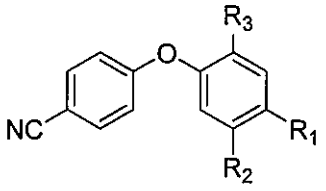
CLAIMS

What is claimed is:

1. A compound ~~which is represented by~~ of Formula I



I

~~wherein R_1 and R_3 are independently hydrogen, halo, hydroxyl, alkoxyl, thioalkoxy, alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, aralkyl, or heteroarakyl;~~

~~wherein R_2 is independently $-(C)_mNHC(X)NH(C)_nR_a$, $-(C)_pNHC(X)R_b$, $-(C)_qNHS(O)_2R_e$, $-(C)_r(X)NHR_d$, or $-(C)_sNH(C)_tR_e$; wherein R_a, R_b, R_e, R_d and R_e are independently hydrogen, halo, hydroxyl, alkoxyl, thioalkoxy, alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, aralkyl, or heteroarakyl;~~

~~X=O or S; and~~

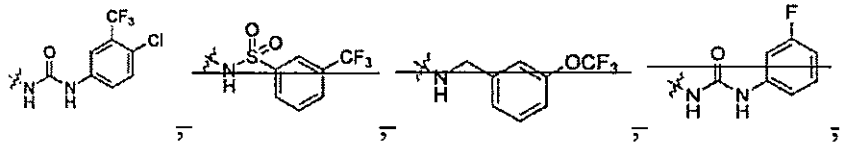
~~m, n, p, q, r, s, t=0, 1, or 2.~~

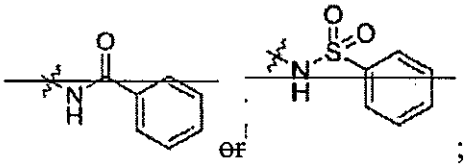
~~2. The compound of claim 1, wherein R_1 and R_3 are independently hydrogen or lower alkyl.~~

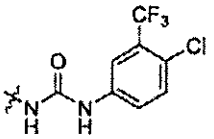
~~3. The compound of claim 1 or 2, wherein R_a, R_b, R_e, R_d and R_e are independently phenyl or naphthyl, with 1 to 3 groups selected from the group consisting of halo, lower alkyl (such as halo-substituted lower alkyl, e.g. trifluoromethyl), alkoxyl (e.g. such as halo-substituted lower alkoxyl, e.g. trifluoromethyl) and aryloxy (e.g. cyano-substituted phenoxy).~~

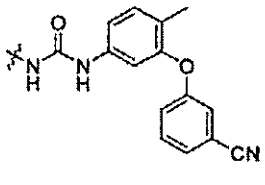
~~4. The compound of claim 1,~~

-wherein (i) R_1 and R_3 are independently hydrogen; and

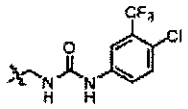
R_2 is  ; or



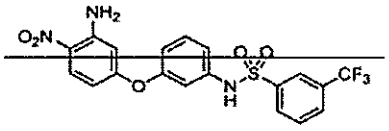
(ii) R_1 is independently hydrogen; R_3 is methyl; and R_2 is  or



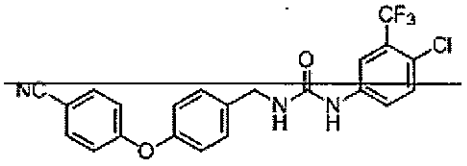
; or

(iii) wherein R_2 and R_3 are independently hydrogen; and R_1 is .

~~5. A compound which is represented by~~



~~6. A compound which is represented by~~



~~7~~2. A pharmaceutical composition comprising a compound as defined in ~~any of~~ claim 1 ~~to 6~~ and a pharmacological acceptable carrier.

~~8~~3. A pharmaceutical composition for increasing Src homology-2 containing protein tyrosine phosphatase-1 (SHP-1) expression in a cell, comprising a compound as defined in ~~any of~~ claim 1 ~~to 6~~ and a pharmacological acceptable carrier.

~~9~~4. A pharmaceutical composition for treating a disease or condition characterized by decreased Src homology-2 containing protein tyrosine phosphatase-1 (SHP-1), comprising a compound as defined in ~~any of~~ claim 1 ~~to 6~~ and a pharmacological acceptable carrier.

~~10~~5. A method for increasing Src homology-2 containing protein tyrosine phosphatase-1 (SHP-1) expression in a cell *in vitro*, comprising contacting the cell with an effective amount of a compound as defined in ~~any of~~ claim 1 ~~to 6~~ or a pharmaceutical composition of claim ~~7~~2.

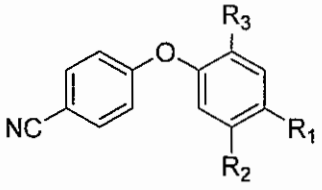
~~11~~6. Use of a compound as defined in ~~any of~~ claim 1 ~~to 6~~ for manufacture of a medicament for treating a disease or condition characterized by decreased Src homology-2 containing protein tyrosine phosphatase-1 (SHP-1) expression, wherein the disease or condition characterized by decreased SHP-1 expression is cancer and osteoporosis.

~~12~~7. Use of claim ~~11~~6, wherein the cancer is hepatocellular carcinoma (e.g. hepatocellular carcinoma, leukemia, lung cancer, breast cancer, renal cancer, thyroid cancer colon, head and neck cancer.

CLAIMS

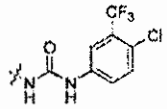
What is claimed is:

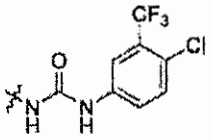
1. A compound of Formula I

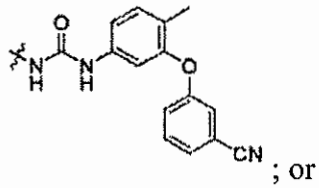


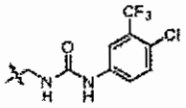
I

wherein

(i) R_1 and R_3 are independently hydrogen; and R_2 is  ; or

(ii) R_1 is independently hydrogen; R_3 is methyl; and R_2 is  or

 ; or

(iii) wherein R_2 and R_3 are independently hydrogen; and R_1 is  .

2. A pharmaceutical composition comprising a compound as defined in claim 1 and a pharmacological acceptable carrier.

3. A pharmaceutical composition for increasing Src homology-2 containing protein tyrosine phosphatase-1 (SHP-1) expression in a cell, comprising a compound as defined in claim 1 and a pharmacological acceptable carrier.

4. A pharmaceutical composition for treating a disease or condition characterized by decreased Src homology-2 containing protein tyrosine phosphatase-1 (SHP-1), comprising a compound as defined in claim 1 and a pharmacological acceptable carrier.

5. A method for increasing Src homology-2 containing protein tyrosine phosphatase-1 (SHP-1) expression in a cell *in vitro*, comprising contacting the cell with an effective amount of a compound as defined in claim 1 or a pharmaceutical composition of claim 2.

6. Use of a compound as defined in claim 1 for manufacture of a medicament for treating a disease or condition characterized by decreased Src homology-2 containing protein tyrosine phosphatase-1 (SHP-1) expression, wherein the disease or condition characterized by decreased SHP-1 expression is cancer and osteoporosis.

7. Use of claim 6, wherein the cancer is hepatocellular carcinoma (e.g. hepatocellular carcinoma, leukemia, lung cancer, breast cancer, renal cancer, thyroid cancer colon, head and neck cancer.