

## Regular Wednesday IMG seminar



**Andrea Pauli**

**Research Institute of Molecular Pathology**

### “Fundamental principles during the egg-to-embryo transition”

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.

**The seminar will be held**

**on Wednesday 5<sup>th</sup> March 2025 at 15:00**

**in the Milan Hašek Auditorium at IMG**

(Institute of Molecular Genetics of the Czech Academy of Sciences, Vídeňská 1083, Prague 4)