ARMI SPECIAL SEMINAR 2023

MONASH University | ARMI AUSTRALIAN REGENERATIVE MEDICINE INSTITUTE

‘The promise and hurdles of heart regeneration’

Professor Eldad Tzadhor, Department of Molecular Cell Biology Weizmann Institute of Science Rehovot, Israel

Abstract

I will introduce novel mechanisms of mammalian cardiac regeneration and repair following injury, a major challenge in current biomedical research (Tzahor and Poss, Science 2017, Tzahor and Dimmeler, Science 2022) using mouse, rats and pigs’ models. We focus on the role of NRG1-ErbB2 signaling pathway in cardiac regeneration (D’Uva NCB 2015; Aharonov NCB 2020, Shakked NCVR 2023). We have revealed that the proteoglycan Agrin can serve as an inducer of mammalian heart regeneration, with a great therapeutic potential for the treatment of ischemic heart disease (Bassat Nature 2017; Sarig Circulation 2019; Baehr Circulation 2020). I will describe the therapeutic path of Agrin to the clinic and our drug repurposing efforts focusing on Copaxone, a prescribed drug for MS, for the treatment of heart disease patients.

Bio

Prof. Eldad Tzahor received a BSc in biology from the Hebrew University of Jerusalem, and a PhD in molecular biology at the Weizmann Institute of Science (Rehovot). After postdoctoral training at Harvard Medical School (Boston, USA), he joined the staff of the Weizmann Institute in 2003. Prof. Tzahor studies novelmechanisms for cardiac regeneration following injury in mammals, a major challenge in current biomedical research. The lab develops novel approaches in cardiac biology to stimulate heart regeneration and repair. He is the recipient of a number of prestigious grants and awards, including two European Research Council (ERC) grants and the Levinson Prize in Biology. In addition, Prof. Tzahor is the Scientific Founder of two startup companies in the field of Cultivated Meat and Cardiac Repair. In his seminar. Prof. Tzahor will present his efforts in the last decade as an entrepreneurial scientist to advance cardiac therapeutics and translational research.

EVENT DETAILS

DATE:
Thursday 20th July 2023

TIME:
10:30 am – 11:30 am AEST

VENUE:
G19, 15 Innovation Walk

HOST:
Dr Gonzalo del Monte Nieto

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