SPACE LIFE SCIENCES SYMPOSIUM (A1)
Public Outreach and Education in Space Life Sciences (8)

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CHALLENGES IN ACADEMIC SPACE MEDICINE RESEARCH AND EDUCATION

Abstract

Aerospace medicine training and research represents a dream for many, and a challenge for most. In North America, although some opportunities exist for the pursuit of education and research in the aerospace medicine field, they are limited despite the importance of this field for enabling safe human space exploration. The purpose of this paper is twofold: first, to identify some of the challenges facing individuals aiming to get involved in the field, and the causal factors for these challenges; and second to propose strategies to mitigate against these, for human benefit and exploration. Based on personal experience and the experience of colleagues and students in the field of aerospace medicine, several factors exist that may limit the ability to pursue an education and career in the field: 1) access to residency or fellowship programs in aerospace medicine, 2) access to research programs in aerospace medicine and 3) difficulty in maintaining a career fully based in aerospace medicine. Some of the causal factors may be related to:

1)the 'non-traditional' aspect of space medicine compared to other medical disciplines, which makes it harder to get support from institutions and funding agencies; 2)the relatively small numbers of educators and scientists in the field of space medicine; 3)lack of familiarity with the discipline ; 4)limited training opportunities and restricted inclusion criteria to secure these positions (nationality, cost); 5)the paucity of funding overall in this discipline and the competitiveness of access to that funding when competing against more traditional disciplines.

To open dialogue, proposed solutions to these problems might include the development groups aimed at increasing awareness, encouraging students to get involved in the field of space medicine and allowing networking with space professionals. As well, improving public awareness about the field by outreach presentations, and linking with associations and agencies in order to provide information on 'how to get involved' may be of value. Highlighting the links between terrestrial and space medicine to enable research that develops benefits for both fields may also help to address issues of familiarity and funding gaps.