



# *Khaled Youssef Kamal Moustafa*

Assistant Research Scientist– Space Molecular & cellular Biology



## Short Bibliography & Research Interest

***Space life Science Research** has the goal of using space environment as a tool to understand the influence of gravity on functional processes of living organisms for the future space exploration. I am interested in comprehending the consequences of these environmental changes on the molecular and cellular processes in both Eukaryotes (Plants, Microorganisms, and Animals) under both spaceflight and Ground based facilities. Also using the cellular, genomic, proteomic and bioinformatics resources and tools to identify proteins, gene, and specific networks related to the gravitational alterations is crucial for future space exploration.*

*'Dr. Khaled is an Assistant Research Scientist at Redox Biology & Cell Signaling Lab, Texas A&M University working on NASA project to understand the regulation of Nox2 and Skeletal Muscle atrophy during spaceflight and NASA Radiation Project to explore the space Radiation-induced pro-oxidant and Fibrotic Signaling in the Heart. Over 10 years, Dr. Kamal had involved in multi-space biology missions funded by ESA and NASA. His scientific career was focused on investigating the genetic/molecular signaling pathways of the cell response to the microgravity alterations, such as cell proliferation (cell cycle checkpoints and regulation), cell growth (nucleolar activity and ribosome biogenesis), epigenetic modifications, gene regulations and chromatin remodeling using recent Biochemistry, genomic, proteomic, transcriptomic, cytology and cellular biology tools. Furthermore, Dr. Kamal has a technical skills working with various microgravity simulators through the ESA space biology Project [Ground Based Facilities-ESA based project]'*



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