



Dr. Ruman Gerst

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Curriculum vitae

Main Research Areas

- **Topic of the PhD thesis:** 'Accessible software frameworks for reproducible image analysis of host-pathogen interactions'

Professional Career

since 2022

Postdoctoral researcher in the group Applied Systems Biology at the Hans Knöll Institute

2022	PhD in Bioinformatics at the Hans Knöll Institute
2018	M.Sc. in Bioinformatics at the Friedrich Schiller University Jena
2015	B.Sc. in Bioinformatics at the Friedrich Schiller University Jena

Publications

Ruhland E, Siemers M^{*}, Gerst R^{*}, Späth F, Vogt LN, Figge MT, Papenfort K, Fröhlich KS[#] (2024) The global RNA–RNA interactome of *Klebsiella pneumoniae* unveils a small RNA regulator of cell division. *Proc Natl Acad Sci U S A* 121(9), e2317322121.

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Behrendt F^{*}, Cseresnyés Z^{*}, Gerst R, Gottschaldt M, Figge MT[#], Schubert US[#] (2023) Evaluation of reproducible cryogel preparation based on automated image analysis using deep learning. *J Biomed Mater Res A* 111(11), 1734-1749.

[Details](#)



Gerst R^{*}, Cseresnyés Z^{*}, Figge MT[#] (2023) JIPipe: Visual batch processing for ImageJ. *Nat Methods* 20(2), 168-169.

[Details](#)



Hoffmann B^{*}, Gerst R^{*}, Cseresnyés Z, Foo W, Sommerfeld O, Press AT, Bauer M, Figge MT (2022) Spatial quantification of clinical biomarker pharmacokinetics through deep learning-based segmentation and signal-oriented analysis of MSOT data. *Photoacoustics* 26, 100361.

[Details](#)



Richter I, Radosa S, Cseresnyés Z, Ferling I, Büttner H, Niehs SP, Gerst R, Figge MT, Hillmann F, Hertweck C (2022) Toxin-producing endosymbionts shield pathogenic fungus against micropredators. *mBio* 13(5), e0144022.

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Büttner H^{*}, Niehs SP^{*}, Vandelannoote K, Cseresnyés Z, Dose B, Richter I, Gerst R, Figge MT, Stinear TP, Pidot SJ, Hertweck C[#] (2021) Bacterial endosymbionts protect beneficial soil fungus from nematode attack. *Proc Natl Acad Sci U S A* 118(37), e2110669118.

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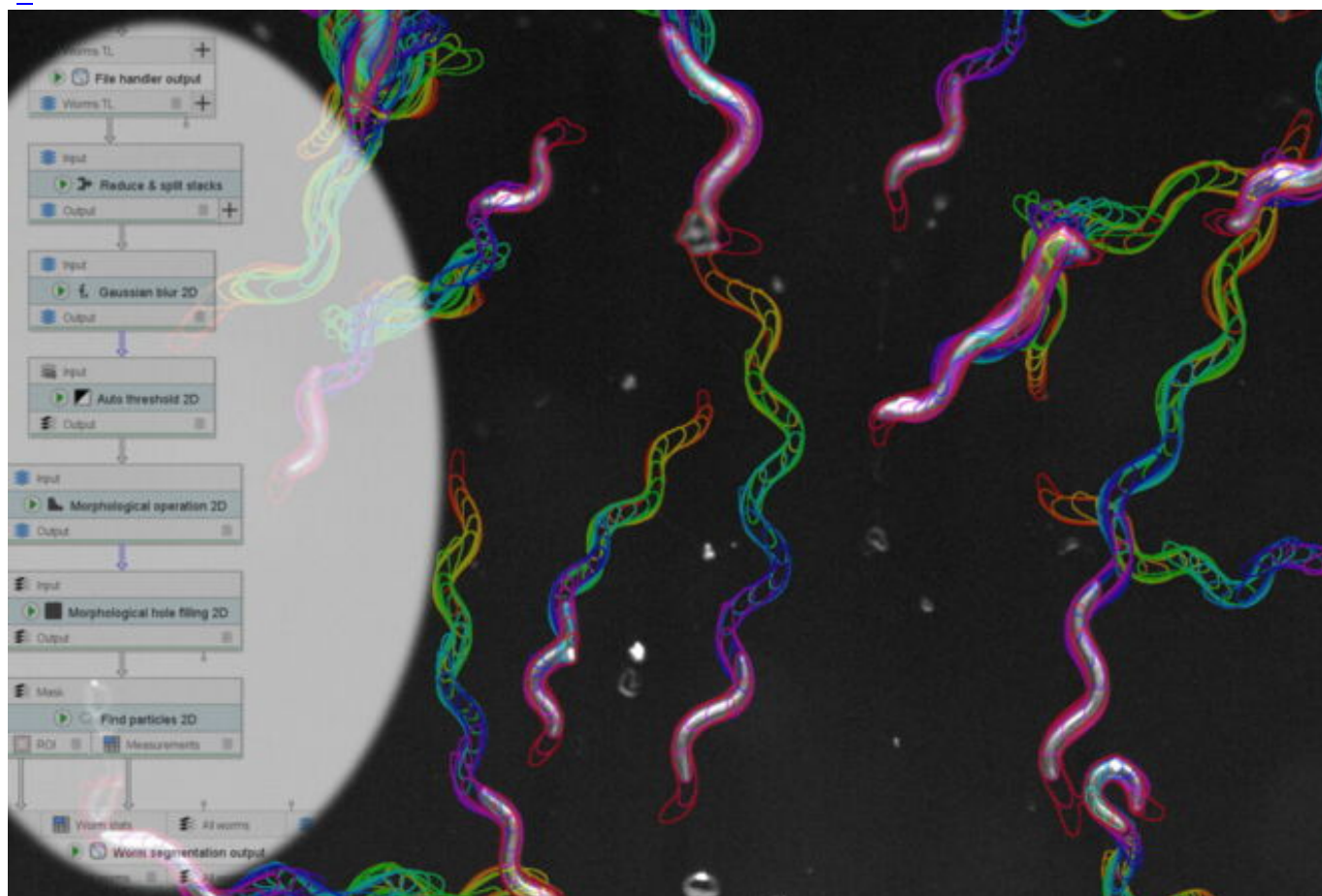
Gerst R, Medyukhina A, Figge MT (2020) MISA++: A standardized interface for automated bioimage analysis. *SoftwareX* 11, 100405.

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