

Eleonora D'Ambra

PhD in Genetics and Molecular Biology

Professional Experiences

2016-2019

PhD in Genetics and Molecular Biology in “Sapienza” University of Rome, in Bozzoni 's laboratory, Department of Biology and Biotechnology Charles Darwin.

The aim of the research is studying the role of circular RNAs in murine and human motoneurons. I focus my attention specifically on FUS-dependent circular RNA, since FUS is a protein involved in different steps of RNA metabolism, in circRNAs biogenesis, and is also altered in amyotrophic lateral sclerosis pathology, ALS.

Conference and course participation during PhD period:

16-19 October 2019	EMBO EMBL Symposium: Heidelberg, Germany The Non-Coding Genome- Poster presentation
24-28 February 2019	Whistler Conference Centre (British Columbia), Canada Keystone symposia on molecular and cellular Biology- Poster presentation and <u>selected for short talk</u>
18-21 Sept 2018	Sapienza University of Rome, Italy SIBBM – Poster presentation
08 – 11 April 2018	Weizmann Institute, Rehovot, Israel Noncoding RNAs in embryonic development and cell differentiation - Poster presentation
21-23 Sept 2017	Bologna, Italy ABCD meeting - Poster presentation
27-31 March 2017	Marie Curie institute, Paris 3rd course on Post-Transcriptional gene regulation – Poster Presentation

2014 - 2015

Master theses internship in J. P. Loeffler Laboratory, Université de Strasbourg (France)

Theses Title: “Inhibition of Glucosylceramides synthesis modulates motor-units response to stress in simplified model of ALS”

Theses supervisor (in Tor Vergata University): Maria Teresa Carri

Project supervisor (in Strasbourg): Alexander Henriques

Publications on International Journals

Exploring the Regulatory Role of Circular RNAs in Neurodegenerative Disorders

D'Ambra E, Capauto D, Morlando M. Int J Mol Sci. **2019** Nov 4;20(21). pii: E5477. doi: 10.3390/ijms20215477.

Amyotrophic lateral sclerosis and denervation alter sphingolipids and up-regulate glucosylceramide synthase.

Henriques A, Croixmarie V, Priestman DA, Rosenbohm A, Dirrig-Grosch S, **D'Ambra E**, Huebecker M, Hussain G, Boursier-Neyret C, Echaniz-Laguna A, Ludolph AC, Platt FM, Walther B, Spedding M, Loeffler JP, Gonzalez De Aguilar JL. Hum Mol Genet. 2015 Dec 20;24(25):7390-405. doi: 10.1093/hmg/ddv439. Epub 2015 Oct 19.

Professional competences

- Technical mastery for basic **molecular biology** wet lab: PCR, Realtime PCR, Western Blot etc...
- **Molecular interaction** techniques: RNA pull down, CLIP, RIP
- **Genome editing** techniques: CRISPR/Cas9
- **Imaging** techniques: *in situ hybridization*, immunofluorescence, confocal acquisition and image analysis using ImageJ
- **Stem cells culture** and immortalized cell culture, mainly muscular and neuronal cell line. In particular differentiation of mouse embryonic stem cells and human pluripotent stem cells in motoneurons.
- Computational ability: gene ontology, protein-RNA interaction prediction with catRapid, ImageJ, image lab, snap gene, office, Graphpad prism; online database for miRNA, circRNA, etc

Education

2016

State exam in Biology, in Tor Vergata, University of Rome

2013-2016

Master Degree in Cellular and Molecular Biology (LM-6) – Tor Vergata, University of Rome

110/110 with honours

2014-2015

Winner of Erasmus project fellowship at Université de Strasbourg

2009-2013

Bachelor's degree in biotechnology and thesis internship conducted in Professor Loreni's Lab, in Molecular Biology

Autorizzo a rendere pubblici i dati contenuti nel mio Curriculum Vitae