

Curriculum Vitae: Francesca Stabile

PERSONAL DETAILS

Name and Surname Francesca Stabile
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ACADEMIC QUALIFICATIONS AND RESEARCH EXPERIENCE

July 2018 - present **Research collaborator** IRCCS Fondazione Santa Lucia - Roma, Italia.
Project 1: I'm involved as a collaborator in a NARSAD young investigator project awarded by Brain & Behavior Research foundation. The main subject of our project is an animal model in which deletion of Ambra1 gene results in an ASD phenotype restricted to female. This mouse displayed behavioral, neural and electrophysiological features related to autistic disorders and my role in the project is to restore neural and behavioral ASD-like features using a chemogenetic approach combined with behavioral and molecular techniques.
Supervisor: Dr. Annabella Pignataro (Department of experimental neurology, Laboratory of Psychobiology, IRCCS Fondazione Santa Lucia)
Project 2: FMR1KO mouse is an animal model of Fragile X syndrome which shows abnormalities in dendritic spines plasticity in basal conditions together with an ASD-like phenotype. Starting from these evidences, in this project we investigate how dendritic spines rearrange when FMR1KO mice face a cognitive task.
In particular, my role in the project consists in submitting mice to the Morris Water Maze memory task and then analyzing density and morphology of dendritic spine in key brain regions involved in memory consolidation.
Supervisor: Dr. Martine Ammassari-Teule (Department of experimental neurology, Laboratory of Psychobiology, IRCCS Fondazione Santa Lucia)

26 October 2018 **Master Degree in Neurobiology** University of Rome "La Sapienza", Italy.
Final vote: 110/110 *cum laude*
Master thesis: "Effects of the up-regulation of microRNA miR-153-3p in the hippocampus on a working memory task in a mouse model"
I've been doing experiment for my master thesis from April 2017 until June 2018 in the psychobiology laboratory of professor Andrea Mele at Sapienza University. Preliminary data from this laboratory showed that among CD1 old mice (12 months old) there are some mice capable of a good working memory performance in the 6 different object test (Sannino et al., 2012) while others display deficit in the same task. Relying on the behavioral performance, it has been possible to evaluate microRNAs expression profile of good performers compared to bad performers and this allowed us to know that there is a

pool of microRNAs upregulated in the hippocampus of bad performers compared to good performers. Among this pool of microRNAs, miR-153-3p was particularly interesting because of the pathways in which it is involved. The aim of my master thesis was to trigger the deficient behavior seen in old bad performers in a population of adult CD1 mice (3 months old) by a focal injection of the mimic-miR-153-3p in the dorsal hippocampus before the behavioral test in order to evaluate the effect of the injection on the task.

Supervisor: Dr. Arianna Rinaldi (Department of Biology and Biotechnology 'Charles Darwin').

24 October 2016

Bachelor Degree in Biotechnology University of Rome "La Sapienza", Italy.

Final vote: 109/110

Bachelor thesis: "Identification of cerebral areas involved in a massed or spaced training in Morris Water Maze in TetTag transgenic mice"

For this project we used a line of transgenic mice in which the use of a doxycycline enriched diet allowed us to switch on or switch off the expression of the reporter gene LacZ that is put under the control of c-fos promoter. With a simple change of mice diet we were able to create a temporal window in which LacZ expression was allowed in neurons when the c-fos promoter is activated. In that temporal window we trained the animals in Morris water maze task with a massed protocol (6 training sessions in a day) or with a spaced protocol (6 training sessions distributed in 3 days). Neurons activated during the training were tagged with β -gal, so with immunofluorescence and confocal imaging it has been possible to count cells tagged in some brain regions known to be involved in a spatial memory task.

July 2013

High School Graduation Liceo Scientifico "Ettore Majorana" Guidonia Montecelio (RM), Italy.

Final vote: 100/100

OTHER UNIVERSITY EXPERIENCES

July 2018

My name is in the poster presented at FENS 2018 by Valentina Mastroilli (PhD student at Sapienza University).

Poster title: "Spaced training effect on the activity of striatal and hippocampal circuits"

November 2017

Younger students welcome and presentation of Sapienza Neurobiology course in the event "Salone dello studente".

OTHER EXPERIENCES

2013 – 2016

Voluntary activity for AIRC (Italian association for cancer research).

2013 - 2014

English, French and Math tutoring for middle school students.

LANGUAGES

Italian: native.

English: good understanding of written and spoken language, good oral and written production.

French: basic knowledge of spoken and written language.

TECHNICAL SKILLS

- Behavioral test: Open field, object recognition test, Morris Water Maze, 3 chamber test.
- Stereotaxic surgery and guide cannulas implantation; perfusion, intraperitoneal and intracerebral injection of drugs.
- AAV injections.
- Molecular biology: DNA extraction, PCR.
- Histology: slicing (vibratome, microtome, cryostat), immunofluorescence, Nissl staining, Golgi-Cox staining, optical microscopy.
- Behavior observation and measurements: Anymaze and Ethovision.
- Data analysis software: Statistica.
- Image analysis software: ImageJ and Imaris.

OTHER ACTIVITIES AND INTERESTS

Traveling, classical dance, rock music.

REFeree CONTACT

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