



## Rebecca Fritz

### TÄ Rebecca Fritz

Doctoral student

#### Project:

Brain morphology, age and cognition in a non-human primate (*Microcebus murinus*).

A steadily aging population, demographic change and therefore an increase in age related brain alterations and neurodegenerative pathologies such as Alzheimer Disease (AD) have evolved into a growing need for research that we are facing in the 21st century.

In the field of aging research, one of the world's smallest primate species, the grey mouse lemur (*M. murinus*), is gaining attention as a non-human primate model as it shows markers of senescence very similar to humans.

By using MRI scans of around 50 individuals' brains, specific cerebral regions and possible brain atrophies are being measured in size and cortical thickness. These measurements will then be analyzed on further influences such as age and gender, followed by a comparison with age-associated, standardized data from touchscreen based cognitive tests which have been completed in previous studies at the Institute. The aim of this project is therefore to find correlations of cerebral alterations and age-related cognitive impairments.

Combining structural MRI studies and cognitive tests on the effect of age on brain atrophies and potential neuro-anatomical markers in *M. murinus* will hopefully then contribute to further research of neurodegenerative diseases.



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### Professional and scientific career

Since 06.2018

Doctoral thesis at the Institute of Zoology (University of Veterinary Medicine Hannover): Brain morphology, age and cognition in a non-human primate (*Microcebus murinus*). Supervision: Prof. Dr. Elke Zimmermann, Dr. Daniel Schmidtke

#### 05. - 06.2017

Veterinary externship at Calgary Zoo, AB, Canada

#### 2011 - 2018

Study of veterinary medicine at the University of Veterinary Medicine Hannover, Germany

#### 06. - 07.2011

Externship on animal behavior at Dolphins Plus, research and training facility for bottlenose dolphins (*Tursiops truncatus*) in Key Largo, FL, USA

#### 2011

Abitur at Goldberg-Gymnasium Sindelfingen, Germany

### Teaching

Since 05.2018

Assistant at the Institute of Zoology (University of Veterinary Medicine Hannover) in the course Tropical wildlife in biosciences and biomedical research: model system mouse lemur, tree shrew and bat.

Assistant in the zoo course for biology students.

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