Title:	Beyond the Nucleous: Uncovering the Intracellular Odyssey of STAT3 in the Astrocytes of Wildtype and Huntington's mice
Authors:	Krishna, Anirudh M
Keywords:	Beyond the Nucleous Uncovering the Intracellular Odyssey STAT3 in the Astrocytes Wildtype and Huntington's mice
Issue Date:	May-2023
Publisher:	IISER Mohali
Abstract:	Astrocytes, a type of glial cells, play various important roles in the central nervous system and provide metabolic support to neurons. During any form of trauma such as injury, hypoxia, neurodegenerative conditions, etc., astrocytes undergo morphological and multi- omic changes, to alter their functions in response to the pathology. This process is known as astrocyte reactivity. JAK2-STAT3 signalling pathway has been discovered to play the central role in astrocyte reactivity in most forms of pathology. However, various studies have shown that STAT3 also plays many other roles other than its canonical transcriptional role. In this project, we characterise the localization of STAT3 in astrocytes of both wildtype and Huntington's mouse model, ZQ175 mice. We show that apart from nucleus, STAT3 also localises in the endoplasmic reticulum and mitochondria. During reactivity, there is an increase in this localization, pointing towards the possibility of STAT3 having non- canonical functions in these compartments.
URI:	http://hdl.handle.net/123456789/5461
Appears in Collections:	MS-18

Files in This Item:

File	Description	Size	Format	
embargo period.pdf		6.04 kB	Adobe PDF	View/Open

Show full item record