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Review

Recent approaches in the drug research and development of novel antimalarial drugs with new targets

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ABSTRACT

Malaria is a serious worldwide medical issue that results in substantial annual death and morbidity. The availability of treatment alternatives is limited, and the rise of resistant parasite types has posed a significant challenge to malaria treatment. To prevent a public health disaster, novel antimalarial agents with single-dosage therapies, extensive curative capability, and new mechanisms are urgently needed. There are several approaches to developing antimalarial drugs, ranging from alterations of current drugs to the creation of new compounds with specific targeting abilities. The availability of multiple genomic techniques, as well as recent advancements in parasite biology, provides a varied collection of possible targets for the development of novel treatments. A number of promising pharmacological interference targets have been uncovered in modern times. As a result, our review concentrates on the most current scientific and technical progress in the innovation of new antimalarial medications. The protein kinases, choline transport inhibitors, dihydroorotate dehydrogenase inhibitors, isoprenoid biosynthesis inhibitors, and enzymes involved in the metabolism of lipids and replication of deoxyribonucleic acid, are among the most fascinating antimalarial target proteins presently being investigated. The new cellular targets and drugs which can inhibit malaria and their development techniques are summarised in this study.

Keywords: antimalarial drugs, protein kinases, dihydroorotate dehydrogenase

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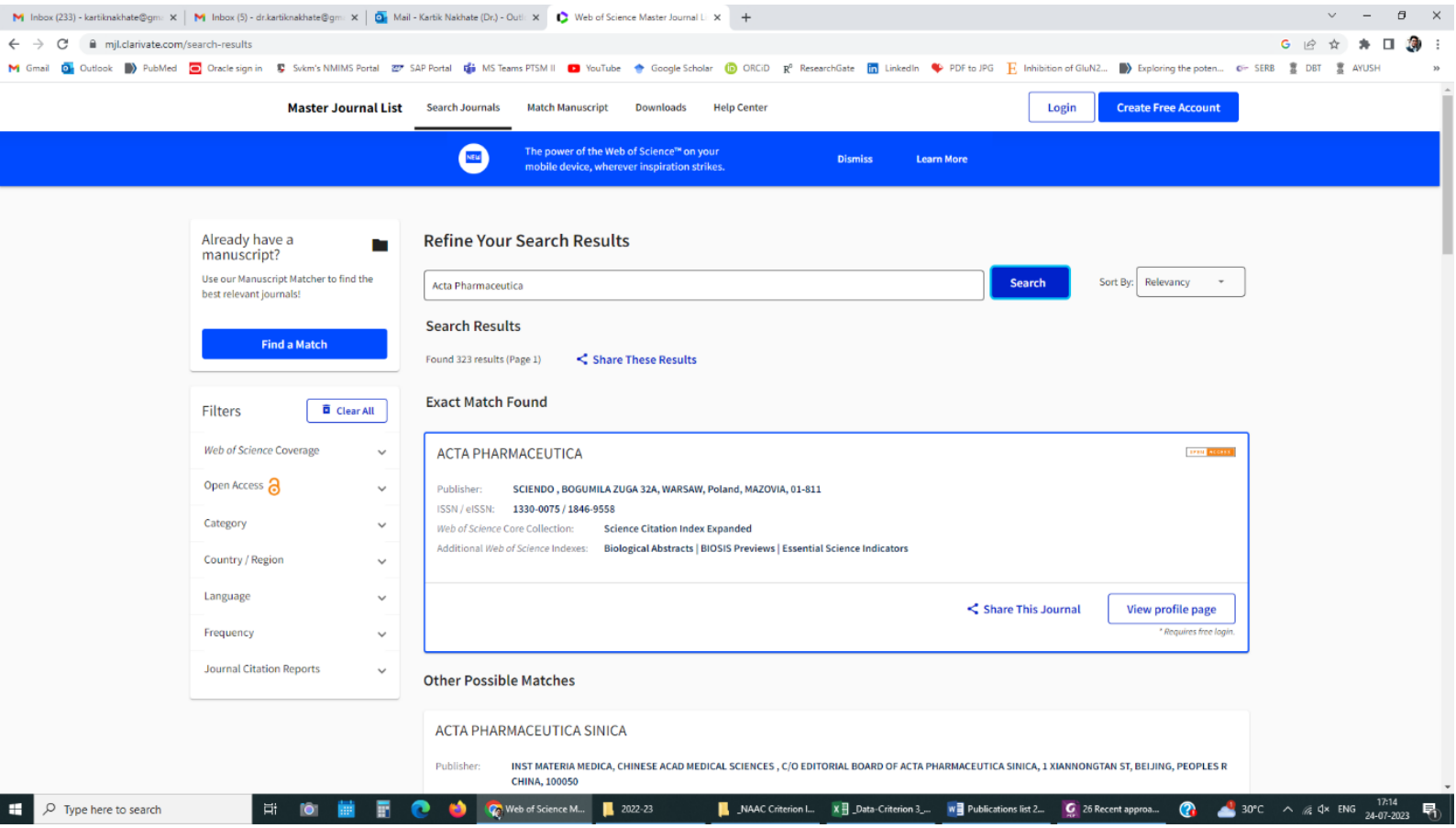
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