

DR. THEDA U. P. BARTOLOMAEUS

tup.bartolomaeus@gmail.com
orcid id 0000-0002-5156-7184
[website](#)

POSTDOCTORAL RESEARCHER

RESEARCH INTEREST

I am a full-stack systems biologist with profound practical experience in both wet lab platforms and bioinformatics, with a special interest in the effects of climate change on environmental microbiomes. I am also very passionate about science communication and public engagement.

SKILLS

Wet Lab - metagenomic sample collection/ processing, qPCR, flow cytometry, DNA processing for metagenomic sampels, laboratory animal handling

Dry Lab - data integration, statistical analysis, and data visualisation in R, network co-occurrence analysis, longitudinal modelling, confounder analysis, machine learning

Grant writing/ project development and research collaborations (DAAD, DFG)

Science communication, teaching and supervision of Bachelor (4), Master students (2) and PhD (1)

Language:
German (native)
English (C1)
French (B1)
Norwegian (A1)

Programming:
Rstudio (Advanced)
Perl (Basis)
Python (Medium)
Bash (Medium - Advanced)

THIRD-PARTY FUNDING

Since 09/2024
VasBio - Biomarkers for Vascular Phenotypes
71.100 Euro
Since 07/2019
First Translational Study Call - Clinical Research Unit (CRU)
50.000 Euro

EDUCATION

DOCTORAL STUDIES

08/2019 - 02/2025

Experimental and Clinical Research Center a joint venture of Max Delbrück Center for Moleculare Medicine and Charité Univeritätsmedizin Berlin

Magna Cum Laude

Submitted in 09/2023 and defended in 10/24

Title: Technical confounders in microbiome studies – examples from fecal and sputum microbiome research

Supervisors: Prof. Dr. Sofia K. Forslund-Startceva, PD Dr. Enno Klussmann, PD Dr. Lajos Markó

DIPLOM (MSc EQUIVALENT) FOODCHEMISTRY

10/2014 - 07/2019

Technische Universität Berlin, Berlin, Germany

Title: Comparison of Different Methods for the Analysis of Gut Microbiome Composition

Appraised: Prof. Dr. Hajo Haase

STATE-CERTIFIED TECHNICAL ASSISTANT FOR CHEMICAL AND BIOLOGICAL LABORATORIES

08/2011 - 06/2013

Lette Verein (Berufsausbildungszentrum, Stiftung des öffentlichen Rechts), Berlin, Germany

CAREER HISTORY

POSTDOCTORAL FELLOW

since 09/2025

DSTrain

CEES - Center for Ecology and Evolutionary Synthesis
The Faculty of Mathematics and Natural Science
University of Oslo

RESEARCHER ASSISTANT

since 06/2024

AG Müller/Dechend
Experimental and Clinical Research Center a joint venture of Max Delbrück Center for Moleculare Medicine and Charité Univeritätsmedizin Berlin

RESEARCH ASSISTANT/GRADUATE STUDENT

07/2019 - 05/2024

AG Forslund
Experimental and Clinical Research Center a joint venture of Max Delbrück Center for Moleculare Medicine and Charité Univeritätsmedizin Berlin

TECHNICAL ASSISTANT

07/2013-09/2014

Bilacoon GmbH, Berlin, Germany

INTERNSHIP

01/2013-04/2013

Station biologique de Concarneau, Concarneau, France
Phylogenetic analysis of fish species (Leonardo da Vinci Program der EU)

MEMBERSHIPS

Deutsches Zentrum für Herz-Kreislauf
Forschung (Young DZHK)

Scandinavian Physiological Society

Freundeskreis Max-Delbrück-Center for
Molecular Medicine

Deutschen Zoologischen Gesellschaft

ALUMNI

Silbersalz Institut Science - Art

AWARDS & HONORS

Young Investigator Award
Deutsche Hochdruck Liga, Berlin,
Germany

MDC Postdoc Prize 2024

TEACHING & SUPERVISION

Exploratory Analysis of Biological Data with
R workshop
Carpentries workshop at Max Delbrück
center Berlin

since 2020:
Supervision of Bachelor (4) and Master
(2) Students

PRESENTATIONS, POSTERS & WEBINARS

Nexus between nutrition, microbiome, immune cells and
cardiovascular health (Lecture) 2025

*Student lecture, AG Kleinewietfeld, VIB Laboratory for Translational
Immunomodulation, Hasselt, Belgium*

Gut microbiota and CVD From bench to bedside (Lecture)

*Spring school Bridging Basic and Clinical Science in Cardiovascular
Biology, Metabolism & Atherosclerosis, Taunus, Germany*

Nexus between nutrition, microbiome, immune cells and
cardiovascular health (Lecture) 2024

*Student lecture, AG Kleinewietfeld, VIB Laboratory for Translational
Immunomodulation, Hasselt, Belgium*

The Hitchhiker's Guide to Metagenomics: Computational
Paths Through Ecosystems (Lecture)

*AG Seminar, Evolution und Biodiversität der Tiere, Georg-August-
Universität Göttingen, Germany*

The Microbial Palette of *Coelopa frigida*: A Dive into the
Trophic Specialization of Kelp Flies (Poster)

EuroEvoDevo Conference, Helsinki, Finland

Nexus between nutrition, microbiome, immune cells and
cardiovascular health (Lecture)

*Student lecture, AG Kleinewietfeld, VIB Laboratory for Translational
Immunomodulation, Hasselt, Belgium*

Integrative Machine Learning Approach for Identifying Novel
Biomarkers Using Multiomics Dataset (Poster) 2023

DHL Kongress, Berlin, Germany

Overcoming Obstacles in Microbiome Analysis: Lessons from
Fecal and Sputum Studies (Poster)

*Bacterial Genetics and Ecology (BAGECO) in Copenhagen,
Denmark*

Growing Up Microbiologically: Airway Microbiome Changes
in Preterm Infants Over Time (Poster)

*Cell Symposia: Infection biology in the age of the microbiome in
Paris, France*

Renoprotective effect of PDE3a mutation in a rat model of
chronic kidney disease (Young Investigator Award),
(Presentation) 2022

DHL Kongress, Berlin, Germany

Renoprotective effect of PDE3A mutations in a rat model of
chronic kidney disease, (Poster)

ASN Kidney Week, Orlando, USA

Sputum microbiome and Chronic Obstructive Pulmonary
Disease in a rural Ugandan cohort of well-controlled HIV
infection, (Poster)

Young-DZHK-Retreat 2022, Potsdam, Germany

How to study the microbiome? The confusion with methods,
preprocessing and confounders, (Webinar) 2021

*AG Seminar, Evolution und Biodiversität der Tiere, Georg-August-
Universität Göttingen, Germany*

Quantifying Technical Confounders in Microbiome Studies
(Poster) 2020

*Next Gen Immunology Conference, Weizmann-Institute, Rehovot,
Israel*

PRESENTATIONS, POSTERS & WEBINARS

Quantifying technical confounders on microbiome studies,
Fecal DNA extraction influence microbiota-cardiovascular risk
associations, (Webinar)

2019

*Epidemiology Seminar AG Pischon, Max-Delbrück-Center for
Molecular Medicine, Berlin, Germany*

Quantifying technical confounders on microbiome studies:
The COLLECT trial, (Presentation)

*Wollenberger seminar, Max-Delbrück-Center for Molecular
Medicine, Berlin, Germany*

PUBLIC OUTREACH

Biopolis - science podcast and immersive audio experience with <u>studio onzichtbaar</u> (Co-creator) (<u>Spotify</u>) <i>Berlin, Germany and Leiden, Netherlands</i>	2025
<u>scienceCLASH</u> – Neugier trifft Wissenschaft (Podcast contributor) <i>Berlin, Germany</i>	
Die verborgene Welt des Mikrobiomes - von menschlicher Gesundheit bis zum globalen Ökosystem <i>Lange Nacht der Wissenschaft, Berlin, Germany</i>	2024
Wer hat das Sagen in uns? Die unsichtbare Macht der Mikroben in unserem Körper <i>Music meets <u>Science</u>, Berlin, Germany</i>	
Untersuchen anhand von Computermodellen, wie Herz-Kreislauf-Leiden das Leben im Darm beeinflussen und umgekehrt (Talk/Teaching) <i>Girls day, Berlin, Germany</i>	
Metaorganismus Mensch und wie neue Techniken ein Forschungsgebiet revolutionieren (Webinar) <i><u>Labor trifft Lehrer, Max-Delbrück-Center for Molecular Medicine, Berlin, Germany.</u></i>	2023
Kochen für das Mikrobiom (Talk) <i><u>Silbersalz Festival, Halle, Germany.</u></i>	
People of Science(Podcast) <i><u>ZDF/Arte, Deutschland Funk Kultur und Autentic, Germany.</u></i>	
Untersuchen anhand von Computermodellen, wie Herz-Kreislauf-Leiden das Leben im Darm beeinflussen und umgekehrt (Talk/Teaching) <i><u>Girls day, Berlin, Germany</u></i>	
Cooking for the microbiome (Talk) <i><u>Science week Berlin, Berlin, Germany.</u></i>	2022
Metaorganismus Mensch und wie neue Techniken ein Forschungsgebiet revolutionieren (Webinar) <i><u>Labor trifft Lehrer, Max-Delbrück-Center for Molecular Medicine, Berlin, Germany.</u></i>	
Mikrobiomeanalyse – Quantifizierung von technischen Einflussfaktoren (Talk) <i><u>MINT-EC-Digitalforum 2020 am Max-Delbrück-Centrum für Molekulare Medicine, Berlin, Germany.</u></i>	2020
Cooking for the microbiome (Talk) <i><u>Science week Berlin, Berlin, Germany.</u></i>	
