PERSONAL INFORMATION Cecilia Garlanda

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Cecilia Garlanda graduated in Veterinary Medicine, at the University of Milan, Italy. She worked at the Mario Negri Institute for Pharmacological Research in the Laboratory of Immunology, Milan, Italy, from 1990 to 2005, and at the Département de Biologie Moléculaire et Structurale in Grenoble, France, in 1994-1995. Since 2005, she is the Head of the Laboratory of Experimental Immunopathology of Humanitas Research Hospital and is currently Associate Professor of Clinical Pathology at Humanitas University, Milan, Italy.
Scientific activity is documented by about 268 scientific publications on international journals, 17 chapters on scientific books; total H index 81; 27500 citations (Scopus).

Research interests regard innate immunity and regulation of inflammation in infections and cancer.
She contributed to characterize a soluble mediator of innate immunity, the long pentraxin PTX3, a molecule involved in pathogen recognition and inflammation, and acting as prognostic and genetic biomarker in human infections. She characterized the biological activity of PTX3 in innate immune responses to pathogens of fungal, bacterial or viral origin, and in the regulation of inflammatory responses in the presence of pathogenic microorganisms or in condition of tissue damage and cancer. She also identified and characterized IL-1R8/SIGIRR, a member of the family of Interleukin-1Receptors/Toll Like Receptors. She showed that IL-1R8 is a negative regulator of inflammatory responses and leukocyte activation triggered by other members of the family, and is involved in different pathological conditions, including infections, inflammation and cancer. Finally, she contributed to dissect the role of humoral innate immunity in COVID-19, developing potential therapeutic molecules and prognostic markers**.**

Selected publications

1- Mantovani A. and Garlanda C. Humoral Innate Immunity and Acute Phase Proteins. N Engl J Med. 2023 Feb 2;388(5):439-452. doi: 10.1056/NEJMra2206346.
2- Stravalaci M., I. Pagani, et al. Recognition and inhibition of SARS-CoV-2 by humoral innate immunity pattern recognition molecules. Nat. Immunol. 2022 Feb;23(2):275-286. doi: 10.1038/s41590-021-01114-w.
3- Brunetta E, et al. Macrophage expression and prognostic significance of the long pentraxin PTX3 in COVID-19. Nat Immunol. 2021 Jan;22(1):19-24. doi: 10.1038/s41590-020-00832-x.
4- Magrini, E., et al. Complement activation promoted by the lectin pathway mediates C3aR-dependent sarcoma progression and immunosuppression. Nature Cancer. 2021(2): 218-232.
5- Garlanda C, Mantovani A. Interleukin-1 in tumor progression, therapy, and prevention. Cancer Cell. 2021 Aug 9;39(8):1023-1027. doi: 10.1016/j.ccell.2021.04.011
6- Mantovani, A., Dinarello, C.A., Molgora, M., Garlanda, C. Interleukin-1 and Related Cytokines in the Regulation of Inflammation and Immunity. Immunity. 2019 50(4): 778-795.
7- Ponzetta A, et al. Neutrophils Driving Unconventional T Cells Mediate Resistance against Murine Sarcomas and Selected Human Tumors. Cell. 2019 Jul 11;178(2):346-360.e24. doi: 10.1016/j.cell.2019.05.047.
8- Riva F, et al. IL1R8 Deficiency Drives Autoimmunity-Associated Lymphoma Development. Cancer Immunol Res. 2019 Jun;7(6):874-885. doi: 10.1158/2326-6066.CIR-18-0698.
9- Garlanda, C., et al. PTX3, a humoral pattern recognition molecule, in innate immunity, tissue repair, and cancer. Physiological Rev. 2018 98: 623-639.
10- Molgora, M., Bonavita, et al. IL-1R8 is a checkpoint in NK cells regulating anti-tumour and anti-viral activity. Nature 2017 551: 110-114.