



اولین همایش ملی تغییر اقلیم و اکوسیستم های آبی  
پژوهشکده اکولوژی خلیج فارس و دریای عمان  
25 و 26 اردیبهشت ماه 1397، بندرعباس



## Marine Biotechnology in public health and food safety

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**Abstract:** Sea and oceans make up more than 70 percent of the Earth's surface, and on the other hand, more than 80 percent of living organisms are present only in aquatic ecosystems, and also rich in biodiversity and chemical resources. Many beneficial marine organisms, including algae, fish and microorganisms, are abundant in coastal waters of Iran, which can be known as healthy food sources. Based on the above mentions and the existence of about 3,000 kilometers of marine borders and several lakes in Iran, marine biotechnology seems to be a good foundation for investment, raising the level of nutrition for our country. Marine biotechnology is relatively new fields which help to processes the derived products from marine organisms Oceans and sea are more than three quarters of the earth's surface and marine organisms make up a large part of its biological diversity. This diversity is the source of unique compounds that have industrial potential in areas such as the production of pharmaceutical ingredients, cosmetics, food additives, enzymes, and chemicals used in the production of fishery products. Because marine biotechnology open a new aspects in diagnosis of aquatic diseases and the maintenance the health of marine food resources in order to product natural compounds, the detection and discovery of new anticancer drugs with the least harmful effects on the immune system which can be considered as an important goals in pharmacology and therapy sciences. In marine biotechnology, marine organisms can be directly and or indirect use for producing of new or improved products, introduce new techniques for the conservation of genetic resources and the management of aquatic ecosystems in the fisheries and the sustainable production of aquatic animals, diagnosis of aquatic diseases and the maintenance the health of marine food resources. The main issues which we offer in this paper are summarized in different aspects of applied marine biotechnology including: Biological products ,Biological trackers, Improving the health level , Fisheries and aquaculture as well. the main goals of this review paper, are present and discusses about the potential of different aspects of biotechnology in order to promote and introduce the rich sourness of natural functional food and bioactive compounds which can be considered in pharmaceutical industries.

**Keywords:** Marine Biotechnology, Biological Foods, Food Health