

CURRICULUM VITAE

Clemens Falker-Gieske

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Born February 16th 1984 in Marburg, Germany

QUALIFICATIONS

- Over 8 years of intense research activities in the fields of computational biology, genomics, transcriptomics, and quantitative genetics
- Over 15 years of relevant experience in molecular biology and cell biology, including gene editing techniques and cellular models
- Over 8 years of teaching experience in Master's and Ph.D. programs

EDUCATION

05/2017 – 06/2025	Habilitation in “Functional Genetics” at the Georg-August-University Göttingen
11/2011 – 02/2015	Dr. rer. nat. in “Biology” at the University of Hamburg
11/2011 – 04/2015	Graduate program “Research Training Group GRK1459” (DFG funded) at the University Medical Centre Hamburg-Eppendorf
04/2009 – 10/2010	Master of Science in “Molecular Life Sciences” at Humboldt University Berlin
10/2008 – 04/2009	Master of Science in “Molecular and Cellular Biology” at Philipps University Marburg
10/2005 – 10/2008	Bachelor of Science in “Biology” at the University of Hamburg

EXPERIENCE

Postdoctoral researcher

5/2017 – present

Division Functional Breeding, Department of Animal Sciences, Georg-August-University Göttingen

- Since 2024, Principal Investigator of the workgroup “Experimental and Computational Biology”
- Developed pipelines and custom workflows for the analysis of high-throughput genomic and transcriptomic sequencing data
- Established cell culture and molecular biology laboratories with a major focus on cellular disease models

Guest scientist

5/2024 – present

Platform Infection Models, German Primate Centre, Göttingen

- Collaboration with Dr. Berit Roshani in a project focused on elucidating the role of the fibrin complex in a cellular model for chicken amyloid arthropathy

Guest scientist

3/2016 – 9/2016

Next Generation Sequencing Core Facility, University Medical Centre Hamburg-Eppendorf

- Acquired basic skills in applied bioinformatics and the analysis of second-generation sequencing data

Doctoral researcher

11/2011 – 4/2015

Institute of Neuropathology, University Medical Centre Hamburg-Eppendorf

- Established gene editing for gene knockout in neuronal cell lines using TAL Effector Nucleases
- Applied and established numerous biochemical techniques for the analysis and characterisation of amyloid proteins

Guest scientist

10/2013 – 12/2013

Consiglio Nazionale delle Ricerche (CNR), Institute of Neuroscience, Milan, Italy

- Acquisition of molecular techniques to measure cell toxicity in neurons

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Research assistant and master's student 10/2009 – 10/2010

Institute of Molecular Parasitology, Humboldt University Berlin

- Developed and established a gene editing approach in the obligate intracellular parasite *Toxoplasma gondii* by designing a dominant negative isoform of the DNA repair protein Ku80

Intern 8/2009 – 9/2009

Umeå Centre for Molecular Medicine (UCMM), Umeå, Sweden

- Participation in the establishment of a method for the generation of induced pluripotent stem cells from patient skin biopsies

Intern 8/2007 – 10/2007

Faculty of Biochemistry at the Universidad del Pais Vasco, San Sebastián, Spain

- Optimisation of a fusion PCR protocol for the GFP-tagging of the *Aspergillus nidulans* transcription factor FlbB

SKILLS

Bioinformatics: Genomics, transcriptomics, genotype imputation, GWAS, eQTL analysis, protein structure prediction, proteomics, metagenomics

Programming languages: Python, Linux Bash, R, high-performance computing with SLURM

Laboratory: Gene editing, cellular models, molecular cloning, nucleic acid analysis, protein analysis

Optical methods: Confocal microscopy, live cell imaging, nanoparticle tracking analysis, dynamic light scattering, fluorescence-activated cell sorting (FACS)

THIRD PARTY FUNDING

Dissection of the molecular mechanisms leading to amyloid arthropathy in chickens

FA 1784/1-1, German Research Council (DFG), 245.141 € 01/2024 – 12/2026

Molecular and genomic characterisation of the hybridisation between goat and sheep

FA 1784/2-1, Funding body: German Research Foundation (DFG), 266.363 € 07/2025 – 06/2028

AWARDS

“Sonderpreis Promotion” for the Ph.D. module “Computing in Science – Basics of Computational Biology” by the Faculty of Agricultural Sciences, Georg-August-University Göttingen, 2024

ACADEMIC SELF-ADMINISTRATION (Georg-August-University Göttingen)

Member of the appointment committee for the professorship
“Economics of Sustainable Agri-Food Systems” 05/2022 – 06/2023

Member of the executive board, Department of Animal Sciences 04/2022 – 03/2024

Member of the appointment committee for the professorship
“Animal Breeding and Genetics” 01/2022 – 07/2022

Member of the board for financial support of early career scientists 02/2023 – present

Substitute member of the executive board, Department of Animal Sciences 04/2024 – present

Member of the board for the selection of candidates for the
master's program “Integrated Plant and Animal Breeding (iPAB)” 01/2022 – present

Member of the executive board of the „Centre for Integrated Breeding
Research (CiBreed)“ 06/2024 – present

OFFICES

Substitute project leader according to § 15 GenTSV 08/2018 – present

Substitute project leader according to §2 TierSeuchErV 09/2020 – present

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COURSES AND CERTIFICATES

Certificate for Teaching and Learning in Higher Education, Hochschuldidaktik Göttingen, 2024
Theoretical course of Laboratory Animal Science, University Medical Centre Göttingen, 2024
Back to the basics (A/B) - Teaching in Higher Education, Georg-August University School of Science, 2023
Programming with CUDA, Gesellschaft für wissenschaftliche Datenverarbeitungen mbH Göttingen, 2022
ABG01x: Genetic Models for Animal Breeding, edx course, Wageningen University & Research, 2021
Statistics in R for participants with prior knowledge – from analysis to report, Gesellschaft für wissenschaftliche Datenverarbeitungen mbH Göttingen, 2017
Parallel programming with MPI, Gesellschaft für wissenschaftliche Datenverarbeitungen mbH Göttingen, 2017
Introduction to R and RNA-Seq Analysis, Statistical Bioinformatics, University Medical Centre Göttingen, 2017
RNA-Seq Data Analysis using Galaxy, Statistical Bioinformatics, University Medical Centre Göttingen, 2017
Level C1 English Course Certificate, FachSprachenZentrum, University of Hamburg, 2008

ORGANISED SCIENTIFIC CONFERENCES

Jahrestagung der Deutschen Gesellschaft für Züchtungskunde (2024), Göttingen
3rd CiBreed Fall Workshop (2021), Göttingen
3rd International Symposium on "Protein Trafficking in Health and Disease" (2014), Hamburg
2nd International Symposium on "Protein Trafficking in Health and Disease" (2012), Hamburg

LANGUAGES

German: native
English: fluent
Spanish: conversational