



Exobiology or astrobiology is the study of the possible presence of life on other planets. It involves scientists from various disciplines: geologists, chemists, oceanographers, astrophysicists, molecular biologists, zoologists, and paleontologists, among others. How life appeared and survived on Earth if there is a possibility of life elsewhere and how this could be found and recognized are the three key questions in astrobiology. In 1998, NASA created the Astrobiology Institute, which has been instrumental in consolidating this new science.

But, unfortunately, the search for extraterrestrial life has been so often channeled that people often range from complete skepticism to utter credulity.

In the Press Office of the Holy See, the conclusions of "Astrobiology" were presented, the Study Week organized by the Pontifical Academy of Sciences and the Vatican Astronomical Observatory.

Father Joseph Funes, S.I., Director of the Vatican Specola (astronomical observatory), professors Jonathan Lunine, of the Physics Department of the Roman University of Tor Vergata (Italy); Chris Impey, from the Department of Astronomy and the Steward Observatory, from the University of Tucson (Arizona, USA) and Athena Coustenis, from the Paris-Meudon Observatory, LESIA / CNRS (France).

"Why does the Vatican take an interest in Astrobiology?" asked Father Funes in his speech, and responded that while this science engulfs "a new and still under study, questions of the origins of life and its existence elsewhere in the universe are they are very interesting and deserve great attention, as well as have philosophical and theological implications".

"Astrobiology is the study of the relationships of life with the rest of the cosmos: its main themes cover the origin of life, its background, the evolution of life on Earth, its future perspectives outside and within this planet. (...) Study Week gives scientists from different basic disciplines the opportunity to understand how work in their particular specialties can impact other areas. This is evident, more than in any other sector, in the study of how life formed on Earth and evolved with the various changes in the environment," explained Professor Lunine.

Professor Impey observed that "if biology is not an exclusivity of the Earth, or if life elsewhere is different from our own, or if we even come into contact with intelligent species in the vastness of space, the implications for the image we have of ourselves will be profound. It is very opportune that the Pontifical Academy of Sciences should accommodate a meeting on this border issue. The methodology and arguments may differ, but science and religion regard life as a special achievement in a vast and mostly inhospitable universe. There is fertile ground for dialogue between astrobiology experts and those who want to understand the meaning of our existence in a biological universe".

The conference on Study Week (6-10 November, Casina Pius IV, Vatican), ended with the intervention of Athena Coustenis, dedicated to the exploration of other planets and their systems.