PRESS RELEASES

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UNIS/OS/531
8 June 2020

UNOOSA and ESA announce winner of opportunity to conduct hypergravity experiments at ESTEC

VIENNA, 8 June (United Nations Information Service) - The United Nations Office for Outer Space Affairs (UNOOSA) and the European Space Agency (ESA) announced that the team from Mahidol University, Thailand, is the winner of the 1st cycle of the HyperGES fellowship.

The fellowship is part of the UNOOSA Access to Space 4 All Initiative and offers scientists from all over the world, with particular attention to developing countries, the opportunity to conduct their own hypergravity experiments using the Large Diameter Centrifuge (LDC) at the European Space Research and Technology Centre (ESTEC), which is part of ESA.

The winning team is currently working with UNOOSA and ESTEC to prepare their experiments at the LDC facility. Due to the COVID-19 situation, the date for the experiments has not yet been determined, but the team is aiming to conduct them before the end of 2020.

The experiments will study the effect of hypergravity on watermeal, the smallest and fastest growing flowering plant on Earth. This will help unlock many possibilities for future applications of the plant as a food and oxygen source for space exploration and on other planets that may have higher gravity than Earth.

The team is composed of five researchers, including two women scientists, from Mahidol University, Thailand. Each member brings a unique academic background to the project, including physics, bio-innovation, biochemistry and electrical engineering.

By opening up the unique LDC facility to teams from all over the world, the fellowship contributes to expanding access to space education and research in hypergravity, particularly capacity building for teams from developing countries, who may otherwise not have access to such equipment.

Simonetta Di Pippo, Director of UNOOSA, said: "We are delighted to announce the selection of the Thai team as the first winners of this unique opportunity, part of our Access to Space 4 All Initiative to bridge the gap among countries in access to space and space skills. We are grateful to ESA for opening up their unique research space for this ambitious project, which will shed light on how to produce food and oxygen beyond Earth, potentially leading to important break-throughs for space exploration"

Jan Wörner, Director General of ESA, said: "I congratulate the team of Mahidol University for being the first to win the HyperGES fellowship. This unique initiative by ESA and UNOOSA combines all that space accounts for: high-tech, science and research and international cooperation for the benefit of our societies."

Franco Ongaro, ESA Director of Technology, Engineering and Quality and head of ESTEC, remarked: "We are pleased and grateful to UNOOSA for this opportunity to open up LDC access to worldwide researchers for testing, in order to explore the role of gravity within, in this case, life support systems. This proposed experiment is a good example of how such ground-based centrifuges can be used to support space activities."

Tatpong Tulyananda, head of the winning team, said: "This is a great opportunity and a big step for the space biology research program in Thailand. We are very excited to explore how aquatic plants perform in a hypergravity environment, which might answer questions for future space exploration."

UNOOSA plans to publish the announcement of opportunity for the 2nd cycle of HyperGES in the second half of 2020. More information about HyperGES can be found here: https://www.unoosa.org/oosa/en/ourwork/psa/hsti/ldc_hyperges/ao_main.html

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For more information, please contact:

Ottavia **Pesce**
United Nations Office for Outer Space Affairs (UNOOSA)
Telephone: (+43 699) 1459 8718
Email: pesce[at]un.org

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