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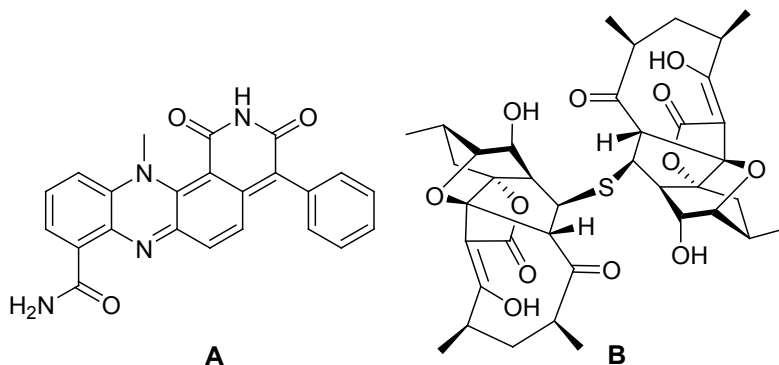
## From the deepest on Earth: Natural products from extreme environments

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Marine microbes are uniquely important to life as we know it. Since life most likely began in the oceans, marine microorganisms may be the closest living descendants of the original forms of life and also major pillars of the biosphere. Their metabolic diversity and capability allow them to carry out many steps in biogeochemical cycles that other organisms are unable to complete, while on the other hand they are used in a number of biotechnology applications, including the manufacture of industrial products and energy production. Marine microbes, in particular strains of Actinobacteria, are excellent sources of novel bioactive metabolites that might have pharmaceutical application. In addition to, approximately 20000 natural products have been reported from marine flora and fauna over the past 50 years and yet less than 2% of those derive from deep-water marine organisms. Although difficulty in accessing these depths has previously hindered deep-sea research, today with improved acoustic technology and greater access to submersibles, deep-sea exploration is uncovering extensive deep-water coral reefs that are home to a wealth of species on continental shelves and seamounts world-wide. Recent analyses have shown that the deep sea is one of the most biodiverse and species-rich habitats on the planet, rivalling that of coral reefs and rainforests. Dermacozines (A) and Abyssomicins (B) are rare class obtained from deep sea microbes going to be investigated in this short talk.



### Biography

Wael M Abdel-Mageed is an Assistant Professor at Department of Pharmacognosy, College of Pharmacy, King Saud University, Riyadh, KSA, where he has been since 2012. He also serves as an Associate Professor in the Department of Pharmacognosy, Faculty of Pharmacy, Assiut University, Assiut, Egypt, where it is his permanent address. He received a BS in Pharmaceutical Sciences from Assiut University in 1997, and a MS in Pharmaceutical Sciences (Pharmacognosy) from Assiut University in 2002. He received his PhD in Chemistry of Natural Products from the University of Aberdeen, Scotland, UK in 2009. He had a Postdoctoral fellowship at the Institute of Microbiology, Chinese Academy of Sciences (CAS), Beijing, P.R.China in 2011. His research interests focus on bioactive compounds from natural sources (plants, marine organisms, and microorganisms). This includes isolation, identification and structural elucidation of active entities. He is also interesting to natural products from microbes either marine or terrestrial species. He published many papers in the field of natural products and in many reputed journals. He is also an Editorial Board Member of some natural products concerning journals.

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