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DISSERTATION THESIS

ENTITLED

Evaluation of bioactive compounds with its Antimicrobial Property for *Andrographis
paniculata*

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Submitted by:

Raj Nandasana

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Guided by:

Dr. Indrani Bhattacharya

PARUL INSTITUTE OF APPLIED SCIENCES

**Parul University, P. O. Limda, Waghodia, Vadodara-
391760**

Gujarat-India

1. ABSTRACT

The present study is the continuation of a program aimed at investigation of phytochemical properties of *Andrographis paniculata* leaf, stem, and root extract to justify the traditional claim endowed upon this herbal drug as a rasayana in Ayurveda. *Andrographis paniculata* belongs to family of Acanthaceae and commonly known as Kalmegh, King of better and Chirayata. It is a valuable traditional medicine plant. It was antibacterial, anti-fungal, antioxidant antimicrobial, antidiabetic and antipyretic, hepatoprotective cardiovascular and anti-virus including inhibited HIV properties. The plant commonly used by the local people, for the treatment of common cold, fever, malaria, liver disease, snake bites, diabetes, and some skin infections. Phytochemical screening of methanol, ethanol, petroleum ether, acetone and chloroform, distilled water extract of leaves and stem bark of *Andrographis paniculata* showed the presence of glycosides, phytosterol, saponins, tannins, flavonoids, and other. The use of plant extracts for antimicrobial activity and other diseases have been observed to be promising remedies since ancient time in Chinese and unani medicine and other. The use of plant extracts with known antimicrobial properties can be of appreciable significance for therapeutic treatment. The agar well diffusion method was followed to evaluate the antibacterial activity of *Andrographis paniculata* against *E. coli*, *presudomonas*, *aspergillus niger*, *lacto bacillus*, etc. and anti-fungal activity of *Andrographis paniculata* against *candida* and others. The present investigation evaluate the potential antibacterial activity of chloroform and methanol extract of *Andrographis paniculata*.