Neglected diseases include leishmaniasis (kalazar), onchocerciasis, Chagas disease, leprosy, tuberculosis, schistosomiasis, lymphatic filariasis, African trypanosomiasis (sleeping sickness), malaria and dengue. Some neglected diseases are life-threatening, while others result in high morbidity and severe disabilities. Neglected diseases continue to cause significant morbidity and mortality in the developing world. Yet, of the 1,556 new drugs approved between 1975 and 2004, only 21 (1.3%) were specifically developed for tropical diseases and tuberculosis, even though these diseases account for 11.4% of the global disease burden.

Several free ligand databases are widely available today. Virtual structure-based screening has become prominent in drug discovery. Using homology of peptides, crystallographic or modeled protein structures, molecular docking is often employed to screen compound libraries and to predict the conformation of a protein-ligand complex and calculate its affinity energy. Targeting these interactions with small molecule inhibitors as well as searches for new targets is of increased interest for therapeutic purposes of these tropical infections.

The objective for this thematic issue is to report recent studies about different approaches in medicinal chemistry applied to drug discovery for neglected diseases, that comprises synthesis, natural products, semi-synthesis, evaluation of biological activities, and/or theoretical approaches as ligand-based, structure-based approaches, SAR, QSAR, docking and several cheminformatics methods.

These efforts that involve several studies to aid the discovery of new legends to treatment or cure of these diseases. Following are some authors that can publish in this thematic issue.
Topics to be covered (main bioactive component):

In silico studies
Other Medicinal Chemistry studies

Keywords: neglected disease, agents, medicinal chemistry.

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