Curriculum Vitae

Personal Data

Title	Professor
First name	Felix
Name	Hausch
Current position	Professor & Leader Research Group Structure-Based Drug Research
Current institution, country	Institute of Organic Chemistry and Biochemistry, Department of Chemistry, Technical University Darmstadt, Germany
Identifiers/ORCID	0000-0002-3710-8838

Qualifications and Career

Stages	**Periods and Details**
Degree programme	**1996, Diploma in Chemistry,** Free University of Berlin, Germany
Doctorate	**2000, Mentor: Prof. Dr. A. Jäschke,** Biochemistry/Oligonucleotide Chemistry, Free University Berlin, Germany
Full Professor for Biochemistry	*since 2016, Technical University Darmstadt*
Habilitation (Organic Chemistry and Biochemistry)	**2015,** Ludwig-Maximilians-University Munich
Group Leader 'Chemcial Genomics'	**2005-2016**, Max-Planck-Institute of Psychiatry, Munich
Lecturer (Organic Chemistry)	**2009-2016**, Ludwig-Maximilians-University Munich
Scientist (Assay Development)	**2002-2004**, ESBATech AG, Zurich, Switzerland
Postdoc	**2000-2002**, Institute of Chemical Engineering, Stanford University, CA, USA (Mentor: Chaitan Khosla)
Research assistant	**1996-2000**, Inst. of Biochemistry, Free University Berlin

Activities in the Research System

Various	Coordinator of the BMBF consortia PROCERA, iMIP, SIAM-APH & 51TaValP, ProxiTRAPS, FaMoGLUES
2024-2027	Coordinator of the MSCA doctoral network MC4DD, funded by the EU
2022	Guest Editor for the special issue "Peptidyl-Prolyl Cis/Trans Isomerases (PPIases) in Host-Pathogen Interactions" in Front. Cell. Infect. Microbiol.
2021-2024	Vorstand Gemeinsame Fachgruppe Chemische Biologie der Dechema, DPhG, GBM, GDCh
2021	Head of Local Organizing Committee for Frontiers in Medicinal Chemistry 2021
2020-2024	Speaker, LOEWE-Schwerpunkt TRABITA
2019-present	Vice Director, Clemens-Schöpf-Institute, Technical University Darmstadt
2019-2022	Chair of the local section of the GDCh
2017-2020	Associate Editor, Scientific Reports
1997-present	Member of the GDCh, GBM (since 2016) and ACS

Supervision of Researchers in Early Career Phases

(https://www.chemie.tu-darmstadt.de/hausch/group_members_hausch/staff_hausch/index.en.jsp)

4 past postdocs, 4 current postdocs, 35 mentored PhD students (incl. 3 stipend awardees and 3 summa cum laude awardees), and 9 current PhD students

Scientific Results

Category A - Key Publications *(for full publications list see https://www.chemie.tu-darmstadt.de/hausch/research_and_teaching_hausch/publications_hausch/index.en.jsp)*

1. A. Charalampidou, T. Nehls, C. Meyners, S. Gandhesiri, S. Pomplun, B.L. Pentelute, F. Lermyte, F. Hausch* (2024). Automated Flow Peptide Synthesis Enables Engineering of Proteins with Stabilized Transient Binding Pockets. **ACS Cent Sci**. doi:10.1021/acscentsci.3c01283.

   ⇨ Enables access to FKBP51^{FK1} with atomic precision as well a unique screening tool

2. T.M. Geiger, M. Walz, C. Meyners, A. Kuehn, J.K. Dreizler, W.O. Sugiarto, E. Maciel, M. Zheng, F. Lermyte, F. Hausch* (2024). Discovery of a Potent Proteolysis Targeting Chimera Enables Targeting the Scaffolding Functions of FK506-Binding Protein 51 (FKBP51). **Angew Chem Int Ed Engl** 63, e202309706, doi:10.1002/anie.202309706.

   ⇨ First FKBP51 degraders as unique tools for FKBP51 research

3. A. Baischew, S. Engel, M.C. Taubert, T.M. Geiger, F. Hausch* (2024). Large-scale, in-cell photocrosslinking at single-residue resolution reveals the molecular basis for glucocorticoid receptor regulation by immunophilins. **Nat Struct Mol Biol** 30, 1857-1866, doi:10.1038/s41594-023-01098-1 (2023).

   ⇨ Key insights into architecture of the FKBP51-Hsp90$_2$-GR complex in the apo-state

4. P.L. Purder, C. Meyners, W.O. Sugiarto, J. Kolos, F. Löhr, J. Gebel, T. Nehls, V. Dötsch, F. Lermyte, F. Hausch* (2023). Deconstructing Protein Binding of Sulfonamides and Sulfonamide Analogues. **JACS Au**. 2023; doi (link): 10.1021/jacsau.3c00241.

   ⇨ Key insights into the intermolecular interactions of sulfonamides with proteins

5. J.M. Kolos, S. Pomplun, S. Jung, B. Rieß, P.L. Purder, A.M. Voll, S. Merz, M. Gnatzy, T.M. Geiger, I. Quist-Løkken, J. Jatzlau, P. Knaus, T. Holien, A. Bracher, C. Meyners, P. Czodrowski, V. Krewald, F. Hausch* (2021), Picomolar FKBP inhibitors enabled by a single water-displacing methyl group in bicyclic [4.3.1] aza-amides. **Chemical Science**, 12:14758-65. doi: 10.1039/d1sc04638a.

   ⇨ Discovery of the most potent FKBP ligands by introducing a single methyl group

6. A.M. Voll, C. Meyners, M.C. Taubert, T. Bajaj, T. Heymann, S. Merz, A. Charalampidou, J. Kolos, P.L. Purder, T.M. Geiger, P. Wessig, N.C. Gassen, A. Bracher, F. Hausch* (2021)**.** *Makrozyklische FKBP51-Liganden enthüllen einen transienten Bindungsmodus mit erhöhter Selektivität*, **Angew. Chem.** doi.org/10.1002/ange.202017352. *Macrocyclic FKBP51 Ligands Define a Transient Binding Mode with Enhanced Selectivity.* **Angew. Chem. Int. Ed.**, 60:13257-63. doi.org/10.1002/anie.202017352.

   ⇨ Discovery of macrocycles allowing selectivity for FKBP51 vs FKBP12 and 12.6

7. S. Gaali, A. Kirschner, S. Cuboni, J. Hartmann, C. Kozany, G. Balsevich, C. Namendorf, P. Fernandez-Vizarra, O.F.X. Almeida, G. Rühter, M. Uhr, M.V. Schmidt, C. Touma, A. Bracher, F. Hausch* (2015) *Selective inhibitors for the psychiatric risk factor FKBP51 enabled by an induced-fit mechanism*. **Nat. Chem. Biol.,** 11, 33-37. doi: 10.1038/nchembio.1699.

⇨ Discovery of the induced-fit conformation allowing the first selective FKBP51 inhibitors and proof-of-concept in animal models

⇨ Press coverage by Bioportfolio, Innovation Reports, Science Daily, EurekaAlert!, News Medical, ArtSympo, Terapiapsicologica, Medaxs, Informationsdienst Wissenschaft, Medica, Scimondo

8. S. Pomplun, Y. Wang, A. Kirschner, C. Kozany, A. Bracher, F. Hausch* (2015). *Rational design and asymmetric synthesis of potent and neurotrophic FKBP ligands*. **Angew. Chem. Int. Ed.**, 54, 345-8. doi: 10.1002/anie.201408776.

⇨ Discovery of C^5-substituted [4.3.1]-bicyclic sulfon amides as highly efficient, pre-organized FKBP and MIP inhibitors

9. A.M. März, A.-K. Fabian, C. Kozany, A. Bracher, F. Hausch* (2013). Large FK506-Binding Proteins Shape the Pharmacology of Rapamycin. **Mol Cell Biol**. 2013; 33: 1357–1367. doi (link): https://doi.org/10.1128/MCB.00678-12.

10. C. Devigny, F. Perez-Balderas, R. Wachtel, B. Hoogeland, K. Webb, J. Deussing, F. Hausch* (2011) *Biomimetic screening of class-B G protein-coupled receptors*. **J. Am. Chem. Soc.**, 133, 23, 8927-33.

⇨ Proximity-based screening method for probing GPCR with tethered fragments

⇨ highlighted in Nat. Chem. Biol., 2011, 7, 500-501 & evaluated in Faculty of 1000

Category B – Research Highlights

- Development of FKBP51 inhibitors for stress-associated diseases, pain and obesity, from target validation, assay development and structure-based lead optimization to proof-of-concept studies in animals
- Inventor of C^5-substituted-[4.3.1]-aza-bicyclic sulfonamides as the currently best FKBP/MIP ligands as novel anti-infectives or FKBP12-assisted molecular glues
- (Co-)Inventor of proline-specific proteases as the first drug therapy for Coeliac disease, licensed by ImmungenX and tested in a clinical phase IIb study
- De-novo discovery of >5 molecular glues (unpublished)
- >100 deposited crystal structures
- >12 accepted patents
- >100 invited/external talks

Academic Distinctions

- Awardee of the m4 award 2011 and the m4 award 2015

Data protection and consent to the processing of optional data

If you provide voluntary information (marked as optional) in this CV, your consent is required. Please confirm your consent by checking the box below.

[x] **I expressly consent to the processing of the voluntary (optional) information, including "special categories of personal data"[1] in connection with the DFG's review and decision-making process regarding my proposal.** This also includes forwarding my data to the external reviewers, committee members and, where applicable, foreign partner organisations who are involved in the decision-making process. To the extent that these recipients are located in a third country (outside the European Economic Area), I additionally consent to them being granted access to my data for the above-mentioned purposes, even though a level of data protection comparable to EU law may not be guaranteed. For this reason, compliance with the data protection principles of EU law is not guaranteed in such cases. In this respect, there may be a violation of my fundamental rights and freedoms and resulting damages. This may make it more difficult for me to assert my rights under the General Data Protection Regulation (e.g. information, rectification, erasure, compensation) and, if necessary, to enforce these rights with the help of authorities or in court.

I may **revoke** my consent in whole or in part at any time – with effect for the future, freely and without giving reasons – vis-à-vis the DFG (postmaster@dfg.de). The lawfulness of the processing carried out up to that point remains unaffected. Insofar as I transmit "special categories of personal data" relating to third parties, I confirm that the necessary legitimation under data protection law exists (e.g. based on consent).

I have taken note of the DFG's Data Protection Notice relating to research funding, which I can access at www.dfg.de/privacy_policy and I will forward it to such persons whose data the DFG processes as a result of being mentioned in this CV.

[1] Special categories of personal data are those "revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and (...) genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation" (Article 9(1) GDPR).