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BENEFITS FROM SPACE RESEARCH – FOCUS IN HEALTH AND WELL BEING – A MULTI-DISCIPLINARY RESEARCH PROGRAM PROPOSAL

Abstract

The proposed Benefits from Space Research – Focus in Health and Well being – multi-disciplinary research program focuses firstly, in gathering and publishing lessons learned from the past space research results, especially in medicine, and secondly, in innovating new concepts to benefit future astronauts, and to benefit our daily lives, and those of future generations on the Earth. Tax-payers and private investors are key investors. This research program aims at show casing and marketing specifically all benefits from space research to enable us to lead our lives in better living conditions and in healthier bodies. The paper is structured in four parts. The first part explains the research focus area with its five themes; those to execute research. The second part focuses in funding and managing the proposed future research program. The third part consists of outreach and publications. Bone loss; muscle atrophy; eye and vision problems are well known challenges of astronauts. Osteoporosis and decreasing muscle mass are common problems of those to be medicated with cortisone; of those after surgery lying in bed; of elderly. Thus, research in this area is most useful to both astronauts and us all. Likewise, eye and vision problems are common problems of both astronauts and those living on the Earth. Decreasing body temperature and artificially induced coma can assists in improving functions of the brain and the heart; Torpor is a method under investigation to put astronauts in sleep for part of the mission. Stress and psychological problems are key challenges of astronauts living and working in extreme conditions; a major cause of infections all over the world. The know-how of optimum design for minimum living conditions of astronauts benefit those living in areas with extreme financial costs. Thus, both astronauts and people on the Earth benefit especially from space research foruced in health and well being. While medical research lead by pharmaceutical companies is focused in revenue creation through novel medical solutions; this proposed research program is focused in finding alternative solutions without, or with least medicine. While solutions without pain killers do not profit pharmaceutical companies, such research is difficult to fund. The international space sector can together pave the way towards leading better lives without medicine via sports and exercise, healthy nutrition, stress reduction –all daily practices of astronauts.