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Synthesis, carbonic anhydrase inhibition and cytotoxic activity of novel chromone-based sulfonamide derivatives

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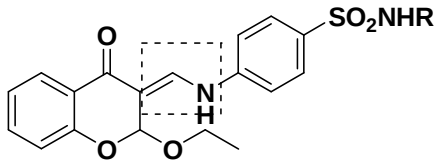
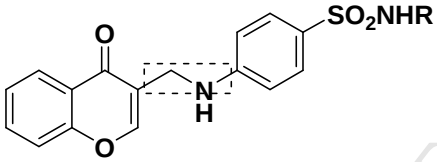
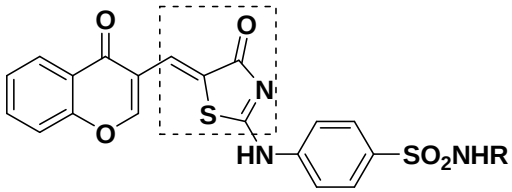
Graphical abstract:



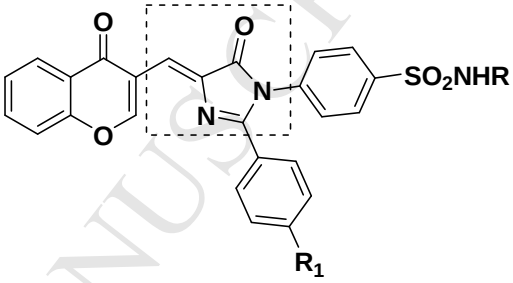
General formula A



General formula B



General formula C



General formula D

Compound **4a** (general formula B; R=H) has IC_{50} of 0.72 and 0.50 µM against MCF-7 and A-549 cells, respectively. It has K_i of 29.75 and 4.54 nM on hCA IX and XII, respectively. It raises the % of early apoptotic cells to 94.12 and 74.77% in breast and lung cells, respectively.