

PATOLOGIA CELLULARE ED ULTRASTRUTTURALE

General description of the activities

Primary and established cell cultures

Cell biology

Immunohistochemistry and Immunocytochemistry

Signal transduction

Transmission Electron Microscopy, Immunoelectronmicroscopy and Ultrastructural Pathology

Role	Name	Position	E-mail	Publications	Keywords
Lab head	Prof. Susanna Scarpa	Full professor	susanna.scarpa@uniroma1.it	https://www.scopus.com/authid/detail.uri?authorId=7006154571	Novel anticancer molecules Preclinical anticancer trials
Lab co-head	Prof. Laura Masuelli	Associate professor	laura.masuelli@uniroma1.it	https://www.scopus.com/authid/detail.uri?authorId=6603345787	Cancer targeted therapy Cancer immunotherapy Tumor microenvironment Preclinical models Novel biomarkers Nutraceuticals Ultrastructural pathology
Lab members	Dr. Valeria Lucarini	Researcher RTDA	valeria.lucarini@uniroma1.it	https://www.scopus.com/authid/detail.uri?authorId=55521269000	Cancer targeted therapy Cancer immunotherapy Preclinical models Novel biomarkers Liquid biopsy
	Dr. Daniela Nardozi	PhD student	daniela.nardozi@uniroma1.it	https://www.scopus.com/authid/detail.uri?authorId=57196039131	Cancer targeted therapy Cancer immunotherapy Preclinical models Novel biomarkers Liquid biopsy
	Dr. Valentina Angiolini	PhD student	valentina.angiolini@uniroma1.it	https://www.scopus.com/authid/detail.uri?authorId=57767825500	Cancer targeted therapy Nutraceuticals Preclinical models

Previous and current research

- Study of extracellular matrix components and of matrix metalloproteinases. Analysis of the physiological and pathological role of different extracellular matrix glycoproteins and collagens and of different matrix metalloproteinases in different processes such as adhesion, growth, differentiation and cell death applied to several clinical settings, such as urology, cardiology, dentistry, endocrinology, oncology with pre-clinical *in vitro* and *in vivo* experimental models
- Study of the antitumor effects induced by pharmacological and nutraceutical compounds already approved for clinical use or still in the pre-clinical experimental phases for the developing of new antineoplastic therapies using *in vitro* and *in vivo* experimental models and nanotechnology
- Tumor immunotherapy. Development of active immunotherapy protocols in experimental mouse models (antitumor vaccines). Analysis of the spontaneous immune response against tumor associated antigens in cancer patients
- Identification of novel biomarkers from cancer patients' liquid biopsies and from *in vitro* and *in vivo*

Selected Publications

Benvenuto M, Nardozi D, Palumbo C, Focaccetti C, Carrano R, Angiolini V, Cifaldi L, Lucarini V, Mancini P, Kérpi B, Currenti W, Bei R, **Masuelli L**. [Curcumin potentiates the ErbB receptors inhibitor Afatinib for enhanced antitumor activity in malignant mesothelioma](#). *Int J Food Sci Nutr*. 2023 Nov;74(7):746-759. doi: 10.1080/09637486.2023.2251723

Benvenuto M, Angiolini V, Focaccetti C, Nardozi D, Palumbo C, Carrano R, Rufini A, Bei R, Miele MT, Mancini P, Barillari G, Cirone M, Ferretti E, Tundo GR, Mutti L, **Masuelli L**, Bei R. [Antitumoral effects of Bortezomib in malignant mesothelioma: evidence of mild endoplasmic reticulum stress in vitro and activation of T cell response in vivo](#). *Biol Direct*. 2023 Apr 17;18(1):17. doi: 10.1186/s13062-023-00374-w. PMID: 37069690

Lucarini V, Nardozi D, Angiolini V, Benvenuto M, Focaccetti C, Carrano R, Besharat ZM, Bei R, **Masuelli L**. [Tumor Microenvironment Remodeling in Gastrointestinal Cancer: Role of miRNAs as Biomarkers of Tumor Invasion](#). *Biomedicines*. 2023 Jun 19;11(6):1761. doi: 10.3390/biomedicines11061761 PMID: 37371856

Bei R. and **Masuelli L**. [Novel Therapeutic Targets for Tumor Microenvironment in Cancer](#). *Int. J. Mol. Sci*. 2023, 24, 7240. <https://doi.org/10.3390/ijms24087240> PMID: 37108403

Bei R, Benvenuto M, Focaccetti C, Fazi S, Moretti M, Nardozi D, Angiolini V, Ciuffa S, Cifaldi L, Carrano R, Palumbo C, Miele MT, Bei R, Barillari G, Manzari V, De Smaele E, Modesti A, **Masuelli L**. [Combined treatment with inhibitors of ErbB Receptors and Hh signaling pathways is more effective than single treatment in reducing the growth of malignant mesothelioma both in vitro and in vivo](#). *J Transl Med*. 2022 Jun 25;20(1):286. doi: 10.1186/s12967-022-03490-9. PMID: 35752861

Nicolai A, Taurone S, Carradori S, Artico M, Greco A, Costi R, **Scarpa S**. [The kinesin Eg5 inhibitor K858 exerts antiproliferative and proapoptotic effects and attenuates the invasive potential of head and neck squamous carcinoma cells](#). *Invest New Drugs*. 2022 Jun;40(3):556-564. doi: 10.1007/s10637-022-01238-2. Epub 2022 Mar 21. PMID: 35312942

Nicolai A, Madia VN, Messori A, De Vita D, De Leo A, Ialongo D, Tudino V, Tortorella E, Scipione L, Taurone S, Pergolizzi T, Artico M, Di Santo R, Costi R, **Scarpa S**. [Anti-Tumoral Effects of a \(1H-Pyrol-1-yl\)Methyl-1H-Benzoimidazole Carbamate Ester Derivative on Head and Neck Squamous Carcinoma Cell Lines](#). *Pharmaceuticals (Basel)*. 2021 Jun 12;14(6):564. doi: 10.3390/ph14060564. PMID: 34204738

Sciarra A, Maggi M, Salecchia S, Nicolai A, Tortorella E, Giantulli S, Magliocca FM, Silvestri I, Taglieri L, Cattarino S, **Scarpa S**. [Tissue Expression of Androgen Receptor Splice Variant 7 at Radical Prostatectomy Predicts Risk of Progression in Untreated Nonmetastatic Prostate Cancer](#). *Oncology*. 2021;99(4):251-255. doi: 10.1159/000512445. Epub 2021 Jan 18. PMID: 33461196

Taglieri L, Saccoliti F, Nicolai A, Peruzzi G, Madia VN, Tudino V, Messori A, Di Santo R, Artico M, Taurone S, Salvati M, Costi R, **Scarpa S**. [Discovery of a pyrimidine compound endowed with antitumor activity](#). *Invest New Drugs*. 2020 Feb;38(1):39-49. doi: 10.1007/s10637-019-00762-y. Epub 2019 Mar 21. PMID: 30900116

Grants/Projects/Open Positions/Conferences

Sapienza Grants, small and medium projects (Proff. Susanna Scarpa e Laura Masuelli)

PNRR Projects 2022: PNC "D³ 4 HEALTH", spoke 3 LT2 "Digital Twins construction: Omics and liquid biopsy biomarkers". (Co-PI Prof. Laura Masuelli)

PRIN 2022: «Novel mediators, predictive biomarkers and therapeutic targets for breast cancer metastatic disease» (Research unit PI, Prof. Laura Masuelli)

PNRR Project 2022: PE 10 ONFOOD Spoke 6 "Tackle malnutrition. Focus on sarcopenic obesity" (Investigator prof. Laura Masuelli)

Links

Description - link

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