Curriculum Vitae

Fabian Theis Professor, Dr. Dr.
d.o.b. May 15th, 1976,

University Education

2008	Habilitation in Biophysics, University of Regensburg 'Statistical machine learning of biomedical data'
2001 - 2003	PhD in Computer Science, with Prof. C. Puntonet, University of Granada, 'Geometric Source Separation', grade 'sobresaliente cum laude' (highest)
2001 - 2002	PhD in Physics, with Prof. E. Lang, Biophysics, University of Regensburg 'Mathematics in Independent Component Analysis', grade 'summa cum laude' (highest)
1996 - 2000	Physics Studies, University of Regensburg: Diploma in Physics, grade '1.0 mit Auszeichnung' (highest, with distinction)
1995 - 2000	Mathematics Studies, University of Regensburg: Diploma in Mathematics, grade 'sehr gut' (highest)

Scientific Career

2022 onwards	Scientific Director of Biomedical AI at Helmholtz Pioneer Campus HPC
2021 onwards	Head of the Helmholtz Munich Computational Health Center
2020 onwards	Associated Faculty, Cellular Genetics Programme, Wellcome Sanger Institute, Hinxton, UK
2019 onwards	Adjunct Faculty, Northwestern University, Feinberg School of Medicine, Illinois, US
2019 onwards	Scientific Director of the Helmholtz Artificial Intelligence Cooperation Unit (Helmholtz.AI)
2013 onwards	Director, Institute of Computational Biology, Helmholtz Center Munich
2013 onwards	Chair for Mathematical Models of Biological Systems at the TUM School of Computation, Information and Technology (CIT)
2009 - 2013	Associate Professor (W2) for Mathematics in Systems Biology, Faculty of Mathematics, Technical University of Munich (TUM)
2007 - 2013	Junior Research Group Leader at the Institute for Bioinformatics and Systems Biology, Helmholtz Center Munich
2006 - 2007	Independent scientist (Bernstein Fellow), Bernstein Center for Computational Neuroscience, Göttingen and Max-Planck-Institute for Dynamics and Self-organization, Göttingen (Prof. T. Geisel)
2003 - 2006	Postdoc (Biophysics), University of Regensburg (Prof. E. Lang, Scholarship holder of the DFG Research Training Group Nonlinearity and Nonequilibrium)
2005 - 2005	Visiting researcher, TUAT Tokyo, Japan (Prof. T. Tanaka, JSPS Fellowship)
2004	Visiting researcher, HUT Helsinki, Finland (Prof. J. Karhunen and Prof. E. Oja)
2004 - 2004	Visiting researcher, FSU Tallahassee, USA (Prof. A. Meyer-Bäse)
2003 - 2003	Visiting researcher, RIKEN Tokyo, Japan (Prof. A. Cichocki)

Awards and Honors

2023	Gottfried Wilhelm Leibniz Prize 2023, German Science Foundation (DFG)
2023	MAQC Society Award for Outstanding Reproducibility in Science for

	"Benchmarking atlas-level data integration in single-cell genomics" (Nature Methods 2022)
2022	European Research Council (ERC) Advanced Grant 'DeepCell'
2021	Hamburg Science Award, the most highly endowed prize of a science academy in Germany
2020	Science4Life Venture Cup 2020
2017	Erwin-Schrödinger-Prize, interdisciplinary research award presented by the Helmholtz Association for outstanding scientific achievements and technological innovations
2015	m4 Award by the 'Munich Leading Edge Cluster', funding for the project: 'KNOWING - Turning Big Data into Personalized Therapies' by the Bavarian Ministry for Economic Affairs, and the BMBF
2015	Almirall Förderpreis and Oscar-Gans Award for paper 'Quaranta et al., Sci. Transl. Med. 2014' (with K. Eyerich et al.)
2013	Swiss Art Award in Architecture for Equilibrium for M. Häberling, W. Rossbauer (Participation/Contribution: Geometric Modelling)
2010	ERC starting grant 'Modeling latent causes in molecular networks'
2007	Selected as Germany's 'Junge Elite' by Capital magazine (40 outstanding young talents are honored yearly in the category 'society and science')
2006	Heinz Maier-Leibnitz Award by the German Science Foundation (DFG)
2003	Cultural award by the company E.ON Bavaria for exceptional dissertation
2000	Award for Extraordinary Studies 2000 by the University of Regensburg
1995	Bavarian scholarship for highly talented students, 5-year full study stipend

Five most important Publications

Sikkema, L., Ramírez-Suástegui, C., Strobl, D. C., Gillett, T. E., Zappia, L., Madissoon, E., Markov, N. S., Zaragosi, L.-E., Ji, Y., Ansari, … Theis, F. J. (2023). An integrated cell atlas of the lung in health and disease. Nature Medicine, 29(6), 1563–1577. https://doi.org/10.1038/s41591-023-02327-2

Fischer, D.S., Schaar, A.C. & Theis, F.J. (2022) Modeling intercellular communication in tissues using spatial graphs of cells. Nature Biotechnology. doi: 10.1038/s41587-022-01467-z.

Palla, G., Spitzer, H., Klein, M., Fischer, D., Schaar, A.C., Kuemmerle, L.B., Rybakov, S., Ibarra, I.L., Holmberg, O., Virshup, I., Lotfollahi, M., Richter, S., Theis, F.J. (2022). Squidpy: A Scalable Framework for Spatial Single Cell Analysis. Nature Methods 19, 171–178.

Bergen, V., Lange, M., Peidli, S., Wolf, F. A.°, & Theis, F. J.°: Generalizing RNA velocity to transient cell states through dynamical modeling. Nature Biotechnology, 38(12), 1408-1414 (2020).

Lotfollahi, M., Wolf, F.A., Theis, F.J.: scGen predicts single-cell perturbation responses. Nature Methods 16, 715-721 (2019).