Tentative Outline
Special Issue for MINI-REVIEWS IN MEDICINAL CHEMISTRY
TITLE: Anticancer Ruthenium complexes in Drug Discovery and Medicinal chemistry

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Aims & Scope:

In today’s world cancer has become a main cause of death. During the first half of the 20th century, treatment of cancer is by use of surgery and radiotherapy may cure it to the some extent due to that many patients are died as a result of metastasis. There is no curative therapy is available for the most forms of disseminated cancers, so that the discovery and development of novel active chemotherapeutic agents is largely needed. Among the category of new drugs that are receiving much attention are metal-based drugs.

Metal complexes provide a highly versatile platform for drug design. Research in this area is expanding rapidly and some promising leads have emerged. Whilst the chemotherapeutic success of platinum is undeniable, it is by no means the perfect drug. It is not effective against many common types of cancer, drug resistance is common and it has a deplorable range of side effects, which can include nerve damage, hair loss and nausea. To overcome these limitations, some compounds based on ruthenium have been developed and tested against cancer cell lines. These compounds tend to cause fewer side effects compared to platinum drugs. Ruthenium compounds represent one of the great success stories of metals in medicine. The present study deals with the new strategies for the development of novel ruthenium compounds and screened for the in vivo anticancer activity against transplantable murine tumor cell line EAC and in vitro anticancer activity against human cancer cell lines, their mechanism of action and structure activity relationships.

TOPICS:
1. Anticancer and Biological activities of Ru(II) complexes: A Review;
2. Anticancer Ruthenium complexes in Drug Discovery and Medicinal chemistry
3. Chemistry and Characterization of Ruthenium complexes: A Review

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