# Roberto Preste

### **Personal information**



Personal: <a href="mailto:roberto.preste@gmail.com">roberto.preste@gmail.com</a>

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Sex: M | Date of birth: 02/01/1991 | Nationality: Italian

## **Publications**

*Calabrese FM, Balacco DL, Preste R, Diroma MA, Forino R, Ventura M, Attimonelli M - NumtS colonization in mammalian genomes - Sci Rep, 2017 (doi: 10.1038/s41598-017-16750-2)* 

Clima R, **Preste R**, Calabrese C, Diroma MA, Santorsola M, Scioscia G, Simone D, Shen L, Gasparre G, Attimonelli M - HmtDB 2016: data update, a better performing query system and human mitochondrial DNA haplogroup predictor - Nucleic Acid Res, 2017 (doi: 10.1093/nar/gkw1066)

## Work experience

April 2017 - Ongoing

#### PhD Student

PhD in Functional and Applied Genomics and Proteomics, Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari "Aldo Moro", Bari, Italy

- Study and development of Big Data analysis protocols for biological data
- Development of the Human Mitochondrial Database (<a href="http://www.hmtdb.uniba.it">http://www.hmtdb.uniba.it</a>) for Big Data compliance

October 2016 - Ongoing

#### Bioinformatician and Web developer

BROWSer - Bioinformatics Resource for Omics-Wide Services, Spin-off of the University of Bari "Aldo Moro", Bari, Italy

- Development of a pipeline to analyse Whole Exome Sequencing data
- Design and development of the BROWSer website (http://browser-bioinf.com)

March - September 2016

#### Web developer

ELIXIR Hub, Wellcome Trust Genome Campus, Hinxton, Cambridge, UK

- Management of the ELIXIR intranet
- Design and production of the Bioschemas website (http://bioschemas.org)
- Active collaboration with the Bioschemas development community
- Design and production of a registry and validation portal on Bioschemas data

November 2015 - March 2016

#### Post-graduate internship

Department of Pathological Anatomy, Policlinico "Le Scotte", Siena, Italy

• Active collaboration in a research project to study and characterise post-translational modifications in Rb-related proteins in mesotelioma cell lines

- Management of cell cultures and performing of cytotoxicity assays on human cell lines
- Protein extraction and Western Blot assays

January - July 2015

### **Didactic - integrative Tutor**

Labo-Biotech, Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari "Aldo Moro", Bari, Italy

- Educational counselling and management of a series of seminars for students of "Medical and Pharmaceutical Biotechnologies" and "Processes and Products Innovation Biotechnologies" courses
- Management of a remedial course in Applied Physics
- Management of the Faculty website (<a href="http://www.biotec.uniba.it">http://www.biotec.uniba.it</a>)

November 2014 - July 2015

### University internship (MSc)

Bioinformatics lab (supervisor: Prof. Attimonelli M.), Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari "Aldo Moro", Bari, Italy

- Automated updating of a human mitochondrial genomes' database (http://hmtdb.uniba.it)
- Implementation and optimization of several scripts for bioinformatics analysis
- Creation of an automated pipeline for searching RNA editing events in human mitochondrial genomes

March - June 2013

#### University internship (BSc)

Organic Chemistry lab (supervisor: Prof. Farinola G.), Department of Chemistry, University of Bari "Aldo Moro", Bari, Italy

- Culture, purification and functionalization of diatoms' frustule through organosilanes chemistry
- Purity analysis of compounds using FTIR

### **Education and training**

2013 - 2015

### Master's Degree in Cellular and Molecular Biology (LM-6)

Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari "Aldo Moro", Bari, Italy

Final mark: 110/110

Thesis in Bioinformatics and Comparative Genomics (supervisor: Prof. Attimonelli M.): "Automated characterization and annotation of nucleotide variants in human mitochondrial DNA and RNA"

2009 - 2013

## Bachelor's Degree in Medical and Pharmaceutical Biotechnologies (L-2)

Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari "Aldo Moro", Bari, Italy

Final mark: 103/110

Thesis in Organic Chemistry (supervisor: Prof. Farinola G.): "Functionalization of nanostructured biosilica"

2004 - 2009

### High school Diploma (scientific - biologic studies)

Liceo Scientifico - Biologico, I.T.A.S. Principess Maria Pia, Taranto, Italy

Final mark: 87/100

### Personal skills

#### Communication skills

Good communication and integration skills, mainly developed during my tutoring activities in University, since constant student-tutor as well as tutor-administrators interactions were needed; I further improved these skills during my work at ELIXIR, in which I had to periodically present the

goals I had achieved and the tasks I was going to tackle for an ongoing project.

#### Organizational and managerial skills

Great skills in job organization and distribution of tasks, gained during my work at ELIXIR and University internships, in which it was required to work on a specific project analyzing one particular side of it, though cooperating and sharing findings with the whole working group.

#### Job-related skills

Great knowledge of bioinformatics tools to analyse and characterise biological sequences; great propensity to create new tools and problem-based computational resources.

Great knowledge of web development and various web programming frameworks and Content Management Systems.

Good knowledge of nucleic acids extraction, purification and sequencing protocols from biologic samples.

### Computer skills

- Great knowledge of the main packages for bioinformatics data analysis, both web-based and stand-alone
- Great knowledge of Python and Shell programming languages
- Great knowledge of HTML, CSS, JavaScript, Wordpress and Drupal CMS and of web development in general
- Great knowledge of the MS Office suite, OSs (especially UNIX-based ones) and web navigation

I have, and always had, a great passion for IT in general, besides bioinformatics, and I'm very interested in learning new programming languages and data analysis protocols.