

# Oswaldo Basilio Artimagnella

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## EDUCATION

- Nov 2016 – Apr 2021 **Ph.D. in Functional and Structural Genomics**, *summa cum Laude*, International School for Advanced Studies (ISAS/SISSA), Trieste, Italy.
- Sep 2013 – Mar 2016 **International Master's degree in Neuroscience**, 110/110 *cum Laude*, University of Trieste, Italy.
- Oct 2010 – Sep 2013 **Diploma** for the class of **Experimental Sciences**, obtained in June 2015, 70/70 *cum Laude*, Scuola Superiore di Catania<sup>1</sup> (SSC), Italy.
- Oct 2010 – Sep 2013 **Bachelor's degree in Biological Sciences**, 110/110 *cum Laude*, University of Catania, Italy.

## RESEARCH EXPERIENCE

- Ago 2023 – present **Health care researcher**, Group of Experimental Neurosciences in Rehabilitation, IRCCS Centro Neurolesi "Bonino-Pulejo", Messina, Italy.  
Supervisor: Doctor Emanuela Mazzon  
Scientific director: Prof. Angelo Quartarone
- Apr 2021 – Dec 2022 **Postdoctoral researcher**, Laboratory of Cerebral Cortex Development, SISSA, Trieste, Italy.  
Supervisor: Professor Antonello Mallamaci.
- Nov 2016 – Apr 2021 **Ph.D. Thesis**, Laboratory of Cerebral Cortex Development, SISSA, Trieste, Italy.  
Thesis title: *Foxg1 promotes Grin1 translation in neocortical neurons*. Supervisor: Professor Antonello Mallamaci.
- Mar 2016 – Nov 2016 **Post-graduate training**, Laboratory of Cerebral Cortex Development, SISSA, Trieste, Italy. Funded by SISSA.  
Supervisor: Professor Antonello Mallamaci.
- Gen 2015 – Mar 2016 **Master's Thesis**, Laboratory of Cerebral Cortex Development, SISSA, Trieste, Italy.

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<sup>1</sup> This school, as model of the *Scuola Normale Superiore* in Pisa, develops the skills of young students enrolled at the University of Catania through integrative university courses, and thanks to an interdisciplinary environment. The admission in the forementioned class is restricted by a challenging selection (at most 10 students).

Thesis title: *Non-canonical roles of the transcriptional factor gene Foxg1*. Supervisor: Professor Antonello Mallamaci.

Mar 2013 – May 2013

**Bachelor's Thesis**, Laboratory of Functional Genomics, CNR, Catania, Italy.

Thesis title: *Systems biology: a new experimental approach for studying learning and memory*. Supervisors: Doctor Sebastiano Cavallaro, Professor Guido Li Volsi.

## PUBLICATIONS

**Artimagnella O.**, Esposito M., Sanges R., Mallamaci A. **Foxg1 regulates translation of neocortical neuronal genes, including the main NMDA receptor subunit gene, Grin1**. doi: <https://doi.org/10.1101/2022.10.05.510986>.

Napoletano F., Ferrari Bravo G., Voto I.A.P., Santin A., Celora L., Campaner E., Dezi C., Bertossi A., Valentino E., Santorsola M., Rustighi A., Fajner V., Maspero E., Ansaloni F., Cancila V., Valenti C.F., Santo M., **Artimagnella O.**, ..., Mantovani F., Specchia V., Del Sal G. (2021). **The prolyl-isomerase PIN1 is essential for nuclear Lamin-B structure and function and protects heterochromatin under mechanical stress**. *Cell Reports*, 36, 11, 109694, doi: 10.1016/j.celrep.2021.109694.

Tigani W.\*, Pinzan Rossi M.\*, **Artimagnella O.**\*, Santo M.\*, ..., Caleo M., Ballerini L., Bozzi Y., Mallamaci A. (2020). **Foxg1 Upregulation Enhances Neocortical Activity**. *Cerebral Cortex*, 30, 9, 5147–5165, doi: 10.1093/cercor/bhaa107. \* Equally contributed.

**Artimagnella O.**, Mallamaci A. (2019). **RNASeq profiling of Foxg1-GOF neocortical neurons**. doi:10.5281/zenodo.3739467.

## AWARDS AND FELLOWSHIPS

Apr 2023 "Silvia Zucchelli Prize" 2022 to the best thesis which provided significant and original contributions advancing our knowledge on biological macromolecules (DNA, RNA, proteins).

Gen 2019 YounGrant - IDEAS 2018 "Translation role of Foxg1 on *Grin1* expression and its dynamics in living neurons", proposer Dr. Artimagnella, Dr. Mortal.

Jul 2015 FENS and IBRO-PERC stipend for attending the "Neural Circuit Development and Plasticity" course, Utrecht University.

## CONFERENCES, WORKSHOPS, HACKATHONS

Oct 2021	The Brain Conference – <i>RNA Mechanisms and Brain Disease</i> , Rungstedgaard, Denmark ( <b>Poster presentation</b> ).
May 2021	Devpost – <i>NanoString Spatial Omics Hackathon</i> . <a href="https://devpost.com/software/data-visualization-app">https://devpost.com/software/data-visualization-app</a>
Oct 2019	SISSA Neuroscience Area Retreat, Trieste, Italy ( <b>Oral presentation</b> ).
Jun 2018	International Conference - <i>Cortical Evolution 2018</i> , Las Palmas de Gran Canaria, Spain ( <b>Poster presentation</b> ).
Oct 2015	National SINS Congress, Cagliari, Italy.
July 2015	FENS Summer School, NENS Course – <i>Neural Circuit Development and Plasticity</i> , Utrecht, Netherlands.
June 2012	National SINS Congress, Catania, Italy.

## SKILLS AND COMPETENCES

**Cellular and Molecular Biology:** Primary murine neural cell culture; bacterial culture; mice handling; wide spectrum of molecular biology techniques working with DNA, RNA, and proteins; lentiviral production and transgenesis; CRISPR/Cas9 technology; RNA and protein enrichment techniques (TRAP, RIP, co-IP, PUNCH-P); Proximity ligation assay (PLA), puro-PLA, and puro-PLA run-off (*developed by me*).

**Microscopy & Imaging:** immunostaining, epifluorescence and confocal microscopy; live-imaging; imaging analysis with ImageJ and Volocity software.

**Programming:** Python (proficient); R (basic).

**Mentoring:** Master's Thesis of Elena Sabina Maftei about "Investigation of a putative uORF in the 5'UTR of *FOXG1*: a possible target for therapeutic treatment of *FOXG1* syndromes?"; Master's Thesis of Vittoria Avaro about "Building and evaluation of SINEUP transactivators of *Foxg1* translation in neocortical cells".

**Lab management:** Managing of laboratory's reagents and equipment; material inventory; quotations and reagents order.

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