

## **Research activity of Dr. Bruno Bonetti**

Bruno Bonetti has been always interested in the clinical and experimental aspects of neuroimmunology. From 1988 to 1995 he worked on the pathogenic aspects of dysimmune neuropathies, particularly those associated with antibodies with anti-nerve activity in humans and in experimental models.

In 1993-94, as Scholar Research he was at Department of Neuroanatomy, Institute Max-Planck for Psychiatry, Munich, Germany, studying the role of growth factors in autoimmune diseases. In 1995-96 he worked as Research Fellow at the Albert Einstein College of Medicine, Yeshiva University, New York, on the molecular aspects of multiple sclerosis pathogenesis, focusing on cytokines and their receptors.

He came back to Italy in 1997 where he continued to work in the field of Neuroimmunology at the Laboratory of Neuropathology, University of Verona on the pathogenesis of autoimmune diseases of either peripheral or central nervous system.

Recently, Dr. Bonetti has begun a research to identify the neural target of autoantibodies in multiple sclerosis and in its experimental model by proteomic approaches, in collaboration with the Laboratories of Proteomics of the University of Verona (Dr. Cecconi) and of Siena (Prof. Bini).

A more recent field of research is focused on the potential therapeutic use of mesenchymal stem cells in inflammatory and degenerative neurological diseases of either the central or the peripheral nervous system. Particularly, the attention is on their immune suppression as well as on neuro-protection/regeneration in different experimental models of neurological diseases; these projects are performed in collaboration with Dr. Constantin (Pathology), Dr. Mariotti (Anatomy), Dr. Krampera (Haematology) and Dr Bedogni of the University of Verona.

The very last interest of Dr. Bonetti concerns the potential role of chitin, an insoluble polymer of N-acetylglucosamine, in Alzheimer's diseases by neuronal, glial or organotypic cultures; this project is performed in collaboration with Dr. Busetto of the University of Verona and Prof. Sotgiu of the University of Sassari.

Referee activity for the following journals: Journal of Neuroimmunology, Journal of Neuropathology and Experimental Neurology, Neurological Sciences, Journal of the Peripheral Nervous System, Brain Research Bulletin, Cellular and Molecular Life Sciences,

Proteomics, Trends in Immunology, Cellular and Molecular Neurobiology, Cell Transplantation, Expert Review of Clinical Immunology, Neuroscience Letters, Journal of Neurological Sciences, Annals of Neurology, Neurology, Stem cells International e Plos One.