

## Training Opportunity for Belgian Trainees

Reference	Title	Duty Station
BE-2022-HRE-RS	Life Sciences	ESTEC

### **Overview of the mission**

The Life Sciences group of the SciSpacE Team in the Directorate of Human and Robotic Exploration Programmes covers both space health sciences and space biology. There are several stressors impacting life in space, such as partial - or microgravity, space radiation, isolation, and confinement. The mission of space life sciences is to advance human exploration into deep space, harvesting unique knowledge that can improve life and health in space and on Earth. The SciSpacE team creates and facilities research into these different domains across a variety of both ground and space platforms, e.g., bedrest, isolation studies, drop tower, sounding rockets, ISS and is preparing for lunar and Martian scientific activities.

### **Overview of the field of activity proposed**

The activity will have two components. (1) The Science of Space Exploration Program (SciSpacE) is in the process of reviewing its strategy and instruments for science selection. It is important to match current and future initiatives and tools for selection of activities with the strategy. You will support the Discipline Lead for Life Sciences ensuring that plans for science and payloads in support of the life sciences domain is consistent with the mandate. (2) You, under the supervision of Discipline Lead for Life Sciences, will be involved in supporting some of ESA's ground-based studies, such as (but not excluded to) bedrest studies testing the effectiveness of exercise and artificial gravity as countermeasures, as well as the preparation of ESA-led isolation studies, aimed to characterize the physiological and psychological impact of isolation and confinement, as well as potential mitigation strategies. In particular, you will be involved in setting up a plan for exploitation of standard measures collected across a variety of ESA SciSpacE's ground-based platforms (Bedrest Core Data, Dry Immersion Core Data, Isolation Standard Measures).

### **Required education and skills**

- Master's degree in a relevant discipline (e.g., Human Physiology, Medicine, Psychology, Biomedical Sciences, etc.)
- Good interpersonal and communication skills
- Ability to work in a multi-cultural environment, both independently and as part of a team
- Fluency in English and/or French, the working languages of the Agency