

Understanding the Specialized Chemistry of the Ocean's Living Wonders to Improve Human Health

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In this seminar, Moore will share his lifelong passion to understand and apply the specialized chemistry of oceanic life to solve challenges in human health and usher in a biosustainable future. An early pioneer in the field of genome mining, Moore's work connects the genomic blueprint of life with the diverse chemicals that nature uses in communication, defense, and environmental adaptation. By reading, writing, and editing the genomes of marine microbes, algae, and metazoans, Moore and his team have discovered new-to-science molecules, enzymes, and genes; leading to FDA-approved medicine, commercialized kits to detect freshwater toxins, and technology in living coloration. Extinction risks from climate change, however, threaten many (marine) species and the knowledge of their evolutionary solutions to life that fuel new scientific discoveries. With new advances in genomic and metabolomic technology, this is a defining moment to accelerate our understanding of nature's solutions to create a bio-based future.