

Looking for a Master thesis project or 6 months Intern?

Join our project on the role of chemical cues for advertising female fertility in chimpanzees (*Pan troglodytes*)

In great apes, only few studies addressed the importance of body odour at all. Chimpanzees, for example, inspect their conspecifics' body odour in social as well as sexual contexts. Hence, olfactory cues appear to be relevant in chimpanzees even though they display sexual swellings. In particular, it has been suggested that visual signals in anthropoid primates may advertise the approximate time of the fertile period to all males, while body odour could provide *more precise information* to consorting males at close range. To assess if female chimpanzees have a chemical fertility cue, we will conduct two projects: I) analysing the chemical basis and II) testing the perception of odour cues via bioassays (see below).



We already collected all odour samples from female chimpanzees over their menstrual cycle as well as samples to determine the exact timing of ovulation via salivary progesterone. We currently run the first part of the study (investigating the chemical basis) by analysing odour samples via GC-MS (led by Dr. Marlen Kücklich, Behavioural Ecology, UL) to investigate the fertility-related variation in profile composition. With the other part of the odour samples, we now aim to conduct the second part of the study (whether males can perceive olfactory variation between different cycle stages). This will involve:

1. establishing the exact day of ovulation based on salivary progesterone (led by Prof. Almuth Einspanier, VetMed, UL)
2. conduct bioassays, i.e. present paired odour samples of females to males (fertile vs non-fertile) and score male behaviour (type of response, latency and duration) from video recordings (led by the Master student)

The task of the Master student will include interpreting hormone data, communicating with zoological institutions where we could test male chimpanzees, conducting bioassays, and subsequently analysing the bioassay data.

Start earliest in November 2024 in the Behavioural Ecology group at UL (Prof. Anja Widdig). Requirements: ability to work independently, good organizational skills, R skills, and ideally, prior experience in animal training.

For questions or application, please contact Prof. Anja Widdig (anja.widdig@eva.mpg.de) and Dr. Marlen Kücklich (marlen.kuecklich@uni-leipzig.de).