ORJON RROJI, PHD

Gender: Male ♦ Address: Lagjia: Perash, Rruga: Rrojej 28, Shkodër 4000, Albania ♦ Date of birth: 28 September 1978 ♦ Mobile Phone: +355 69 53 70 041 ♦ E-Mail: orjonrroji@yahoo.com

Skype: orjon rroji



Working Experience

Postdoctoral Fellow at Burke Neurological Institute

Investigating stroke recovery via NeuroCures NY project.
Responsible for taking on clinical research & mechanism projects.
Developing a discovery architecture NeuroCures New York project.
Teaching "Introduction to Neuroscience – Learning, Memory, Plasticity:
Behaviour & Molecular Mechanisms" course.

White Plains, NY, USA 11/2019 – 10/2021

Adjunct Assistant Professor at Hunter College, CUNY

Lecturing in Ethology – Animal Behavior, Psychology Department (Developing the class syllabus, giving lessons, course materials, exams, etc.)

New York, USA 01/2020 – 10/2021

Lecturer at Albanian University, Tirana, Albania

Lecturing in Medical Biochemistry, Nurse Department & Pharmacy Department Lecturing in Clinical Biochemistry, Nurse Department & Pharmacy Department Lecturing in General and Human Biology, Nurse Department & Pharmacy Department (Developing the class syllabus, giving lesson, course materials, exam, etc.) Supervising master thesis students
Organising and participating in international conferences

Tirana, Albania 09/2016 – 10/2019

Lecturer at University Luigj Gurakuqi, Shkodër, Albania

Lecturing in Medical Biochemistry, Nurse and Physiotherapy Department Lecturing in Human Biology, Psychology Department (Developing the class syllabus, giving lesson, course materials, exam, etc.) Shkodër, Albania 11/2017 – 07/2019

Education

Postdoctoral Fellow at Burke Neurological Institute, affiliate Weill Cornell Medicine University, White Plains, New York, USA

Investigating stroke recovery via NeuroCures NY project.

11/2019 - 10/2021

PhD in Kinesiology, Doctoral programme in Biomedical Sciences, Neuroplasticity, KU Leuven, Belgium

PhD Thesis title: "Improving neuroplasticity and motor learning by brain stimulation techniques".

Supervisor Prof. Dr Nicole Wenderoth and Prof. Dr Bart Nuttin

10/2010 - 02/2016

Master of Science in Biology of Behaviour, University of Florence, Italy

Master's Thesis title: "Variation of SORL 1 gene in Alzheimer's disease". Supervisor Prof. Dr Benedetta Nacmias and Prof. Dr Sandro Sorbi

11/2006 - 04/2009

Bachelor of Science in General Biology, University of Padua, Italy

10/2001 - 11/2006

Bachelor's Thesis title: "Behavioural effects, morphological changes and biochemical modifications induced by lesion of the olfactory mucosa in the mouse".

Supervisor Prof. Dr Carla Mucignat

Certificates

Research Animal Resource Centre – Module I, II, III, Weill Cornell Medicine, USA FELASA – Laboratory Animal Science I & II, University of Ghent, Belgium Writing Biomedical Research manuscripts, KU Leuven, Belgium

08/2020 10/2012 – 11/2012 10/2011 – 11/2011

Research Experience

Postdoc position, Burke Neurological Institute, White Plains, USA

11/2019 - 10/2021

- Fugl-Meyer assessment,
- Bionic Robot training & assessment,
- Recruitment of patients
- Writing grant applications

PhD-Student and Research assistant, KU Leuven, Belgium

10/2010 - 08/2015

- Developed an animal model, testing the effects of tDCS on recovery from stroke
- Set up a novel experimental design using transcranial Direct Current Stimulation (tDCS)
- Transcranial Magnetic Stimulation (TMS)
- Assisted and guided the human and animal model experiments
- Run behavioural experiments on humans and animals (rodents)
- Supervising master thesis and bachelor thesis students
- Performed micro neurosurgery on rats
- Transcribed, entered, and analysed data collected from the experiments
- Statistical programmes: STATA, SPSS
- Histology and Histochemistry techniques
- Microsoft office program

Master & Bachelor thesis student, Italy

15/2008 - 03/2009

- Extraction of genomic DNA from human blood samples
- Analysed the data using the High-Resolution Melting (HRM) technique
- Polymerase Chain Reaction (PCR)
- Restriction Fragment Length Polymorphism (RFLP)
- Western blot analyses
- Electrophoresis, SDS PAGE
- Transcribed, entered, and analysed data collected

Publications

Rroji O, Kumar A, Karuppagounder S, and Ratan RR. Epigenetic regulators of neuronal ferroptosis identify novel therapeutics for neurological disease: HDACs, Transglutaminases, and HIF prolyl hydroxylases. Neurobiology of Disease, 2020 Oct 28; 147:105145 doi.org/10.1016/j.nbd.2020.105145

Kundu N, Kumar A, Chen Y, **Rroji O**, Karuppagounder SS, and Ratan R. A STING agonist preconditions against ischaemic stroke via an adaptive antiviral Type 1 interferon response: implications for treatment of stroke and COVID-19. Brain Communications, Oxford University Press. October 2020 – submitted.

Rroji O, van Kuyck K, Nuttin B, Wenderoth N. Anodal tDCS over the Primary Motor Cortex Facilitates Long-Term Memory Formation Reflecting Use-Dependent Plasticity. PLoS One. 2015 May 21;10(5): e0127270. doi: 10.1371/journal.pone.0127270. eCollection 2015.

Rroji O and Sukaxhija L. Amyotrophic Lateral Schlerosis, a new disease or even known in Albania? Optime, Albanian University, Nr 2, December 2019. ISSN 2220-461x

Symposium

EPO – hypoxia and Brain Repair (online). Burke Neurological Institute affiliated Weill Cornell Medicine. 14 January 2021 New York, USA

Oral Presentations & Poster presentations

Rroji O. Rritja e Neuroplasticitetit nga perdorimi i teknikave jo - invasive. Poster ne Konferenca e IV nderkombetare Farmaceutike "Challenges and Potential Opportunities in Medical and Pharmaceutical Sciences", 11 - 12 May 2018 ne Tirana, Albania.

- **O. Rroji.**, K. van Kuyck., L. Arckens., B. Fritsch., B. Nuttin., N. Wenderoth. The effect of tDCS on motor recovery in an animal model of stroke. Talk presentation presented at "Konferenca e $I^{\tau \bar{e}}$ Ndërkombëtare në Shkencat Mjekësore Klinike dhe Kirurgjikale", 21 22 Prill 2017 in Tirana, Albania
- **O. Rroji**, K. van Kuyck, B. Nuttin., N. Wenderoth. Anodal tDCS over the primary motor cortex facilitates long-term memory formation reflecting use-dependent plasticity. Talk presentation at Konferencën III^{-të} Ndërkombëtare Farmaceutike "Recent Scientific Approaches and Development in Pharmaceutical Sciences", 12 13 May 2017 in Tirana, Albania
- **Rroji O.**, Leenus D., van Kuyck K., Nuttin B., Hellings N., Meesen R., Swinnen S., Wenderoth N. "Interhemispheric transfer of motor skill tested in a rat model". Poster presented at the Annual Meeting of Society for Neuroscience, 13 17 October 2012 in New Orleans, USA
- **Rroji O.**, Hebbelinck A., Wynants K., Ceulemans E., Wenderoth N. "Reward modulates changes of corticomotor excitability by motor skills". Poster presented at 8th FENS forum of Neuroscience conference, 14 18 July 2012 Barcelona, Spain
- **Rroji O.**, Bekkers E., Pauwels L., Wenderoth N. "Does tDCS over the primary motor cortex have an effect on the consolidation of motor memories". Poster presented at ECSS 17^{th} annual Congress, 4-7 July 2012 Brugges, Belgium

Pauwels L., Bekkers E., **Rroji O**., Wenderoth N. "Does non-invasive brain stimulation over the primary cortex improve consolidation of motor memories?" Poster presented at Vereniging voor Kinesiologie symposium "Beweging doorheen de jaren", 16 December 2011 Universiteit Gent, Belgium

Rroji O., Bekkers E., Pauwels L., Wenderoth N. "Does tDCS over the M1 improve consolidation of motor memories". Poster presented at Magstim TMS Summer School 28 – 29 May 2011 Oxford, UK

Supervision of several Bachelor and Masters' thesis student at KU Leuven, Belgium and at Albanian University, Tirana (upon request)

Work experience as a student while I was at the Universities of Padova and Firenze

Storekeeper & Bookshop assistant, Melbookstore Library, Florence, Italy 02/2007 - 05/2010 Storekeeper & Bookshop assistant, Melbookstore Library, Padova, Italy 05/2004 - 10/2005 Work as a Secretary office at the International Office, University of Padova 05/2004 - 10/2005 Librarian at the Library Bio – Medical of University of Padova, Italy 05/2004 - 10/2005 May – Sept 2004 05/2004 - 10/2005 The waiter at Pizzeria – Trattoria Marechiaro, Padova, Italy 05/2004 - 10/2005 The waiter at Trattoria Al Prato, Padova, Italy 05/2004 - 10/2005 Interpreter, teacher, and social worker at ONG, during Kosovo war, Albania 04/2000 - 09/2001

Languages

English – Fluent speaking/reading/writing Italian – Fluent speaking/reading/writing French – Proficient Dutch – Elementary Albanian – Mother language

Interests and Activities:

Besides the scientific work, I enjoy writing poems and reading books, mostly classics.

Passionately fond of photography, mostly nature (animals, landscapes).

Gardening is one of my favourite hobbies. Love it!

Love Art: theatre, classical and jazz & blues music, opera, museums.

Playing the violin, (amateur) simply to enjoy it.

Drawing,

Playing chess,

Sports (martial art: Tae Kwon Do, volleyball, running, cycling, hiking, climbing),

Cooking healthy food, as the Latin poem says: Mens sana in corpore sano = healthy mind in a healthy body!