## Curriculum Vitae

### Personal Data

| | |
|---|---|
| Title | Prof. Dr. rer. nat. |
| First name | Michael |
| Name | Ingrisch |
| Current position | Professor for Clinical Data Science in Radiology, W2 tenure track, until 06/2028 |
| Current institution(s)/site(s), country | Department of Radiology, LMU University Hospital, LMU Munich, Germany |
| Identifiers/ORCID | 0000-0003-0268-9078 |

### Qualifications and Career

| Stages | Periods and Details |
|---|---|
| Degree programme | **1999-2005**: Physics (“Diplom”) Ludwig-Maximilians-Universität München and Universität Bayreuth, Germany |
| Doctorate | **10/2012, Dr. rer. nat.,** Department of Radiology, LMU University Hospital, LMU Munich, Germany*Quantification of cerebral hemodynamics with dynamic contrast-enhanced MRI*<br>Thesis advisor: Prof. Dr. rer. nat. Olaf Dietrich, |
| Stages of academic/professional career *(optional after doctorate)* | **2022** Fellow of the Konrad Zuse School for Excellence in Reliable AI<br>**2022** PI in the Munich Centre for Machine Learning<br>**2021-present** Steering Committee for the high-performance computing core facility “Clinical Open Research Engine (CORE)” at LMU Klinikum<br>**2020** postdoctoral thesis (Habilitation), Faculty of Medicine, LMU Munich, Germany<br>**2019-2022** W2 Professor at Department of Radiology, interim position |

### Supplementary Career Information

As father of three children, I have an accumulated 7 months of parental leave.

### Engagement in the Research System

**Since 2023** Member of “Forschungskommission”, Medical Faculty, LMU München

**Since 2022** Member of “Auswahlausschuss” of Munich Clinician Scientist Program, Munich Medical Research School, Medical Faculty, LMU München

**Since 2021** Setup, implementation, and administration of a core facility for high-performance scientific computing (Clinical Open Research Engine, CORE) with patient-related data at LMU Klinikum, LMU Munich. Includes two high-performance GPU servers, CPU servers, storage, and a job scheduling system. Member of the steering committee. Currently 70 active users. Compute resources within CORE will be available for the proposed CRU.

**Since 2020** Organization of the monthly seminar “AI and Data Science at the Medical Faculty”, together with Prof. Guillaume Landry, including a whole-day symposium in 01/2023 with 110 participants


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**2020** Organization of the online annual meeting of German Chapter of the International Socie-ty for Magnetic Resonance in Medicine e.V., organization of the Gorter Award
**2020** Organization of the online Workshop Open Science Reproducibility – Data Sharing – Practical Aspects, Open Science in Medicine and Open Science Center, LMU
**Since 2019** Member of Deutsche Röntgengesellschaft, member of AG IT
**Since 2018** Member of the Open Science Center at LMU and LMU Open Science Initiative in Medicine
**2015-2020** Board member of the German Chapter of the International Society for Magnetic Resonance in Medicine e.V., vice president 2015-2020. Organization of the annual meeting in Würzburg 2016, track chair for the annual meeting in Nürnberg 2018, organization of the Gorter-Award for young scientists

## Supervision of Researchers in Early Career Phases

Master Theses (co-supervision with supervisors from the Faculties of Physics and Statistics)
Ongoing: 3
Completed: 11
MD Theses (Dr. med., co-supervision with clinical supervisors)
Ongoing: 4
Completed: 6
PhD Theses (Dr. rer. nat., direct supervision)
Ongoing: 7
Completed: 1 (2023, Dr. rer. nat.)

## Scientific Results

Google Scholar h-index 31, i10-index 70, 3370 citations

## Category A

1. Jeblick K, Schachtner BM, Dexl J, Mittermeier A, Stüber A, Topalis J, Weber T, Wesp P, Sabel BO, Ricke J, Ingrisch M. ChatGPT makes medicine easy to swallow: an exploratory case study on simplified radiology reports. Eur Radiol. 2023 Oct 5. doi: 10.1007/s00330-023-10213-1.
2. Stüber AS, Coors S, Schachtner B, Weber T, Rügamer D, Bender A, Mittermeier A, Öcal O, Seidensticker M, Ricke J, Bischl B, Ingrisch M. A comprehensive machine learning benchmark study for radiomics-based survival analysis of CT imaging data in patients with hepatic metastases of CRC. Invest Radiol. **2023** (accepted)
3. Wesp P, Sabel BO, Mittermeier A, Stüber AT, Jeblick K, Schinke P, Mühlmann M, Fischer F, Penning R, Ricke J, Ingrisch M, Schachtner BM. Automated localization of the medial clavicular epiphyseal cartilages using an object detection network: a step towards deep learning-based forensic age assessment. Int J Legal Med. 2023 Feb 2. doi: 10.1007/s00414-023-02958-7. (IF 2.7)
4. Mittermeier A, Reidler P, Fabritius MP, Schachtner B, Wesp P, Ertl-Wagner B, Dietrich O, Ricke J, Kellert L, Tiedt S, Kunz WG, Ingrisch M. End-to-End Deep Learning Approach for Perfusion Data: A Proof-of-Concept Study to Classify Core Volume in Stroke CT. Diagnostics. **2022**; 12(5):1142. https://doi.org/10.3390/diagnostics12051142 (IF3.7)
5. Wesp P, Grosu S, Graser A, Maurus S, Schulz C, Knösel T, Fabritius MP, Schachtner B, Yeh BM, Cyran CC, Ricke J, Kazmierczak PM, Ingrisch M. Deep learning in CT colonography: differentiating premalignant from benign colorectal polyps. Eur Radiol. **2022** Jan 26. (IF 5.3)
6. Mittermeier A, Reidler P, Fabritius MP, Schachtner B, Wesp P, Ertl-Wagner B, Dietrich O, Ricke J, Kellert L, Tiedt S, Kunz WG, Ingrisch M. End-to-End Deep Learning Approach for

Perfusion Data: A Proof-of-Concept Study to Classify Core Volume in Stroke CT. Diagnostics. **2022**; 12(5):1142. https://doi.org/10.3390/diagnostics12051142 (IF3.7)

7. Öcal O, Ingrisch M, Ümütlü MR, Peynircioglu B, Loewe C, van Delden O, Vandecaveye V, Gebauer B, Zech CJ, Sengel C, Bargellini I, Iezzi R, Benito A, Pech M, Malfertheiner P, Ricke J, Seidensticker M. Prognostic value of baseline imaging and clinical features in patients with advanced hepatocellular carcinoma. Br J Cancer. **2022** Feb;126(2):211-218. doi:10.1038/s41416-021-01577-6. (IF 7.6)
8. Rudolph J, Huemmer C, Ghesu FC, Mansoor A, Preuhs A, Fieselmann A, Fink N, Dinkel J, Koliogiannis V, Schwarze V, Goller S, Fischer M, Jörgens M, Ben Khaled N, Vishwanath RS, Balachandran A, Ingrisch M, Ricke J, Sabel BO, Rueckel J. Artificial Intelligence in Chest Radiography Reporting Accuracy: Added Clinical Value in the Emergency Unit Setting Without 24/7 Radiology Coverage. Invest Radiol. **2022** Feb. 57(2):90-98. (IF 6.2)
9. Grosu S, Wesp P, Graser A, Maurus S, Schulz C, Knösel T, Cyran CC, Ricke J, Ingrisch M, Kazmierczak PM. Machine Learning-based Differentiation of Benign and Premalignant Colorectal Polyps Detected with CT Colonography in an Asymptomatic Screening Population: A Proof-of-Concept Study. Radiology. **2021** Feb 23:202363. (IF 7.9)
10. Ingrisch M, Schneider MJ, Nörenberg D, Negrao de Figueiredo G, Maier-Hein K, Suchorska B, Schüller U, Albert N, Brückmann H, Reiser M, Tonn JC, Ertl-Wagner B. Radiomic Analysis Reveals Prognostic Information in T1-Weighted Baseline Magnetic Resonance Imaging in Patients With Glioblastoma. Invest Radiol. 2017 Jun;52(6):360-366. (IF 5.2)

This list demonstrates the AI and machine learning trajectory of the Clinical Data Science team under Prof. Ingrisch, starting from an early radiomics publication (10). The publications of Prof. Ingrisch comprise methodological developments and applications of machine learning, advanced statistics, and deep learning in the context of radiology, and highlights the unique position of the interdisciplinary group between computer science, statistics and radiological/clinical application.

**Category B**

*A selection of recent pre-prints and conference proceedings*

1. Weber T, Ingrisch M, Bischl B, Rügamer D. (2023) Unreading Race: Purging Protected Features from Chest X-ray Embeddings. https://arxiv.org/abs/2311.01349
2. Gatidis, …, Ingrisch, et al. (2023) The autoPET challenge: Towards fully automated lesion segmentation in oncologic PET/CT imaging, preprint, under review, https://doi.org/10.21203/rs.3.rs-2572595/v1
3. Wollek, …, Ingrisch, Lasser. (2023) Automated Labeling of German Chest X-Ray Radiology Reports using Deep Learning. https://arxiv.org/abs/2306.05997 https://doi.org/10.48550/arXiv.2306.05997
   Wollek, …, Ingrisch, Lasser. German CheXpert Chest X-ray Radiology Report Labeler. https://arxiv.org/abs/2306.02777 https://doi.org/10.48550/arXiv.2306.02777
4. Schachtner, Jeblick, …, Ingrisch. ChatGPT Makes Medicine Easy to Swallow: An Exploratory Case Study on Simplified Radiology Reports. Preprint, under review. https://doi.org/10.48550/arXiv.2212.14882
5. Weber, Ingrisch, Bischl, Rügamer, D. (2023). Cascaded Latent Diffusion Models for High-Resolution Chest X-ray Synthesis. Advances in Knowledge Discovery and Data Mining. PAKDD 2023. https://doi.org/10.1007/978-3-031-33380-4_14

6. Weber, Ingrisch , Bischl, Rügamer (2023). Constrained Probabilistic Mask Learning for Task-specific Undersampled MRI Reconstruction. https://arxiv.org/abs/2305.16376 https://doi.org/10.48550/arXiv.2305.16376
7. Wollek, Willem, Ingrisch, Sabel, Lasser (2023). A knee cannot have lung disease: out-of-distribution detection with in-distribution voting using the medical example of chest X-ray classification https://arxiv.org/abs/2208.01077 https://doi.org/10.48550/arXiv.2208.01077

## Academic Distinctions

## Other Information

### 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).