

# Abstract Information

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| <b>Participation :</b>          | symposium                                                                                                                                  |
| <b>Title of the Symposium :</b> | Emerging effectors in neurodegeneration: from preclinical to clinical models                                                               |
| <b>Category :</b>               | Invited Speakers                                                                                                                           |
| <b>Thematic Area :</b>          | Neurodegeneration, Neuroplasticity, and Repair                                                                                             |
| <b>Title :</b>                  | Mitochondrial Interactomes and Neurodegenerative Disease Mechanisms                                                                        |
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**Abstract :**

Mitochondria are essential organelles involved in various cellular processes, and their dysfunction is linked to numerous human diseases, including neurodegenerative disorders. Advancing our understanding of these conditions necessitates a comprehensive mapping of protein-protein interaction networks that encompass both mitochondrial and non-mitochondrial proteins. However, these networks remain only partially characterized.

In this presentation, I will discuss our research on the mitochondrial interactome, emphasizing its dynamic reorganization during neuronal differentiation. Our studies have revealed significant rewiring of mitochondrial protein interactions, shedding light on the mechanisms that govern mitochondrial functions in neuronal development and the maintenance of cellular health.

Additionally, I will present our findings on the role of the CHCHD2 gene in Parkinson's disease. Our research has demonstrated that CHCHD2 mutant mice exhibit mitochondrial protein accumulation and impaired energy metabolism, providing valuable insights into the molecular mechanisms of Parkinson's disease.