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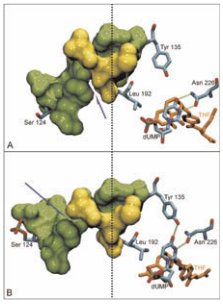
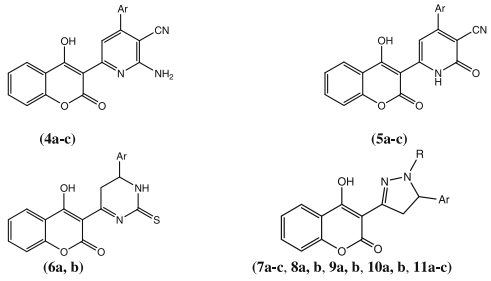
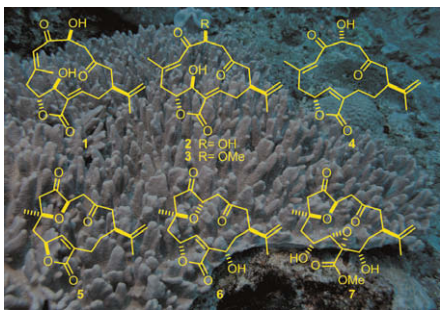
Contents

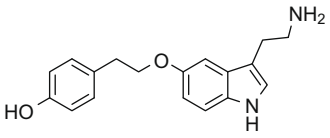
ARTICLES



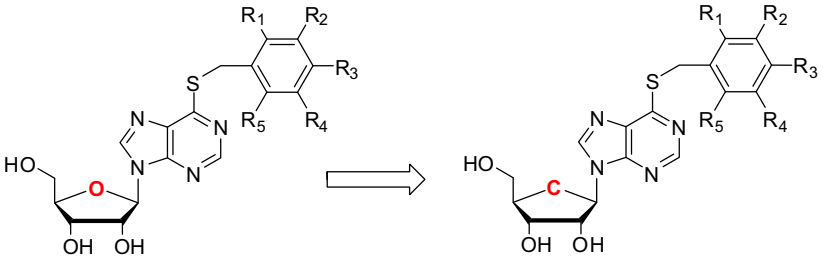


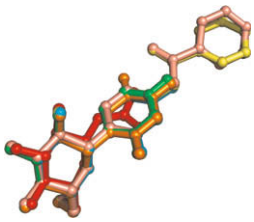
(4a-c) (5a-c) (6a, b) (7a-c, 8a, b, 9a, b, 10a, b, 11a-c)

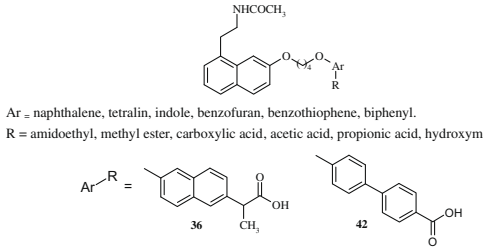




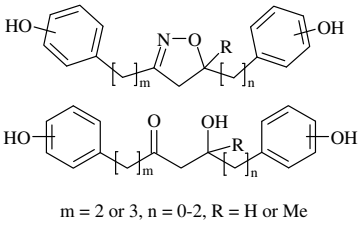
Herein we report the discovery of serotonin derivatives as a novel type of non-ATP-competitive RTK inhibitors.

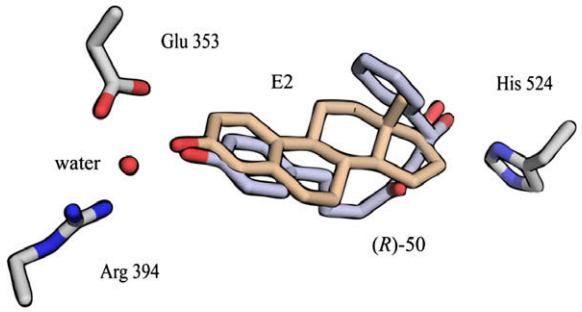


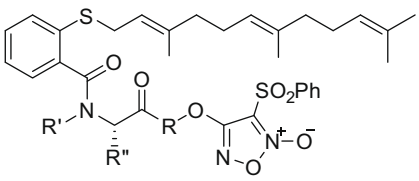




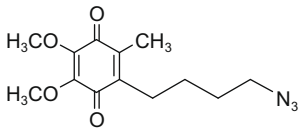
Compound 36: Ki (MT_1) = 0.37 nM, Ki (MT_2) = 4.22 nM (antagonist)
Compound 42: Ki (MT_1) = 0.55 nM, Ki (MT_2) = 51.30 nM





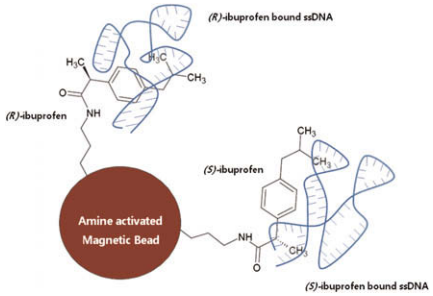


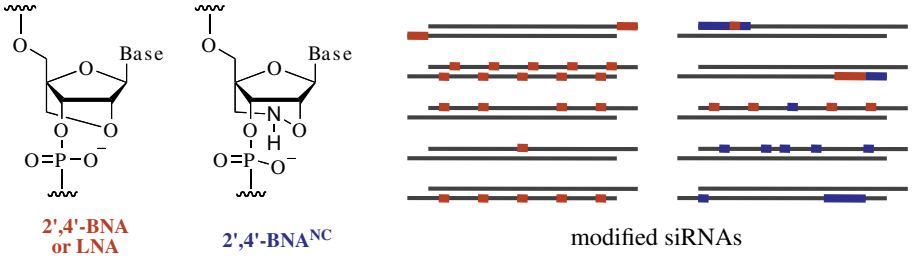
A series of novel furoxan-based nitric oxide (NO)-releasing derivatives of farnesylthiosalicylic acid (FTA) were synthesized and evaluated for their cytotoxicity against human cancer cells, NO-releasing ability and Ras inhibitory activity.

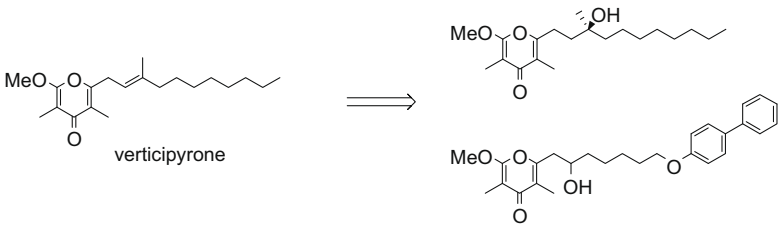


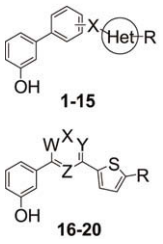
Novel azidoquinone for direct photolabeling of quinone binding sites in proteins.

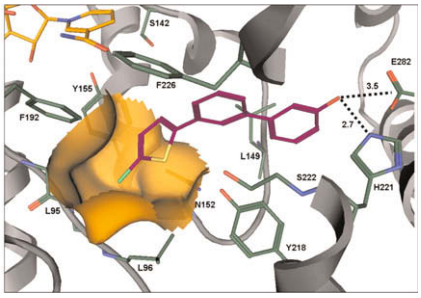
Racemic form of ibuprofen was immobilized on amine functionalized magnetic beads and enantioselective DNA aptamers were selected for (*S*)- and (*R*)-ibuprofen based on conformational interactions.

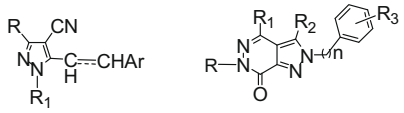






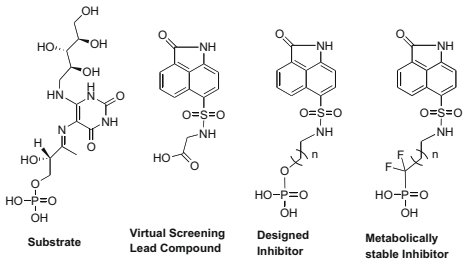


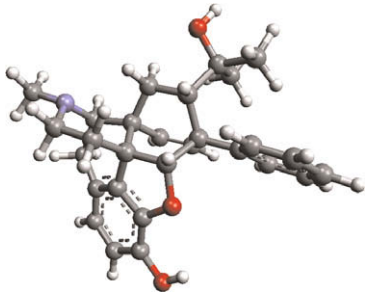


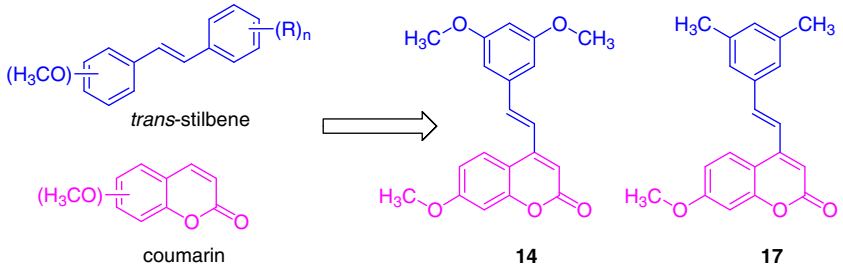


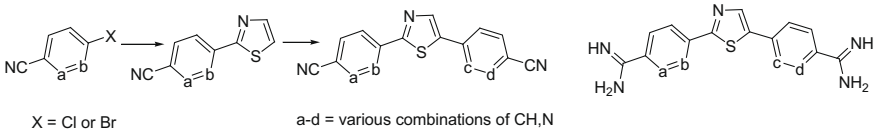
Rr= ethyl, n-propyl,
R_1= phenyl, COOEt
R_2= H, methyl
R_3= 2-Cl, 3-NO_2
n= 0, 1

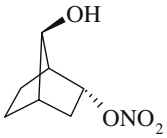
Ar= phenyl, naphtyl
R= methyl, phenyl
R_1= methyl, ethyl



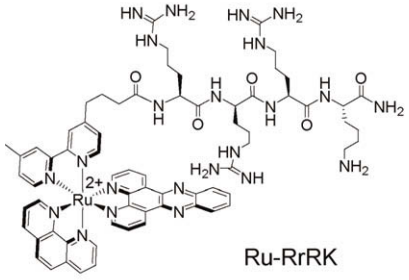


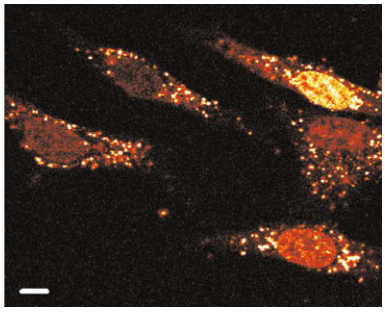




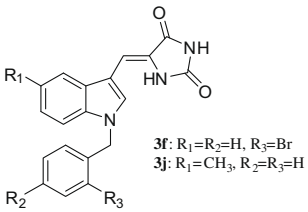


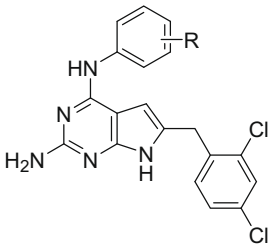
I_{50} = 7.13 mM (hCA I) ; I_{50} = 65.1 μM (hCA II)





A series of substituted (*Z*)-5-(*N*-benzylindol-3-ylmethylene)imidazolidine-2,4-dione (**3**) analogs structurally related to aplysinopsin, and that incorporate a variety of substituents in both the indole and *N*-benzyl moieties have been synthesized under microwave irradiation and conventional heating methods. These analogs were evaluated for their anti-proliferative activity against MCF-7 and MDA-231 breast cancer cell lines, and A549 and H460 lung cancer cell lines. Two analogs, **3f** and **3j** had IC_{50} values of 4.4 and 5.2 μM, respectively, compared to 5-fluorouracil (IC_{50} = 15.2 μM) against MCF-7 cells.





OTHER CONTENT

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

An insight into biologically relevant chemical space showing the scaffolds of potential natural-product based inhibitors orbiting their target, the protein structure of protein 11-beta steroid dehydrogenase (PDB code 1xu7). Graphic produced using Pymol (http://www.pymol.org). [M. A. Koch, A. Schuffenhauer, M. Scheck, S. Wetzel, M. Casaulta, A. Odermatt, P. Ertl, H. Waldmann, Charting biologically relevant chemical space: A structural classification of natural products (SCONP), *PNAS* **2005**, *102*, 17272–17277 and S. Wetzel, H. Waldmann, Cheminformatic analysis of natural products and their chemical space, *Chimia* **2007**, *61*(6), 355–360].

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