PHYSICIAN SCIENTIST
LA MEDICINA INCONTRA LA RICERCA
promosso da: AIRC Fondazione CARIPLO | con il supporto di: SYEMM European School of Molecular Medicine | UNIVERSITÀ DEGLI STUDI DI MILANO

2026 Physician Scientist Call

AVAILABLE POSITIONS

Principal Investigator	UGEL STEFANO
Institute of Affiliation	Università degli Studi di Verona
Title of the proposed project:	Tumor-Hijacked Monocytes as Drivers of Cancer Progression, Metastasis and Response to Immunotherapy
Short description of the project	This PhD project aims to investigate the role of tumor-hijacked monocytes in cancer progression, metastatic dissemination, and response to therapy. Emerging evidence suggests that tumors can reprogram circulating monocytes, converting them into immune cells that support disease progression and suppress effective anti-tumor immunity. Understanding the biology of these tumor-educated myeloid cells may provide novel opportunities for cancer diagnosis, patient stratification, and therapeutic intervention. The candidate will study the molecular and functional features of tumor-hijacked monocytes in patients with solid tumors by combining translational and clinical research approaches. The project will integrate high-dimensional single-cell technologies, multiparametric flow cytometry, transcriptomic profiling, bioinformatic analyses, and functional immunological assays to characterize immune cell heterogeneity and identify mechanisms linking systemic immunity to metastatic evolution. A major goal of the project will be to develop innovative strategies for monitoring tumor-hijacked monocytes in peripheral blood and to evaluate their potential as biomarkers of disease progression and response to immunotherapy. The student will work with patient-derived samples and clinically annotated cohorts, while also gaining experience with advanced experimental models and immune-monitoring platforms. The project offers multidisciplinary training at the interface of immunology, oncology, and precision medicine, within a highly collaborative environment involving basic scientists, clinicians, pathologists, and bioinformaticians. Research activities will be carried out at the Immunology Section, Department of Medicine, University of Verona. Clinical duties may be performed at the University Hospital of Verona (Azienda Ospedaliera Universitaria Integrata di Verona), in collaboration with the oncology and related clinical units involved in the project.
Main research area for the project	Immunology
5 keywords for the project	Innate immunity - Immune escape – Metastasis - Immuno-editing - Tumor dormancy

LAB INFO	
Main topic/s of the lab	Immunology

Short description of the lab activity	The Immunology Research Group, led by Prof. Stefano Ugel at the Immunology Section, Department of Medicine, University of Verona, investigates the interplay between cancer cells and the immune system, with a particular focus on myeloid cell biology, tumor progression, metastasis, and cancer immunotherapy. The group has developed internationally recognized expertise in understanding how tumors reprogram myeloid cells to promote immune suppression and disease progression, and in identifying novel biomarkers and therapeutic targets for precision oncology. The laboratory currently comprises the Principal Investigator, one tenure-track assistant professor, three postdoctoral fellows, one PhD student, and four experienced research technicians. The team benefits from a highly collaborative and multidisciplinary environment, integrating expertise in immunology, oncology, molecular biology, bioinformatics, and translational medicine. Research activities are conducted within the Immunology Section, which includes 21 laboratories occupying approximately 1,200 square meters and provides access to state-of-the-art facilities for cell culture, molecular biology, flow cytometry, histopathology, and viral vector production. The group has direct access to advanced flow cytometry and cell sorting platforms, single-cell and genomic technologies, high-resolution imaging systems, metabolomics and proteomics facilities, as well as dedicated animal research infrastructures. The laboratory extensively exploits the technological platforms of the University of Verona, including facilities for in vivo imaging, confocal and multiphoton microscopy, single-cell transcriptomics, next-generation sequencing, digital PCR, and computational data analysis. These resources enable the integration of mechanistic studies in experimental models with the analysis of patient-derived samples and clinically annotated cohorts. A major strength of the group is its strong national and international collaborative network involving experts in oncology, pathology, genomics, bioinformatics, and clinical medicine. This environment offers young researchers the opportunity to participate in highly translational projects bridging basic immunology and clinical application. The laboratory is currently supported by competitive national and international funding, including grants from the Italian Association for Cancer Research (AIRC), and provides extensive training opportunities in cutting-edge experimental and computational approaches relevant to cancer immunology and precision medicine.
Recent bibliography	Telehealth-delivered exercise and nutrition intervention to improve outcomes in patients with early stage non-small cell lung cancer: protocol for the multicentre STARLighT phase II (neoadjuvant) and phase III (adjuvant) trial. BMJ OPEN 2026 Jan; 16: e108080 c-FLIP as a master regulator of immune homeostasis and disease mechanisms. CELL DEATH DIS 2026 Apr; 17: Corneal regenerative contribution of endogenous and grafted limbal-corneal cells in a mouse model of simple limbal-corneal

	epithelial transplantation. STEM CELL TRANSL MED 2026 Feb; 15: Design, Synthesis, and Structural Evolution of Pseudo-Natural Product IDO1 Inhibitors and Degraders. ANGEW CHEM INT EDIT 2026 Jan; 65: e18753 Transcriptional and Epigenetic Plasticity Drive an Alternative Non-clonal Mechanism of Resistance to KrasG12D Inhibition in Pancreatic Cancer. CANCER COMMUN 2026; 46: 0030
Group composition	The research group is led by Prof. Stefano Ugel, an internationally recognized investigator in the field of cancer immunology and myeloid cell biology. Prof. Ugel has authored more than 94 peer-reviewed scientific publications, holds an H-index of 40 (Scopus), and is co-inventor of two patents. His research has received international recognition, including recommendations by Faculty of 1000 and commentaries on several of his publications. The team includes Dr. Francesca Adamo, a tenure-track assistant professor with expertise in tumor immunology and translational research, three postdoctoral researchers working on cancer immunology and immune monitoring, one PhD student, and four highly skilled research technicians supporting experimental, molecular, and computational activities. The group has a strong commitment to mentoring young scientists. Prof. Ugel has supervised more than 30 undergraduate students, six PhD candidates, and multiple postdoctoral fellows funded through competitive fellowships, including awards from Fondazione AIRC and Fondazione Umberto Veronesi. Several former trainees have successfully pursued doctoral and academic careers. The laboratory promotes a collaborative, interdisciplinary, and international environment, providing trainees with direct exposure to advanced technologies, clinical collaborations, and translational research projects at the interface between immunology, oncology, and precision medicine
Institutional page link	https://www.dm.univr.it/?ent=sezione&id=17