

Cancer Drug Launched in Space Via Falcon 9 Launcher: Doxil Nanotech Treatment Tested for Occurrence of Change in Zero Gravity Conditions

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Drug cancer cell treatment, Doxil, manufactured by Ayana Pharma, was launched a week ago, to the International Space Station, as part of the mission of SpaceX. The launch of the drug was made possible by SpacePharma.

Since space exploration has grown because of aerospace big players such as SpaceX, the probabilities of what can be attained in space continued to be explored, Geektime said in a report.

Certainly a cosmic breakthrough in the field of Space, this latest development could impact the treatment of drugs against cancer.

Doxil Nanotechnology Drug

A week ago, the pioneering study was launched without any intended witticism. The Falcon 9 launcher of SpaceX carried an extremely sophisticated laboratory that [SpacePharma](#) developed.

Their space laboratory is shrunk or mini version of the technology utilized for regular testing, although it weighs only four kilograms. It allows for more remote-controlled, actual-time testing to be carried out in space.

The objective of the study was to test if the cancer treatment, a nanotechnology drug that Ayana Pharma developed to treat cancer, would change in zero-gravity conditions. The study authors wanted to find out the drug itself or its actions against cancer cells would change the celestial space.

Essentially, Doxil is a complex-structure liposome drug formulated to treat ovarian cancer,

several myelomas, or bone marrow cancer, as well as other contraindications.

The complex and unique structure of the drug makes it possible to test whether conditions of non-gravity, as they exist in space, affect the physical properties of the drug and its activity against cancer cells.

Probable Changes in the Nanoparticle Drug Investigated

Since the chemical and physical properties of Doxil and the cancer cell may differ under gravitational circumstances, the study authors will seek to investigate if there are changes in the nanoparticle, acceptance into cancer cells, the active substance that combats cancer cells, as well as its rate of discharge, and the drug's distinctive envelope properties.

The notion behind this study is certainly to understand better the aspects of the drug, as it may specify a future probability of the efficacy in conditions of non-gravity.

The development of Doxil, detailed in the Chemocare site, was led by the Hebrew University's Professor Yehezkel Bernholtz, who, in 2012, founded Ayana Pharma.

The professor is recognized as a global expert in nanotechnology therapeutics, as Doxil was the first nanotechnology drug of the world approved by the Food and Drug Administration, as reported in the [Fierce Pharma](#) site.

His pharmaceutical firm focuses on both the development and production of liposomal drugs for cancer treatment, not just for cancer but also for other diseases.

Read the [original article](#) on Science Times.