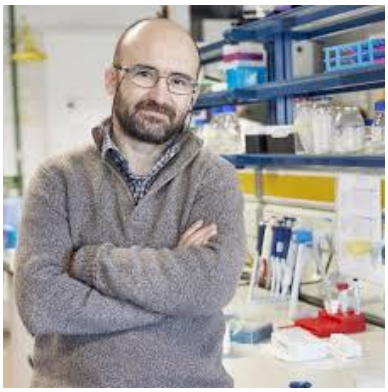
Ciclo de Seminários em Biologia Humana e Ambiente

Mestrado em Biologia Humana e Ambiente . Departamento de Biologia Animal



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Developing molecular tools and cellular models to study rare neurodegenerative disorders

Our laboratory uses microscopy methods to analyze the behavior and molecular determinants of proteins and protein complexes in living cells. We are especially interested in rare neurodegenerative disorders, because they raise little interest from pharma industry and large laboratories, but they still constitute a major scientific challenge. They are often caused by proteins with unknown physiological function, and the people suffering them are rather disregarded or abandoned. This way, we fulfill two major vocations: producing new biological knowledge while helping patients to raise awareness about their disorders and understand them better. Protein self-association is more frequent in nature than expected by chance, suggesting positive evolutionary selection, but it also underlies many neurodegenerative disorders. We study the behavior of self-associating, disease-related proteins in living cells, their subcellular distribution and dynamics, and their regulation by mechanisms that can be targeted by drugs. In this presentation, we will present an overview of the mechanisms underlying neurodegeneration and show several examples of the research ongoing in our lab.

6 Novembro 2024 , 17.00h - Edifício C2, Piso 2, Sala 2.2.15