

PERSONAL INFORMATION

Silvia Baratta

📍 Foundation I.R.C.C.S. Neurological Institute “C. Besta”
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WORK EXPERIENCE

December 2019 -Today

Italian NHS researcher

Foundation I.R.C.C.S. Neurological Institute “C. Besta”

Molecular analysis using the high-throughput method (Next Generation Sequencing) for the study and identification of new disease genes by preparing DNA libraries, analyzing the data obtained with NGS and using computer programs for the interpretation of the identified variants.

May 2007 – December 2019

Contract Researcher

Foundation I.R.C.C.S. Neurological Institute “C. Besta”

Molecular analysis of hereditary neurological diseases with high genetic heterogeneity: high throughput screening and identification of new disease genes by Next-Generation Sequencing (spastic paraparesis, hereditary spinocerebellar ataxias, hereditary metabolic diseases, regional network for rare diseases in Lombardy).

May 2003 - June 2007

Research Fellowship

Foundation I.R.C.C.S. Neurological Institute “C. Besta”

Using molecular biology techniques: screening of rare genes and identification of new genes responsible for hereditary CMT neuropathies, study of linkage and mutation in hereditary spastic paraparesis.

June 2000 – September 2003

Contract Researcher

Foundation I.R.C.C.S. Neurological Institute “C. Besta”

Molecular analysis and pathogenetic models in hereditary sensory-motor neuropathies and study etiopathogenetic of neurodegenerative diseases of the spinal cord and peripheral nerve..

May 1994 - April 1999

Research Fellowship

Foundation I.R.C.C.S. Neurological Institute “C. Besta”

Analysis by genetic-molecular techniques and creation of cellular models for the study of the pathogenesis of hereditary encephalomyopathies of mitochondrial energy metabolism: in particular, physiopathological study of CPTII and fumarase defects.

EDUCATION AND TRAINING

November 1995

Professional qualification Biologist

State Board Exam

University of Milan

1988-1993 **Master's degree in Biological Sciences**

University of Milan

The title of the master's thesis "In *Saccaromyces cerevisiae* the release of periplasmic proteins in the culture medium is altered in wall mutants and is influenced by a specific amino acid sequence".

1991-1993 **Attendance at the Division of Comparative Biochemistry for the development of the experimental thesis**

In the experimental work, I focused attention on the secretion process of heterologous proteins in the budding yeast *S. cerevisiae* wild type and in yeasts mutated at the cell wall level. I also developed a plate assay that allows the secretion behavior of different yeast strains to be analyzed in parallel.

1982-1987 **Classical high school diploma**

G. Parini, Milan

TECHNICAL SKILLS

I have gained experience in molecular and cellular biology techniques:

Batch growth of yeast cells and prokaryotic microorganisms

Cultures of eukaryotic cells

Extraction of nucleic acids from blood cells and tissues

PCR, cloning, recombinant DNA techniques, DNA sequencing with automatic sequencer, DNA duplication and deletion analysis by MLPA and RT-PCR

Mutational analysis by DHPLC

Southern blot

Transformation of yeast and *E. coli* cells, transfections of eukaryotic cells

Preparation of cell extracts, enzymatic activity assays, electrophoresis and immunoblotting

Next Generation Sequencing: in particular TruSeq Custom Amplicon, Nextera Rapid Capture and Nextera XT

Computer skills: programs for the management of laboratory equipment and laboratory activities (Word, Excel, PowerPoint, CLUSTALW, IGV and programs for variant annotations).