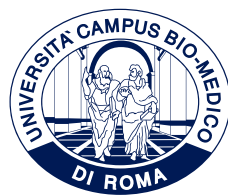


# Seminario



UNIVERSITÀ  
CAMPUS BIO-MEDICO  
DI ROMA

## Protein aggregates and their role in neurodegenerative diseases

### Prof.ssa Maria Grazia Spillantini

Professor of Molecular Neurology, Department of Clinical Neuroscience  
The University of Cambridge

#### Biosketch

The main interest of MG Spillantini is to elucidate the mechanisms leading to neurodegeneration in diseases with tau and/or alpha-synuclein aggregation such as Alzheimer's disease, Parkinson's disease, frontotemporal dementia and related disorders. This is achieved through production and characterization of animal and cellular models where to study the toxic effects of protein aggregation as well as by investigating the pathology in human brains. The final aim is to identify mechanism-based therapies for these yet un-curable diseases.

MG Spillantini contributed to the identification of the 6 tau isoforms in human brain and to their aggregation in filaments that form the neurofibrillary tangles. She also described one of the first MAPT gene mutations causing FTDP-17T.

MG Spillantini with her collaborators described alpha-synuclein and identified it as the component of the filaments that form the Lewy bodies and Lewy neurites in PD, DLB and GCI in MSA. She named the alpha-synuclein gene SNCA localizing it to chromosome 4. Her group showed that synaptic alpha-synuclein aggregates in the striatum lead to a redistribution of the SNARE proteins linking it to dysfunction of dopamine release and dopamine neuron death in the Substantia nigra.

**Giovedì 25 maggio 2023 - ore 14.00 - 16.00**

**Aula Magna Trapezio**

**Università Campus Bio-Medico di Roma**

**Via Álvaro del Portillo, 21**