ARMI EXTERNAL SEMINAR SERIES 2024

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Rejuvenation mechanisms during early embryogenesis

Professor Rebecca Robker – Professor and Head of Reproduction and Development

University of Adelaide

Abstract

Oocytes develop within the microenvironment of the ovary, which endows them with the molecular building blocks that establish developmental potential, i.e. the ability to make an embryo following fertilisation. Our team has uncovered specific mechanisms of mitochondrial dysfunction that impair embryo development but that can be mitigated using pharmaceutical interventions. These discoveries are contributing to new paradigms on early embryo plasticity; showing that maternal nutrition and age, and in vitro stress, impact oocytes and their developmental trajectories following fertilization to predetermine physiological characteristics in future offspring.

Bio

Professor Rebecca Robker is a biomedical scientist whose vision is to improve health of women and children by discovering how the ovary generates oocytes and then releases them for fertilisation and the creation of a new individual. Her work is also uncovering cellular mechanisms by which different maternal physiological signals, such as obesity and age, affect ovarian function, and early embryo development.

EVENT DETAILS

DATE:
18th June 2024

TIME:
12:30pm

VENUE:
Room G19
15 Innovation Walk
Monash University
Clayton Campus

HOST:
Dr Jennifer Zenker

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