



## Formulation of an antidiabetic herbal capsule from isolated compounds of selected medicinal plants

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### Abstract:

Herbal medicinal plants are reported to contain multiple antidiabetic constituents. The present investigation was aimed to formulate capsule formulations containing isolated compounds from *Dregea volubilis* (DV) and *Lepadenia reticulata* (LR). In order to obtain antidiabetic formulations with more effective oral hypoglycemic activity, less side effects, increased patient compliance thereby providing multifaceted benefits (Venkatesan, 2013) (Venkatesan, 2014). DVLR (DV and LR isolated fraction was mixed in 1:1 ratio) capsules were formulated and the study was carried out for its anti-diabetic effect of STZ and HFD induced diabetic rats. Preformulation of capsules were found to be angle of repose and bulk density. Finished capsule formulations were evaluated for weight variation, pH, moisture content, disintegration time, in vitro-drug release percentage and in vivo antidiabetic studies. In our study showed empty capsule shell pH was observed as 3.62 and moisture content of capsule was found to be <5 % w/w which indicated that there were less chances of microbial growth and capsule will not become soft. Filled capsule passed the test for uniformity of weight, all capsules disintegrated within 7 minutes. Dissolution of capsule was found to be 94.17%. DVLR possesses significant blood glucose lowering and cholesterol lowering activities. The improvements in the lipid profile in diabetic animals after treatment with DVLR could be beneficial in preventing diabetic complications, as well as improving lipid metabolism in diabetic patients.

### Biography:

Dr.Venkatesan Natarajan currently working as Professor in department of pharmacology, Aditya Bangalore Institute of Pharmacy Education and Research, Bangalore, Karnataka, India. He completed Ph.D in Department of



Pharmacy, Annamalai University in 2013. He received the grant from UGC-BSR fellowship for his doctoral study. He has 09 Years teaching and 04 Years research experience. He has published around 8 publications in peer reviewed journals. He has guided around 20 PG students, and currently guiding 3 Ph.D research scholars. He is the Chief Guest Editor of Current Neutraceuticals Journal in Bentham Science Publishers and reviewer of many reputed journal. Life member of Association of Pharmaceutical Teachers India, Indian Pharmacological Society, Indian Pharmacy Graduates Association and American Pharmacological Society.

### Recent Publications:

1. Venkatesan Natarajan, et al AAPS PharmSciTech 2018.
2. Venkatesan Natarajan, et al Antimicrob Agents Chemother 2017.
3. Venkatesan Natarajan, et al Mol Cell Biol 2016.
4. Venkatesan Natarajan, et al Curr Pharm Biotechnol 2015.

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