

The Institute for Molecular and Cellular Anatomy (MOCA) is seeking a

Master student (f/m/d) or Medical student (f/m/d) for the project

“Role of intestinal intermediate filaments in the microbial stress response”

The project investigates the role of the intestinal intermediate filament cytoskeleton in microbiome-host interactions. It exploits the easy handling of the commonly used model organism *Caenorhabditis elegans* to explore underlying genetic and molecular mechanisms. A panel of well-characterized *C. elegans* mutants is available to study the responses to defined microbes.

Project aims:

To elucidate the role of the intestinal intermediate filaments in the microbial response we examine

- how intermediate filament dysfunction affects microbial colonization, microbe-induced epithelial reactions and animal health
- how microbiota affect intermediate filament expression
- which pathways are implicated

Your tasks:

You will

- perform microbiome confrontation experiments
- quantify intestinal colonization
- evaluate epithelial physiology
- investigate the innate immune response
- analyze intermediate filament expression

Your profile:

You

- are highly motivated to perform wet lab work
- have a keen interest in genetics, molecular biology and microscopy
- are an above average student in biology, biotechnology or a related discipline with a bachelor degree or an advanced medical student

We offer:

- A research topic with high medical relevance
- Dedicated and tight supervision
- Financial support

If you are interested, send a short letter of motivation, your CV and transcripts to fgeisler@ukaachen.de.

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