

## Tentative Outline

### Special Thematic Issue for the journal : *Current Topics in Medicinal Chemistry*

**Title of the Thematic Issue: *Biochemistry and Medicinal Chemistry of Blood Stage-Malaria Infection***

**Guest Editors: Mohammad Abid and Mukesh Chandra Joshi**

#### • **Scope of the Thematic Issue:**

Plasmodium life cycle is a complex series of invasive and replicative stages inside human as a host and a female anopheles mosquito as a vector. Plenty efforts have been put forward to eradicate this disease by targeting either of the stages of the parasite. The asexual part of the life cycle of Plasmodium species that occur in liver and red blood cells (RBCs) stages starts from the infection of sporozoite coming from sexual phase that take place in mosquito midgut and salivary gland. This thematic issue on Current Topic in Medicinal Chemistry will cover recent developments in the field of biochemistry and medicinal chemistry blood stage-malaria infection

**Keywords:** Plasmodium, blood stage, malaria, biochemistry, medicinal chemistry, sporozoite, red blood cells.

#### **Sub-topics:**

- Synthetic and biological strategies and pre-clinical developments.
- Hybrid techniques towards malaria and their mode of action.
- Novel antimalarial analogues towards blood stage malaria infection.
- Biological approach towards blood stage malaria infection.
- Role and application of bioinformatics in the development of potent antimalarial agents.

#### **Tentative titles of the articles**

- Plasmeprins V, IX and X inhibitors: blocking plasmodium protein trafficking, egress and invasion
- Malaria vaccine development a saga in the light of efficacy and effectiveness
- Malaria prevention and treatment: Medicinal chemistry, vaccines, nanomedicine and bioinformatics solutions
- In silico design of novel inhibitors of plasmeprin I: Synthesis and antiplasmodial activity evaluation in cell based assay
- Structure based drug design for the treatment of malaria
- Recent developments in the binding studies of antimalarials with serum albumins.
- Medicinal chemistry updates on *Plasmodium* cysteine protease inhibitors
- Ferrocene Derivatives as New Generation of Antimalarial Agents: Opportunity or Illusion?

#### **Schedule:**

- v Manuscript submission deadline: August 31st, 2022
- v Peer Review Due: Sept 30th , 2022
- v Revision Due: Oct 31st, 2022
- v Announcement of acceptance by the Guest Editors: Nov 2022
- v Final manuscripts due: November- Nov 2022

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