Anthony C. Chang, MD, MBA, MPH, MS

Dr. Chang attended Johns Hopkins University for his B.A. in molecular biology prior to entering Georgetown University School of Medicine for his M.D. He then completed his pediatric residency at Children's Hospital National Medical Center and his pediatric cardiology fellowship at the Children's Hospital of Philadelphia. He then accepted a position as attending cardiologist in the cardiovascular intensive care unit of Boston Children's Hospital and as assistant professor at Harvard Medical School.

He has been the medical director of several pediatric cardiac intensive care programs (including Children's Hospital of Los Angeles, Miami Children's Hospital, and Texas Children's Hospital). He served as the medical director of the Heart Institute at Children's Hospital of Orange County.

He is currently the Chief Intelligence and Innovation Officer (CIIO) and Medical Director of the Heart Failure Program at Children's Hospital of Orange County. He has also been named a Physician of Excellence by the Orange County Medical Association and Top Cardiologist, Top Doctor for many years as well as one of the nation's Top Innovators in Healthcare.

He has completed a Masters in Business Administration (MBA) in Health Care Administration at the University of Miami School of Business and graduated with the McCaw Award of Academic Excellence. He also completed a Masters in Public Health (MPH) in Health Care Policy at the Jonathan Fielding School of Public Health of the University of California, Los Angeles and graduated with the Dean's Award for Academic Excellence. Finally, he graduated with his Masters of Science (MS) in Biomedical Data Science with a subarea focus in artificial intelligence from Stanford School of Medicine and has completed a certification on artificial Intelligence from MIT. He is a computer scientist-in-residence and a member of the Dean's Scientific Council at Chapman University.

He has helped to build a successful cardiology practice as a startup company and was able to complete a deal on Wall Street. He is known for several innovations in pediatric cardiac care, including introducing the cardiac drug milrinone and co-designing (with Dr. Michael DeBakey) an axial-type ventricular assist device in children. He is a committee member of the National Institute of Health pediatric grant review committee. He is the editor of several textbooks in pediatric cardiology, including *Pediatric Cardiac Intensive Care, Heart Failure in Children and Young Adults*, and *Pediatric Cardiology Board Review*.

He is the founder of the Pediatric Cardiac Intensive Care Society (PCICS) that launched the multi-disciplinary focus on cardiac intensive care for children. He is also the founder of the Asia-Pacific Pediatric Cardiac Society (APPCS), which united pediatric cardiologists and cardiac surgeons from 24 Asian countries and launched a biennial meeting in Asia that now draws over 1,000 attendees.

He is the founder and medical director of the Medical Intelligence and Innovation Institute (MI3) that is supported by the Sharon Disney Lund Foundation. The institute is dedicated to implement data science and artificial intelligence in medicine and is the first institute of its kind in a hospital. The new institute is concomitantly dedicated to facilitate innovation in children and health care all over the world. He is the organizing chair for the biennial *Pediatrics2040: Emerging Trends and Future Innovations* meeting as well as the founder and director of the Medical Intelligence and Innovation Summer Internship Program, which mentors close to 100 young physicians-to-be every summer. He has organized a pediatric innovation leadership group called the international Society for Pediatric Innovation (iSPI).

He intends to build a clinician-computer scientist interface to enhance all aspects of data science and artificial intelligence in health and medicine. He currently lectures widely on big data and artificial intelligence in medicine (he has been called "Dr. A.I." by the *Chicago Tribune* and has given a TEDx talk as well as on the Singularity University faculty) [1]. He has published review papers on big data and predictive analytics as well as machine learning and artificial intelligence in medicine [2][3]. He is on the editorial board of the *Journal of Medical Artificial Intelligence.* He is currently completing a book project with a book series with Elsevier: *Medical Intelligence: Principles and Applications of Artificial Intelligence in Medicine and Healthcare.* He is the founder and organizing chair of several *Artificial Intelligence in Medicine (AI Med)* meetings in the U.S. and abroad (Europe and Asia) that will focus on artificial intelligence in healthcare and medicine (www.ai-med.io). He intends to start a new group for clinicians with a special focus on data science and artificial intelligence (tentatively MD4ai) as part of a nascent society (Medical Intelligence Society, or MIS).

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[1] https://www.youtube.com/watch?v=Y5T8nckyuCA

[2] www.congenitalcardiologytoday.com/index_files/CCT-NOV12-NA.pdf

[3] www.congenitalcardiologytoday.com/index_files/CCT-APR13-NA.pdf

He is the founder of three startup companies in artificial intelligence in medicine:

1) CardioGenomic Intelligence (CGI), LLC is a multifaceted company that focuses on artificial intelligence applications such as deep learning in clinical cardiology (cardiomyopathy and heart failure as well as other cardiovascular disease) and genomic medicine.
2) Artificial Intelligence in Medicine (AIMed), LLC is an events company that organizes meetings and educational programs in artificial intelligence in medicine in local as well as global venues.
3) Medical Intelligence 10 (MI10), LLC is an education and consulting/advising conglomerate for executives and physician leaders as well as investors for the evaluation and implementation of AI strategies in healthcare organizations, for evaluation and recommendation of AI in healthcare vendors, and assessment and implementation of cybersecurity in healthcare organizations.