

Martin Loose

Assistant professor

IST Austria

3400 Klosterneuburg, Austria

E-mail: martin.loose@ist.ac.at

Website: <http://looselab.org>

RESEARCH EXPERIENCE

Assistant Professor — from January 2015 - present

Institute of Science and Technology Austria, Klosterneuburg, Austria

Departmental Fellow — April 2011 - December 2014

Department of Systems Biology, Harvard Medical School, Boston, MA, USA

Advisor: Timothy J. Mitchison

Postdoc — July 2010 - March 2011

Biotechnology Center of the University of Dresden and Max-Planck-

Institute for Molecular Cell Biology & Genetics (MPI-CBG), Dresden, Germany

Advisor: Petra Schwille

PhD Student — July 2006 - 2010

Biotechnology Center of the University of Dresden and Max-Planck-

Institute for Molecular Cell Biology & Genetics (MPI-CBG), Dresden, Germany

Advisor: Petra Schwille

Diploma Student — August 2005 - March 2006

Physikalisch-Chemisches Institut of the University of Heidelberg and

European Molecular Biology Laboratory (EMBL), Heidelberg, Germany

Advisors: Joachim Spatz and François Nédélec

EDUCATION

Physiology course — Summer 2008

Marine Biological Laboratory, Woods Hole, MA, USA

Final year of undergraduate studies in Chemistry — September 2003 - July 2004

Sussex University, Brighton, UK

Diploma in Chemistry — April 2001 - February 2006

University of Heidelberg, Germany

Abitur — June 2000

Max-Slevogt-Gymnasium, Landau, Germany

SELECTED AWARDS

- 2016 – HFSP Young Investigator Grant
- 2015 – ERC Starting Grant
- 2012 – HFSP Long-Term-Fellowship
- 2011 – EMBO Long-Term-Fellowship
- 2011 – Dr.-Walter-Seipp-Award of the University of Dresden for best dissertation
- 2008 – EMBO Short-Term-Fellowship
- 2007 – PhD fellowship from the German National Merit Foundation
 (“Studienstiftung des deutschen Volkes”)
- 2003 – Student fellowship from the German Academic Exchange Service (DAAD)
- 2001 – Student fellowship from the German National Merit Foundation

TEACHING

March 2016 - July 2016

Biochemistry class for the IST Austria PhD program (together with Leonid Sazanov)

September 2012 - December 2012

Research supervisor for a rotation student at the Department of Systems Biology at Harvard Medical School

June 2007 - March 2011

Research supervisor for practical courses in “Molecular Bioengineering” and “Nanobiophysics” at the Biotechnology Center, University of Dresden and for the International Max-Planck Research School, MPI-CBG

September 2010 - July 12

Research supervisor for two Diploma students and one PhD thesis in Physics at the Biotechnology Center, Dresden University of Technology

PUBLICATIONS

Nguyen, P. A., Field, C. M., Groen, A. C., Mitchison, T. J., & Loose, M*. (2015). Using supported bilayers to study the spatiotemporal organization of membrane-bound proteins. *Methods in Cell Biology*, 128, 223–241.

Nguyen, P. A.#, Groen, A. C.#, Loose, M., Ishihara, K., Wühr, M., Field, C. M., & Mitchison, T. J. (2014). Spatial organization of cytokinesis signaling reconstituted in a cell-free system. *Science*, 346(6206), 244–247.

Loose, M.*, & Mitchison, T. J. (2014). The bacterial cell division proteins FtsA and FtsZ self-organize into dynamic cytoskeletal patterns. *Nat Cell Biol*, 16(1), 38–46.

Bonny, M., Fischer-Friedrich, E., Loose, M., Schwille, P., & Kruse, K. (2013). Membrane Binding of MinE Allows for a Comprehensive Description of Min-Protein Pattern Formation. *PLoS Computational Biology*, 9(12), e1003347.

Schweizer, J.#, Loose, M.#*, Bonny, M., Kruse, K., Mönch, I., & Schwille, P. (2012). Geometry sensing by self-organized protein patterns. *Proceedings of the National Academy of Sciences*, 109(38), 15283–15288.

Loose, M., Fischer-Friedrich, E., Herold, C., Kruse, K., & Schwille, P. (2011a). Min protein patterns emerge from rapid rebinding and membrane interaction of MinE. *Nat Struct Mol Biol*, 18(5), 577–583.

Loose, M., Kruse, K., & Schwille, P. (2011b). Protein Self-Organization: Lessons from the Min System. *Annu Rev Biophys*, 40(1), 315–336.

Loose, M., & Schwille, P. (2009). Biomimetic membrane systems to study cellular organization. *J Struct Biol*, 168(1), 143–151.

Dinarina, A., Pugieux, C., Corral, M. M., Loose, M., Spatz, J., Karsenti, E., & Nédélec, F. (2009). Chromatin shapes the mitotic spindle. *Cell*, 138(3), 502–513.

Loose, M., Fischer-Friedrich, E., Ries, J., Kruse, K., & Schwille, P. (2008). Spatial regulators for bacterial cell division self-organize into surface waves in vitro. *Science*, 320(5877), 789–792.

First author or shared first author: #These authors contributed equally; *Corresponding author