

## A New Era In Bioastronomy

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After decades of neglect, the rocket scientists (and astronomers, astrochemists, planetary scientists, and geoscientists) are talking to biologists. NASA has discovered the potential of a living universe and has moved the study of astrobiology to the top of its science priorities. While astrobiology is not exactly the same as bioastronomy (or exobiology), the similarities outweigh the differences. As defined within NASA, astrobiology is the study of life in the universe using the techniques and facilities of the space program. It is a multidisciplinary effort focused on three basic questions: (1) How does life begin and evolve? (2) Is there life elsewhere in the universe? (3) What is the future of life on Earth and beyond? Surely most if not all of bioastronomy fits within that broad definition. This overview paper will discuss the specific scientific Goals and Objectives of the NASA Astrobiology Roadmap, and it will consider some of the near-term ways of implementing this plan. Among the areas of special interest to astrobiology are the scientific exploration of Mars and Europa to search for evidence of life (past or present), the search for habitable planets beyond the solar system, efforts to understand how life arose on the Earth and co-evolved with the planet, and experimental studies on the Space Station to determine how terrestrial life will fare and evolve beyond its home planet.