

Anti-microbial Components from Marine-derived *Streptomyces* spp. Against *Candida albicans*

自海洋鏈黴菌獲得具抑制白色念珠菌之抗菌成份

Yu-Ting Wang, Ya-Ping Jhang, Chih-Chuang Liaw*

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

Candida species, an opportunistic pathogen to human, cause severe infections on the skin (cutaneous candidiasis) and in the mouth (oral candidiasis), the intestine, and the vagina (genital candidiasis) of human when the immune system of the humans is depressed due to diseases. Although there are antibiotics, such as amphotericin B, fluconazole, voriconazole, and caspofungin, to treat the different symptoms of candidiasis, these antibiotics make serious side effects. In the preliminary study on searching microbial stains against *C. albicans* from Taiwan waters, we found that two marine-derived actinomycetes LQ-II and GT, isolated from the deep-sea sediment in the offshore of Siao-liou-ciou, showed apparent inhibitory effect toward *C. albicans*. Furthermore, we identified the strains LQ-II and GT as *Streptomyces albogriseolus* and *S. gougerotii*, respectively, by the 16S-rRNA sequence analysis.

By using the LC-MS/MS and molecular networking analysis to accelerate the isolation process of bioactive natural products, we have isolated eight diketopiperazines, two steroids from the ethyl acetate extract of *S. albogriseolus* LQ-II, and four γ -Butyrolactone derivatives from the ethyl acetate extract of *S. gougerotii* GT. The anti-microbial activity of these isolates mentioned above is under investigation.