

Cecilia Carmignoto | PhD Student

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Current Position

Nov 2024 – : PhD student in the Laboratory of Developmental Gene Regulation, Collège de France (Paris), under the supervision of Denis Duboule.

Thesis: *Dynamics of 4D Transcription during Pseudo-Embryos Development*

Education

Institut Curie <i>Course in Epigenetics: From nuclear organization to development in normal and diseased states</i>	Paris, France Mar 2025
University of Padova & Université de Paris Cité <i>Double MSc in Molecular Biology, Bioinformatics, Genetics, 110/110 cum laude</i> Magistère Européen de Génétique	Paris, France 2021–2023
Institut Pasteur <i>Course in Human Population Genomics and Genetic Epidemiology</i>	Paris, France Oct 2023
University of Padova <i>BSc in Medical Biotechnology, 107/110</i>	Padova, Italy 2019–2021

Experience

Collège de France <i>PhD Student</i> Supervisor: Denis Duboule and Ivana Jerković	Paris, France 2024–
Institute of Psychiatry and Neuroscience of Paris M.O. Krebs and B. Chaumette, Laboratory of Pathophysiology of Psychiatric Disorders <i>Study Engineer</i> <ul style="list-style-type: none">○ Epigenetic mediation of childhood trauma and first psychosis episode.○ DNA methylation signatures of lithium response in bipolar disorder.	Paris, France Jan–Oct 2024
Imagine Institute J. L. Casanova and L. Abel, Laboratory of Human Genetics of Infectious Disease <i>Research Intern</i> <ul style="list-style-type: none">○ Genetic basis of Kawasaki disease (inborn errors of immunity).○ Rare variant pathogenicity prediction, gene-based association analysis.	Paris, France Jan–Jun 2023
University of Padova P. Braghetta, Laboratory of Functional Genomics <i>Research Intern</i> <ul style="list-style-type: none">○ CRISPR-Cas9 zebrafish knock-out of <i>emilin1a</i>.○ Compared electroporation vs microinjection delivery methods.	Padova, Italy Apr–Jun 2021

Awards

2022: University of Padova Scholarship for Double Master Degree

2022: Erasmus+ Scholarship, Paris

Conferences

Jun 2024: Enhancer Mechanics and Enhanceropathies, Paris. Poster: *4D Transcriptional Dynamics in Developing Pseudo-Embryos*

March 2024: Course “From nuclear organization to development in normal and diseased states”, Paris. Poster: *4D*

Transcriptional Dynamics in Developing Pseudo-Embryos

Sept 2024: Workshop “Massive genomic data: statistical and bioinformatics advances”, Bordeaux. Poster: *Epigenetic Markers in Psychosis*

June 2024: European Society of Human Genetics, Berlin. Poster collaboration: *Exonic tandem repeats in lipid metabolism genes in early psychosis*

Feb 2023: Statistical Methods for Post Genomic Data, ENS Paris

Oct 2023: Neuroimmunity, Development and Psychiatry, Paris

Jul 2023: Artificial Intelligence in Biology and Health, Institut Pasteur, Paris

Nov 2023: Magistère Européen de Génétique Workshop, Paris. Poster: *Genetics of Kawasaki disease*

Oct 2023: Models in Genetic Disease Research, Padova. Poster: *Zebrafish CRISPR-Cas9 emilin1a knockout*

Supervision

2023–: Supervision of M2 student: *De novo variants in early onset psychosis (WES trios)*

Skills

Laboratory:

- Cell culture (ESCs).
- CRISPR/Cas9 genome editing in zebrafish and ESCs.
- PCR, RT-qPCR, HMA, Western blot.
- Immunofluorescence, gel-filtration, protein fingerprinting.
- Wide-field and confocal microscopy.

Bioinformatics:

- Data: FASTQ, BAM, VCF, BED, CSV, JSON, IDAT.
- Tools: PLINK, REGENIE, Ensembl VEP, IGV, CHAMP.
- Languages: R, Python, Unix/Bash.
- OS: Linux, Windows, macOS.

Languages

Italian (native), English (fluent), French (fluent)

Interests

Genomics, Genetics and Epigenetics, Development, Multi-omics Integration