



# SCIENCE LAUNCHING

ON SPACEX'S 24<sup>TH</sup> CARGO RESUPPLY  
MISSION TO THE SPACE STATION



1  
00:00:00,000 --> 00:00:03,434  
WHY ARE WE SENDING A BIOPRINTER

2  
00:00:03,434 --> 00:00:05,426  
PROTEIN CRYSTALS

3  
00:00:05,426 --> 00:00:08,470  
AND STAIN REMOVER TO SPACE?

4  
00:00:08,470 --> 00:00:13,998  
DOZENS OF NEW EXPERIMENTS WILL SOON  
ARRIVE AT THE INTERNATIONAL SPACE STATION

5  
00:00:13,998 --> 00:00:18,241  
AND CONTINUE TO BUILD UPON  
PREVIOUS MICROGRAVITY RESEARCH

6  
00:00:18,241 --> 00:00:22,657  
FOR THE BENEFIT OF HUMANITY AND  
FUTURE MISSIONS TO SPACE

7  
00:00:22,657 --> 00:00:27,906  
LET'S TAKE A LOOK AT WHAT'S ON BOARD  
THE 24TH SPACEX CARGO MISSION

8  
00:00:27,906 --> 00:00:29,507  
BIOPRINT FIRST AID

9  
00:00:29,507 --> 00:00:33,341  
A handheld bioprinter tests technology  
that could one day

10  
00:00:33,341 --> 00:00:37,962  
be used to print tissue directly  
on wounds to accelerate healing.

11  
00:00:37,962 --> 00:00:39,301  
CASIS PCG 20

12

00:00:39,301 --> 00:00:44,131

Pharmaceutical company Merck  
continues a protein crystal growth study

13

00:00:44,131 --> 00:00:48,929

that could improve the delivery  
of cancer treatment drugs.

14

00:00:48,929 --> 00:00:51,001

HOST PATHOGEN

15

00:00:51,001 --> 00:00:55,169

Blood and saliva samples taken before, during,  
and after spaceflight could help researchers assess

16

00:00:55,169 --> 00:01:00,052

astronaut risk from infectious microbes and  
develop countermeasures to restore immune function.

17

00:01:00,052 --> 00:01:01,967

MVP PLANT-01

18

00:01:01,967 --> 00:01:06,954

Researchers continue to study RNA associated  
with plant shoot and root development

19

00:01:06,954 --> 00:01:11,297

while testing a new plant experiment module.

20

00:01:11,297 --> 00:01:12,740

PGTIDE

21

00:01:12,740 --> 00:01:16,784

An investigation from Tide examines  
detergent efficacy

22

00:01:16,784 --> 00:01:21,876

and the effectiveness of stain removal  
ingredients in microgravity.

23

00:01:21,876 --> 00:01:23,876

TURBINE SCM

24

00:01:23,876 --> 00:01:28,548

Engineers will evaluate a manufacturing device that processes heat resistant metal parts

25

00:01:28,548 --> 00:01:33,755

in microgravity, which will be tested for future use in items like turbine engines on Earth.

26

00:01:40,606 --> 00:01:35,094

SPOCS

27

00:01:40,606 --> 00:01:46,085

from Columbia University and the University of Idaho to space.

28

00:01:46,085 --> 00:01:53,870

THESE EXPERIMENTS WILL JOIN THE HUNDREDS OF ONGOING INVESTIGATIONS ABOARD THE ORBITING LABORATORY