

Andrea Carvelli

Postdoctoral Researcher

Contact

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Skills

Analytical Thinking



Experiment Design



Creative Problem Solving



DNA/RNA Analysis



Cell Cultures Manipulation



Data Analysis



Dynamic and detail-oriented 7+y scientist with a strong background in molecular biology applied to neuroscience. Experienced in designing and conducting complex experiments, analyzing data, and contributing to innovative research projects. Proven ability to work collaboratively in interdisciplinary teams and communicate findings effectively through publications and presentations.

WORK EXPERIENCE

Postdoctoral Researcher

2022-03 -

Giordano Lippi, La Jolla, CA

2024-10

- **Post-doctoral researcher** at "Dorris Neuroscience Center, The Scripps Research Institute"

2021-01 -

Irene Bozzoni, Rome, Italy

2022-01

- **Post-doctoral researcher** at the "Center for Life Nano- & Neuro-Science, Italian Institute of Technology foundation".

MOLECULAR BIOLOGY:

- Genome editing strategies (*CRISPR/Cas9*) and clonal selection
- DNA/RNA detection analysis (*PCR, qPCR analysis*)
- Protein detection analysis (*Western Blot analysis*)
- DNA cloning (*design and tests*)
- RNA sequencing samples submission (*Single-cell RNA-seq*)
- Bacterial manipulation (*Growth and Transformation*)
- Viral Production

IMAGING

- Immunostaining (IF, IHC)
- Confocal microscope usage (Setting and Images acquisition)
- Image analysis and editing software (ImageJ, Cell Profiler, Adobe Illustrator, Photoshop)

CELL CULTURES:

- Stem and Neuronal cells manipulation (*mESCs, Motoneurons*)
- Expansion and Maintenance of Neuronal cell lines
- Cellular transfection (*siRNAs, Plasmids*)

IN VIVO (mice):

- Viral Injection (Subretinal, Intravitreal)
- Perfusion and Organs collection (Brain, Eyeball, Chiasm)
- Retinal dissection
- Vibratome and Cryostat usage

EDUCATION

2017-11 -

2020-10

Ph.D.: Genetics & Molecular Biology

La Sapienza University - Rome, Lazio, Italy

- **PhD** at Irene Bozzoni's Lab
- Project's title: ncRNAs in motoneuron development and degeneration

2015-10 -

2017-10

Master of Science: Genetics & Molecular Biology

La Sapienza University - Rome, Lazio, Italy

- **Master's degree** at Anna Maria Biroccio's Lab
- Thesis: Characterization of the biological effects of the first pharmacological activator of sirtuin SIRT6: UBCS039
- 110/110 with honors

2012-09 -

2015-10

Bachelor of Science: Biology

La Sapienza University - Rome, Lazio, Italy

- **Bachelor's degree** at Roberto Contestabile's lab
- Thesis: Molecular basis of neonatal epileptic encephalopathy

STRENGTHS & SOFT SKILLS

- Extensive **hands-on experience** in wet-lab
- Able to handle **multiple tasks** daily and **problem-solving** attitude
- Excellent **interpersonal** and **communication skills** **Teamwork** in an international and multidisciplinary work environment
- **Mentoring** and **supervision** of **master's students** **research activities**
- **Data analysis** (GraphPad Prism and Origin) and **excellent data presentation** (Word, Excel, PowerPoint, Illustrator)

WORKSHOP & CONFERENCES

• **18th to the 23rd of June 2019**

Oral presentation at 3rd International Conference on the Long and the Short of **Non-Coding RNAs**, Avra ImperialHotel & Conference Center, Chania, Crete, Greece Presentation Title: **“LncRNAs in motoneuron development”**

Award: **Best** oral presentation

• **7th to the 11th of October 2018**

Attending @EMBL Course Whole **Transcriptome Data Analysis**, EMBL, Heidelberg, Germany

• **18th to the 21th of September 2018**

Poster presentation at XV Federazione Italiana Scienze della Vita (FISV) Congress, Sapienza University, Rome, Italy Poster's Title: **“Noncoding RNA circuitries in motoneuron physiopathology”**

29th to the 30th of June 2018

Poster presentation at **BraYn** - Brainstorming Research Assembly for YOUNG Neuroscientists, Ospedale Policlinico San Martino, Genoa, Italy

Poster's Title: **“Long non-coding RNAs in motoneurons differentiation and degeneration”**

PUBLICATIONS

Carvelli, A., Setti, A., Desideri, F., Galfrè, S. G., Biscarini, S., Santini, T., ... & Bozzoni, I. (2022). A multifunctional locus controls motor neuron differentiation through short and long noncoding RNAs. *The EMBO Journal*, e108918.

II. Desideri, F., Grazzi, A., Lisi, M., Setti, A., Santini, T., Colantoni, A., Carvelli, A.... & Bozzoni, I. (2024). CyCoNP lncRNA establishes cis and trans RNA–RNA interactions to supervise neuron physiology. *Nucleic Acids Research*, 52(16), 9936-9952.