

Life support Challenges for Human Space Exploration (10)  
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## STUDYING IMPACT OF RISKS ON HUMAN GENES IN SPACE

**Abstract**

Deep space exploration by human is subject to risks arising due to high dose of radiation, gravity and freezing temperatures. Although space suits are designed to cater to these risks but its efficiency is greatly reduced after a predefined exposure time to these risks. The proposed solution in this paper will deal with performing long run experiments in understanding the gene regulators which are impacted due to exposure towards these risks. The solution here, will suggest techniques and methodologies to be used for developing superior genes to mitigate these risks. These experiments will be performed in International Space Station, Earth based laboratories and in an exo- planetary terrain, to compare and identify the most impacted gene in all three systems. This solution will outline a list of parameters that can be used for simulation of sustainability of human life in other planets.