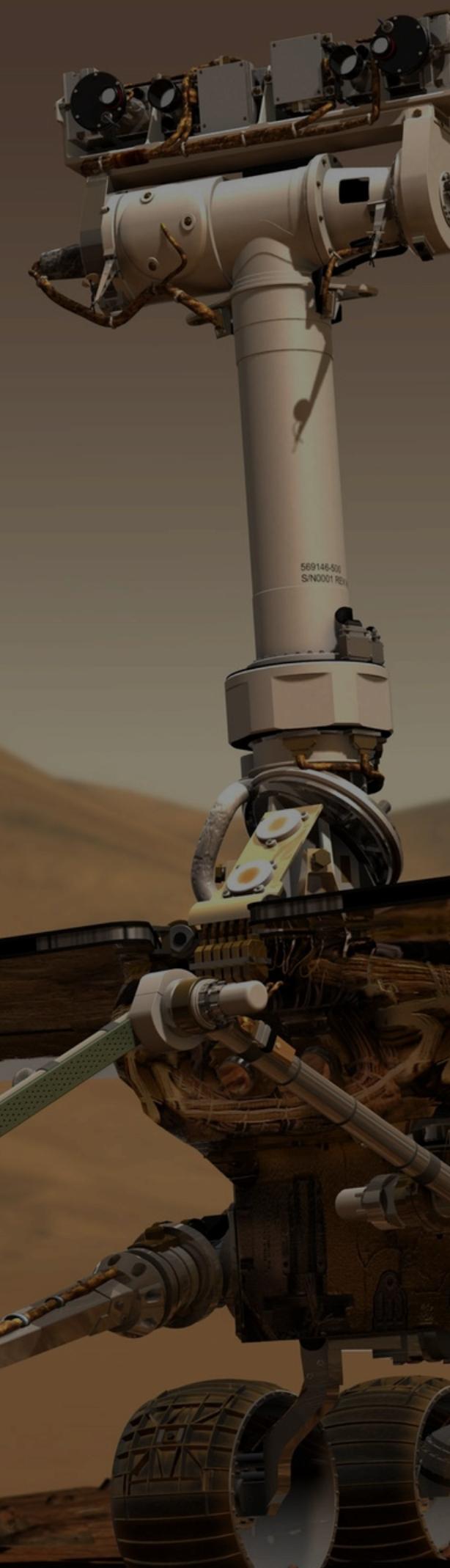


Cosmos Tradition &

All civilizations become either spacefaring or extinct.

- CARL SAGAN

Space Travel problems



Radiation

Isolation

Time delays

Microgravity

Exposer to Radition

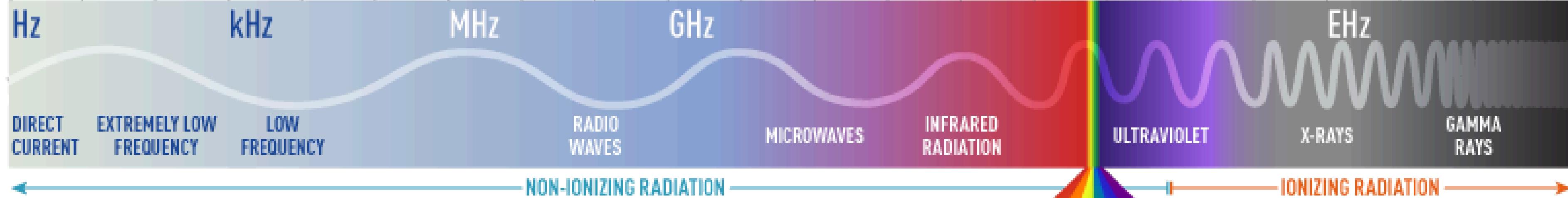
Long-term radiation exposure is associated with an increased cancer risk in the long term. In the short term, extreme radiation doses can lead to sickness, hair loss, and even death.



ELECTROMAGNETIC SPECTRUM

Frequency (waves per second)

0 10 10^2 10^3 10^4 10^5 10^6 10^7 10^8 10^9 10^{10} 10^{11} 10^{12} 10^{13} 10^{14} 10^{15} 10^{16} 10^{17} 10^{18} 10^{19} 10^{20} 10^{21}



Computer
60-100 Hz

Power Lines
50-60 Hz

TV Broadcast
54-700 MHz

Radio
AM 520-1610 kHz
FM 87.5-108 MHz

Microwave
3-30 GHz

Mobile Phone
1.9-2.2 GHz

Smart Meters
0.9-2.45 GHz

Wi-Fi
2.4-5.8 GHz

Diagnostic Radiation
5-50 EHertz

Therapeutic
Radiation
500-5,000 EHertz



Aloe vera

Aloe vera gel has been reported to have a protective effect against radiation damage to the skin. Exact role is not known, but following the administration of aloe vera gel, an antioxidant protein, metallocionein, is generated in the skin, which scavenges hydroxyl radicals and prevents suppression of superoxide dismutase and glutathione peroxidase in the skin.

THANKS

-Ishan Joshi

References

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2763764/>

<https://www.seeker.com/space-innovation/heres-the-five-biggest-dangers-nasa-astronauts-face>

<https://www.nasa.gov/feature/spacewalk-spacesuit-basics>