

Ph.D. student in Genetics, Molecular and Cellular Biology, University of Pavia (XL cycle):
“*New tools to implement personalized medicine approaches for neuroendocrine tumors.*”

Supervisor: Prof. Natalia Simona Pellegata

Reviewer: Prof. Sergio Comincini

MARGARITA BISTIKA

Name: Margarita Bistika
Date of birth: 05/09/1997
Citizenship: Italian
Contacts: margarita.bistika01@universitadipavia.it

EDUCATION

- **October 2024 – currently:** Ph.D. Student in Genetics, Molecular and Cellular Biology, University of Pavia. Thematic scholarship in "*Translational research for diagnostics and therapeutics*" in collaboration with Grafton Therapeutic, Saint-Prex (Switzerland).
- **2020 – 2022:** Master's degree in Molecular Biology and Genetics, grade 110/110, University of Pavia.
- **2017 – 2020:** Bachelor's degree in Biology, grade 107/110, University of Pavia.

RESEARCH EXPERIENCE

- **April 2024 – October 2024:** research fellow (assegno di ricerca) within the project GEN.GUM.PEL.PRIN2022 – "*Targeting the crosstalk between tumour and microenvironment to inhibit the malignant spread of adrenomedullary tumours*" – SSD BIO/18, University of Pavia.
- **April 2023 – April 2024:** research fellow (assegno di ricerca) within the project MAD4CANCER – "*Novel frontiers in tumor biology*" – SSD BIO/18, University of Pavia.
- **September 2021 – October 2022:** research internship in Radiobiology Laboratory, Fondazione CNAO (National Centre of Oncologic Hadrontherapy).
Master's thesis title: "*Evaluation of biological scaffolds to study the effects of different types of ionizing radiation on cancer cell lines.*"
- **November 2019 – June 2020:** research internship in Medical Genetics Laboratory, Department of Molecular Medicine - University of Pavia.
Bachelor's thesis title: "*Hereditary Haemorrhagic Telangiectasia: analysis of microsatellites in the region of the ACVRL1 gene to search for a founding haplotype.*"

INTERNATIONAL RESEARCH EXPERIENCE

- **November 2022 – April 2023:** Erasmus+ Traineeship at Helmholtz Centre Munich, Institute for Diabetes and Cancer, Munich (DE).

WORKING EXPERIENCE

- **2024:** tutoring and teaching assistance (12h) for the Human Molecular Genetics course, part of the Master Program “Molecular Biology and Genetics”, University of Pavia.
- **2021:** part-time collaborator at the Student’s Office, University of Pavia.

PUBLICATIONS

- Charalampopoulou A, Barcellini A, Peloso A, Vanoli A, Cesari S, Icaro Cornaglia A, **Bistika M**, Croce S, Cobianchi L, Ivaldi GB, Locati LD, Magro G, Tabarelli de Fatis P, Pullia MG, Orlandi E, Facoetti A. ***Unlocking the Potential Role of Decellularized Biological Scaffolds as a 3D Radiobiological Model for Low- and High-LET Irradiation.***
Cancers (Basel). 2024 Jul 18;16(14):2582. doi: 10.3390/cancers16142582. PMID: 39061220; PMCID: PMC11274431.
- Charalampopoulou A, Barcellini A, **Bistika M**, Ivaldi GB, Lillo S, Magro G, Orlandi E, Pullia MG, Ronchi S, Trabelli de Fatis P, Facoetti A. ***Vaginal mucosal melanoma cell activation in response to photon or carbon ion irradiation.***
Accepted for publication (in press) at International Journal of Particle Therapy, manuscript number: THEIJPT-D-24-00003R1.
- **Bistika M**, Marangelo A, Ascione F, Valentini N, Fedeli F, Schrader J, Modena D, Steinkühler C, Pellegata NS. ***The novel SSTR3 full agonist ITF2984 shows antitumor properties against pancreatic neuroendocrine tumors (Pan-NETs).***
Submitted to: Endocrine Oncology, manuscript number: NEN-2024-9-11.

PARTICIPATION TO CONGRESSES

- Poster presentation at XX NIBIT Annual Meeting, Padova, October 13-15th 2022: ***Analysis of the effects of C-ion radio-induced alteration of PD-L1 expression on mucosal melanoma cells using 3D biological scaffolds.*** – Charalampopoulou A, Barcellini A, **Bistika M**, Cobianchi L, Croce S, Molinelli S, Orlandi E, Pullia MG, Facoetti A.
- Oral communication at the 20° CONVEGNO NAZIONALE A.I.NET (ASSOCIAZIONE ITALIANA TUMORI NEUROENDOCRINI), Montefalco, October 14th 2023: ***Diagnosi genetica delle forme familiari e sporadiche di tumori neuroendocrini.*** – Pellegata NS and **Bistika M**.
- XXVI Congresso Nazionale SIGU, Rimini, October 4th – 6th 2023
- 47th Annual ERRS Meeting, Catania, September 21st – 24th 2022.

TRAINING COURSES

- Introduzione alla Spettrometria di Massa ad Alta Risoluzione accoppiata alla Cromatografia Liquida – Centro Grandi Strumenti (University of Pavia), December 5th 2023.

REFEREES

- **Hermine Mohr**, Helmholtz Centre Munich, Institute for Diabetes and Cancer, Munich.
- **Natalia Simona Pellegata**, Department of Biology and Biotechnologies, University of Pavia.
- **Angelica Facchetti**, Fondazione CNAO (National Centre of Oncologic Hadrontherapy), Pavia.

TECHNICAL SKILLS AND COMPETENCES

- DNA and RNA extraction; PCR and agarose gel electrophoresis; Real-time PCR; Cloning of vectors via restriction digest; Transformation and transduction; Lentiviral infection; Sanger sequencing.
- Cell culture of primary and continuous tumor cell lines, in both 2D and 3D (spheroids and scaffolds). Experienced in deriving primary cultures from fresh surgical specimens and producing 3D cultures such as organoids.
- Treatment of cancer cells from solid tumors with antitumoral drugs and with radiations (photon irradiation and carbon ion irradiation); Techniques regarding radiation effects on cell growth, cell death and cell migration, both in 2D and 3D in vitro systems (cell viability, apoptosis, clonogenic, migration, scratch, trans-well assays).
- Western Blot, ELISA, immunofluorescence, immunochemistry.

LANGUAGES

- **English:** confident speaker (B2) - FCE Certificate Cambridge (achieved in 2016)
- **Italian:** native speaker
- **Albanian:** native speaker

I give consent to process my data with the purpose of the recruitment process, in accordance to the Regulation of the European Parliament 679/2016, regarding the protection of natural persons and free movement of such data.

September 2024

Margarita Bistika