Demystification of processes that effect prioritization of Space Radiation Element research

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In an effort to demystify how research funding priorities are established , the Space Radiation Element will present an introduction to the Human Space Risk Board (HSRB) framework that is that used to inform Human System Risk and can be found at <https://humanresearchroadmap.nasa.gov/Risks/>. These risks are based on the consequences of hazards (space radiation, altered gravity, isolation & confinement, distance from earth and hostile/closed environment) a human body is exposed to during spaceflight. The HSRB regularly evaluates risks to humans in space which includes updating the knowledge base to reflect emerging research, the development of effective countermeasures, and evolving operational approaches toward addressing those risks. To increase understanding and clarity, this talk will step through how risks (with the focus on Risk of Radiation Carcinogenesis) are assigned a rating (and color code) based on design reference missions, likelihood, and consequence. Further, The Space Radiation Element will discuss how risks, including the magnitude/rating, required technical deliverables, and expected products from current research efforts affect our element strategy and prioritization of research. In addition, navigation of the publicly available www.nasa.gov/hrp, will be demonstrated to inform principal investigators where this information can be readily accessed. Our primary objectives for this presentation/demonstration are to demystify The Space Radiation Element’s internal processes and to educate researchers concerning publicly available documents that can be used to better align their proposed objectives with Element priorities.