Michela Mochi

PhD student Sapienza University of Rome

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I'm a PhD student of Life Science PhD program at Sapienza University of Rome. My PhD project is focused on the generation of 3D iPSC-derived in vitro model system for the study of RNA-binding proteins in ALS. During my PhD, I have acquired many technical skills, and I have managed to overcome anxiety and prove myself. Thanks to my professional experiences, I've acquired organizational and planning skills. I'm a scout since I was 8, and this has made me able to work as a team and to handle stressful situations.

EDUCATION

Master Degree in Genetics and Molecular Biology
Sapienza University of Rome (2019-2021)
FInal grade: 110/110 cum laude
Thesis: Study of RNA-binding proteins in ALS: characterization of molecular mechanisms underlying axonal phenotypes in iPSC-derived motoneurons

Bachelor Degree in Biological Science
Sapienza University of Rome (2016-2019)
Final grade: 110/110 cum laude
Thesis: Study of the axon sprouting in FUS mutant human motor neurons: implications for Amyotrophic Lateral Sclerosis (ALS)

High School in Scientific studies
Liceo Scientifico G.B. Morgagni (2011-2016)

PROFESSIONAL EXPERIENCE

PhD in Life Science
Sapienza University of Rome (2021-current)
Project: Molecular mechanisms underlying ALS: study of the interplay among RNA-binding proteins in iPSC-derived in vitro model systems

Student-collaboration scholarship
Sapienza University of Rome (01/02/2021-01/07/2021)
Laboratory assistant

Master Internship in Molecular Biology Lab
Sapienza University of Rome (01/11/2019-01/07/2021)
Supervisor: Prof. Alessandro Rosa
Project: Study of the l RNA-binding proteins in Amyotrophic Lateral Sclerosis (ALS): their implications in the axonal morphology and the molecular mechanism of the network between FUS, HuD and FMRP.

Student-collaboration scholarship
Sapienza University of Rome (01/10/2019-01/01/2021)
Laboratory assistant

Bachelor thesis Internship in Molecular Biology Lab
Sapienza University of Rome (01/03/2019-01/07/2019)
Supervisor: Prof. Alessandro Rosa
Project: Study of the axonal sprouting in human motoneurons: implications in Amyotrophic Lateral Sclerosis (ALS).

PUBLICATIONS

HuD (ELAVL4) gain-of-function impairs neuromuscular junctions and induces apoptosis in familial and sporadic amyotrophic lateral sclerosis models
bioRxiv 2023.
Beatrice Silvestri, Michela Mochi, Darilang Mawrie, Valeria de Turris, Alessio Colantoni, Beatrice Borhy, Maria Giovanna Garone, Christopher Patrick Zammerilla, Udai B. Pandey, Alessandro Rosa

Emerging Roles for the RNA-Binding Protein HuD (ELAVL4) in Nervous System
2022
Silvestri B, Mochi M, Garone MG, Rosa A.

ALS-related FUS mutations alter axon growth in motoneurons and affect HuD/ELAVL4 and FMRP activity.
2021
Garone MG, Birsa N, Rosito M, Salaris F, Mochi M, de Turris V, Nair RR, Cunningham TJ, Fisher EMC, Morlando M, Fratta P, Rosa A.

HONOURS AND AWARDS

Win of the 6th edition of "PriSLA-Premi di laurea sulla ricerca sulla SLA
"Io corro con Giovanni" company (October 2020)

Excellent Graduate Student for the year 2020-2021
Fondazione Sapienza (2021)

Path of Excellence in Genetics and Molecular Biology Master Course
Final report title:
AIRE: new implications in autoimmune diseases and in anti-tumoral response
Sapienza University of Rome (2021)

CONFERENCES AND MEETINGS

- 6th Brainstorming research assembly for young neuroscientists
  September 2023, Naples
  Poster presentation

- Amyotrophic Lateral Sclerosis - from mechanisms to novel therapeutics
  October 2022 , Florence
  Oral presentation

JOB-RELATED SKILLS

- Cell culture handling (iPSC, HeLa cells)
- Spinal motorneurons differerentiation protocol
- Skeletal muscle cells differentiation protocol
- Neuromuscular organoids
- Cell transfection
- Genome editing
- Cloning
- Real-time PCR
- Immunofluorescence
- Western blot
- Luciferase assay

DIGITAL SKILLS

- Microsoft office package
- Sequence analysis software (Serial Cloner, Snapgene)
- Data analysis (R, Python)
- PyMol
- ImageJ
- GraphPad Prism

LANGUAGE SKILLS

English: level B2