

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
In Orbit - Postgraduate Space Education (4)

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A POTENTIAL COLLABORATION BETWEEN THE FUTURE AUSTRALIAN SPACE AGENCY AND AUSTRALIAN MEDICAL SCHOOLS

Abstract

This study is utilising an anonymous survey (“the Survey”) to investigate medical student interest in both aerospace medicine research and a potential partnership between medical schools and the coming Australian space agency (“the Agency”). The Survey includes questions posed by the Australian Government advisory group (“the Advisory Group”) supporting the development of the Agency. The Agency was announced at the previous IAC in Adelaide, and currently is in the planning phase to define what form it will take. The current time presents a unique opportunity to encourage research in aerospace medicine, which is an essential ongoing prerequisite for achieving safe interplanetary spaceflight. The Agency could provide the impetus required for additional Australian research within space medicine, but this will require more researchers. Many medical students are interested in undertaking research, and increasingly universities are making research an integral requirement of degrees awarded to doctors and medical specialists.

There is positive anecdotal interest in a research partnership, and this is further exemplified by the significant number of medical students co-authoring this paper. The formalised cross-sectional Survey is due to commence in coming weeks. The data will be largely drawn from Likert scales and multiple choice questions, with some sections providing for free-form responses (particularly with the questions from the

Advisory group). The data will be analysed and passed back to the Advisory group to help shape the Agency.

If the results from the Survey show a significant interest in the field of Aerospace Medicine, this would potentially result in a partnership between the Agency and Australian medical schools. This ground-breaking collaboration would be beneficial for all parties. Students will have the opportunity to be part of a research program, be pioneers in the field of space medicine in Australia, and increase their knowledge in a field that could become increasingly relevant as space tourism and exploration becomes more common. There are also significant benefits for the Agency, as, for example, has resulted from the ongoing collaboration between NASA and The Indiana University of School of Medicine in the “Tissue Regeneration-Bone Defect (Rodent Research-4)” project and the University of California School of Medicine (BioMed-ISS research grant) to study the effect of microgravity on the epithelial barrier. These studies show that collaboration with a space agency encourages interest in the field of Aerospace Medicine and the development of biomedical knowledge and technology that can be utilised for space travel.