

## 'Heart of the Matter - Tackling the Last Two Unsolved Arrhythmic Puzzles of Fibrillation'



Series Name Department of Cardiovascular Sciences

 Speaker
 Professor G Andre Ng

 Type
 Lectures & Talks

 Starts at
 Oct 15, 2013 05:30 PM

 Ends at
 Oct 15, 2013 06:30 PM

Venue Ken Edwards Building, Lecture Theatre 1

Open To Public

Sudden cardiac death remains a major unsolved clinical problem as a result of malignant heart rhythm disturbances, such as ventricular fibrillation. During fibrillation, electrical conduction pattern of the heart chamber becomes chaotic and the heart pump ceases to function. The mechanisms underlying ventricular fibrillation are poorly understood but there is strong evidence to suggest an important link with disturbed autonomic nerve system function. The first part of the lecture will detail results from work carried out over a decade both to characterize the link between the nervous system and ventricular fibrillation and to develop novel treatment to prevent this lethal heart disturbance in patients at risk. Translational work based on these data developed to improve the way by which "at risk" patients are identified will also be described.

In the atria – the top chambers of the heart – fibrillation can also occur. Atrial fibrillation is the commonest sustained heart rhythm disturbance seen in clinical practice. Whilst not immediately lethal, the arrhythmia is associated with a five-fold increase in risk of stroke and increased risk of heart failure and death. Catheter ablation has provided a cure to many other types of heart rhythm disturbance over the past 20 or so years but the application of this therapy in atrial fibrillation (often regarded as a 'Cinderella' arrhythmia in this respect) is less than ideal with variability in results despite significant technological advancement over the past decade in both mapping systems and robotics. The second part of the lecture will cover research work in this important area.

With these exciting research developments, it is hoped that we can truly solve the last two arrhythmia puzzles of Ventricular and Atrial Fibrillation in the very near future.

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