



P A D O V A
neuroscience
C E N T E R

10 JULY 2025 3:00 pm
SALA SEMINARI VIMM
(Via Giuseppe Orus 2, Padova)

PNC SEMINARS

A talk by Aron Emmi
(University of Padova)

PARKINSON'S DISEASE: BEYOND MOTOR SYMPTOMS

Parkinson disease (PD) is the fastest growing neurological disorder globally and poses substantial management challenges owing to diagnostic difficulty, progressive disability, and the emergence of treatment-resistant symptoms and complications. While traditionally characterized as a motor disorder of the central nervous system (CNS), more and more evidence suggests that PD arises early in the periphery, and eventually reaches the CNS in its later stages, where clinically-recognized symptoms manifest. In this context, elucidating the role of the peripheral nervous system, and the involvement of the other organs in PD, not only helps us to understand the origin of the disease, but may also represent a valuable source for early diagnostic biomarkers.

This seminar will discuss the current issues in the field of Parkinson's Disease research, and highlight the results of our recent studies on the peripheral nervous system in PD, challenging the view of neurodegeneration as a CNS-exclusive phenomenon. Moreover, in light of emerging disease-modifying treatments, I will discuss the relevance of biological phenotyping in future clinical trials and in personalized medicine.

Biography

Currently, Aron Emmi serves as Assistant Professor of Human Anatomy at the Institute of Human Anatomy, Department of Neuroscience of the University of Padova, where he has previously obtained his degree and doctoral degree (PhD) and completed his post-graduate training in neuropathology and clinical neuroanatomy. He have also undergone post-doctoral training in forensic neuropathology.

His research activity focuses on the discovery and validation of central and peripheral neuropathological biomarkers for neurodegenerative diseases, particularly Parkinson's Disease. Other research interests include clinical neuroanatomy of the human brainstem, nervous control of respiratory centers, infectious and inflammatory pathology of the brain and its relationship with neurodegeneration.

In the last 5 years Aron Emmi has published 50+ peer-reviewed articles in international journals in the field of neuroscience, neuropathology and human anatomy and presented his research activity as a speaker at over 60 national and international conferences. He serves as ad-hoc reviewer for several high-impact scientific journals (Nature NPJ Parkinson's Disease, Movement Disorders, Journal of Neurology, Neurosurgery and Psychiatry, Neurobiology of Disease). He have co-authored 4 academic textbooks for students and specialists on neuroanatomy and microscopic anatomy.

Aron Emmi is a member of several national and international scientific organizations, including the Royal College of Pathologists, the European Confederation of Neuropathological Societies, and the italian group for neuromorphology.