



## Mars, Meteorites and Antarctica

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The discovery of past or present life elsewhere in the solar system would be a dramatic scientific event. The planet Mars is an obvious target for such studies owing to its proximity to the Earth and evidence of past liquid water. Spacecraft missions are infrequent and expensive so to understand the habitability of Mars we look to Mars-like places on Earth.

The Dry Valleys of Antarctica display similarities to Mars and are colonised by extremophilic organisms. Moreover, meteorites from Mars are well preserved in Antarctica because of its dry and cold climate. This project will examine the inorganic and organic chemistry of Antarctica, its organisms and its meteorites. Samples have already been collected to start the project but further field work is a possibility. Findings will help to interpret data coming back from current and future missions to Mars.

The research will utilise state of the art instrumentation in the Imperial College Organic Geochemistry Laboratories. Full training will be provided. The project will involve a number of analytical methods and would suit an enthusiastic candidate with a background in Earth science, geochemistry or a subject that develops similar skills.

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