

SEMINAR ANNOUNCEMENT

Fundamental principles during the egg-to-embryo transition



Registration
not
required

2/14(Fri)
16:00-17:00

Taniguchi Memorial Hall,
Research Institute for Microbial
Diseases, Osaka University



Dr. Andrea Pauli

Senior Group Leader
Research Institute of Molecular Pathology (IMP)

Life of sexually reproducing organisms starts with the fusion of two highly specialized cells, the egg and the sperm, which gives rise to a single cell, the zygote. Fertilization initiates the egg-to-embryo transition, one of the most dramatic developmental transition resulting in the transformation of the egg from a dormant state into regulatorily and functionally distinct embryonic cells. While this transition has been studied extensively in respect to zygotic genome activation, the molecular mechanisms that mediate sperm-egg binding and fusion during fertilization and regulate the maintenance of dormancy in the egg and re-activation in the embryo remain poorly understood. The vision of the Pauli lab is to gain mechanistic insights into the egg-to-embryo transition, with a specific focus on the molecular control of fertilization and developmentally programmed dormancy and re-activation.

Andrea (Andi) Pauli will talk about recent findings from her lab related to their work towards uncovering the mechanism of vertebrate fertilization and translational regulation during the egg-to-embryo transition. By combining genetic, molecular, cellular, biochemical, structural and genomics approaches in their main model organism, the zebrafish, the long-term vision of the Pauli lab is to unravel new concepts and molecular mechanisms governing this fascinating developmental transition that marks the beginning of life.

共催：ASPIRE次世代生殖補助医療に資する国際共同研究、国際先導研究 次世代ART
連絡先：

Prof. Masahito Ikawa (06-6879-8375), Research Institute of Microbial Diseases
Prof. Katsuhiko Hayashi (06-6879-3900), Graduate School of Medicine

*This seminar is eligible for credit certification from the Graduate School of Medicine.
(Please check with your supervisor to determine whether this seminar is a "research seminar".)

