

PERSONAL INFORMATION

Elisa Sarto

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WORK EXPERIENCE

December 2019 – Today

Italian NHS researcher

Foundation IRCCS Neurological Institute "C. Besta", Milan

Genetic screening in the context of central nervous system disorders. Use of the NGS technique on gene panels to search for pathogenetic mutations, new disease genes, analysis of the results, validation of the identified variants and segregation in families.

May 2012 – December 2019

Contract researcher

Foundation IRCCS Neurological Institute "C. Besta", Milan

Genetic screening in the context of neurodegenerative diseases with high genetic heterogeneity through the use of the NGS technique to search for pathogenetic mutations, new disease genes, analysis of results, validation of identified variants and segregation in families.

May 2007 – May 2012

Research Fellowship

Foundation IRCCS Neurological Institute "C. Besta", Milan

Research activities in the field of neurodegenerative diseases (ataxias and spastic paraparesis), molecular and biochemical screening of large patient cohorts to search for new pathogenetic mutations, development of new methods of analysis, analysis of results.

November 2006 - May 2007

Research Fellowship

Foundation IRCCS National Cancer Institute, Milan

Immunological studies related to Toll-like receptors.

EDUCATION AND TRAINING

September 2013 - July 2014

1st level International Master in Applied Nutrition and Dietetics

Marche Polytechnic University

Title of the master's thesis: "Nutrients, genome and health: the diet of the future"

Study of nutritional plans and acquisition of the main notions relating to the basics of nutrition and dietetics.

November 2012

Professional qualification Biologist

State Board Exam

University of Milan

October 2004 - July 2006

Master's Degree in Industrial Biotechnology

The University of Pavia

Title of the specialist thesis: "Molecular dissection and phylogeographic analysis of haplogroup M1 of human mitochondrial DNA", at the Human Genetics Laboratory

Main subjects covered: genetics, molecular and cellular biology about nuclear DNA and mitochondrial DNA.

October 2001 - September 2004 **First Level Degree in Biotechnology, biological path**
The University of Pavia
Title of the first level thesis: "Analysis of human mitochondrial DNA: complete sequencing of three genomes", at: Human Genetics Laboratory
Main subjects covered: genetics, molecular and cellular biology about nuclear DNA and mitochondrial DNA.

October 2001 - September 2004 **Scientific high school G. Peano (national IT plan)**

TEACHING ACTIVITY

April 2006 - June 2006 **Tutor of the Bioinformatics course**, part of the first level degree in Biological Sciences

TECHNICAL SKILLS

Excellent competence in molecular biology techniques: PCR, HRM, MLPA, Real-Time PCR, Genomiphi, DHPLC, Southern Blot, enzymatic digestions, electrophoretic runs, RNA extraction, protein extraction, Western Blot, genomic and mitochondrial DNA sequences.

Excellent skills in cell biology techniques: tumor cell maintenance, cell labeling with Chromium 51 for cytotoxicity tests, Elisa test, labeling with P32.

Excellent knowledge of the new NGS (Next Generation Sequencing) approaches, in particular the Target Resequencing technique (TruSeq Custom Amplicon); Nextera Rapid Capture, Nextera XT and Exome sequencing.

Excellent knowledge of laboratory programs in particular Sequencer, Clustalw, IGV (and other DNA sequences reading programs) and variant prediction and annotation programs. Data analysis of all the techniques cited.

Excellent knowledge of Office applications (Word, Excel, PowerPoint).