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Evaluation of the Quercetin Semisynthetic Derivatives Interaction with ABCG2 and Cyclooxygenase-2

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Cancer multiple drug resistance and the inflammatory process are the main problems for successful chemotherapy. In anticancer therapy, plant and semisynthetic compounds are considered as potential modifiers for ABCG2 and COX2 inhibitors. As a result of experiments carried out in silico, the possible interaction of ABCG2 and inhibition of COX-2 by semisynthetic derivatives of quercetin were first revealed. The physicochemical parameters of the studied lig- ands were revealed, after which, for reliability, they were compared with in vitro experiments.