# Intermediate meta-analysis of data from animal studies in R

## Course Lecturers:

Dr Daniel Schulze (Institut für Biometrie und Klinishce Epidemiologie) & Dr Alexandra Bannach-Brown (BIH QUEST Center)

## Location:

Online via MS Teams

## Dates:

Wednesday 25th June & Thursday 26th June, from 12pm-5pm CEST

## Course Schedule:

💬 **Pre-Course Drop-In Session for Setup & Tech Support** *(Optional)*

Monday 16th June, 12-13 CEST, online via MS Teams: Click here to join the meeting
Monday 23rd June, 12-13 CEST, online via MS Teams: Click here to join the meeting

*Day 1 (Live on MS Teams)*

*Theme: Foundations + First Meta-Analysis in R*

| Time | Session | Type |
|------|---------|------|
| **12:00** | Introduction | Lecture |
| **12:30** | Clarifying data types, outcomes, and effect sizes | Lecture |
| **13:15** | Data extraction from primary animal studies | Exercise (Breakout groups) |
| **13:45** | **Break - 15mins** | |
| **14:00** | Calculating effect sizes (manually + in `metafor`) | Lecture + Exercise (R code-along) |
| **14:45** | Running a meta-analysis in R: defaults & settings | Lecture + Exercise (R code-along) |
| **15:30** | **Break - 15mins** | |
| **15:45** | Forest plots: defaults + customization | Lecture + Exercise (R code-along) |
| **16:30** | Wrap-up & Q&A | Whole-group Discussion |

*Day 2 (Live on MS Teams)*

*Theme: Advanced Analysis + Interpretation*

| Time | Session | Type |
|------|---------|------|
| **12:00** | Heterogeneity in animal studies | Lecture |
| **12:30** | Meta-regression: Models & explaining heterogeneity | Lecture |
| **13:30** | **Break - 15mins** | |
| **13:45** | Running meta-regression models + plotting | Lecture + Exercise (R code-along) |
| **14:45** | Troubleshooting & common obstacles | Lecture + group Discussion |
| **15:00** | **Break - 15mins** | |
| **15:15** | Risk of Bias & sensitivity analysis | Lecture |
| **15:45** | Funnel plots in R | Lecture + Exercise (R code-along) |
| **16:15** | Course Wrap-up, Q&A, Feedback | Whole-group Discussion |

Contact Email:

For more information, please contact Dr Alexandra Bannach-Brown at CAMARADES.berlin@charite.de