
 PERSONAL DETAILS

Full Name: Marco Paoli, Ph.D
 Nationality: Italian
 Current address: 13 Rue de l'Union – 35100 Toulouse, France
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 Email: mar.paoli@gmail.com
 Language: Italian (native language), English (fluent), French and German (basic)

 PROFESSIONAL EXPERIENCE

2016 - 2019 **Post-Doctoral Researcher.** Department of Biology, University of Konstanz, Germany. **Project:** Neural representation of odorant spatial distribution in cockroaches. **Supervisor:** Prof. Giovanni C. Galizia
 2012 - 2016 **Post-Doctoral Researcher.** Center for Mind/Brain Sciences, University of Trento, Italy. **Project:** Investigating olfactory coding in honeybee and fruitfly. **Supervisor:** Dr. Albrecht Haase
 2011 - 2012 **Alzheimer Research UK Research Associate.** Brain Repair Centre, University of Cambridge, UK. **Project:** Tau-related neurodegeneration and neuroprotection by astrocytes. **Supervisor:** Prof. Maria Grazia Spillantini
 2010 - 2011 **FEBS Fellow.** Brain Repair Centre, University of Cambridge, UK. **Project:** Tau-related neurodegeneration and neuroprotection by astrocytes. **Supervisor:** Prof. Maria Grazia Spillantini

 EDUCATION

2006 - 2010 **PhD in Cell Biology.** Dept of Biomedical Sciences, University of Padova, Italy. **Thesis Title:** Mechanisms of intoxication of snake PLA₂ neurotoxins
 2004 - 2006 **MSc in Molecular Biology.** University of Padova, Italy. **Master Degree Internship.** Institute for Molecular Biophysics, Gutenberg University, Mainz, Germany. **Thesis Title:** Structural properties and allosteric behavior of *U. pusilla* haemocyanin
 2001 - 2004 **BSc in Molecular Biology.** University of Padova, Italy. **Thesis Title:** Development of a bioinformatic tool for the searching of nucleotidic pattern capable of intron/exon discrimination.

 TEACHING ACTIVITIES

Neurophysiology. International Medical School San Raffaele, Milano, Italy
 2017 **Lecturer – Calcium imaging in fruit flies** (lectures and practical course). TRenD in Africa, Gambe University, Nigeria
 2017 – 2018 **Lecturer – Methods for optical imaging.** MSc course in Neurobiology, University of Konstanz, Germany
 2018 **Lecturer – Practical course in animal physiology** (teaching practical, reports evaluation). BSc course in Animal Physiology, University of Konstanz, Germany
 2010 **Lecturer – Methods for molecular pathology** (teaching practical, reports evaluation). MSc course in Molecular Pathology, University of Padova, Italy

SUPERVISING AND MENTORING ACTIVITIES

2017	BSc student supervision. Milena Sekulic; University of Konstanz, Germany
2017	MSc student supervision. Silvio Widmer; University of Konstanz, Germany
2016	MSc student supervision. Angela Albi; University of Trento, Italy
2015	MSc student supervision. Erica Rossi; University of Trento, Italy
2013	MSc student supervision. Cristina Traversa; University of Trento, Italy

TECHNICAL SKILLS

Insects handling and dissection (*Apis mellifera*, *Periplaneta americana*, *Drosophila melanogaster*, *Schistocerca gregaria*, *Rincocephalus ferruginosus*): dissection, preparation for *in vivo* calcium imaging; optical microscopy (conventional, confocal, STED, two-photon microscopy); neuronal tracing; animal dissection and basic surgery. **Cell neurobiology**: cell transplantation, primary neuronal and astrocytic cultures preparation (motoneurons, hippocampal, dorsal root ganglia, cerebellar neurons, neuronal precursor cell, astrocytes); **Biochemical techniques**: ICC/IHC, mitochondria purification and mitochondria calcium retention capacity assay, basic knowledge of mass spectrometry and related data analysis, classical biochemical techniques (RP-HPLC, SEC, WB, ultracentrifugation). **Data analysis** and image processing (ImageJ, MATLAB) and basic use of bioinformatic tools and databases.

PUBLICATIONS

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- Paoli M.**, H. Nishino, E. Couzin-Fuchs, G. Galizia (2019) Coding of odour and space in the hemimetabolous insect *Periplaneta americana*. *Under review*
- Paoli M.***, A. Albi*, M. Zanon, D. Zanini, R. Antolini, A. Haase (2018) Neuronal response latencies encode first odor identity information across subjects. *J. Neurosci*, in press. *equal contribution
- Nishino H., M. Iwasaki, **M. Paoli**, I. Kamimura, A. Yoritsune, M. Mizunami (2018) Spatial receptive fields for odor localization. *Curr Biol* 28, 600–608
- Andrione M., **M. Paoli**, R. Antolini, A. Haase (2017) Testing odorant-receptor interaction theories in humans through discrimination of isotopomers. *J Biol Res*, 90:6093
- Paoli M.**, D. Münch, A. Haase, E. Skoulakis, L. Turin, G.C. Galizia (2017) Minute impurities contribute significantly to olfactory receptor ligand studies: tales from testing the vibration theory. *eNeuro*, doi: 10.1523/ENEURO.0070-17.2017
- Paoli M.**, N. Weisz, R. Antolini, A. Haase (2016) Spatially resolved time-frequency analysis of odour coding in the insect antennal lobe. *Eur J Neurosci*, 44(6):2387-95. doi: 10.1111/ejn.13344
- Paoli M.**, A. Anesi, R. Antolini, G. Guella, G. Vallortigara, A. Haase (2016) Differential odour coding of isotopomers in the honeybee brain. *Sci Rep*, 6:21893
- Colasante C., L. Morbiato, **M. Paoli**, C.C. Shone, L. Muraro, K. Sheikh, O. Rossetto, C. Montecucco, J. Molgo (2013) Peripheral cholinergic specificity of botulinum type A neurotoxin. *Toxicon*, 68: 70-71
- Cendron L., I. Micetic, P. Polverino de Laureto, and **M. Paoli** (2012) Structural analysis of trimeric phospholipase A2 neurotoxin from the Australian taipan snake venom. *FEBS Journal*, 279(17):3121-3135
- Hellman N., **M. Paoli**, F. Giomi, M. Beltramini (2010) Unusual oxygen binding behavior of a 24-meric crustacean hemocyanin. *Arch Biochem Biophys*. 495(2):112-21

Paoli M., M. Rigoni, G. Koster, O. Rossetto, C. Montecucco, and A. D. Postle (2009) Mass Spectrometry Analysis of the Phospholipase A2 Activity of Snake Presynaptic Neurotoxins in Cultured Neurons. *J Neurochem*, 111(3):737-44

Montecucco C., O. Rossetto, P. Caccin, M. Rigoni, L. Carli, L. Morbiato, L. Muraro, and **M. Paoli** (2008) Different mechanisms of inhibition of nerve terminals by botulinum and snake presynaptic neurotoxins. *Toxicon*, 54(5):561-4

Rigoni M. *, **M. Paoli***, P. Caccin, E. Milanese, A. Rasola, P. Bernardi, and C. Montecucco (2008) Snake phospholipase A2 neurotoxins enter neurons, bind specifically to mitochondria and open their transition pores. *J Biol Chem*, 283(49):34013-20 *equal contribution

Rossetto O., L. Morbiato, P. Caccin, M. Rigoni, L. Carli, **M. Paoli**, M. Cintra-Francischinelli, and C. Montecucco (2008) Tetanus, Botulinum and Snake Presynaptic Neurotoxins. *Rendiconti Lincei*, 19(2):173-188

Paoli M., F. Giomi, N. Hellmann, E. Jaenicke, H. Decker, P. Di Muro, and M. Beltramini (2007) The molecular heterogeneity of hemocyanin: structural and functional properties of the 4x6-meric protein of Crustacea. *Gene*. 398(1-2):177-82

BOOK CHAPTERS

Paoli M., and A. Haase (2018) In vivo two-photon imaging of the olfactory system in insects (eds de Souza F., and G. Antunes) In: *Olfactory Receptors (Series on Methods Molecular Biology)*, Springer Books

Paoli M., M. Andrione, and A. Haase (2016) Imaging techniques for the study of lateralization in insects (eds. Vallortigara G., and L. Rogers) In: *Lateralized Brain Functions (Series on Neuromethods, series editor, Walz W.)*, Springer Books.

INVITED ORAL PRESENTATIONS

July 2018 Paoli M., E. Couzin-Fuchs, M. Sekulic, H. Nishino, G. Galizia. Neural representation of spatial odour perception in the American cockroach. **European Congress of Entomology**, Naples, Italy. **Session keynote speaker.**