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Natural products for the treatment of epilepsy

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Epilepsy is a neuropsychological disorder caused due to sudden surge of electrical activity in brain. It initiates from mild Unawareness and then leads to violent synchronous convulsions. In this disorder nerve cell activity in the brain becomes disrupted and causes episodes of seizures and is also responsible for the unusual behavior, sensations and sometimes loss of consciousness of the person affected. Conventional pharmacological drugs in the market are not reported to be efficient enough and have also known for various side-effects. There is only about 60-67% success rate for these conventional drugs, which have made the research to shift towards adopting medications primarily comprising of natural plant products having no or less side-effects. Different varieties of plants like, *Brahmi harita*, *Cissus sicyoides*, Passion flower and *Butea monospora* etc have been reported to have anti-convulsant activities. Many of the active phyto-constituents of these plants are reported to have target oriented and activity. Present study describes beneficial effects of few medicinal plants in the treatment of epilepsy.

Biography

Gauransh Jain is currently pursuing Dual BTech-MTech Biotechnology at Jaypee Institute of Information Technology Noida, India.

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Effect of different carbon sources and elicitors on the production of asiaticoside from *Centella asiatica*

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Centella asiatica is a perennial herb belonging to family Apiaceae and commonly known as 'Indian pennywort', 'Mandookaparni', 'Jal brahmi' or 'Gotukola'. It is a creeping plant rooting at the nodes. This plant contains several important phytochemicals like triterpene acid, asiatic acid, madecassic acid etc. Asiaticoside is one of the important phytochemicals that helps in the treatment of jaundice, malaria, hepatitis, small pox and rheumatism. Due to the importance of asiaticoside, there is a need to micro-propagate this plant so that maximum yield of asiaticoside can be achieved. Various factors affect the yield of biomass and asiaticosides and in this study effects of different carbon sources and elicitors on the production of asiaticoside were observed. Explants were inoculated in Murashige and Skoog (MS) media supplemented with different carbon sources such as sucrose, glucose, maltose and fructose with varying concentration 2-5% and incubated at 25° C with 16 hours photoperiod. Highest shoot generation was observed with fructose. Different elicitors primarily malt extract, salicylic acid, jasmonic acid and methyl salicylate was also used to further enhance the production of asiaticoside.

Biography

Koyel Kundu is currently pursuing his MTech in Industrial Biotechnology in Delhi Technological University (Former Delhi College of Engineering). His area of interest is Plant Biotechnology and special focus is being done on medicinal plants.

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