

# Preface

## Mitral valve repair

It is a privilege to serve as the guest editor for this special three-issue compilation of state-of-the-art works on mitral valve repair. As the *American Association for Thoracic Surgery's* 2015 Mitral Conclave concludes, setting yet another record for attendance, we are reminded of the worldwide interest and passion for learning more about the techniques, outcomes and science of mitral valve repair.

It has been exactly one decade since Enriquez-Sarano and colleagues, in the *New England Journal of Medicine*, advocated eloquently on behalf of mitral valve repair in asymptomatic patients with structural mitral valve regurgitation (1). The recent American Heart Association/American College of Cardiology 2014 Guidelines on the treatment of valvular heart disease have given a class 2A recommendation for interventions on the mitral valve in asymptomatic patients with normal left ventricular size and function, provided that the operation is performed in a center of excellence yielding >95% repair rates with <1% mortality (2). In the current era of evidence-based, guideline-directed medical therapy, cardiologists and cardiac surgeons are partnering ever more collaboratively to ensure that their patients are receiving the very highest level of care. We hope that this special issue of the *Annals of Cardiothoracic Surgery* can help bring all of us one step closer to achieving perfect, durable mitral valve repair in all of our patients.

Herein we present the expansive knowledge of a truly international gathering of expertise in mitral valve repair surgery, from the preeminent pioneers who created the field to the young innovators designing transcatheter devices. This special issue begins with the history and evolution of mitral valve repair surgery to its modern state of near 100% repair rates with multi-decade durability. Multiple mitral valve imaging modalities are detailed. Differences between the European and American Guidelines are reconciled. Various operative approaches, including standard sternotomy, right chest, minimally-invasive and robotic, are compared. A host of valve repair techniques for both primary and secondary mitral regurgitation are described. For myxomatous degenerative and rheumatic valve pathology, abundant leaflet reconstruction methods are detailed, including those for extremely complex scenarios. For ischemic mitral regurgitation, annular and subvalvular procedures are characterized, as are insights from multi-center prospective randomized trials. The indications for and approach to concomitant procedures are outlined. Emerging transcatheter and novel mitral devices are debuted, and basic and translational scientific research into mitral valve pathophysiology is examined. These diverse topics are accompanied by ample multi-color illustrations and high-definition videos.

We hope that you will explore, enjoy and learn from this vast collection. I extend the sincerest gratitude to Drs. Tristan Yan and Paul Bannon for their far-reaching vision of creating this journal and for the honor of serving as the guest editor, the editorial staff for their tireless energy, and most importantly, to the contributors for their critical time and effort in constituting this highly valuable compilation.

## References

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doi: 10.3978/j.issn.2225-319X.2015.05.04

*Disclosure:* The author declares no conflict of interest.

**View this article at:** <http://dx.doi.org/10.3978/j.issn.2225-319X.2015.05.04>

