



Samantha Barbonari

The main focus of my research projects is the better understanding of the role of Two-pore channel two (TPC2) in different types of skin cancer such as primary and metastatic melanoma to introduce the new therapeutic candidates for cancer treatment.

La sottoscritta Barbonari Samantha, consapevole che le dichiarazioni false comportano l'applicazione delle sanzioni penali previste dall'art. 76 del D.P.R. 445/2000, dichiara che le informazioni riportate nel seguente curriculum vitae redatto in formato europeo, corrispondono a verità. Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali".

EDUCATION

2019 - Ongoing Roma, Italia
PhD student in Morphogenesis & Tissue Engineering
Department of AHFMO
Section of Histology and Medical Embryology
Via Antonio Scarpa 16, 00161 Rome, Italy.
Sapienza University of Rome.

2016 - 2019 Roma, Italia
Master's Degree in Genetics and Molecular Biology (LM-6)
110/110 cum laude. Thesis: Adaptive immune response in hospitalized children diagnosed with respiratory syncytial virus (hRSV) and rhinovirus (hRV) bronchiolitis
Sapienza University of Rome - Piazzale Aldo Moro, 5 - 00185 Rome, Italy

2011- 2016 Perugia, Italia
Bachelor's Degree in Biological Science
105/110. Thesis: The anopheles mosquito and the protozoo plasmodium in central south of Italy.
University of Perugia - Piazza Università, 1 - 06123 Perugia, Italy

TRAINING AND SKILLS

- Winter School in Stem cells and Molecular Medicine (Istituito con Decreto Rettorale n. 2020/2021 del 26/07/2021).
- CONGRESSO SIAI 2021
- CONGRESSO SIAI 2022
- Single-cell transcriptomics (theory and bioinformatic pipeline).
- Courses of the MIT PhD program: Flow cytometry; FACS analysis; Confocal microscopy; Statistic course.

WORK EXPERIENCE

April 2021 - September 2021
Visitor to Tumor Microenvironment Laboratory at HUMANITAS Research Hospital - Rozzano (MI)

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B1	B1	B1	B1
French	B1	B1	B1	B1	B1

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

● DIGITAL SKILLS

Microsoft 365 | Microsoft Word | Microsoft Excel | Microsoft Power Point | Microsoft Teams | Zoom | Outlook | Social media | Google drive | ImageJ | Image Lab | Adobe Acrobat | GraphPad 9.0 | Blast | FlowJo | FCS express 5 |

● JOB-RELATED SKILLS

Cell culture: Cultures of human and mouse cell lines (CHL1, B16F0, B16F10, Calu3, THP1, hPBMCs, BMPs); bacterial Transformation with plasmids, Cell Trasfection with siRNA, Cell Trasformation with plasmids, migration and invasion assay, flow cytometry.

Molecular biology: Extraction and quantification of genomic DNA, RNA and protein from cells and tissue samples, PCR & RT PCR, DNA cloning, Plasmid DNA purification (Maxiprep, Midiprep, Miniprep), Western blot analysis, Enzyme-linked immunosorbent assay (ELISA), Immunofluorescence (IF).

Microscopy: Confocal microscopy, Fluorescent microscopy, optical microscopy, lab equipment.

Data analysis: Experimental design, data analysis (GraphPad, Excel, Blast, Datasets, FACS analysis), statistical analysis, interpreting results.

Attention to detail, identifying problems, contributing to teams, grant and proposal writing in collaboration with P.I. and collaborators.

● PUBLICATIONS

1. [Barbonari S](#), D'Amore A, Palombi F, De Cesaris P, Parrington J, Riccioli A, Filippini A. **Relevance of lysosomal Ca²⁺ signalling machinery in cancer**. Cell Calcium. 2022 Mar;102:102539. doi: 10.1016/j.ceca.2022.102539. Epub 2022 Jan 10. PMID: 35074687.

● CONFERENCES AND SEMINARS

1. **Unravelling the role of TPC2/calcium signaling-dependent autophagy in melanoma microenvironment remodelling.**
[Samantha Barbonari](#)¹, Antonella D'Amore¹, Fioretta Palombi¹, Silvia Sideri¹, Nicolò Morina², Anna Riccioli¹, Diletta Di Mitri² and Antonio Filippini¹ ¹Unit of Histology and Medical Embryology, Department of Anatomy, Histology, Forensic Medicine and Orthopaedics, Sapienza University of Rome, 00161 Rome, Italy. ² Humanitas Clinical and Research Center IRCCS, Rozzano (MI), Italy.
ABSTRACT ORAL COMMUNICATION SIAI (Italian society of anatomy and histology) 2021.
2. **Dual role of endolysosomal two-pore channel two (TPC2) in malignant traits of melanoma cells.**
[Samantha Barbonari](#)^{1*}, Antonella D'Amore¹, Fioretta Palombi¹, Silvia Sideri¹, Nicolò Morina², Anna Riccioli¹, Diletta Di Mitri² and Antonio Filippini¹ ¹Unit of Histology and Medical Embryology, Department of Anatomy, Histology, Forensic Medicine and Orthopaedics, Sapienza University of Rome, 00161 Rome, Italy. ² Humanitas Clinical and Research Center IRCCS, Rozzano (MI), Italy.
POSTER SIAI (Italian society of anatomy and histology) 2022.
3. **Inhibition of endolysosomal two-pore channel 2 (TPC2) affects the osteoclastogenesis by modulation of autophagy process.**
Azadeh Montaseri¹, Michela Rossi², Fioretta Palombi¹, [Samantha Barbonari](#)¹, Silvia Sideri¹, Anna Riccioli¹, Simonetta Petrunaro¹, Claudia Giampietri¹, Andrea Del Fattore², Antonio Filippini¹. ¹ Department of Anatomy, Histology, Forensic Medicine and Orthopaedics, Unit of Histology and Medical Embryology, Sapienza University of Rome, 00161 Rome, Italy ² Bone Physiopathology Research Unit, Genetics and Rare Diseases Research Division, Bambino Gesù Children Hospital, IRCCS, 00167 Rome, Italy.
ABSTRACT ORAL COMMUNICATION SIAI (Italian society of anatomy and histology) 2022.

● DRIVING LICENCE

B