SWISS MEDICAL NETWORK

Prof. Dr. med. Antonio Malgaroli

Specialist in Psychiatry and Psychotherapy, FMH member

Languages

EN,IT

Work Experience

since 2020	Head of Field Project Master in Cognitive Psychology and H.C., USI - UniSR, Sant'Anna Clinic
since 2017	Director of the Centre for the Study of Behaviour (International Center for Behavioral Neuroscience and Communication) University Vita-Salute San Raffaele, Milan, IT
since 2016	Clinical Activity as Neuropsychiatrist, VilleTurro San Raffaele Hospital, San Donato Group, Milan, IT
since 2000	Full Professor of Human Physiology, University Vita-Salute San Raffaele, Milan, IT
2017–2019	Clinical activity as Psychiatrist, The Tourette's Centre, IRCCS Galeazzi Hospital, San Donato group, Milan
1993–2000	Head of Unit of Neurobiology of Memory, San Raffaele Scientific Institute
1989–1992	Postdoctoral fellow, Department of Molecular and Cellular Physiology, Stanford University, Stanford, CA, US
1985–1989	Clinical fellow in Psychiatry and Psychotherapy, Postgraduate Degree in Psychiatry, Department of Psychiatry, Faculty of Medicine, University of Milan, Milan, Italy
1982–1985	Research Fellow, Department of Pharmacology, Faculty of Medicine, University of Milan, Milan

Education

1991	University of Milan, Specialisation Diploma in Psychiatry and Psychotherapy
1985	University of Milan, Degree in Medicine and Surgery
1985	Licence to practise medicine and surgery

Memberships

since 2016	Member of Scientific Board, Italian Tourette Syndrome Association (AIST)

Publications

Ferro M, Lamanna J, Spadini S, Nespoli A, Sulpizio S, Malgaroli A. Synaptic plasticity mechanisms behind TMS efficacy: insights from its application to animal models.J Neural Transm (Vienna). 2022 Jan;129(1):25-36. doi: 10.1007/s00702-021-02436-7.

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Lamanna J, Isotti F, Ferro M, Racchetti G, Anchora L, Rucco D, Malgaroli A. Facilitation of dopaminedependent long-term potentiation in the medial prefrontal cortex of male rats follows the behavioral effects of stress. J Neurosci Res. 2021 Feb;99(2):662-678. doi: 10.1002/jnr.24732

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Briguglio M, Dell'Osso B, Panzica G, Malgaroli A, Banfi G, Zanaboni Dina C, Galentino R, Porta M. (2018) Dietary Neurotransmitters: A Narrative Review on Current Knowledge. Nutrients. 10;10(5). pii: E591. doi: 10.3390/nu10050591.

M.Ferro, J. Lamanna, M. Ripamonti1, G. Racchetti, A. Arena, S. Spadini, G. Montesano, R. Cortese, V.Zimarino & A. Malgaroli. (2017) Functional mapping of brain synapses by an.
enriching activity-marker. Nature Communications, Oct 31;8(1):1229. doi: 10.1038/s41467-017-01335-4.

A.Malgaroli The complexity of man and psychosomatics. à jour! Psychotherapie Berufsentwicklung, 4(2):71-74 - November 2018, Psychosozial Verlag doi.org/10.30820/8245.31

Briguglio M, Dell'Osso B, Panzica G, Malgaroli A, Banfi G, Zanaboni Dina C, Galentino R, Porta M. Dietary Neurotransmitters: A Narrative Review on Current Knowledge. Nutrients. 2018 May 10;10(5).

Putzu, S. Valtorta, G. Di Grigoli, M. Haenggi, A. Malgaroli, M. Gemma, G. Landoni,L. Beretta, RM Moresco (2017) Regional differences in cerebral glucose metabolism after cardiac
arrest and resuscitation in rats using [18F]FDG positron emission tomography and autoradiography. Neurocritical Care,Sep 5.

C. Schulte , M. Ripamonti , E. Maffioli, M.A. Cappelluti, S. Nonnis, L. Puricelli, J. Lamanna, C. Piazzoni, A. Podestà, C. Lenardi, G. Tedeschi* , A. Malgaroli* & P. Milani* (2016) Scale invariant disordered nanotopography promotes hippocampal neuron development and maturation with involvement of mechanotransductive pathway. Frontiers Cell Neuroscience. 10:267. eCollection 2016. (* shared last authors)

Arena A, Lamanna J, Gemma M, Ripamonit M, Ravasio G, Zimarino V, De Vitis A, Beretta L, & Malgaroli A (2017) A linear transformation of the encoding mechanism for light-intensity underlies paradoxical enhancement of cortical visual responses by sevoflurane. J Physiology J Physiol. Jan 1;595(1):321-339

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Abenavoli A, Forti L & Malgaroli A (2000) Mechanisms of spontaneous miniature activity at CA3-CA1 synapses: evidence for a divergence from a random Poisson process. Biology Bull. 199:184-6.

Malgaroli, A.(1999) Silent synapses: I can't hear you! Could you please speak aloud. Nature Neuroscience, 2: 3-5.

Forti, L., Bossi, M., Bergamaschi, A., Villa, A. & Malgaroli, A. (1997) Loose-patch recordings of single quanta at individual hippocampal synapses, Nature 338: 874-878.

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Malgaroli, A., De Camilli, P. & Meldolesi , J. (1989) Distibution of α-latrotoxin receptor in the rat brain by quantitative autoradiography:comparison with the nerve terminal protein synapsin-I. Neuroscience, 32: 393-404.

Malgaroli, A., Meldolesi, J., ZamboninZallone, A. & Teti, A. (1989) Control of cytosolic free Ca2+ in rat and chicken osteoclasts. The role of extracellular Ca2+ and calcitonin. J. Biol. Chem., 264: 14342- 14347.

Colonna, R., Tatone, C., Malgaroli, A., Eusebi,F., & Mangia, F. (1989) Effects of protein kinase C stimulation and free Ca2+ rise in mammalian egg activation. Gamete Res, October 1, 1989; 24(2): 171-83.

Malgaroli, A. , Hashimoto, S., Grohovaz, F., Fumagalli, G., Pozzan, T. & Meldolesi, J.(1988) Intracellular source(s) of [Ca2+]i transients in non-muscle cells. Ann. N.Y. Acad. Sci., 551: 159-167.

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Malgaroli, A., Vallar, L. RezaElahi, F., Pozzan,T., Spada, A. & Meldolesi, J. (1987). Dopamine inhibits cytosolic Ca2+ increases in ratlactotroph cells: evidence of a dual mechanism of action J. Biol. Chem., 262: 13920-13927.

Malgaroli, A. , Milani, D., Meldolesi, J. & Pozzan, T.(1987) Fura-2 measurement of cytosolic free Ca2+ in monolayers and suspensions of various types of animal cells. J. Cell Biol., 105: 2145-2155.

Pandiella, A., Malgaroli, A. Vicentini, L.M. &Meldolesi, J. (1986) Early raise of cytosolic Ca2+ induced by NGF in PC12 and Chromaffin cells. FEBS Letters, 208: 48-51.

Awards

1985-88: Recipient of the AIRC research fellowship
1988-89: Recipient of the Monte Tabor research fellowship
1988: DeVisart award
1989-91: Recipient of the G. Moruzzi FIDIA research fellowship
1991: Chemofux prize, University of Vienna (Co-Recipient with Anna Teti)
1998-2001: Human Frontier grant award
1999: Herbert W. Rand Award, MBL
2000: Frank Lillie Award, MBL
2000: Elected as a member of the Physiological Society London
2000: Elected as a member of EMBO

Research

Antonio Malgaroli has published more than one hundred publications in the fields of neurophysiology, neuroscience, psychology and psychiatry, 58 of these are peer-reviewed articles with about 3500 citations in total; he has an h-index of 26, g-index of 58 (source: Google Scholar). His work has been widely described in many textbooks and reviews in the field of physiology and neuroscience. With regard to his current research activity, his interests focus on the mechanisms of brain synaptic plasticity. In addition to maladaptive aspects, which lead to functional and/or anatomical abnormalities and are therefore involved in the genesis of many neuropsychiatric diseases, plasticity phenomena underlie many compensatory processes, such as those induced by therapies, not only pharmacological but also psychoanalytical and psychotherapeutic. In detail, the main research interests focus on four thematic areas:

1. The plasticity of neural networks and its cellular and molecular mechanisms. In this field, he has obtained important results in understanding the mechanisms of induction and expression of synaptic plasticity, both in the hippocampus and in the prefrontal cortex.
2. Development of innovative techniques for the functional study of synaptic circuits in vitro and in vivo. His achievements include the first technology for the electrical measurement of the activity of a single central synapse, and the first technology for the functional assessment of synaptic activity changes in a neural network in vitro. Recently, after several years of work, he developed the only method available today to record synaptic activity in vivo (GreenZip), a technique that is used for many of the questions in section 3, below.
3. The neurobiological mechanisms and clinical aspects of certain psychopathological conditions such as anxiety and stress, anorexia, Tourette's syndrome, understanding the mechanism of action of certain psychoactive drugs such as ketamine, which is used today for the treatment of major depression that is not responsive to other treatments.

Human clinical projects include: the study of OCD in Tourette Syndrome; ii) The implementation of TMS brain magnetic stimulation protocols to induce lasting plastic changes in brain circuits involved in certain psychiatric disorders (OCD, anorexia, depression, S. Tourette); The use of TMS to assess the involvement of certain brain areas in attentional and decision-making aspects and the effect of emotional states.

Accreditation

Clinica Sant'Anna

Specialties

Psychiatry and psychotherapy

Contact

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