Dennis Lau, University of Adelaide

Catheter ablation for atrial fibrillation (AF) is an established therapy for patients with symptomatic AF. Over the last two decades, the technique has evolved significantly with increasing knowledge of the pathophysiological mechanisms of AF. However, pulmonary vein isolation remains the cornerstone of catheter ablation strategies. Additional ablation beyond pulmonary vein isolation includes substrate modification with linear ablation, targeting of complex fractionated atrial electrograms (CFAE) and drivers/sources of AF. This lecture will focus on the rationale of these approaches and present insights on the challenges associated with these techniques including mapping of fractionated electrograms, rotors and sites with high Shannon Entropy (ShEn). Hopefully, ongoing research and technological advance will continue to improve the success of catheter ablation for AF despite the apparent 'moving targets'.

Keynote Lecture: Close Linkage of Aging, Hypertension, & AF: Rationale for Aggressive Life Style Modification

Dennis Lau, University of Adelaide

Atrial fibrillation (AF) is a complex disease and our current understanding of its pathophysiologic mechanisms remains limited. Recently, novel risk factors have been identified to contribute to adverse atrial remodeling leading to AF. Increasingly, the field has recognized that the entity of 'lone AF' is a misnomer. Management of patients with AF must move beyond rhythm and rate control to include risk factor modification. This lecture will focus on how various risk factors such as hypertension, obesity and sleep apnea contribute to abnormal atrial remodeling and how risk factor and lifestyle management can lead to reduced AF burden and improved sinus rhythm management. Hopefully, this paradigm changing way of AF management can help to relieve the enormous healthcare burden imposed by the growing AF epidemic.