Curriculum Vitae

FRANZISKA LAUTENSCHLÄGER

Address: Richard-Wagner-Str. 68, Saarbrücken, 66111
E-mail: f.lautenschlaeger@physik.uni-saarland.de

Phone: +49(0)6813022417
Mobile: +49(0)17641550300
Nationality: German

Career Record

2017/01 – present	**Junior group leader** at **Leibniz Institute for New Materials**, Saarbrücken
2013/06 – present	**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 sécondaire 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
2011	**EMBO** 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 (value 550GBP)
2010	**Atkinson Graduate Award** from Clare College Cambridge
2009	**'Best Contributed Talk'** at Conference (Biomagnetic Sensing Workshop, University of Cambridge, 2009)
2007	**BMW Scientific Award 2007**
2007	**Gates Scholarship** for PhD studies in Cambridge (3 years)
2007	**Poster prize** at the Cambridge Symposium on the Physics of Living Matter

Acquired external funding

2017 – 2021	2nd funding period of SFB 1027 from German Science foundation (DFG): **233 400 €**
2014	Major Instrumentation grant by DFG and Saarland University, main applicant (High resolution microscope): **510 000 €**
2014	Major Instrumentation grant by DFG and Saarland University, second applicant (Atomic force microscope): **274 890 €**
2014 – 2016	Various travel grants (DAAD, The company of Biologists, EMBO): **9487 €**

Additional

2013/11 – 2014/08	**Parental leave** 1st son (*10.12.13)
2017/05 – 2017/10	**Parental leave** 2nd son (* 06.07.17)

Research Interests

- Role of **actin** and **intermediate filaments** in **migration** (especially in amoeboid cells), **polarity**, **mechanics**, **adhesion, and force transmission**
- **Actin and myosin complex** in suspended versus adherent cells
- **Cross correlations between cytoskeletal elements**

Academic Presentations (>30 international presentations; selected presentations include :)

Selected Invited talks (conferences):

- **Intermediate Filament Gordon Research Conference**, Breaking Barriers in Intermediate Filament Biology: From Structure to Mechanisms and Targets in Human Diseases, 12.-17. 06. 2016, **Vermont**, **USA**
- 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
- Discovering search mechanisms of dendritic cells by analysing cellular trajectories. **Physics of Cancer, Leipzig**, 2013, , September 2013
- Search mechanisms of cells in confinement, **Annual meeting of the German Society for cell biology, Heidelberg**, March 2013

Invited Seminars and workshops:

- Actin and vimentin in cell mechanics and amoeboid migration**, SFB Seminar 937 in Göttingen,** April 2016
- Using microfabricated tools to decipher cellular functions in living cells, **Institute for new Materials, Saarbrücken**, June 2015
- It's not just about actin – using microfabricated tools to decipher cellular functions in living cells, **Department of Neurophysiology, Cambridge**, June 2015
- Using microfabricated tools to decipher cellular functions in living cells. **MPI - Institute for Polymer research**, **Mainz**, April 2015
- Vielfältiger gehts nicht, Quanten in der Biologie, **Highlights der Physik, Saarbrücken**, September 2014
- Mechanics of adherent versus suspended cells, **Biozentrum and The Swiss Nanoscience Institute, University of Basel**, November 2013

Contributed talk invitations:

- Myosin II activity softens cells in suspension. **EMBO Physics of Cells, Bad Staffelstein,** September 2015
- Search Mechanisms of confined dendritic cells**, Institut Curie, Paris**, 2012
- Microfluidic integration of a high power dual-beam laser trap for cell mechanical measurements**, Biomagnetic Sensing Workshop, University of Cambridge**, 2009
- Can deformability measurements of differentiating stem cells be related to cell migration? **3rd European Meeting on Cell Mechanics, Bad Honnef**, Germany, 2009

Languages

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

General Interests & Responsibilities

- 2014 Co-organization of the international conferences **Physics of Cancer (Leipzig, every year)** and the **Physics of the cell (Saarbrücken, every 2nd year)**
- 2009- 2011 **Photolithography trainer** in Nanoscience Center, Cambridge
- 2001 – 2006 Organizing student festivals (carnival for physicists)
- 2001 – 2003 Student self-organization