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Lipid Membrane Perturbation Caused by Some Isoflavones and Phenothiazines, and the Activity of These Compounds as Inhibitors of Multidrug Resistance

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Perturbations in the biophysical properties of the plasma membrane may result in increased cell accumulation of chemotherapeutic agents in cancer cells. The general aim of our studies is to compare the lipid membrane perturbation caused by two types of new MDR modutators with their biological activity as inhibitors of multidrug transporters in cells. New phenothiazine derivatives-phenothiazine acettylamides-and several plant-derived isoflavones were used as inhibitors of P-gp and MRP1 transporters, respectively.