

MOCA, the Institute of Molecular and Cellular Anatomy at the Medical Faculty of the RWTH Aachen University is seeking a

PhD Student

to work on

In vitro models of the human endometrium for cell biological and clinical implantation studies

30% of all pregnancies are lost during the early implantation phase. To increase the success rates of assisted reproductive technologies, a better understanding of the cellular mechanisms of this initial pregnancy phase is required. The project will focus on mechanical aspects of embryo implantation and the interaction between maternal and embryonic epithelia - i.e. the invading trophoblast and the barrier-forming uterine epithelium - via cell-cell contacts and their hormonal regulation.

Job Description:

The successful candidate will

- perform co-culture experiments with endometrial and trophoblast cell lines as well as with primary cells in an *in vitro* system for the investigation of endometrial receptivity
- assess co-cultures by means of confocal and traction force microscopy
- analyze mechanical cues of trophoblast-endometrial interaction.

Qualifications:

We are looking for a candidate with expertise in

- histology
- microscopical techniques
- image analysis
- cell culture methods

and with a background in cell biology and / or biophysics.

It is expected that the successful candidate is highly motivated to independently pursue the project as part of a PhD thesis.

Further information at www.moca.rwth-aachen.de.

Please send your application to:

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