

Curriculum Vitae

Personal Data

Title	Dr. rer. nat.
First name	Holger
Name	Lorenz
Current position	Head of core facility (ZMBH Imaging Facility)
Current institution(s)/site(s), country	Center for Molecular Biology (ZMBH), University of Heidelberg, Im Neuenheimer Feld 329, 69120 Heidelberg, Germany
Identifiers/ORCID	https://orcid.org/0009-0007-0985-8133

Qualifications and Career

Stages	Periods and Details
Degree programme	1997, Diploma in Biology, University of Göttingen, Germany
Doctorate	2002, PhD (Dr. rer. nat.) in Biology, University of Munich (LMU), Germany
Stages of academic/professional career	2008 - present: Head of ZMBH Imaging Facility, Center for Molecular Biology at Heidelberg University (ZMBH), Germany 2007 - 2008: Carl Zeiss Germany: Application specialist and trainer for advanced microscopy and laser microdissection at the Training and Application Support Center (TASC, Carl Zeiss, worldwide). 2002-2006: Post-Doctoral Fellowship: Cell Biology and Metabolism Branch of the National Institutes of Child Health and Human Development (CBMB), National Institutes of Health (NIH), USA. Mentor: Dr. Jennifer Lippincott-Schwartz 1998 -2002: Graduate student, Center for Neuropathology and Prion Research, LMU München. Mentor: Prof. Dr. Hans A. Kretzschmar

Engagement in the Research System

- Since 2017 Co-organizer and lecturer for the workshop series on 'Ethical and scientifically correct bioimage data handling (<https://gerbi-gmb.de/event/workshop-on-scientifically-correct-bioimage-handling-2/>)
- 2010 - now Lecturer for the Hartmut Hoffmann-Berling International Graduate School of Molecular and Cellular Biology (HBIGS), conducting courses in imaging, image analysis and programming

Reviewer: DFG and for journal Scientific Reports and Nature Protocols

Scientific Results

10 selected research publications Category A – Articles in peer-reviewed journals

1. Benesova K, Kraus FV, Carvalho RA, Lorenz H, Hörth CH, Günther J, Klika KD, Graf J, Diekmann L, Schank T, Christopoulos P, Hassel JC, Lorenz HM, Souto-Carneiro M. Distinct immune-effector and metabolic profile of CD8⁺ T cells in patients with autoimmune polyarthritis induced by therapy with immune checkpoint inhibitors. *Ann Rheum Dis*. 2022 Nov 10;81(12):1730-1741. doi: 10.1136/ard-2022-222451. PMID: 35922125; PMCID: PMC9664113.
2. Jaiswal A, Hoerth CH, Zúñiga Pereira AM, Lorenz H. Improved spatial resolution by induced live cell and organelle swelling in hypotonic solutions. *Sci Rep*. 2019 Sep 9;9(1):12911. doi: 10.1038/s41598-019-49408-2. PMID: 31501484; PMCID: PMC6733880.
3. Avci D, Malchus NS, Heidasch R, Lorenz H, Richter K, Neßling M, Lemberg MK. The intramembrane protease SPP impacts morphology of the endoplasmic reticulum by triggering degradation of morphogenic proteins. *J Biol Chem*. 2019 Feb 22;294(8):2786-2800. doi: 10.1074/jbc.RA118.005642. Epub 2018 Dec 21. PMID: 30578301; PMCID: PMC6393608.
4. Hoffmann A, Dege T, Kunze R, Ernst AS, Lorenz H, Böhler LI, Korff T, Marti HH, Heiland S, Bendszus M, Helluy X, Pham M. Early Blood-Brain Barrier Disruption in Ischemic Stroke Initiates Multifocally Around Capillaries/Venules. *Stroke*. 2018 Jun;49(6):1479-1487. doi: 10.1161/STROKEAHA.118.020927. Epub 2018 May 14. PMID: 29760276.
5. Sendra GH, Hoerth CH, Wunder C, Lorenz H. 2D map projections for visualization and quantitative analysis of 3D fluorescence micrographs. *Sci Rep*. 2015 Jul 24;5:12457. doi: 10.1038/srep12457. Erratum in: *Sci Rep*. 2015 Sep 21;5:14160. doi: 10.1038/srep14160. PMID: 26208256; PMCID: PMC4513544.
6. Meissner C, Lorenz H, Hehn B, Lemberg MK. Intramembrane protease PARL defines a negative regulator of PINK1- and PARK2/Parkin-dependent mitophagy. *Autophagy*. 2015;11(9):1484-98. doi: 10.1080/15548627.2015.1063763. PMID: 26101826; PMCID: PMC4590680.
7. Kaistha BP, Lorenz H, Schmidt H, Sipos B, Pawlak M, Gierke B, Kreider R, Lankat-Buttgereit B, Sauer M, Fiedler L, Krattenmacher A, Geisel B, Kraus JM, Frese KK, Kelkenberg S, Giese NA, Kestler HA, Gress TM, Buchholz M. PLAC8 Localizes to the Inner Plasma Membrane of Pancreatic Cancer Cells and Regulates Cell Growth and Disease Progression through Critical Cell-Cycle Regulatory Pathways. *Cancer Res*. 2016 Jan 1;76(1):96-107. doi: 10.1158/0008-5472.CAN-15-0216. Epub 2015 Dec 15. PMID: 26669866.
8. Werner A, Disanza A, Reifemberger N, Habeck G, Becker J, Calabrese M, Urlaub H, Lorenz H, Schulman B, Scita G, Melchior F. SCFFbxw5 mediates transient degradation of actin remodeller Eps8 to allow proper mitotic progression. *Nat Cell Biol*. 2013 Feb;15(2):179-88. doi: 10.1038/ncb2661. Epub 2013 Jan 13. PMID: 23314863; PMCID: PMC3749308.
9. Khmelinskii A, Keller PJ, Lorenz H, Schiebel E, Knop M. Segregation of yeast nuclear pores. *Nature*. 2010 Jul 22;466(7305):E1. doi: 10.1038/nature09255. PMID: 20651645.
10. Lorenz H, Hailey DW, Lippincott-Schwartz J. Fluorescence protease protection of GFP chimeras to reveal protein topology and subcellular localization. *Nat Methods*. 2006 Mar;3(3):205-10. doi: 10.1038/nmeth857. PMID: 16489338.

Category B – Any other form of published results

1. Jafarpour, A. & Lorenz, H. Cellulyzer - Automated analysis and interactive visualization/simulation of select cellular processes. arXiv:1703.02611 [physics.bio-ph] (2017)
2. Jafarpour, A. & Lorenz, H. Inspecting digital image integrity with InspectJ. <https://github.com/ZMBH-Imaging-Facility> and at https://www.youtube.com/playlist?list=PL9e7IFrONWL7_rJqVKki1Ee0FvqXRI4Ch. (2017)
3. Jaiswal, A & Lorenz, H.. Blind Analysis Tools. FIJI plugin at <https://imagej.net/plugins/blind-analysis-tools> (2019)
4. <https://github.com/ZMBH-Imaging-Facility>