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# Molecular Insights: Bridging the Gap between Aging, Neurodegenerative Disease, and Cancer from Bench to Bedside

Guest Editor:

#### Dr. Maurizio Romano

Department of Life Sciences, University of Trieste, 34127 Trieste, Italy

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## **Message from the Guest Editor**

Aging, neurodegeneration, and cancer represent three of the most pressing health challenges facing our aging population. Aging is a natural process marked by accumulating cellular damage and physiological decline. Neurodegeneration involves the progressive dysfunction and death of neurons, resulting in disorders such as Alzheimer's disease and Parkinson's disease. Cancer is characterized by uncontrolled cellular proliferation and invasion.

While seemingly distinct in their pathogenesis, these conditions in fact share a number of key cellular and molecular mechanisms. Grasping the specific as well as the common underpinnings—from genomic instability to cellular senescence, epigenetics, and mitochondrial dysfunction—might unlock novel therapeutic targets and stratified interventions to delay or prevent the onset and progression of these debilitating and often fatal conditions.

This Special Issue aims to showcase the latest advancements and breakthroughs in the complex connections between aging, neurodegeneration, and cancer, seeking to decipher the fundamental mechanisms driving the onset and progression of these conditions.













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