



# KATE RUBINS

## SCIENCE

### ON THE

# SPACE STATION

1  
00:00:11,509 --> 00:00:09,030  
the reason that you would do

2  
00:00:13,110 --> 00:00:11,519  
any kind of experiment in space is if

3  
00:00:13,509 --> 00:00:13,120  
there's something particular about the

4  
00:00:15,749 --> 00:00:13,519  
space

5  
00:00:19,029 --> 00:00:15,759  
environment most often that is

6  
00:00:24,790 --> 00:00:22,710  
so mostly the iss gives us the ability

7  
00:00:26,550 --> 00:00:24,800  
to either do something that we can't do

8  
00:00:29,349 --> 00:00:26,560  
in a facility on earth

9  
00:00:30,310 --> 00:00:29,359  
or investigate some phenomenon some

10  
00:00:32,549 --> 00:00:30,320  
property

11  
00:00:33,910 --> 00:00:32,559  
in a way that we can't on earth so for

12  
00:00:36,069 --> 00:00:33,920  
example some of the tissue

13  
00:00:36,950 --> 00:00:36,079

architecture these really delicate

14

00:00:39,110 --> 00:00:36,960

tissues

15

00:00:40,229 --> 00:00:39,120

as you start to build them up they would

16

00:00:42,150 --> 00:00:40,239

collapse

17

00:00:43,910 --> 00:00:42,160

because you have gravity or the cells

18

00:00:44,869 --> 00:00:43,920

would naturally settle to the bottom of

19

00:00:47,590 --> 00:00:44,879

the plate

20

00:00:49,270 --> 00:00:47,600

and so you just can't study the answer

21

00:00:52,549 --> 00:00:49,280

to the question that you're looking for

22

00:00:54,630 --> 00:00:52,559

so the space station lets us have that

23

00:00:55,510 --> 00:00:54,640

ability to either test what the effect

24

00:00:58,549 --> 00:00:55,520

of gravity

25

00:01:02,549 --> 00:00:58,559

is or remove that problem entirely from

26

00:01:06,310 --> 00:01:04,229

yeah the space station's an incredible

27

00:01:07,030 --> 00:01:06,320

place to conduct research it was sort of

28

00:01:09,429 --> 00:01:07,040

like

29

00:01:12,230 --> 00:01:09,439

being in the world's most amazing lab

30

00:01:13,830 --> 00:01:12,240

when i was up there in 2016. so when

31

00:01:14,950 --> 00:01:13,840

you're scientists you're used to working

32

00:01:17,190 --> 00:01:14,960

on one thing

33

00:01:18,630 --> 00:01:17,200

over and over and maybe really refining

34

00:01:21,109 --> 00:01:18,640

the details on that

35

00:01:22,149 --> 00:01:21,119

over the course of a phd thesis or a lab

36

00:01:24,310 --> 00:01:22,159

project

37

00:01:26,310 --> 00:01:24,320

on space station you get somebody's

38

00:01:29,270 --> 00:01:26,320

incredibly refined project

39

00:01:31,350 --> 00:01:29,280

times 200 different fields so for me it

40

00:01:32,789 --> 00:01:31,360

was a chance to learn about all these

41

00:01:35,910 --> 00:01:32,799

different areas of science

42

00:01:39,109 --> 00:01:35,920

and they each have a team behind them so

43

00:01:41,270 --> 00:01:39,119

i was usually pretty excited to open the

44

00:01:43,590 --> 00:01:41,280

container and do whatever experiment

45

00:01:45,350 --> 00:01:43,600

that day brought i also really got a

46

00:01:47,670 --> 00:01:45,360

chance to talk to those

47

00:01:49,109 --> 00:01:47,680

pis the principal investigators and the

48

00:01:51,350 --> 00:01:49,119

scientific teams

49

00:01:53,190 --> 00:01:51,360

and understand everything that was going

50

00:01:54,149 --> 00:01:53,200

on behind their experiments and read

51  
00:01:56,310 --> 00:01:54,159  
their papers

52  
00:01:57,350 --> 00:01:56,320  
so by the time i got to doing the

53  
00:01:59,590 --> 00:01:57,360  
experiment i was

54  
00:02:00,950 --> 00:01:59,600  
i was pretty excited to to take it out

55  
00:02:02,149 --> 00:02:00,960  
and to see what was going to change in

56  
00:02:04,469 --> 00:02:02,159  
microgravity

57  
00:02:06,069 --> 00:02:04,479  
yeah science in space it's an amazing

58  
00:02:12,869 --> 00:02:06,079  
lab and it's incredibly fun

59  
00:02:12,879 --> 00:02:18,880  
i'm kate rubins i'm a scientist and an

60  
00:02:30,070 --> 00:02:20,830  
[Music]

61  
00:02:38,869 --> 00:02:37,820  
subscribe for more space