

Curriculum Vitae

Personal Data

Title	Prof. Dr. rer. nat., Dipl.-Biol.
First name	Nicole
Name	Fischer
Current position	W3 Professor, Head of the Institute
Current institution(s)/site(s), country	Institute for Molecular Virology and Tumorigenetics, University Medical Centre (UMC) Hamburg-Eppendorf (UKE)
Identifiers/ORCID	ORCID-ID: 0000-0002-5092-8179

Research Synopsis:

Our research team at the Institute for Molecular Virology and Tumorigenetics investigates the molecular mechanisms of chronic **viral infections**, how these viruses establish **persistence** and contribute to **pathogenesis**, including cancer. The research focuses on the pathogenic mechanisms of human polyomaviruses (hPyV), Merkel cell polyomavirus (MCPyV), and BKPyV, as well as the development of potential interventions, such as **virostatic agents**.

A major challenge in understanding these viruses and combating them is their limited cell tropism and the associated limitations in infection and pathogenicity models.

Another translational approach at the institute is the use of high-throughput sequencing (such as whole genome sequencing, targeted sequencing, and metagenomics) to detect known pathogens and identify suspected new pathogens in diagnostic samples. In collaboration with the Leibniz Institute for Virology (LIV), we develop and apply preanalytical and bioinformatic methods for the detection, characterization, and identification of pathogens in complex sequencing data.

Qualifications and Career

Stages	Periods and Details
Degree programme	1989-94, Diploma Biology Saarland University, Germany Study of Natural Science, Microbiology, Biochemistry and Genetics, Diplom Biology Mentor: N. Müller-Lantzsch
Doctorate	1995-99, Dr. rer. nat (Ph.D. thesis) in Natural Sciences , Saarland University; University Medical Center Homburg/Saar; Germany Mentors: N. Müller-Lantzsch / F. Grässer
Stages of academic/professional career	Since 2025: Head of the Institute (W3) , Molecular Virology and Tumorigenetics, University Medical Centre (UMC) Hamburg-Eppendorf (UKE) 2015-24: University professor (W2) for Diagnostic and Molecular Virology, University Medical Centre (UMC) Hamburg-Eppendorf (UKE) 2019-24: Guest professorship , High Throughput Sequencing in Clinical Samples for Pathogen Detection, Stiftung Tiermedizinische Hochschule Hannover, Hannover

	<p>2011: Habilitation and venia legendi (Assistant professor) in Virology, Microbiology and Infectious Diseases, Hamburg</p> <p>2006-14: Head of research group Virology, Institute for Medical Microbiology, Virology and Hygiene, UKE</p> <p>2003-05: Assistant Specialist at the Institute for Medical Microbiology and Institute for Biophysics, University of California, San Francisco, CA, USA</p> <p>Mentors: D. Ganem and J. DeRisi</p> <p>1999-2003: DFG Postdoctoral fellow at the Department for Molecular and Cellular Biology, University of California, Berkeley, CA, USA</p> <p>Mentor: K. Weis</p>
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Engagement in the Research System

Selected Awards, Honors and Memberships

2024-	Coordination Team; DZIF (Deutsches Zentrum für Infektionsforschung) Bridging Topic <i>Diagnostics</i>
2024-	Elected member of the DFG Review Panel , Virology-Microbiology and Immunology
2023-2025	Member of the scientific advisory board of the Gesellschaft für Virologie, GfV, Germany
2022	ESCV Biomerieux Award for significant contribution in the field of viral metagenomics in diagnostics
2021-	Speaker-Team (Brinkmann/Fischer) DFG RU5200 , DEEP-DV: Gene expression and host response programming in DNA virus infection.
2022-	Co-Speaker, DFG GRK2771 , Human and Microbe (Speaker: Martin Aepfelbacher)
2019-2023	Steering Committee, German Autopsy Network , DEFEAT PANDEMics, NATON, NUM (Netzwerk der Universitätsmedizin)
2017-2021	Speaker of the Landesforschungsförderung Hamburg funded Research Unit/LFF-FV044 EPILOG : Epigenetic long-term consequences of bacterial and viral infection.
1999-2002	Deutsche Forschungsgemeinschaft (DFG) postdoctoral research fellow at the Department of Molecular and Cell Biology, University of California Berkeley, California, USA
2022 -	Member of the European Society for Clinical Virology, ESCV
2019 -	Member of the Deutsche Covid-19 OMICS-Initiative, deCOI
2018 -	Member of ENNGS-Network on Next Generation Sequencing, European Society for Clinical Virology, ESCV
2009 -	Member of the European Society of Virology, ESV
1995 -	Member of the Gesellschaft für Virologie, GfV

Academic self-governance activities

2022-	Elected member of the Faculty Council Evaluation of Professorships Committee, Medical Faculty , University of Hamburg, Hamburg, Germany
2019-	Elected Faculty Council Member, Medical Faculty , University of Hamburg, Hamburg, Germany

- 2019- Elected member of the **Faculty Council Structure Committee, Medical Faculty**, University of Hamburg, Hamburg, Germany
- 2019- Elected member of the **Research Affairs Committee of the Faculty Council, Medical Faculty**, University of Hamburg, Hamburg, Germany
- 2018- Appointed member of the **International Affairs Committee**, University of Hamburg, Hamburg, Germany
- 2018- Member of the **Advisory Board of the Central Library** of the Medical Faculty, University Hamburg, Germany

Editorial board/Reviewing activities/Scientific committees

- 2025- **Editorial Board Member, mSphere**, ASM Journal
- 2023- **Editor, Journal of Clinical Virology**, Elsevier Journal
- 2021- **Editor, Tumor Virus Research**, Elsevier Journal
- 2020- **Editorial Advisory Board, Seminars in Immunopathology**, Springer
- 2019- **Editorial Board Member, Pathogens**, MDPI Journal
- 2006- **Adhoc (regular) reviewer** of several high impact journals related to my research topics, e.g. Next Generation Sequencing; *Genome Research*; *Viral Persistence*; *Tumorvirology*. Journal of Investigative Dermatology; PLoS Pathogens; mBio; Clinical Infectious Diseases; Viruses; Journal of Virology; International Journal of Cancer; Oncogene; Cancers; iScience; Clinical Microbiology and Infection; J. Clin.Virology
- 2006 - **Guest Editor Seminars in Immunopathology**
- 2006 - **Adhoc reviewer** for DFG, EU, Wellcome Trust (UK), Medical Research Council (UK) Österreichischer Wissenschaftsfond; Swedish Research Council; Israel Science Foundation, Elitenetzwerk Bayern, Landesministerien Baden-Württemberg und Nord Rhein Westfalen
- 2025 Scientific Committee member: **Annual Meeting of the German Society of Virology**, Hamburg
- 2024- Scientific Committee member/organizer: **Nordic Merkel Cell Cancer Meeting**
- 2023 Scientific Committee member: **FEMS 2023 Microbiology Symposium**, Hamburg
- 2022 Scientific Committee member: **LCI Symposium Memory and Epigenetics in Infection and Immunity**, Leibniz Center of Infection, Hamburg
- 2021 Scientific committee member: **World Microbe Forum** (ASM and FEMS collaboration), online
- 2017 Scientific committee member: **Gemeinsame Jahrestagung DGI und DZIF 2017**, Hamburg (local scientific committee)

Supervision of Researchers in Early Career Phases

I have supervised numerous doctoral students (both MDs and PhDs), master and bachelor students (Molecular Life Sciences; Molecular Biology, Infection Biology). I am a long-standing member of the **International Affairs Committee**, University of Hamburg, Germany, thus engaged in the support of exchange programme for excellent students. Furthermore, I am co-spokesperson of a **DFG Research Training Group RTG2771 Humans and Microbes** and in the steering committee of **RTG 2887/1 VISION**, a DFG RTG (decision pending, decision due on May5th 2023). Thus, I am highly experienced and engaged in the training and mentoring of excellent young researchers.

Scientific Results

In total >120 publications in peer-reviewed journals.