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Endophytic fungus producing anticancer drug- taxol

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Endophytic fungus are used for therapeutic purpose by synthesizing useful drugs. One such drug is Taxol which is an Eimportant anticancer drug used successfully in the medical field. It can destroy the tumour cells by assembly of the microtubules and thus inhibiting their polymerisation. Taxol is a highly functionalised diterpenoid metabolite of a fungal endophyte under the generic name Paclitaxel which is used to treat a number of human tissue proliferation diseases. The main Paclitaxel producing endophytic fungus Taxomyces andreanae was discovered from Pacific yew tree Taxus brevicola. Taxol has been well described, established and approved by Food and Drug Administration; as a very important chemotherapeutic agents against human tumours. Taxol producing microorganism may be the alternative source of producing Taxol by fermentation process. Yet the problem of using fungi fermentation to produce Taxol is its very poor yield and instability in production. However the natural plant resource for Taxol is being threatened day by day due to continuous destruction of Taxus bark for Taxol.

Biography

Nairita Bhattacharyya is doing her MSc in Botanical Science from The University of Burdwan, Burdwan, West Bengal. She has done her BSc in Botanical Science and she is working with the special course of Mycopathology.

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