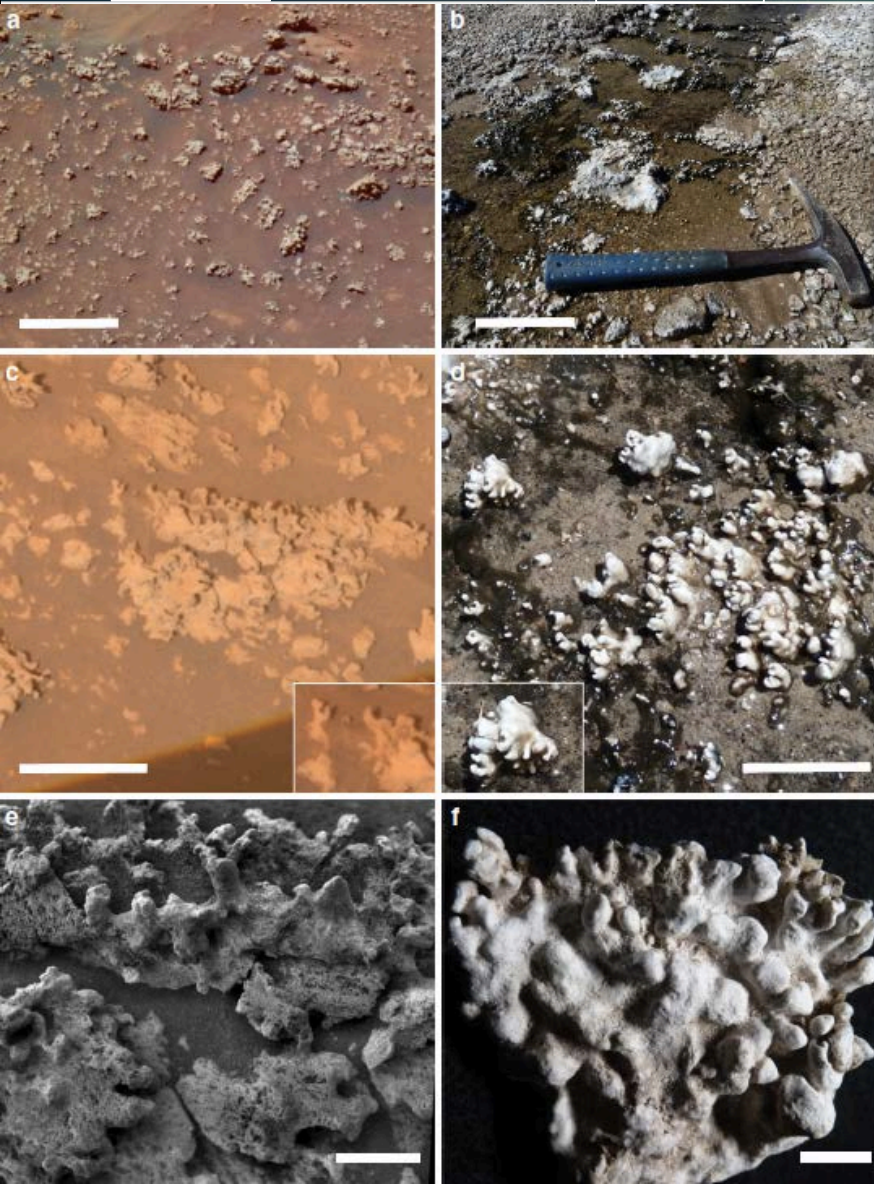


Biosignatures in a Chilean Mars Analog

Mars

Earth



Similarities between features in a hot spring outflow channel in El Tatio, Chile and those identified in the 'Home Plate' feature in the Columbia Hills of Gusev crater suggest that this may be an good place to search for signs of life.

- The Atacama desert is considered a Mars analog, since it is very dry, gets very cold in the winter and at the very high elevation has a stronger UV flux than most surface locations on Earth.
- At El Tatio, microbes in the hot spring environment play a part in the creation of distinctive nodule-like features that are similar in morphology and scale to those seen on Mars (image at left, 'Home Plate' on left, El Tatio on right).
- Similar morphology does not necessarily require similar creation processes, however this research suggests that Columbia Hills may be a promising location to investigate further with the Mars 2020 rover, which has an excellent suite of instruments for detecting biosignatures.