March 15th, 2017

MASTER THESIS

“Uncovering behavioural influences of stress-relevant genes using non-human primate models”
start: April, 2017

Study aim:
DNA analyses and transcript profiling of genes like COMT, FKBP5, MAOA and MAOB important for response of the hypothalamic-pituitary-adrenal (HPA)-axis in species of the genus Macaca

Requirements:
✓ Theoretical and practical knowledge in molecular biology
✓ Interest in interdisciplinary research with a focus on behavioural genetics
✓ High communication skills and team spirit

Methods:
✓ DNA isolation
✓ Target gene amplification by PCR and long-range PCR
✓ Sanger sequencing
✓ Quantitative PCR (qPCR) and quantitative reverse transcription PCR (RT-qPCR)
✓ In silico prediction of structural and functional effects caused by the genetic variants
✓ Haplotype analysis
✓ Statistical analyses

Literature