



Curriculum Vitae

FRANZISKA LAUTENSCHLÄGER

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Career Record

2020/03 - present **Professorship** in Biophysics (W2), **Universität des Saarlandes**, Saarbrücken, Germany
2017/01 – 2020/02 **Junior group leader** at **Leibniz Institute for New Materials**, Saarbrücken
2013/06 – 2020/02 **Junior Professorship** in Biophysics (W1), **Universität des Saarlandes**, Saarbrücken, Germany
2011/06 – 2013/05 **Postdoctoral Position**, **Institut Curie**, Paris, France
2007/10 – 2011/05 **PhD in Physics**, **University of Cambridge**, Cambridge, UK
Cellular deformability as an inherent differentiation marker of stem cells.
2007/01 – 2007/09 **Research Assistant**, Biological and Soft Systems, Univ. of Cambridge, UK
2000/10 – 2006/11 **Physics diploma**, **University of Leipzig**, Germany
Changes in optical deformability during differentiation. Mark: 1.1
2002/10 – 2003/06 **Academic foreign year** ('license')
Université Paul Sabatier, Toulouse, France
2000 **Abitur** (mark 1.5), **Gymnasium Markranstädt**, Germany
1997/10 – 1998/06 **Diplôme d'études secondaires DES** (High School diploma)
L'école secondaire Bernard Gariépy, Sorel-Tracy, Québec, Canada

Educational Merits

2017 Recommended member in the **AcademiaNet foundation** of the Robert Bosch foundation
2016 **Elisabeth-Schiemann-Kolleg** fellow of the Max-Planck Society
2015 Member of the '**Exzellenzprogramm für Wissenschaftlerinnen**' (Saarland University)
2011 **EMBO** Longterm fellowship for Postdoctoral studies (duration 2 years)
2010 **Research Studentship** of the Cambridge Philosophical Society
2010 **Lundgren Research Award** from the Board of Graduate Studies, University of Cambridge
2010 **Atkinson Graduate Award** from Clare College Cambridge
2007 **BMW Scientific Award 2007**
2007 **Gates Scholarship** for PhD studies in Cambridge (3 years)

Research Interests

- **The actin – myosin cortex** in suspended versus adherent cells: high resolution visualization (EM) and dynamics of the actin within the cortex (FRAP)
- Role of the cytoskeleton (**actin, MTs, vimentin**) in cellular functions: **mechanics, adhesion, polarity, and force transmission**
- **Cross correlations between cytoskeletal elements** (especially actin – vimentin)
- The cytoskeleton in **cancer**: Microtubules in **Microtentacles, extracellular vimentin**
- The cytoskeleton in **search strategies** of immune cells

Additional

2013/11 – 2014/08 **Parental leave** 1st son (*10.12.13)

2017/05 – 2017/10 **Parental leave** 2nd son (* 06.07.17)

Languages

- **German** (native), **English** (fluent), **French** (fluent), **Latin** (basic)

Academic Presentations (Selected Invited talks):

- Vimentin in migration and mechanics of immune cells. **Physics of cancer**, Leipzig, September 2019
- Vimentin in amoeboid migration **11th European intermediate filament meeting** EuroIf and Cost Eurocellnet Meeting 2019, Cytoskeletal and Mechanical properties of intermediate filaments for health, June 2019, Turku, Finland,
- The role of vimentin in leucocyte amoeboid migration. **Intermediate Filament Gordon Research Conference**, Breaking Barriers in Intermediate Filament Biology: From Structure to Mechanisms and Targets in Human Diseases, **Lucca, Italy**, June 2018,
- Intermediate filament in cell mechanics, **EMBO Lecture course** ‘Experimental and Theoretical approaches to cell mechanics’, **Bangalore, India**, 2017,
- Vimentin in amoeboid migration. **Intermediate Filament Gordon Research Conference**, Breaking Barriers in Intermediate Filament Biology: From Structure to Mechanisms and Targets in Human Diseases, **Vermont, USA**, June 2016,
- Actin waves in amoeboid cell motion, **Heraeus-Seminar ‘Cellular Dynamics’**, Bad Honnef, 2016
- Actin waves and circular migration trajectories in amoeboid cells, **Physics of Cancer**, Leipzig, September, 2015
- Myosin II activity softens cells in suspension. **Cell Mechanics Meeting**, Dresden, June 2015
- Engineered environments to study cell migration: **World Congress of Biomechanics**, Boston, USA, July 2014
- Confinement in a non-adhesive environment induces distinct mesenchymal-amoeboid transitions of cell migration, **Dynamics Days**, Bayreuth, September 2014
- Search mechanisms of cells in confinement, **Annual meeting of the German Society for cell biology**, Heidelberg, March 2013