



Teodora-Adriana PERLES-BARBACARU

Associate Professor / MCU Chaire d'Excellence mixte CNRS Aix-Marseille Université

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Fields of Interest and Teaching Competencies

Neurosciences	neuroanatomy, neurophysiology, neuropsychology, brain connectivity
Neuropathologies	neurodegenerative and infectious diseases, drug addiction
Imaging techniques	magnetic resonance imaging, computed tomography, positron emission tomography, ultrasound, stereology, image analysis
Oncology	tumor models, angiogenesis, biomarkers, radiotherapy, innovative treatments, tumor infiltration, nanomedicine, theragnostics

Research Projects in Progress:

Evaluation of quantitative magnetic resonance imaging biomarkers for treatment monitoring in experimental cerebral malaria and experimental autoimmune encephalitis,
Development of artificial intelligence-based approaches for mouse brain segmentation,
Development of a pharmacokinetic model for quantifying contrast agent extravasation,
Evaluation of theragnostic Gd³⁺ - & ¹⁹F-labeled agents for magnetic resonance imaging-based treatment monitoring
Study of the impact of environmental and biological factors on the structural and functional connectome

Degrees

Dec. 2007	PhD in physics , Signals and Imaging in Medicine and Biomedicine, with distinction, University Joseph Fourier, Grenoble, France
Oct. 2003	German master's degree in fundamental physics and astrophysics , grade 1, Hamburg University, Germany
Sep. 2003	French master's degree (DEA) in engineering for health, cognition and environment, grade 3, University Joseph Fourier, Grenoble, France
Oct. 1998	German Doctor of Medicine (MD) degree , grade: 2, Hamburg University, Germany

Education

May 2004 to Dec. 2007	Dissertation: "Magnetic resonance imaging of the cerebral blood volume for the characterization of experimental brain tumor neovascularization", advisor: Dr. C Segebarth, Dr. H Lahrech, INSERM U594, Grenoble, France , https://theses.hal.science/tel-00564020
Oct. 2002 – Sep. 2003	Master training specializing in models and instruments in medicine and biology, INSERM (French National Institute for Health and Medical Research) U318, University Joseph Fourier, Grenoble, France
Jun. - Aug. 2001	Training period at the Institute of Protontherapy, Biophysics, Orsay, France
Sep. 2000 - Jul. 2002	Graduate studies in fundamental physics and astrophysics , Orsay, France
Oct. 1998 - Jul. 2000	Undergraduate course in physics and astrophysics , Hamburg, Germany
Oct. 1992 – Sep. 1998	Medical studies , specializing in nuclear medicine, image processing and radiotherapy, Medical University Hamburg-Eppendorf, Germany

Teaching Experience

March 2013 - present	Medical Imaging techniques and Functional Neuroanatomy , Aix-Marseille University, Marseille, France
Jan. - May 2010, 2011 and 2012	Neuropsychology , University Pierre Mendès France, Saint Martin d'Hères, France
Oct. – Feb. 1994/95, 1995/96, 1996/97	Prosector and academic advisor for students in medicine and dentistry, Medical University Hamburg-Eppendorf, Germany

Postdoctoral Research Experience

Jan. 2010 to Feb. 2013	"Assessment of brain tumor angiogenesis by quantitative magnetic resonance imaging: preclinical studies in tumor models and clinical transfer of the developed technique for
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	cerebral blood volume quantification”, research advisor: Pr. F Berger, Dr. H Lahrech, Grenoble Institute of Neurosciences, INSERM U836, Grenoble, France
Jan. 2008 to Dec. 2009	“Detection of dopaminergic neurotransmitter activity using pharmacological magnetic resonance imaging and positron emission tomography”, research advisor: Dr. RE Jacobs, Caltech Brain Imaging Center, California Institute of Technology, Pasadena, CA, USA

Related Professional Experience

Jan. 2014	Qualification and specialization in experimental surgery
Apr. 2010 - Feb. 2013	Member of the ethics committee for preclinical science (Grenoble Institute of Neurosciences), Grenoble, France
Oct. 2007	Qualification to design and conduct preclinical experiments (Accreditation by the French ministry of agriculture and fishing°
Nov. 2003 - Apr. 2004	Resident in psychiatry, University Hospital (CHU), Grenoble, France
Feb. 1999 - Jul. 2000	Assistant in orthopedic surgery, Endoklinik, Hamburg, Germany
Oct. 1998 - Jul. 2000	Teaching assistant in Studienkreis Norderstedt, Germany
Oct. 1997 - Sep. 1998	Three clinical internships each of four month duration in medical colleges and general hospitals in India, Israel and Switzerland (elective in Neurosurgery and Radiotherapy)
Feb. 1995 – Sep. 1997	Dental surgeon assistant, Doctor Ergun Orcun, Hamburg, Germany

Awards and Fellowships:

Oct. 2013	Cum Laude poster award, 30 th Annual Scientific Meeting of the European Society for Magnetic Resonance in Medicine and Biology, Toulouse, France
Oct. 2006	Prize “Neuroimaging” category, European BioAlpine Convention, Grenoble, France
Oct. 2004	Prize “Alexandre Joël” Master category, Association for Research against Cancer (ARC), Paris, France
2010 - 2011	Postdoctoral research fellowship granted by the French Institute of Cancer (Institut National du Cancer) for young doctors working in translational cancer research
2008 - 2009	Postdoctoral research fellowship from the American National Institute on Drug Abuse
2004 - 2007	Graduate research fellowship granted by the French Association for Research against Cancer (ARC)
2006	One year research fellowship granted by the French National Academy of Medicine (declined due to acceptance of ARC fellowship)
2004	One year research fellowship granted by the German Academic Exchange Service (DAAD), (declined due to acceptance of ARC fellowship)
May 2006 and May 2007	Two educational stipends from the International Society for Magnetic Resonance in Medicine (ISMRM)

Association membership:

International Society for Magnetic Resonance in Medicine (ISMRM),
European Society for Magnetic Resonance in Medicine and Biology (ESMRMB),
International Society for Cerebral Blood Flow and Metabolism (ISCBFM)