Abstract

Environmental microorganisms constitute an almost inexhaustible reserve of genetic and functional diversity, accumulated during millions of years of adaptive evolution to various selective pressures. In particular, the extent of microbial biodiversity in marine habitats seems to grow larger as new techniques emerge to measure it. This has resulted in novel and more complex approaches for the screening of molecules and activities of biotechnological interest in these environments. In this review, we explore the different partially overlapping biotechnological fields that make use of microorganisms and we describe the different marine habitats that are particularly attractive for bioprospection. In addition, we review the methodological approaches currently used for microbial bioprospection, from the traditional cultivation techniques to state of the art metagenomic approaches, with emphasis in the marine environment.

Keywords

Bioprospection, Marine microorganisms, Biotechnological applications, Argentina