

SL01 Mining Marine Microorganisms Provides Mechanistically-Unique Drug Leads for the Treatment of Cancer

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Marine microorganisms, and in particular marine actinomycete bacteria, are a genetically-unique and chemically-rich source for the discovery of new drug leads [1]. The development of novel isolation and culture methods has allowed access to a variety of previously uncultured strains that now form the foundation for innovative cancer drug discovery efforts [2]. Examining this new chemical source and coupling it with a program to identify new intracellular protein targets has provided several new and unpredicted pathways that can be exploited for cancer treatment [3]. Cytotoxic marine microbial metabolites such as the ammosamides, marinopyrroles, napyradiomycins, seriniquinones, and most recently chlorizidine, show binding affinity to a diversity of new protein targets, illustrating that a wealth of new approaches exist to treating various cancers [4-8]. These and more recent discoveries will form the content of this presentation.

References:

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