

COMMUNICATING ASTROBIOLOGY RESEARCH THROUGH AN INTERACTIVE EXHIBITION AND THE EDUCATIONAL CARD GAME KOSMOKVEST

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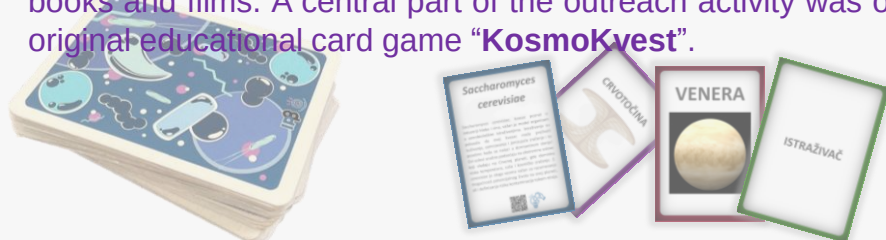
INTRODUCTION

Science promotion activities can play an important role in presenting astrobiology as an important and inspiring research field. Here, we present a scientific outreach programme developed within the project “**Imagine, Explore, Discover - Life Beyond Earth**”, supported by the Centre for the Promotion of Science.

The project was connected with the activities of the Laboratory for Experimental Astrobiology, established at the Institute of Physics in Belgrade two years ago, and was aimed especially at high school students and bachelor's students from different faculties.

METHODS

As part of the project, we organized the educational interactive poster exhibition “**SciFi in SciFa - from science fiction to science facts**” in four cities across Serbia. Through visual materials and adapted texts, visitors were introduced to the main topics studied in astrobiology, including the possibility of microbial life on other planets, as well as the biological limitations of worlds and organisms described in science fiction books and films. A central part of the outreach activity was our original educational card game “**KosmoKvest**”.



RESULTS

Educational exhibition consisted of 11 posters, organised into two thematic sections. Six posters introduced key concepts in astrobiology, including the origin of life, the search for extraterrestrial life, the Fermi paradox, the Dark Forest hypothesis, habitable zones, and the potential for microbial life on different bodies of the Solar System. Five other posters connected selected science-fiction concepts with established biological principles and organisms known on Earth, including tardigrades, *quorum sensing*, slime moulds, bacterial biofilms, biological size limitations, communication, and terraforming.

The aim of **KosmoKvest** is to build a cosmic pathway towards a selected celestial body in the Solar System. The game is designed for **3–6 players**, who draw a card at the beginning of the game assigning them a role in building the pathway.

Players with the **role of researchers** define the pathway by placing cards containing concepts related to the selected astrobiological target. Their progress is disrupted by players acting as disinformers.

They interfere with the pathway by adding cards that are unrelated to the target astrobiological destination. If a player is unfamiliar with a concept on a card, they can scan a QR code that leads to a short text explaining the term.

Each player knows only their own role, while the roles of the other players are gradually discovered during the game.

As in any scientific endeavor, numerous factors can influence the outcome of pathway formation, represented by action cards: the telescope, the solar lottery, and the wormhole. The game can end with a victory for the researchers only if the pathway has been successfully defined!

Before you leave, grab a sticker!

