

SEARCH FOR ANTICANCER AGENTS FROM INDIGENOUS PLANTS

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Thanks to its geographic situation and climatic conditions Sri Lanka has an abundant flora. The IFS research programme on Natural Product and Medicinal Chemistry intends exploiting medicinal plants and indigenous flora of Sri Lanka to produce useful pharmaceuticals.

Cancer is rated high as a killer disease. Drugs available today are highly specific and expensive and cannot be afforded by patients in developing countries. These justify the continued search for cheap and non-specific anticancer agents, both natural and synthetic.

There are some indigenous plants in Sri Lanka which are claimed to be useful in treating cancer; also plants of the family Annonaceae are well known to contain phytoconstituents exhibiting cytotoxic activity.

We have initiated a programme of biological screening of indigenous plants of Sri Lanka for their cytotoxic properties. Each plant part is successively and exhaustively extracted with hexane and 95% ethanol. The latter extract is separated into five fractions. A total of seven extracts/fractions obtained from each part is screened for cytotoxicity using Brine shrimp and potato disc assays. Those showing positive responses are subjected to further chemical fractionations in order to isolate phytoconstituents responsible for their activity.