

IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM (A1)  
Human Physiology in Space (2)Author: Prof. Stefan Du Plessis  
United Arab EmiratesBUILDING CAPACITIES IN HUMAN SPACEFLIGHT IN THE UAE: MBRSC SPONSORED MBRU  
COLLABORATIVE PROJECTS**Abstract**

The Mohammed Bin Rashid Space Centre (MBRSC), is home to the UAE National Space Programme. In recent times MBRSC was instrumental in various activities such as the launch of the KhalifaSat, Emirates Mars Mission and the Mars Hope Probe as well as the UAE Astronaut Programme. None of these ground-breaking endeavours would have been possible without extensive scientific collaboration at national and international level. In line with the vision of HH Sheikh Mohammed bin Rashid Al Maktoum, MBRSC is strategically involved in contributing to a knowledge-based economy in the country. As a reputable educational institute with a vision to become a global research-intensive university, the vision of Mohammed Bin Rashid University of Medicine and Health Sciences (MBRU) is similarly aligned. With the multiple research opportunities stemming from the various MBRSC projects, and the innovative research driven environment at MBRU, joining forces to build research capacity in the UAE was a natural result. The aim of this presentation is to highlight shared goals between institutions and to introduce the MBRU research projects sponsored by MBRSC. These include Project Sirius, and eight-month Analog Mission, as well as the Human Health study to be conducted aboard the International Space Station as part of the UAE Astronaut Programme. Both research projects have a strong physiological focus and will explore the impact of different environments on cardio-posture and post flight orthostatic intolerance. The management thereof is of vital importance, specifically at the dawn of long duration spaceflight. Equally important and central to the research activities are capacity building and public outreach. The importance of international collaboration in knowledge transfer will furthermore be shared, since promoting a culture of scientific endeavour and inspiring the next generation in the UAE is not possible without the nebulous concept of common humanity and oneness.