







Special Issue Reprint

Genome Mining and Synthetic Biology in Marine Natural Products Discovery

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In recent years, marine genomics has become a growning rapidly field, helped by the large amount of information that is becoming available to the international scientific community. Taking into account the current excitement in the field of marine biotechnology, this Special Issue entitled "Genome Mining and Synthetic Biology in Marine Natural Product Discovery" aims to to assess the impact of these molecular approaches on the discovery of bioactive compounds from marine organisms. The term "genome mining" is used to identify all bioinformatic investigations aimed at detecting the biosynthetic pathways of bioactive natural products and their possible functional and chemical interactions. Several studies are now reporting on marine organisms. Oceans cover nearly 70% of the Earth's surface and host a huge ecological, chemical, and biological diversity. The natural conditions of the sea favor, in marine organisms, the production of a large variety of novel molecules with great pharmaceutical potential. Marine organisms are unique in their structural and functional features compared to terrestrial ones. Innovation in this field is very rapid, as revealed by the funding of several Seventh Framework Programme (FP7) and Horizon 2020 projects under the topic "Blue Growth", with the urgent goal of discovering new drugs.





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