- R5 and R6 independently of one another are a (C_1–C_6)alkyl, aryl–(C_1–C_6)alkyl or aryl group, the said group optionally being substituted by one or more halogen atoms.

In another aspect, there is provided a compound of general formula (I) as disclosed herein for use as a drug.

In another aspect, there is provided a compound of general formula (I) as disclosed herein for use in the treatment or prevention of cancer and chemotherapy–resistant cancer.

In another aspect, there is provided a pharmaceutical composition comprising at least one compound of general formula (I) as disclosed herein, in association with one or more pharmaceutically acceptable excipients.

In another aspect, there is provided a pharmaceutical composition comprising:

(i) at least one formula (I) compound as disclosed herein; and

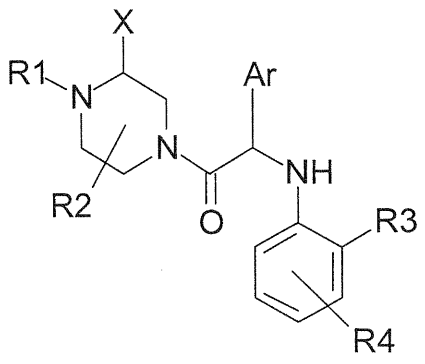
(ii) at least one other active ingredient such as an anticancer agent,

as combination products for simultaneous, separate or time–staggered use thereof.

In another aspect, there is provided a pharmaceutical composition as disclosed herein for use as a drug intended to treat or prevent cancer, in particular to treat a chemotherapy–resistant cancer.

In another aspect, there is provided a method for preparing a compound of formula (I) as disclosed herein, the method comprising the following successive steps:

a) reacting an amine of following formula (II):



(II)

where X, R1, R2, R3, R4 and Ar are as defined above, R1 not representing a hydrogen atom,

with chloroacetyl chloride in the presence of a base to give a formula (I) compound where R1 ≠ H; and

b) optionally deprotecting the nitrogen atom carrying the R1 ≠ H group to give a formula (I) compound where R1 = H.

By « halogen » in the meaning of the present invention is meant a fluorine, bromine, chlorine or iodine atom. Advantageously it is a fluorine, bromine or chlorine atom.

By « alkyl » group in the meaning of the present invention is meant any saturated, straight–chain or branched hydrocarbon group, advantageously having 1 to 6, preferably 1 to 4 carbon atoms. These may particularly be methyl, ethyl, n–propyl, iso–propyl, n–butyl, iso–butyl, sec–butyl, tert–butyl, n–pentyl, neopentyl or n–hexyl groups. Advantageously it is a methyl, ethyl, isopropyl, tert–butyl or isobutyl group.

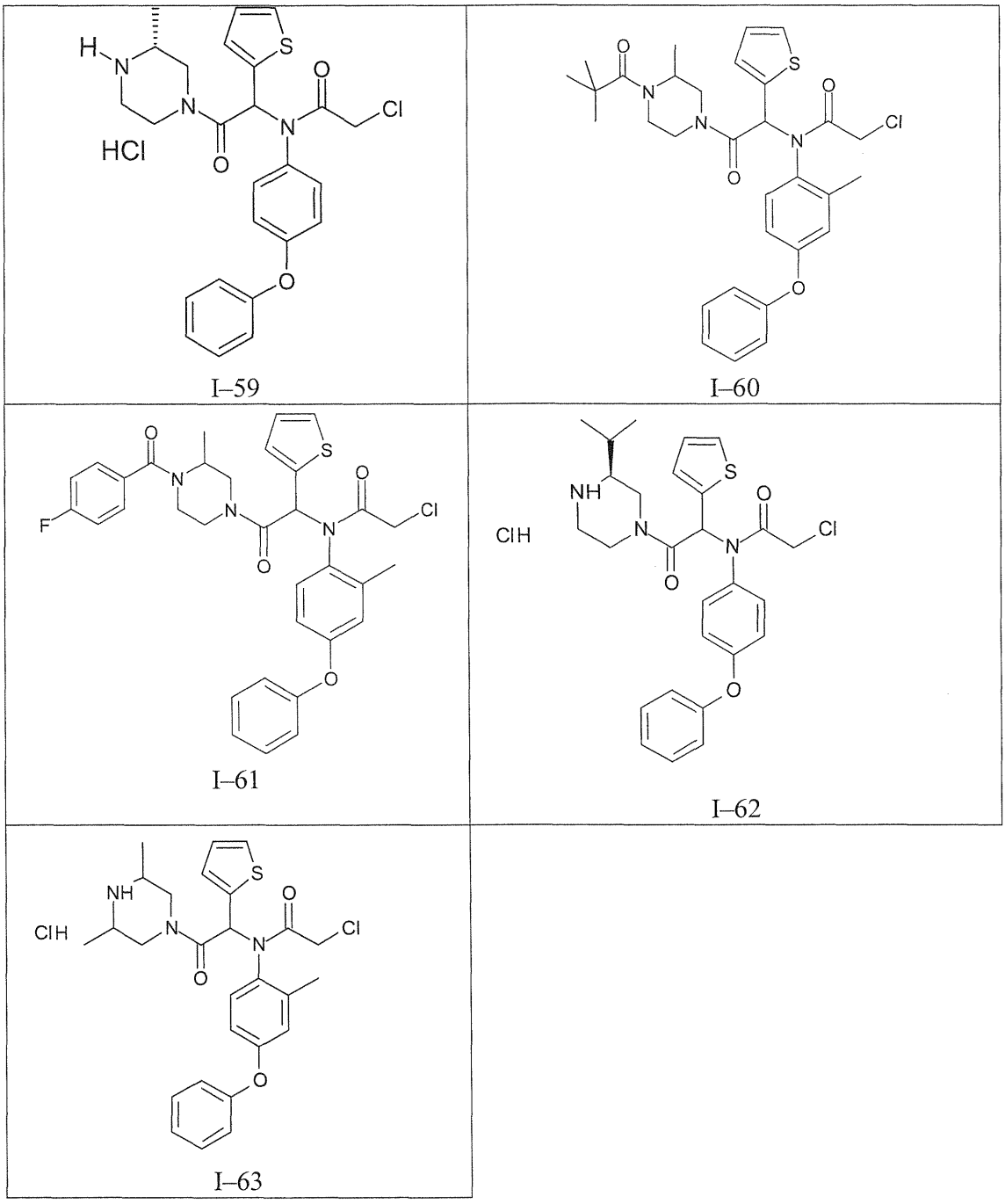
In some cases, the alkyl group may optionally be substituted by one or more halogen atoms, in particular bromine, chlorine and fluorine and advantageously fluorine. In this case the group will particularly be the $–CF_3$ group.

By « alkoxy » group in the meaning of the present invention is meant an alkyl group such as defined above linked to the remainder of the molecule via an oxygen atom. Examples of alkoxy group are the methoxy, ethoxy, isopropoxy or tert–butoxy groups. Advantageously it is the methoxy or tert–butoxy group, and further advantageously the methoxy group.

In some cases, the alkoxy group can be substituted by one or more fluorine atoms. In this case, it is advantageously the $–OCHF_2$ or $–OCF_3$ group, in particular $–OCF_3$.

By « aryl » group in the meaning of the present invention is meant an aromatic group preferably having 5 to 10 carbon atoms and comprising one or more fused rings. Advantageously it is the phenyl group.

By « heteroaryl » group in the meaning of the present invention is meant any aryl group such as defined above in which one or more carbon atoms have been replaced by one or more heteroatoms, advantageously 1 to 4 and more advantageously 1 to 2, such as sulfur, nitrogen or oxygen atoms for example. Advantageously it is a furyl, thiophenyl, pyridinyl, pyrimidyl, quinolinyl, 1,2,3–thiadiazolyl benzoimidazolyl, indazolyl or 1,2,3–benzotriazolyl group.



8. A compound of general formula (I) according to any one of claims 1 to 7 for use as a drug.

9. Use of ~~A~~a compound of general formula (I) according to any one of claims 1 to 7 in the manufacture of a medicament for ~~use in~~ the treatment or prevention of cancer and chemotherapy–resistant cancer.

such as picropodophyllin; tetracarcin derivatives such as tetrocarcin A; corticosteroids such as prednisone; antibodies such as trastuzumab (anti–HER2 antibody), rituximab (anti–CD20 antibody), gemtuzamab, cetuximab, pertuzumab and bevacizumab; antagonists or selective modulators of oestrogen receptors such as tamoxifen, fulvestrant, toremifene, droloxifene, faslodex and raloxifene; aromatase inhibitors such as exemestane, anastrozole, letrozole and vorozole; differentiating agents such as retinoids e.g. retinoic acid and vitamin D and agents blocking the metabolism of retinoic acid such as accutane; DNA methyl–transferase inhibitors such as azacytidine and decitabine; antifolates such as permetrexed disodium; antibiotics such as antinomycin D, bleomycin, mitomycin C, actinomycin D, carminomycin, daunomycin and plicamycin; antimetabolites such as chlofarabine, aminopterin, cytosine arabinoside, floxuridine and methotrexate; apoptosis–inducing agents and anti–angiogenic agents of Bcl–2 inhibitors such as YC 137, BH 312, ABT 737, gossypol, HA 14–1, TW 37 and decanoic acid; agents binding to tubulin such as combrestatin, colchicine derivatives and nocodazole; kinase inhibitors such as flavoperidol, imatinib mesylate, erlotinib and gefitinib; farnesyl transferase inhibitors such as tipifarnib; histone–deacetylase inhibitors such as sodium butyrate, suberoylanilide hydroxamic acid, depsipeptide, NVP- LAQ824, R306465, JNJ–26481585 and trichostatin A; inhibitors of the ubiquitin–proteasome system such as MLN .41, bortezomib and yondelis; and telomerase inhibitors such as telomestatin.

15. ~~The~~Use of a pharmaceutical composition according to any one of claims 10 to 14 in the manufacture of a medicament for ~~use as a drug intended to~~ treating or preventing cancer, in particular to treat a chemotherapy–resistant cancer.

16. A method for preparing a formula (I) compound according to any one of claims 1 to 7 comprising the following successive steps:

a) reacting an amine of following formula (II):