Foreword

Magdi El-Omar

Dr Magdi El-Omar is a consultant interventional cardiologist at the Manchester Heart Centre and an honorary senior lecturer at the University of Manchester, Manchester, UK. He graduated from St Bartholomew's Hospital, London, UK, in 1988 and undertook his postgraduate general medical training in London and Oxford. He then completed his general cardiology training in Birmingham, Oxford and Wales before subspecializing in coronary intervention. The latter included a 2.5-year clinical/research fellowship in interventional cardiology at the Cardiovascular Research Foundation and the New York University Medical Centre, New York, NY, USA. During his time there, he worked closely with leaders in the field, including doctors Greg Stone, Martin Leon, Gary Roubin, Frederick Feit and Aaron Marcus. Dr El-Omar has been involved in research for over 25 years. He undertook a 2-year British Heart Foundation Junior Research Fellowship in basic science (diabetic cardiomyopathy in a rat model) in 1997–8, which led to the award of an MD degree from the University of London. He has since been actively involved in clinical research, especially in the fields of acute coronary syndromes and coronary intervention. He has authored more than 70 peer-reviewed articles, mostly in high-impact journals. He has been a local principal investigator for several landmark, international, multicentre trials (e.g. HORIZONS-AMI, INFUSE-AMI, TOTAL, TWILIGHT, etc.). He is actively involved in education and training and is a course co-director of the International Complex Cardiovascular Catheter Therapeutics Conference in the USA.

Cardiovascular medicine stands at a pivotal crossroads—shaped by rapid advances in precision therapies, a deepening understanding of disease mechanisms, and an urgent imperative to address global health disparities. As the burden of cardiovascular disease continues to evolve, so too does the need for nuanced, evidence-based approaches that span the full spectrum of care: from prevention and early detection to advanced interventions and chronic disease management. This issue of *Heart International* reflects the dynamic nature of the field, offering new insights into clinical innovation, community-based strategies and the complex interplay of biological, behavioural and social determinants in cardiovascular health.

Sara Ghazizadeh et al. contribute a rigorous meta-analysis examining magnesium supplementation for the prevention of postoperative atrial fibrillation (POAF) in cardiac surgery. Their findings—drawn from 24 randomized controlled trials—suggest a significant reduction in POAF incidence with magnesium use, particularly in trials with low risk of bias. Though mortality and hospital stay were unaffected, this review supports magnesium as a cost-effective preventive strategy.

Rnda Ashgar's systematic review of community-based participatory research (CBPR) for cardiovascular disease (CVD) prevention among middle-aged women reveals the transformative power of culturally tailored interventions. The study shows measurable reductions in blood pressure, cholesterol, BMI and fasting glucose across diverse underserved populations. The emphasis on community engagement and cultural relevance offers a promising model to close gaps in cardiovascular health equity.

In the realm of heart failure and cardiomyopathy, Adam Ioannou's review focuses on tracking disease progression in transthyretin amyloid cardiomyopathy (ATTR-CM). With the growing availability of disease-modifying therapies, his synthesis underscores the clinical utility of combining biomarkers, functional assessments and imaging in guiding timely intervention and predicting outcomes.

Pavan Kumar Reddy Kalluru's comprehensive review of clinical trials for mavacamten, a myosin inhibitor for obstructive hypertrophic cardiomyopathy (HCM), consolidates evidence of its efficacy in improving haemodynamics, symptom burden and quality of life. The review also reinforces the importance of careful monitoring for systolic dysfunction, while highlighting its potential as a non-invasive therapeutic alternative.

Samuel Stempfel et al. turn attention to the complications associated with left bundle branch area pacing (LBBAP), a technique offering more physiological ventricular activation than traditional methods. This article provides critical insights into the risks of septal lead placement and guidance on managing these events—an important contribution as LBBAP adoption accelerates.

Jia-Rong Wu and colleagues investigate the multidimensional factors affecting functional status in patients with heart failure. Using structural equation modelling, they identify symptom burden as the primary mediator between clinical, psychosocial and demographic variables and functional capacity. Their findings offer a roadmap for targeted interventions to reduce hospitalizations and improve patient-centred outcomes.

Finally, Bryan Kluck presents original research comparing device- and suture-based approaches for patent foramen ovale (PFO) closure. While both methods achieved successful closure with no major adverse events, atrial fibrillation occurred exclusively in the device group. This early signal invites further research into long-term rhythm outcomes and reinforces the potential role of suture-based alternatives in select patients.

Together, these studies reflect the broad scope and multidisciplinary spirit of modern cardiology—from prevention to intervention, from population health to individualized care. We are proud to feature this collection and hope it informs both clinical practice and future research. ❑