CASPAR

EXPLORING THE REGULATION OF GENE EXPRESSION IN THE THIRD DOMAIN OF LIFE – ARCHAEA

Archaea are unicellular prokaryotic microorganisms (i.e. with no nucleus) with remarkable and unexpected properties. Richly biodiverse, they can survive in extreme conditions. Archaea therefore share the same fundamental cellular processes as eukaryotic cells, including human cells.

The CASPAR project will explore the microbiology of extreme habitats and aims to highlight the essential elements controlling gene expression in Archaea. More specifically, the project proposes to elucidate the physiological role of the enzymes (?-CASP type ribonuclease) responsible for processing the molecules – ribonucleic acid (RNA) – central to transferring information within the cell.

The project is therefore of universal importance for shedding light on fundamental biological mechanisms and for studying the evolution of life on earth.

The CASPAR project is using recently developed genetic techniques which pose a real technical challenge when applied to Archaea.

Partners

Research centers

Université Toulouse III - Paul Sabatier, UMR 5100, Laboratoire de microbiologie et génétique moléculaires, Porteur du projet, Toulouse [Project Developer]
Ifremer, Unité d'Etudes des Environnements Profonds, Brest
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