

Cooperate researching some project with scientists in Romania

Synthesis of Antineoplastic Marine Natural Product Cembranoid

Diterpene Derivatives and Research on New Medicine Effect

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Marine medicinal resources provide a broad prospect for the progress of marine traditional Chinese medicines. The discovery of marine active natural products provides leading compounds and molecular model for the development of innovative drugs in treatment of cancer and other major diseases. Marine natural products provide good research topic for synthetic chemists, because of the scarce resources and their unique and complex chemical structure. In 2005, some important derivatives of cembranoid diterpene derivatives, which behaved very well in anticancer, was discovered in *Lobophytum crassum* in the South Sea of China, Guang-Dong province. It is a very rare compound compared with some natural products contained in the plant. Total synthesis of antineoplastic marine natural product cembranoid diterpene derivatives has not been reported before. In this project, three fragment strategies were proposed after meticulous retrosynthetic analysis for the total synthesis. We will synthesize six different kinds of cembranoid diterpene derivatives. In-depth antitumor studies of the target products will be conducted from close collaboration with Department of Medicine, College of Pharmacy in Peking University, Through rigorous bioavailability, medicine effect and toxicity screening, efficient new generation of anti-tumor drugs will be finely selected and be efficiently used in clinical treatment.