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A novel class of plant derived antibiotics active against MRSA and VRSA

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Plants and microbes depend on a dynamic set of interactions to thrive. Probing these biological relationships has led to the discovery of a new class of antibiotics called the platanosides, identified from the American Sycamore. The antibiotics are potent inhibitors of MRSA and VRSA as well as VRE. The potential utility of these molecules in the control of drug resistance will be presented. These represent a new class of antibiotics for the control of drug resistant Gram -/+ infectious diseases. The ecological role of these molecules appears to be the control of key phytopathogenic diseases common in agriculture.

Biography

George Hanna is a second-year graduate student in the Drug Discovery and Biomedical Sciences department at the Medical University of South Carolina. He received his BS in Marine Biology from the College of Charleston. Prior to beginning his graduate-research he worked for South Carolina's Department of Natural Resources, studying the influence of ecosystem processes on commercially important species of fish and crustaceans as well as the utilization of mariculture for stock enhancement. Now, working in the lab of Dr. Mark Hamann, George's interests stem from how ecology can be leveraged to inform the isolation and characterization of relevant bioactive natural products. His current work focuses on the use traditional medicinal and edible terrestrial plants and marine algae as a source of novel therapeutics, with a specific interest in the control of drug resistant infection diseases.

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