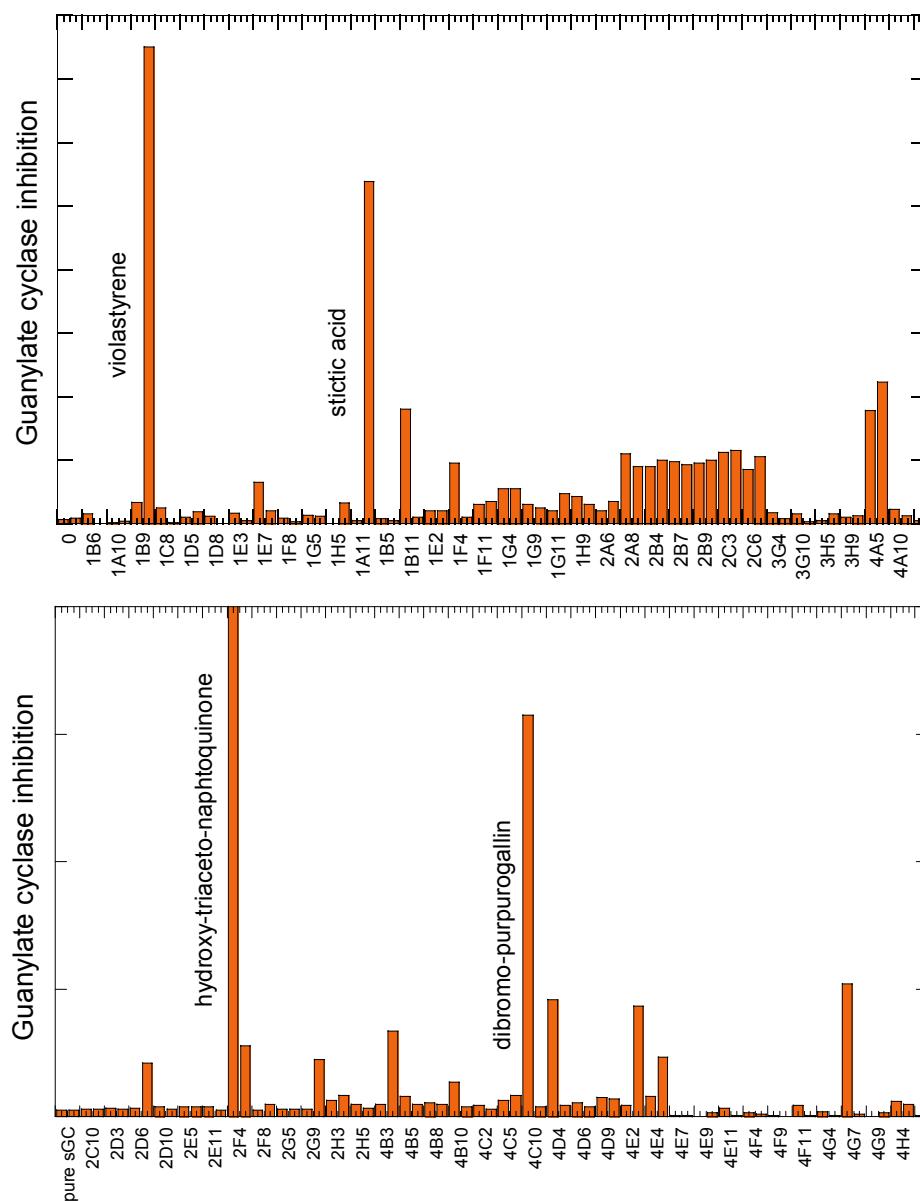


## Soluble Guanylate Cyclase Inhibitors Discovered among Natural Compounds

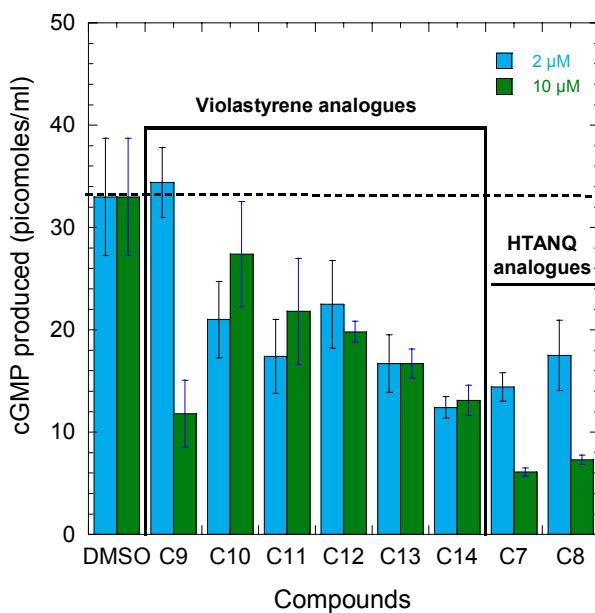
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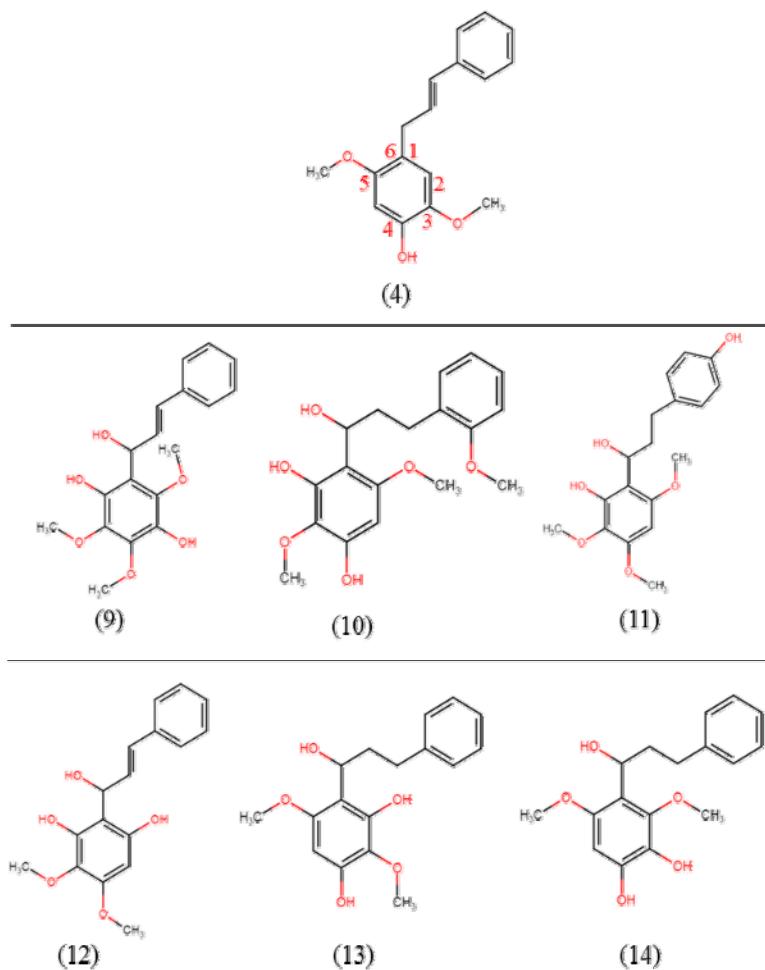
and <sup>2</sup>Centre de Biophysique Moléculaire, UPR4301 CNRS, Orléans, France.



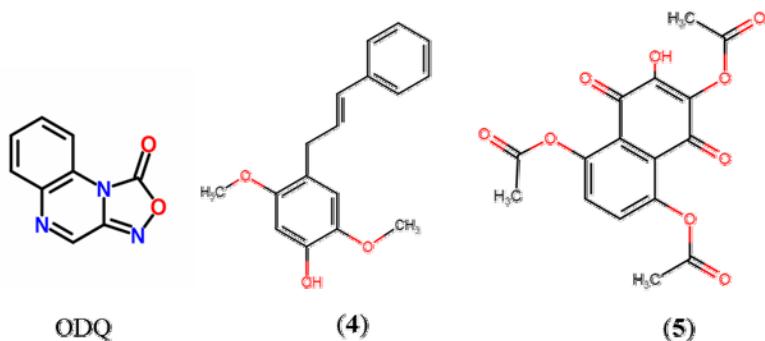
**Figure S1.** Example of the screening of 320 natural compounds. Inhibition of purified sGC after incubation of compounds at 20  $\mu$ M from Greenpharma library. Numbering according to the coordinates of the wells in the Greenpharma plates. The amount of synthesized cGMP was measured after activation of sGC by NO in the presence of GTP.



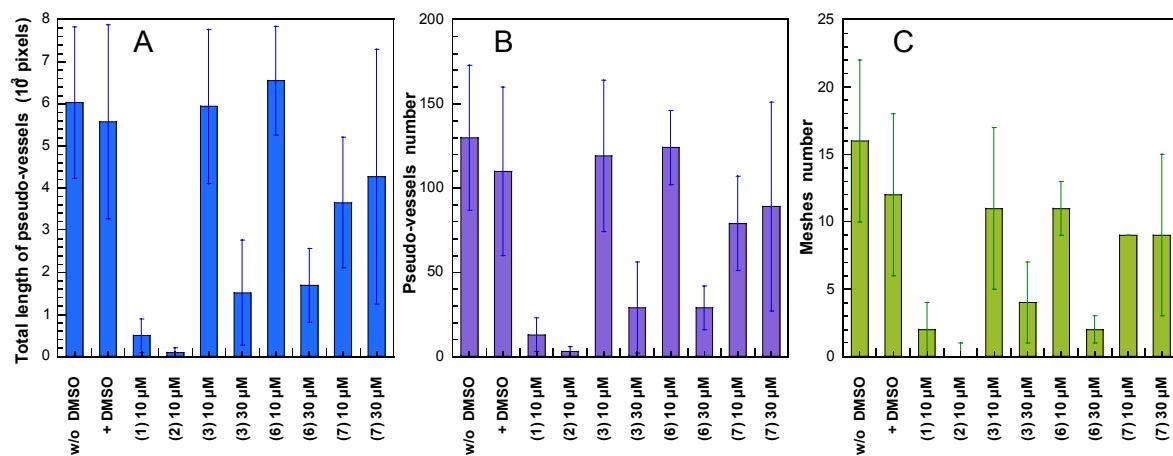
**Figure S2.** Inhibition of sGC activity by violastyrene (C4) analogues (compounds C9 – C14) and 2-hydroxy-3,5,8-triaceto-1,4-naphthoquinone (HTANQ) analogues (compounds C7, C8). The assay was performed in the presence of NO.



**Figure S3.** Chemical structures of violastyrene (C4) and its analogues (C9 – C14).



**Figure S4.** Chemical structure of ODQ, violastyrene (4) and HTANQ (5).



**Figure S5.** Quantification of angiogenesis triggered in human endothelial progenitor cell line HEPC-CB1 after 13 hours of culture on Matrigel™ in the presence of guanylate cyclase inhibitors 1, 2, 3, 6 and 7. Three parameters have been measured: the pseudo-vessel total length (**A**), the pseudo-vessel number (**B**) and the close structures (meshes) number (**C**). Each parameters is the mean ± standard deviation of 3 individual cultures.