

Sergio Ferrari, M.D.

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CURRICULUM VITAE ET STUDIORUM

Personal statement:

Sergio Ferrari is a Neurologist and Neuropathologist at the University Hospital of Verona, Italy since 1989. Graduated in Medicine in 1981 at the University of Verona, and in 1985 specialized in Neurology, specialized in Neuropathology in 1989. Responsible of Unit of "Immune and infective pathologies of the central and peripheral nervous system " from 2010 to 2023.

Since the years of specialization he has been interested in clinical research in the field of peripheral neuropathies, in particular dysimmune neuropathies, contributing with his specific scientific competence to the knowledge of the pathogenetic mechanisms of neuropathies with anti-MAG antibodies and to the identification of the role of the complement system cascade in the antibody-mediated damage. and he personally carries out biopsy of the diagnostic sural nerve. Since 1989 he has performed personally over 3000 sural nerve biopsies.

Since 1990 he has developed the western blot and immunofluorescence method for the diagnosis of anti-MAG neuropathies and has started diagnostic immunohistochemistry for the detection of anti-neuron antibodies for paraneoplastic neurological syndromes.

Following his stage in 1997 at the Neuropathology of Case Western University Cleveland, headed by Prof. Pierluigi Gambetti, Sergio Ferrari, in collaboration with Prof. Gianluigi Zanusso, gave a fundamental contribution to diagnostics and research in the field of prion diseases. In particular, he developed the neuropathological diagnosis of the subtypes of Creutzfeldt-Jakob disease in the Neuropathology Laboratory of Verona and, through the development of immunoelectron microscopy techniques, allowed the identification of the ultrastructural localization of the pathological prion protein in involved brains. He gave his intellectual and technical contribution in the study of the involvement of the olfactory system in prion diseases which led to identify the localization of the prion protein in neurons of the olfactory mucosa and subsequently to the *in vivo* diagnosis of CJD disease through the nasal brush with amplification using RT-QuIC techniques in collaboration with the Laboratory of Dr. Byron Caughay NIH Rocky Mountain Laboratory, Hamilton, Montana, US and contributed with the detailed pathological and ultrastructural study, to the first description and clinical and pathological definition of the BASE, sporadic prion disease of cow.

He introduced and implemented techniques for detecting antibodies against neuronal surface antigens in patients with suspected autoimmune encephalitis in collaboration with Prof. Romana Höftberger of Wien. He also contributes to introduce the laboratory diagnosis of anti-MOG antibodies related diseases.

His research and clinical areas of interest include neuroimmunology, neuroinfectivology, neuropathology, neurodegenerative disorders, prion diseases, and peripheral nerve diseases. In last years the principal field of interest is the study of autoimmune/paraneoplastic encephalitis and encephalomyelitis. In August-October 1997 and in September 2009 he attended the Laboratory of Neuropathology of Case Western University Cleveland Ohio, directed by Prof. Pierluigi Gambetti working in a scientific project on prion disorders.

Organizer, coordinator, member of the scientific committee of meetings in Neuropathology, Diseases of the Peripheral Nervous System, Encephalitis, antibody-mediated CNS diseases.

From 1990 to 2023 he carries out teaching activities at the School of Specialization of Neurology and at the School of Specialization of Infectious Diseases, University of Verona.

He is coordinator of the Italian Group of Neuroinfectivology, member of the Italian Association of Diseases of the SNP (former member of board), member of the Italian Association of Neuropathology (former member of the board), member of the Italian Society of Neurology.

In recent years, it has contributed to diagnostics and research in the field of antibody-mediated autoimmune diseases of the Nervous System.

Author of 209 scientific publications, H-index:40 (Scopus 08/11/2024)

Winner of the Aspen 2019 scientific award.

Meeting organization in last years:

- “51° AINPeNC and 41° AIRIC Congress”, Verona, 2015.
- “Autoimmune encephalitis: characterisation and differential diagnosis”, Verona, 2015.
- “Monthly multidisciplinary discussion of clinical cases”, University of Verona, from 2015.
- “Encephalomyelitis: an overview”, Verona, 2016.
- “Autoimmune encephalitis and atypical demyelinating conditions”, Verona, 2018.
- “Antibody-associated CNS disorders and their differential diagnosis”, Verona, 2019
- “Antibody-associated CNS and PNS disorders”, Verona 2022
- “Autoimmune and paraneoplastic disorders of CNS”, Verona 2023

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