

SPACE LIFE SCIENCES SYMPOSIUM (A1)
Poster Session (P)

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THE MICROGRAVITY CENTRE - A PIONEERING, MULTIDISCIPLINARY SPACE LIFE SCIENCES
RESEARCH FACILITY**Abstract**

Introduction: The engagement of Brazil in many different international space projects has motivated several Brazilian research institutions and universities to establish study groups related to Space Sciences. The Pontifical Catholic University of Rio Grande do Sul (PUCRS) is no exception. This University initiated in 1993 the first degree course in aeronautical sciences in South America. A further step was the decision to build the first Brazilian laboratory dedicated to studying aspects related to manned space flights and human space physiology. Established in 1999, the Microgravity Laboratory was supported by the Schools of Medicine, Aeronautical Sciences and Engineering of PUCRS. At the end of 2006, the Microgravity Laboratory became a Centre, formally linked to the School of Engineering. In 2012, its administration was transferred to the University Technological Park (Tecnopuc) and a new expanded area was created specifically for research and academic activities. **Objective:** This paper aims to present and discusses the establishment of a pioneering, multidisciplinary Space Life Sciences Research Centre in Brazil. The Microgravity (MicroG) Centre currently has 9 laboratories covering the areas of aerospace biomedicine, aerospace biomedical engineering and eHealth/telemedicine. The two main objectives of the MicroG Centre are: (1) To motivate cooperation in aerospace sciences between Brazilian and International Universities/Institutions, including the exchange of researchers, students, material resources and funding; (2) To contribute to aerospace science, resulting in clear scientific, technological, social and economic benefits for society. **Results:** The Microgravity Centre now consists of 9 different laboratories, is self-supporting and is an internationally recognized space research centre. From its labs, 8 are dedicated to the study of space life sciences and one is related to telemedicine and eHealth activities, including at distance specialized medical assistance and tele-health education. It has more than 10 international partners, national and international patents, multiple relevant published articles/books participation in scientific meetings. More recently it has become involved in the establishment of a new UK Space Physiology and Health, Masters Degree course organized by the Centre for Human and Aerospace Physiological Sciences (CHAPS), King's College London, which aims to become an educational hub for space studies in Europe. **Conclusion:** The MicroG Centre is nowadays internationally recognized for its excellent level of research and academic activities in space life sciences and eHealth.