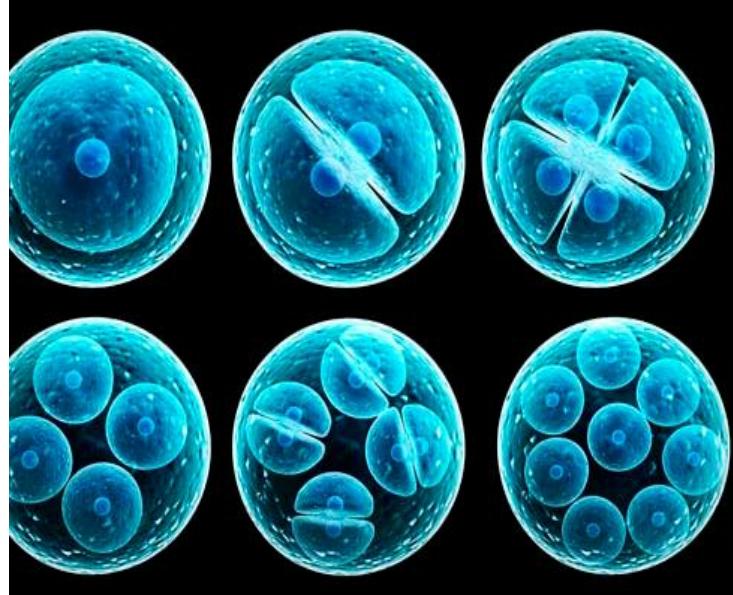


PhD position at the University of Tartu in the field of reproductive medicine and embryo research



Assisted reproduction technology (ART) has a profound impact on our society, as its use continues to increase globally. The number of women delaying motherhood is also steadily increasing, and for those women, fertility preservation and IVF procedures are becoming a mainstream approach to achieve motherhood. Embryonic chromosome instability (CIN) is a major factor contributing to embryo implantation failure as well as spontaneous miscarriage and may explain the relatively low success rate of *in vitro* fertilization (IVF) procedures. Understanding the mechanisms of embryonic (CIN) may help refine IVF treatment and improve ART success rate.

Overall goal:

To understand the mechanisms and molecular drives of chromosomal instability in preimplantation embryos that leads to adverse pregnancy outcomes with the help of:

- Time-lapse imaging and confocal live-cell microscopy
- Single-cell technology for investigating cleavage-stage embryo genomic and transcriptomic profiles
- Metabolomic and mitochondria activity studies

PhD position offers a unique opportunity to participate in an international collaboration network that includes partners from Tallinn and Tartu Women's Clinics, Competence Centre on Health Technologies (Estonia), KU Leuven (Belgium), Karolinska Institute (Sweden), Helsinki Women's Clinics (Finland) and IVF clinics from Spain.

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