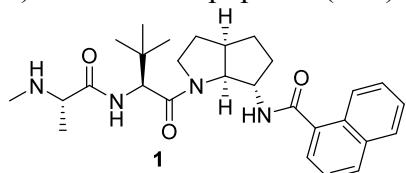


Problem Session June 2009

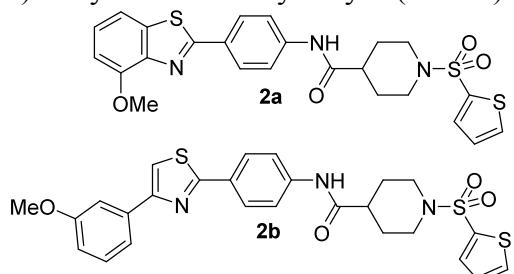
RETROSYNTHESIS

Propose a reasonable retrosynthesis and a synthetic scheme for the following molecules

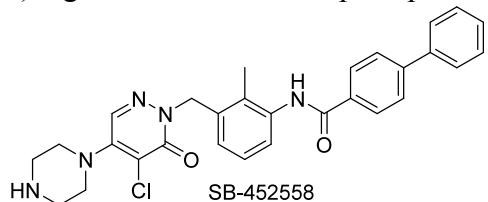
1) Inhibitor of apoptosis (IAP) antagonist **1**: potential anticancer drug.



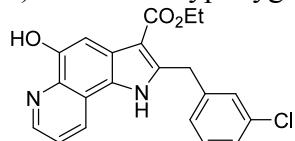
2) Fatty acid amide hydrolyse (FAAH) inhibitors



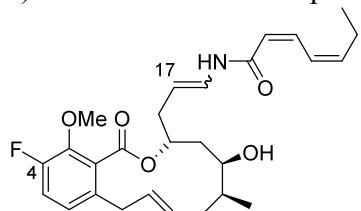
3) Agonist of MxrX1 receptor: potential painkiller (GSK)



4) Human 5-Lipoxygenase inhibitor: potential anti inflammatory and anti allergic drug.



5) V-ATPase inhibitor: potential anticancer drug



5a: 4-Fluorosalicylihalamide A (17E)
5b: 4-Fluorosalicylihalamide B (17Z)