

ARMI SPECIAL SEMINAR

2022



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Being Super Relaxed about Hypertrophic Cardiomyopathy

Dr. Christopher Toepfer

Abstract

The human heart is an exquisite machine that must maintain cardiac output throughout an individual's entire life without being able to regenerate. This necessitates tight homeostatic control of cellular processes within the organ to ensure efficient life-long function. In some forms of inherited heart conditions, the ability of the heart to regulate contraction is perturbed. In a significant sub-set of hypertrophic cardiomyopathy, patient's mutations can cause myosin to be overactive. Driving pathology and adverse outcomes in patients. Discovering these disease-causing mechanisms is allowing us to direct target the cause of these diseases for the first time.

Bio

Chris completed his PhD at Imperial College London under the supervision of Professor Michael Ferenczi and Dr. James Sellers (NHLBI, NIH). Studying cardiac muscle regulation in health and disease. He subsequently began a Post-doc with the support of a Sir Henry Wellcome Post-Doctoral Fellowship with Professors Christine and Jonathan Seidman at Harvard Medical School and Professor Hugh Watkins at the RDM Oxford. Chris is currently supported by a BHF CRE Intermediate Transition Fellowship and a Sir Henry Dale Fellowship of Wellcome and the Royal Society In Oxford to investigate the role of thick filament variants in hypertrophic cardiomyopathy (HCM). The laboratory focuses on CRISPR/Cas-9 engineering of human induced pluripotent stem cells. These cells can be differentiated into cardiomyocytes, which are used to model human heart disease in a dish.



EVENT DETAILS

DATE:

December 08, 2022

TIME:

2.00 – 3.00p.m.

VENUE:

G19, 15 Innovation Walk

Zoom:

<https://monash.zoom.us/j/84820126870?pwd=cW11dnM3Ykp3cDZGOWNybG9Yek1JZz09>

Password: 211759

HOST:

Peter Currie



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