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### Essential oils and fatty acids in healthcare

#### Abstract:

Essential oils and fatty acids are important part of phytochemicals extracted from various plants due to biological activities and pharmacological applications. Different ancient cultures have already described the potential benefits of plants and its products like Ayurveda in India. Even in current time tribal areas are rely on plant-based formulations for healthcare as well as their survival. Efforts by researchers have provided scientific support to the traditional and conventional formulations. Current work was also planned to explore the possible use of some of the plants from Southern India as well as Northern India. The extracts were prepared from plants using solvents of different polarities i.e. proteins, alkaloid, indole, quinoline, and steroidal alkaloids. Extracts with fatty acid and essential oil content have shown significant antimicrobial, antioxidants and anti-inflammatory activities. Mass spectrometric analysis with liquid and gas chromatography identified compounds like decanoic acid, phthalate derivatives oleic acid, andrographolide and sterols etc. The formulation also seems more effective than commercial grade compounds in inhibiting cancer. However, commercialization needs to purify the compounds and screen their combinations against various combinations.

#### Biography

**Vishal Ahuja** is an active researcher in the field of biomolecules production and application and waste valorization. He has completed his Masters and PhD from Himachal Pradesh University Shimla (H.P.) India. Post PhD he was also part of a FTT project at CSIR-Indian Institute of Petroleum Dehradun (UK) India. Currently, he is working as an Assistant Professor of Research and Development at Chandigarh University Mohali (Punjab) India. He has published more than 50 manuscripts including research and review articles, chapters, and one edited book. He has reviewed more than 100 articles and active editorial board member for reputed journals like PLOSOne, BMC Biotechnology, BMC Biotechnology for Sustainable Materials, and BioMed Research International.