

Dear Friends,

It is my pleasure to write editorial for the first issue of seventh volume of the Journal of Chronotherapy and drug Delivery. During the past six years, the journal has created an impact in the research pertaining to chronotherapy and drug delivery systems. It has highlighted different approaches used for drug delivery applications, summarizing the work from local areas with the addition few of papers from Australia and USA. Indeed, chronotherapy is widely used for drug delivery purposes and there have been many promising developments during the past few years. Nevertheless, chronopharmaceuticals must overcome the hurdles of currently available conventional drug delivery systems and can solve the major challenges in disease therapy.

The first volume describes focused on basic physiology of circadian rhythms and technological development in the field of chronotherapeutic drug delivery systems, effects of biorhythms on various disorders, and their implications for drug therapy, design of novel chronopharmaceutical drug delivery systems. It is interesting to see a special focus review on dependence of various types of arthritis upon circadian rhythm in terms of hormonal and pain threshold. Alternatives to the existing delivery systems, nanocarriers are reviewed in the context of formulation, characterization, uptake and distribution of nanoparticles. The development of fast disintegrating tablets of atenolol is described to improve the hypertension therapy, with promising results for other drugs with similar delivery characteristics. Finally, a research article describes the development of aceclofenac loaded niosomes. The niosomes gave promising results, with particularly good release characteristics.

The second volume describes the role of circadian rhythms in pathogenesis of rheumatoid arthritis, an overview of niosomal and liposomal carriers, applications of chronopharmaceuticals in disease therapy, microneedles for painless drug delivery, the design and characterization of extended release tablets are presented. These formulations have delayed release of alfuzosin HCl over 20 h. Suitability of polysaccharide from *Tamarindus indica* seeds as excipient for obtaining delayed release profiles has been described. Nano-medicines used in disease therapy with special emphasis on cancer therapy are reviewed. The use of hydroxyl propyl β cyclodextrin and Poloxamer 407 for improvement of solubility and dissolution rate of different BCS class II drugs is reported. Press-coated core tablets of metoprolol tartrate for hypertension and cardiovascular diseases therapy is described. It is hoped that such delivery systems will improve the patient compliance and outcomes. It is interesting to see the creation of microbeads via extrusion-spheronization. The microbeads gave promising results for immobilization of enzymes due to their ideal properties like smooth surface, reusability, stability and preservation of enzyme activity.

The third volume describes preliminary laboratory characterization of various gums and polysaccharides. A chronotherapeutic system based on controlled release solid dispersion is reported for the effective treatment of arthritis. In glaucoma, the intraocular pressure is usually elevated and, if left untreated, can result in further optic nerve damage. The improved efficacy of newly developed controlled release levobunolol hydrochloride ocular inserts for the delivery of drugs into eye with increased contact time is reported. The antiulcer effect of methanolic extract of leaves of *Laurus nobilis* Linn in indomethacin induced ulcer model is reported. Significant protection at the dose of 300 mg/kg is the promising result. It is hoped that such natural drugs will improve the therapy outcomes.

In the fourth volume, the application of cyclodextrins to the delivery and characterization of inclusion complexes is holding the attention of readers. Fast disintegrating drug delivery systems their formulation and manufacturing technologies are reviewed in detail. The applications of *Artocarpus heterophyllus* mucilage as multifunctional pharmaceutical excipient are explored. Chronotherapy of glaucoma is reviewed. The release retarding or sustaining efficacy of hydrogel from *Tamarindus*

indica is reported for the formulation of bilayered matrix tablets. Continuation to the cyclodextrin series, applications of cyclodextrins in development of biotechnology based drugs such as peptides and proteins are reviewed.

Fifth volume compiles the recent literature on various gastroretention approaches. It is interesting to see a review report based on patents on various types of tablets from 1948 to 2013. Antiulcer activity of famotidine microemulsion suggested suitability of microemulsion as a potential drug delivery vehicle. Conference papers are also included in this volume.

Sixth volume reported development of cost effective dispersible granules and tablet of vitamin D3. Dispersible granules were considered to be better for vitamin D3. The development of sustained release microspheres of montelukast via solvent evaporation technique is described. The efficacy of developed floating and pulsatile principles for the delivery of drug for chronotherapy of ulcer is reported. Chronotherapeutic management of nocturnal acid breakthrough using famotidine can be hopefully accomplished for the treatment of ulcer. Low dissolution rate of drug results into low bioavailability on oral administration. Solid dispersion for the improved dissolution rate of low soluble drug Aceclofenac is reported with promising results. The effectiveness of ornidazole as an adjunct to the mechanical debridement and its comparative effectiveness with metronidazole on adult periodontitis subjects is reported based on clinical, microbiological and histopathological examinations. Applications of pectin in foods and pharmaceutical industries are reviewed. Finally, review article describes microwave assisted grafting of natural polysaccharides.

We welcome our authors and readers to the seventh volume of the Journal of Chronotherapy and Drug Delivery and invite the authors to submit high quality review and research papers for possible publication in all areas of chronotherapy and drug delivery.

We trust that the published issues are of interest to the readers. The papers published in Journal of Chronotherapy and Drug Delivery have been cited in various renowned pharmaceutical journals; for example, but not limited to, Journal of Controlled Release, European Journal of Pharmaceutics and Biopharmaceutics, Artificial Cells, Nanomedicine and Biotechnology, Drug Delivery, Expert Opinion on Drug Delivery, Recent Patents on Drug Delivery & Formulation, and Therapeutic Delivery, which is an indication of the success of the journal quality of papers published in Journal.

We hope that over the time, other research scholars and scientists will engage with these published papers, through citation of papers, by contributing their work to the journal, and by participating in the peer review process. We look forward to hearing from you!

Dr. Rajendra Awasthi

Associate Editor

Journal of Chronotherapy and Drug Delivery

