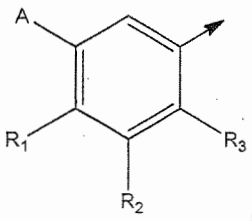
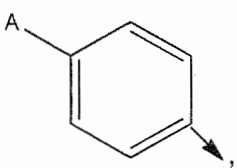
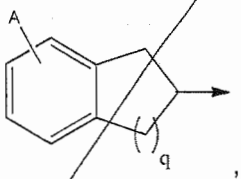
CLAIMS:

1. Use of a compound represented by Formula I, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating cancer in a subject in need thereof:



Formula I

wherein:

Cy is  ,  , or  ,

Cy1 Cy2 Cy3

wherein

⟶ represents a covalent bond connecting Cy to Q;

q is 1, 2, or 3;

A is

1) C_1-C_8 alkyl,
2) C_2-C_6 alkenyl,
3) C_1-C_7 alkyl-Y-,
4) C_1-C_7 alkyl-OC(O)-,
5) phenyl-O-phenyl-CH_2-Y, or
6) C_1-C_7 alkyl-CH(OH)-;

R_1, R_2 and R_3 are independently selected from H, F, Cl, or OH;

when Cy is Cy1 and Cy2, then Q is

1) C(O)OH,
2) $C(CH_3)_2C(O)OH$,
3) $(CH_2)_m$-C(O)OH,
4) ZCH(C(O)OH)C_1-C_8 alkyl,

5) $Z(CH_2)_mC(O)OH$,

6) $CH(phenyl)CH_2C(O)OH$,

7) $CH(R^c)CH_2C(O)OH$, or

8) $CH_2CH(C(O)OH)C_1$-C_8 alkyl,

wherein:

m is 1 or 2;

the phenyl is substituted by an R^d substituent;

Y is O, S, NH, NC_1-C_3 alkyl or C(O);

Z is O, S, NH or NC_1-C_3 alkyl;

when Cy is Cy3, then Q is C(O)OH;

R^c is

1) H,

2) C_1-C_4 alkyl,

3) C_2-C_4 alkenyl, or

4) C_2-C_4 alkynyl;

R^d is

1) OR^e,

2) halogen,

3) CF_3, or

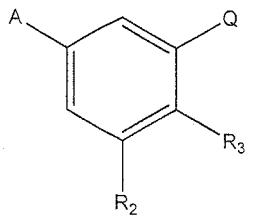
4) phenyl; and

R^e is

1) H, or

2) C_1-C_4 alkyl.

2. The use of claim 1, wherein said compound consists of a compound of Formula I.1, or a pharmaceutically acceptable salt thereof:



Formula I.1

wherein

A is

1) C_1-C_8 alkyl, or

2) C_2-C_6 alkenyl,

R_2 and R_3 are independently selected from H, F, Cl, or OH;

Q is

1) C(O)OH,

2) $C(CH_3)_2C(O)OH$,

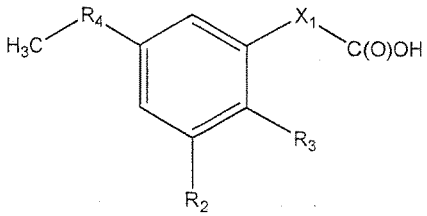
3) $(CH_2)_m$-C(O)OH, or

4) $CH(R^c)C(O)OH$,

wherein m is 1; and

R^c is C_1-C_4 alkyl.

3. The use of claim 1, wherein said compound consists of a compound of Formula IA, or a pharmaceutically acceptable salt thereof:



Formula IA

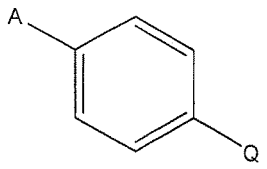
wherein

R_2 and R_3 are independently selected from H, OH, F or Cl;

X_1 is $CH(CH_3)$, $C(CH_3)_2$, or $(CH_2)_n$, wherein n is 0, 1 or 2; and

R_4 is $(CH_2)_{m1}$, $(CH_2)_{q1}CH=CH$, or $CH=CH(CH_2)$ wherein m1 is 3, 4, 5 or 6 and q1 is 1, 2, or 3.

4. The use of claim 1, wherein said compound consists of a compound of Formula I.2, or a pharmaceutically acceptable salt thereof:



Formula I.2

wherein

Y is O, S, NH or NC_1-C_3 alkyl;

A is

1) C_1-C_8 alkyl,
2) C_2-C_6 alkenyl,
3) C_1-C_7 alkyl-Y-, or
4) phenyl-O-phenyl-CH_2-Y;

Q is

1) CH(phenyl)$CH_2C(O)OH$, or
2) $CH(R^c)CH_2C(O)OH$,

wherein the phenyl is substituted by an R^d substituent;

R^c is

1) H,
2) C_1-C_4 alkyl,
3) C_2-C_4 alkenyl, or
4) C_2-C_4 alkynyl;

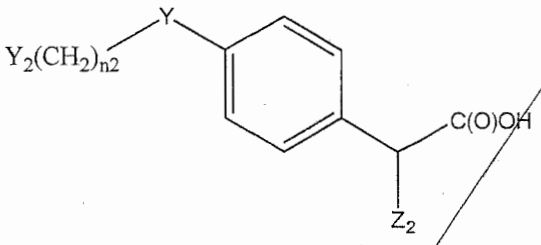
R^d is

1) OR^e,
2) halogen,
3) CF_3, or
4) phenyl; and

R^e is

1) H, or
2) C_1-C_4 alkyl.

5. The use of claim 4, wherein said compound consists of a compound of Formula IB, or a pharmaceutically acceptable salt thereof:



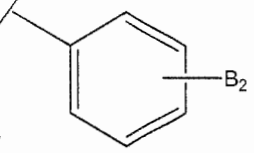
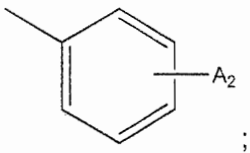
Formula IB

wherein

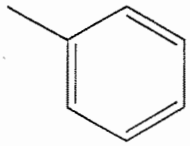
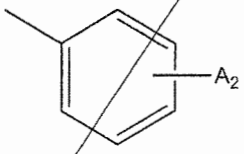
n2 is 0, or 1;

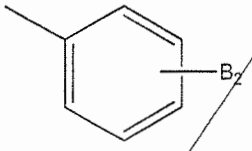
Y is O, NH, NC_1-C_3 alkyl, or S;

Y_2 is CH_3;

Z_2 is H, C_1-C_4 alkyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl or  when Y_2 is ;

or

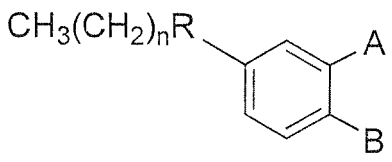
Z_2 is  or  when Y_2 is a branched or straight chain C_1-C_4 alkyl; or

Z_2 is  when Y_2 is CH_3;

A_2 is OH, F, Cl, Br, CF_3, phenyl, or OC_1-C_4 alkyl; and

B_2 is F, Cl, Br, CF_3 or phenyl.

6. The use of claim 1, wherein said compound consists of a compound of Formula IC, or a pharmaceutically acceptable salt thereof:



Formula IC

wherein

n is 2, 3, 4, 5, or 6;

R is -C(O)-, -OC(O)-, -CH(OH)-, NH, NC_1-C_3 alkyl, O, S, or CH_2;

A is $(CH_2)_mC(O)OH$, $W(CH_2)_mC(O)OH$, or $YCH(C(O)OH)(CH_2)_pCH_3$ when B is H;

B is $(CH_2)_mC(O)OH$, $W(CH_2)_mC(O)OH$ or $YCH(C(O)OH)(CH_2)_pCH_3$ when A is H; or

A and B are covalently bonded to form a 5-, 6-, or 7-membered cycloalkyl substituted with a C(O)OH group;

W is O, S, or NH;

Y is O, S, NH or CH_2;

m is 0, 1, or 2; and

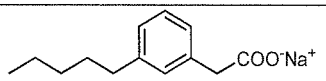
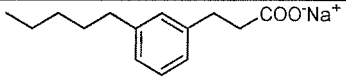
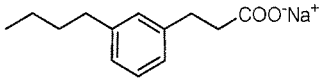
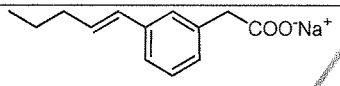
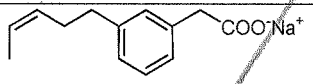
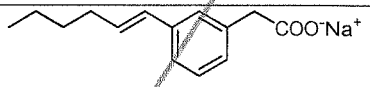
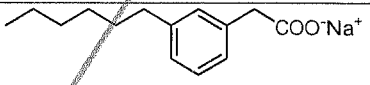
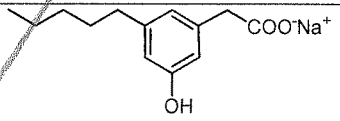
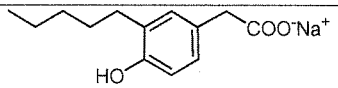
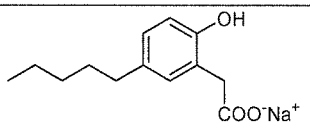
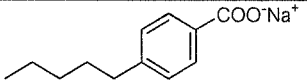
p is 1, 2, 3, 4, 5, 6, or 7.

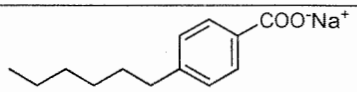
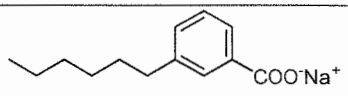
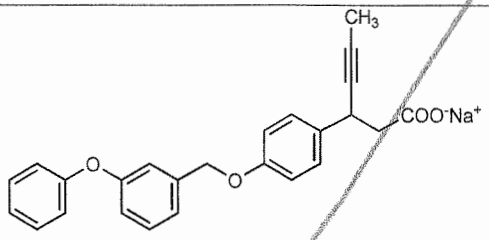
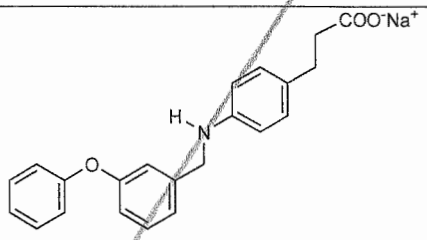
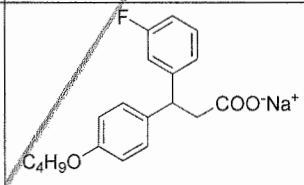
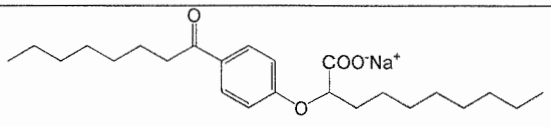
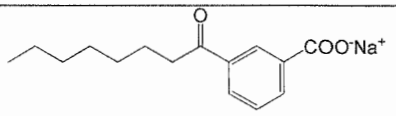
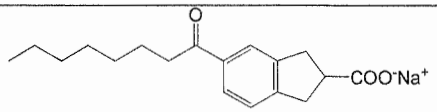
7. The use of any one of claims 1 to 6, wherein the pharmaceutically acceptable salt is a base addition salt.

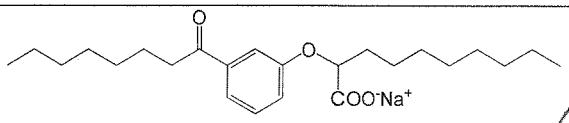
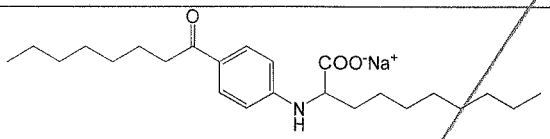
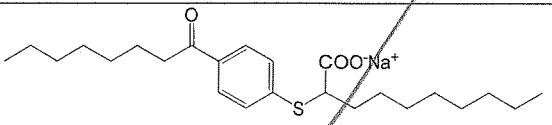
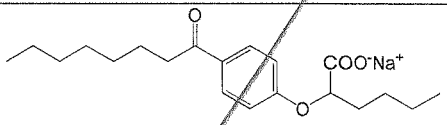
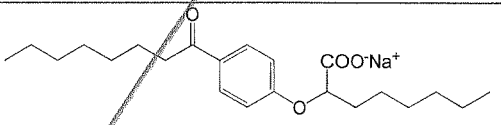
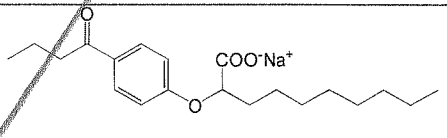
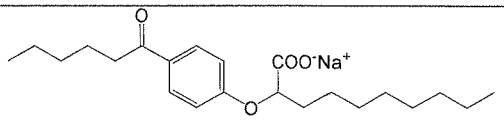
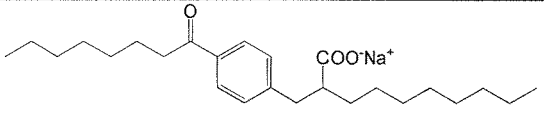
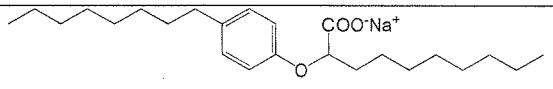
8. The use of claim 7, wherein the base addition salt comprises a metal counterion, said metal counterion is sodium, potassium, magnesium, calcium or lithium.

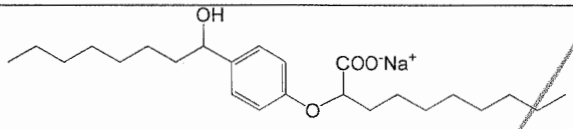
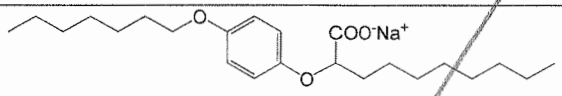
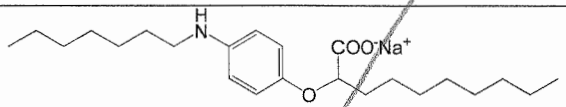
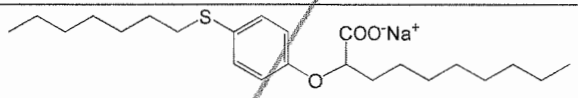
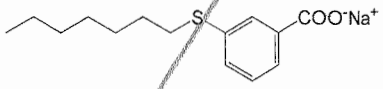
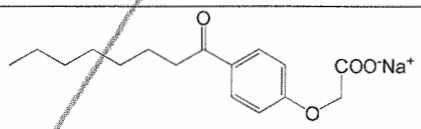
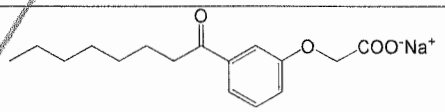
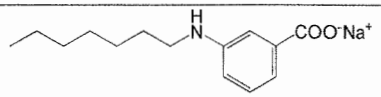
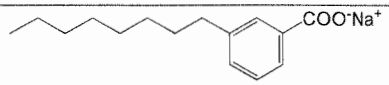
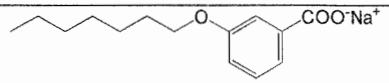
9. The use of claim 8, wherein the metal counterion is sodium.

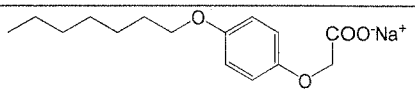
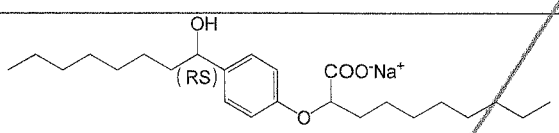
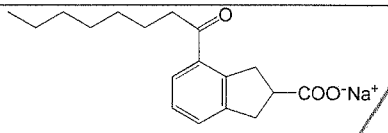
10. The use of claim 1, wherein the compound is any one of Compounds I to XLI:

	Structure
Compound I	
Compound II	
Compound III	
Compound IV	
Compound V	
Compound VI	
Compound VII	
Compound VIII	
Compound IX	
Compound X	
Compound XI	

	Structure
Compound XII	
Compound XIII	
Compound XIV	
Compound XV	
Compound XVI	
Compound XVII	
Compound XVIII	
Compound XIX	

	Structure
Compound XX	
Compound XXI	
Compound XXII	
Compound XXIII	
Compound XXIV	
Compound XXV	
Compound XXVI	
Compound XXVII	
Compound XXVIII	

	Structure
Compound XXIX	
Compound XXX	
Compound XXXI	
Compound XXXII	
Compound XXXIII	
Compound XXXIV	
Compound XXXV	
Compound XXXVI	
Compound XXXVII	
Compound XXXVIII	

	Structure
Compound XXXIX	
Compound XL	
Compound XLI	

11. The use of claim 10, wherein the compound is Compound I, II, VIII, XIII, XV, XVII, XVIII, XIX or XX.

12. The use of claim 10, wherein the compound is Compound I, II, XV, XVII or XIX.

13. The use of any one of claims 1 to 12, wherein said subject is a human patient.

14. The use of any one of claims 1 to 13, wherein the cancer is bladder cancer, breast cancer, colorectal cancer, kidney cancer, melanoma, non-Hodgkin's lymphoma, leukemia, ovarian cancer, pancreatic cancer, prostate cancer or uterine cancer.

15. The use of any one of claims 1 to 13, wherein the cancer is breast cancer, colorectal cancer, leukemia cancer, melanoma cancer or pancreatic cancer.

16. The use of any one of claims 1 to 15, wherein the compound is used in combination with an anticancer agent.

17. The use of claim 16, wherein said anticancer agent is decarbazine, doxorubicin, daunorubicin, cyclophosphamide, busulfex, busulfan, vinblastine, vincristine, bleomycin, etoposide, topotecan, irinotecan, taxotere, taxol, 5-fluorouracil, methotrexate, gemcitabine, cisplatin, carboplatin or chlorambucil.

18. The use of any one of claims 1 to 17, wherein said compound exhibits one or more of the following biological activities in said subject: stimulating and/or enhancing IL-12 production under inflammatory conditions; stimulating the antitumor cytolytic activity of lymphocytes and/or NK cells; inducing regression of established tumors and/or of primary solid tumors; inhibiting TGF-induced CTGF production; and/or inhibiting CTGF-mediated activities.

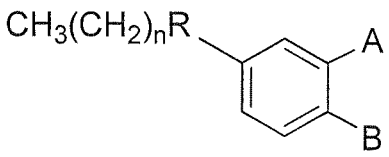
19. A pharmaceutical composition comprising a compound represented by Formula I, Formula I.1, Formula I.2, Formula IA, Formula IB, or Formula IC as defined in any one of claims 1 to 6, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, for use in treatment of cancer in a subject in need thereof.

20. The pharmaceutical composition according to claim 19, wherein said composition further comprises an anticancer agent.

21. The pharmaceutical composition according to claim 20, wherein said anticancer agent is decarbazine, doxorubicin, daunorubicin, cyclophosphamide, busulfex, busulfan, vinblastine, vincristine, bleomycin, etoposide, topotecan, irinotecan, taxotere, taxol, 5-fluorouracil, methotrexate, gemcitabine, cisplatin, carboplatin and chlorambucil.

CLAIMS:

1. Use of a compound represented by Formula IC, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating cancer in a subject:



Formula IC

wherein

n is 2, 3, 4, 5, or 6;

R is -C(O)-, -OC(O)-, -CH(OH)-, NH, NC_1-C_3 alkyl, O, or S;

A is $(CH_2)_mC(O)OH$, $W(CH_2)_mC(O)OH$, or $YCH(C(O)OH)(CH_2)_pCH_3$ when B is H;

B is $(CH_2)_mC(O)OH$, $W(CH_2)_mC(O)OH$ or $YCH(C(O)OH)(CH_2)_pCH_3$ when A is H; or

A and B are covalently bonded to form a 5-, 6-, or 7-membered cycloalkyl substituted with a C(O)OH group;

W is O, S, or NH;

Y is O, S, NH or CH_2;

m is 0, 1, or 2; and

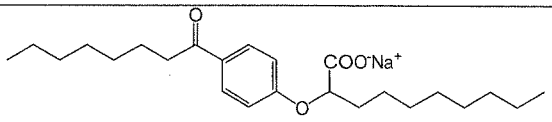
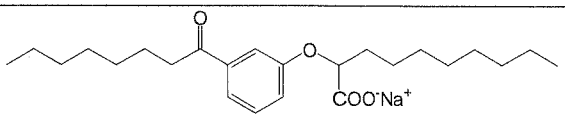
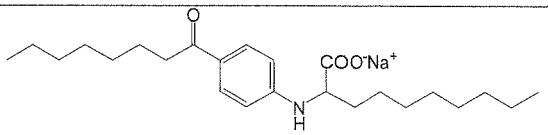
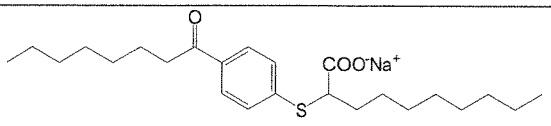
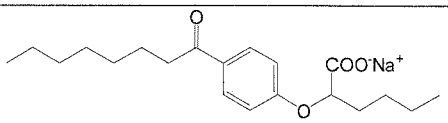
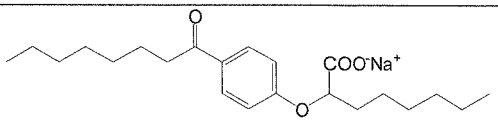
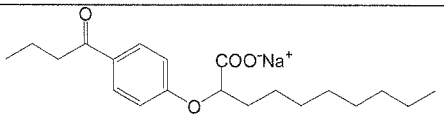
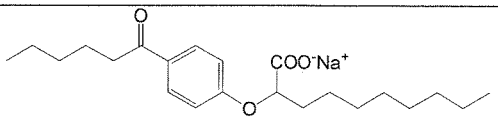
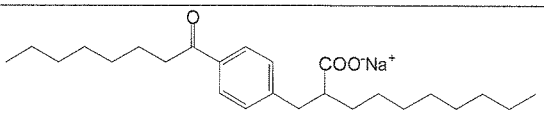
p is 1, 2, 3, 4, 5, 6, or 7.

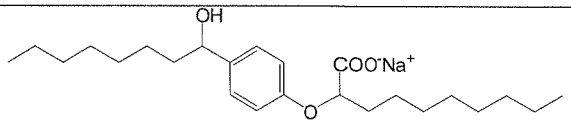
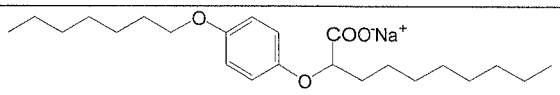
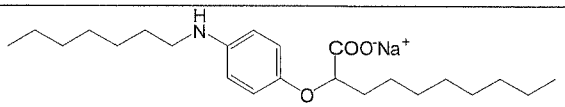
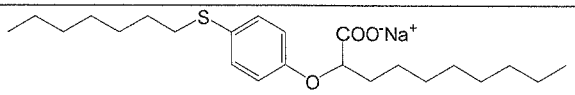
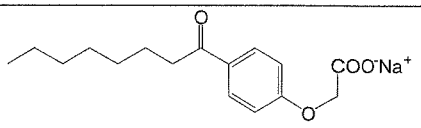
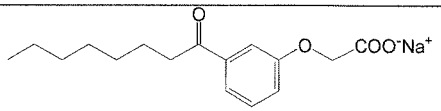
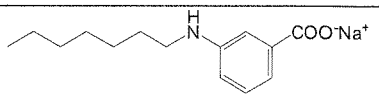
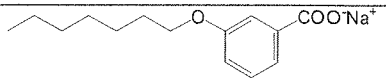
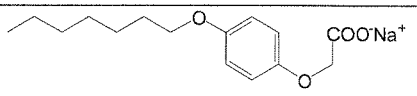
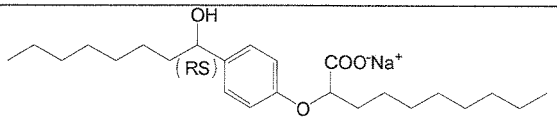
2. The use of claims 1 to 6, wherein the pharmaceutically acceptable salt is a base addition salt.

3. The use of claim 2, wherein the base addition salt comprises a metal counterion, said metal counterion is sodium, potassium, magnesium, calcium or lithium.

4. The use of claim 3, wherein the metal counterion is sodium.

5. The use of claim 1, wherein the compound is selected from the group consisting of:

	Structure
Compound XVII	
Compound XX	
Compound XXI	
Compound XXII	
Compound XXIII	
Compound XXIV	
Compound XXV	
Compound XXVI	
Compound XXVII	

	Structure
Compound XXIX	
Compound XXX	
Compound XXXI	
Compound XXXII	
Compound XXXIV	
Compound XXXV	
Compound XXXVI	
Compound XXXVIII	
Compound XXXIX	
Compound XL	

6. The use of claim 5, wherein the compound is Compound XVII or XX.

7. The use of claim 5, wherein the compound is Compound XVII.

8. The use of any one of claims 1 to 7, wherein said subject is a human patient.

9. The use of any one of claims 1 to 8, wherein the cancer is bladder cancer, breast cancer, colorectal cancer, kidney cancer, melanoma, non-Hodgkin's lymphoma, leukemia, ovarian cancer, pancreatic cancer, prostate cancer or uterine cancer.

10. The use of any one of claims 1 to 8, wherein the cancer is breast cancer, colorectal cancer, leukemia cancer, melanoma cancer or pancreatic cancer.

11. The use of any one of claims 1 to 10, wherein the compound is used in combination with an anticancer agent.

12. The use of claim 11, wherein said anticancer agent is decarbazine, doxorubicin, daunorubicin, cyclophosphamide, busulfex, busulfan, vinblastine, vincristine, bleomycin, etoposide, topotecan, irinotecan, taxotere, taxol, 5-fluorouracil, methotrexate, gemcitabine, cisplatin, carboplatin or chlorambucil.

13. The use of any one of claims 1 to 12, wherein said compound exhibits one or more of the following biological activities in said subject: stimulating and/or enhancing IL-12 production under inflammatory conditions; stimulating the antitumor cytolytic activity of lymphocytes and/or NK cells; inducing regression of established tumors and/or of primary solid tumors; inhibiting TGF-induced CTGF production; and/or inhibiting CTGF-mediated activities.

14. The use of any one of claims 1 to 12, wherein said compound inhibits tumor cell migration and establishment of metastasis.

15. Use of a pharmaceutical composition comprising a compound represented by Formula IC as defined in claim 1, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, in the manufacture of a medicament for treating cancer in a subject in need thereof.

16. The use of claim 15, wherein said compound exhibits one or more of the following biological activities in said subject: stimulating and/or enhancing IL-12 production under inflammatory conditions;

stimulating the antitumor cytolytic activity of lymphocytes and/or NK cells; inducing regression of established tumors and/or of primary solid tumors; inhibiting TGF-induced CTGF production; and/or inhibiting CTGF-mediated activities.

17. The use of claim 15, wherein said compound inhibits tumor cell migration and establishment of metastasis.

18. The use according to any one of claims 15 to 17, wherein said composition further comprises an anticancer agent.

19. The use according to claim 18, wherein said anticancer agent is decarbazine, doxorubicin, daunorubicin, cyclophosphamide, busulfex, busulfan, vinblastine, vincristine, bleomycin, etoposide, topotecan, irinotecan, taxotere, taxol, 5-fluorouracil, methotrexate, gemcitabine, cisplatin, carboplatin and chlorambucil.