

## PERSONAL INFORMATIONS

Francesco Marrocco

## EDUCATION

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- Oct 2018 – May 2022 **Ph.D. in Clinical/Experimental Neuroscience and Psychiatry- Sapienza University of Rome**
- Supervisor: prof. Cristina Limatola
  - Skills acquired: cellular and molecular biology, behavioural neuroscience.
- Sep 2014 – Dec 2017 **MSc in Neurobiology- Sapienza University of Rome**
- Supervisor: Dott. Silvia Middei/ Prof. Andrea Mele
  - Skills acquired: molecular biology, confocal imaging, behavioural neuroscience.
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- Sep 2009 – Dec 2014 **BSc in Biology - Sapienza University of Rome**
- Supervisor: Prof. Andrea Mele
  - Skills acquired: behavioural neuroscience, stereotaxic surgery.

## RESEARCH EXPERIENCE

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- April 2022 – March 2023 **Department of Physiology and Pharmacology, Sapienza University of Rome- Postdoc**
- Research area: Neurophysiology
  - Research topic: Study the gut-brain axis in the modulation of glioblastoma using cellular and molecular techniques, stereotaxic surgery, and confocal imaging technique.
- Oct 2018 – May 2022 **Department of Physiology and Pharmacology, Sapienza University of Rome PhD Student**
- Research Area: Neurophysiology
  - Research topic: Study the gut-brain axis using cellular and molecular techniques, stereotaxic surgery, and confocal imaging technique
- Jen 2015 – Dec 2017 **CNR- National Research Council- Fosso del Fiorano, 64- 00143, Rome, Italy Master Student**
- Research Area: Neurobiology
  - Research topic: Study the effects of hyperactivity of entorhinal cortex in Alzheimer's disease mice model using pharmacogenetic modulation, stereotaxic surgery, behavioural tasks, and confocal imaging technique Study the gut-brain axis using cellular and molecular techniques, stereotaxic surgery, and confocal imaging technique
- March 2014 – Dec 2014 **Department of Biology and Biotechnology, Sapienza University of Rome Undergraduate Student**
- Research Area: Biology
  - Research topic: Study the effects of molecular machinery on memory plasticity using stereotaxic surgery, behavioural tasks, and histological technique.

PERSONAL AND TECHNICAL SKILLS

Native language Italian

	Listening	Reading	Interaction	Verbal production	Writing
English	B2	B2	B1	B1	B1
Sostituire con il nome del certificato di lingua acquisito. Inserire il livello, se conosciuto					

Levels: A1/A2: beginner - B1/B2: intermediate - C1/C2: advanced

**Digital skills**

- Microsoft Office suite.
- Statistics softwares: SigmaPlot, Origin, GraphPad
- Imaging and deconvolution softwares: MetaMorph, ImageJ, Imaris,
- Behavioural softwares: Ethovision, Anymaze.
- Molecular biology softwares: iCycler, CFX Manager, KCJunior.

**Technical skills**

- Cellular and molecular biology: cell cultures, DNA/RNA and protein extraction and quantification, PCR and qPCR, Western blot, immunofluorescence.
- Imaging: confocal microscopy, fluorescence microscopy, live imaging.
- Behavioral techniques: open field, novel object recognition, rotarod, Morris Water Maze, Fear conditioning.
- Surgery: stereotaxic surgery, dissection and tissue collection in rodents, transcardial perfusion.

Other Informations

Publications

- D'Alessandro G., **Marrocco F.** & Limatola, C. (2022). [Microglial cells: Sensors for neuronal activity and microbiota-derived molecules](#). *Frontiers in Immunology*. doi.org/10.3389/fimmu.2022.1011129
- **Marrocco F.**, Delli Carpini M, Garofalo S, Giampaoli O, De Felice E, Di Castro MA, Maggi L, Scavizzi F, Raspa M, Marini F, Tomassini A, Nicolosi R, Cason C, Trettel F, Miccheli A, Iebba V, D'Alessandro G, Limatola C. [Short-chain fatty acids promote the effect of environmental signals on the gut microbiome and metabolome in mice](#). *Commun Biol*. 2022 May 31;5(1):517. doi: 10.1038/s42003-022-03468-9. PMID: 35641653; PMCID: PMC9156677.
- D'Alessandro G, Antonangeli F, **Marrocco F.**, Porzia A, Lauro C, Santoni A, Limatola C. [Gut microbiota alterations affect glioma growth and innate immune cells involved in tumor immunosurveillance in mice](#). *Eur J Immunol*. 2020 May;50(5):705-711. doi: 10.1002/eji.201948354.
- Scopa C, **Marrocco F.**, Latina V, Ruggeri F, Corvaglia V, La Regina F, Ammassari-Teule M, Middei S, Amadoro G, Meli G, Scardigli R, Cattaneo A. [Impaired adult neurogenesis is an early event in Alzheimer's disease neurodegeneration, mediated by intracellular Aβ oligomers](#). *Cell Death Differ*. 2020 Mar;27(3):934-948. doi: 10.1038/s41418-019-0409-3.

Scholarships and Fundings

- Winner of a one-year Postdoc scholarship at Sapienza University, Rome, Italy April 2022-March 2023

Seminar

- Winner of a three-year PhD scholarship at Sapienza University, Rome, Italy, October 2018-January 2022
- Seminar in Global Health: Neurological and Sensory Disorders: Genes, Pathogenesis and Innovative Therapies- Salzburg Institut Pasteur, Salzburg, from 13/03/2022 to 19/03/2022

Conferences

- Meeting of animal welfare bodies (OPBA), Ministry of Health, Rome, 23 March 2023
- Brainstorming Research Assembly for Young Neuroscientists (Brayn), [Local organizing committee](#) [Post Presentation](#): "The role of Short Chain Fatty-Acids in the modulation of glioma cell growth", Rome, from 28/09/22 to 30/09/2022
- Brainstorming Research Assembly for Young Neuroscientists (Brayn), [Oral Presentation](#): "Environmental enrichment modifies gut microbiome and metabolome enhancing memory and neurogenesis through short-chain fatty acids", Pisa, from 20/10/21 to 22/10/2021
- Brainstorming Research Assembly for Young Neuroscientists (Brayn), [Post Presentation](#): "Gut microbiota alterations affect glioma growth and innate immune cells involved in tumor immunosurveillance in mice", Milan, from 14/11/2019 to 16/11/2019.

Courses

- Courses Preclinical Testing and Animal Welfare, Sapienza University of Rome November 14 to 30, 2022
- Courses of Preclinical Experimentation and Animal welfare; Rome, July and September 2021
- Synanet Workshop in "Animal welfare in neuroscience research"; Rome, from 22/03/2018 to 23/11/2018

Titles

- Qualification to the Profession of Biologist, Sapienza University of Rome
- Ph.D in Clinical/Experimental Neuroscience and Psychiatry, Sapienza University of Rome

il sottoscritto dichiara di essere consapevole che il presente *curriculum vitae* sarà pubblicato sul sito istituzionale dell'Ateneo, nella Sezione "Amministrazione trasparente", nelle modalità e per la durata prevista dal d.lgs. n. 33/2013, art. 15.

Rome, 23/06/2023

Signature

A solid black rectangular box used to redact the signature of the individual.