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PhD in Medical Sciences
2017-2018

INVITATION to the Public defence of

Valentina DE REGIBUS

To obtain the academic degree of '**DOCTOR IN MEDICAL SCIENCES**'

Cryoballoon Ablation.

Tuesday 10 July 2018

Auditorium **Piet Brouwer**, 17:00

Faculty of Medicine and Pharmacy, Laarbeeklaan 103, 1090 Brussel

How to reach the campus Jette:

<http://www.vub.ac.be/english/infoabout/campuses>

Summary of the dissertation

Atrial fibrillation is the most common arrhythmia encountered in clinical practice, occurring in roughly 3% of adults aged 20 years or older. Despite good progress in the management of patients with AF, this arrhythmia remains one of the major causes of stroke, heart failure, sudden death, and cardiovascular morbidity in the world. Different techniques for the atrial fibrillation ablation have been developed in the past years addressing either the pulmonary veins or atrial substrate. Among all the techniques developed to address pulmonary vein isolation, the cryoballoon ablation has proven to be as effective as radiofrequency ablation, with the advantages of achieving PVI potentially with one single application, using a safe and reliable energy source. The results presented here confirm the efficacy and safety of the Second-Generation Cryoballoon (CB-Adv). The efficacy, the ease of execution and the short duration of the cryoablation, characterized by a single, short-lasting freeze, means that CB-Adv might be widely used, even in EP labs in which now AF ablation is not performed. This may favour an early treatment of the AF, affording higher acute and late success, while delaying the electroanatomical substrate modifications. In the absence of comorbidity such as in the lone atrial fibrillation of in young patients, the CB-Adv has proven to be very effective and safe. In the future, if CB-Adv could prove to be as effective as AADs, the indication for AF ablation as a first-line therapy in selected populations, and especially the cryoballoon ablation, might gain more importance than in the current guidelines. In addition, as cryoballoon has proven to be effective even in redo ablations, the role of this kind of ablation might be at different points in the timeline of AF history in a patient-tailored approach to this arrhythmia.

Curriculum Vitae

Valentina De Regibus was born on the 6th of March 1982 in Novara, Italy. She followed her secondary education at Liceo Scientifico "Alessandro Antonelli" in Novara and graduated in 2001. That same year she started medical school at the University of Pavia where she obtained her Medical Doctor degree in 2008. In 2009 Dr De Regibus started her Cardiology training program directed by Prof. Peter J. Schwartz, in the University of Pavia, finishing her training in 2014. The following year, she began her practical and theoretical training in electrophysiology attending the 2nd Degree Master in Cardiac Pacing and Electrophysiology at the University of Insubria, Varese, directed by Prof. Jorge Salerno Uriarte. In November 2015 she moved to Brussel to continue her training at the Heart Rhythm Management Centre, UZ Brussel- VUB directed by Prof. Pedro Brugada. During this period, she was trained by Prof. de Asmendis and Prof Chierchia on invasive electrophysiological procedures including conventional and complex ablation procedures and she was involved in several research projects. Since January 2017 she works as Consultant Electrophysiologist at Maria Cecilia Hospital, Cotignola, Italy.

She has published more than 30 scientific articles in international peer-reviewed journals.