



UNIVERSITÀ
DEGLI STUDI
FIRENZE

“Huntington, from the ancient gene to therapeutic perspectives ”

PROGRAMME

11:30: Colloquium

13:00: Lunch with the speaker (all participants are invited at LENS)

Enrico Fermi Colloquium

Tuesday 7th February 2023 11:30 a.m.



LENS - Via Nello Carrara
1 Sesto F.no (Firenze)

Conference room Querzoli



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and

Senator for life in the Italian Parliament

ABSTRACT

Huntington's disease (HD) is a neurodegenerative disorder caused by a CAG repeat expansion in the gene encoding for huntingtin protein. A lot has been learned about this disease since its first description in 1872 and the identification of its causative gene and mutation in 1993. We now know that the disease is characterized by several molecular and cellular abnormalities whose precise timing and relative roles in pathogenesis have yet to be understood. HD is triggered by the mutant protein, and both gain-of-function (of the mutant protein) and loss-of-function (of the normal protein) mechanisms are involved. Here we review the data that describe the emergence of the ancient huntingtin gene and of the polyglutamine trait during the last 800 million years of evolution. We then focus on novel therapeutical targets and pathways and on the attractive option to counteract HD at its primary source, i.e., by blocking the production of the mutant protein.

Klein Colloquium by Chiara Caldini: “Studying sub-cellular molecular organization in bacteria through single molecule co-localization”.

