



## DAY 1 - AGENDA

All times in HK Standard time		SATURDAY, 4 MAY 2024
8:30am - 9:00am	Registration	
9:00am - 9:10am	Welcome and Introduction to CMR Workshop <i>Ming-Yen Ng and Vanessa Ferreira</i>	
9:10am - 9:30am	CMR as an Imaging Gold Standard for Assessment of Cardiac Structure and Function <i>Jonan Lee</i>	
9:30am - 9:50am	Late Gadolinium Enhancement (LGE) for Myocardial Tissue Characterization <i>Vanessa Ferreira</i>	
9:50am - 10:10am	CMR for Assessment of Ischemic Heart Disease Stress Perfusion and Viability <i>Raymond Kwong</i>	
10:10am - 10:30am	CMR Parametric Mapping (T1/T2/ECV) <i>Stefan Piechnik</i>	
10:30am - 10:50am	<b>TEA BREAK</b>	
10:50am - 11:10am	CMR for Hypertrophic Cardiomyopathy <i>Ming-Yen Ng</i>	
11:10am - 11:30am	CMR for Myocardial Infarction with Non-obstructed Coronary Arteries (MINOCA) <i>Chiara Bucciarelli-Ducci</i>	
11:30am - 11:50am	RCM and Amyloid, Iron Overload <i>Stephen Cheung and Pan Pan Ng</i>	
11:50am - 12:10pm	CMR for DCM and ACM <i>Carmen Chan</i>	
12:10pm - 12:30pm	CMR for Myocarditis <i>Vanessa Ferreira</i>	
12:30pm - 12:50pm	CMR for Athlete's Heart/ Hypertension/ LVH <i>Ronnie Chan</i>	
12:50pm - 1:50pm	<b>LUNCH</b>	
1:50pm - 2:00pm	CMR Phase Contrast/ Flow <i>Carol Ng</i>	
2:00pm - 2:20pm	CMR for Valvular Heart Disease <i>Andrew Li</i>	
2:20pm - 2:40pm	CMR for Pericardial Diseases <i>Ming-Yen Ng</i>	
2:40pm - 3:00pm	CMR for Assessment of Cardiac Masses <i>Chiara Bucciarelli-Ducci</i>	
3:00pm - 3:30pm	<b>TEA BREAK</b>	
3:30pm - 3:40pm	CMR Safety, Devices and Contrast Agents <i>Alice Kiu</i>	
3:40pm - 3:50pm	How to Obtain Good CMR Images in Arrhythmia and Difficult Patients (including devices) <i>Alice Kiu</i>	
3:50pm - 4:00pm	CMR for Aortic Diseases <i>Victor Chan</i>	
4:00pm - 4:30pm	CMR for Congenital Heart Disease - Basic Level <i>Tarinee Tangcharoen</i>	
4:30pm - 4:40pm	Closing Remarks	

## DAY 2 - AGENDA

All times in HK Standard time		SUNDAY, 5 MAY 2024
8:40am - 9:00am	Hands-On: CMR Post-Processing Tools <i>Circle Cardiovascular Imaging</i>	
9:00am - 9:20am	Hands-On: CMR Post-Processing Tools <i>Neosoft</i>	
9:20am - 10:30am	LV and RV Contouring (6 cases) <i>Carol Ng and Vanessa Ferreira</i>	
10:30am - 10:50am	<b>TEA BREAK</b>	
10:50am - 11:50am	Stress CMR with LGE (8 cases) <i>Raymond Kwong and Ming-Yen Ng</i>	
11:50am - 12:30pm	Myocarditis/Pericardial Disease (4 cases) <i>Ming-Yen Ng and Vanessa Ferreira</i>	
12:30pm - 12:40pm	Myocardial Iron Overload / T2* (2 cases) <i>Pan Pan Ng and Tarinee Tangcharoen</i>	
12:40pm - 1:10pm	<b>LUNCH</b>	
1:10pm - 2:50pm	Cardiomyopathy (10 cases) <i>Carmen Chan, Pan Pan Ng, Ming-Yen Ng and Raymond Kwong</i>	
2:50pm - 3:10pm	Athlete's Heart and Hypertensive Cardiomyopathy (2 cases) <i>Chiara Bucciarelli-Ducci and Carmen Chan</i>	
3:10pm - 3:30pm	MINOCA (2 cases) <i>Chiara Bucciarelli-Ducci and Carmen Chan</i>	
3:30pm - 4:20pm	Valvular Heart Disease (4 cases) <i>Andrew Li and Vanessa Ferreira</i>	
4:20pm - 4:40pm	<b>TEA BREAK</b>	
4:40pm - 5:20pm	Cardiac Masses (4 cases) <i>Chiara Bucciarelli-Ducci and Andrew Li</i>	
5:20pm - 5:40pm	Aortopathy (3 cases) <i>Victor Chan and Tarinee Tangcharoen</i>	
5:40pm - 6:30pm	Congenital Heart Disease (5 cases) <i>Tarinee Tangcharoen and Carol Ng</i>	
6:30pm - 6:40pm	Closing Remarks <i>Ming-Yen Ng and Vanessa Ferreira</i>	

## FACULTY LISTING



**Dr Chiara Bucciarelli-Ducci**  
*SCMR Chief Executive Officer  
Consultant Cardiologist  
the Royal Brompton Hospital, UK*



**Dr Andrew Li**  
*Honorary Clinical Associate Professor  
Department of Medicine and  
Therapeutics, Faculty of Medicine  
Chinese University of Hong Kong  
& Specialist in Cardiology*



**Dr Carmen Chan**  
*Consultant Cardiologist  
Queen Mary Hospital  
Hong Kong*



**Dr Jonan Lee**  
*Consultant Radiologist,  
Queen Elizabeth Hospital  
Hong Kong*



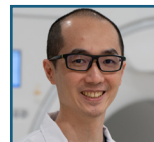
**Dr Ronnie Chan**  
*Honorary Clinical Associate Professor  
Department of Medicine  
University of Hong Kong  
Hong Kong & Specialist in Cardiology*



**Dr Carol Ng**  
*Associate Consultant Radiologist  
Hong Kong Children's Hospital  
Hong Kong*



**Dr Victor Chan**  
*Consultant Radiologist  
Union Hospital, Hong Kong*



**Dr Ming-Yen Ng**  
*Chair of the SCMR Education  
Committee  
Clinical Associate Professor  
Department of Diagnostic Radiology  
The University of Hong Kong  
Hong Kong SAR, China*



**Dr Stephen Cheung**  
*Chief of Service and Consultant  
Radiologist, Queen Mary Hospital  
Hong Kong*



**Dr Pan Pan Ng**  
*Associate Consultant Radiologist  
Queen Elizabeth Hospital  
Hong Kong*



**Professor Vanessa Ferreira**  
*SCMR Secretary Treasurer  
Professor of Cardiovascular Medicine  
University of Oxford, UK*



**Professor Stefan Piechnik**  
*Chair of the SCMR Parametric  
Special Interest Group (SIG)  
Professor of Biomedical Imaging  
University of Oxford, UK*



**Ms Alice Kiu**  
*Radiographer  
Department of Diagnostic Radiology  
Li Ka Shing Faculty of Medicine  
The University of Hong Kong, Hong Kong*



**Professor Raymond Kwong**  
*Professor of Medicine  
Director of Cardiac Magnetic  
Resonance Imaging  
Brigham and Womens Hospital  
Harvard Medical School, USA*



**Dr Tarinee Tangchareon**  
*Associate Professor  
Division of Cardiology  
Ramathibodi Hospital of  
Mahidol University  
Bangkok, Thailand*

## FACULTY BIOS



### **Dr Chiara Bucciarelli-Ducci**

*SCMR Chief Executive Officer, Consultant Cardiologist the Royal Brompton Hospital, UK*

Dr Bucciarelli-Ducci is a consultant cardiologist and imaging specialist at the Royal Brompton and Harefield Hospitals, Guys' and St Thomas NHS Trust in London, United Kingdom. She is also an honorary Reader (equivalent to Associate Professor) at the School of Biomedical Engineer and Imaging Sciences at King's College London. In 2022 she was awarded the prestigious Imperial College Alumni Emerging Leaders award. From 2010 to 20221 she was a Senior Lecturer in Cardiology at the University of Bristol and honorary cardiologist at the Bristol Heart Institute, University Hospitals Bristol NHS Trust, Bristol, United Kingdom. She was also the co-Director of the Clinical Research and Imaging Centre (CRIC) Bristol, University of Bristol. She was awarded a PhD in Cardiac Magnetic Resonance at the National Heart and Lung Institute, Imperial College London in 2012. In May 2019 she was also appointed Chief Executive Officer of the Society for Cardiovascular Magnetic Resonance (SCMR) with headquarters in the United States. She is the past European Association of Cardiovascular Imaging (EACVI) Vice-President and chair of the cardiac MRI section (2016-2018), within the European Society of Cardiology (ESC). She was part of the writing committee for the 2017 ESC guidelines on STEMI and the 2018 ESC/AHA/ACC/WHF 4th definition of myocardial infarction. She has been a consultant for the International Atomic Energy Agency (IAEA) (for medical imaging) of the United Nations and a consultant for the European Medicines Agency (EMA) (for MRI contrast agents) of the European Union. Since 2020, she is the Deputy Editor (Imaging) of the European Heart Journal. She has over 243 peer-reviewed publications (pubmed) mainly in CMR in NEJM, JAMA, JACC, JACC Imaging, Circulation, Circulation Imaging, European Heart Journal, European Heart Journal Cardiovascular Imaging. She is in the editorial board of Circulation Imaging, JACC imaging and European Heart Journal Cardiovascular Imaging.



### **Dr Carmen Chan**

*Consultant Cardiologist, Queen Mary Hospital, Hong Kong*

Dr Carmen Chan was graduated from the University of Hong Kong. She is currently being the Consultant Cardiologist and the Clinical Honorary Associate Professor at Department of Medicine, Queen Mary Hospital, University of Hong Kong. She is sub-specialized in advanced non-invasive cardiac imaging and has undergone one year fellowship training at Brigham and Women's Hospital, Harvard Medical School. Apart from providing clinical service, she is also interested and actively involved in clinical researches, guideline and reviewer in several peer group review journals and author of book chapters. She is also the honorary treasurer of the Hong Kong College of Cardiology and the convener of CMR chapter and Women's Heart Health Campaign. She also has participated in hospital management and is currently the Deputising Service Director, (Quality and Standard), Department of Quality and Safety, HKWC.



### **Dr Ronnie Chan**

*Honorary Clinical Associate Professor Department of Medicine, University of Hong Kong, Hong Kong & Specialist in Cardiology*

1-year overseas training in cardiac MRI in the London Chest Hospital 2013 and obtained the Fellowship in SCMR. She is the council member of Hong Kong College of Cardiology, convener of CMR Chapter of HKCC, council member of the Scientific Committee of the Hong Kong College of Cardiology, Council member of Hong Kong Heart Failure Society, and core member of Sport and Exercise Cardiology Chapter. She is currently practicing in private and is a Honorary Clinical Associate Professor in the Faculty of Medicine, University of Hong Kong.



### **Dr Victor Chan**

*Consultant Radiologist, Union Hospital, Hong Kong*

Dr. Victor Chan is a Clinical Radiologist who completed specialist training in Queen Mary Hospital, Hong Kong. He subsequently pursued a formal clinical fellowship in Cardiothoracic Imaging at Toronto General Hospital with Peter Munk Cardiac Centre, a quaternary cardiac referral center specializing in heart-lung transplants and adult congenital heart disease. In Canada, Dr. Chan was deeply involved in both clinical and research work. Besides being accredited with both SCCT and SCMR level III certification, he was also awarded the American Heart Association Young Investigator Award in 2021 for his research in Fabry cardiomyopathy. Dr. Chan has published multiple peer-reviewed articles and co-authored "Myocardial Injury Pattern at MRI in COVID-19 Vaccine-Associated Myocarditis", which was the top cited paper in Radiology in 2022. He remains passionate in academia and is the peer reviewer of several local and international radiology journals. Dr. Chan is an active cardiothoracic imager and is currently staff at Union Hospital and Honorary Clinical Assistant Professor at the University of Hong Kong.



### **Dr Stephen Cheung**

*Chief of Service in Radiology at Queen Mary Hospital of Hong Kong and Honorary Clinical Associate Professor at Faculty of Medicine, University of Hong Kong*

Dr. Cheung is also the current President of Asian Society of Cardiovascular Imaging. His clinical interests include cardiac CT and MR.



### **Professor Vanessa Ferreira**

*SCMR Secretary Treasurer, Professor of Cardiovascular Medicine University of Oxford, UK*

Professor Vanessa Ferreira, MD DPhil FRCPC FSCMR, is Professor of Cardiovascular Medicine at the University of Oxford. She is a cardiologist, and Deputy Clinical Director of the Oxford Centre for Clinical Magnetic Resonance Research (OCMR). She obtained her Bachelor of Science at the Massachusetts Institute of Technology (Cambridge, MA, USA), and Doctor of Medicine at the University of British Columbia (Vancouver, BC, Canada). She subsequently obtained a Doctor of Philosophy in Cardiovascular Medicine at the University of Oxford. She is the current SCMR Secretary Treasurer, in line to be SCMR President in 2026. Professor Ferreira served as SCMR board member (2016-2019), and is on multiple committees within the SCMR and other international professional societies. She is Visiting Professor at the University of Hong Kong (2023-2027).

Professor Ferreira has expertise in quantitative CMR techniques, particularly parametric-mapping, and their clinical applications in the investigation of ischaemic and non-ischaemic cardiovascular diseases.



### **Ms Alice Kiu**

*Radiographer, Department of Diagnostic Radiology, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Hong Kong*

I obtained my Bachelor of Biomedical Sciences at the University of Hong Kong (HKU), and Master of Diagnostic Radiography at the University of Sydney (USYD). After working briefly in Australia, I returned to my hometown and joined HKU as a radiographer focusing mainly on MRI.



### **Professor Raymond Kwong**

*Professor of Medicine, Director of Cardiac Magnetic, Resonance Imaging, Brigham and Womens Hospital, Harvard Medical School, USA*

Dr. Raymond Kwong is the Director of Cardiac Magnetic Resonance (CMR) Imaging at Brigham and Women's Hospital (BWH) and Professor of Medicine at Harvard Medical School. Dr. Kwong completed his medical training at the University of Toronto, Canada, in 1992, then a residency in Internal Medicine at the University of British Columbia, and a fellowship in cardiovascular diseases at George Washington University Medical Center in Washington, DC. He then pursued a 2-year fellowship in clinical CMR imaging at the Laboratory of Cardiac Energetics at the National Institutes of Health in Bethesda, Maryland.

In 2001, Dr. Kwong joined the Cardiovascular Division of BWH faculty focusing on clinical applications of CMR for patient care. Dr. Kwong's research focuses on noninvasive myocardial tissue characterization and its clinical impact, spanning ischemic and non-ischemic cardiomyopathies. He has participated in committee positions within the American College of Cardiology, the American Heart Association, and the Society for Cardiovascular Magnetic Resonance (SCMR) and as a permanent study member of NIH study sections. Dr. Kwong has served on the Editorial Boards of Circulation, Circulation Cardiovascular Imaging, Journal of the American College of Cardiology (JACC), JACC Imaging, and the Journal for Cardiovascular Magnetic Resonance (JCMR). Dr. Kwong has authored more than 270 original peer-reviewed papers, review articles, or book chapters, most of which focused on the technical advancement or clinical applications of cardiac magnetic resonance imaging. Dr. Kwong's current research focused on CMR's clinical utility and prognostic implication to patients with coronary artery disease and various cardiomyopathies. Under his supervision, the CMR laboratory is the imaging core laboratory for several NIH and industry-funded international clinical trials of novel cardiac therapies.





### **Dr Andrew Li**

*Honorary Clinical Associate Professor Department of Medicine and Therapeutics, Faculty of Medicine Chinese University of Hong Kong & Specialist in Cardiology*

He is a fellow of the Society of Cardiovascular Magnetic Resonance (FSCMR), and has been appointed the Executive Committee member of the Asian society of cardiovascular imaging (ASCI) since 2022. He holds Cardiovascular Board Certification of Cardiac CT (CBCCT).

Dr Li is an Honorary Clinical Associate Professor at the Chinese University of Hong Kong, principal investigator of Fabry & cardiomyopathy research, and a cardiologist in private practice.

He completed his cardiovascular imaging fellowship in cardiac MRI, CT and Echo at the Royal Adelaide Hospital in Australia in 2011.



### **Dr Jonan Lee**

*Consultant Radiologist, Queen Elizabeth Hospital, Hong Kong*

Dr. Lee currently serves as a consultant radiologist at the Department of Radiology & Imaging at Queen Elizabeth Hospital (QEH). He received subspecialized training in cardiovascular imaging under the supervision of Professor Joseph Selvanayagam, at Flinders Medical Centre, Adelaide. While in Adelaide, he actively contributed to core lab scientific research in cardiac imaging, specifically focusing on cardiomyopathy and scar quantification. He currently leads the cardiovascular imaging team at QEH and is endorsed by the Hong Kong College of Radiology as a subspecialty trainer in cardiovascular imaging. He reports cardiac CTs and MRs on a daily basis and is passionate about exploring new cardiac imaging techniques for better patient outcome.



### **Dr Carol Ng**

*Associate Consultant Radiologist Hong Kong Children's Hospital, Hong Kong*

Dr. Carol Ng is a dedicated congenital cardiac imager and the clinical lead in cardiac imaging at the Hong Kong Children's Hospital. Having received her fellowship training at the Great Ormond Street Hospital London, she is EACVI Level III certified in congenital CMR (European Association of Cardiovascular Imaging). She has co-authored several paediatric cardiology academic papers, and published in high-impact journals such as Circulation. She has also been invited to speak at large-scale international conferences such as the Society of Cardiovascular MRI (SCMR) 2024 Annual Scientific meeting.

Dr. Ng is trained in both paediatrics and radiology, having a membership with the Royal College of Paediatricians and a fellowship with the Royal College of Radiologists. She also holds the European Diploma in Paediatric Radiology.

It is the vision of Dr. Ng to use high-quality cross-sectional congenital to help patients' hearts beat longer and better, she hopes to share her expertise and knowledge with fellow doctors so more can care for the imaging needs of this group of patients.



### **Dr Ming-Yen Ng**

*Chair of the SCMR Education Committee, Clinical Associate Professor Department of Diagnostic Radiology The University of Hong Kong, Hong Kong SAR, China*

Dr. Ng is a Clinical Associate Professor at the Department of Diagnostic Radiology, The University of Hong Kong; and HKU Cardiac Imaging Massive Open Online Course Director.

Dr Ng undertook a 1 year cardiac imaging fellowship at Toronto General Hospital before coming to Hong Kong. He is a fellow of the American College of Cardiology, Society of Cardiovascular Magnetic Resonance (SCMR), and Society of Cardiovascular Computed Tomography (SCCT).

He sits on various committees for the SCMR, SCCT and RSNA and is an Associate Editor of the Journal of Cardiovascular Magnetic Resonance and Journal of Cardiovascular Computed Tomography.

He was awarded the HKU Teaching Innovation Award, Gold Award for Life Sciences by the QS Reimagine Education Award and EdX Finalist 2021 and 2023.

He is actively involved in research with interests in quantitative stress CMR, diabetes, heart failure with preserved ejection fraction and COVID-19. He has >70 peer-reviewed publications in JACC, JACC Cardiovascular Imaging, Circulation Cardiovascular Imaging, European Heart Journal Cardiovascular Imaging and Radiology.



### **Dr Pan Pan Ng**

*Associate Consultant Radiologist Queen Elizabeth Hospital, Hong Kong*

Dr. Ng currently works as an associate consultant at the Department of Diagnostic and Interventional Radiology of Queen Elizabeth Hospital in Hong Kong. She received subspecialized cardiovascular imaging training in Queen Mary Hospital and Queen Elizabeth Hospital. She is a core member of cardiovascular imaging team at QEH and a co-trainer. She has special interests in cardiomyopathy and structural heart disease.



### **Professor Stefan Piechnik**

*Chair of the SCMR Parametric, Special Interest Group (SIG), Professor of Biomedical Imaging University of Oxford, UK*

I am a senior scientist in biomedical engineering, with H-factor=72 accrued over 30 years of experience in interdisciplinary biomedical research, ranging from mathematical and biophysical modelling, measurement systems and methods design, direct clinical measurements, advanced imaging (PET, SPECT, and MRI), to clinical and self-assessment approaches. Applications of my methods span a wide range of clinical specialties (Neurosciences, Dermatology, Cardiovascular and Internal Medicine). My most persistent recent focus is on the clinical application of quantitative cardiac MRI (CMR) parametric tissue characterisation techniques, in particular T1-mapping, image processing, quantitation and applied artificial intelligence approaches. My most significant contributions to the field of CMR technical development in the past 15 years centre around two major technical innovations (both patented, among other inventions): (i) the design of a novel T1-mapping method for clinical use, which subsequently enabled the big data approaches towards the creation of (ii) "virtual" native contrast-enhanced (VNE) MR images but without the need for injectable contrast agents, through artificial intelligence and machine learning. Currently, I serve as the chair of SCMR Special Interest Group on parametric mapping.



### **Dr Tarinee Tangchareon**

*Associate Professor, Division of Cardiology  
Ramathibodi Hospital of Mahidol University, Bangkok, Thailand*

Dr. Tarinee Tangchareon has the expertise in general cardiology, cardiac MRI and adult congenital heart disease. She has received her CMR fellowship training from Germany and the United Kingdom. Currently, Dr. Tangchareon has served as a program director of CMR unit, division of cardiology, faculty of medicine, Ramathibodi hospital, Mahidol university, Thailand. She also serves as a director of Ramathibodi Adult Congenital Heart Excellent Center which has received patients from other hospitals in Thailand, mainly complex congenital heart disease and severe pulmonary hypertension or Eisenmenger's syndrome. Dr. Tangchareon has had experience in teaching advanced cardiac imaging for cardiology fellows, both general cardiology and CMR fellowship training.