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The cover page contains a figure from the article of Dr. Sanjiv Singh

EDITORIAL

Endothelial dysfunction, considered as a key factor in cardiovascular diseases. The natural bioactive compounds offer an intriguing opportunity of investigation in this endeavour. Natural compounds of several categories such as polyphenols, flavonoids and omega-3 fatty acids fight against endothelial stress and its secondary complications including atherosclerosis. These components have the abilities to control inflammation, restore vasodilation and improve overall endothelial health in addition to antioxidant properties. A critical analysis of the role of oxidative stress in the endothelial dysfunction and the current status of use of natural compounds as therapeutic agents against endothelial dysfunction have been discussed in the current issue.

The role of signaling pathway in cancer metabolism as a marker of abnormal cellular activity emphasizes its importance. The key function of the mTOR-PI3K-AKT pathway in tumor growth captivates researchers due to its complicated network of signaling mechanisms. The appealing prospect of altering cancer metabolism via novel mTOR inhibitors is becoming more apparent, yet clinical usage of mTOR inhibitors is limited due to resistance and toxicity concerns. The integration of expensive computational calculations followed by molecular docking can provide new opportunities for combating cancer and avoiding drug resistance. A workflow for the designing of next-generation high affinity compounds for the effective inhibition of mTOR has been covered in the present issue.

In the midst of digital innovation, the need for an effective healthcare system intensifies with the successful implementation of Electronic Health Record (EHR) systems. Developed nations have already implemented the HER system, but still facing challenges such as interoperability. The implementation of successful EHR system in India is on progress. It also faces unique hurdles including regulation and policy consideration. The present review describes the need of implementation of HER system and issues of interoperability, infrastructure as well as challenges. It also sheds light on India's goal of digitalizing the health care system.

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