PREFACE

The current issue of CDTH is the first issue of 2021. Four reviews and six research articles are included in this issue.

The first manuscript by Siddika et al. is a review aimed to detail the potential efficacy of human amniotic membrane and various herbal extracts, including curcumin, in the management of burn wounds. In fact, more research for these injuries, highly susceptible to microbial infection with subsequent prolonged hospital stay, and high direct and indirect pharmaco-economic costs is needed. Verma and Kaushik discuss the role of self-emulsifying drug delivery systems in reducing the inter/intrasubject variability and the food effect with a better pharmacological profile of the drug, and emphasize the composition of biorelevant media of gastric and small intestine for both fed and fasting conditions.

The last 2 years have been characterized by pandemic Coronavirus disease 2019 (COVID-19) and its severe acute respiratory syndrome. More and more papers have been published in literature about the potential treatments for this extremely contagious disease. Based on these considerations, Manna et al. propose an overview of the therapeutic agents for COVID-19, including vaccines and drugs, under pre-clinical and clinical evaluation. The reading of this review is really interesting in consideration of the rapid development of these treatments, such as vaccines, already used in clinical practice.

Oral cancer is threatening, and most chemotherapeutic anticancer agents have a low impact on its toxicity. Talele and Patel, in a narrative review, detail the recent advancement in the nanotechnologies and their applications in oral cancer treatment. They support that the use of nanotechnologies may increase the efficacy of the therapy, increasing the drug absorption and bioavailability specifically at the site of tumor.

The first research article of the issue is an experimental study in which the interpenetrating networks (IPNs) have been synthesized by emulsion cross-linking method using glutaraldehyde (GA) as a cross linking agent for gliclazide is a sulfonylurea oral hypoglycemic agent having a short biological half-life of only 2-4 hours, variable absorption and poor oral bioavailability. The study by Sharma & Sharma also aims to develop a novel formulation of swellable and expandable gastro-retentive floating films of gliclazide folded in capsule shell, and to optimize and to evaluate in vitro that formulation. In the last paper published in the issue, Bansal et al. developed a formulation of floating-mucoadhesive tablets of gliclazide for oral administration using the central composite design by direct compression technique, using HPMC K4M and Carbopol 934 as release controlling polymers and sodium bicarbonate as an effervescent agent. This drug delivery also resulted effective, suggesting an improved assimilation rate from the gastrointestinal. These three studies will be useful for the future management and treatment of patients with diabetes mellitus type 2.

The formulation, statistical optimization, and in vitro characterization of a specific nanosystem for improving the efficacy of the antitubercular therapy are the aim of the study by Chogale et al. The authors highlight that the reformulation of the current existing anti-tuberculosis drugs into more efficient nanof ormulations could be useful to mitigate the side effects of the drugs still not totally curative. Asthma and chronic obstructive pulmonary diseases are respiratory diseases affecting millions of people. In the market, various generic drugs are available for their treatment. Payal et al. performed a pharmacoeconomic analysis in order to clarify much cost will be saved by utilizing generic in comparison with branded drugs. Another research study by Singh & Singh demonstrated that the phospholipid complexation of boldine, an aporphine alkaloid that possesses potent antioxidant activity, has improved antioxidant potential, solubility and oral absorption, enhancing its clinical applications.

I hope that also this issue is interesting to our readership. Good reading!

Stefano Palomba
( Editor-in-Chief )
Obstetrics & Gynecology Unit
ASMN-IRCCS
Reggio Emilia
Italy
Email: stefanopalomba@tin.it

©2021 Bentham Science Publishers