

Add-on Fellows for Interdisciplinary Life Science Second Cohort

Mania Ackermann

Alumna Postdoc (Biochemistry) at the Hannover Medical School (MHH)

Mania Ackermann is working on the generation of blood cells from induced stem cells (iPSCs), which will be used for cell-based therapeutic approaches. She also uses the developed iPSC model to gain deeper insights into human embryonic hematopoietic development. In this context, Mania used the Add-on Fellowship to further her education of advanced imaging techniques in 3D tissue structures. Previously, she studied biochemistry at the Leibniz University of Hannover. After her master's degree, she completed her doctorate in gene and cell therapy in the doctoral program "Regenerative Sciences" of the Excellence Cluster REBIRTH at the MHH.

Lisa Bast

Alumna Doctoral candidate (Mathematics and Computational biology) at the Technical University of Munich

Lisa studied Mathematics in Bioscience at Koblenz University of Applied Sciences (B.Sc.) and later at Technical University Munich (M.Sc.), where she also conducted her doctoral research in close collaboration with the Helmholtz Center Munich. In her doctoral thesis, she focused on data-driven modeling and model selection of cell division and differentiation processes. Her current postdoc at Karolinska Institute relates to gene regulatory network inference from single cell RNA sequencing data to decode the alterations in psychiatric disorders such as schizophrenia. The Add-on fellowship supported her in many ways with courses, conferences, books, research stay's and network meetings.

Fabian Bonk

Alumnus Doctoral candidate (Environmental Engineering) at the Helmholtz Centre for Environmental Research in Leipzig

Fabian Bonk was doing his doctorate on “Modeling the Microbiology of the Biogas Process.” Previously, he completed a B.Sc. Waste Management Engineering at RWTH Aachen and a M.Sc. Environmental Engineering at Masdar Institute in Abu Dhabi. He gained international experience in Chile, Indonesia and the US. He volunteered as a doctoral student representative and in the debate club. He used the Add-on Fellowship to conduct research in New Zealand, attend conferences, and further his education in research modeling and business administration. He changed employers to a biofuels company.

Marc Brehme

Alumnus Postdoc (Biology) at the RWTH Aachen

Marc Brehme studied molecular and cell biology at the Universities of Heidelberg and Manchester (UK) as well as at DKFZ and EMBL in Heidelberg. After a stay at CeMM in Austria, he obtained his doctorate in molecular biology at the University of Vienna. After his experience in a biotech company, he was a postdoc at CCSB, Dana-Farber Cancer Institute and Harvard Medical School in Boston, USA, and Northwestern University in Evanston, USA. Finally, he became group leader at the Joint Research Center for Computational Biomedicine, a joint venture between RWTH Aachen University and University Hospital and Bayer AG.



Dorothea Busse

Alumna Postdoc (Biophysics) at the Humboldt University of Berlin

Dorothea Busse worked on the topic “Network analysis of the therapy-induced DNA damage response in colorectal cancer” at HU Berlin. Before, she studied biophysics and received her doctorate in theoretical biophysics at HU Berlin. She used the Add-on Fellowship to financially support her research (RNA sequencing) and to attend key conferences. The additional family support also helped her to expand her research career.

Valentin Dunsing

Alumnus Doctoral candidate (Physics) at the University of Potsdam

Valentin Dunsing was devoting his doctoral studies at the University of Potsdam to fluorescence microscopy techniques to elucidate protein interactions during cell-cell fusion and cell adhesion. Previously, he studied physics at the Humboldt University of Berlin, with a focus on complex systems and biophysics. Through the Add-on Fellowship, he gained a deeper insight into developmental biology in order to conduct his experiments in vivo and thereby discover regulatory mechanisms at the systemic level. After Potsdam, his path led him to the Developmental Biology Institute in Marseille, France.



Rukeia El-Athman

Alumna Doctoral candidate (Bioinformatics) at the Humboldt-University of Berlin and Charité University Hospital Berlin

Rukeia El-Athman worked on the mathematical modeling of the molecular connection between the circadian clock and cancer. Previously, Rukeia studied bioinformatics at the Freie Universität Berlin and Charité – Universitätsmedizin Berlin. As a assistant, she worked in a research group for metabiobanks of human tissue samples and in a research group for biodiversity informatics. Through the Add-on Fellowship, she gained a deeper insight into cancer research as well as systems biology methods. Rukeia moved to the BAM in research data management. She is a very active alumna and regularly supports the Fellows of the new cohorts with expertise and exchange of experiences.



Jan Engelhardt

Alumnus Doctoral candidate (Bioinformatics) at the University of Leipzig

Jan Engelhardt conducted his doctorate on the topic “Bioinformatic analysis of disease-induced changes in DNA methylation”. He is also interested in the evolution of epigenetic gene regulatory mechanisms. By background, Jan is a studied bioinformatician with Bachelor’s and Master’s degrees from the University of Leipzig. During his studies, he worked as a student assistant in the field of RNA bioinformatics. Through the Add-on Fellowship, he gained a deeper insight into experimental methods to improve mathematical modeling of molecular processes.





Tim Herfurth

Alumnus Doctoral candidate (Physics) at the Max-Planck-Institute (MPI) for Brain Research



Tim Herfurth conducted research on the topic of information transmission between neurons in the field of theoretical neuroscience. He studied physics and did his master's degree in condensed matter theory at the Goethe University, Frankfurt. Tim completed a research semester at the University of Florida, USA. With the aid of the Add-on Fellowship, he started to expand his research focus towards data science and machine learning.

His further path led him to industry like IT and innovation service providers as a Data Scientist. There he has been working within different enterprises and fields such as aviation, chemistry, and engineering.



Linnea Hesse

Alumna Doctoral candidate (Biology) at the Albert-Ludwigs-University of Freiburg



© Marc Thielen

Linnea Hesse is a research group leader in the Plant Biomechanics Group at the University of Freiburg. She is a fellow of the Margarete von Wrangell habilitation program. Her research deals with the question on how the functional morphology of monocotyledonous plants and their mechanical adaptability can inspire technology. Earlier, Linnea studied biology at the University of Mainz and completed her diploma thesis in biomechanics at the TU Dresden. Through the Add-on Fellowship she gained a deeper insight into the use of magnetic resonance imaging to analyze the

biomechanics, ontogeny, and functional morphology of plant structures. She became a member of the Add-on jury.



Julia Hofhuis

Alumna Postdoc (Medicine) at the University Hospital Göttingen

Julia Hofhuis conducted analysis on the endogenous translational readthrough of the DNA stop codon. A better understanding enables a better treatability of diseases that are due to premature DNA stop codons. Julia completed her doctorate on cellular and molecular basis of dysferlin-deficient muscular dystrophy at the Department of Pediatrics and Adolescent Medicine in Göttingen. Before, she studied molecular medicine in Göttingen. Through the Add-on Fellowship, she dived into bioinformatics modeling. Thus, she combined basic research, systems biology approaches and clinical research. Her further path steered her to the Biochemistry department of Bielefeld University.

Dana Kleimeier

Alumna Doctoral candidate (Biomathematics) at the Ernst-Moritz-Arndt-University of Greifswald



Dana Kleimeier was working at the Institute of Bioinformatics at the University Medicine of Greifswald as project manager and lecturer. As a scientist, she focused on the mathematical modeling of pathogen host immune system interactions, especially the activation of the tryptophan metabolism due to bacterial infection and due to drug administration. She studied biomathematics with focus on physiology. Moreover, she participated in the mentoring program with two mentors (Jane Heffernan, University of Toronto and Alison Hill, Johns Hopkins School of Medicine) and was awarded for her outstanding presentation at the Society for Mathematical Biology Annual Meeting.



**Paul-Albert König**

Alumnus Postdoc (Biochemistry) at the Hospital rechts der Isar and at the Technical University of Munich

Paul-Albert König researched on temporal and spatial regulation of protein complexes during signal transduction in immune cells. Previously, he investigated different physiological roles of protein quality control in endoplasmic reticulum for his doctoral project at the Cambridge Whitehead Institute for Biomedical Research, USA. He studied biochemistry and molecular biotechnology at the TU Munich with a focus on immunology. Through the Add-on Fellowship, he acquired the necessary skills to model regulatory processes under physiological and pathological conditions. Currently, he is Core Facility Manager in the Department of Nanobodies at the Medical Faculty of the University of Bonn.

**Lisa Krämer**

Alumna Doctoral candidate (Biotechnology) at the Technical University of Braunschweig



Lisa Schlicker (née Krämer) was completing her doctorate on the "Dynamics of human glucose metabolism using stable isotopes" at the Luxembourg Centre for Systems Biomedicine (LCSB) and the TU Braunschweig. Lisa studied Human and Molecular Biology (B.Sc.) and Biotechnology (M.Sc.) at Saarland University. The Add-on Fellowship enabled her to spend time at Cornell University, USA, where she identified and characterized the enzymes involved in the endogenous synthesis of the sugar substitute erythritol. After her dissertation, she moved to the DKFZ in Heidelberg, where she is responsible for the mass spectrometry of metabolites and lipids.



**Dmitry Kuchenov**

Alumnus Doctoral candidate (Chemistry) at the European Molecular Biology Laboratory (EMBL) and at the Ruprecht-Karl's-University of Heidelberg

Dmitry Kuchenov was pursuing a doctorate at the interface between cell biology and biophysics. Previously, he studied chemistry and biochemistry at Novosibirsk State University, Russia. Dmitry gained practical experience in various laboratories of organic chemistry, cell physiology and cell pathology, to cell biology and biophysics. The Add-on Fellowship helped him to acquire the necessary equipment to analyze the massive amount of experimental data. He also attended a variety of conferences. After a postdoctoral position at the Gladstone Institute, USA, he is currently a scientist at the University of California, San Francisco, USA, in the field of bioengineering.

**Hyun Lee**

Alumna Postdoc (Biology) at the Max-Planck-Institute (MPI) of Molecular Cell Biology and Genetics in Dresden

Hyun Lee combined cell biology with biophysics and protein chemistry focuses on disordered proteins that form membrane-less compartments in cells in the context of neurodegenerative diseases. Previously, she obtained her doctorate in genetics and molecular biology from the University of North Carolina at Chapel Hill, USA, and studied molecular biology at Wisconsin University, Madison, USA. In addition to research stays in Dallas and Chicago, she used the Add-on Fellowship to further expand her experimental and theoretical interdisciplinary method repertoire. She continues to deepen her scientific career at the MPI in Dresden.



Adriana Pitea

Alumna Doctoral candidate (Bioinformatics) at the Helmholtz Center in Munich

Adriana Pitea focused on „Delineating radiation-resistance regulatory networks in head and neck cancer patients“. Previously, she obtained a B.Sc. in Automatic Control and Computer Science (Polytechnic University of Bucharest) and a M.Sc. in Bioinformatics (University of Copenhagen). The Add-on Fellowship supported her lab exchange experience at the Trey Ideker Lab, University of California, San Diego. There she studied the effect of rare non-coding mutations on cancer, and she started a new collaboration between her lab at the ICB in Munich and the Trey Ideker Lab at UCSD.



Jan Strauss

Alumnus Postdoc (Biology) at the European Molecular Biology Laboratory (EMBL) in Hamburg

Jan Strauss researched the molecular mechanisms of iron uptake in microalgae, a process that ensures the marine microalgae to produce as much oxygen as land plants. Jan completed his doctorate in England at the University of East Anglia in Norwich in the field of molecular biology of polar microalgae. Earlier, he studied biology at the University of Rostock and wrote his diploma thesis at the Alfred Wegener Institute for Polar and Marine Research in Bremerhaven. With the Add-on Fellowship, he was developing and validating a metabolic model for systems analysis of iron metabolism in marine microalgae. After Hamburg, he obtained a postdoc at GEOMAR Helmholtz Center for Ocean Research in Kiel.



**Dana Westmeier**

Alumna Doctoral candidate (Biomedicine) at the University Hospital Mainz

Dana Westmeier conducted her doctoral research in Molecular and Cellular Oncology under Prof. Dr. Roland Stauber. In the field of nano-biomedicine, she was working on the systematic identification of basic pathobiological effects of nanoparticles and their impact on the human microbiome. Earlier, Dana completed her bachelor's degree in biology at TU Darmstadt and her master's degree in biomedicine at Mainz University. The Add-on Fellowship supported collaborations and continuing education that focus primarily on computer-based modeling of nanoparticle-microbiome interactions. After her doctorate, she followed up with a postdoc in Mainz. Dana has co-applied for funding for a symposium as part of the Joachim Herz Foundations' "Begegnungszonen".

**Maria Winzi**

Alumna Postdoc (Biotechnology) at the Technical University of Dresden

Maria Winzi worked on "Mechanical alterations during EMT: from single genes to omics" at the Biotechnology Center. Earlier, she completed her doctorate in Denmark at the Hagedron Research Institute and graduated with a B.Sc. in Molecular Biotechnology and M.Sc. in Molecular Bioengineering. She also gained experience as a research assistant at TU and at a service research organization in Dresden. The Add-on Fellowship professionalized her skills in Matlab and programming and were used to establish new collaborations.

**► Contact**

Dr. Philipp Gieseemann
Project manager
+49 40 533295-70
pgieseemann(at)joachim-herz-stiftung(dot)de

Karin Liao
Project manager
+49 40 533295-97
klio(at)joachim-herz-stiftung(dot)de