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Title:	Assessing Golgi Apparatus Stress: Response in Caenorhabditis elegans
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Keywords:	Golgi Apparatus Caenorhabditis elegans
Issue Date:	May-2023
Publisher:	IISER Mohali
Abstract:	<p>A eukaryotic cell is composed of various subcellular compartments called organelles. Each organelle is tightly regulated in accordance with the cellular demands of the organism and termed as organelle autoregulation. The Golgi apparatus, a cellular organelle, is a major site involved in glycosylation, post-translational modifications, and transportation of fully functional proteins to their target site. At times, when the protein-modifying capacity of Golgi is exceeded by protein-modifying demand, it leads to a condition of Golgi stress. Golgi stress has been associated with several deeply affecting pathological conditions, including neurodegenerative diseases, gastric and colon cancer, muscular dystrophy, hepatitis, and liver cirrhosis. To counter Golgi stress, cells initiate signaling cascades which constitute the Golgi stress response. As Golgi stress response has not been extensively characterized, this study aims to decipher the process and the factors involved in it via two modes of unraveling the problem. The first method involves the estimation of Golgi stress and its response initiation by Monensin, an ionophore known to artificially induce Golgi stress response via the TFE3 pathway. The second method involves the identification of Golgi genes whose knockdown results in the induction of Golgi stress. Such genes will help in the genetic induction of Golgi stress, a method that should be more robust than chemical induction</p>
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