Students for the Exploration and Development of Space Étudiants pour l'Exploration et le Développement Spatial

Canadian University Students Set to Fly Their Experiments in Microgravity This Week

August 9, 2021

Ottawa, ON - Six university teams are set to compete next week with their out-of-this-world experiments, as part of the Canadian Reduced Gravity Experiment (CAN-RGX) Design Challenge. CAN-RGX encourages post-secondary students from across Canada to fully design, build, and test a small experiment to be flown in the microgravity environment of parabolic flight, similar to the experiments done at the International Space Station. This year's competition culminates in a long-awaited flight campaign to be held at the National Research Council of Canada's Aerospace Flight Research Laboratory in Ottawa from August 11-20th.

Over the past 1-2 years, five student teams have worked especially hard to design, integrate, and test a scientific experiment throughout the pandemic. These are:

- TelOmG (University of Toronto) is investigating the effect of changes in gravity on the genetic regulation of telomeres, bits located at the tips of our chromosomes that are key determinants of cell longevity,
- UBC Rocket (University of British Columbia) will study the behaviour of microbial fuel cells (next-generation batteries with applications in space travel) in both micro- and hyper-gravity conditions,
- Phi-Six Society (Thompson Rivers University) will measure inter-particle forces that govern agglomeration in a Kundts' tube,
- University of Alberta Space Design Group are investigating gene expression of bio-engineered cartilage tissue in microgravity which could contribute to improving the health outcomes of knee osteoarthritis patients, and,
- uO Rocketry (University of Ottawa) is investigating whether our last line of defence antibiotics will be as effective in microgravity as they are in 1g.

CAN-RGX alumni from the University of Victoria will also attend, re-flying an upgraded version of an experiment they flew in 2019. More information on the teams and their experiments can be found on the <u>SEDS-Canada Website</u>.

CAN-RGX is hosted by the Students for the Exploration and Development of Space (SEDS-Canada) and is in collaboration with the Canadian Space Agency (CSA) and the National Research Council of Canada (NRC).

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Media Contacts:

Louis Burelle Project Manager louis.burelle@seds.ca +1 (613) 876-4041 Alina Kunitskaya Projects Chair alina.kunitskaya@seds.ca +1 (403) 400-1559