## **Sponsor**

European Space Agency (ESA)

## **Description**

Bedrest studies, and analysis proposals for **Dry Immersion Core Data**. As Canada is a contributing member to the SciSpacE programme, Canadian research teams are eligible participants in these opportunities and the Canadian Space Agency (CSA) encourages Canadian scientists to submit applications to these opportunities as Principal Investigator, or as Co-Investigator with an European Team.

The **Bedrest Announcement of Opportunity** proposes two 60-day Bedrest studies. One bedrest study will be conducted at the MEDES Space Clinic in Toulouse, France in 2021. The second study will be conducted at the Planica Nordic Center in Planica, Slovenia in 2022. Both studies will apply artificial gravity and exercise paradigms as countermeasures. Both opportunities aim to better understand the effectiveness of different countermeasures on physiological and psychological functions that are affected during spaceflight.

The **Dry Immersion Announcement of Opportunity** is soliciting analysis proposals for Dry Immersion Core Data. A 5-day immersion study will be conducted at the MEDES Space Clinic in Toulouse, France. It is anticipated to start at Q4 of 2020. The aim of this Opportunity is to validate and better understand the dry immersion model and the physiological and psychological changes it induces.

# **Funding Availability**

There is no funding available from ESA under this OA. ESA will cover the platform costs (i.e. giving the science teams access to the study and volunteers). All consumables and overhead costs, as well as travel etc, are covered by the national agencies or institutions.

Please note that the Canadian Space Agency (CSA) encourages Canadian researchers from universities and post-secondary institutions to submit proposals, either as Principal Investigator or as co-applicant to an European Investigator. Though no commitment can be made, the CSA is exploring the possibility of funding Canadian researchers whose proposals would be selected from these specific ESA AO and would meet the CSA objectives to advance knowledge on space health risks mitigation strategies and countermeasures, while contributing to improve remote medicine and health benefits here on Earth. Precursor investigations for the ISS or other

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space research platforms are encouraged. There is no commitment by CSA to undertake any funding commitments and this is subject to change. Any changes will be published on the CSA website. [1]

# **Project Duration**

The Dry Immersion project is projected to start end of this year/early next year.

The Bedrest study at MEDES is targetted for second half of 2021, the study in Planica for 2022. End date depends on how the campaigns are organized with one campaign usually taking 90 days (pre-bedrest, bedrest itself and post-bedrest). However, one bedrest study consists of a minimum of two campaigns. For Dry Immersion, the timeline will be shorter as one campaign will only take 5 days and several campaigns will be hosted.

## **Special Notes**

Please refer to the Office of Research COVID 19 web-page [2] for directives related to research activities at the University of Guelph.

## **Deadlines**

If College-level review is required, your College will communicate its earlier internal deadlines.

Type Date Notes

Internal Deadline Monday, May 25, 2020 -

12:01pm Please submit your

application/proposal, along with

an OR-5 Form

to

research.services@uoguelph.c

<u>a</u> [3]

**External Deadline** Monday, June 1, 2020 -

11:59pm

## **How to Apply**

Applicants are not required to have submitted an LOI as it was not binding, or mandatory. The workshop was cancelled due to COVID-19 and replaced with a video presentation referenced below.

#### Supporting documents BEDREST

Published on Research Alerts (https://www.uoguelph.ca/research/alerts)

Via this <u>EsaBox</u> [4] link, you will be able to download:

- ESA slides
- video presentation (with slides)
- presentation from the MEDES facility
- two presentations from the Jožef Stefan institute (one on the Planica facility and one on Hypoxic bed rest studies).

Password is '\*Bedrest2020!' (no parentheses, caps-sensitive, and you need to manually type the password).

#### Supporting documents DRY IMMERSION

Via this **EsaBox** [5] link, you will be able to download:

- ESA slides
- video presentation (with slides)
- presentation from the MEDES facility

The password to access is '\*DryImmersion2020!' (no parentheses, caps-sensitive, and you need to manually type the password).

ESA will conduct the technical peer review and make the final selection of the applications.

## **Information For Co-applicants**

If you need to meet a deadline set by the lead institution for this opportunity, please ensure that you provide the Office of Research with at least five days in advance of the lead institution's deadline to review the application, or your proposed component of the project. Please be in touch with the Office of Research (contact information below) ahead of the deadline if it looks like it will be difficult for you to submit all the required documentation on time (i.e. budget, proposal, OR-5 Form).

For Questions, please contact

For Bedrest Studies please email: <a href="mailto:bedrest@esa.int">bedrest@esa.int</a> [6]

For the Dry Immersion study please email: <a href="mailto:dryimmersion@esa.int">dryimmersion@esa.int</a> [7]

#### Office of Research

Angela Vuk, Senior Grants and Contracts Specialist Research Services Office 519-824-4120 x55026 avuk@uoquelph.ca [8] Alert Classifications Category:

Funding Opportunities and Sponsor News

#### **Disciplines:**

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Health and Life Sciences Information and Communications Technology Physical Sciences and Engineering Social Sciences

#### Source

**URL:**<a href="https://www.uoguelph.ca/research/alerts/content/announcement-opportunities-ao-bed-rest-and-immersion-studies">https://www.uoguelph.ca/research/alerts/content/announcement-opportunities-ao-bed-rest-and-immersion-studies</a>

#### Links

- [1] https://www.asc-csa.gc.ca/eng/Default.asp
- [2] https://www.uoguelph.ca/research/article/2019-novel-coronavirus-information
- [3] mailto:research.services@uoguelph.ca
- [4] https://esabox.esa.int/owncloud/index.php/s/VAkAixtBlnEweak
- [5] https://esabox.esa.int/owncloud/index.php/s/Ms3iRQom5j7ePOn
- [6] mailto:bedrest@esa.int
- [7] mailto:dryimmersion@esa.int
- [8] mailto:avuk@uoguelph.ca