



Invitation

Lecture

"Targeting regulators of physiological hypertrophy to improve function of the failing heart"

Speaker: Prof. Julie R. McMullen
Baker IDI Heart and Diabetes Institute
Melbourne

Date: Thursday, October 24th, 2013; 3 pm to 4pm

Place: Lecture hall HSZ SR E1
University Hospital for Internal Medicine

Following the lecture a buffet will be served at the foyer.

Prof. Dr. B. Pieske
Head, Division of Cardiology

Ass. Prof. Dr. D. Scherr
Training responsible person

Please direct your inquiry to Ms. Gaulhofer, BSc. MSc.:
Contact: 0316-385-12544

Title: Targeting regulators of physiological hypertrophy to improve function of the failing heart

A/Prof Julie R. McMullen

Baker IDI Heart and Diabetes Institute, Melbourne, Australia.

Exercise plays an important role in the primary and secondary prevention of several chronic diseases including obesity, diabetes, and cardiovascular disease. Identification of genes that are critical for the beneficial effects of exercise may offer new opportunities to treat heart disease. Growth of the heart can be induced by physiological stimuli (e.g. chronic exercise training; also known as the “athlete’s heart”) or pathological stimuli (e.g. chronic pressure overload such as hypertension). Physiological cardiac hypertrophy is characterized by a normal organization of cardiac structure, and normal or enhanced cardiac function. In contrast, pathological hypertrophy is associated with fibrosis, cardiac dysfunction, and increased morbidity and mortality. It is now recognized that some signalling pathways play distinct roles in the regulation of pathological and physiological cardiac hypertrophy. The insulin-like growth factor 1 (IGF1)-phosphoinositide 3-kinase (p110 α ; PI3K) pathway is a critical regulator of physiological heart growth, and activation of this pathway in mice is beneficial in settings of cardiac disease. I will discuss recent studies highlighting the efficacy of gene delivery using adeno-associated viral technology, or miRNA therapeutics that target the PI3K pathway for the treatment of heart failure.

Biosketch

A/Prof Julie R. McMullen

Associate Professor Julie McMullen heads the Cardiac Hypertrophy Laboratory at the Baker IDI Heart & Diabetes Institute in Melbourne, Australia. Julie obtained her PhD from the Faculty of Medicine at the University of New South Wales in Sydney, Australia. She then trained as a Cardiology Research Fellow at Beth Israel Deaconess Medical Centre and Harvard Medical School in Boston between 2000 and 2004. In early 2005, Julie established her own laboratory at Baker IDI. Her research interests include cardiac hypertrophy, heart failure, and atrial fibrillation; specifically focusing on molecular mechanisms responsible for the induction of physiological and pathological cardiac hypertrophy. Julie has also been on the council of the International Society for Heart Research, Australasian section, since 2007.