



## **Professor Marcus Ong Eng Hock**

**MBBS, FRCS (A&E) EDIN, MPH (VCU)**

Prof Marcus Ong is a Senior Consultant, Director of Research, and Clinician Scientist, at the Department of Emergency Medicine in Singapore General Hospital. He is also the Director of Health Services Research Center (HSRC), Singhealth Services; Professor and Director, Health Services and Systems Research (HSSR), Duke-NUS Medical School. Prof Ong also serves as Medical Director, Unit for Prehospital Emergency Care (UPEC) and Senior Consultant, Ministry of Health, Hospital Services Division. Finally he is Chairman, Pan Asian Resuscitation Outcomes Study (PAROS).

Prof Ong's research studies focus predominantly on pre-hospital emergency care, medical devices, data science and health services research. His research has addressed issues such as out-of-hospital cardiac arrest (OHCA), improving ambulance deployment, acute myocardial infarction care and emergency care. He is a leading researcher in Health Services Research and use of Data Science in Healthcare.

Prof Ong has obtained more than S\$50 million in research grants for his studies, which include geospatial diseases mapping, clinical drug trials, resuscitation and cardiovascular sciences, pre-hospital emergency care, and biomedical engineering. He is the Principal Investigator for an international, multi-centre cohort study of out-of-hospital cardiac arrest across the Asia-Pacific. This clinical research network has published more than 36 articles in peer-reviewed journals since 2009. In total, Prof Ong has published more than 290 articles in international and local journals, such as Journal of the American Medical Association, American Journal of Medicine, Critical Care Medicine, Resuscitation, Annals of Emergency Medicine, etc.

Prof Ong has also patented inventions using Heart Rate Variability for risk prediction of acutely ill patients and cooling solutions for therapeutic hypothermia. The technology is currently being developed into bedside triage devices that can help in risk stratification of critically ill patients and he is Scientific Advisor for Global Healthcare, a start-up company providing medical cooling solutions.

In 2014, Prof Ong started a Data Science team at Singhealth Health Services Research Center and was appointed Head of Data Science at Singhealth. He is the Singhealth Co-Principal Investigator of the AI Singapore Grand Challenge addressing diabetes, hypertension and hyperlipidemia. He is considered a leading proponent of Data Science in Healthcare in Singapore.