

专家论坛

拓展微生物药源活性新菌株资源的新方法探索

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摘要 在药源微生物活性产物研究中, 分离得到的绝大多数菌株往往因无活性而被大量闲置或被选择销毁, 造成前期投入的极大浪费和菌株资源开发利用效率严重低下。因此, 如何将大量无活性菌株有效转化成活性菌株从而拓展药源微生物资源已成为重要研究课题。本课题组近几年一直在探索开展海洋来源无活性野生菌株的活性化转化与新产活性产物研究, 并在无活性放线菌和真菌相关研究中取得了较好进展。本文简要归纳介绍包括尚未详细报道的新近进展在内的部分研究结果。

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A new approach for exploiting microbial new strain resources for drug screening

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Abstract

Generally absolute majority of wild-type microbial strains do not produce bioactive metabolites, resulting in large numbers of so-called 'useless strains' stocked or destroyed. These strains, however, would become a great source of bioactive metabolites if their secondary metabolism could be altered to produce diverse metabolites. We have therefore undertaken a research work on exploiting microbial new strain resources for drug screening by altering secondary metabolism of the 'useless strains' to discover bioactive metabolites. A considerable progress with expectant advantage desired has been made in the studies on marine-derived actinomycetic and fungal strains. This paper summarizes our research results including several new developments in brief.

Key words [microorganism](#) [marine-derived microorganism](#) [actinomycete](#) [fungus](#) [antibiotic-resistant mutation technique](#) [ribosome engineering](#) [auto-mutagenesis](#) [mutagen-induced mutation](#) [antitumor activity](#) [antifungal activity](#)

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