

Dr. Abdelraheim Attaai

Department of anatomy and Histology
Assiut University, Assiut, Egypt
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Education & Qualification:

Year	Qualification	Institution
2023-	Assistant Professor of Anatomy, Embryology and Histology	Dept. of Anatomy and Histology, Faculty of veterinary medicine, Assiut University, Egypt
2018-2023	Assistant Professor of Anatomy, Embryology and Histology	Dept. of Anatomy and Histology, Faculty of veterinary medicine, Assiut University, Egypt
2014-2018	PhD of neuroimmunology, (Analysis of Microglial Functions in the Developing Nigrostriatal System)	Institute of anatomy and cell biology, Faculty of Medicine, Freiburg University, Germany
2006-2010	Masters of neuroanatomy, (The Comparative Morphological Studies on the Cerebellum in Some Bird Species)	Dept. of Anatomy and Histology, Faculty of veterinary medicine, Assiut University, Egypt
2002	Bachelor's degree of veterinary medicine and animal surgery.	Faculty of veterinary medicine, Assiut University, Egypt

Positions & Academic Degrees:

- Demonstrator, Dept. of Anatomy and Histology, Assiut University 2004-2010.
- Assistant lecturer, Dept. of Anatomy and Histology, Assiut University 2010- 2013.
- Lecturer of Anatomy, Dept. Anatomy and Histology, Assiut University 2018- 2022.
- Assistant professor of Anatomy and Histology. Assiut University 2023-presentt.

Academic & Teaching Experience:

- 20 years experience in teaching anatomy, embryology and histology courses, Assiut University, Egypt.
- Assistance in teaching of histology and cell biology course, Institute of Anatomy & cell biology, Faculty of Medicine, Freiburg University, Germany.

- 1 year teaching of molecular biology course, Institute of Molecular Biology, Assiut University, Egypt.

Administrative and Managerial Experience:

- Coordinator of the Egyptian National Bank for Scientific Laboratories and Equipment.
- Coordinator of veterinary anatomy on the Online Learning Management System.
- Associate editor and Coordinator of the upgrading process of the Assiut Veterinary Medical Journal to the blinded online submission system and to be indexed by Scopus database.
- Member of Assiut University Scientific Equipment Scraping Committee
- Member of the Environment Affairs Committee at the Faculty of Veterinary Medicine

Research experience:

- Bachelor of veterinary medicine and animal surgery + Master and finally the lab animal course (FELASA-Freiburg) made me perfect in anatomy, histopathology, embryology, surgery and handling of lab animals.
- Conventional molecular biology techniques (RNA and DNA isolation, RT-RNA, PCR, western blot, cell culture....ETC).
- Transcardial perfusion for fixation of lab animals (after anesthesia), and dissection of animal bodies, CNS and PNS.
- Preparation of thin/thick histological slides using microtome and vibratome for the whole brain, staining it with general stain, specific stains and immunostaining.
- Using different microscopes (conventional fluorescent, apotome, confocal and light sheet) attend 2 advanced workshops in the most common imaging and analyzing systems such as Axioimage, Zeiss and Leica (see the workshops).
- Performing 3D reconstruction using Imaris software.
- Collection and analysis of biological data using graph pad prism and Excel.
- Photo managing using the Photoshop program.

- Flow cytometry and the responsible person for the flow machine BD-Accuri6 in the Institute of anatomy and Cell Biology, Freiburg.
- Analysis of microarray data after affometrics; clustering and gene ontology using, DAVID or BINGO.
- Clearing tissues using X-clarity and imaging using the light sheet microscope.
- Could work both independently and in teamwork
- Helping my colleagues (Acknowledged in many theses and papers)
- Could meet the deadline in enough time.

Skills

Lab animals: Laboratory Animal Handling, transcardial perfusion, dissection of all organs and tissues of embryo and adult lab animals, domestic animals, birds and fish

Conventional histopathological lab techniques:

Tissue processing, embedding, sectioning (at thick or thin thickness) using vibratome and microtome, conventional staining and immunohistochemistry.

Molecular biology techniques:

In vivo:

genotyping, IHC, RNA and DNA Isolation & purification, Reverse Transcription, PCR, Electrophoresis, Flow Cytometry, and dissecting Embryos.

In vitro:

Cell Culture, Primary cell culture, mixed neuron/glia cell culture, cell harvesting, immunocytochemistry.

Tools & Software:

ImageJ, Imaris, GraphPad Prism, Zen-Blue and Zen-Black, Photoshop, KNIME, clustering and gene ontology using DAVID or BINGO, EndNote, Zotero, Huygens, Image Tools, Scion Image, Microsoft Office

Microscopes:

Most microscopes from Axioimage, Zeiss and Leica such as light, stereo, conventional fluorescent, apotome, confocal and light sheet

Scientific Appreciations (awards, honors & scholarships):

- Scholarship Award from the Egyptian government to conduct the PhD in Germany.
- Leaders Preparation Workshop at Leaders Preparation Academy in Helwan - Egypt (10 – 15 / 4 / 2009).
- Recognized as one of the top student in MSc and BS courses.

Conference Proceedings:

- Talk presentation at the 111th Annual Meeting of the German Anatomical Society (Anatomisches Gesellschaft) held in Gottingen 21-24 / 9 / 2016- Germany.
- A trainer for the African junior researchers at the IBRO-ARC Tunisian School on Fundamentals of Neuroscience, which is organized by the International Brain Research Organization (IBRO) and the University of Sfax in Tunisia- Held in Sfax University from 25th November- 1st December 2019

Certificates & academic achievement:

- Basics of bioinformatics
- Computational molecular biology
- Using Galaxy database for gene sequencing
- Advanced imaging Techniques in Microscopy
- Image analysis using ZEN blue software
- Course on Laboratory animal science (FELASA, Category B)
- Good scientific research
- International Toefl (score 83 points on IBT test).
- IELTS test (score 6.5)
- ICDL (International Computer Driving License).

Supervision

Supervision of 12 different master and PhD students on different topics and projects.

(Data available upon request)

Trainer

Training postgraduates, master, PhD and postdoctoral researcher on different methods and software through coordination and presenting different workshops such as:

1. Investigating and Presenting Transmission Electron Microscopic Pictures
2. Fundamentals of Immunohistochemical Staining
3. Image Analysis Using ImageJ Software
4. Image Processing Using Photoshop Software

Workshops:

- Bioimage Analysis Workshop, 31/01/2017/ 02.02.2017, at the Center for Biological Systems Analysis (ZBSA), Freiburg University, Germany.
- Advanced imaging Techniques in Microscopy from MIAP (Microscopy and Imaging Platform), 28/11/2016/ 02.12.2016, Life Imaging Center, Freiburg University, Germany
- Image analysis using ZEN blue software from MIAP (Microscopy and Imaging Platform), 25-26/10/2016, Life Imaging Center, Freiburg University, Germany
- Course on Laboratory animal science (FELASA, Category B) which is accredited by the German Society for Laboratory Animal Science, 7-9/10/2015 theoretical part and 13-15/01/2016 practical part, Freiburg University, Germany
- Good scientific practice, 6-7 / 7 / 2015, Freiburg University, Germany
- Protein analysis and applications, Center of Molecular Biology, Assiut University 24 - 25 / 10 / 2010
- Basic Principles and Laboratory Techniques on DNA Cloning. Center of Molecular Biology, Assiut University 11 - 13 / 4 / 2006
- Attendance of a number of Faculty and Leadership Development workshops in Assiut University:
 - E-Learning 13 – 15 / 6 / 2009
 - Teaching Preparation Workshop 28 / 6 – 9 / 7 / 2008.
 - Methods of Scientific Research 14 – 16 / 7 / 2007
 - Teaching Using Technology 22 – 24 / 1 / 2007
 - Effective Presentation Skills 19 – 21 / 12 / 2006
 - Upgrading Thinking Skills 2 – 4 / 9 / 2006
 - Effective Teaching 16 - 19 / 7 / 2005

Languages:

Language	Reading	Written	Verbal
English (IELTS 6.5)	Excellent	Very good	Very good
German (A2/2)	Good	fair	fair

Publications:

1. Ali, Abdalla, Ahmed Adawy, Zeinhom Ismaiel, Manal Hussein, and **Abdelraheim Attaai**. "The impact of dietary neem leaf on the growth and biochemical traits of rabbits." *Scientific Reports* 15, no. 1 (2025): 20280
2. Mahmoud, Fatma Abdel-Regal, Nahed Ahmed Shawki, **Abdelraheim H. Attaai**, Amany Mohamed Abdel-Mageed, and Fatma A. Al-Nefeiy. "Comparative Anatomy and Immunohistochemical Study of Eyelids in Two Different Avian Species: Expression of CD20+, CD138+ and CD1a+ Cells in the Mucosa of the Eyelid." *Acta Zoologica* (2025)
3. Wang, Dingfa, Mohamed Sayed, Ali Elsayed Galal, **Abdelraheim Hassan Attaai**, Mohamed Nabil Makled, Abdallah Hassan Hussein Ali, Chen Wei, Mohamed Ahmed Habib, Mostafa Galal Abdelfattah, and Khaled Abouelezz. "The antioxidative properties of thyme, cinnamon, and pomegranate oils in heat-stressed broilers." *Poultry Science* (2025): 105228.
4. Shawki, Nahed Ahmed, **Abdelraheim H. Attaai**, Amany Mohamed Abdel-Mageed, and Fatma Abdel-Regal Mahmoud. "The Role of the Eyelids of the Black-Winged Kite, *Elanus caeruleus* in the Immune Protection of the Eye." *Microscopy Research and Technique* 88, no. 4 (2025): 1207-1222.
5. Nicola, Mariam A., **Abdelraheim H. Attaai**, Mahmoud H. Abdel-Raheem, Anber F. Mohammed, and Yasmin F. Abu-Elhassan. "Neuroprotective effects of rutin against cuprizone-induced multiple sclerosis in mice." *Inflammopharmacology* 32, no. 2 (2024): 1295-1315
6. Mokhtar, Doaa M., Marco Albano, Rasha Alonaizan, and **Abdelraheim Attaai**. "Retinal Structure of *Poecilia sphenops*: Photoreceptor Mosaics, Synaptic Ribbon Patterns, and Glial Cell Expressions." *Animals* 14, no. 6 (2024): 939
7. **Abdelraheim Attaai**, Giacomo Zaccone, Alessio Alesci, Rasha Alonaizan, and Manal T. Hussein. "Morphological Distribution Patterns and Neuroimmune Communication of Ganglia in Molly Fish (*Poecilia sphenops*, Valenciennes 1846)." *Fishes* 8, no. 6 (2023): 289.
8. Abdelfattah, Mostafa Galal, Manal T. Hussein, Sohair MM Ragab, Nasser S. Abou Khalil, and **Abdelraheim H. Attaai**. "The effects of Ginger (*Zingiber officinale*) roots on the reproductive aspects in male Japanese Quails (*Coturnix coturnix japonica*)." *BMC Veterinary Research* 19, no.1 (2023):1-12.
9. Assi, Abdel-Azim, Sara Abdelnabi, **Abdelraheim Attaai**, and Rasha B. Abd-Ellatif. "Effect of ivabradine on cognitive functions of rats with scopolamine-induced dementia." *Scientific reports* 12, no. 1 (2022): 1-20.
10. Hussein, Ahmed M., **Abdelraheim H. Attaai**, and Asmaa M. Zahran. "Genistein anticancer efficacy during induced oral squamous cell carcinoma: an experimental study." *Journal of the Egyptian National Cancer Institute* 34, no. 1 (2022): 1-10.
11. **Attaai, Abdelraheim H.**, Manal T. Hussein, Khaled H. Aly, and Fatma M. Abdel-Maksoud. "Morphological, Immunohistochemical, and Ultrastructural Studies of the Donkey's Eye with Special Reference to the AFGF and ACE Expression." *Microscopy and Microanalysis* (2022): 1-14.
12. Hussein, Kamal, Manal T. Hussein, **Abdelraheim Attaai**, Lobna Ragab, and Mohamed Semieka. "Effect of Nictitans gland and third eyelid excisions on ocular surface integrity, pH, and tear production in dogs." *Journal of Advanced Veterinary Research* 12, no. 2 (2022): 90-98.
13. Abd-Elhafeez, Hanan H., Soha A. Soliman, **Abdelraheim H. Attaai**, Sara S. Abdel-Hakeem, Abeera M. El-Sayed, and Alaa S. Abou-Elhamd. "Endocrine, stemness, proliferative, and proteolytic properties of alarm cells in ruby-red-fin shark (*Rainbow Shark*), *Epalzeorhynchus frenatum* (Teleostei: Cyprinidae)." *Microscopy and Microanalysis* 27, no. 5 (2021): 1251-1264.
14. Manal T. Hussein, **Abdelraheim Attaai**, Gamal Kamel & Doaa M. Mokhtar (2021). "Spatiotemporal expression of sonic hedgehog signalling molecules in the embryonic mesencephalic dopaminergic neurons." *Gene Expression Patterns* 42 (2021): 119217.
15. Khadija Boukholda, Brahim Gargouri, Bakhta Aouey, **Abdelraheim Attaai**, Mohamed Abd Elkodous, Mohamed Najimi, Bernd L. Fiebich, Michèle Bouchard, Hamadi Fetoui, (2021). Subacute silica nanoparticle exposure induced oxidative stress and inflammation in rat hippocampus combined with disruption of cholinergic system and behavioral functions. *NanoImpact*, Volume 24,

16. Aouey, B., Boukholda, K., Gargouri, B., Bhatia, H. S., **Attaai, A.**, Kebieche, M., ... & Fetoui, H. (2021). Silica Nanoparticles Induce Hepatotoxicity by Triggering Oxidative Damage, Apoptosis, and Bax-Bcl2 Signaling Pathway. *Biological Trace Element Research*, 1-11.
17. **Attaai, A.** H., Noreldin, A. E., Abdel-Maksoud, F. M., & Hussein, M. T. (2020). An updated investigation on the dromedary camel cerebellum (*Camelus dromedarius*) with special insight into the distribution of calcium-binding proteins. *Scientific reports*, 10(1), 1-17.
18. Von Ehr, A., **Attaai, A.**, Neidert, N., Potru, P. S., Ruß, T., Zöller, T., & Spittau, B. (2020). Inhibition of Microglial TGFβ Signaling Increases Expression of Mrc1. *Frontiers in cellular neuroscience*, 14, 66.
19. Fatma M. Abdel-Maksoud, Manal T Hussein, **Abdelraheim Attaai**, 2019. "Seasonal variation of the intraepithelial gland in the camel epididymis with special reference to autophagosome." *microscopy and microanalysis journal*.
20. Brahim Gargouri, Nizar M.Yousif, **Abdelraheim Attaai**, Michèle Bouchard, Yassine Chtourou, Bernd L. Fiebich, Hamadi Fetoui, 2018 "Pyrethroid bifenthrin induces oxidative stress, neuroinflammation, and neuronal damage, associated with cognitive and memory impairment in murine hippocampus." Volume 120, November 2018, Pages 121-133. Doi:10.1016/j.neuint.2018.08.004.
21. **Abdelraheim Attaai**, Nicolas Neidert, Alexander von Ehr, Phani Potru, Tanja Zöller, Björn Spittau, "Postnatal Maturation of Microglia is Associated with Alternative Activation and Activated Tgfβ Signaling." March 2018 *Glia*. Doi: 10.1002/glia.23332.
22. Tanja Zöller, **Abdelraheim Attaai**, Phani Potru, Tamara Ruß, Björn Spittau, 2018."Aged Mouse Cortical Microglia Display an Activation Profile Suggesting Immunotolerogenic Functions." *International Journal of Molecular Sciences*, Mar 1;19(3). Doi: 10.3390/ijms19030706.
23. Machado, Venissa, Tanja Zöller, **Abdelraheim Attaai**, Björn Spittau. 2016. "Microglia-Mediated Neuroinflammation and Neurotrophic Factor-Induced Protection in the MPTP Mouse Model of Parkinson's Disease-Lessons from Transgenic Mice." *International Journal of Molecular Sciences* 17 (2): 151. Doi:10.3390/ijms17020151.

Homepages

Researchgate

<https://www.researchgate.net/profile/Abdelraheim-Attaai-2>

ORCID

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Google Scholar

<https://scholar.google.com/citations?user=z0TT010AAAJ&hl=en>

Publons

<https://publons.com/researcher/1660804/abdelraheim-attaai/>

Referee:

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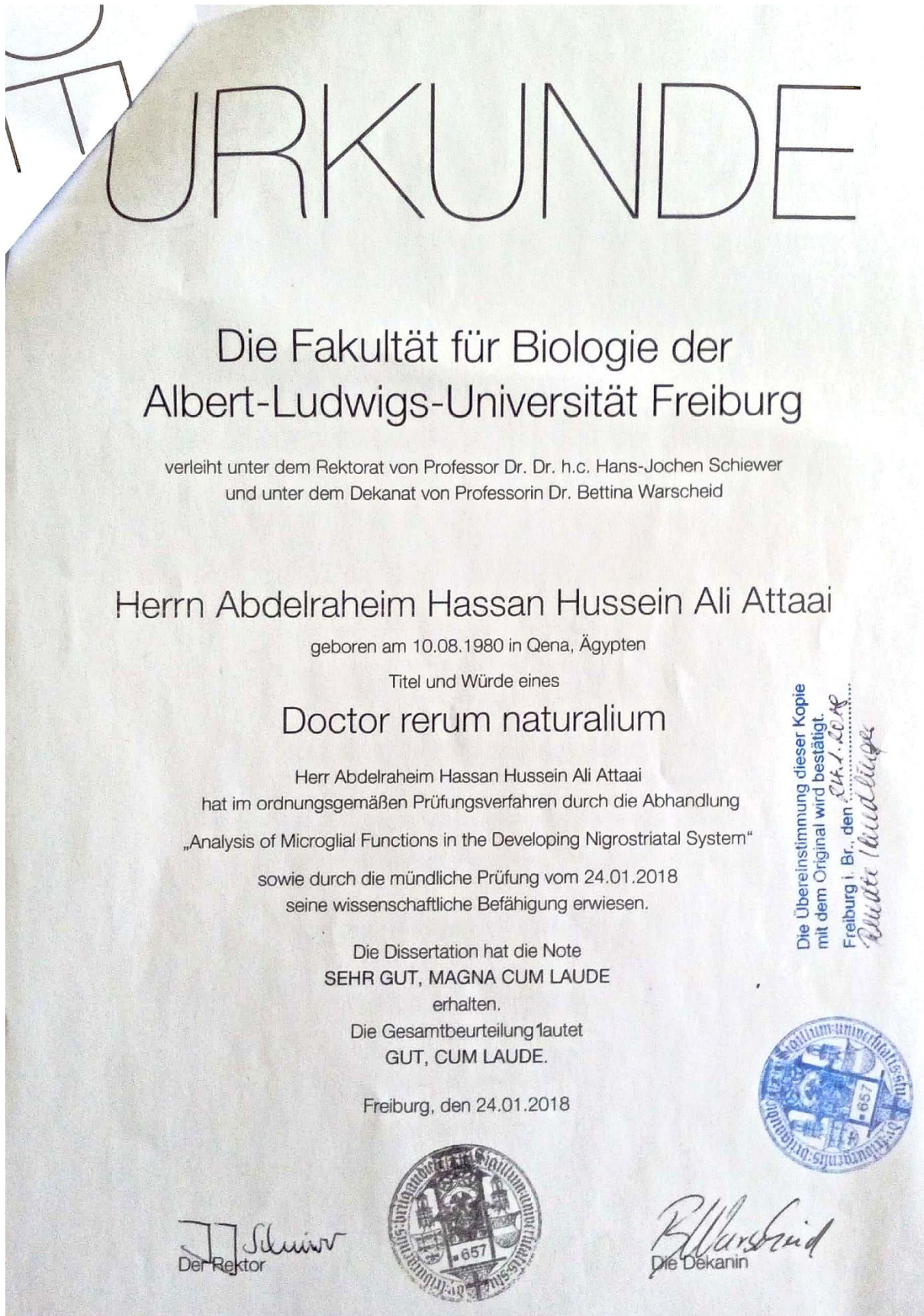
Prof. Dr. Inas Abdelhafez

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Certificates





Certificate

Abdelraheim Attaai, born on 10.08.1980 in Qena / Egypt,
regularly attended and successfully completed the

“**Course on Laboratory Animal Science**” held by the Deanery of the
Faculty of Medicine of the University of Freiburg /Germany from
07.-09.10.2015 (theory) and from **13.-15.01.16** (practice).

Education and training were carried out according to the recommendations
of the Federation of European Laboratory Animal Science Associations for
the education and training of persons carrying out animal experiments
(**FELASA, Category B**). The course is accredited by the German Society for
Laboratory Animal Science – “Gesellschaft für Versuchstierkunde”,
GV-SOLAS.

Contents (40 hours; theory and practice, 50% each):

- Introduction to ethics and history of animal experiments, animal welfare act
- Alternatives to animal experiments, „3 R“
- Introduction to biology of laboratory animals, nutrition, husbandry, anaesthesia, euthanasia, recognition of pain, surgical techniques, genetics, genetic techniques, standardization of laboratory animals, engineering of genetically modified animals, embryonic transfer, cryopreservation, microbiological management, immunization, infections and zoonotic diseases, allergies
- Practice: handling mouse/rat, sampling techniques, marking of animals, administration of substances, anaesthesia, euthanasia, dissection, suture techniques, handling and examination on rabbits
- Exam

Freiburg, 2015

Medizinische Fakultät der
Albert-Ludwigs-Universität Freiburg
Dr. med. vet. Rita Sanchez-Brandelik
Elsässer Straße 2m
79110 Freiburg
Dr. med. vet. Rita Sanchez-Brandelik
(DVM, specialist in lab animal medicine)

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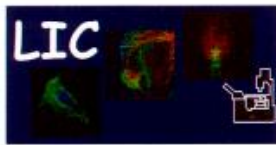
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Bearbeitet von:
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Certificate

The Microscopy and Image Analysis Platform (MIAP) certifies that

Abdelraheim Attaai

has successfully participated in the course

„Image Analysis using ZEN blue software“

held at the Life Imaging Center (LIC) in Freiburg, Germany

from October 25th – 26th, 2016

Topics :
Basics Processing using ZEN
Interactive and Automated Analysis
Ratiometric measurements
Colocalisation analysis
Deconvolution

Dr. R. Nitschke

Zertifikat



Abdelraheim Attaai

has successfully completed the graduate workshop

Good Scientific Practice

conducted by Dr. Michael Gommel, www.scientificintegrity.de,
on July 6th and 7th 2015.

Workload: 14 hours

Topics covered in the workshop:

- Definitions of good scientific practice and scientific misconduct
- Degrees and extent of scientific misconduct
- Examples for responsible and irresponsible conduct of research
- Data management
- Authorship and the process of publication
- Mentoring and supervision
- Conflict management: how to deal with scientific misconduct
- Reactions to scientific misconduct
- Local, national and international guidelines and regulations

Freiburg, July 7th 2015

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Zertifikat

Abdelraheim Attaai

has successfully completed the graduate workshop

How to Give Successful Scientific Talks

conducted by Dr. Matthias Mayer on April 20th and 21th 2016

Workload: 18 hours

Topics covered in the workshop:

1) Create Clear Content

- Brainstorm: How could I serve my audience most effectively? What could I say?
- Reduce: What exactly do I want to say? What not?
Set a clear goal and up to three core messages.
- Structure your talk appropriately.
- Exemplify: find great examples, metaphors, comparisons, images, etc.

2) Design Proper Slides

- Reduce your content and your visuals as much as possible.
Focus on illustrations and images instead of bullets.
- Apply six important design principles to your slides.
- Know how to deal with fonts, sizes, and an underlying grid.

3) Be Convincing on Stage

- Body language: where to put your hands – and other questions
- Creating contact: eye contact and body movement
- How to speak properly
- How to involve your audience by including interaction.

Freiburg, 21.04.2016


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