Claims

1. A pharmaceutical formulation comprising:

5-fluoro-2'-deoxyuridine-5'-O-[1-naphthyl (benzoxy-L alaninyl)] phosphate (NUC-3373);

dimethyl acetamide (DMA); and

optionally one or more pharmaceutically acceptable excipients.

2. A formulation according to claim 1, wherein the formulation also comprises an aqueous vehicle.

3. A formulation according to claim 2, wherein the aqueous vehicle is saline.

4. A formulation according to claim 2, wherein the aqueous vehicle is WFI.

5. A formulation according to any one of claims 1 to 4, wherein the formulation also comprises a solubilizer.

6. A formulation according to claim 5, wherein the formulation comprises two or more solubilizers.

7. A formulation according to claim 5 or claim 6, wherein the or each solubilizer is a polyethoxylated fatty acid or a mixture thereof.

8. A formulation according to claim 1, wherein the formulation comprises:

from 30 % to 95% by volume DMA;

from 5% to 50% by volume aqueous vehicle; and

from 100 mg to 400 mg per mL NUC-3373.

9. A formulation according to claim 1, wherein the formulation comprises
from 30 % to 60% by volume DMA;
from 10% to 35% by volume a first solubilizer;
from 10% to 35% by volume a second solubilizer;
from 2% to 15% an aqueous vehicle; and
from 50 mg to 150 mg per mL NUC-3373.

10. A formulation according to claim 1, wherein the formulation comprises
from 0.1 % to 10% by volume DMA;
from 0.1 % to 10% by volume solubilizer or solubilizers;
from 85% to 99% by volume aqueous vehicle; and
from 2.0 mg to 12.0 mg per mL NUC-3373.

11. A formulation according to claim 10, wherein the formulation comprises:
from 1 % to 8% by volume DMA;
from 0.5 % to 4% by volume a first solubilizer;
from 0.5 % to 4% by volume a second solubilizer;
from 85% to 99% by volume aqueous vehicle; and
from 2.0 mg to 12.0 mg per mL NUC-3373.

12. A formulation according to any preceding claim for use in the treatment of cancer.

13. Use of a pharmaceutical formulation comprising:

NUC-3373;

DMA; and

optionally one or more pharmaceutically acceptable excipients;

in the manufacture of a medicament for the treatment of cancer, wherein the medicament is to be administered to a subject in need thereof.

14. The use according to claim 13, wherein the medicament is to be administered in accordance with the following steps:

diluting a first solution comprising NUC-3373 and DMA and optionally an aqueous vehicle with a second solution comprising DMA and one or more solubilizers to form a third solution;

diluting the third solution with an aqueous vehicle to provide a fourth solution;

wherein the fourth solution is to be administered to the subject by infusion or injection.

15. The use according to claim 13, wherein the medicament is to be administered in accordance with the following steps:

flushing a Central Venous Administration Device (CVAD) with a first portion of a first solution, the first solution comprising DMA and an aqueous vehicle,

wherein a second formulation is to be administered to the subject via the CVAD, the second formulation comprising DMA, the aqueous vehicle and NUC-3373; and

optionally flushing the CVAD with a second portion of the first solution.

16. A kit, the kit comprising:

a first formulation comprising DMA and NUC-3373 and optionally an aqueous vehicle;

a second formulation comprising DMA and one or more solubilizers.

17. A kit, the kit comprising:

a first solution comprising DMA and an aqueous vehicle; and

a second formulation comprising DMA, the aqueous vehicle and NUC-3373.