

PERSONAL INFORMATION

Roberto Pizzala



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🌐 <https://medicinamolecolare.dip.unipv.it/en/research/research-teams-and-topics/immunology-and-general-pathology/auditory-neuroimmunology>

Sex male | *Date of birth* 19/09/1954 | *Nationality* Italian

Associate Professor of General Pathology

WORK EXPERIENCE

Replace with dates (from - to)

Associate Professor of General Pathology (2002 - present)

University of Pavia, Italy

Head of the Neuroimmunology Lab. Neuroimmunology research. Teaching General Pathology and Immunology

Higher education and scientific research

Researcher and Assistant Professor in General Pathology (tenured - 1991 - 2002)

Department of Experimental Medicine, University of Pavia, Italy

Scientific Research - Teaching General Pathology and Pathophysiology

Scientific Research and higher education

Lab Manager (analytical biochemistry - 1988 - 2002)

Institute of General Pathology, University of Pavia, Italy

Post-Grad Research fellow (General Pathology – 1982 - 1984)

Institute of General Pathology, University of Pavia, Italy

EDUCATION AND TRAINING

Replace with dates (from - to)

PhD in Experimental Medicine (1988).

University of Florence, Italy

MSc in Biological Sciences) (1982)

University of Pavia, Italy

Research in experimental oncology, mechanisms of oxidative damage and food biochemistry

WORK ACTIVITIES

Awards

Winner of the annual prize of the Italian Otolaryngology Society (1985)

Editorial activity

Editor of the proceedings of the SFRR Europe Summer Meeting (1997)

Editor of *Médecine biologie environnement international journal* (ISSN 1128-935X - 1984-2000)

Invited presentations

Grants

2021 - Grant from the Fondazione Banca del Monte di Lombardia for the research "Perdita di udito e demenza: c'è un nesso neuroimmune". Funding Eur 30.500.00.

Patents Metodo per predire e determinare allergie. Patent No. 1418813 October 26, 2015.

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s) English (fluent with written and spoken English as well as listening comprehension)

Job-related skills Human resource management.

Digital skills Experience in system engineering and network management. Fluency in all office productivity tools and many scientific software packages.

Other skills Sailing

ADDITIONAL INFORMATION

Statement of Research Interests

Studies on the neuroimmune interactions in the auditory system under normal and pathological conditions. Using tissue clarification methods in intact brain and temporal bone preparations from animal models [Perin et al. 2019], we observed the presence of surface links between the choroid plexus and the cochlear nuclei [Perin et al. 2021], at the level of which macrophages accumulate after cochlear damage [Perin et al. 2017], localized in a position consistent with their transmission modulation in the molecular layer of the dorsal cochlear nucleus, whose structure is similar to that of the cerebellar cortex. Because the dorsal cochlear nucleus appears to be involved in the onset of tinnitus [Wu et al. 2016], we are studying the effects of choroid plexus interactions in a mouse model of tinnitus.

In parallel with the studies on cochlear nuclei, using the same tissue clarification approach, we are reconstructing the microvascular network of the temporal bone to observe the distribution of immune system cells from the local bone marrow [Perin et al. 2022]. Indeed, the structural complexity of this bone has so far precluded a detailed microvascular analysis of it, and the importance of this analysis is exacerbated by the recent observation of intact parietal bone, in which the bone marrow provides cells that mature locally and remain spatially and functionally associated with the meninges, contributing predominantly to neuroimmune interactions [Cugurra et al. 2021].

Publications total number of publications in peer-review journals: 44 (Scopus), 49 (ORCID)
total number of citations: 1127
H index (Scopus): 17

Calisesi, G., Ancora, D., Tacconi, C., Fantin, A., Perin, P., Pizzala, R., Valentini, G., Farina, A., Bassi, A.
57214092432;56584526600;55871662500;23007969000;19335860000;6701341024;7102929888;23004120100;7
102527039; Enlarged Field of View in Spatially Modulated Selective Volume Illumination Microscopy(2022)
Microscopy and Microanalysis, 28 (5), pp. 1622-1631. DOI: 10.1017/S1431927622012077

Perin, P., Rossetti, R., Ricci, C., Cossellu, D., Lazzarini, S., Bethge, P., Voigt, F.F., Helmchen, F., Batti, L., Gantar, I.,
Pizzala, R. 3D Reconstruction of the Clarified Rat Hindbrain Choroid Plexus(2021) Frontiers in Cell and
Developmental Biology, 9, art. no. 692617, . DOI: 10.3389/fcell.2021.692617

Perin, P., Mabou Tagne, A., Enrico, P., Marino, F., Cosentino, M., Pizzala, R., Boselli, C.; Cannabinoids, Inner Ear,
Hearing, and Tinnitus: A Neuroimmunological Perspective (2020) Frontiers in Neurology, 11, art. no. 505995, DOI:
10.3389/fneur.2020.505995

Voigt, F.F., Kirschenbaum, D., Platonova, E., Pagès, S., Campbell, R.A.A., Kastli, R., Schaettin, M., Egolf, L., van der
Bourg, A., Bethge, P., Haenraets, K., Frézel, N., Topilko, T., Perin, P., Hillier, D., Hildebrand, S., Schueth, A.,
Roebroek, A., Roska, B., Stoeckli, E.T., Pizzala, R., Renier, N., Zeilhofer, H.U., Karayannis, T., Ziegler, U., Batti, L.,
Holtmaat, A., Lüscher, C., Aguzzi, A., Helmchen, F. The mesoSPIM initiative: open-source light-sheet microscopes
for imaging cleared tissue
(2019) Nature Methods, 16 (11), pp. 1105-1108. DOI: 10.1038/s41592-019-0554-0

Perin, P., Voigt, F.F., Bethge, P., Helmchen, F., Pizzala, R. DISCO+ for the study of neuroimmune architecture of the
rat auditory brainstem
(2019) Frontiers in Neuroanatomy, 13, art. no. 15, .
DOI: 10.3389/fnana.2019.00015

Atzeri, A., Lucas, R., Incani, A., Peñalver, P., Zafra-Gómez, A., Melis, M.P., Pizzala, R., Morales, J.C., Deiana, M.
Hydroxytyrosol and tyrosol sulfate metabolites protect against the oxidized cholesterol pro-oxidant effect in Caco-2
human enterocyte-like cells(2016) Food and Function, 7 (1), pp. 337-346. DOI: 10.1039/c5fo00074b

Durazzo, A., Azzini, E., Lazzé, M.C., Raguzzini, A., Pizzala, R., Maiani, G., Palomba, L., Maiani, G. Antioxidants in
Italian head lettuce (*lactuca sativa* var. capitata.) Grown in organic and conventional systems under greenhouse
conditions 2014) Journal of Food Biochemistry, 38 (1), pp. 56-61. Cited 17 times. DOI: 10.1111/jfbc.12025

Perucca, P., Savio, M., Cazzalini, O., Mocchi, R., Maccario, C., Sommatos, S., Ferraro, D., Pizzala, R., Pretali, L.,
Fasani, E., Albini, A., Stivala, L.A. Structure-activity relationship and role of oxygen in the potential antitumour activity
of fluoroquinolones in human epithelial cancer cells
(2014) Journal of Photochemistry and Photobiology B: Biology, 140, pp. 57-68. DOI:
10.1016/j.jphotobiol.2014.07.006

Spaccapelo, L., Galantucci, M., Neri, L., Contri, M., Pizzala, R., D'Amico, R., Ottani, A., Sandrini, M., Zaffe, D.,
Giuliani, D., Guarini, S. Up-regulation of the canonical Wnt-3A and Sonic hedgehog signaling underlies
melanocortin-induced neurogenesis after cerebral ischemia (2013) European Journal of Pharmacology, 707 (1-3),
pp. 78-86. DOI: 10.1016/j.ejphar.2013.03.030

Durazzo, A., Azzini, E., Lazzé, M.C., Raguzzini, A., Pizzala, R., Maiani, G. Italian wild rocket [*diplotaxis tenuifolia* (L.)
DC.]: Influence of agricultural practices on antioxidant molecules and on cytotoxicity and antiproliferative effects
(2013) Agriculture (Switzerland), 3 (2), pp. 285-298. DOI: 10.3390/agriculture3020285