

Curriculum Vitae

Personal Data

Title	Prof.
First name	Julia
Last name	Frede
Current position	Tenure Track Professor in Systems Immune Oncology (W2), leading an independent research group on tumor-immune system interactions and cancer immunotherapy
Current institution(s)/site(s), country	Institute of Clinical Chemistry and Pathobiochemistry, TUM University Hospital, Germany
Identifiers/ORCID	0000-0002-4380-9673

Qualifications and Career

Stages	Periods and Details
Degree programme	Studies in Molecular Cell Biology (B.Sc.), 2006-2009, University of Heidelberg, Germany MPhil in Medical Sciences (Oncology), 2009-2010, University of Cambridge, UK
Doctorate	PhD in Oncology, 2010-2015, Supervisor: Prof. Dr. Phil Jones, University of Cambridge, UK
Stages of academic/professional career	Since 10/2024 Tenure-Track Professor (W2) in Systems Immune Oncology, Technical University of Munich 2024 Junior Group Leader in Cancer Systems Biology (DKTK-funded), DKFZ/DKTK, LMU Munich Since 2023 Instructor in Medicine, Harvard Medical School, Boston, US 2016-2023 Research Fellow, Dana-Farber Cancer Institute and Harvard Medical School, Boston, USA, (Supervisor Prof. Dr Jens Lohr) 2015-2016 Postdoctoral Fellow, Wellcome Trust Sanger Institute, Cambridge, UK

Supplementary Career Information

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Activities in the Research System

- 2024 – Member of the Medical Faculty, School of Medicine and Health, Technical University of Munich (TUM)
- 2024 – DKTK Junior Group Leader, Munich site (LMU)
- 2023 – 2025 – Instructor in Medicine, Harvard Medical School. Mentor to early-career researchers, advising MD students and postdocs; contribution to Hematologic Neoplasia & Immunologic Therapies Seminar Series
- 2023 – Reviewer for international journals (*Nature Communications*, *Cell Reports*, *NPJ Precision Oncology*)
- 2024 – Member of the German Cancer Consortium (DKTK) and the Bavarian Cancer Research Center (BZKF), Munich site
- 2024 – Supervisor of MSc and PhD students, TUM Graduate School
- 2024 – Teaching in Systems Immunology / Systems Biomedicine (M.Sc./Ph.D. level), Technical University of Munich

Scientific Results

1. Samarin J, Nůsková H, Fabrowski P, Malz M, Amtmann E, Taeubert MJ, Pastor-Flores D, Kazdal D, Kurilov R, de Vries N, Pink H, Deis F, Hummel-Eisenbeiss J, Renz L, Kaushal K, Morgen M, Dick TP, Hamilton G, Muckenthaler M, Mall M, Lim B, Kanamaru T, Klinke G, Sos ML, **Frede J**, Miller AK, Alborzinia H, Gunkel N. Differential KEAP1/NRF2 mediated signaling widens the therapeutic window of redox-targeting drugs in SCLC therapy. *Nat Commun.* 2026 Apr 12;17(1). doi: 10.1038/s41467-026-71608-4. PubMed PMID: 41965332; PubMed Central PMCID: PMC13076645.
2. **Frede J***, Poller JC*, Shi K, Stuart H, Sotudeh N, Havig C, Lim K, Wiggers CRM, Cho EY, Vijaykumar T, Liu J, Waldschmidt JM, Nair MS, Anand P, Dimitrova V, Montanaro A, Yee AJ, Munshi NC, Anderson KC, Martin N, Kaiser SM, Raab MS, Raje NS, Knoechel B#, Lohr JG#. The endogenous T cell landscape is reshaped by CAR-T cell therapy and predicts treatment response in multiple myeloma. *Leukemia.* 2025 Dec;39(12):3004-3014. doi:10.1038/s41375-025-02766-5.
3. Wiggers CRM, Cho EY, Ozdemir M, Bamgbose G, Hegel J, **Frede J**, Warlitz F, Heavican-Foral TB, Pop I, Shraim R, Pölönen P, Koch V, Tran TH, Mullighan CG, Teachey DT, Bledsoe JR, Pikman Y, Harris MH, Place AE, Silverman LB, Lohr JG, Knoechel B. Remodeling of the immune microenvironment is linked to adverse outcome in pediatric T cell acute lymphoblastic leukemia. *Nat Commun.* 2025 Nov 21;16(1):10263. doi: 10.1038/s41467-025-65134-y.
4. Waldschmidt JM, Sotudeh N, Arora S, Vijaykumar T, Anand P, Stuart H, **Frede J**, Campbell T, Kaiser SM, Zheng X, Munshi NC, Anderson KC, Einsele H, Yee AJ, Knoechel B, Lohr JG, Raje NS. Nivolumab to restore T-cell fitness in CAR-T refractory multiple myeloma. *Blood Adv.* 2025 Mar 11;9(5):1132-1136. doi:10.1182/bloodadvances.2024015285.
5. Hernandez-Lopez P, Vijaykumar T, Anand P, Auclair D, **Frede J**#, Knoechel B#, Lohr JG#. Dual role of signaling pathways in myeloma requires cell-type specific targeting of ligand-receptor interactions. *Blood Adv.* 2024 Jun 25;8(12):3173-3185. doi:10.1182/bloodadvances.2023011463.
6. Li L, Mohanty V, Dou J, Huang Y, Banerjee PP, Miao Q, Lohr JG, Vijaykumar T, **Frede J**, Knoechel B, Muniz-Feliciano L, Laskowski TJ, Liang S, Moyes JS, Nandivada V, Basar R, Kaplan M, Daher M, Liu E, Li Y, Acharya S, Lin P, Shanley M, Rafei H, Marin D, Mielke S, Champlin RE, Shpall EJ, Chen K, Rezvani K. Loss of metabolic fitness drives tumor resistance after CAR-NK cell therapy and can be overcome by cytokine engineering. *Sci Adv.* 2023 Jul 28;9(30):eadd6997. doi:10.1126/sciadv.add6997.
7. Waldschmidt JM, Kloeber JA, Anand P, **Frede J**, Kokkalis A, Dimitrova V, Potdar S, Nair MS, Vijaykumar T, Im NG, Guillaumet-Adkins A, Guo G, Yee AJ, Laubach JP, Richardson PG, Anderson KC, Raje NS, Knoechel B, Lohr JG. Single-Cell Profiling Reveals Metabolic Reprogramming as a Resistance Mechanism in BRAF-Mutated Multiple Myeloma. *Clin Cancer Res.* 2021 Dec 1;27(23):6432-6444. doi:10.1158/1078-0432.CCR-21-2040.
8. **Frede J**, Anand P, Sotudeh N, Pinto RA, Nair MS, Stuart H, Yee AJ, Vijaykumar T, Waldschmidt JM, Potdar S, Kloeber JA, Kokkalis A, Dimitrova V, Mann M, Laubach JP, Richardson PG, Anderson KC, Raje NS, Knoechel B, Lohr JG. Dynamic transcriptional reprogramming leads to immunotherapeutic vulnerabilities in myeloma. *Nat Cell Biol.* 2021 Nov;23(11):1199-1211. doi:10.1038/s41556-021-00766-y. (foundational for therapy-induced plasticity and Aim 1 rationale)
9. Anand P, Guillaumet-Adkins A, Dimitrova V, Yun H, Drier Y, Sotudeh N, Rogers AJ, Ouseph MM, Nair M, Potdar S, Isenhardt R, Kloeber JA, Vijaykumar T, Niu L, Vincent TL, Guo G, **Frede J**, Harris M, Place A, Silverman LB, Teachey DT, Lane AA, DeAngelo DJ, Aster JC, Bernstein B, Lohr JG, Knoechel B. Single cell RNA-seq reveals developmental plasticity with coexisting oncogenic and immune evasion programs in ETP-ALL. *Blood.* 2021 May 6;137(18):2463-2480. doi:10.1182/blood.2019004547.
10. **Frede J**, Greulich P, Nagy, T., Simons BD, Jones PH. A single dividing cell population with imbalanced fate drives oesophageal tumour growth. *Nat Cell Biol.* 2016 Sep; 18(9):967-78. doi:10.1038/ncb3400.

* equal contribution; # shared senior authorship

Academic Distinctions

- 2025 – 2027 Else-Kröner-Fresenius-Foundation – Principal Investigator, *Defining Cell States Underlying Therapeutic Resistance in Myeloma*
- 2023 EHA-EMBL/EBI Computational Biology Training in Hematology Award
- 2023 International Myeloma Foundation Brian D. Novis Junior Research Grant
- 2019 – 2021 AACR-Amgen Fellowship in Clinical/Translational Cancer Research
- 2019 ASH Abstract Achievement Award
- 2017 – 2019 German Research Foundation Research Fellowship