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Late breaking abstracts (LBA)

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"INVESTIGATION OF THE IMPACT OF THE ROCKET'S SUBORBITAL FLIGHT ON BIOFILM, ENZYMES AND BIOSYNTHESIS ON AUTONOMOUS, MODULAR AND SCALABLE PLATFORM FOR CONDUCTING EXPERIMENTS OF AN ASTROBIOTECHNOLOGICAL NATURE"

Abstract

The aim of the payload of the R6 suborbital rocket is to perform the experiment to study the effects of rocket flights on biofilm, molecular biology enzymes and biosynthesis on our autonomous, modular and scalable platform for conducting experiments of an astrobiotechnological nature.

For this purpose, we use the interdisciplinary character of the team to ensure full integrity, reliability, and operational efficiency. The experiment to be carried out during the Spaceport America Cup competition constitutes the first stage of our team's three-stage scientific programme of astrobiotechnological experiments, the sense of which was confirmed by a letter of recommendation from the scientist working for the NASA Ames Research Center.

The operational sectors of scientific experiments will be subject to the same effects of G-force, rocket launch velocity, temperature and vibration profile. In the experiment we will use 3D printing elements, Peltier cell, GPS, sensors measuring vibrations, temperature, pressure, and G-force.