Stanford



Dr Tom Meredith, MD, PhD

Clinical Assistant Professor, Medicine - Cardiovascular Medicine

CLINICAL OFFICE (PRIMARY)

- **Cardiovascular Medicine**

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Bio

BIO

Dr Tom Meredith, born and raised in Melbourne, Australia, is an academic interventional cardiologist and a clinical assistant professor at Stanford. He completed his medical and cardiology specialty training through the University of New South Wales and St Vincent's Hospital in Sydney, Australia. After obtaining Fellowship at the Royal Australian College of Physicians, he completed three years of coronary and structural interventional training across St Vincent's Hospital and Stanford. Alongside his clinical training, he completed a master's degree in clinical trials research as well as a PhD through the Victor Chang Cardiac Research Institute, supported by competitive scholarship funding from the CSANZ and the Australian National Heart Foundation. During his PhD he developed and patented a novel algorithm to predict aortic stenosis severity from single-view echocardiography and his thesis was ultimately nominated for the Dean's Award. His research interests include cardiac remodelling in valvular heart disease and the application of supervised machine-learning methods to predict post-procedural outcomes. Outside medicine, Tom is a dedicated father and avid triathlete who has competed in multiple Ironman 70.3 World Championships.

CLINICAL FOCUS

- Interventional Cardiology
- Transcatheter Aortic Valve Replacement
- Coronary Artery Disease
- Percutaneous Coronary Intervention
- Mitral Valve Disease
- Left Atrial Appendage Closure
- Mitral Transcatheter Edge-Edge Repair
- Tricuspid Transcatheter Edge-Edge Repair
- Rotational Atherectomy
- Intravascular Ultrasonography
- Intravascular Lithotripsy

- Tricuspid Valve Disease

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Medicine - Cardiovascular Medicine

PROFESSIONAL EDUCATION

- Fellowship: Stanford University Interventional Cardiology Fellowship (2026) CA
- Fellowship: St Vincent's Hospital Sydney (2024) Australia
- Fellowship: St Vincent's Hospital Sydney (2022) Australia
- Fellowship: St Vincent's Hospital Sydney (2021) Australia
- Residency: St Vincent's Hospital Sydney (2018) Australia
- Internship: St Vincent's Hospital Sydney (2015) Australia
- Board Certification: Cardiology, Australian Health Practitioners Regulatory Agency (2014)
- Medical Education: University of New South Wales Syndey (2013) Australia
- BMed MD, University of New South Wales, Sydney, Australia (2013)
- FRACP, Royal Australian College of Physicians (2021)
- MClinTRes, The University of Sydney, Australia , Clinical trials research (2022)
- PhD, University of New South Wales, Sydney, Australia , Cardiac remodelling, aortic valve disease, machine learning, valve motion (2025)

LINKS

- https://doctom.au: https://doctom.au

Publications

PUBLICATIONS

- **Coronary Revascularisation Strategies for Patients with Obstructive Coronary Artery Disease Requiring Lung Transplantation: A Narrative Review and Single-Centre Experience.** *Heart, lung & circulation*
  Adonopulos, A., Kempton, H., Meredith, T., Mullin, A., Havryk, A., Jansz, P., Macdonald, P.
  2026

- **Delay and attrition in severe aortic stenosis: a four-checkpoint systematic review of pathway bottlenecks and interventions** *EUROPEAN HEART JOURNAL-QUALITY OF CARE AND CLINICAL OUTCOMES*
  Fanous, N., Zubrzycki, N., Weir, L., Mohammed, F., Pomeroy, A., Meredith, T., Roy, D., Roy, A., Kovacic, J., Muller, D., Feneley, M., Elmariah, S., Namasivayam, et al
  2026

- **Seeing More With Less: AI to Reduce Radiation Exposure in the Cath Lab.** *Circulation. Cardiovascular interventions*
  Meredith, T., Yong, C., Fearon, W. F.
  2026: e016980

- **Strain characterization of multi-chamber cardiac dysfunction and associated prognosis in patients undergoing TAVR for severe AS.** *Echo research and practice*
  Meredith, T., Roy, D., Mohammed, F., Pomeroy, A., Feneley, M. P., Muller, D. W., Hayward, C., Namasivayam, M.
  2026; 13 (1)

- **Complex Percutaneous Intervention and Intravascular Lithotripsy for Critical Cabrol Anastomotic Stenosis Jeopardizing Global Coronary Circulation.** *JACC. Case reports*
  Meredith, T., Krishnam, M., Woo, J. P., Fearon, W. F., Hiesinger, W., Yeung, A.
  2026: 107768

- **State-of-the-Art in Echocardiographic Strain Imaging of Arrhythmogenic Cardiomyopathy.** *Journal of the American Society of Echocardiography : official publication of the American Society of Echocardiography*

Meredith, T., Picard, M. H., Churchill, T. W., Bernard, S., Bertrand, P. B., Sanborn, D. M., Namasivayam, M.
2025

- **Aortic valve leaflet motion for diagnosis and classification of aortic stenosis using single view echocardiography.** *Journal of cardiovascular imaging*
  Meredith, T., Mohammed, F., Pomeroy, A., Barbieri, S., Meijering, E., Jorm, L., Roy, D., Hayward, C., Kovacic, J. C., Muller, D. W., Feneley, M. P., Namasivayam, M.
  2025; 33 (1): 8

- **Right Ventricular Function and Afterload Following Novel Transcatheter Tricuspid Valve Replacement.** *JACC. Case reports*
  Kempton, H., Namasivayam, M., Meredith, T., Shaw, M., Jansz, P., Muller, D. W.
  2025; 30 (11): 103312

- **Low-flow Low-gradient Aortic Stenosis: Foundations, Challenges, and Solutions** *CURRENT TREATMENT OPTIONS IN CARDIOVASCULAR MEDICINE*
  Weir, L., Meredith, T., Hayward, C., Muller, D., Feneley, M., Namasivayam, M.
  2025; 27 (1)

- **Machine learning cluster analysis identifies increased 12-month mortality risk in transcatheter aortic valve replacement recipients** *FRONTIERS IN CARDIOVASCULAR MEDICINE*
  Meredith, T., Mohammed, F., Pomeroy, A., Barbieri, S., Meijering, E., Jorm, L., Roy, D., Kovacic, J., Feneley, M., Hayward, C., Muller, D., Namasivayam, M.
  2025; 12: 1444658

- **Machine Learning Cluster Analysis Identifies Increased 12-Month Mortality Risk in Transcatheter Aortic Valve Replacement Recipients**
  Meredith, T., Mohammed, F., Pomeroy, A., Barbieri, S., Meijering, E., Jorm, L., Feneley, M., Muller, D.
  ELSEVIER SCIENCE INC.2024: B20

- **The influence of transcatheter aortic valve replacement on left atrial mechanics: a systematic review and meta-analysis.** *European heart journal. Imaging methods and practice*
  Meredith, T., Brown, L., Mohammed, F., Pomeroy, A., Roy, D., Muller, D. W., Hayward, C., Feneley, M., Namasivayam, M.
  2024; 2 (2): qyae026

- **Strain Assessment in Aortic Stenosis: Pathophysiology and Clinical Utility** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
  Meredith, T., Roy, D., Hayward, C., Feneley, M., Kovacic, J., Muller, D., Namasivayam, M.
  2024; 37 (1): 64-76

- **A Clinician's Guide to the Changing Aortic Stenosis Landscape: Updates in Aortic Stenosis Diagnosis, Surveillance and Management** *CURRENT TREATMENT OPTIONS IN CARDIOVASCULAR MEDICINE*
  Meredith, T., Roy, D., Muller, D., Namasivayam, M.
  2023; 25 (11): 675-688

- **Machine learning prediction of progressive subclinical myocardial dysfunction in moderate aortic stenosis** *FRONTIERS IN CARDIOVASCULAR MEDICINE*
  Namasivayam, M., Meredith, T., Muller, D. W. M., Roy, D. A., Roy, A. K., Kovacic, J. C., Hayward, C. S., Feneley, M. P.
  2023; 10: 1153814

- **MACHINE LEARNING PREDICTION OF PROGRESSIVE SUBCLINICAL MYOCARDIAL DYSFUNCTION IN MODERATE AORTIC STENOSIS**
  Namasivayam, M., Meredith, T., Muller, D. W. M., Roy, D., Roy, A. K., Kovacic, J., Hayward, C. S., Feneley, M. P.
  ELSEVIER SCIENCE INC.2023: 1398

- **Coronary angiography of the ex-situ beating donor heart in a portable organ care system** *CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS*
  Meredith, T., Scheuer, S., Hoffman, M., Joshi, Y., Kathir, K., Gunalingam, B., Roy, D., Wilson, S., Jansz, P., Macdonald, P., Muller, D.
  2022; 100 (7): 1252-1260

- **Extracorporeal Membrane Oxygenation-Supported Transcatheter Mitral Valve-in-Valve Replacement and Paravalvular Plugging for Critical Prosthetic Mitral Stenosis.** *JACC. Case reports*
  Meredith, T., Gorrie, N., Roy, D., Muller, D. W.
  2022; 4 (8): 491-496

- **Importance of electromagnetic interactions between ICD and VAD devices-Mechanistic assessment** *ARTIFICIAL ORGANS*
  Schnegg, B., Robson, D., Furholz, M., Meredith, T., Kessler, C., Baldinger, S. H., Hayward, C.
  2022; 46 (6): 1132-1141
- **Heart failure therapies for the prevention of HER2-monoclonal antibody-mediated cardiotoxicity: A systematic review and meta-analysis**
  Brown, L. J., Meredith, T., Yu, J., Patel, A., Neal, B., Arnott, C., Lim, E.
  WILEY.2021: 119
- **Heart Failure Therapies for the Prevention of HER2-Monoclonal Antibody-Mediated Cardiotoxicity: A Systematic Review and Meta-Analysis of Randomized Trials** *CANCERS*
  Brown, L. J., Meredith, T., Yu, J., Patel, A., Neal, B., Arnott, C., Lim, E.
  2021; 13 (21)
- **The use of direct oral anticoagulants in patients with ventricular assist devices: Is there hope for Factor Xa inhibition?** *ARTIFICIAL ORGANS*
  Meredith, T., Schnegg, B., Hayward, C.
  2021; 45 (5): E123-E129
- **Spontaneous Oscillatory Left Ventricular-Aortic Uncoupling Under Continuous-Flow Left Ventricular Assist Device Support** *CIRCULATION-HEART FAILURE*
  Jain, P., Meredith, T., Adji, A., Schnegg, B., Hayward, C. S.
  2021; 14 (2): e007658
- **Colonic malakoplakia in a dual stem cell and cardiac transplant recipient: A case report and literature review** *TRANSPLANT INFECTIOUS DISEASE*
  Meredith, T., Dharan, N., Killen, L., Anandabaskaran, S., Kim, A., Yang, T., Marriott, D., Hayward, C., Macdonald, P.
  2021; 23 (2): e13488
- **The Challenge of Researching Pre-Treatment Omission With Invasive Strategy Timing in NSTEACS** *JACC-CARDIOVASCULAR INTERVENTIONS*
  Meredith, T., Nadel, J., Jain, P., Roy, D.
  2020; 13 (14): 1726
- **Recanalization of an atretic left internal mammary graft after bypass surgery for an anomalous left main coronary artery origin: a case report** *EUROPEAN HEART JOURNAL-CASE REPORTS*
  Meredith, T., Jansz, P., Sesel, K., Kathir, K.
  2019; 3 (1): yty152
- **Isolated myocardial relapse of Philadelphia-positive acute lymphoblastic leukaemia causing myocarditis: a case report** *EUROPEAN HEART JOURNAL-CASE REPORTS*
  Nadel, J., Meredith, T., Anthony, C., Sivasubramaniam, V., Jabbour, A.
  2018; 2 (4): yty104
- **Pushing beyond the limit: a novel clinical sign of thoracic aortic dissection.** *BMJ case reports*
  Meredith, T., Jain, P., Feneley, M.
  2017; 2017