

What is claimed is:

1. A compound, which is selected from:
 - 3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]octanenitrile; and
 - 3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]heptanenitrile;
 - or a pharmaceutically acceptable salt thereof.
- ~~2.~~ The compound of claim 1, which is 3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]octanenitrile, or a pharmaceutically acceptable salt thereof.
- ~~3, 2.~~ The compound of claim 1, which is (3R)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]octanenitrile, or a pharmaceutically acceptable salt thereof.
- ~~4, 3.~~ The compound of claim 1, which is (3S)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]octanenitrile, or a pharmaceutically acceptable salt thereof.
- ~~5, 4.~~ The compound of claim 1, which is 3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]octanenitrile phosphoric acid salt.
- ~~6, 5.~~ The compound of claim 1, which is (3R)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]octanenitrile phosphoric acid salt.
- ~~7, 6.~~ The compound of claim 1, which is (3S)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]octanenitrile phosphoric acid salt.
- ~~8, 7.~~ The A compound of claim ~~1~~, which is 3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]heptanenitrile, or a pharmaceutically acceptable salt thereof.
- ~~9, 8.~~ The compound of claim ~~1~~7, which is (3R)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]heptanenitrile, or a pharmaceutically acceptable salt thereof.
- ~~10, 9.~~ The compound of claim ~~1~~7, which is (3S)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]heptanenitrile, or a pharmaceutically acceptable salt thereof.
- ~~11, 10.~~ The compound of claim ~~1~~7, which is 3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]heptanenitrile phosphoric acid salt.

~~12.11.~~ The compound of claim ~~17~~, which is (3R)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]heptanenitrile phosphoric acid salt.

~~13.12.~~ The compound of claim ~~17~~, which is (3S)-3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]heptanenitrile phosphoric acid salt.

~~14.13.~~ A composition comprising ~~the~~ a compound according to claim 1, or a pharmaceutically acceptable salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13 thereof, and at least one pharmaceutically acceptable carrier.

~~15.14.~~ The composition of claim 12 which is suitable for topical administration.

~~16.15.~~ The composition of claim 12 which is suitable for transdermal administration.

16. The composition of claim 14 which is in the form of a transdermal patch, ointment, lotion, cream, or gel.

17. A composition comprising a compound according to claim 7, or a pharmaceutically acceptable salt thereof, and at least one pharmaceutically acceptable carrier.

18. The composition of claim 17 which is suitable for topical administration.

19. The composition of claim 17 which is suitable for transdermal administration.

~~17.20.~~ The composition of claim ~~16~~19 which is in the form of a transdermal patch, ointment, lotion, cream, or gel.

~~18.~~ A method of treating a disease in a patient, wherein said disease is associated with JAK activity, the method comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.

19. ~~A method of treating an autoimmune disease in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~
20. ~~The method of claim 19 wherein said autoimmune disease is a skin disorder, multiple sclerosis, rheumatoid arthritis, psoriatic arthritis, juvenile arthritis, type I diabetes, lupus, psoriasis, inflammatory bowel disease, Crohn's disease, myasthenia gravis, immunoglobulin nephropathies, myocarditis, or autoimmune thyroid disorder.~~
21. ~~The method of claim 19 wherein said autoimmune disease is a bullous skin disorder.~~
22. ~~The method of claim 21 wherein said bullous skin disorder is pemphigus vulgaris (PV) or bullous pemphigoid (BP).~~
23. ~~The method of claim 19 wherein said autoimmune disease is rheumatoid arthritis.~~
24. ~~The method of claim 19 wherein said autoimmune disease is a skin disorder.~~
25. ~~The method of claim 24 wherein said skin disorder is atopic dermatitis or psoriasis.~~
26. ~~The method of claim 24 wherein said skin disorder is skin sensitization, skin irritation, skin rash, contact dermatitis or allergic contact sensitization.~~
27. ~~A method of treating cancer in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~
28. ~~The method of claim 27 wherein said cancer is a solid tumor.~~
29. ~~The method of claim 27 wherein said cancer is prostate cancer, renal cancer, hepatic cancer, breast cancer, lung cancer, thyroid cancer, Kaposi's sarcoma, Castleman's disease or pancreatic cancer.~~

30. ~~———— The method of claim 27 wherein said cancer is lymphoma, leukemia, or multiple myeloma.~~

31. ~~———— The method of claim 27 wherein said cancer is cutaneous T-cell lymphoma or cutaneous B-cell lymphoma.~~

32. ~~———— A method of treating a myeloproliferative disorder in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

33. ~~———— The method of claim 32 wherein said myeloproliferative disorder is polycythemia vera (PV), essential thrombocythemia (ET), primary myelofibrosis (PMF), chronic myelogenous leukemia (CML), chronic myelomonocytic leukemia (CMML), hypereosinophilic syndrome (HES), idiopathic myelofibrosis (IMF), or systemic mast cell disease (SMCD).~~

34. ~~———— A method of treating an inflammatory disease in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

35. ~~———— The method of claim 34 wherein said inflammatory disease is iritis, uveitis, scleritis, conjunctivitis, inflammatory disease of the respiratory tract, inflammatory myopathy, or myocarditis.~~

36. ~~———— A method of treating a viral disease in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

37. ~~———— The method of claim 36 wherein said viral disease is Epstein Barr Virus (EBV), Hepatitis B, Hepatitis C, HIV, HTLV-1, Varicell-Zoster Virus (VZV) or Human Papilloma Virus (HPV).~~

38. ~~———— A method of treating organ transplant rejection in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

39. ~~———— A method of treating ischemia reperfusion or a disease related to an ischemic event in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

40. ~~———— A method of treating anorexia or cachexia in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13, wherein the anorexia or cachexia is resulting from or associated with cancer.~~

41. ~~———— A method of treating fatigue in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13, wherein the fatigue is resulting from or associated with cancer.~~

42. ~~———— A method of treating allograft rejection or graft versus host disease in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

43. ~~———— A method of treating rheumatoid arthritis in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

44. ~~———— A method of treating psoriasis in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

45. ~~———— A method of treating dermatitis in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

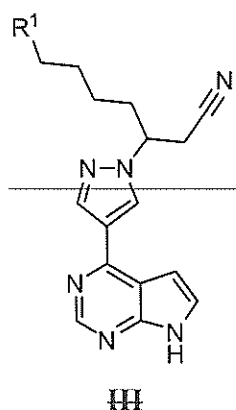
46. ~~———— A method of treating iritis in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

47. ~~———— A method of treating uveitis in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

48. ~~———— A method of treating scleritis in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

49. ~~———— A method of treating conjunctivitis in a patient comprising administering to said patient a therapeutically effective amount of the compound or salt of any one of claims 1 to 4 and 8 to 10, or the salt of any one of claims 5 to 7 and 11 to 13.~~

50. ~~———— A process for preparing a phosphoric acid salt of a compound of Formula III:~~



wherein R¹ is H or methyl, comprising combining a compound of Formula III with phosphoric acid.

51. ——— The process of claim 50 wherein said process is a process of preparing 3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]octanenitrile-phosphoric acid salt.

52. ——— The process of claim 50 wherein said process is a process of preparing 3-[4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-1H-pyrazol-1-yl]heptanenitrile-phosphoric acid salt.

53. ——— The process of any one of claims 50 to 52 wherein said combining is carried out in the presence of an organic solvent.

54. ——— The process of claim 53 wherein the organic solvent is an alcohol.

55. ——— The process of claim 54 wherein the alcohol is selected from the group consisting of methanol, ethanol, isopropanol, and butanol.

56. ——— The process of any of claims 50 to 52 wherein the combining is performed at a temperature of greater than about 20 °C.

57. ——— The process of any of claims 50 to 52 wherein the combining is performed at a temperature of about 60 °C.