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Sommario/riassunto	<p>Over the last decades, the study of extremophiles has providing ground breaking discoveries that challenge the paradigms of modern biology and make us rethink intriguing questions such as "what is life?", "what are the limits of life?", and "what are the fundamental features of life?". The mechanisms by which different microorganisms adapt to extreme environments provide a unique perspective on the fundamental characteristics of biological processes present in most species. Extremophiles are also critical for evolutionary studies related to the origins of life, since they form a cluster on the base of the tree of life. Furthermore, the application of extremophiles in industrial processes has opened a new era in biotechnology. The study of extreme environments has become a key area of research for astrobiology. Extremophiles may help us understand what form life takes on other planetary bodies in our own solar system and beyond. These findings and possibilities have made the study of life in extreme environments one of the most exciting areas of research in recent decades. However, despite the latest advances we are just in the beginning of exploring and characterizing the world of extremophiles. This special issue covers all aspects of life in extreme environments. The submission of scientific perspectives, comprehensive reviews or research articles is most welcome.</p>

