Exploring the origin of life

Tackling the big unanswered questions about life

How exactly did life on Earth begin? Are there other life forms in the universe? Could we live on Mars one day? For decades, researchers from various disciplines have been trying to solve the mystery of life on Earth – and beyond. However, behind these seemingly simple questions lie complex answers that only an interdisciplinary scientific approach can bring to light.

Now, with significant advances in prebiotic chemistry, the opportunity to analyse the first mineral samples from Mars and the discovery of Earth-like planets beyond our solar system, the time is ripe for the scientific community to join forces to answer the big questions about life itself.

Our goal

The new Centre for Origin and Prevalence of Life aims to transcend the boundaries of different disciplines and unite the expertise of chemists, biologists, geologists and astrophysicists at ETH Zurich in a multidisciplinary research programme with a common scientific vision. This initiative promotes new forms of scientific cooperation by putting chemical and biological knowledge about life forms in a planetary context.

Our objective is to conduct interdisciplinary analysis of current and future observations of Earth and the universe in order to achieve new insights into the origin of life. The Center's vision is to establish ETH as a leading research entity in this field, providing a springboard for ETH researchers to work on international flagship projects (e.g., future space missions). Professor and Nobel Prize winner Didier Queloz has been named the inaugural director of the Center and will be responsible for its establishment and leadership.

Your support enables

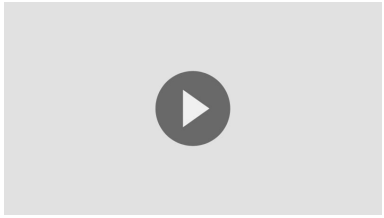
- an interdisciplinary research programme that investigates the great questions about the origins and prevalence of life;
- a competitive scholarship programme to attract the most talented young scientists;
- cross-disciplinary teaching programmes to train, promote and inspire future generations of interdisciplinary scientists;
- a scientific network programme for continuing to promote scientific exchange and cooperation across borders.

Impression from one of the research projects

The LIFE Mission Concept is one of the interdisciplinary projects being pursued at the Centre for Origin and Prevalence of Life.

With a state-of-the-art space interferometer (as depicted in the cover picture), scientists will investigate the atmospheres of exoplanets and search for extraterrestrial life in space. More on this extraordinary project in the video:

Video



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