



# Meeting StEvE 2024

Annual meeting of  
**St**udents in **Ev**olution and **E**cology

22<sup>nd</sup> of November 2024

Alte Aula, University of Tübingen  
Tübingen



EBERHARD KARLS  
UNIVERSITÄT  
TÜBINGEN



## Meeting StEvE 2024

The meeting of Students in Evolution and Ecology (Meeting StEvE) provides a yearly opportunity for postgraduate students from within Tübingen to present their research projects, exchange ideas, and receive feedback from senior scientists and fellow students in a pleasant and multidisciplinary atmosphere.

The Meeting StEvE 2024 is organized by the Archaeo- and Paleogenetic research group. Oral and poster presentations will cover multiple interdisciplinary fields within evolution and ecology.

We are glad to welcome the speaker of this year's Hilgendorf Lecture Dr. Denise Kühnert, head of the Transmission, Infection, Diversification & Evolution (tide) research group at the Max Planck Institute for Geoanthropology in Jena, and the Phylogenomics research group at the Centre for AI in Public Health Research, Robert Koch Institute, in Berlin. Dr. Kühnert is a computational biologist with a research focus on the development of phylodynamic methods for the analysis of infectious disease dynamics across wide timescales. He will present an overview of her extensive work in a talk entitled: ***"Tracking the evolution and epidemiology of infectious disease agents over months, years and millennia"***.

We gladly welcome your participation and contributions to another successful Meeting StEvE!

**The event is hosted by the Archeo- and Paleogenetics group.**

**Organizers:** Michal Feldman, Emily Gaul, Kim-Louise Krettek, Caitlin Mitchell, Cosimo Posth, Ella Reiter, Maria Spyrou, Freya Steinhagen, Britta Van-tiel, Sonia Varandas, Arianna Weingarten, Orhan Efe Yavuz

**Participating working groups** (from the University of Tübingen, unless stated otherwise):

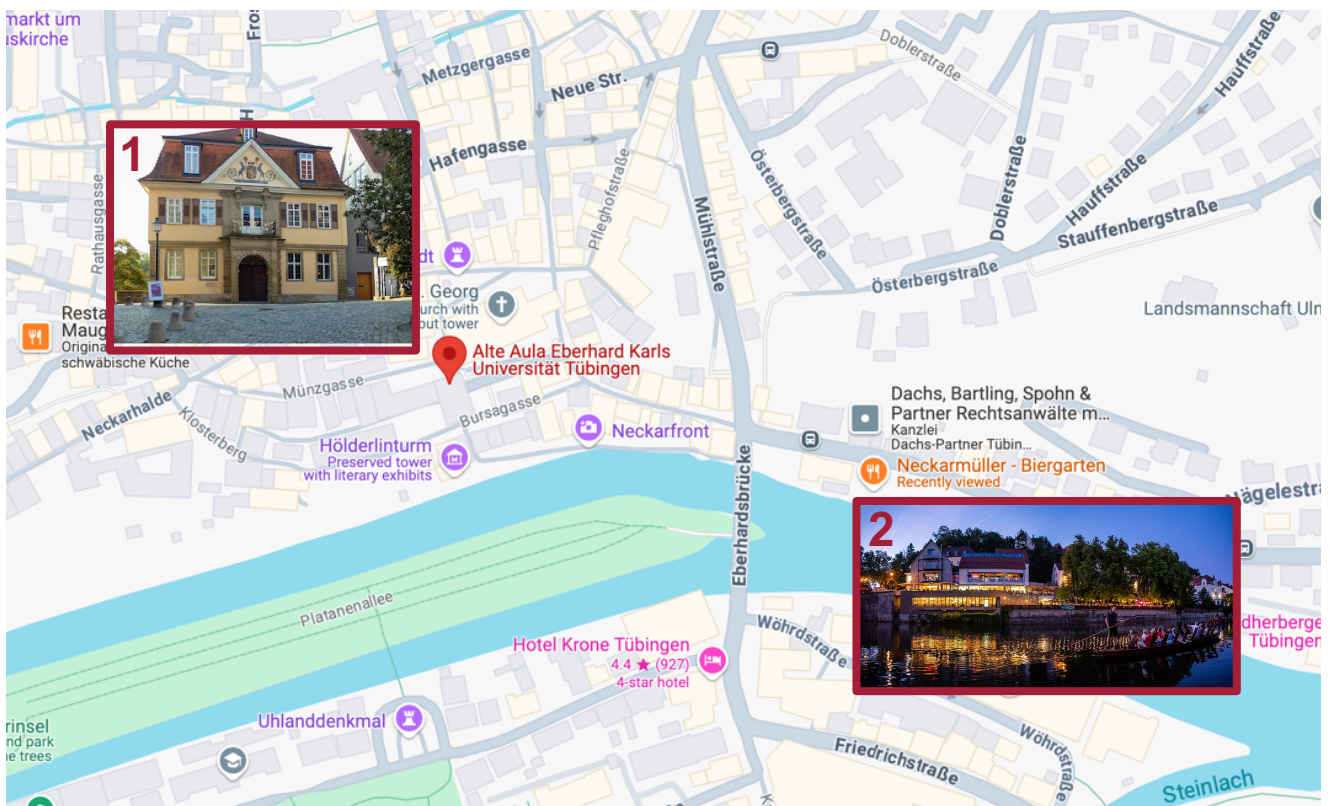
Animal Evolutionary Ecology  
Animal Physiological Ecology  
Archaeo- and Palaeogenetics  
Biogeology  
Comparative Zoology  
Early Prehistory and Quaternary Ecology  
Evolutionary Biology of Invertebrates  
Geoarcheology  
Geography  
Glaciology  
Micropaleontology  
MPI for Biology, Tübingen  
Paleoanthropology  
Plant Ecology  
Plant Evol. Ecology  
Terrestrial Paleoclimatology  
University of Applied Forest Science, Rottenburg

## Practical information: how to find your way

**Main venue:** 09:00 – 18:30, Festsaal of the Alte Aula, Münzgasse 30  
(**location 1**)

- Registration: Entrance Hall
- Presentations: Festsaal, ground floor
- Coffee break: Entrance Hall

**Evening party:** 19:00 – 21:30, Neckarmüller, Gartenstrasse 4, 72074,  
Tübingen (**location 2**)



## Practical information: presenters and participants

**Talk preparation and presentation:** All presentations will run from a single computer to prevent time loss while changing speakers. Prepare your presentation in PowerPoint or export it into PDF (to be shown in full-screen mode). Note that PDFs will run more reliably across platforms than PowerPoint presentations. You can still “animate” your pdf by building up changes over several slides rather than within a slide (as you would in .pptx). Please use **font sizes  $\geq$  18 pt**. We will provide an external microphone to improve the sound quality. Please hand in your presentation on a **USB-Stick well in time before** your session starts to check that your presentation runs properly. It is also possible to hand in your presentation a couple of days in advance via **WeTransfer** to Caitlin Mitchell ([caitlin.mitchell@uni-tuebingen.de](mailto:caitlin.mitchell@uni-tuebingen.de)). This option is preferred for presentations in the first session. Presenters will be given **15 min** to give their talk, followed by **5 min** discussions. The session chair keeps track of time and makes sure that the audience has a chance to ask questions.

**Poster preparation:** Upon arrival, posters can be placed on the posterboards near the registration desk. The posterboards will be numbered (1-6), please place your poster on the correct posterboard. Poster numbers are given in the Poster abstract section of this booklet in front of the presentation title.

**Beverages during the meeting:** we offer free tea, coffee and refreshing drinks, snacks, and finger food lunch during breaks in the entrance hall.

**Evening Party:** All participants who registered are invited to attend the informal meeting dinner at the Neckarmüller, from 19:00 to 21:30. A light meal and one drink are offered free of charge.

**Emergency:** for medical and fire emergencies, call 112 (mobile) or 70112 from a fixed university phone.

## StEvE Keynote Speaker

### Hilgendorf Lecture

#### Dr. Denise Kühnert

Transmission, Infection, Diversification & Evolution (tide) research group, Max Planck Institute for Geoanthropology, Jena, Germany; Phylogenomics research group, Centre for AI in Public Health Research, Robert Koch Institute, Berlin, Germany



## Tracking the evolution and epidemiology of infectious disease agents over months, years and millennia

Understanding the dynamics of infectious diseases is of profound significance to public health. This talk explores the evolution and epidemiology of infectious disease agents over broad timescales - ranging from months and years to millennia. It begins with a discussion of the short-term evolutionary dynamics and spreading patterns of diseases, focusing on phenomena such as variant-based transmission advantages. Shifting to a longer perspective, we zoom in on the evolution and population dynamics of Lassa virus and demonstrate how machine learning enables rapid classification of viral lineages and identification of lineage-defining virus substitutions. Lastly, we examine the evolutionary history of Hepatitis B virus over millennia. Throughout, the talk highlights the strength of integrating evolutionary insights with epidemiological studies to enhance our understanding of infectious diseases.

## Meeting Program Overview

08:30 – 09:00	<b>Registration</b>
09:00 – 09:15	<b>Welcome</b>
Session 1 (Chair: Cosimo Posth)	
09:15 – 09:40	<b>Maud Moes</b> Does grazing management modify plant biodiversity response to drought in eastern mediterranean ecosystems?
09:40 – 10:05	<b>Johanne Gresse</b> Identifying the ecological drivers of stability in species-rich communities in drylands
10:05 – 10:30	<b>Frank Reis</b> Age and genotype of <i>Lotus corniculatus</i> influence its microbiome
10:30 – 11:00	<b>Coffee Break</b>
Session 2 (Chair: Michal Feldman)	
11:00 – 11:25	<b>Jun Hee Jung</b> How does <i>Arabidopsis thaliana</i> microbiome respond to the fluctuating temperature?
11:25 – 11:50	<b>Heiko Hinneberg</b> Conservation of an endangered forest butterfly: Understanding population demography and its drivers
11:50 – 12:15	<b>Saudat Alishayeva</b> Flight, Form, and Fitness: Developmental Stability Shapes Phenotypic Robustness in <i>Drosophila melanogaster</i>
12:15 – 13:30	<b>Lunch Break</b>
Session 3 (Chair: Maria A. Spyrou)	
13:30 – 13:55	<b>Lea von Berg</b> InsectMow – Development and Evaluation of insect- and spider-friendly mowing technique
13:55 – 14:20	<b>Angèle Lombrey</b> Individual differences and plasticity in the communicative behaviour of captive and semi-wild chimpanzees ( <i>Pan troglodytes</i> )
14:20 – 14:55	<b>Gabriele Russo</b> Middle Paleolithic Hominin Ecology and Subsistence in the Central Levant
14:55 – 15:20	<b>Emily Gaul</b> Ancient <i>Yersinia pestis</i> genomes from the Lazzaretto Vecchio plague hospital of Venice
15:20 – 16:30	<b>Poster Session</b> with Coffee Break
16:30 – 17:30	<b>Keynote: Dr. Denise Kühnert (Hilgendorf Lecture)</b> Tracking the evolution and epidemiology of infectious disease agents over months, years and millennia
17:30 – 18:00	EVEREST updates: information for students and faculty
18:00 – 18:15	Prizes and final remarks
19:00 – 21:30	Evening dinner and party (Gasthausbrauerei Neckarmüller)