PM - 1.00 PM**

Venue: **For in-person attendance:**
Duke-NUS Medical School
Amphitheatre, Level 2

For virtual seminar (via Zoom), please register *HERE*.
(Please rename your login name to include your institution to facilitate admission)

Contact Person: **Ms Serene Wie (serene.wie@duke-nus.edu.sg)**
Duke-NUS Research Affairs Department

ABOUT THE SPEAKER

Dr. Sadayappan is a Professor of Internal Medicine and Director of the Heart Branch, Heart, Lung, and Vascular Institute at the University of Cincinnati, Cincinnati, OH. His research is driven by the desire to improve cardiac health with the long-range goal of preventing the development of heart failure that results from hypertrophic cardiomyopathy and coronary heart disease. Overall, he has made significant contributions to the field of heart failure, including original peer-reviewed articles, reviews, and book chapters, and mentored over 50 trainees, including undergraduate, master, graduate, postdoc, and clinical fellows. He has received nationally and internationally recognized awards and several outstanding awards for his teaching skills. Dr. Sadayappan has received funding from the National Heart, Lung, and Blood Institute, the American Heart Association, and various pharmaceutical industries, including Pfizer, AstraZeneca, MyoKardia, Amgen, and Merck. He has authored more than 144 manuscripts. As Director of the Heart Branch of the Heart, Lung, and Vascular Institute, Dr. Sadayappan is responsible for carrying out its mission and implementing its business plan. As Vice Chair of Basic Research, Internal Medicine, he supervises clinical, basic, and translational research, formulates and integrates research activities, and establishes programs that will foster public-private partnerships, philanthropy, and commercialization of new drugs, devices, and technology.

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