

Sparation and Characterization of Anti-microbial Marine-derived *Streptomyces* spp.

Yu-Ting Wang (王鈺婷), Chih-Chuang Liaw *

National Museum of National Sun Yat-sen University Department of Marine Biotechnology and Resources, Kaohsiung

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Abstract

Since Selman Waksman, the Nobel Prize winner in Physiology or Medicine in 1952, first discovered streptomycin with significantly inhibitory activity against tuberculosis, the Gram-positive bacteria of *Streptomyces* have attracted many pharmacists/chemists' attention. The bacteria of the genus *Streptomyces* contain complex secondary metabolites, many of which has been used as clinic antibiotics and even the templates of anticancer drugs for modification or total synthesis, for example, tetracycline, a broad-spectrum polyketide antibiotic from *S. rimosus* (in 1945), Daptomycin, a branched cyclic anionic lipopeptide antibiotic from *S. roseosporus* (in the late 1980s).

In the present study, we isolated one actinomycete (Strain No. LQII) from marine sediment outside of Siao-liou-ciou in the deep of 600 m, which collected by gravity core. By the 16S rRNA sequence analysis, the strain was categorized into the genus of *Streptomyces*. The bacterium showed significantly inhibitory effect against *Canidia albicans*. By bioactivity-guided fractionation isolation, several compounds were isolated from this ethyl-acetate extract of this *Streptomyces* sp. The bioactivity of these compounds is under investigation.