

PERSONAL INFORMATION

Marinella Corbetta

📍 Fondazione IRCCS Istituto Neurologico Carlo Besta
UO Genetica Medica e Neurogenetica

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WORK EXPERIENCE

from March 2022

Italian NHS Researcher

Fondazione IRCCS Istituto Neurologico Carlo Besta, (Milan, Italy)

- Development of third generation sequencing techniques (Long Read Sequencing) for the analysis of complex repeated sequences in patients with neurodegenerative diseases (CANVAS, NIID).

from March 2021 – to February 2022

Research Fellow

Fondazione IRCCS Istituto Neurologico Carlo Besta, (Milan, Italy)

- Exome sequencing in families with rare neurological diseases to identify possible candidate pathogenic variants. Set up of RNA sequencing experiments on a cohort of patients with rare neurodegenerative diseases.

from January 2018 – to February 2021

Ph.D. scholarship in Molecular and Experimental Medicine

Humanitas University (Milan, Italy)

- Study of liquid biopsy for the early detection of prostate cancer (PCa) through the analysis of cell-free DNA extracted from blood and with the isolation of Circulating Tumor Cells from urine and seminal fluid of patients with localized PCa.

from October 2015 – to February 2017

Master thesis project

Istituto Auxologico Italiano (Milan, Italy)

- Study of MultiLocus Imprinting Disturbances (MLID) in a cohort of patients with Beckwith-Wiedemann syndrome.

EDUCATION AND TRAINING

from January 2018- to April 2021

PhD in Molecular and Experimental Medicine

Humanitas University, (Milan, Italy)

- The thesis project was carried out at the Laboratory of Medical Genetics and RNA Biology. Thesis: "Circulating cell-free DNA analysis in localized prostate cancer and molecular characterization for patient stratification".

June 2017

Professional qualification Biologist (State Board Exam)

University of Insubria, (Varese, Italy)

- State Board Exam

from September 2014- to February 2017

Master's Degree in Biology

University of Milano-Bicocca, (Milan, Italy)

- The master's thesis project was carried out at the Cytogenetics and Molecular Genetics laboratory (Istituto Auxologico Italiano). Thesis: "Characterization of a cohort of patients with Beckwith-Wiedemann syndrome: multiple methylation defects and research of trans-acting factors".

from September 2011 to November 2014

Bachelor's Degree in Biological Sciences

University of Milano-Bicocca, (Milan, Italy)

- Molecular and Cellular Biology.

TECHNICAL SKILLS

Molecular and cellular biology techniques

- Main molecular and cellular biology techniques: Nucleic acids extraction, PCR, RT-PCR, Real-Time PCR, gel electrophoresis, Sanger sequencing, point mutation detection, cell culturing.
- Methylation analysis techniques: Bisulfite DNA conversion, MS-PCR, MS-MLPA, MS-SNuPE, basic experience with pyrosequencing and Targeted Bisulfite NGS.
- Cell sorting techniques: BD FACSMelody™ Cell Sorter.
- Next-generation sequencing techniques: Library preparation both manually and with liquid handling technology for DNA/RNA sequencing applications, Targeted amplicon sequencing, Whole Exome Sequencing and Long read sequencing (Oxford Nanopore Technologies).

Computer-related skills

- Operating systems and software packages: Microsoft Windows, Microsoft Office suite.
- Primer design tools, life sciences databases: NCBI, ExPasy, Swiss-Prot, Ensembl, UCSC Genome Browser.

Bioinformatics and statistical skills

- Basic experience with BaseSpace (Illumina) for Fastq alignment, variants interpretation, gene fusion detection.
- Basic experience with RNAseq analysis using R
- Experience with software and tools for Statistics and Data Science (R, JMP, Stata and GraphPad).