

PREFACE

From the very primitive age people have relied on nature for their basic needs, be it for food, shelter, or medicine. Plants have formed the basis of sophisticated traditional systems of medicines that have been in existence for thousands of years in the countries like India. The newly implemented Intellectual Property Regimens (IPR) has got tremendous impact on the molecular medicines discovered in recent era. It is expected that developing countries may face a problem of higher prices for drugs in near future on implementation of the IPR as compared to the existing system. To meet the need for protecting the health of common and poor people, herbal and traditional medicine will play an important role in the new IPR regimen. India has rich heritage in herbal medicine, unfortunately we have not added our scientific strength to enrich our knowledge in this domain, rather ignored them by respecting only modern allopathic system of health support. However time has now more than ripen to initiate scientific investigations on our traditional herbal medicines. Initial field survey has led to the conclusion that different plants are being used by the traditional healers of Sikkim to combat various diseases. The work embodied in this thesis is a humble and sincere effort to explore and screen two ethnomedicine *Colebrookea oppositifolia* Smith and *Heracleum nepalense* D.Don DC used by traditional healer of Sikkim in their health care since time immemorial. The finding of this investigation revealed that the crude extracts of the above two plants are very useful in enhancement of bioavailability of antibiotics, stimulation of immune response and possessing antioxidant and antimicrobial activities. The constituents of these plants were isolated and purified, analyzed the chemical structures of the pure compounds as well as their activities were evaluated.

The thesis has been segregated into 09 well-defined chapters and finally a summary and finally the conclusion has been drawn along with the summary of the whole work. At the end of each chapter the necessary references have been list, which are superscripted in the text. Thus the investigated works deals with a scientific approach to explore the pharmacological activities of the compounds isolated from *C.oppositifolia* and *H.nepalense*, two popular ethnomedicine from Himalayan Sikkim region, for the benefit of the entire mankind.