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Piperidine heterocycles - Bioactive chemical entities!?

Chennan Ramalingan

Department of Chemistry, Kyungpook National University, Daegu 702-701, Korea

Despite the growing list of antimicrobial agents, their clinical use has been limited by their relatively high risk of toxicity, insufficiencies in their antimicrobial activity and/pharmacokinetic deficiencies. These observations foregrounded the emergent need to develop safe, efficacious and non-toxic antimycotics that can be administered orally as well as parenterally. Over the decades, one of the research focuses around the world has been directed towards the syntheses of novel chemical entities as potent antimicrobial agents. Piperidine heterocycles are attractive targets of organic synthesis owing to their diverse biological activities and their wide occurrence in nature. Hence, will be reviewed herein is the synthesis of various piperidine based chemical entities as antimicrobial agents which we have been involved in the recent days.

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Trade, folk medicinal uses and conservation status of medicinal plants: A case study of Hindu Kush mountain region of Swat, Pakistan

Muhammad Hamayun

Department of Biological Sciences, Quaid-i-Azam University, Islamabad, Pakistan

Traditional medicine provides a primary source of basic health care in most of the developing and underdeveloped countries of the world. In Pakistan, traditional medicines are frequently used for curing different ailments especially in the remote rural areas. During present study, the traditional medicinal plants markets of the famous Hindukush-Himalayan region of Swat were explored to enlist the medicinal and other economic plants collected in Swat, the conservation status of these plants were then investigated and their traditional uses were documented. It was observed that 51 species of medicinal plants belonging to 32 families were collected in Swat and sold in the local markets of Mingora, Madyan and Kalam. Most of these medicinal plants are used locally, though some of them are also exported to other parts of Pakistan and abroad. The conservation status of these economically valued plants showed that 23 plant species are threatened due to extensive collection in the area. The threatened plants include Endangered (9), Vulnerable (7) and Rare (7). Most of these medicinal plants are sold in fresh form in the local markets, though some medicinal plants are cleaned, dried and stored. Considerable quantities of medicinal plants are lost each year due to improper handling and processing techniques. The population of medicinal plants has been significantly decreased over the last 20 years as the local people collect more plants from the wild for earning their livelihood.