M.Sc. Laboratory Animal Science
Executive Master Program
A two year, part-time study program for professionals, starting in September

Thinking the Future
Zukunft denken

RWTH International Academy
www.MSc-Lab-Animal.com
Ethics and Legislation in Relation to the Use of Laboratory Animals
Module 1: Ethics & Philosophy; National and International Law
Module 2: Regulatory Affairs

Management & Planning of Animal Facilities and Animal Experiments
Module 3: Biostatistics & Biometrics; Design and Evaluation of Animal Experiments; Architecture; Facility Design; Financial and Hygiene Management
Module 4: Alternatives to Animal Experiments

Laboratory Animal Science
Module 5: Genetics & Breeding; Anatomy & Physiology
Module 6: Pathology & Diseases; Biochemistry, Hematology and Molecular Biology in Laboratory Animal Science
Module 7: Animal Models in Biomedical Research; Anesthesia & Experimental Surgery

Electives
Module 8: Applied Anesthesia and Microsurgery incl. Medical Technology & Imaging
or
Module 9: In vivo Pharmacology and Applied Toxicology

Master Thesis
Module 10: Master Thesis
Introduction
M.Sc. Laboratory Animal Science

Course Format
The M.Sc. Laboratory Animal Science is a two year, part-time study course. A blended learning concept, incorporating e-learning with short attendance blocks, enables participants to receive the highest level of academic and practical training whilst limiting time away from home and work.

The course starts with an opening day in September during which students officially enroll, receive an introduction to the e-learning system and facilities, and get to know one another.

In the first three semesters, twice weekly webinars are held outside regular office hours. These webinars are supported by an e-media skills lab and further complemented by literature reviews and homework. At the end of each of these semesters there is a compulsory 9-10 day attendance block in Aachen. Each attendance block incorporates two weekends and the working week and provides practical and clinical skill training under expert supervision, group discussions, case studies and excursions to leading laboratory animal science facilities, e.g. House for Experimental Therapy (HET) at the University of Bonn’s University Hospital and the German Primate Center (DPZ) in Gottingen.

The fourth semester is dedicated to the completion of a scientific master thesis.

Your Benefits
- Independently plan, conduct, evaluate and improve animal experiments, generating scientific data to the highest standards using specialist knowledge and the latest methodology.
- Ensure that the 3Rs and EU directive 2010/63 are central in the planning and design of experiments and that alternatives are considered.
- Receive an accredited M.Sc. qualification from a leading university for access to a wide range of careers in Laboratory Animal Science.
- Access to a network of internationally renowned specialists.
- Study a broad range of species, from rodents to non-human primates.

Qualification
Successful graduates are awarded the academic title, Master of Science (M.Sc.) by RWTH Aachen University. 90 ECTS Credit points are attributed to this program. Veterinarians licensed in Germany can apply for 483 ATF points from the German Federal Veterinary Chamber.

Career Prospects
There is acute demand from industry, research institutions and the regulatory authorities for highly skilled personnel to lead and manage their laboratory animal research activities in a highly competent manner. Graduates of this M.Sc. program will be well equipped to take on leading roles and will be highly sought after. Furthermore, graduates of the RWTH Aachen, one of Germany’s Universities of Excellence, are highly regarded by employers.

Entry Requirements
The program is aimed at scientists, doctors and veterinarians, who plan, conduct and evaluate animal experiments and facilities. Applicants should hold a degree in medicine, veterinary medicine, biological science or a related subject and ideally have three years of relevant work experience. As the course will be conducted in English proof of English language ability is also required.
Lecturers
Scientific Directors

RWTH Aachen University
Prof. Dr. René H. Tolba
PD Dr. Julia Steitz

Lecturers & Guest Lecturers

RWTH Aachen University
Prof. Dr. Malte Brettel
Prof. Dr. Dominik Gross
Dr. Nicole Heussen
Prof. Dr. Ralf-Dieter Hilgers
Prof. Dr. Stefan Jockenhövel
Prof. Dr. Fabian Kiessling
Dr. Babette Kögel
Prof. Dr. Twan Lammers
PD Dr. Christian Martin
Dr. Andreas Teubner

German Institute of Human Nutrition (DIfE) Potsdam
Dr. Reinhart Kluge

German Cancer Research Center (DKFZ) Heidelberg
Prof. Dr. Kurt Reifenberg

German Primate Center (DPZ), Göttingen
Prof. Dr. Franz-Josef Kaup

Hannover Medical School
Prof. Dr. André Bleich

University of Veterinary Medicine Hannover
Prof. Dr. Hansjoachim Hackbarth

University of Duisburg-Essen
Prof. Dr. Gero Hilken

Utrecht University
Prof. Dr. Merel Jelmera Ritskes-Hoitinga

University of Veterinary Medicine, Vienna
Prof. Dr. Thomas Rülicke

Justus Liebig University Giessen
Prof. Dr. Gerhard Schultheiß

Philipps University Marburg
Dr. Cornelia Exner
Dr. Nicole Linklater

Max-Planck-Institute for Biochemistry, Munich
Prof. Dr. Heinz Brandstetter

University of Zurich
PD. Dr. Margarete Arras

BioDoc Biomedical Diagnostics, Hannover
Apl. Prof. Dr. Michael Mähler

Agaplesion Markus Krankenhaus, Frankfurt
Prof. Dr. med. Ahmet Bozkurt

Further lecturers and specialists to be confirmed.

Further details
www.MSc-Lab-Animal.com

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