

Claims

1. Use of 5-fluoro-2'-deoxyuridine-5'-O-[1-naphthyl (benzoxy-L-alaninyl)] phosphate (NUC-3373), or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment of cancer in a patient, wherein the medicament is to be administered over a period of up to 10 hours.
2. The use according to claim 1, wherein the medicament is to be administered over a period of between 1 and 2 hours, 2 and 4 hours or 1 and 6 hours.
3. The use according to any preceding claim, wherein the medicament is to be administered by means of continuous infusion, optionally wherein the infusion is by intravenous infusion.
4. The use according to any of the preceding claims, wherein the medicament is to be administered by means of or includes a bolus administration.
5. The use according to any preceding claim, wherein the patient with the cancer also suffers from hand-foot syndrome.
6. The use according to claim 5, wherein the patient has developed hand-foot syndrome from a previous treatment regimen with a drug other than NUC-3373.
7. The use according to claim 6, wherein the patient has developed hand-foot syndrome when being treated with 5FU, capecitabine or tegafur.
8. Use of 5-fluoro-2'-deoxyuridine-5'-O-[1-naphthyl (benzoxy-L-alaninyl)] phosphate (NUC-3373) or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment of cancer in a subject that suffers from hand-foot syndrome, optionally wherein the subject has developed hand-foot syndrome following treatment with a fluoropyrimidine such as 5FU, capecitabine or tegafur.
9. The use according to any preceding claim, wherein the cancer is selected from the group consisting of: pancreatic cancer, breast cancer, ovarian cancer, bladder cancer, other urothelial cancers, gastrointestinal cancer (also known as cancer of the digestive tract), liver cancer, lung cancer, biliary cancer, prostate cancer, cholangiocarcinoma, renal cancer, neuroendocrine cancer, sarcoma, lymphoma, leukemia, cervical cancer, thymic cancer, a cancer of an unknown primary origin, mesothelioma, adrenal cancer, cancer of the uterus, cancer of the fallopian tube, peritoneal cancer, endometrial cancer, testicular cancer, head and neck cancer, the central nervous system cancer, basal cell carcinoma, Bowens disease,

other skin cancers (such as malignant melanoma, merckel cell tumour and rare appendage tumours), ocular surface squamous neoplasia and germ cell tumours.

10. The use according to claim 9, wherein the cancer is gastrointestinal cancer and is selected from the group consisting of: oesophageal cancer, gastric cancer, stomach cancer, bowel cancer, small intestine cancer, colon cancer, appendix mucinous, goblet cell carcinoid, liver cancer, biliary cancer, gallbladder cancer, anal cancer and rectal cancer.

11. A method of selecting a subject with cancer for treatment with 5-fluoro-2'-deoxyuridine-5'-O-[1-naphthyl (benzoxy-L-alaninyl)] phosphate (NUC-3373), or a pharmaceutically acceptable salt thereof, the method comprising determining whether the subject has hand-foot syndrome, wherein if the subject has hand-foot syndrome, the subject is selected for treatment with 5-fluoro-2'-deoxyuridine-5'-O-[1-naphthyl (benzoxy-L-alaninyl)] phosphate (NUC-3373).

12. The method according to claim 11, wherein the patient developed hand-foot syndrome whilst being treated with a fluoropyrimidine, such as 5FU or capecitabine.

13. Use of 5-fluoro-2'-deoxyuridine-5'-O-[1-naphthyl (benzoxy-L-alaninyl)] phosphate (NUC-3373), or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment of cancer in subjects that are deficient or partially deficient in dihydropyrimidine dehydrogenase (DPD).

14. The use according to claim 13, wherein the cancer is selected from the group consisting of: pancreatic cancer, breast cancer, ovarian cancer, bladder cancer, other urothelial cancers, gastrointestinal cancer (also known as cancer of the digestive tract), liver cancer, lung cancer, biliary cancer, prostate cancer, cholangiocarcinoma, renal cancer, neuroendocrine cancer, sarcoma, lymphoma, leukemia, cervical cancer, thymic cancer, a cancer of an unknown primary origin, mesothelioma, adrenal cancer, cancer of the uterus, cancer of the fallopian tube, peritoneal cancer, endometrial cancer, testicular cancer, head and neck cancer, the central nervous system cancer, basal cell carcinoma, Bowens disease, other skin cancers (such as malignant melanoma, merckel cell tumour and rare appendage tumours), ocular surface squamous neoplasia and germ cell tumours.

15. The use according to claim 13 or 14, wherein the cancer is gastrointestinal cancer and is selected from the group consisting of: oesophageal cancer, gastric cancer, stomach cancer, bowel cancer, small intestine cancer, colon cancer, appendix mucinous, goblet cell carcinoid, liver cancer, biliary cancer, gallbladder cancer, anal cancer and rectal cancer.

16. The use according to any one of claims 13 to 15, wherein the subject has a genetic mutation selected from IVS14+1G>A mutation in intron 14 coupled with exon 14 deletion

(known as DPYD*2A), 496A>G in exon 6; 2846A>T in exon 22; and T1679G (DPYD*13) in exon 13.

17. The use according to any one of claims 13 to 15, wherein the subject has previously exhibited intolerance for 5FU or capecitabine or has a family history of intolerance for 5FU or capecitabine.

18. A method of assessing effectiveness of an anti-cancer therapy, the method comprising: assaying a sample of peripheral blood mononuclear cells (PBMCs) or cancer cells from a subject receiving an anti-cancer therapy to determine the level of intracellular deoxythymidine monophosphate (dTMP) within the PBMCs or cancer cells, wherein a reduction in the level of intracellular dTMP within the PBMCs or cancer cells indicates that the anti-cancer therapy is effective.

19. A method of assessing effectiveness of an anti-cancer therapy, the method comprising: assaying a sample of peripheral blood mononuclear cells (PBMCs) or cancer cells from a subject receiving an anti-cancer therapy to determine the level of intracellular thymidylate synthase (TS) within the PBMCs or cancer cells, wherein a reduction in the level of intracellular TS within the PBMCs or cancer cells indicates that the anti-cancer therapy is effective.

20. A method according to claim 18 or 19, wherein the subject is receiving anti-cancer treatment using NUC-3373.

21. A method according to claim 18, wherein the level of intracellular dTMP within the PBMCs or cancer cells is compared to a suitable control value.

22. A method according to claim 19, wherein the reduction is substantially a complete reduction of intracellular TS.