

(SD2024-136) A Gravitationally Resilient Automated Molecular Biology Platform

Tech ID: 33385 / UC Case 2021-Z08-1

ABSTRACT

A patent-pending platform technology designed to work in any gravity, which includes in microgravity environments, able to execute advanced molecular biology workflows; representing a paradigm shift in automation for molecular biology.

TECHNOLOGY DESCRIPTION

The ability to extract nucleic acids and prepare them for next-gen sequencing in an automated manner is a giant leap in innovation for the space station environment and workflow.

Researchers from UC San Diego have developed a platform technology that will enable a variety of downstream experiments and applications, similar to Earth. The invention is built to conduct end-to-end molecular biology workflows in space.

This technology is patent-pending and offered under license for commercialization.

APPLICATIONS

ADVANTAGES

STATE OF DEVELOPMENT

INTELLECTUAL PROPERTY INFO

RELATED MATERIALS

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OTHER INFORMATION

KEYWORDS

genetic analysis tools, DNA RNA extraction, PCR, nucleic acid synthesis, mRNA vaccine production, library prep for next-generation sequencing

CATEGORIZED AS

- ▶ **Biotechnology**
 - ▶ Genomics
- ▶ **Medical**
 - ▶ Research Tools
- ▶ **Engineering**
 - ▶ Robotics and Automation

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