

# DR. THEDA U. P. BARTOLOMAEUS

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[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)

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## MEMBERSHIPS

Deutsches Zentrum für Herz-Kreislauf  
Forschung (Young DZHK)

Scandinavian Physiological Society

Freundeskreis Max-Delbrück-Center for  
Molecular Medicine

Deutschen Zoologischen Gesellschaft

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## ALUMNI

Silbersalz Institut Science - Art

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## AWARDS & HONORS

**Young Investigator Award**  
Deutsche Hochdruck Liga, Berlin,  
Germany

MDC Postdoc Prize 2024

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## 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

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## 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*

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## 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*

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