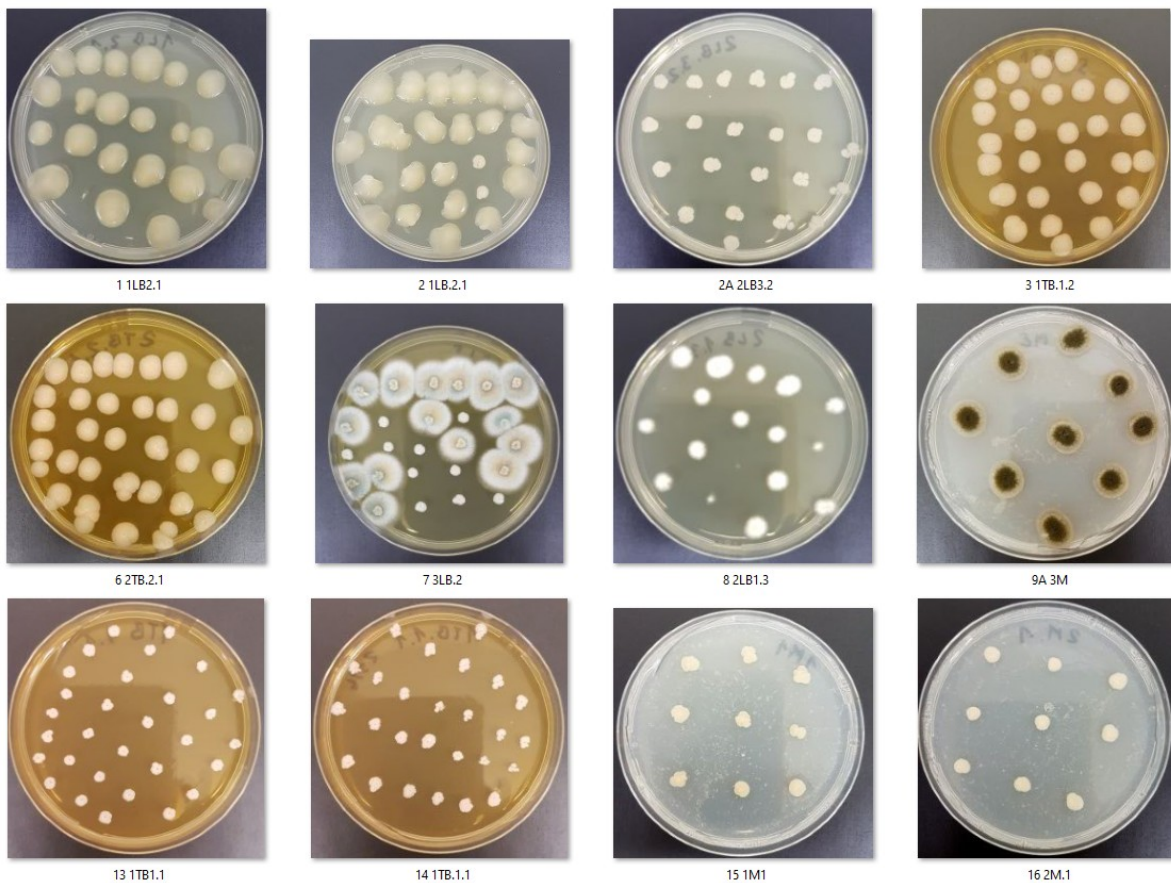


Aeolian transport of viable microbial life across the Atacama Desert, Chile



The Atacama is the driest and oldest Desert on Earth, and a well-known Mars analog environment.

Despite these extreme conditions, microbial life in the hyperarid core have been reported even in its driest sites, where water activity in its soils get as low as 0.15. How microbial life got into the driest sites of this desert was unknown.

Here we inspected whether microbial life may use dust transported by wind in order to move across and colonize the soils of this desert.

By setting different growth media in Petri dishes across the Atacama we found that a number of viable bacteria and fungi are in fact able to traverse the driest and most UV irradiated desert on Earth unscathed using wind-transported dust in a but a few hours, particularly in the afternoon.

This finding suggested that microbial life on Mars, extant or past, may have similarly benefited from aeolian transport to move across the planet and find suitable habitats to thrive and evolve.

CREDIT: CENTRO DE ASTROBIOLOGÍA (CSIC-INTA), UNIDAD DE EXCELENCIA MARÍA DE MAEZTU; LULEÅ UNIVERSITY OF TECHNOLOGY, SWEDEN; UNIVERSIDAD DE TARAPACÁ, ARICA, CHILE.

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