

TOM MARWICK

FULL NAME: Thomas Hugh Marwick

INSTITUTION & CURRENT POSITIONS:

Baker Heart and Diabetes Institute
Director and CEO, Baker Heart and Diabetes Institute

Cardiologist, Alfred Hospital, Melbourne, Australia
Cardiologist, Western Health, Melbourne, Australia

Associate Editor – Journal of the American College of Cardiology (2014-),
JACC Imaging (2007-)

QUALIFICATIONS: MBBS, PhD, MPH, FRACP, FRCP

HONOURS AND AWARDS

- 2006 - RT Hall Prize, Cardiac Society of Australia and New Zealand
- 2007 - President's Award, National Heart Foundation of Australia
- 2009 - Simon Dack Award, American College of Cardiology
- The John H. Tyrer Prize for Research in Internal Medicine, University of Queensland
- 2011 - Kempson Maddox Lecture, Cardiac Society of Australia and New Zealand
- 2014 - Foundation member and Council member, Australian Academy of Health and Medical Sciences
- 2016 - Bryant Stokes Oration, Medical Research Foundation, Royal Perth Hospital.

EXPERIENCE IN RESEARCH TRANSLATION

Professor Tom Marwick completed his training in medicine and cardiology in Australia, before undertaking an Imaging Fellowship at Cleveland Clinic, a PhD at the University of Louvain, Belgium and a Masters in Public Health at Harvard. He has divided his career mostly between Australia (former Professor of Medicine and Head of Cardiovascular Imaging Research Centre, UQ, and Director, Menzies Institute for Medical Research, University of Tasmania) and the USA (former Head of Cardiovascular Imaging at Cleveland Clinic).

His main contribution has been in clinical research and research training, and has supervised about 30 research higher degree students – mainly clinical – including 22 completed PhDs. He has published about 700 papers, reviews, chapters and editorials, and is an Associate Editor at JACC and Deputy Editor at JACC-Cardiovascular Imaging. Tom has been the recipient of more than fifty significant research grants and several awards, including the Simon Dack Award from the American College of Cardiology (2009), the RT Hall Prize (2006) and Kempson Maddox Lecture (2011) of the Cardiac Society of Australia and New Zealand.

Professor Marwick's research has always sought to answer clinical questions - right from the very start of his career, when as a newly qualified doctor, he had early success in getting a paper on adrenalin use in cardiac arrest accepted by The Lancet. He was one of the initiators of stress echocardiography as a clinical tool, and has made contributions to the prognostic evidence underlying echocardiography. His main current research interests relate to the detection of early cardiovascular disease. Since developing expertise in quantitative analysis at the Harvard School of Public Health, his research has also included statistical modelling and economic analysis of cardiac imaging techniques for treatment selection and monitoring. In addition to informing policy and practice in cardiovascular testing, his work has involved cross-specialty collaboration, especially in oncology and diabetes. Heart failure is the forgotten complication of diabetes, and his work in Central Australia relates to early detection and intervention to prevent heart failure, which is becoming an important problem in the Aboriginal community.

SELECTED PUBLICATIONS (from 700 papers, 28,500 citations)

1. Bax JJ, Marwick TH, Molhoek SG, et al. Left ventricular dyssynchrony predicts benefit of cardiac resynchronization therapy in patients with end-stage heart failure before pacemaker implantation. Am J Cardiol 2003; 92:1238-40. [Impact factor 17.8] [Times cited 836].

2. Gibbons RJ, Balady G, Bricker J, Duvernoy W, Froelicher V, Mark D, Marwick TH et al. Guidelines for exercise testing. ACC/AHA task force on assessment of cardiovascular procedures. J Am Coll Cardiol 1997;30:260-315. [Impact factor 17.8] [Times cited 753].
3. Mor-Avi V, Lang RM, Badano LP, Belohlavek M, Cardim NM, Derumeaux G, Galderisi M, Marwick T, et al. Current and Evolving Echocardiographic Techniques for the Quantitative Evaluation of Cardiac Mechanics: ASE/EAE Consensus Statement on Methodology and Indications Endorsed by the Japanese Society of Echocardiography. J Am Soc Echocardiogr. 2011;24:277-313 and Eur J Echo 2011;12:167-205 [Impact factor 4] [Times cited 707].
4. Fang ZY, Prins JB, Marwick TH. Diabetic cardiomyopathy: Evidence, mechanisms and therapeutic implications. Endocrine Reviews 2004;25(4):543-567. [Impact factor 14.9] [Times cited 531].
5. Hoffmann R, Lethen H, Marwick T, et al. Analysis of interinstitutional observer agreement in the interpretation of dobutamine stress echocardiograms. J Am Coll Cardiol 1996;27:330-36. [Impact factor 17.8] [Times cited 459].
6. Jenkins C, Bricknell K, Hanekom L, Leano R, Fang ZY, Marwick TH. Reproducibility and accuracy of echocardiographic measurements of left ventricular parameters using real-time 3D echocardiography. J Am Coll Cardiol. 2004;44:878-86. [Impact factor 17.8] [Times cited 387].
7. Bax JJ, Marwick TH, Molhoek SG, et al. Left ventricular dyssynchrony predicts benefit of cardiac resynchronization therapy in patients with end-stage heart failure before pacemaker implantation. Am J Cardiol 2003; 92:1238-40. [3.2] + [366]
8. Wong CY, O'Moore-Sullivan T, Leano R, Byrne N, Beller E, Marwick TH. Alterations of left ventricular myocardial characteristics associated with obesity. Circulation 2004;110: 3081-7. [17.2] + [362]
9. Yu CM, Sanderson JE, Marwick TH, Oh JK Tissue Doppler imaging a new prognosticator for cardiovascular diseases. J Am Coll Cardiol 2007;49:1903-14. [17.8] + [357]
10. Lauer MS, Francis GA, Okin PM, Pashkow FJ, Snader CE, Marwick TH. Impaired Chronotropic Response to Exercise is a Predictor of Mortality, Independent of Ischemia and Exercise Capacity. JAMA 1999;281:524-9. [37.7] + [352]

SELECTED COMPETITIVE RESEARCH GRANTS

1. National Health and Medical Research Council, *Benefit of 2D-strain surveillance in improving cardiovascular outcomes in cancer patients undergoing cardiotoxic chemotherapy*. (2017 – 2021), \$2,400,000. Chief Investigator.
2. National Health and Medical Research Council. “*Coronary Artery calcium score: Use to Guide management of Hereditary Coronary Artery Disease (CAUGHT-CAD)* (2015 - 2019)”. \$2,650,000 Chief Investigator.
3. Cardiac Dimensions: Contract Research, *REDUCE FMR trial*, (2015), \$110,000, Chief Investigator.
4. Diabetes Australia, *Benefit of Heart Failure Surveillance in T2DM*, (2014), \$60,000. Chief Investigator.
5. University of Tasmania: vTAHSP Demonstration Projects, *Rapid Access Cardiovascular Disease Management Clinic incorporating Rapid Access for Chest Pain Clinic (RACPAC) and Primary care Hospital* ((2014), \$58,000, Chief Investigator.
6. National Health and Medical Research Council (in Partnership with Department of Health and Human Services, National Heart Foundation and Tasmania Medicare Local. *Guidance of Heart Failure Management Programs by Risk Assessment*, (2013 – 2017), \$1,400,000, Chief Investigator.
7. GE Medical – *Strain Surveillance during Chemotherapy for improving Cardiovascular Outcomes (SUCCOUR Study)* (2013 - 2017), \$250,000, Chief Investigator
8. Menzies Tissue Bank through Department of Health and Human Services Tasmania *Cancer Care Project* (2012), \$650,000 Chief Investigator.
9. Tasmania Community Fund, *Benefit of heart failure surveillance in rural communities*, \$250,000. (2013 -), Chief Investigator.
10. Royal Hobart Hospital Research Foundation: Grant-Clinical Research, *Spironolactone in myocardial dysfunction with reduced exercise capacity (STRUCTURE)*, (2013), \$23,000, Chief Investigator.