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CAREER

- 2013 – present **Postdoctoral Research Associate**, DAMTP, University of Cambridge, UK
Biomechanics and self-organization in development; morphogenesis in *Volvox* and relatives
Principal Investigator: Professor Raymond E. Goldstein
Department of Applied Mathematics and Theoretical Physics (DAMTP)
- 2009 - 2013 **Ph.D in Biology**, magna cum laude (0.8), University of Bielefeld, DE
Supervisor: Professor Armin Hallmann
Department of Cellular and Developmental Biology of Plants
- 2006 – 2009 **Master of Science in Molecular Cell Biology**, University of Bielefeld, DE
Supervisor: Professor Armin Hallmann
- 2003 – 2006 **Bachelor of Science in Biology**, University of Bielefeld, DE
Specialization in Molecular Biology, Genetics, Cell Biology
Supervisor: Professor Karsten Niehaus

KEY PUBLICATIONS

- Haas, **Höhn**, Honerkamp-Smith, Kirkegaard and Goldstein. The noisy basis of morphogenesis: mechanisms and mechanics of cell sheet folding inferred from developmental variability. *PLOS Biology* 16, e2005536 (2018).
- **Höhn** and Hallmann, Distinct shape-shifting regimes of bowl-shaped cell sheets – embryonic inversion in the multicellular green alga *Pleodorina californica*, *BMC Developmental Biology*, 16:35 (2016).
- **Höhn**, Honerkamp-Smith, Haas, Khuc Trong, and Goldstein, Dynamics of a *Volvox* embryo turning itself inside out, *Physical Review Letters* 114, 178101 (2015). --See also *Physics Viewpoint* by A. Boudaoud, *Physics* **8**, 39 (2015)
- **Höhn** and Hallmann, There is more than one way to turn a spherical cellular monolayer inside out: type B embryo inversion in *Volvox globator*, *BMC Biology*, 9:98 (2011).

AWARDS and GRANTS

- 2017 – present Named researcher on Wellcome Trust Investigator Award, grant number 207510/Z/17/Z
- 2019 Scientific Meeting Grant, Company of Biologists for 5th International *Volvox* Conference
- 2019 Award for Best Talk, Mechanical Forces of Development, Heidelberg, DE
- 2019 Travel Award, Annual Meeting of the Biophysical Society
- 2018 Biomaker Challenge Award for Best Hardware
- 2018 Biomaker Challenge Grant for Improvement of Light Sheet Microscopy Setup
- 2016 OpenPlant Fund Grant for Light Sheet Imaging of Morphogenesis
- 2015 Scientific Meeting Grant, Company of Biologists for 3rd International *Volvox* Conference
- 2015 Special Events Award, American Genetics Society for 3rd International *Volvox* Conference
- 2014 Award for Best Talk, Building an Organism Symposium, Gurdon Institute, Cambridge, UK
- 2014 Award for Best Poster, Physics of Living Matter Symposium, Cambridge, UK, 2nd place
- 2014 Award for Best Talk, New Postdoc Symposium, DAMTP, CMS, Cambridge, UK
- 2010 - 2012 Ph.D scholarship, FAZIT-STIFTUNG e.V., Frankfurt, DE

INVITED AND CONTRIBUTED ORAL PRESENTATIONS in past 4 years

2019	Mechanical Forces in Development, Heidelberg, DE
2019	5 th International <i>Volvox</i> conference, Tokyo, JP (scientific board member)
2019	Invited talk, Micromotility, Venice, IT
2018	Invited talk, Institute for Research in Biomedicine, Barcelona, ES
2018	Invited talk, EvoDevo Annual Meeting, Galway, IR
2018	Tissue Self-Organisation, EMBL Heidelberg, DE
2017	Physics of Living Matter Symposium, Cambridge, UK
2017	4 th International <i>Volvox</i> conference, St. Louis, USA (scientific board member)
2016	Anisotropy and Shape in Biological Materials, Leiden, NL (conference organizer)
2016	Invited talk, British Applied Mathematics Colloquium, Manchester, UK
2015	Physics of Living Matter Symposium, Cambridge, UK
2015	3 rd International <i>Volvox</i> Conference, CMS, UK (conference organizer)
2014	Invited talk, Imaging Workshop, Cancer Research Centre, Liverpool, UK

RESEARCH

2013 – present: Mechanics and evolution of morphogenesis and cell sheet folding, using Light Sheet Microscopy (OpenSPIM), CLSM, TEM and computational modelling of embryonic development.

2009-2013: Microscopic and molecular biological analysis (LM, cLSM, SEM, TEM, particle gun transformation, mutant characterization) of development in volvocine algae. PhD Thesis: “Microscopic analysis of cell sheet dynamics in *V. globator*, *V. rousseletii* and *P. californica* with main focus on embryonic Inversion”

2008-2009: Analysis of the role of actin filaments in type B inversion. Fluorescence labelling, cLSM. Master Thesis: “Actin Dynamics during Development and Inversion of *Volvox globator* Embryos”

2005-2006: Analysis of plant defence reactions to pathological bacteria. Involvement of Lipopolysaccharides and small GTPase MTRab, fluorescence labelling, mutagenesis, cLSM.

TEACHING

2016 – present	Managing rotation students’ projects
2008 - 2012	Practical courses on Cell and Molecular Biology of Plants (teaching assistant)
2011	One to one supervision of Master students
2005 – 2011	Practical courses on Biochemistry (teaching assistant)

SERVICE TO SCIENTIFIC COMMUNITY

2019 – present	Equality and Diversity Committee, Researcher Representative, DAMTP, Cambridge
2013 - 2019	Scientific Board Member, biennial International <i>Volvox</i> Conference
2016	Co-organization of workshop “Anisotropy and Shape in Biological Materials, Leiden, NL
2014 - 2015	Organization of 3 rd International <i>Volvox</i> Conference, CMS, Cambridge
2013 - 2014	Co-organization Theory of Living Matter Group
2008 - 2012	Co-organization of annual international symposia, Centre for Biotechnology
2004 - 2010	Committee work as student representative, member of Student Council

HOBBIES

Swing dance, hiking, bird watching