CLAIMS

1. A crystalline form of 1,5-anhydro-3-({5-chloro-4-[4-fluoro-2-(2-hydroxypropan-2-yl)-1-(propan-2-yl)-1*H*-benzimidazol-6-yl]pyrimidin-2-yl}amino)-2,3-dideoxy-D-*threo*-pentitol (PF-07220060) monohydrate (Form 2), having a ^{19}F solid state NMR spectrum comprising resonance (ppm) values of: -126.1 and -125.6 ppm ± 0.2 ppm.

2. A crystalline form of PF-07220060 monohydrate (Form 2), having a powder X-ray diffraction (PXRD) pattern comprising peaks at 2θ values of: 9.6, 11.8 and 14.7 °2θ ± 0.2 °2θ.

3. The crystalline form of claim 2, having a PXRD pattern further comprising a peak at a 2θ value of: 12.4 °2θ ± 0.2 °2θ.

4. The crystalline form of claim 2 or 3, having a PXRD pattern further comprising a peak at a 2θ value of: 21.0 °2θ ± 0.2 °2θ.

5. The crystalline form of claim 2, 3 or 4, having a Raman spectrum comprising wavenumber (cm^{-1}) values of: 1484, 1555 and 1587 cm^{-1} ± 2 cm^{-1}.

6. The crystalline form of claim 5, having a Raman spectrum further comprising a wavenumber (cm^{-1}) value of: 1387 cm^{-1} ± 2 cm^{-1}.

7. The crystalline form of claim 5 or 6, having a Raman spectrum further comprising a wavenumber (cm^{-1}) value of: 1395 cm^{-1} ± 2 cm^{-1}.

8. The crystalline form of any one of claims 2 to 7, having a ^{13}C solid state NMR spectrum comprising resonance (ppm) values of: 22.8 and 163.0 ppm ± 0.2 ppm.

9. The crystalline form of claim 8, having a ^{13}C solid state NMR spectrum further comprising one, two or three resonance (ppm) values selected from the group consisting of: 50.3, 109.8 and 129.1 ppm ± 0.2 ppm.

10. The crystalline form of any one of claims 2 to 9, having a ^{19}F solid state NMR spectrum comprising a resonance (ppm) value of: -126.1 ppm ± 0.2 ppm.

11. The crystalline form of any one of claims 2 to 10, having a ^{19}F solid state NMR spectrum further comprising a resonance (ppm) value of: -125.6 ppm ± 0.2 ppm.

12. A crystalline form of PF-07220060 monohydrate (Form 2), having a ^{13}C solid state NMR spectrum comprising resonance (ppm) values of: 22.8 and 163.0 ppm ± 0.2 ppm.

13. The crystalline form of claim 12, having a ^{13}C solid state NMR spectrum further comprising one, two or three resonance (ppm) values selected from the group consisting of: 50.3, 109.8 and 129.1 ppm ± 0.2 ppm.

14. A crystalline form of PF-07220060 monohydrate (Form 2), having: (a) a powder X-ray diffraction (PXRD) pattern comprising peaks at 2θ values of: 9.6, 11.8 and 14.7 °2θ ± 0.2 °2θ; (b) a Raman spectrum comprising wavenumber (cm^{-1}) values of: 1484, 1555 and 1587 cm^{-1} ± 2 cm^{-1}; (c) a ^{13}C solid state NMR spectrum comprising resonance (ppm) values of: 22.8 and 163.0 ppm ± 0.2 ppm; or (d) a ^{19}F solid state NMR spectrum comprising resonance (ppm) values of: -126.1 and -125.6 ppm ± 0.2 ppm; or any combination of (a), (b), (c) and (d).

15. An anhydrous crystalline form of PF-07220060 (Form 6), having: (a) a powder X-ray diffraction (PXRD) pattern comprising peaks at 2θ values of: 8.5, 10.1 and 13.8 °2θ ± 0.2 °2θ; (b) a Raman spectrum comprising wavenumber (cm^{-1}) values of: 1436, 1465 and 1566 cm^{-1} ± 2 cm^{-1}; (c) a ^{13}C solid state NMR spectrum comprising resonance (ppm) values of: 54.7, 112.6 and 132.8 ppm ± 0.2 ppm; or (d) a ^{19}F solid state NMR spectrum comprising resonance (ppm) values of: -132.4 and -131.1 ppm ± 0.2 ppm; or any combination of two or more of (a), (b), (c) and (d).

16. An anhydrous crystalline form of PF-07220060 (Form 11), having a powder X-ray diffraction (PXRD) pattern essentially the same as in FIG. 17.

17. The crystalline form of any one of claims 1 to 16, wherein the crystalline form is substantially pure.

18. An amorphous form of PF-07220060 (Form 8), having a ^{19}F solid state NMR spectrum comprising a resonance (ppm) value of: -127.5 ppm ± 0.5 ppm.

19. The amorphous form of claim 18, having a ^{13}C solid state NMR spectrum comprising resonance (ppm) values of: 20.9, 49.3 and 116.6 ppm ± 0.5 ppm.

20. The amorphous form of claim 18 or 19, having a PXRD peak at diffraction angles (2θ) from about 4 to about 40 °2θ ± 0.5 °2θ.

21. A pharmaceutical composition comprising the crystalline form of any one of claims 1 to 17, or the amorphous form of any one of claims 18 to 20, and a pharmaceutically acceptable carrier or excipient.

22. ~~A method of treating cancer in a subject in need thereof, comprising administering to the subject a therapeutically effective amount~~ Use of the crystalline form of any one of claims 1 to 17 or the amorphous form of any one of claims 18 to 20 in the manufacture of a medicament for the treatment of cancer in a subject, wherein a therapeutically effective amount of the medicament is to be administered to the subject in need thereof.

23. The ~~method~~ use of claim 22, wherein the cancer is selected from the group consisting of breast cancer, prostate cancer, lung cancer, liver cancer, kidney cancer, bladder cancer, ovarian cancer, peritoneal cancer, fallopian tube cancer, cervical cancer, uterine cancer, pancreatic cancer, stomach cancer, colorectal cancer, esophageal cancer, head and neck cancer, testicular cancer, adrenal cancer, skin cancer, brain cancer, sarcoma, and lymphoma.

24. The crystalline form of any one of claims 1 to 17 or the amorphous form of any one of claims 18 to 20 for use in the treatment of ~~treating~~ cancer.

25. The ~~crystalline form~~use of claim 24, wherein the cancer is selected from the group consisting of breast cancer, prostate cancer, lung cancer, liver cancer, kidney cancer, bladder cancer, ovarian cancer, peritoneal cancer, fallopian tube cancer, cervical cancer, uterine cancer, pancreatic cancer, stomach cancer, colorectal cancer, esophageal cancer, head and neck cancer, testicular cancer, adrenal cancer, skin cancer, brain cancer, sarcoma, and lymphoma.