

Space Medicine

XR-MED Mission



Preliminary :

It is known that Humans DNA, RNA and tissues cannot be exposed to solar or cosmic radiations without severe damage.

Despite of the fact that the astronauts are poorly protected with their spacesuits, the astronauts cannot wear permanently spacesuits even with lead or gold or Bi (Bismuth) for 20 kg or more.

The current life of astronauts would be highly stressing and could lead to misconduct among the crew, and the mission could be aborted or delay with important failures.

Can the DNA-RNA be modified in order to absorb radiative energies from cosmic or solar environment ?

Can Carbon be substituted by Silicon (nucleophilic substitution SP3) ?

What is the genetic response in the case of these substitutions, C for Si ?

Why Si such special molecular compounds? It has some similar properties to Carbon.

[Click here to be directed to some relevant information about Silicon and Carbon](#)

PCR recombination ?

Effects on the mitosis process and stages in the case of C-to Si in Deep Space ?

Effects on the STEM CELLS (Si for C)?

PROTECTORS AGENTS in vivo against free radicals ?

Apoptosis signals CASPASEs 3-8 in deep space.

[Here is a related research paper](#)

Other GlycanSpaceXR protocols are not disclosed in this public website.

[Click here to be directed to some information about Space related Health risks](#)

[Click here to be directed to other Space related Health risks.](#)

UCI's Charles Limoli and colleagues found that exposure to highly energetic charged particles -- much like those found in the galactic cosmic rays that will bombard astronauts during extended spaceflights -- causes significant long-term brain damage in test rodents, resulting in cognitive impairments and dementia.

Their study appears in Nature's Scientific Reports. It follows after last year of work showing somewhat shorter-term brain effects of galactic cosmic rays. The current findings, Limoli said, raise much greater alarm.

"This is not positive news for astronauts deployed on a two-to-three-year round trip to Mars," said the professor of radiation oncology in UCI's School of Medicine. « The space environment poses unique hazards to astronauts. Exposure to these particles can lead to a range of potential central nervous system complications that can occur during and persist long after actual space travel -- such as various performance decrements, memory deficits, anxiety, depression and impaired decision-making. Many of these adverse consequences to cognition may continue and progress throughout life."

[Click here to be directed to some general information about space radiations adverse effects](#)

[Click here to have some general information about the effects on Astronauts Lungs](#)

[Click here to have some information about Mars Missions related Risks](#)

CONCLUSION

GlycanSpaceXR looks for shares and collaborations with International specialists and Institutions in order to check existing formula elaborated by GlycanSpaceXR 2016-2017 mainly to be applied to Neurodegenerative diseases and prepare in good conditions future space flights.

GlycanSpaceXR is moreover currently working on new PROTECTION materials for SPACECRAFT-PROBES and for future Colonization. Please consult the sections Missions XR-COLONIZATION and XR-SPACI.