

PERSONAL INFORMATION

Melissa Milazzo

JOB APPLIED FOR
POSITION

Albo per Dottorandi per l'affidamento di attività didattica integrativa extracurriculare e attività di orientamento e tutorato a favore dei corsi di studio dell'ateneo - Dipartimento di Bioscienze

WORK EXPERIENCE

(01/10/2023 - ongoing)

PhD Student

Università degli Studi di Milano (Via Giovanni Celoria 26, 20133, Milan)

- Cryo-Electron Microscopy analyses
 - Data processing with Relion-3.1.2 and Relion-5.0
 - Model building with Chimera-X, USCF Chimera, WinCoot, Phenix
 - Use of Linux commands from terminal
- [Business or sector](#) Department of Biosciences

(01/01/2023 - 30/09/2023)

Research Fellow

IFOM ETS - The AIRC Institute of Molecular Oncology (Via Adamello 16, 20139, Milan)

- Cloning
- Protein expression in *E. coli*
- Protein purification with AKTA Pure and AKTA Purifier
- Size exclusions
- Activity assays (UREA-PAGE)
- *Xenopus laevis* extracts preparation
- Chromatin binding
- Western blots
- SDS-PAGE
- Antibody test
- Site-directed mutagenesis
- SnapGene to prepare cloning, PCR, mutagenesis, project primers
- Binding analyses (EMSA)
- Sample preparation for Electron Microscopy analyses

(30/03/2022 - 30/09/2022)

ERASMUS+ SMT Trainee

University of Cambridge (Sanger Building, 80 Tennis Ct Rd, Cambridge CB2 1GA, UK)

- Cryo-Electron Microscopy sample preparation by vitrification (Vitrobot training)
 - Cryo-EM data processing (cryoSPARC, Relion, Chimera)
 - Mutagenesis
 - Cloning
 - Protein expression in *E. coli*
 - Protein purification with AKTA Pure
 - Activity assays (UREA-PAGE)
 - Binding Assays (Electrophoretic Mobility Shift Assay)
 - SDS-PAGE
 - Followed Titan Krios and Talos Arctica grids' screening
 - Size exclusion chromatography
 - Mass photometry analyses
 - Pull-down assays
- [Business or sector](#) Department of Biochemistry

EDUCATION AND TRAINING

(01/10/2020 - 21/10/2022) **Master’s Degree in Biomolecular, Genomic and Cellular Sciences** EQF level 7
 Università degli Studi di Parma (Via delle Scienze 181/a, 43124, Parma, Italy)

- Seminar about Pymol usage to perform protein structure analyses
- Workshop given by prof. Ben Luisi (Dept. of Biochemistry, Cambridge University) about introduction and first concepts of cryo-EM, Relion, data processing and model building with Chimera and WinCoot (theory and practice)
- Bioinformatic analyses: multiple sequence analyses (ClustalX, Clustal Omega, Jalview), creation of phylogenetic trees, String analyses, Uniprot, Expasy, BLAST, PyMol structural analyses, basics of Python, HMMER, Sequence logos, homology modelling, TMPRED, FASTQ)
- Traineeship (prof. Luca Pellegrini’s laboratory, Dept. of Biochemistry, Cambridge University) on “*Investigating the biochemical and structural basis for inhibition of Pol α /Primase by CD437 and the interaction between RPA and Primosome during DNA replication*”. Laboratory skills acquired: see work experience section “ERSAMUS+ SMT Trainee”
- Final grade: 110/110 cum laude

(01/10/2017 - 24/09/2020) **Bachelor’s Degree in Biotechnology** EQF level 6
 Università degli Studi di Parma (Via delle Scienze 181/a, 43124, Parma, Italy)

- Integrate Laboratory of Biotechnology I: yeast cell plating, cell counting.
- Integrate laboratory of Biotechnology II: SDS-PAGE, Western Blot.
- Integrate laboratory of Biotechnology III: analyses of polymorphisms, DNA extraction, Electrophoresis.
- Traineeship (prof. Paola Goffrini, Dept. of Chemistry, Life Sciences and Environmental Sustainability, Università degli Studi di Parma) on “*Evaluation of the pathogenicity of mutations in genes encoding mitochondrial aminoacyl-tRNA synthetases RARS2 and VARS2 in Saccharomyces cerevisiae: feasibility study and construction of the model*”.
- Basic use of bioinformatic tools (multiple sequence analyses, Uniprot, NCBI, Expasy)
- Cloning
- Restriction and ligation
- Electrophoresis
- SDS-PAGE
- *S. cerevisiae* transformation
- Protein expression
- Final grade 104/110

(09/2012 - 06/2017) **High School Diploma in Foreign Languages** EQF level 5
 Liceo Scientifico Statale Aldo Moro (Via XX Settembre 5, 42124, Reggio Emilia, Italy)

- Italian
- English
- French
- Spanish

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
First Certificate in English. Score: 184/190					
French	B2	B2	B2	B2	B2
DELFI. Score: 81/100					
Spanish	B2	B2	B2	B2	B2
Not certificated. Level obtained after Linguistic High School Diploma.					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- good communication skills gained through my Master’s thesis preparation and exposition, as well as through the Erasmus traineeship

Job-related skills

- I acquired some fundamentals of teaching through a volunteering experience as after-school teacher.
- I learnt the basics of molecular biology during my Bachelor’s Degree. Then I deepen my knowledge during the Master’s Degree.
- I acquired laboratory skills thanks to the Erasmus Traineeship experience and my current job as a PhD student.
- Having being a university student one year ago will help me create a good connection with students.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent User	Independent User	Independent User	Independent User	Independent User

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Other computer skills:

- Linux commands, learnt to perform data processing on Relion-3.1.2 and Relion-5.0
- Power point presentations
- Word
- Excel
- NotePad++
- ChimeraX 1.3
- UCSF Chimera
- ImageJ
- Jalview
- ClustalX
- PyMOL
- Phenix1.20
- MobaXterm
- WinSCP
- Zoom, Teams, Webex

Other skills

- After-school teacher
- Cashier
- secretary

Driving licence

AB
B

ADDITIONAL INFORMATION



Projects
Seminars
Certifications

Seminars

- Workshop: Introduction and first concepts of cryo-EM, Relion, data processing and model building with Chimera and Coot (theory and practice), prof. Ben Luisi, University of Cambridge.
- Chaperone regulation of the protein condensation and aggregation continuum in Alzheimer's Disease, prof. Claudio Gomes, prof. Stefano Ricagno, 20/10/23, Università degli Studi di Milano, Milan, Italy.
- Identification of new targets to promote cardiac regeneration and prevent cardiac fibrosis, Dr. Paola Cattaneo, prof. Paolo Landini, 23/10/23, Università degli Studi di Milano, Milan, Italy.
- Conformational ensembles of the human intrinsically disordered proteome, prof. Kresten Lindorff-Larsen, prof. Carlo Camilloni, 03/11/23, Università degli Studi di Milano, Milan, Italy.
- Discovering new genetic determinants of chemotherapy resistance in BRCA-deficient tumors, Dr. Diego Dibiteto, prof. S. Sertic, 10/11/23, Università degli Studi di Milano, Milan, Italy.
- Neuromuscular organoids for studying the human neuromuscular system in vitro, Dr. Anna Urcinolo, prof. G. Messina, 19/1/24, Università degli Studi di Milano, Milan (Italy).

Certificates

- Certificate of achievement: "The epigenetic regulation of breast cancer: Meet the expert, Dr. Steve Chan", awarded by Prtoeintach Group, Dr Rebecca Northeast, 19/05/2022, University of Cambridge, Cambridge (UK).
- Certificate of course participation: "Optima Max-XP Ultracentrifuge 100-120V 50/60 Hz 220-240V 50 Hz", 27/02/2023, Fabio Ascorti and Natale Cerati, IFOM, Milan (Italy).
- First Certificate in English, Grade A, 184/190, C1, 10/05/2023, Reggio Emilia.
- Attestation de Réussite, DELF B2,81/100, 29/08/2016, Bologna (Italy).

Personal information

I authorize the handling of personal information in this curriculum, according to D.Lgs n. 196/03 and following modifications and Regulations EU 679/2016 (General Regulations concerning Data Protection or GRDP) and art. 7 of University Regulations concerning protection of personal information.

I authorize, according to D.lgs 14/03/2013 n. 33 concerning transparency, in case of conferment of the position and of the fellowship, the publication of this curriculum in the web site of Università degli Studi di Milano in the section "Amministrazione trasparente", "Consulenti e collaboratori".

Date

30/01/2024

Signature