



## ***Momordica charantia* L. (Karela): A bitter plant fruit with immense value in Nutraceutical and Pharmaceutical industries**

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**Abstract** : Bitter gourd (*Momordica charantia*L.) is a member of the Cucurbitaceae family and a popular vegetable crop used in Indian traditional medicine since ancient times. This vegetable is very high in bitter content and very low in calories. It has potential antidiabetic, lipid lowering and antioxidant activity. It has a cleansing action in the body by removing accumulated receptacles of old waste materials and used for the treatment of diabetes and many other diseases among the indigenous population of Asia, South America, India and East Africa. Different parts of this plant extract and its bioactive components have been used in various traditional systems of medicine and pharmaceutical industries as nutraceuticals for the treatment of various diseases. The fruit is pickled in brine which is rich of minerals, acids, vitamins, phenolic compounds, terpenoids, alkaloids, various glycosides, saponins, triterpenes, steroids, carotenoids, flavonoids, peptides which exhibits its potential as antidiabetic, antibacterial, antiviral, antiulcer, anticancer, antifertility, immunomodulator, antipsoriasis, and cardioprotective agent. It is now considered as a valuable resource of several inimitable products for the medicines against various diseases and also for the development of some novel industrial medicinal products. The current investigation aims to focus on the extravagance of *M. charantia* with respect to its phytoconstituents, comprehensive information on the pharmacological actions, nutraceutical values and recent progress in phytochemical based nanomedicines for effective treatment of various diseases.

**Keyword** : *Momordica charantia*, Charantin, antidiabetic agents, Marketed products, Phytosomes, Nanomedicines

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