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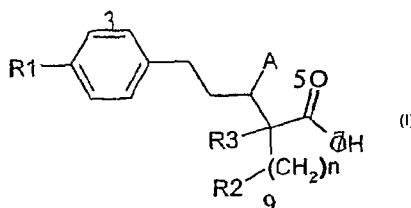
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(54) Title: 5-PHENYL-PENTANOIC ACID DERIVATIVES AS MATRIX METALLOPROTEINASE INHIBITORS FOR THE TREATMENT OF ASTHMA AND OTHER DISEASES



(57) Abstract: The present invention relates to C ompounds having the structure of Formula I: wherein n is an integer from 1 to 5; R₁ is optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heterocyclyl, heteroaryl, aralkyl, alkoxy, aryloxy, alkenyloxy or alkynyloxy; R₂ is alkenyl, alcynyl, aryl, heterocyclyl, heteroaryl, cycloalkyl, NR₄R₅, -NHC(=Y)R₄, -NHC(=Y)NR₅R₆, -NHC(=O)OR₄, -NHSO₂R₄, C(=Y)NR₄R₅, C(=O)OR₆ [wherein Y is oxygen or sulphur], OR₅, -O(C=O)NR₄R₅, O-acyl, S(O)_mR₄, -SO₂N(R₄)₂, cyano, amidino or guanidino [wherein R₄ is alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heterocyclyl, heteroaryl, aralkyl, heteroarylalkyl, heterocyclylalkyl or cycloalkylalkyl and m is an integer 0-2; R₅ is hydrogen or R₄; R_x is R₄ or -SO₂N(R₄)₂ and R₆ is hydrogen, alkyl, cycloalkyl, aralkyl, heteroarylalkyl, heterocyclylalkyl or cycloalkylalkyl]; R₃ is hydrogen, fluorine, alkyl, cycloalkylalkyl or aralkyl; A is OH, OR₄, -OC(=O)NR₄R₅, O-acyl, NH₂, NR₄R₅, -NHC(=Y)R₄, -NHC(=Y)NR₅R₆, -NHC(=O)OR₄, -NHSO₂R₄, and to processes for the synthesis of the same. This invention also relates to pharmacological compositions containing the compounds of the present invention, and methods of treating asthma, rheumatoid arthritis, COPD, rhinitis, osteoarthritis, psoriatic arthritis, psoriasis, pulmonary fibrosis pulmonary inflammation, acute respiratory distress syndrome, periodontitis, multiple sclerosis, gingivitis, atherosclerosis, neointimal proliferation, which leads to restenosis and ischemic heart failure, stroke, renal diseases, tumor metastasis, and other inflammatory disorders characterized by over-expression and over-activation of an matrix metalloproteinase, using the compounds.



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