

SPACE LIFE SCIENCES SYMPOSIUM (A1)

Public Outreach and Education - Integral Elements of Space Life Sciences Program Development (8)

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THE HELMHOLTZ SPACE LIFE SCIENCES RESEARCH SCHOOL (SPACE LIFE): A NEW PERSPECTIVE IN PROMOTION OF YOUNG RESEARCHERS

Abstract

In the field of space life sciences, the demand of an interdisciplinary and specific training of young researchers is high due to the complex interaction of medical, biological, physical, technical and other questions. The Helmholtz Space Life Sciences Research School (SpaceLife) offers an excellent interdisciplinary training for doctoral students from different fields (biology, biochemistry, biotechnology, physics, psychology, veterinary medicine, nutrition or sports sciences and related fields) and any country. SpaceLife is coordinated by the Institute of Aerospace Medicine at the German Aerospace Center (DLR) in Cologne. The German universities in Kiel, Bonn, Regensburg, Magdeburg, Hamburg and Berlin, and the German Sports University (DSHS) in Cologne are members of SpaceLife. In each generation, up to 25 students can participate in the three-year program. Students will learn to develop integrated concepts to solve health issues in human spaceflight and in related disease patterns on Earth, and to further explore the requirements for life in extreme environments, enabling a better understanding of the ecosystem Earth and the search for life on other planets in unmanned and manned missions. The doctoral candidates are coached by two specialist supervisors from DLR and the partner university, and a mentor. All students attend lectures in different subfields of space life sciences to attain an overview of the field: radiation and gravitational biology, astrobiology and space physiology, including psychological aspects of short and long term space missions. Seminars, advanced lectures, laboratory courses and stays at labs at the partner institutions or abroad are offered as elective course and will provide in-depth knowledge of the chosen subfield or will allow to appropriate innovative methods. In Journal Clubs of the participating working groups, doctoral students will learn critical reading of scientific literature, first steps in peer review, scientific writing during preparation of their own publication, and writing of the thesis. The training of soft skills will be offered as block course in cooperation with other Helmholtz Research Schools. The whole program encompasses 246 hours and is organized in semester terms. The spokesperson bears responsibility for SpaceLife. SpaceLife is organized by the coordinator and the secretary. The scientific members of SpaceLife form the Faculty which meets annually. The Faculty elects a Faculty Panel who assists the supervisors and the spokesperson in the student selection process and in formation of the curriculum. The first doctoral candidates start the program in spring 2009.