10th World Congress on **Pharmacology** 

&

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## **Advances in Chromatography & HPLC Techniques**

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## Role of chromatographic techniques for drug discovery and development

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Chromatographic techniques are extensively used for isolation and separation of bioactive constituents present in different plants having medicinal value. Plant extracts after cold and hot extraction process were subjected to column chromatography for the separation of different bands corresponding to class of compounds using different solvents in various proportions. Portions having sufficient compound, after evaporation are separated to a single compound by using thin layer chromatography. In her research work author has isolated novel isoflavone glycoside, prenylated flavone glycoside and novel triterpenoidal saponin from the plant *Pithecellobium dulce*. She has also isolated different compounds from plants *Terminalia bellerica*, *Moringa oleifera* and other indigenous medicinal plants. The extract of *Terminalia bellerica* was found to possess anticancer activity while the extract of plant Moringa oleifera was found to have anti-diabetic activity. The application of chromatography technique on natural products is quite useful in order to form herbal based drug with no side effects and toxicity.





Pic1: Pithecellobium dulce

Pic2: Terrminalia belerica

## **Recent Publications**

- 1. Anjali Jijhotiya, Madhuri and Sadhna Goyal (2018) Qualitative and Quantitative phytochemical estimation of leaves extract of plant Plumbago Zeylancia. International Journal of recent Scientific research 91(F):23249-23252.
- 2. Anjali Jijhotiya, Madhuri Singhal and Sadhna Goya (2016) Preliminary Phytochemical Screening of Leaves Extracts of Nicotiana Tabacum. International Journal of Engineering Technology Science and Research 4(6).
- 3. Asma Sultan and Madhuri Singhal (2017) Comparative antibacterial activity of tropical medicinal plants Aegle Marmelos, Phyllanthus Niruri and Aloe Barbedens against gram positive and gram negative bacteria. Journal of Education and Applied Science Research 4(3):30-33.
- 4. Packia Lakshmi (2017) Phytochemical Screening and Antimicrobial activity of moringa oleifera and mass spectra. International Journal of Engineering Technology Science and Research 4(8):156-161.
- 5. Madhuri Singhal, Rishikant Asati, Anjali Jijhotiya and Mohini Saxena (2016) Studies on some trace element accumulation in *terminalia bellerica* growing on Cu and Mn mine waste dump. International Journal of Research 3(10):436-441.

## **Biography**

Madhuri Singhal has completed her PhD at Dr Hari Singh Gaur University, Sagar and Postdoctoral work at Allahabad University, Allahabad. Her research area is the role of natural products from medicinal plants in drug discovery and development. She has presented research papers in international conferences in Australia in 2005 and was invited as visiting academic in 2006 at Australian University. She has presented papers in USA in 2009 and 2015. In 2010, she has presented research paper at Ubon Ratchathani University, Thailand. In 2011, she has presented paper in Hong Kong. She is an Editorial Board Member of an international research journal. More than 30 research papers have been published. At present, she is a Professor of Chemistry in Government Motilal Vigyan Mahavidyalaya, Bhopal.

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