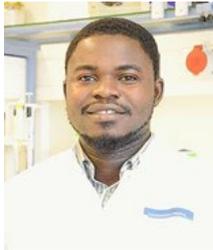




Add-on Fellows for Interdisciplinary Life Science Seventh Cohort

Prince Saforo Amponsah

Postdoc (Molecular genetics) at the Technical University Kaiserslautern



Prince S. Amponsah is interested in understanding how protein homeostasis is regulated in aneuploid human cells. Previously, he did his doctorate in cellular biochemistry, investigating the interrelationship between cellular metabolism and cellular redox changes and its effect on cell physiology. In addition, he was involved in teaching, mentoring and science communication. In 2018, he became the student speaker and member of the steering committee of the DFG Priority Program, SPP1710.

He is honored that his work has been acknowledged and appreciated with awards.

Constantin Berger

Postdoc (Tissue engineering and Regenerative medicine) at the University Hospital Würzburg



Constantin Berger creates an in vitro model of the endocrine pancreas which resembles the physiological tissue as close as possible. In this regard, his work particularly focuses on the combination of pancreatic endocrine cells with vessel-forming endothelial cells to study the interaction between cells of the endocrine pancreas with cells of the capillary system. Therefore, he aims to combine cell culture techniques with bioprinting approaches, which allows the precise positioning of the generated cell types. The Add-on

Fellowship grants him the opportunity to broaden his knowledge in bioprinting and thus supports him to realize his research goal.



**Thomas Biedenbänder**

Doctoral candidate (Physical chemistry) at the University of Rostock



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Thomas Biedenbänder investigates and uses cross relaxation dynamics of various biomolecules at low temperatures by dynamic nuclear polarization-enhanced solid-state NMR (supervised by Björn Corzilius). Previously, he studied biochemistry at the Goethe University in Frankfurt which he finished with his master's degree about relaxation dynamics of modified nucleobases in transfer RNA under supervision of Harald Schwalbe and Boris Fürtig. Beside his research topics, he is involved in teaching as a teaching assistant. The Add-on Fellowship offers him to shape his scientific career.

**Aylin Binici**

Doctoral candidate (Chemical biology) at the Max-Planck-Institute (MPI) for Molecular Physiology in Dortmund



Aylin Binici has obtained her master's degree working on the synthesis and biological investigation of pyrano-furo-pyridone pseudo natural products. She started her doctoral studies in the group of Prof. Dr. Dr. h.c. Herbert Waldmann at the MPI of Molecular Physiology in the Department of Chemical Biology. Her project focuses on the identification of small molecule enhancers of natural killer cell tumoricidal activity. Aylin Binici is an active member of the International Chemical Biology Chapter (ICBS) since 2018, and in 2021, she became president of the Students' Chapter located in Dortmund.



**Abin Biswas**

Postdoc (Biophysics) at the Max-Planck-Institute (MPI) for the Physics of Light in Erlangen



Abin Biswas uses advanced optical tools to quantitatively image nuclei and self-organizing microtubule assemblies such as metaphase spindles. In particular, he is interested in using interdisciplinary approaches to explore mechanisms that help set and regulate the biophysical properties of intracellular mesoscale structures. Previously, he studied Medical Physics and Biotechnology. He plans on using the funds from this grant to investigate nuclear size scaling during differentiation and to broaden his scientific perspective by working with new collaborators.

**Luisa Blöbaum**

Doctoral candidate (Biotechnology) at the University of Bielefeld



Luisa Blöbaum studies the effect of large-scale bioprocess environments on industrial microbes using microfluidic single-cell cultivation. Other aspects of bioprocesses, such as strain engineering and fermentation, were already central for her education at Bielefeld University and her internship at a large company in Leverkusen. Her master's thesis was awarded the price for excellent and interdisciplinary student's thesis of the DECHEMA "Zukunftsform Biotechnologie". Additionally, to research, Luisa Blöbaum is involved in teaching and supervising students.





Elena Buglakova

Doctoral candidate (Bioinformatics) at the European Molecular Biology Laboratory (EMBL) in Heidelberg

Elena Buglakova combines her extensive knowledge of mathematics with her interest in the biology of living organisms. She develops computational methods to study metabolic cell states with single cell resolution. Previously, she studied data science and applied physics and mathematics at Skolkovo Institute of Science and Technology and Moscow Institute of Physics and Technology, Russia. The Add-on Fellowship provides her the opportunity to expand her knowledge in modern biology and build a network of professional contacts. She looks forward to discussing her work with Add-on Fellows and Alumni.

Simona Capponi

Postdoc (Genetics) at the German Cancer Consortium (DKTK) in Freiburg

Simona Capponi has a neurogenetics background and focuses on the molecular understanding of the epigenetic mechanisms of Parkinsonism. For this, she uses *in vitro* cancer cell systems and brain samples from patients. Previously, she received her doctorate, master's degree in cell and molecular biology, and bachelor's degree in biology from the University of Genoa, Italy. With the Add-on Fellowship, she gains expertise in embryonic stem cell physiology and development. In addition, the fellowship will allow her to work extensively in bioinformatics.



Fiona Charitou

Doctoral candidate (Human medicine) at the Technical University Munich and University Hospital rechts der Isar



Fiona Charitou is a medical student at the Technical University of Munich and doctoral candidate at the Department for Orthopedics and Sports Orthopedics at Klinikum rechts der Isar in Munich. Previously, she studied bioengineering with specialization in medical engineering. She started working as a student research assistant at the department for orthopedics during her first studies, now combining the engineering and medical background in her doctoral thesis.



Marta Cortesão

Postdoc (Aerospace microbiology) at the German Aerospace Center (DLR) in Cologne



Marta Cortesão focuses as Junior Researcher on studying microbial physiology under exposure to space conditions (e.g., radiation, spaceflight microgravity). She also works to develop new strategies for using microbes in space exploration (e.g., fungal biomining of Lunar soil; or fungal-based space biotechnology). Prior to that, she has received her doctorate in Biology (Space Microbiology) from the University of Göttingen, and a master's degree in Molecular and Cellular Biology from the University of Porto. She is passionate about science communication and outreach, particularly in the field of astrobiology and space microbiology.



Rosa Delgado

Doctoral candidate (Neuroimmunology) at Ludwig-Maximilian-University



Rosa Delgado research involves the study of gut microbiota-derived metabolites on chronic inflammation after stroke, combining expertise from different fields: neuroimmunology, microbiology and bioinformatics. Previously, she finished her bachelor's degree in Pharmacy in Madrid, Spain, and joined the Institute for Stroke and Dementia Research, at the LMU Munich. The Add-on Fellowship supports her multidisciplinary education, allowing Rosa to attend courses, conferences and creating a network of international cutting-edge scientists from different backgrounds to promote exchanges of ideas.

Linda Dieckmann

Doctoral candidate (Translational psychiatry) at the Max-Planck-Institute for Psychiatry in Munich



Linda Dieckmann is interested in how combining omics-approaches together with knowledge about environmental influences can help to understand the biological embedding of health and disease. She is member of the International Max Planck Research School for Translational Psychiatry. Previously, she studied Psychology and was supported by a scholarship of the German National Academic Foundation. For her master's thesis she received a student award of the Ruhr-University Bochum for an outstanding academic assignment. For her research, she aims to combine approaches at the interface of Psychology, Genetics, Statistics and Bioinformatics.



Tim Dullweber

Doctoral candidate (Biophysics) at the European Laboratory for Molecular Biology (EMBL) in Heidelberg



Tim Dullweber is a doctoral candidate at the EMBL Heidelberg in the Erzberger Group. In his doctoral project, he is committed to study on a theoretical level how selective cell differentiation is coordinated in dynamic, embryonic tissues. For his work, he exploits concepts of statistical physics and non-linear dynamics. Previously, he graduated in Molecular Medicine as well as Physics and specialized in Theoretical Biophysics. In addition, he is involved in teaching at Heidelberg university, in the organisation of the 23rd EMBL PhD Symposium and supports ELLS in their efforts to inspire school kids for science.

Dennis Feigenbutz

Doctoral candidate (Neuroscience) at the Max-Planck-Institute (MPI) for Neurobiology in Munich



Dennis Feigenbutz aims to find out why certain types of neurons are more vulnerable to neurodegenerative diseases, i.e., Huntington's disease. Dennis focuses on areas in the brain that are responsible for the control of movement and investigate what molecular characteristics neurons have that are heavily impaired by the disease. Prior to that, he studied molecular biology (B.Sc.) and neurobiology (M.Sc.) at the University of Heidelberg. His interests in neurodegenerative diseases sparked during his master thesis abroad at the University of Oxford where he researched on cellular models of Parkinson's disease.



**Gina Fürtjes**

Postdoc (Medicine) at the University Hospital Cologne



Gina Fürtjes is a resident in the department of neurosurgery at the University hospital of Cologne. In parallel, she started to contribute in the next-generation in vivo imaging group at the Helmholtz Pioneer Campus at the Helmholtz Center in Munich with the aim of clinical translation of near-infrared imaging. She is focusing on fluorescence-guided surgery. Previously, she studied human medicine in Münster and gained her doctorate in the field of epigenetics of meningiomas.

**Nathalie Gerstner**

Doctoral candidate (Bioinformatics) at the Max-Planck-Institute (MPI) for Psychiatry in Munich



Nathalie Gerstner focuses on the molecular characterization of psychiatric disorders in the human cortex using multi-modal single-cell sequencing data. She holds a degree in Bioinformatics from TU and LMU Munich. Already, during her studies she was involved in teaching activities and co-authored scientific publications. The Add-on Fellowship of the Joachim Herz Foundation allows Nathalie to broaden her scientific horizon by conducting a research stay abroad and expanding her professional network.



**Pamela Guruciaga**

Postdoc (Biophysics) at the European Molecular Biology Laboratory (EMBL) in Heidelberg



Pamela Guruciaga has been working as a postdoctoral fellow in the Cell Biology and Biophysics unit of the EMBL. She is a physicist interested in symmetry-breaking processes, order-disorder transitions, and exotic phases of matter. During her doctorate and previous post doctorate, she focused on applications of statistical mechanics to magnetic materials (frustrated and disordered, respectively). She is now using this versatile framework to dissect the interplay between boundary properties and epithelial polarity organization during morphogenesis. Although she is a theorist, she is deeply interested in collaborating with experimentalists to test and improve her models.

**Tanja Holstein**

Doctoral candidate (Bioinformatics) at the Federal Institute for Materials Research and Testing in Berlin



Tanja Holstein is developing bioinformatic methods for virus proteomics including new statistical applications for virus identification. Before that, she did her master's thesis at the Potsdam Institute for Climate Impact Research on a network model for socio-ecological co-evolution. She enjoys working with students, has co-taught a seminar on meta-omics and tutored high school students all throughout her studies. She is also a yoga teacher.



**Karin Hrovatin**

Doctoral candidate (Medical data science) at the Helmholtz Center in Munich



Karin Hrovatin is a doctoral candidate in biomedical data sciences with focus on pancreatic beta cell-related single-cell analysis at the Institute for Computational Biology, Helmholtz Zentrum München. She studied biotechnology and bioinformatics and is enrolled in the doctoral program Munich School for Data Science. She is also interested in public communication, visualization, and entrepreneurship.

**Susanne Ibing**

Doctoral candidate (Digital health) at the Hasso-Plattner-Institute at the University of Potsdam



Susanne Ibing promoviert am Lehrstuhl für Personalisierte Medizin unter Prof. Dr. med. Erwin Böttinger am Hasso-Plattner-Institut für IT-Systems Engineering, Data Engineering und Digital Health der Universität Potsdam. Neben ihrer Forschung an prädiktiver Modellierung im Kontext von chronisch entzündlichen Darmerkrankungen, ist sie in die Lehrtätigkeit eingebunden. Zuvor studierte Susanne Ibing Molekulare Biotechnologie an der Universität Heidelberg. Am Deutschen

Krebsforschungszentrum in Heidelberg schrieb sie ihre Masterarbeit in der Abteilung für Angewandte Bioinformatik unter Prof. Dr. Benedikt Brors.



Kevin Jahnke

Doctoral candidate (Biophysics) at the Max-Planck-Institute (MPI) for Medical Research in Heidelberg



Kevin Jahnke is a doctoral candidate at the MPI for Medical Research in Heidelberg. During his doctoral project he focusses on the bottom-up assembly and dynamic actuation of synthetic cells. He studied physics at Heidelberg University with a stay abroad for his master thesis at Cambridge University. He is a member of the Heidelberg Graduate School for physics and a Carl Zeiss Stipend holder within the excellence cluster 3D Matter Made to Order.

Mi-Sun Ruth Jang

Doctoral candidate (Biomedicine) at the Hannover Medical School

Mi-Sun Jang focuses on the development of macrophages from induced pluripotent stem cells by using bioinformatics tools in combination with classic wet lab techniques. For her previous work in the nephrology, she received grants for presenting her projects at national and international conferences. Before her doctoral project, she received her master's degree in Molecular Life Science at the University of Hamburg. The Add-on Fellowship provides her with an excellent platform for vivid scientific exchange, professional and personal growth and to take a deeper dive into the field of bioinformatics.



**Niko Jonasson**

Doctoral candidate (Chemistry) at the Ludwig's-Maximilian-University in Munich



Niko Lindlar (née Jonasson) has been working on bioinorganic chemistry to understand non-heme iron enzymes from his master's degree to his dissertation and is now continuing this in his postdoctoral research (group of Prof. Dr. Lena Daumann). He also acts as a mentor for students. In parallel, he works as an adventure educator for the youth of the German Alpine Association (JDAV), where he teaches young people/future youth leaders about communication, cooperation, and risk assessment and management. In addition to the Add-on Fellowship, he is supported by the Studienstiftung des Deutschen Volkes.

**Daniel Kaiser**

Postdoc (Neuroradiology) at the University Hospital Carl Gustav Carus in Dresden



Daniel Kaiser is a postdoc and clinician scientist at the Institute of Neuroradiology, University Hospital, Dresden. His current research is dedicated to improved diagnostics and individualized interventional therapies for patients with stroke or intracranial aneurysms. He is a board-certified radiologist and in specialist training in neuroradiology. Daniel has been working in scientific societies with the goal of improving networking and education for young clinicians and researchers.



**Florian Klimm**

Postdoc (Bioinformatics) at the Max-Planck-Institute (MPI) for Molecular Genetic in Berlin



Florian Klimm just recently started as a postdoctoral researcher at the MPI for Molecular Genetics in Berlin. There he investigates to what extent advanced tools from network science and biostatistics allow us to uncover hidden structure in single-cell RNA-sequencing data and so may reveal the complex function of cells. Previously he studied Physics at the Humboldt University Berlin and as a Fulbright Scholar in Santa Barbara and received a Ph.D. from the University of Oxford. Before returning to Berlin, he was a postdoctoral researcher at the University of Cambridge and Imperial College London.

**Franziska Viktoria Kraus**

Doctoral candidate (Life science) at the Ruprecht-Karl's-University of Heidelberg



Franziska Kraus works on CD8 T-cell metabolism in Rheumatoid Arthritis and became a member of the Heidelberg Biosciences International Graduate School (HBIGS). She accomplished her master's thesis at the Ruprecht-Karl's-Universität Heidelberg in Molecular Biosciences with a major in Infectious Diseases, building on her Bachelor in Biomedicine at the Julius-Maximilian's-Universität Würzburg. Her curiosity and enthusiasm led her to many internships in various laboratories in academia and industry. Since 2018 she is also engaged in the Signal Transduction Society and a member of Pro-Test Deutschland e.V. contributing to science communication.



Tina Lence

Postdoc (Infection biology) at the Institute for Molecular Infection Biology (IMIB) at the Julius-Maximilians-University of Würzburg



Tina Lence is currently exploring novel approaches to develop antisense oligonucleotide (ASO)-inspired antibiotics that will enable specific and targeted elimination of a human pathogenic bacteria *Clostridioides difficile*. She completed undergraduate study of biochemistry and gained further expertise in the fields of molecular and RNA biology during her doctorate. For her work Tina received poster awards at international conferences. The fellowship of the Joachim Herz Foundation allows her to gain deeper knowledge in the fields of infection biology and computational biology.



Jakob Lingg

Doctoral candidate (Biomedicine) at the Helmholtz Center in Munich



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Jakob Lingg is pursuing his doctorate in Computer Science from the TU Munich while working at the Helmholtz Zentrum. His project focuses on the development of a line-scan confocal microscope that operates in the shortwave-infrared wavelength regime. The aim is to use this microscope to reveal three-dimensional dynamics with high spatiotemporal resolution in organisms. At present, he is the doctoral representative for the Graduate School of BioEngineering at the TU Munich. Previously, Jakob first studied Physics and Astronomy at the LMU Munich, followed by a master's degree in Astrophysics with focus on computational methods from the same university.



**Philipp Mauker**

Doctoral candidate (Chemical Biology) at the Ludwig-Maximilian's-University in Munich



Philipp Mauker investigates chemical strategies to control the cell membrane permeability of fluorogenic probes and small molecules. He is a trained organic chemist with a M.Sc. in chemistry who expanded his skills towards chemical biology where the worlds of biology and chemistry are brought together. He received a scholarship from "Studienstiftung des Deutschen Volkes" and became a Studienstiftung doctoral scholar. He was awarded the CeNS travel award for presenting his work at the Pacificchem conference in Honolulu, Hawaii. He obtained research experience in research groups in Germany and the UK as well as in industry in the chemical development division.

**Giovanni Palla**

Doctoral candidate (Bioinformatics) at the Helmholtz Center in Munich



Giovanni focuses on the developing of open-source tools and machine learning methods for the analysis of spatial molecular data. He is generally interested in probabilistic machine learning for the analysis for large-scale biological data. Giovanni holds a M.Sc. from Utrecht University, Netherlands, and a B.Sc. from University of Trento, Italy. He also researched at EMBL Heidelberg and Novartis Institute for Biomedical Research in Basel, Switzerland.



**Tancredi Massimo Pentimalli**

Doctoral candidate (Systems biology) at the Max-Delbrück-Center for Molecular Medicine (MDC) in Berlin



Tancredi Massimo Pentimalli aims to combine his medical background with data science and bioinformatics approaches to tackle the complexity of tumors to identify novel therapeutics. He has been working in the single cell and spatial transcriptomics field, first as a Summer Intern and now as a doctoral candidate at MDC. Also, he teaches research skills and bioinformatic analyses. Previously at the University of Rome 'La Sapienza', he studied Medicine and Surgery and attended the interdisciplinary Superior School of Advanced Studies. He was included in the National Registry of Excellency of the Italian Ministry of Education for study merits, and he was awarded the title of 'Excellent Graduate' by the University of Rome 'La Sapienza'.

Enja Lauren Rösch

Doctoral candidate (Electrical engineering) at the Technical University of Braunschweig



Enja Rösch has studied Electrical Engineering (B.Sc.) and Industrial Engineering (M.Sc.) at the Technical University of Braunschweig. She was awarded with the Walter-Kertz study award for her master's thesis. In addition, she has gained intercultural experience during a semester abroad in China and an internship in India. She is a doctoral candidate at the Institute of Electrical Measurement Science and Fundamental Electrical Engineering, where she is involved in the development of magnetic nanoparticle-based detection of pathogen specific targets, such as antigens and nucleic acids. Moreover, she is involved in teaching and supervision of students.



**Oskar Staufer**

Postdoc (Synthetic Biology) at the Max-Planck-Institute (MPI) for Medical Research in Heidelberg



Oskar Staufer focuses on the design and assembly of synthetic tumor immune environments. He performed his doctorate focusing on the application of bottom-up synthetic biology principles for biomedical purposes. He developed a fully synthetic extracellular vesicles and showed their application for wound healing therapy. Moreover, he constructed fully synthetic SARS-CoV-2 virions to understand the role of fatty acid binding by the spike proteins in immune evasion during COVID-19. He was awarded the Otto Hahn Medal of the MPS, the young investigator award from the Society of Extracellular Vesicles, and fellowships from the Hartmut Hoffman-Berling Graduate School and the Max Planck School.

**Marco Stock**

Doctoral candidate (Bioinformatics) at Helmholtz Center in Munich



Marco Stock has joined the Helmholtz Center Munich as a doctoral candidate. For his doctoral project he focuses on the identification of transcription factors that represent barriers for cellular reprogramming during nuclear transfer in *Xenopus laevis*. To achieve this goal, he applies machine learning methods to single-cell *omic* datasets. Previously, he studied electrical engineering and practical computer science. In addition, he is also part of the Munich School of Data Science (MUDS) joint graduate school.



**Marleen Stuhr**

Postdoc (Ecology) at the Leibniz-Center for Tropical Marine Research in Bremen



Marleen Stuhr research focused on the effects of climate change, i.e., ocean warming and acidification, on important photosymbiotic carbonate producers. Further, she was awarded a Postdoctoral Fellowship of the Minerva Foundation to study foraminiferal community in the northern Red Sea. Working at the Inter-University Institute for Marine Sciences in Israel, she, also conducted long-term experiments on differently thermo-resistant corals to understand their bleaching response and subsequent recovery processes across multiple biological levels. Additionally, she participated in scientific diving and shipboard expeditions, being involved in projects on reef carbonate budgets, reef manta rays, seagrass and macroalgae.

**Oleg Vinogradov**

Doctoral candidate (Neuroscience) at the University of Tübingen



Oleg Vinogradov studies the collective dynamics of neuronal networks utilizing mechanistic modeling and machine learning techniques. His main focus is on inference of models of network bursting activity. This type of collective activity robustly emerges in many in vitro neuronal networks, used in both basic and clinical research. Oleg's work relies on the integration of experimental data and theory. The Add-on Fellowship allows him to organize a series of internships to learn first-hand modern wet-lab techniques and try to use the theoretical insights in a closed loop with experiments.

**Maik Wolfram-Schauerte**

Doctoral candidate (Biochemistry) at the Max-Planck-Institute (MPI) for terrestrial microbiology in Marburg



Maik Wolfram-Schauerte is working on elucidating the roles of epitranscriptomic modifications on interactions between prokaryotic hosts and their viruses. He studied Molecular Biotechnology (B. Sc.) and Biochemistry (M. Sc.) at Heidelberg University where he focused on epitranscriptomics and post-translational protein modifications. During his studies, the Studienstiftung des deutschen Volkes e.V. supported him with a scholarship. In addition, he was involved in teaching and mentoring at Heidelberg University. As a member and speaker of the students' parliament, he participated in university politics.

**Congcong Zheng**

Doctoral candidate (Plant sciences) at the Forschungszentrum Jülich und at the Rheinische Friedrich-Wilhelm's-University of Bonn



Congcong Zheng investigates root biology and plant phosphorus uptake via roots in the research field of plant biology and agriculture. Previously graduated from Northeast Normal University, China, with a master's degree focusing on biodiversity, root phosphorus uptake and soil salinity. He was a member of the International Society for Root Research and were awarded the Ambassador of the 11th Symposium of the International Society for Root Research (ISRR11) in 2021.

**► Ansprechpartner**

Dr. Philipp Gieseemann

Projektmanager

+49 40 533295-70

pgieseemann(at)joachim-herz-stiftung(dot)de

Karin Liao

Projektmanagerin

+49 40 533295-97

kliao(at)joachim-herz-stiftung(dot)de