

ARMI EXTERNAL SEMINAR SERIES 2021



Signaling Mechanisms in Heart Regeneration

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Abstract

We study novel mechanisms of mammalian cardiac regeneration and repair following injury, a major challenge in current biomedical research (Tzahor and Poss, Science 2017) using mouse, rats and pigs' models. We are focusing on the role of NRG1-ErbB2 signaling pathway in cardiac regeneration (D'Uva et al., NCB 2015; Aharonov et al., NCB 2020). We also study the cardiac microenvironment as a mean to enhance the regenerative potential of the heart (Yahalom et al., eLIFE 2015). We 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 et al., Nature 2017; Sarig et al., Circulation 2019; Baehr et al., Circulation 2020). Our studies contribute towards improving current strategies to treat heart disease in human.

Bio

Prof. Eldad Tzahor received a BSc in biology from the Hebrew University of Jerusalem (1991), and a PhD in molecular biology (1999) at the Weizmann Institute of Science (Rehovot, Israel). After postdoctoral training at Harvard Medical School (Boston, USA), he joined the staff of the Weizmann Institute in 2003. Prof. Tzahor studies novel mechanisms 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. Prof. Tzahor is considered a world leader in the field of cardiac regeneration. His research in the field of regenerative medicine could potentially lead to treatments for heart disease in adult patient. He is the recipient of a number of prestigious grants and awards, including two European Research Council (ERC) grants, Foundation LeDucq, Horizon 2020 Regenerative Medicine and the Levinson Prize in Biology. In addition, Prof. Tzahor is the Scientific Founder of two newly formed startup companies in the field of *Cultured Meat and Cardiac Repair*.



EVENT DETAILS

DATE:

Tuesday, 5 October 2021

TIME:

5pm AEST

ZOOM:

[ZOOM LINK](#)

HOST:

ARMI Labs



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