

The professorship of molecular cell dynamics at the department of biology at the FAU Erlangen offers:

## PhD position in cell division and microscopy

Our group is interested in the molecular mechanisms that control cell division in animal cells. During the last step of cell division, a process called cytokinesis, the mother cell splits into two daughter cells. When the chromosomes segregate in anaphase a contractile actin-myosin ring assembles underneath the plasma membrane. Contractile ring formation has to be spatially and temporally coordinated with chromosome segregation to ensure that the genomic content is properly distributed. Cytokinesis failure results in tetraploidy and supernumerary centrosomes causing multipolar spindles and oncogenic transformations. We recently discovered an anillin-dependent mechanism that mediates furrow ingression in case the assembly of the F-actin ring is defective (Lebedev et al., Cell Reports 2023). The aim of the PhD project is to delineate the molecular mechanisms that mediate furrow ingression in the absence of an F-actin-based contractile ring in *C. elegans*. In our research group we combine the advantages of both the nematode *C. elegans* and human tissue culture cells. To study the molecular mechanisms, we use state-of-the-art quantitative live-cell microscopy, biochemistry, molecular biology, genetics and screening approaches.

Our research group **offers** high-end instrumentation and laboratory equipment, a highly interactive and international English-speaking research environment, and opportunities to attend conferences and participate in collaborations.

We are **searching** for highly motivated applicants with a strong interest in fundamental questions of cell biology. Applicants should have excellent knowledge of cell and molecular biology and hold a masters degree in life science.

Please send your application (CV, letter of motivation, contact information of two referees, certificates) to Prof. Dr. Esther Zanin, ([zaninlab@gmx.de](mailto:zaninlab@gmx.de)). For more information: <https://www.zelldynamik.nat.fau.de/>. Application deadline: **07.08.2024**. Possible starting date: 01.02.2025.

