

CURRICULUM VITAE

Full name Antonino Iurato La Rocca

RESEARCH EXPERIENCE

September 2018 – July 2020

Research internship

Neuropsychopharmacology laboratory, CNR-IBBC Monterotondo, Rome (Italy)

Supervisor Dr. Elvira De Leonibus

June 2021 – November 2021

Research Fellowship

University of Florence (Italy), Department of Neuroscience, Psychology, Drug Research and Child Health (NEUROFARBA)

Supervisor: Prof. Guido Mannaioni

November 2021 – in progress

PhD Pharmacology, Toxicology, and Innovative Treatments

University of Florence (Italy), Department of Neuroscience, Psychology, Drug Research and Child Health (NEUROFARBA)

Supervisor: Prof. Guido Mannaioni, Dott. Alessio Masi

EDUCATION

October 2017 – July 2020

Master's Degree in Neurobiology

Sapienza University of Rome (Italy)

Grade 110/110 *summa cum laude*

Thesis title *Behavioral and histopathological effects of the injection of alpha-Synuclein aggregates in the striatum*

Supervisor Dr. Elvira De Leonibus, Prof. Arianna Rinaldi

October 2013 – July 2017

Bachelor's Degree in Biological Sciences

University of Aquila (Italy)

Thesis title *Advanced glycation end products and RAGE: a common thread in aging, diabetes, neurodegeneration, and inflammation*

Supervisor Prof. Annamaria Cimini

2006 – 2011

High School Degree

Istituto tecnico per geometri "Giovanni Verga" Modica (Italy)

LANGUAGE SKILLS

Italian (*mother tongue*), **English** (A2)

AFFILIATION TO SCIENTIFIC SOCIETIES.....

February 2022 – Currently

SINS (Italian Society For Neuroscience)

ABSTRACT.....

Loffredo V., Torromino G., Esposito F., Colucci M., De Risi M., La Rocca A., De Leonibus E., *Sex differences shaping memory capacity decline during ageing, Neuroscience 2019, Chicago, IL (USA)*

Ethanol neurotoxicity is mediated by changes in AMPA receptor expression, surface localization and functional properties. Elisabetta Gerace, Alice Ilari, Lucia Caffino, Lorenzo Curti, Daniela Buonvicino, Daniele Lana, Giuseppe Ranieri, Lorenzo Losso, Antonino La Rocca, Maria Grazia Giovannini, Roberto Ciccocioppo, Fabio Fumagalli, Domenico E. Pellegrini-Giampietro, Alessio Masi & Guido Mannaioni SINS 2021, (ITALY)

Characterization of a novel Glucocerebrosidase pharmacological chaperone in vitro and in vivo models of alpha synuclein neurotoxicity. Iurato La Rocca A., Ranieri G., Gerace E., Curti L., Clemente F., Matassini C., Cardona F., Goti A., Morrone A., Mannaioni G., Masi A. FENS 2022, Paris, (FRANCE)

Ethanol-induced miRNA 137 and 501-3p modulate AMPA neurotransmission in developing hippocampal slices in vitro. Lorenzo Curti, Lucia Caffino, Elisabetta Bigagli, Fernando Castillo Díaz, Francesca Mottarlini, Fabio Fumagalli, Antonino Iurato La Rocca, Alessio Masi, Guido Mannaioni, Elisabetta Gerace. FENS 2022, Paris, (FRANCE)

Complex interaction between postnatal acute mTOR inhibition and in utero valproic acid exposure on the morphological, functional and molecular features of accumbal medium spiny neurons. Alessio Masi, Daniela Iezzi, Lorenzo Curti, Giuseppe Ranieri, Elisabetta Gerace, Antonino Iurato La Rocca, Marina Scardigli, Ludovico Silvestri, Cristina Luceri, Mario D'Ambrosio, Guido Mannaioni. FENS 2022, Paris, (FRANCE)

The dual role of VEGF-A in mediating pain and neuroprotective signaling in rat organotypic spinal cord slices. Toti A., Micheli L., Ferrara V., Ciampi C., Graziani G., Lacal P., Gerace E., La Rocca A., Di Cesare Mannelli L., Ghelardini C. SIF 2022, Rome, (Italy)

PROFESSIONAL SKILLS

Behavioural test for memory and anxiety in rodent models: *Object Recognition Task, open field, elevated plus-maze, grid walking test, radial maze, rotarod test;*

Histology: *Immunofluorescence, immunohistochemistry, brain slicing (cryostat), optical and fluorescence microscopy;*

Biochemistry and molecular biology: *Western blot, PCR, DNA extraction and genotyping, synaptosome isolation from mice brain tissue, serum isolation from blood, purification of cell cultures from tissues (fibroblasts from mice lung);*

In vivo and ex vivo Manipulation of brain circuits: *Stereotaxic surgery, transcardial perfusion, systemic and intra-cerebral injection, intra-cerebral infection with AAV (adeno-associated virus); fiber-optic implantation; chemogenetics and optogenetics technique; Management of mice colonies; dissection and tissue sampling (brain and other organs), drug administration via gavage;*

Data analysis software: *StatView, Statistica, Prism.*

COMPUTER SKILLS

Windows OS, MS Office (Microsoft Word, Excel, Power Point), MacOS, Image, Skype, Dropbox, Google Drive, Anymaze.

PUBLICATION

- 1) *Dopamine-dependent synaptic and motor dysfunctions induced by alpha-synuclein in the nigrostriatal circuit.* Tozzi A., Sciacaluga M., Loffredo V., Megaro A. , Ledonne A. , Cardinale A., Federici M., Bellingacci L., Paciotti S., Ferrari E. , **La Rocca A.** , Martini A. , Mercuri N.B., Gardoni F., Picconi B., Ghiglieri V., De Leonibus E., Calabresi P.
- 2) *Moderate ethanol drinking is sufficient to alter Ventral Tegmental Area dopamine neurons activity via functional and structural remodelling of GABAergic transmission.* Ilari A., Curti L., Petrella M., Cannella N., **La Rocca A.** , Ranieri G. , Gerace E. , Iezzi D. , Silvestri L. , Mannaioni G. , Ciccocioppo R. , Masi A.
- 3) *Acute Rapamycin rescues the hyperexcitable phenotype of accumbal medium spiny neurons in the valproic acid rat model of autism spectrum disorder.* Daniela Iezzi, Lorenzo Curti, Giuseppe Ranieri, Elisabetta Gerace, Alice Ilari, **Antonino La Rocca**, Ludovico Silvetri, Marina Scardigli, Cristina Luceri, Mario D'Ambrosio, Guido Mannaioni, Alessio Masi.
- 4) *Early derangement of axonal mitochondria occurs in a mouse model of progressive but not relapsing-remitting multiple sclerosis.* Daniela Buonvicino, Giuseppe Ranieri, Daniele Guasti, Alessandra Pistolesi, **Antonino Iurato La Rocca**, Elena Rapizzi, Alberto Chiarugi.

- 5) *The dual role of VEGF-A in mediating pain and neuroprotective signaling in rat organotypic spinal cord slices.* Alessandra Toti, Laura Micheli, Valentina Ferrara, Clara Ciampi, Graziani G., Lacal P., Elisabetta Gerace, **Antonino La Rocca**, Lorenzo Di Cesare Mannelli, Carla Ghelardini.

Declaration in lieu of certification and declaration in lieu of affidavit pursuant to Presidential Decree 445/28.12.2000 The undersigned Iurato La Rocca Antonino born in Ragusa on 05/02/1992 residing in Scicli (RG) Corso Garibaldi No. 208 aware of the criminal liability which may be encountered, in case of false statements, pursuant to and for the purposes of art. 76 of Presidential Decree 445/2000 and aware that, pursuant to art. 13, of EU Regulation 016/679 (GDPR), this statement will be published on the website of the administration in a special section of the Transparent Administration, under its responsibility declares under Articles. 46 and 47 of Presidential Decree 445/2000

Florence,

Firma autografa sostituita a mezzo stampa, ai sensi dell'art. 3, comma 2, del D.Lgs.n. 39/1993.

L'originale della presente dichiarazione è conservato presso il Dipartimento di Neuroscienze, Psicologia, Area del Farmaco e Salute del Bambino (NEUROFARBA).