*Mapana J Sci*, **13**, 4 (2014)
ISSN 0975-3303|http://dx.doi.org/10.12723/mjs.10.0

# Editorial

We have great pleasure to present the latest volume of the Biological Sciences issue of *MAPANA - Journal of Sciences.* The five articles presented in this issue depict the research going on in various fields of biology. The array of topics ranges from virtual screening and drug designing using bioinformatic tools, bacterial resistance towards multiple antibiotics, phytochemical extractions, potential uses of noxious weeds and antibacterial activity of medicinal plants.

The first article in this issue presents a way of screening for anti HIV drugs using tools like AutodockVina, MGLTools etc. There is a lot of demand for anti HIV drugs since viruses are capable of mutating very fast thereby becoming resistant to the existing drugs. Research papers like these help in identifying potential drugs against HIV.

*Parthenium hysterophorous or the* Carrot weed is an aggressive, ubiquitous weed which is known for its allergenicity It was introduced into the Indian subcontinent during the era of Green Revolution. The second article, which is a review article, highlights the possible uses of this obnoxious weed. The author describes the sustainable uses of this weed in bioremediation of heavy metals and organic pollutants, preparation of methane by composting and production of biomanure. This article gives an idea of how a weed which causes many ill effects can be utilized to make products useful to man.

The third article highlights the emerging trend of multidrug resistance in bacteria. *Mycobacterium tuberculosis*, the causative agent of tuberculosis is notorious since it takes a long time and a multitude of antibiotics to cure the infection. To add to this problem, there are a lot of drug resistant strains in circulation now. This article reports the presence of extremely drug resistant strains of *M. tuberculosis* in South India which can pose a huge threat to the health care arena.

The tropical forests are hotspots of biodiversity. The rich flora includes many medicinal plants. One such plant of high medicinal value is *Andrographis paniculat*a commonly known as Kalmegh. The fourth article deals with the polyphenol composition and antioxidant activity of this plant. Herbal drugs and the compounds isolated from them have demonstrated a spectrum of biological activities. This article helps in the ethnopharmacological studies of such medicinally important plants.

The last article in this issue deals with the extraction of phytochemicals from the seeds of the plant *Caesalpinia bonducella*. The article describes the antibacterial activity of the organic and aqueous seed extracts against different human pathogens *viz Staphlococcus aureus, Shigella dysentrieae, Pseudomonas aeruginosa, Enterococcus faecalis etc.* Nowadays, secondary metabolites with potential antibacterial activity is very much in demand and research articles like these contribute to the data base of such compounds.

The editorial committee thank all the authors and reviewers who have contributed and cooperated immensely in successfully bringing out this issue of *Mapana - Journal of Sciences*. We look forward to your continued cooperation in the coming years too. We sincerely thank Dr Biljo V Joseph for his support for this issue of *Mapana*.

The journal has wide circulation across many of the research centres and Universities. Both the printed and electronic versions of the journal are available. I hope that these humble attempts can help in increasing the visibility of research conducted by the scientists in various research institutes. Let us all work towards popularizing Science through such attempts.

**Editorial team**