

Exploration on the secondary metabolite production potential of actinobacteria isolated from mangrove

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Mangroves are inter-tidal extreme environment with rich microbial communities contributing to cycling and transformations of nutrients, pollutant control, and biotechnological applications. Actinobacteria are well known for producing antibiotics. The search of novel actinobacteria and research of known actinobacteria for their useful secondary metabolites, especially antibiotics and bioactive compounds, from the microbial communities in such ecosystem could provide new sources of natural products. In this presentation, we will introduce an experiment combining genomic analysis and tandem mass spectrometry (MS/MS) screening to explore the secondary metabolites production potential of actinobacterial strains from a mangrove environment. Our work found that mangrove-derived actinobacteria

contained a higher number of biosynthesis gene clusters and had a greater potential to produce more bioactive compounds than those from terrestrial environments. The results can expand the current understanding of the secondary metabolite production ability of actinobacteria and provides possible bacterium resources for the development of natural products.

Biography

Dini Hu has completed her PhD in year of 2019 from University of Macau. She currently is a Post-doc at Beijing Forestry University. Her research interests are Medicinal microbial resources discovery, Drug discovery and Environmental microbiology. She has obtained 2 projects and published 7 SCI papers, and serving as an member of Chinese Society of Forestry.

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