

# COUNTDOWN TO MARS



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1

00:00:12,769 --> 00:00:18,420

So, I work with the microorganisms from, that are isolated from the facility where

2

00:00:18,420 --> 00:00:22,680

they build the spacecraft, and we're working on trying to figure out whether

3

00:00:22,680 --> 00:00:26,760

or not the cleaning reagents that they use to wipe down these facilities

4

00:00:26,760 --> 00:00:31,020

actually serve as food sources for the microorganisms in the facilities.

5

00:00:31,160 --> 00:00:37,460

As the pandemic sort of decreases in severity, we'll have access to the microorganisms

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00:00:37,469 --> 00:00:40,770

that were isolated from the spacecraft and the facilities where it

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00:00:40,770 --> 00:00:43,800

was built from and we'll get to see whether or not some of the

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00:00:43,800 --> 00:00:47,340

microorganisms that may have been blasted off with the spacecraft, though

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00:00:47,340 --> 00:00:51,420

under the policy limits, perhaps they are active and perhaps they

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00:00:51,420 --> 00:00:55,590

could use small organics as carbon sources which some of these organics may

11

00:00:55,590 --> 00:00:59,320

be perhaps already present in the  
Martian soil and regolith.

12

00:01:02,320 --> 00:01:08,220

In summary, my work revolves around the microorganisms from Earth that could hijack a ride on

13

00:01:08,220 --> 00:01:13,470

the spacecraft towards Mars. So my  
research almost ends there but it does

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00:01:13,470 --> 00:01:17,939

connect up to what happens on Mars in  
that perhaps there are small organic

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00:01:17,939 --> 00:01:22,619

molecules on Mars that have carbon and  
nitrogen and/or sulfur atoms in there

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00:01:22,619 --> 00:01:28,110

that could serve as food sources. And so,  
I think my work does relate indirectly

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00:01:28,110 --> 00:01:32,759

to what could happen on Mars, and then if  
we find that the microorganisms that

18

00:01:32,759 --> 00:01:37,320

could have hijacked on the spacecraft  
use some of these organic molecules and

19

00:01:37,320 --> 00:01:41,220

carbon sources, then maybe if there was  
enough water, the temperature was right,

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00:01:41,220 --> 00:01:45,689

they could also survive on Mars. That  
would, I think, really inform some of