~~What is claimed is~~Claims:

1. A salt selected from:

(R)-3-(4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-lH-pyrazol-l-yl)-3-cyclopentylpropanenitrile maleic acid salt;

(R)-3-(4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-lH-pyrazol-l-yl)-3-cyclopentylpropanenitrile sulfuric acid salt; and

(R)-3-(4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-lH-pyrazol-l-yl)-3-cyclopentylpropanenitrile phosphoric acid salt.

2. The salt of claim 1 that is (R)-3-(4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-lH-pyrazol-l-yl)-3-cyclopentylpropanenitrile maleic acid salt.

3. The salt of claim 1 that is (R)-3-(4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-lH-pyrazol-l-yl)-3-cyclopentylpropanenitrile sulfuric acid salt.

4. The salt of claim 1 that is (R)-3-(4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-lH-pyrazol-l-yl)-3-cyclopentylpropanenitrile phosphoric acid salt.

5. The salt of claim 1 that is substantially isolated.

6. A method of preparing a salt of any one of claims 1 to 5 comprising combining (R)-3-(4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-lH-pyrazol-l-yl)-3-cyclopentylpropanenitrile with maleic acid, sulfuric acid, or phor<u>s</u>phoric acid.

7. A composition comprising at least one salt of any one of claims 1 to 5 and at least one pharmaceutically acceptable carrier.

8. The composition of claim 7 which is suitable for oral or topical administration.

9. The composition of claim 7 which is suitable for topical administration.

10. A method of modulating an activity of JAK comprising contacting JAK <u>*ex vivo*</u> with a salt of any one of claims 1 to 5.

11. The method of claim 10 wherein said modulating is inhibiting.

12. The salt of any one of claims 1 to 5 for use in treating a disease in a patient wherein said disease is assocated with JAK activity.

~~12~~13. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating a disease in a patient, wherein said disease is associated with JAK activity, and wherein said disease is: allograft rejection, graft versus host disease, an autoimmune disease, atopic dermatitis, psoriasis, skin sensitization, skin irritation, skin rash, contact dermatitis, allergic contact sensitization, a viral disease, cancer, a myeloproliferative disorder, an inflammatory disease, ischemia reperfusion, anorexia resulting from or associated with cancer, cachexia resulting from or associated with cancer, or fatigue resulting from or associated with cancer.

~~13~~14. The use of claim ~~12~~ 13 wherein said disease is allograft rejection or graft versus host disease.

~~14~~15. The use of claim ~~12~~ 13 wherein said disease is an autoimmune disease.

~~15~~16. The use of claim ~~14~~ 15 wherein said autoimmune disease is ~~a skin disorder~~, multiple sclerosis, rheumatoid arthritis, juvenile arthritis, type I diabetes, lupus, inflammatory bowel disease, Crohn's disease, myasthenia gravis, immunoglobulin nephropathies, myocarditis, or autoimmune thyroid disorder.

~~16~~17. The use of claim ~~12~~ 13 wherein said autoimmune disease is bullous skin disorder.

~~17~~18. The use of claim ~~16~~ 17 wherein said bullous skin disorder is pemphigus vulgaris (PV) or bullous pemphigoid (BP).

~~18. The use of claim 12 wherein said disease is a skin disorder.~~

19. The use of claim ~~18~~ 13 wherein said ~~skin disorder~~ disease is atopic dermatitis, psoriasis, skin sensitization, skin irritation, skin rash, contact dermatitis or allergic contact sensitization.

20. The use of claim ~~12~~ 13 wherein said disease is a viral disease.

21. The use of claim 20 wherein said viral disease is Epstein Barr Virus (EBV), Hepatitis B, Hepatitis C, HIV, HTLV 1, Varicella-Zoster Virus (VZV) or Human Papilloma Virus (HPV).

22. The use of claim ~~12~~ 13 wherein said disease is cancer.

23. The use of claim 22 wherein said cancer is a solid tumor

24. The use of claim 22 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.

25. The use of claim 24 wherein said cancer is prostate cancer.

26. The use of claim 22 wherein said cancer is hematological.

27. The use of claim 26 wherein said cancer is lymphoma, leukemia, or multiple myeloma.

28. The use of claim 22 wherein said cancer is a skin cancer.

29. The use of claim 28 wherein said skin cancer is cutaneous T-cell lymphoma or cutaneous B-cell lymphoma.

30. The use of claim 22 wherein said cancer is multiple myeloma.

~~31. The use of claim 12 wherein said disease is characterized by a mutant JAK2.~~

~~32. The use of claim 31 wherein at least one mutation of said mutant JAK2 resides in the pseudo-kinase domain of said JAK2.~~

~~33~~31. The use of claim ~~12~~ 13 wherein said disease is a myeloproliferative disorder.

~~34~~32. The use of claim ~~33~~ 31 wherein said myeloproliferative disorder (MPD) is polycythemia vera (PV), essential thrombocythemia (ET), myeloid metaplasia with myelofibrosis (MMM), chronic myelogenous leukemia (CML), chronic myelomonocytic leukemia (CMML), hypereosinophilic syndrome (HES), or systemic mast cell disease (SMCD).

~~35~~33. The use of claim ~~12~~ 13 wherein said disease is an inflammatory disease.

~~36~~34. The use of claim ~~35~~ 33 wherein said disease is an inflammatory disease of the eye.

~~37~~35. The use of claim ~~36~~34 wherein said disease is iritis, uveitis, scleritis, or conjunctivitis.

~~38~~36. The use of claim ~~35~~ 33 wherein said disease is an inflammatory disease of the respiratory tract.

~~39~~37. The use of claim ~~35~~ 33 wherein said inflammatory disease concerns the upper respiratory tract.

~~40~~38. The use of claim ~~35~~ 33 wherein said inflammatory disease concerns the lower respiratory tract.

~~41~~39. The use of claim ~~35~~ 33 wherein said inflammatory disease is an inflammatory myopathy.

~~42~~40. The use of claim ~~35~~ 33 wherein said inflammatory disease is myocarditis.

~~43~~41. The use of claim ~~12~~ 13 wherein said disease is ischemia reperfusion or related to an ischemic event.

~~44~~42. The use of claim ~~12~~ 13 wherein said disease is anorexia or cachexia resulting from or associated with cancer.

~~45~~43. The use of claim ~~12~~ 13 wherein said disease is fatigue resulting from or associated with cancer.

~~46~~44. Use of a salt of any one of claims 1 to 5 in the preparation on a medicament for treating cancer in a patient.

~~47. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating a skin disorder in a patient.~~

~~48~~45. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for topical administration for treating inflammation in a patient ~~topical administration~~.

~~49~~46. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating rheumatoid arthritis in a patient.

~~50~~47. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating prostate cancer.

~~51~~48. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating psoriasis.

~~52~~49. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating multiple myeloma in a patient.

~~53~~50. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating myeloid metaplasia with myelofibrosis (MMM) in a patient.

~~54~~51. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating polycythemia vera (PV) in a patient.

~~55~~52. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating essential thrombocythemia (ET) in a patient.

~~56~~53. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating mycosis fungoides in a patient.

~~57~~54. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating a hematological cancer in a patient.

~~58~~55. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating chronic myelogenous leukemia (CML) in a patient~~f~~.

~~59~~56. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating acute lymphoblastic leukemia (ALL) in a patient.

~~60~~57. Use of a salt of any one of claims 1 to 5 in the preparation of a medicament for treating chronic myelomonocytic leukemia (CMML) in a patient~~-~~.

58. Use of (R)-3-(4-(7H-pyrrolo[2,3-d]pyrimidin-4-yl)-lH-pyrazol-l-yl)-3-cyclopentylpropanenitrile phosphoric acid salt in the preparation of a medicament for treating a myeloproliferative disorder in a patient.

59. Use according to claim 57, wherein said myeloproliferative disorder is myeloid metaplasia with myelofibrosis, polycythemia vera, or essential thrombocythemia.