

## Master student position

We seek students with a genuine interest in laboratory work. Interest in working with cellular systems, classical immunohistological techniques and light microscopy analysis of cytoskeletal and signalling proteins is required. Ideally, before beginning of the master thesis, specific training [8 weeks; valid as research internship (Forschungspraktikum)] on cell culture techniques, biochemistry and microscopy/imaging methods for acquisition of basic experimental knowledge and insight into the laboratory routine should be completed.

We offer individual projects with emphasis on molecular and cellular basis of actin cytoskeleton dynamics, cell adhesion and motility and interaction of cells with biomaterials (1-5). The official language of our Institute is English. The application should include cover letter, C.V. and exam certificates. For application please contact:

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Web pages:

<http://www.molcell.rwth-aachen.de/index.php/research/75-regulation-of-actin-cytoskeleton-dynamics>

<http://www.molcell.rwth-aachen.de/index.php/research/97-tirf-frap-imaging-system>

### References:

1. Paschoalin, R.T., Traldi, B., Aydin, G., Oliveira, J.E., Rütten, S., Mattoso, L.H.C., Zenke, M. and **Sechi, A.** (2017). Solution Blow Spinning Fibres: New Immunologically Inert Substrates for the Analysis of Cell Adhesion and Motility. *Acta Biomaterialia*, 51: 161-174.
2. **Sechi, A.**, Freitas, J., Wünnemann, P., Töpel, A., Paschoalin, RT, Ullmann, S, Schröder, R, Aydin, G, Rütten, S, Böker, A, Zenke, M and Pich, A. (2016). Surface-grafted nanogel arrays direct cell adhesion and motility. *Advanced Materials Interfaces*, in press.
3. Gamper I, Fleck D, Barlin M, Spehr M, El Sayad S, Kleine H, Maxeiner S, Schalla C, Aydin G, Hoss M, Litchfield DW, Lüscher B, Zenke M and Sechi, A.\* (2016). GAR22 $\beta$  regulates cell migration, sperm motility and axoneme structure. *Mol. Biol. Cell.* 27: 277-294
4. Maxeiner, S., Shi, N., Schalla, C., Aydin, G., Hoss, M., Vogel, S., Zenke, M. and **Sechi, A.S.** (2015). Crucial role for the LSP1-myosin1e bi-molecular complex in the regulation of Fc $\gamma$  receptor-driven phagocytosis. *Mol. Biol. Cell.* 26: 1652-1664.
5. Shokouhi, B., Coban, C., Hasirci, V., Aydin, E., Dhanasingh, A., Shi, N., Koyama, S., Akira, S., Zenke, M. and **Sechi, A.S.** (2010). The role of multiple Toll-like receptor signalling cascades on interactions between biomedical polymers and dendritic cells.