PERSONAL INFROMATION

Paola Guerriero

PROFESSIONAL EXPERIENCE

From January 2019 to March 2023

Continuous Collaboration Contract

For Consorzio Futuro in Ricerca (CFR), at the Department of Translational Medicine of University of Ferrara, Ferrara. Italy. (Molecular Biology Laboratory, Director: Professor Massimo Negrini).

MAIN THEMATIC AREAS:

- Biological and molecular analysis of novel drugs and microRNA efficacy against hepatocarcinoma in *in vitro* and *in vivo* models. A.I.R.C. grant IG 2017 Id.20055: "Functional genomics to delineate molecular pathogenesis and response to therapy of liver cancer".
- *In vivo* analysis of murine microbiome exploiting NGS technology.
- Genomic variants analysis in cancer patients exploiting NGS technology.

From September 2016 to March 2017

Microbiology Tutor for "Progetto Lauree Scientifiche"

University of Ferrara. Ferrara, Italy .

EDUCATION AND TRAINING

From December 2021 – ongoing

Specialization School in Medical Genetics

Molecular Biology Laboratory, University Hospital of Ferrara. Director: Professor Massimo Negrini.

MAIN THEMATIC AREAS:

- Genomic variants analysis in cancer patients exploiting ddPCR and NGS technology to reveal potential eligibility for target drugs or possible resistance mechanisms to therapy.

From November 2015 to October 2018

PhD in Molecular Medicine and Pharmacology

Department of Morphology, Surgery and Experimental Medicine at University of Ferrara. Ferrara, Italy. Oncology Laboratory. Director: Professor Massimo Negrini.

MAIN THEMATIC AREAS:

- Biological and molecular analysis of novel drugs and microRNA efficacy against hepatocarcinoma in *in vitro* and *in vivo* models.
- Analysis of circulating microRNA in HCC patients.

PhD thesis: "Studio del potenziale terapeutico del miR-199a-3p come agente di profilassi e anti-tumorale in modelli pre-clinici di epatocarcinoma".

June 2017

Qualification as Biologist

Score: 216/240, at University of Ferrara, Ferrara, Italy.

From October 2013 to July 2015

Master's Degree in Biomolecular and cellular Sciences

110/110 *cum laude*, at University of Ferrara. Ferrara, Italy.

Master Degree thesis:"Approcci innovativi alla veicolazione di microRNA "mimics" *in vivo*: confronto tra polietilenimmina (Jet-Pei) e nanoparticelle d'oro utilizzando un modello di leucemia linfatica cronica".

From October 2010 to October 2013

Bachelor's degree in Biological Sciences

110/110 *cum laude*, at University of Ferrara. Ferrara, Italy.

Bachelor's Degree thesis: "Immunoprofilazione della proteina MUC18/CD146 in linfociti patologici e blasti di leucemie acute linfoblastiche".

From 2005 to 2010

High School

High School diploma: score 100/100.

PERSONAL SKILLS

Mother tongue: Italian

Other languages

	COMPREHENSION		SPEAKING		WRITING
	Listening	Reading	Oral Interaction	Oral Production	
English	B2	C1	C1	C1	C1
First Certificate in English. Level: C1					

Professional Skills

- ▪Excellent application of cellular biology techniques: primary and continuous cell lines, transfection, infection, treatment with innovative drugs, vitality and apoptosis analysis exploiting colorimetric techniques and the miniaturized cytofluorimeter “Muse® Cell Analyzer”.
- ▪Excellent application of molecular biology techniques: nucleic acid extraction and quantification, PCR, RT-qPCR, qPCR, ddPCR, NGS (Ion Torrent and Illumina technologies), microarrays (Agilent technology), Western Blot.
- Excellent application of microbiology techniques: competent bacteria preparation, bacterial culture, plasmid DNA isolation, CRISPR-Cas9 library production, adeno-associated virus, adenovirus e lentivirus production.
- Good animal handling skills (murine model).
- Excellent data organization and analysis skills.
- Excellent stress management.
- Excellent problem-solving skills.
- Excellent critical thinking skills.
- Continuous learning.

Communicative Skills

- Excellent communicative and relational skills.
- Excellent oral exposure skills.
- Emphatic listening to both colleagues and students.

Managerial and Organizational Skills

- Excellent ability to manage the workload during the day independently.
- Excellent team-working skills.
- Excellent ability in meeting the deadlines.
- Excellent management and team-leading skills.
- Excellent logistic skills, since I am the supervisor for the essential laboratory supplies restock

Digital Skills

SELF-EVALUATION				
Information processing	Communication	Contents creation	Security	Problem Solving
Intermediate	Intermediate	Basic	Intermediate	Basic

- ▪Good proficiency in using Office software (Word, Excel, Power Point, Access, Publisher);
- ▪Good proficiency in using data analysis software (GraphPad);
- Good proficiency in using scientific databases (for example: NCBI, Pubmed, Gene, ClinVar, dbSNP, My Cancer Genome, OncoKB, COSMIC, Ensembl Variant Effect Predictor)
- ▪Excellent proficiency in organizing publication and scientific articles for bibliographic reference list (EndNote).

Driving Licence B

OTHER INFORMATION

Selected Publications

- Callegari, E., **Guerriero, P**., Bassi, C., D'Abundo, L., Frassoldati, A., Simoni, E., . Negrini, M. (2022). *miR199a3p increases the antitumor activity of palbociclib in liver cancer models.* Mol Ther Nucleic Acids, 29, 538549. doi: 10.1016/j.omtn.2022.07.015.
- **Guerriero, P**., Moshiri, F., Lupini, L., Sabbioni, S., Negrini, M., & Callegari, E. (2019). *Circulating tumor DNAs and noncoding RNAs as potential biomarkers for hepatocellular carcinoma diagnosis, prognosis and response to therapy.* Hepatoma Res. doi:10.20517/23945079.2018.108.
- Lupini, L., Roncarati, R., Belluomini, L., Lancia, F., Bassi, C., D'Abundo, L., … **Guerriero, P** …, Negrini, M. (2022). *Monitoring Somatic Genetic Alterations in Circulating Cell-Free DNA/RNA of Patients with "Oncogene-Addicted" Advanced Lung Adenocarcinoma: A Real-World Clinical Study*. Int J Mol Sci, 23(15). doi: 10.3390/ijms23158546.
- Bassi, C., **Guerriero, P.**, Pierantoni, M., Callegari, E., Sabbioni, S. (2022) *Novel Virus Identification through Metagenomics: A Systematic Review.* Life. doi: 10.3390/life12122048.
- Lupini, L., Bassi, C., **Guerriero, P.**, Raspa, M., Scavizzi, F., & Sabbioni, S. (2022). *Microbiota and environmental health monitoring of mouse colonies by metagenomic shotgun sequencing*. World J Microbiol Biotechnol, 39(1), 37. doi: 10.1007/s11274022034690.
- Scavizzi, F., Bassi, C., Lupini, L., **Guerriero, P**., Raspa, M., & Sabbioni, S. (2021). *A comprehensive approach for microbiota and health monitoring in mouse colonies using metagenomic shotgun sequencing*. Anim Microbiome, 3(1), 53. doi: 10.1186/s42523021001134.
- Shankaraiah, R. C., Callegari, E., **Guerriero, P.,** Rimessi, A., Pinton, P., Gramantieri, L., . . . Negrini, M. (2019). *Metformin prevents liver tumourigenesis by attenuating fibrosis in a transgenic mouse model of hepatocellular carcinoma*. Oncogene. doi: 10.1038/s41388-019-0942-z.
- Callegari, E., D'Abundo, L., **Guerriero, P**., Simioni, C., Elamin, B. K., Russo, M., . . . Negrini, M. (2018). *miR-199a-3p Modulates MTOR and PAK4 Pathways and Inhibits Tumor Growth in a Hepatocellular Carcinoma Transgenic Mouse Model.* Mol Ther Nucleic Acids, 11, 485-493. doi: 10.1016/j.omtn.2018.04.002.
- Callegari, E., Domenicali, M., Shankaraiah, R. C., D'Abundo, L., **Guerriero, P**., Giannone, F., Negrini, M. (2018). *MicroRNA-Based Prophylaxis in a Mouse Model of Cirrhosis and Liver Cancer*. Mol Ther Nucleic Acids, 14, 239-250. doi: 10.1016/j.omtn.2018.11.018.
- Moshiri, F., Salvi, A., Gramantieri, L., Sangiovanni, A., **Guerriero, P**., De Petro, G., . . . Negrini, M. (2018). *Circulating miR-106b-3p, miR-101-3p and miR-1246 as diagnostic biomarkers of hepatocellular carcinoma*. Oncotarget, 9(20), 15350-15364. doi: 10.18632/oncotarget.24601.
- D'Abundo, L., Callegari, E., Bresin, A., Chillemi, A., Elamin, B. K., **Guerriero, P.**, . . . Negrini, M. (2017). *Anti-leukemic activity of microRNA-26a in a chronic lymphocytic leukemia mouse model*. Oncogene, 36(47), 6617-6626. doi:10.1038/onc.2017.269

Presentation Poster: "miR199a3p modulates MTOR and PAK4 pathways and inhibits tumor growth in a hepatocellular carcinoma transgenic mouse model" at *Società Italiana di Cancerologia* (SIC) meeting in 2018

Courses Biostatistics, English and Practical and Legal aspects of Animal Handling in Europe and Italy courses .

Certification First Certificate in English (November 2016)

La sottoscritta autorizza il trattamento dei propri dati personali ai sensi del GDPR 679/16 "Regolamento europeo sulla protezione dei dati personali".

La sottoscritta acconsente alla pubblicazione del presente *curriculum vitae* sul sito dell'Università degli Studi di Ferrara.