

1. Title of the Research Project : *Phytochemical profiling and chemotaxonomy of recently rediscovered Ophiorrhiza species from the Western Ghats of peninsular India*
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5. UGC approval Letter No. and Date : MRP (S) 0848/ 13-14/ KLMG046/ UGC- SWRO Dt.
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Synopsis of the work done

Five species of Ophiorrhiza, were collected from the Kerala region of Western Ghats. The plant dried, powdered and analysed for its camptothecin content. Stirring extraction was used to isolate camptothecin. Camptothecin separation and identification was done using Thin Layer Chromatography (TLC) with standard camptothecin.

Organ wise qualitative estimation showed that only the root of *O. barberi* and leaf of *O. barnesii* contains camptothecin. Quantitative estimation was done using High Performance Liquid Chromatography (HPLC). Result showed that root contains 0.09% D.W Camptothecin. The percentage of CPT recovery was almost equal when compared to other *Ophiorrhiza* species. *O. barnesii* showed the presence of camptothecin but in trace amount.

In *O. eriantha* the presence of camptothecin is not detected. Qualitative estimation showed that a fluorescent blue band was seen on chromatogram. The *rf* value is different compared to standard camptothecin. It is assumed that this may be a close relative or a derivative of camptothecin.

Publications

1. Presented a poster entitled "*Ophiorrhiza barberi*, a new source of wonder drug camptothecin from Western Ghats" in the National seminar conducted at Fathima Matha College, Kollam, Kerala on January 9- 10, 2015.

2. *Ophiorrhiza jacobii* (Rubiaceae), a new species from Western Ghats, India. V. S. Hareesh, M. J. Salish, Lei Wu, J. Ginu and M. Sabu;; Nordic Journal of Botany. (communicated)

Award

3. Has won the ""BEST POSTER PRESENTATION AWARD"" for poster entitled "*Ophiorrhiza barberi*, a new source of wonder drug camptothecin from Western Ghats" guided by Dr. Ginu Joseph, in the National seminar conducted at Fathima Matha College, Kollam, Kerala on January 9- 10, 2015.