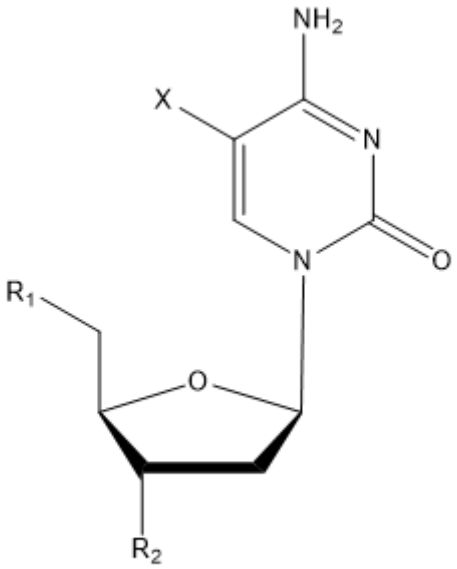
CLAIMS

1. A compound of Formula (IIa):



Formula (IIa)

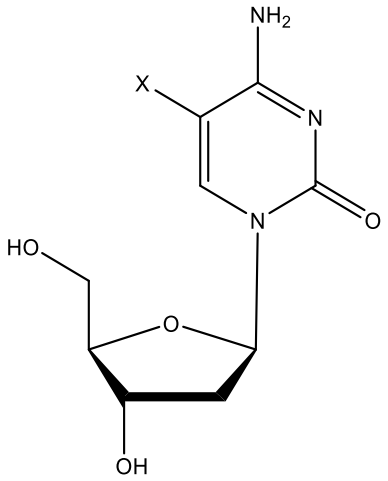
or a stereoisomer, solvate, tautomer or pharmaceutically acceptable salt thereof for use in the treatment or prevention of cancer of the central nervous system;

wherein:

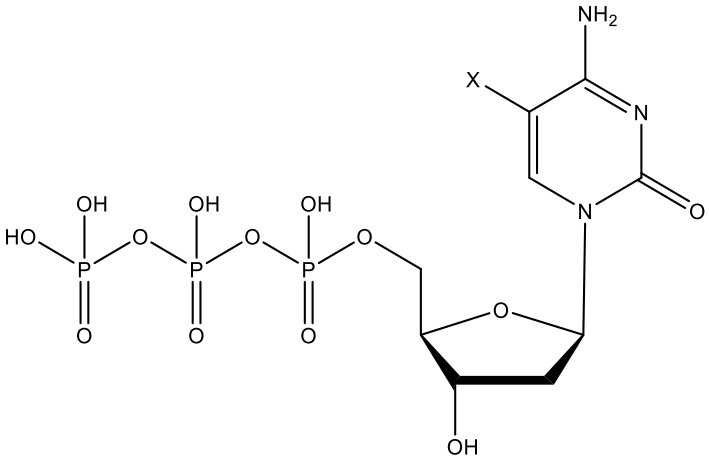
X is $-(CH_2)_n-X'$, wherein n is from 0 to 6 and X' is -CHO, -OH, -OR or -OC(=O)R, where R is methyl;
R_1 is -OH or $-O(P(=O)(OH)O)_nH$ where n is from 1 to 3; and

R_2 is -OH;

2. The compound for use of claim 1, wherein the compound is a compound of Formula (IIIa) or (IIIc), or a stereoisomer, solvate, tautomer or pharmaceutically acceptable salt thereof:



Formula (IIIa)



Formula (IIIc)

wherein X is as defined in claim 1.

3. The compound for use of claim 1 or claim 2, wherein X is -CHO, $-CH_2OH$, $-CH_2OCH_3$, or $-CH_2OC(=O)CH_3$.

4. The compound for use of any one of claims 1 to 3, wherein X is -CHO or $-CH_2OH$.

5. The compound for use of any one of claims 1 to 4, wherein X is CH_2OH.

6. The compound for use of any one of claims 1 to 5, wherein the compound is 5-formyl-2’-deoxycytidine, 5-hydroxymethyl-2’-deoxycytidine, 5-formyl-2'-

deoxycytidine-5'-triphosphate or 5-hydroxymethyl-2'-deoxycytidine-5'-triphosphate, or a stereoisomer, solvate, tautomer or pharmaceutically acceptable salt thereof.

7. The compound for use of claim 6, wherein the compound is 5-formyl-2'-deoxycytidine or 5-hydroxymethyl-2'-deoxycytidine, or a stereoisomer, solvate, tautomer or pharmaceutically acceptable salt thereof.

8. The compound for use of claim 7, wherein the compound is 5-hydroxymethyl-2'-deoxycytidine or a stereoisomer, solvate, tautomer or pharmaceutically acceptable salt thereof.

9. The compound for use of any one of claims 1 to 8, wherein the cancer is a brain cancer.

10. The compound for use of any one of claims 1 to 9, wherein the cancer is glioma.

11. The compound for use of claim 10, wherein the cancer is glioblastoma.

12. The compound for use of any one of claims 1 to 11, wherein the cancer is resistant to treatment with gemcitabine, cytarabine, temozolomide or 5-fluorouracil.

13. The compound for use of any one of claims 1 to 12, wherein said treatment comprises administering said compound at a dose between 10 mg/kg and 405 mg/kg.

14. The compound for use of any one of claims 1 to 13, wherein said treatment further comprises the administration of a further anticancer agent.

15. A kit comprising a compound as defined in any one of claims 1 to 8 and a further anticancer agent for using in the treatment or prevention of a cancer of the central nervous system.

16. A pharmaceutical composition comprising a compound as defined in any one of claims 1 to 8 and optionally a further anticancer agent, together with one or more pharmaceutically acceptable excipients.

17. The composition for use of claim 14 or the kit of claim 15, or the pharmaceutical composition of claim 16, wherein the further anticancer agent is selected from the group consisting of gemcitabine, cytarabine, Temozolomide, 5-fluorouracil and gliadel (RTM).