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Saffron's bioactive molecule prevents chemical induced-liver cancer: A preclinical study

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Hepatocellular carcinoma (HCC) is the second most common cause of cancer related death worldwide. The prognosis of patients with HCC is usually poor. Hence, a novel approach against HCC is essential for a better therapeutic outcome. Saffron and its active constituents were reported to have antioxidant, anti-inflammatory, and anti-tumor properties. The aim of this study was to investigate chemo-preventive action of crocin, one of the promising active constituents of saffron, against diethylnitrosamine (DEN)-induced liver cancer in rats, and the possible mechanisms by which crocin exerts its antitumor effects. Findings reported herein demonstrated the anti-proliferative and pro-apoptotic properties of crocin when administered in DEN-treated rats. Additionally, crocin exhibited anti-inflammatory properties that inhibited NF- κ B, among other inflammatory markers. According to our network analysis, NF- κ B was identified as a regulatory hub, and therefore, a candidate therapeutic drug target. Together, these findings nominate crocin as a candidate chemo-preventive and therapeutic agent against HCC.

Biography

Amr Amin has completed his PhD at University of Illinois at Chicago, and received a Post-Doctoral training in the field of molecular genetics at the University of Pennsylvania, School of Medicine. He started his academic career at UAE University where he serves now as a Full Professor of Cell Biology. Amr's research focuses on ways to control cancer, particularly, liver cancer. He published many research articles and reviews and serves as Reviewer and as an Editorial Member of many specialized peer-reviewed journals. He is also a Member of many specialized societies and the sole recipient of many scientific awards.

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