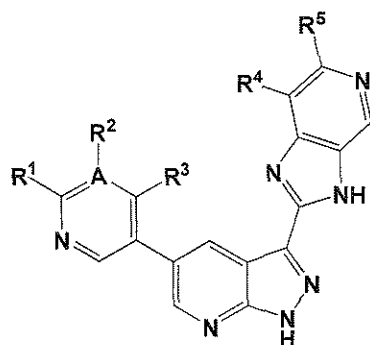


[0011] Some embodiments disclosed herein include Wnt inhibitors containing a 1H-pyrazolo[3,4-*b*]pyridine core. Other embodiments disclosed herein include pharmaceutical compositions and methods of treatment using these compounds.

[0011a] ~~In one aspect, there is provided~~Disclosed is a compound or pharmaceutically acceptable salt thereof having the structure of Formula I:



I

wherein:

R¹ is H;

R² is selected from the group consisting of -C₁₋₃ alkyl, halide, -(C₁₋₉ alkyl)_naryl(R⁶)_q, -(C₁₋₉ alkyl)_nheteroaryl(R⁷)_q, -(C₁₋₉ alkyl)_nheterocyclyl(R⁸)_q, -(C₁₋₉ alkyl)_nN(R⁹)₂, -OR¹⁰, and -NHC(=O)R¹¹;

R³ is H;

R⁴ is selected from the group consisting of -aryl(R¹³)_q, -heterocyclyl(R¹⁴)_q, and -heteroaryl(R¹⁵)_q;

R⁵ is H;

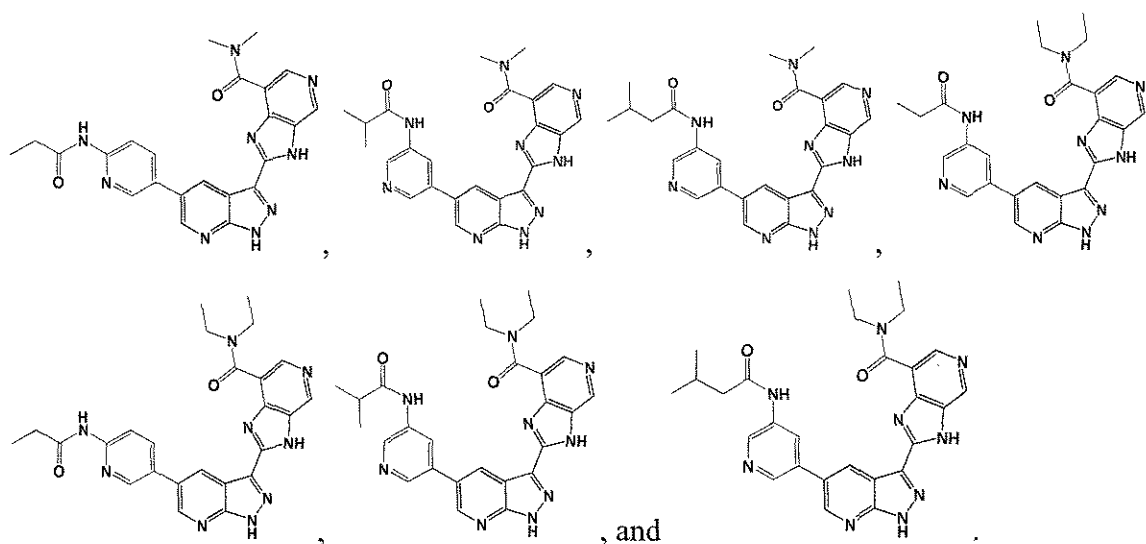
each R⁶ is a substituent attached to the aryl ring and independently selected from the group consisting of H, -C₁₋₉ alkyl, halide, CF₃ and CN;

each R⁷ is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, -C₁₋₉ alkyl, halide, CF₃ and CN;

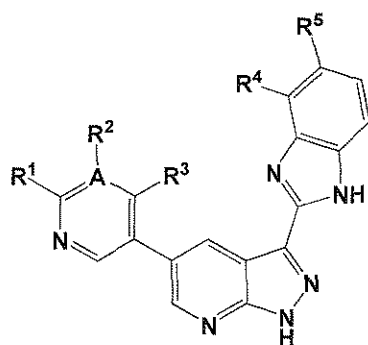
each R⁸ is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, halide, -(C₁₋₃ alkyl)_naryl(R⁶)_q, and -C₁₋₄ alkyl;

each R⁹ is independently selected from the group consisting of H, -C₁₋₉ alkyl, -(C₁₋₃ alkyl)_naryl(R⁶)_q, -(C₁₋₃ alkyl)_ncarbocyclyl and -(C₁₋₉ alkyl)N(R¹⁶)₂;

alternatively, two adjacent R⁹ may be taken together with the atoms to which they are attached to form a heterocyclyl(R¹⁷)_q;



[0013a] ~~In one aspect, there is provided~~Disclosed is a compound or pharmaceutically acceptable salt thereof having the structure of Formula II:



II

wherein:

R^1 is H;

R^2 is selected from the group consisting of $-C_{1-3}$ alkyl, halide, $-(C_{1-9} \text{ alkyl})_n \text{ aryl}(R^6)_q$, $-(C_{1-9} \text{ alkyl})_n \text{ heteroaryl}(R^7)_q$, $-(C_{1-9} \text{ alkyl})_n \text{ heterocyclyl}(R^8)_q$, $-(C_{1-9} \text{ alkyl})_n \text{ N}(R^9)_2$, $-OR^{10}$ and $-NHC(=O)R^{11}$;

R^3 is H;

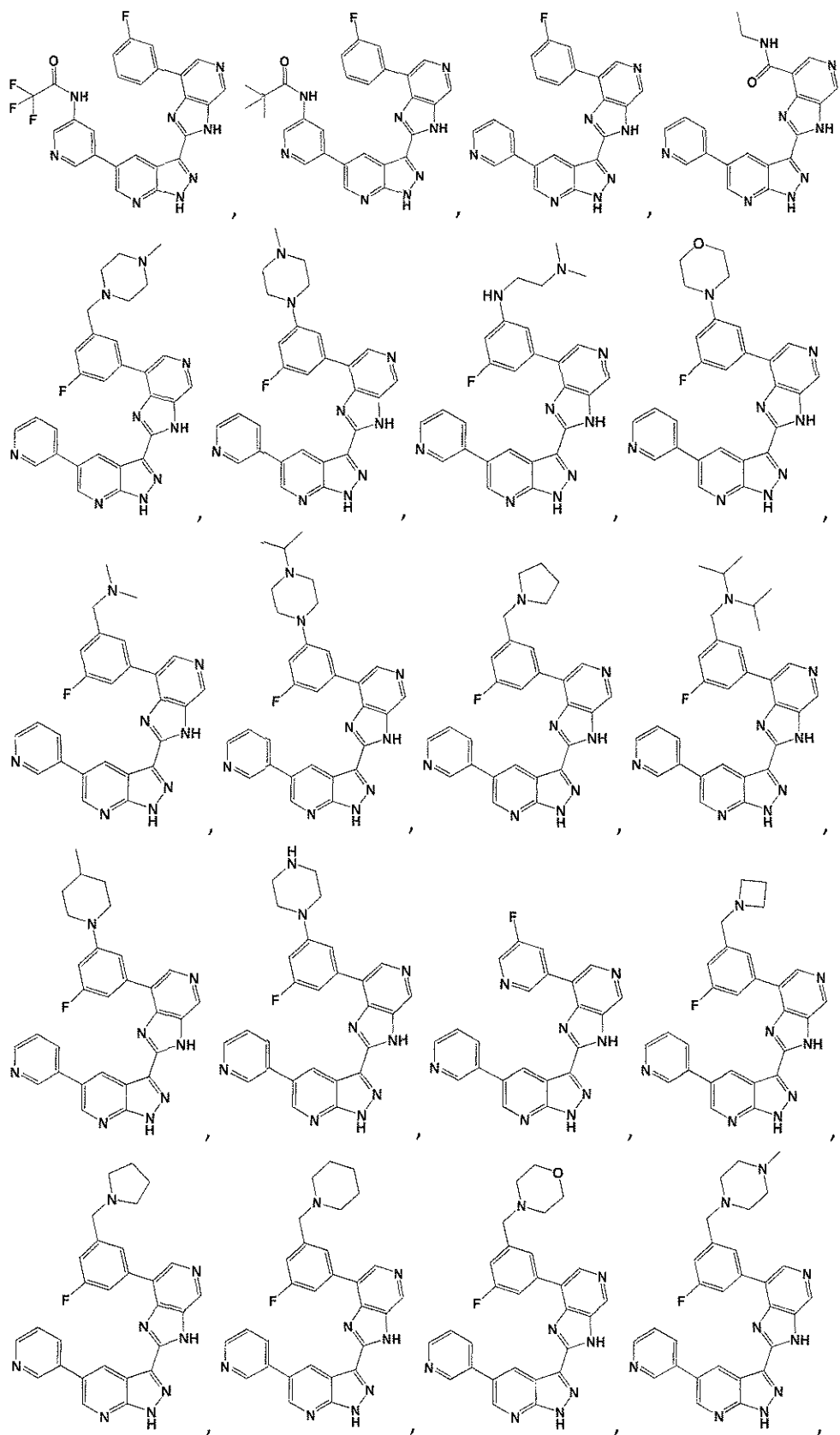
R^4 is selected from the group consisting of H, $-\text{aryl}(R^{13})_q$, $-\text{heterocyclyl}(R^{14})_q$, and $-\text{heteroaryl}(R^{15})_q$;

R^5 is H;

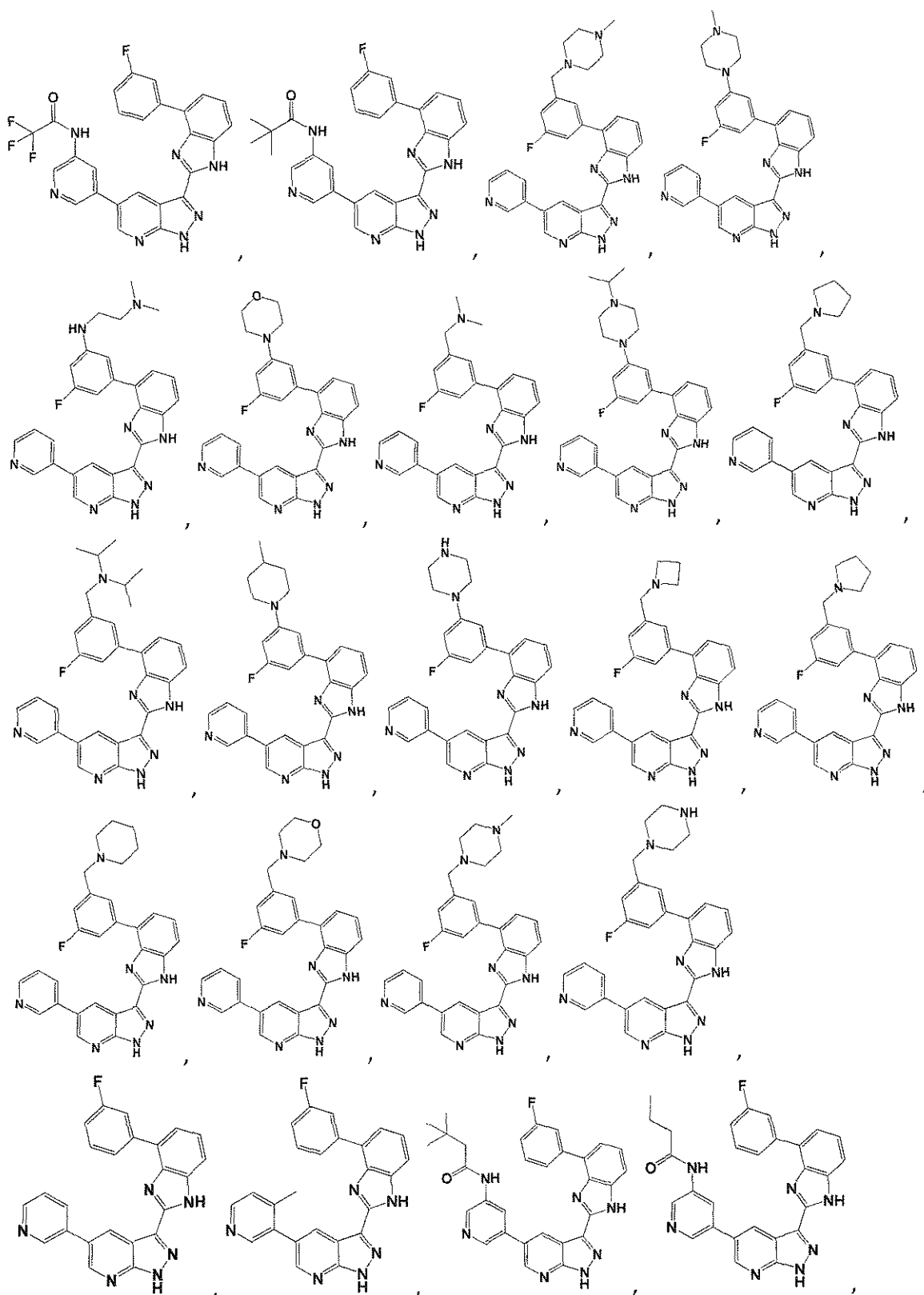
each R^6 is a substituent attached to the aryl ring and independently selected from the group consisting of H, $-C_{1-9}$ alkyl, halide, CF_3 and CN;

each R^7 is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, $-C_{1-9}$ alkyl, halide, CF_3 and CN;

[0015a] In one aspect, there is provided Disclosed is a compound having a structure selected from the group consisting of:

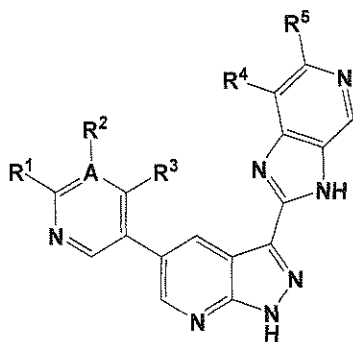


[0015b] ~~In one aspect, there is provided~~ Also disclosed is a compound having a structure selected from the group consisting of:



WHAT IS CLAIMED IS:

1. A compound, or pharmaceutically acceptable salt thereof, having the structure of Formula I:



I

wherein:

R^1 is H;

R^2 is independently selected from the group consisting of H and $-(C_{1-9} \text{ alkyl})_n N(R^9)_2$;

R^3 is H;

R^4 is independently selected from the group consisting of $-\text{aryl}(R^{13})_q$, $-\text{furyl}(R^{15})_q$, and $-\text{thiophenyl}(R^{15})_q$;

R^5 is H;

each R^8 is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, halide, and $-C_{1-4} \text{ alkyl}$;

each R^9 is independently selected from the group consisting of H, $-C_{1-9} \text{ alkyl}$, $-(C_{1-3} \text{ alkyl})_n \text{carbocyclyl}$ and $-(C_{1-9} \text{ alkyl})N(R^{16})_2$;

each R^{13} is 1-2 substituents each attached to the aryl ring and independently selected from the group consisting of H, halide, $-(C_{1-3} \text{ alkyl})_n \text{heterocyclyl}(R^8)_q$, $-(C_{1-9} \text{ alkyl})_n N(R^9)_2$ and $-(C_{1-9} \text{ alkyl})_n \text{NHSO}_2 R^{18}$;

each R^{15} is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, lower alkyl, halide, $-\text{CF}_3$, CN, and $-\text{C}(=\text{O})(C_{1-3} \text{ alkyl})$;

each R^{16} is independently selected from the group consisting of H and lower alkyl;

each R^{18} is a lower alkyl;

A is C;

each q is independently an integer of 1 or 2; and

each n is independently an integer of 0 or 1.

2. The compound of claim 1, wherein the R^{13} heterocyclyl is selected from the group consisting of azetidiny(R^8)_q, pyrrolidinyl(R^8)_q, piperidinyl(R^8)_q, piperazinyl(R^8)_q, and morpholinyl(R^8)_q.

3. The compound of claim 1, wherein R^2 is H.

4. The compound of claim 1, wherein R^2 is $-(C_{1-9} \text{ alkyl})_n N(R^9)_2$.

5. The compound of claim 4, wherein R^2 is $-CH_2N(R^9)_2$ or $-N(R^9)_2$.

6. The compound according to any of the claims 1-5, wherein R^9 is independently selected from the group consisting of H, Me, Et, n-propyl, isopropyl, and $-CH_2$ carbocyclyl.

7. The compound according to any of the claims 1-6, wherein R^4 is phenyl(R^{13})_q.

8. The compound according to any of the claims 1 and 3-6, wherein R^4 is -furyl(R^{15})_q.

9. The compound according to any of the claims 1 and 3-6, wherein R^4 is -thiophenyl(R^{15})_q.

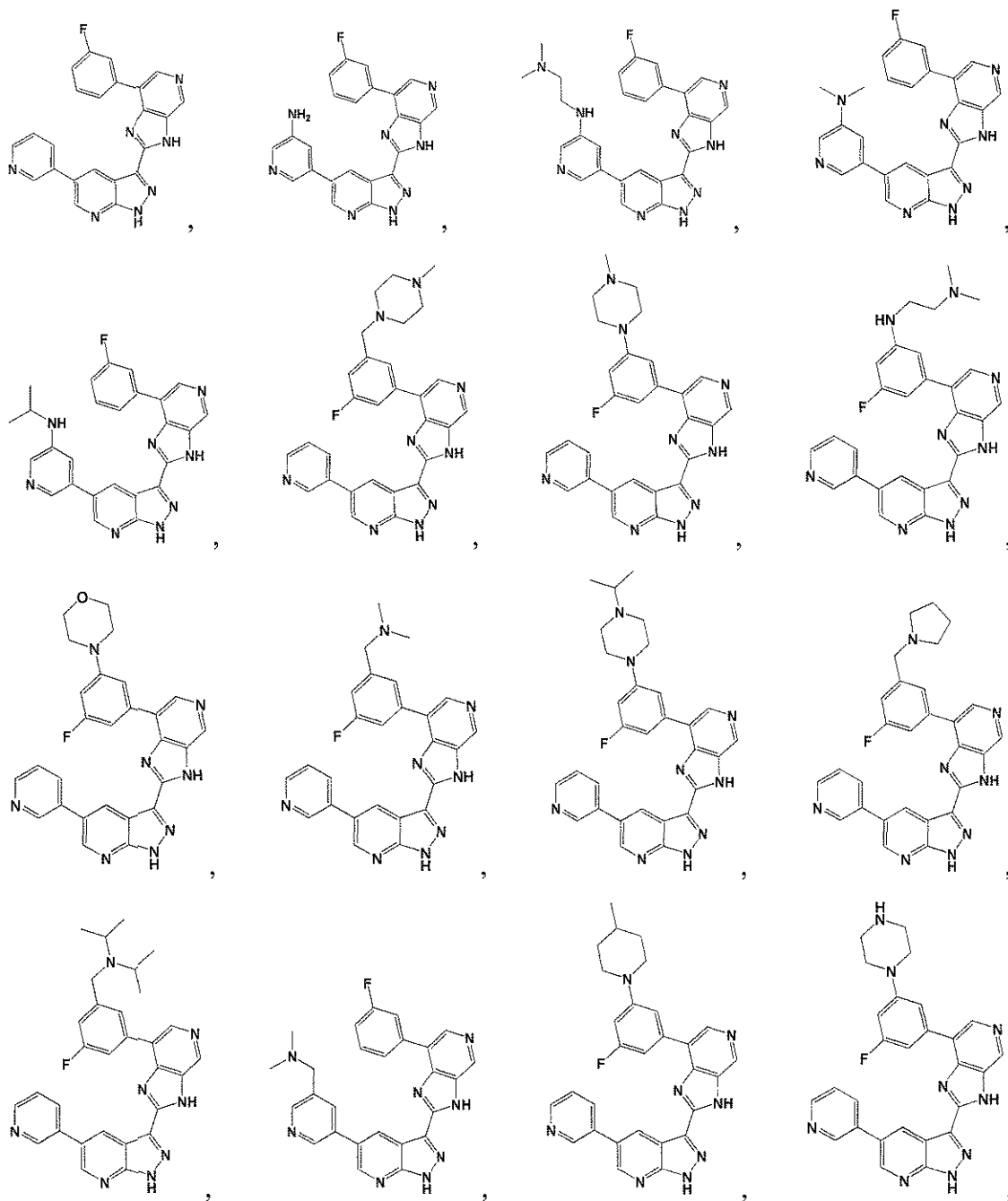
10. The compound according to any of the claims 1 and 3-7, wherein R^{13} is one substituent attached to the phenyl ring and the substituent is a fluorine atom.

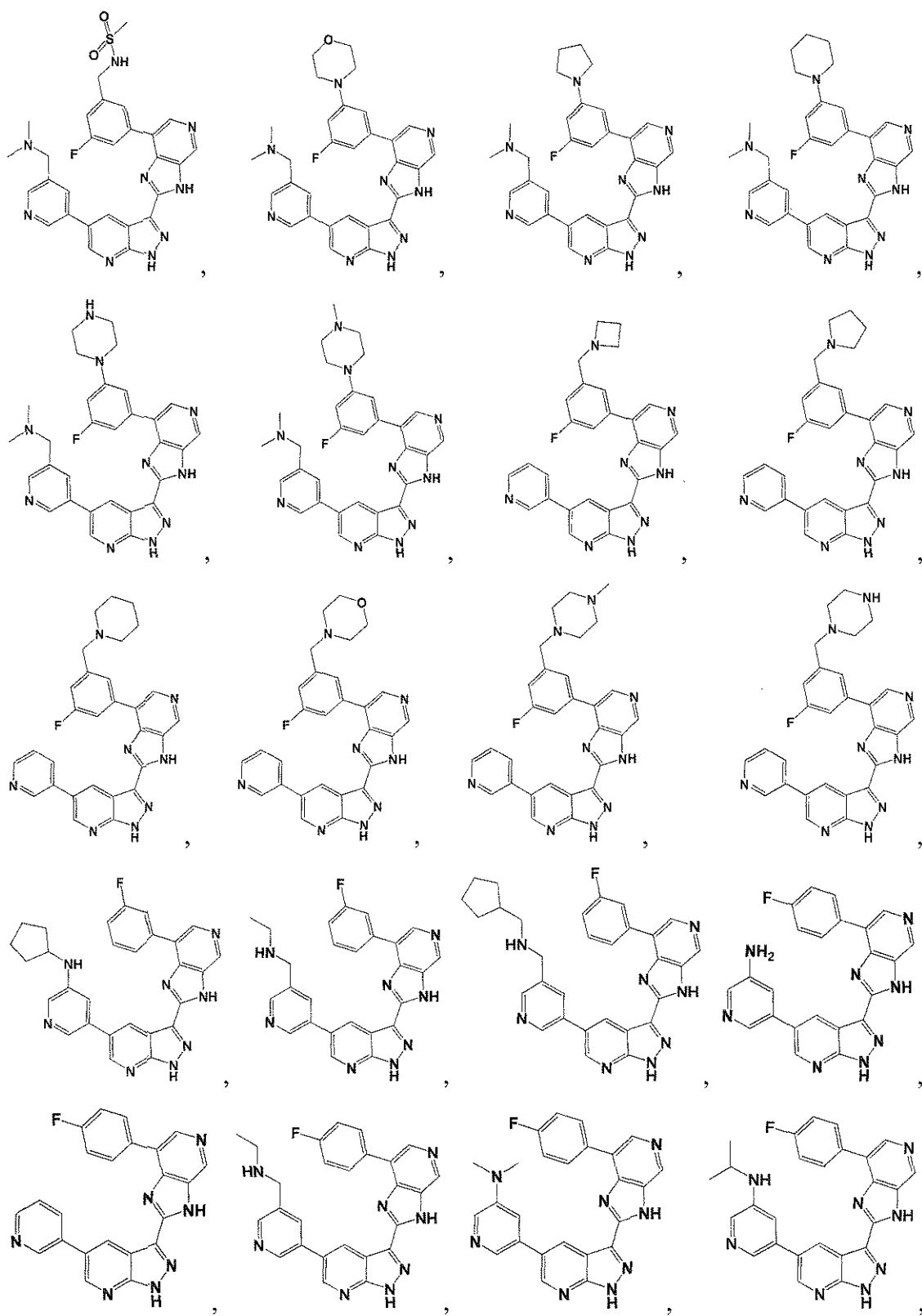
11. The compound according to any of the claims 1 and 3-7, wherein R^{13} is two substituents each attached to the phenyl ring and the substituents are a fluorine atom and $-N(R^9)_2$, wherein R^9 is independently selected from the group consisting of H and $-CH_2CH_2N(R^{16})_2$, and wherein R^{16} is independently selected from the group consisting of H, Me, and Et.

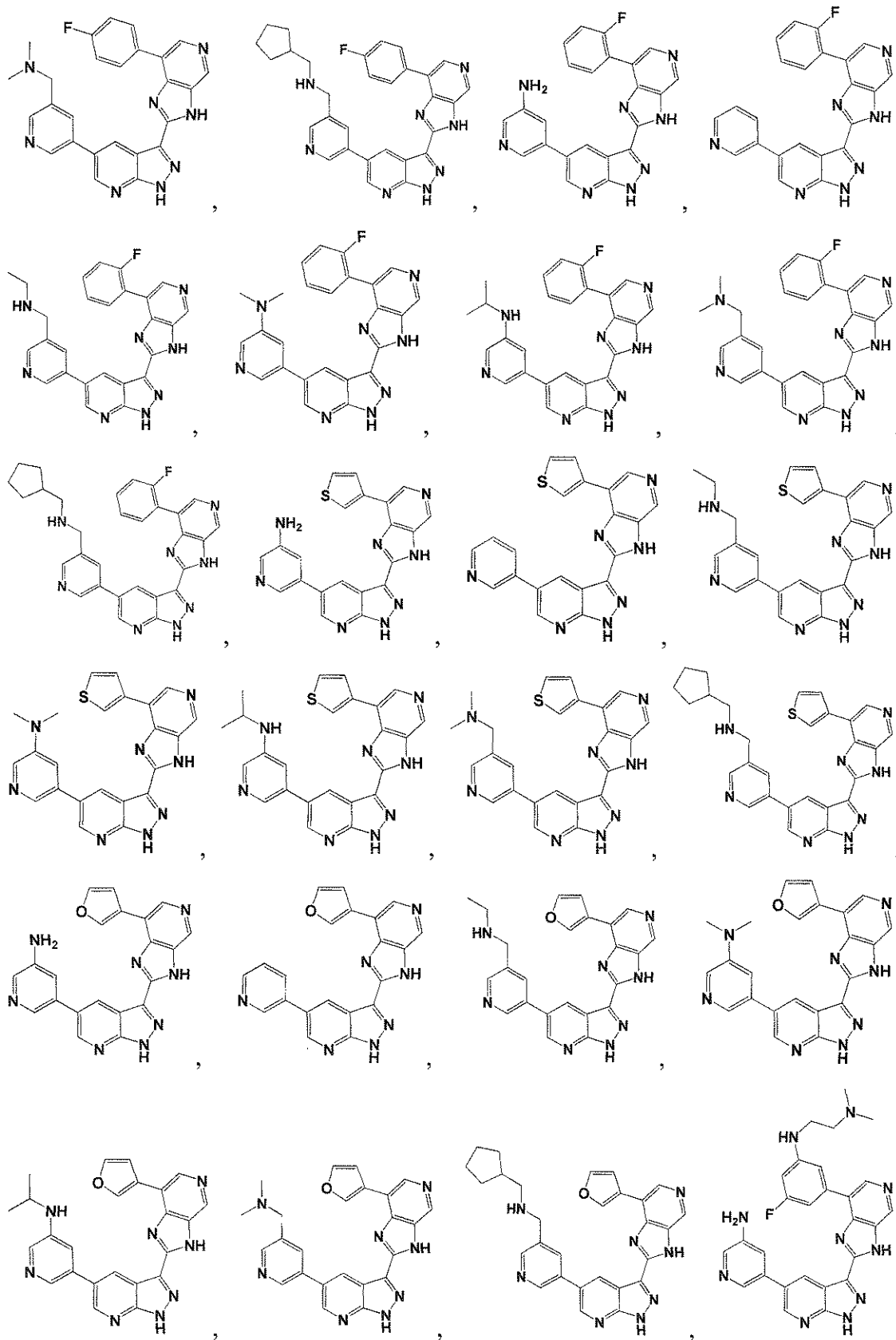
12. The compound according to any of the claims 1 and 3-7, wherein R^{13} is two substituents each attached to the phenyl ring and the substituents are a fluorine atom and $-(CH_2)_nNHSO_2R^{18}$, wherein R^9 is independently selected from the group consisting of Me and Et.

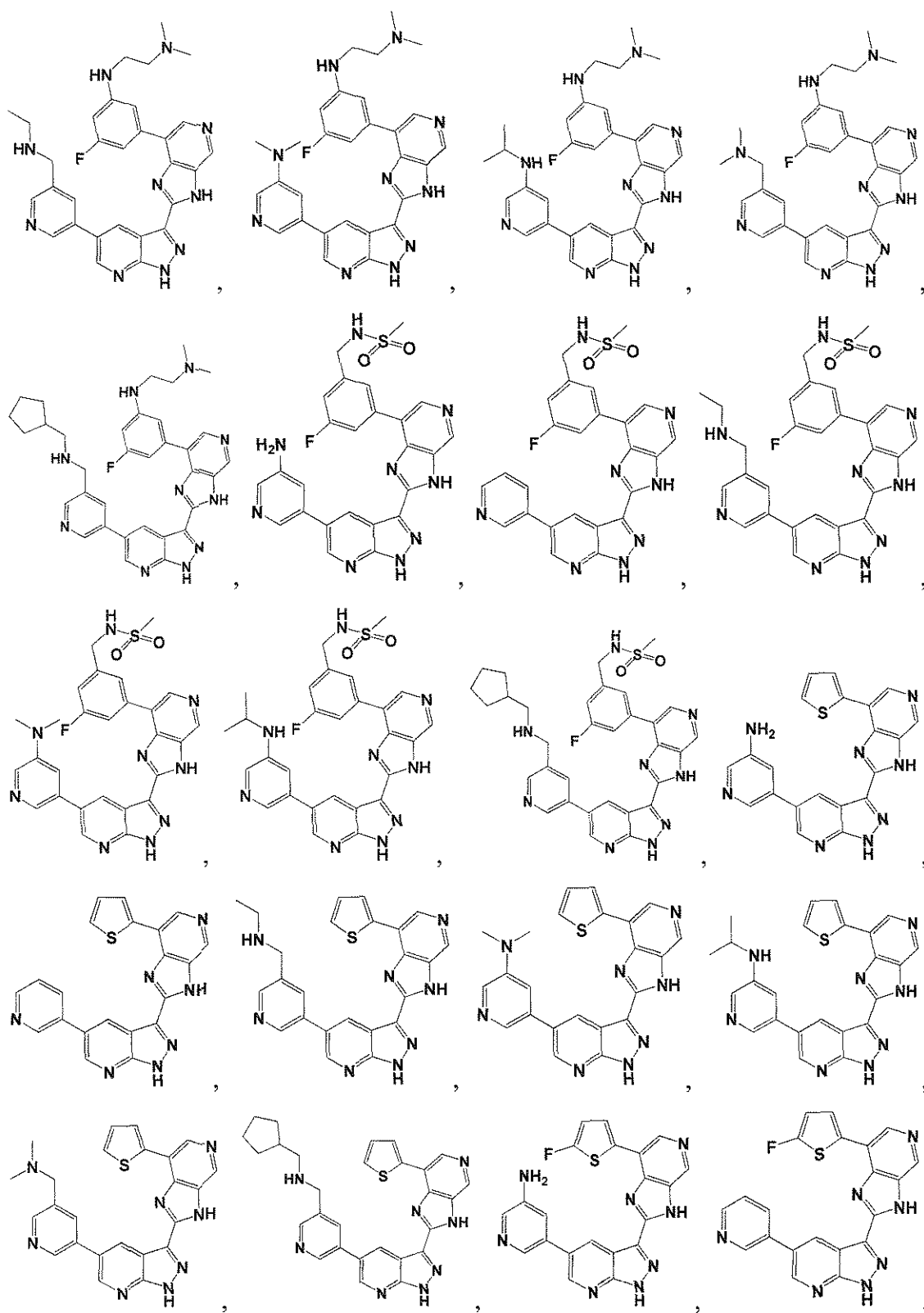
13. The compound according to any of the claims 1, 3-6, and 8, wherein R¹⁵ is one substituent attached to the thiophenyl ring and the substituents are selected from the group consisting of H, F, Me, and -C(=O)Me.

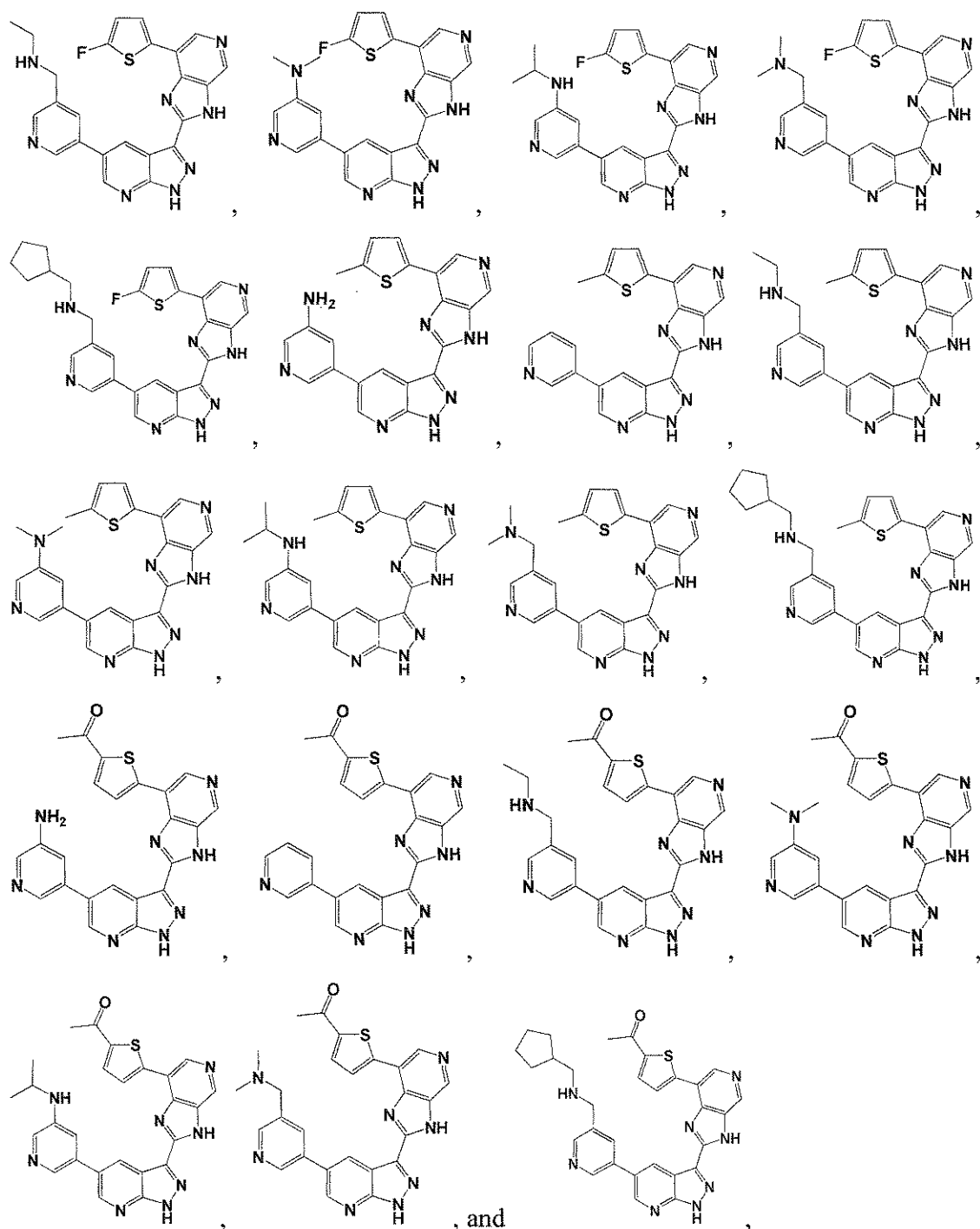
14. The compound of claim 1, wherein the compound of Formula (I) has a structure selected from the group consisting of:





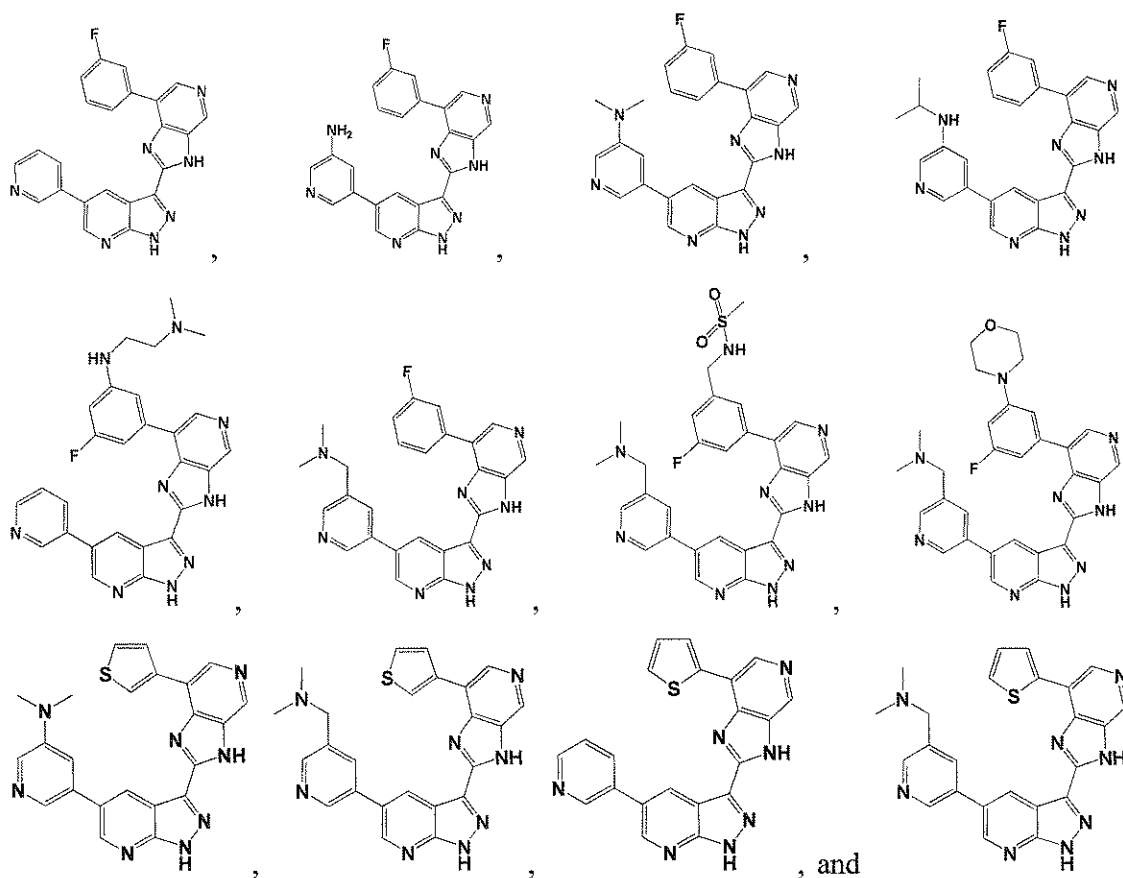






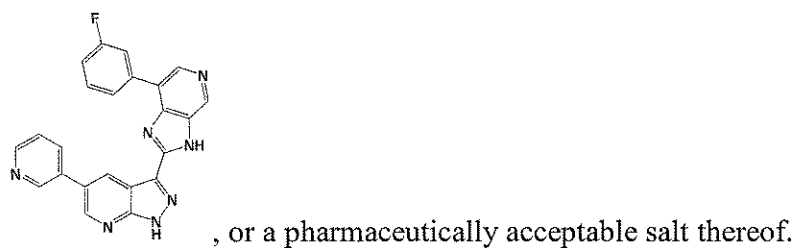
or a pharmaceutically acceptable salt thereof.

15. The compound of either claim 1 or 14, wherein the compound of Formula (I) has a structure selected from the group consisting of:

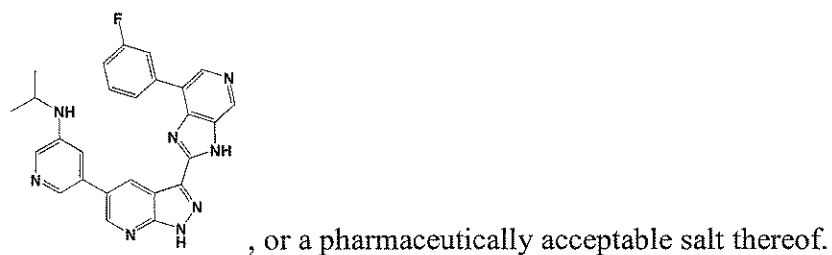


, or a pharmaceutically acceptable salt thereof.

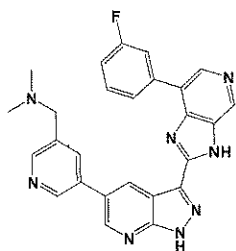
16. The compound according to any of the claims 1 and 14-15, wherein the compound has a structure of:



17. The compound according to any of the claims 1 and 14-15, wherein the compound has a structure of:

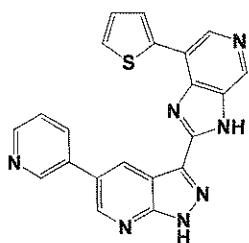


18. The compound according to any of the claims 1 and 14-15, wherein the compound has a structure of:



, or a pharmaceutically acceptable salt thereof.

19. The compound according to any of the claims 1 and 14-15, wherein the compound has a structure of:



, or a pharmaceutically acceptable salt thereof.

20. A pharmaceutical composition comprising a compound according to any one of the claims 1-19, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

21. A compound according to any one of claims 1-19, or a pharmaceutically acceptable salt thereof, for use in treating a disorder or disease in a patient, wherein the disorder or disease is selected from the group consisting of: diabetic retinopathy, pulmonary fibrosis, idiopathic pulmonary fibrosis (IPF), rheumatoid arthritis, scleroderma, a mycotic or viral infection, a bone or cartilage disease, Alzheimer's disease, dementia, Parkinson's disease, lung disease, and cancer.

22. The compound for use of claim 21, wherein the disorder or disease is cancer.

23. The compound for use of claim 21, wherein the disorder or disease is diabetic retinopathy.

24. The compound for use of claim 21, wherein the disorder or disease is pulmonary fibrosis.

25. The compound for use of claim 21, wherein the disorder or disease is idiopathic pulmonary fibrosis (IPF).

26. The compound for use of claim 21, wherein the disorder or disease is rheumatoid arthritis.

27. The compound for use of claim 21, wherein the disorder or disease is scleroderma.

28. The compound for use of claim 21, wherein the disorder or disease is a mycotic or viral infection.

29. The compound for use of claim 21, wherein the disorder or disease is a bone or cartilage disease.

30. The compound for use of claim 21, wherein the disorder or disease is Alzheimer's disease.

31. The compound for use of claim 21, wherein the disorder or disease is dementia.

32. The compound for use of claim 21, wherein the disorder or disease is Parkinson's disease.

33. The compound for use of claim 21, wherein the disorder or disease is lung disease.

34. The compound for use of either claim 21 or 29, wherein the bone or cartilage disease is osteoarthritis.

35. A compound according to any one of claims 1-19, or a pharmaceutically acceptable salt thereof, for use in treating a disorder or disease in a patient, wherein the disorder or disease is selected from the group consisting of: polyposis coli, osteoporosis-pseudoglioma syndrome, familial exudative vitreoretinopathy, retinal angiogenesis, early coronary disease, tetra-amelia syndrome, Müllerian-duct regression and virilization, SERKAL syndrome, diabetes mellitus type 2, Fuhrmann syndrome, Al-Awadi/Raas-Rothschild/Schinzal phocomelia syndrome, odonto-onycho-dermal dysplasia, obesity, split-hand/foot malformation, caudal duplication syndrome, tooth agenesis, Wilms tumor, skeletal dysplasia, focal dermal hypoplasia, autosomal recessive anonychia, neural tube defects, alpha-thalassemia (ATRX) syndrome, fragile X syndrome, ICF syndrome, Angelman syndrome, Prader-Willi syndrome, Beckwith-Wiedemann Syndrome, Norrie disease, and Rett syndrome.

36. The compound for use of either claim 21 or 35, wherein the patient is a human.

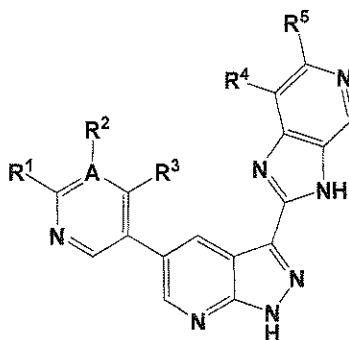
37. The compound for use of claim 22, wherein the cancer is chosen from: hepatocellular carcinoma, colon cancer, breast cancer, pancreatic cancer leukemia, lymphoma, sarcoma, and ovarian cancer.

38. The compound for use of claim 21, wherein the compound inhibits one or more proteins in the Wnt pathway.

39. The compound for use of claim 21, wherein the compound inhibits signaling induced by one or more Wnt proteins.

40. The compound for use of claim 21, wherein the compound inhibits a kinase activity.

41. Use of a compound, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating idiopathic pulmonary fibrosis (IPF), the compound having the structure of Formula I:



I

wherein:

R¹ is H;

R² is independently selected from the group consisting of H and -(C₁₋₉ alkyl)_nN(R⁹)₂;

R³ is H;

R⁴ is independently selected from the group consisting of -aryl(R¹³)_q, -furyl(R¹⁵)_q, and -thiophenyl(R¹⁵)_q;

R⁵ is H;

each R^8 is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, halide, and $-C_{1-4}$ alkyl;

each R^9 is independently selected from the group consisting of H, $-C_{1-9}$ alkyl, $-(C_{1-3}$ alkyl) $_n$ carbocyclyl and $-(C_{1-9}$ alkyl) $N(R^{16})_2$;

each R^{13} is 1-2 substituents each attached to the aryl ring and independently selected from the group consisting of H, halide, $-(C_{1-3}$ alkyl) $_n$ heterocyclyl(R^8) $_q$, $-(C_{1-9}$ alkyl) $_nN(R^9)_2$ and $-(C_{1-9}$ alkyl) $_nNHOSO_2R^{18}$;

each R^{15} is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, lower alkyl, halide, $-CF_3$, CN, and $-C(=O)(C_{1-3}$ alkyl);

each R^{16} is independently selected from the group consisting of H and lower alkyl;

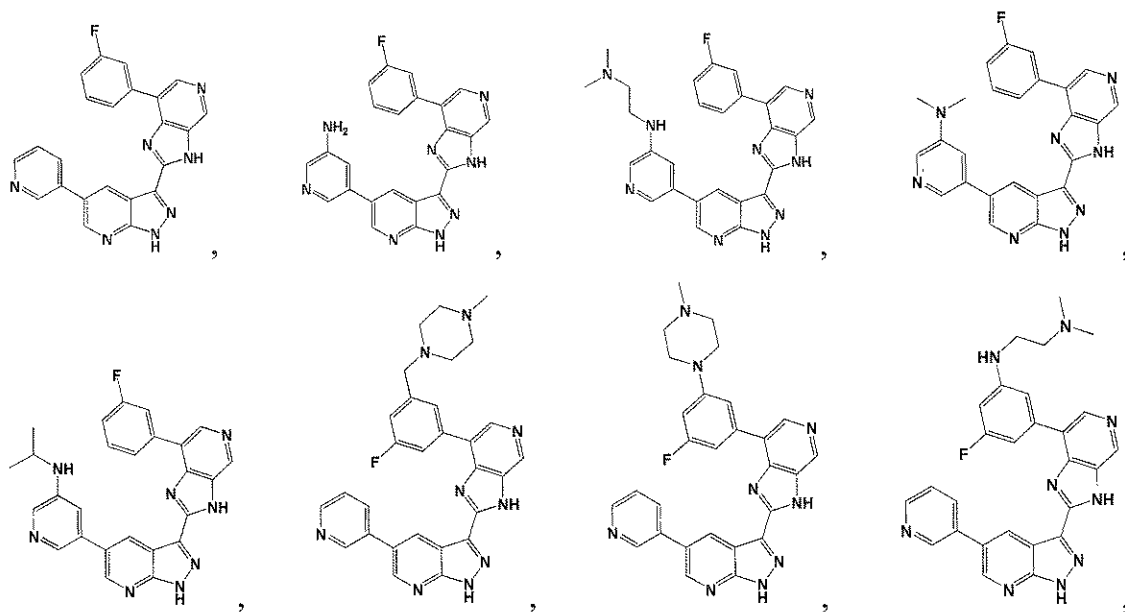
each R^{18} is a lower alkyl;

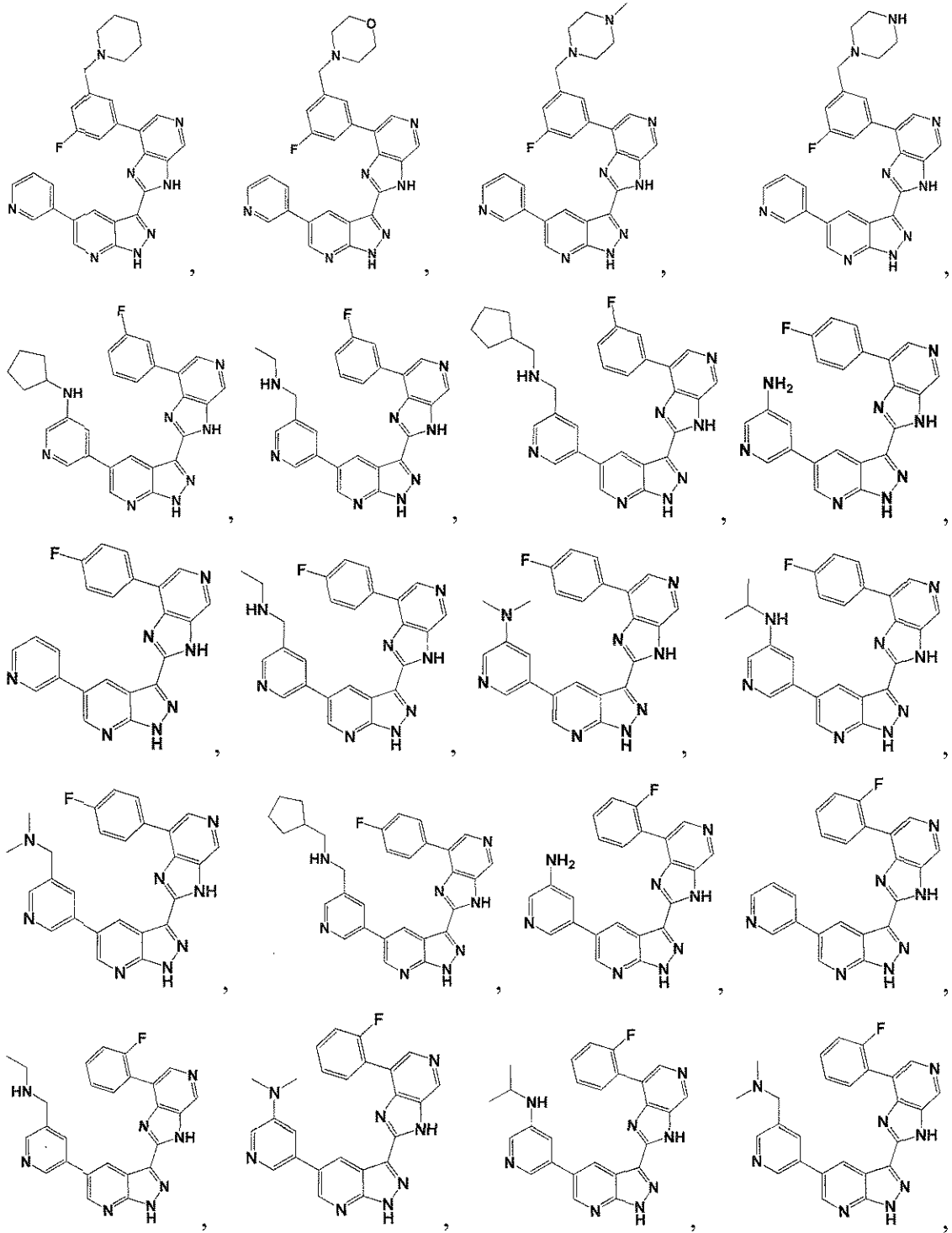
A is C;

each q is independently an integer of 1 or 2; and

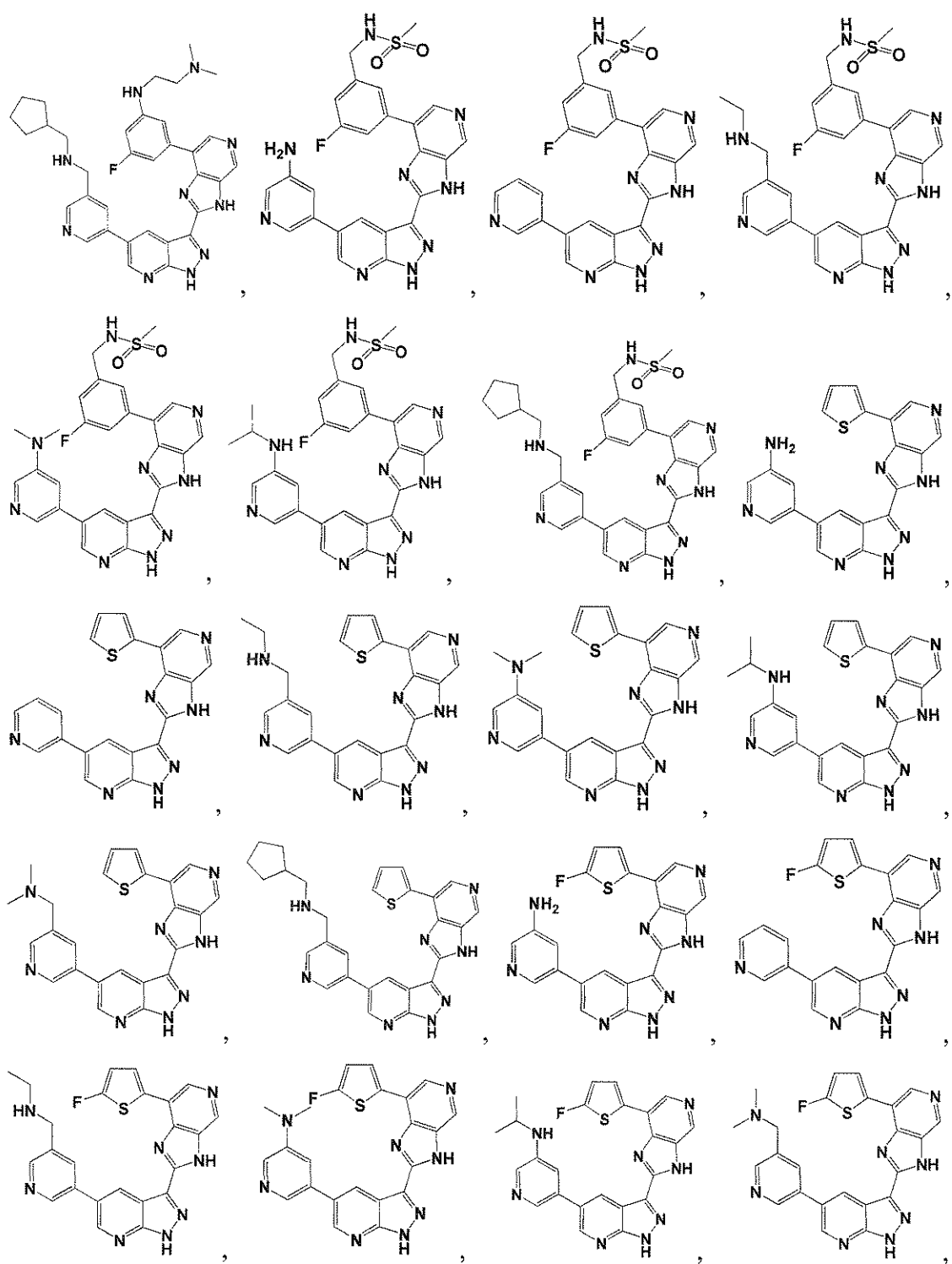
each n is independently an integer of 0 or 1.

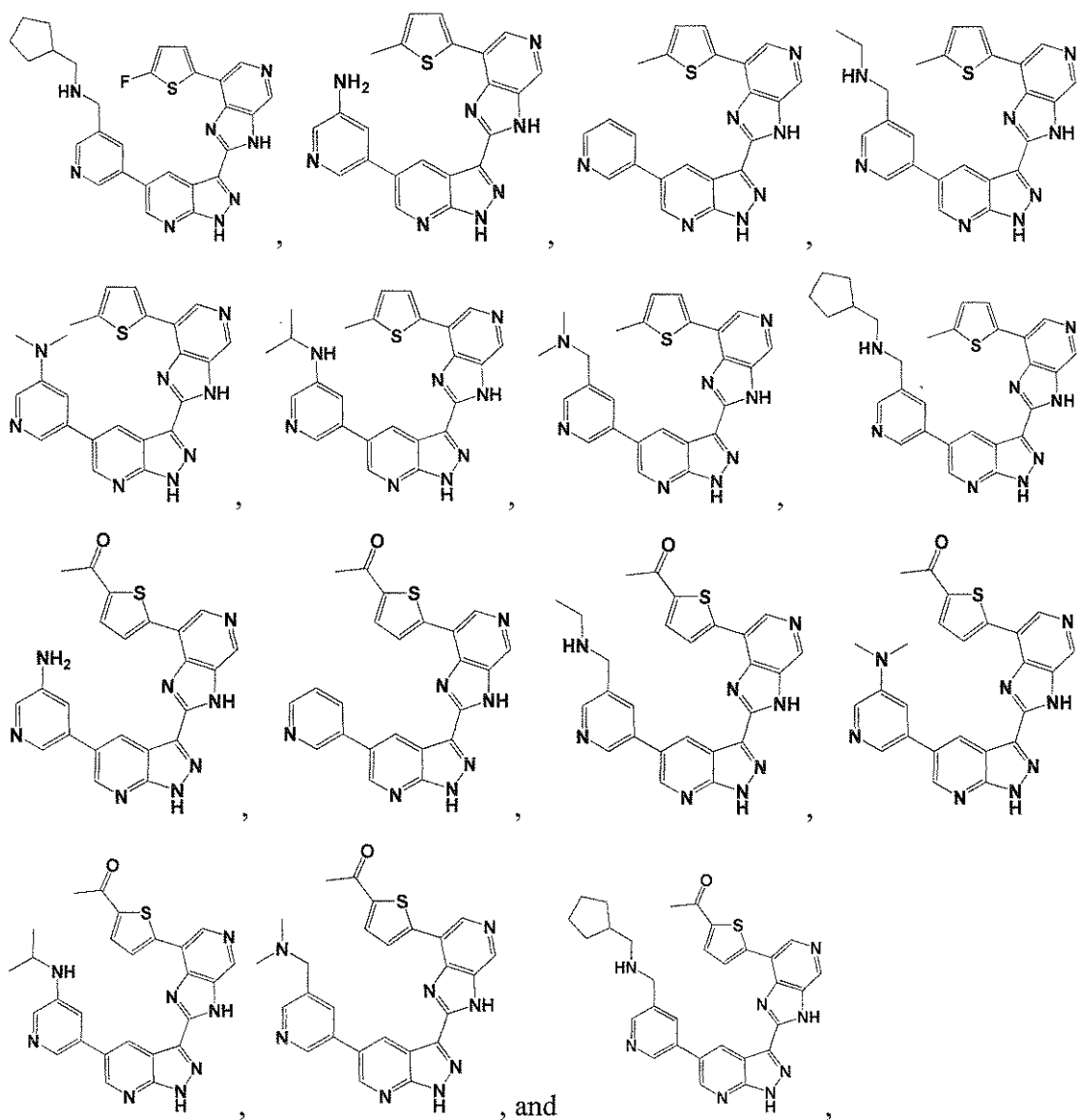
42. The use of claim 41, wherein the compound of Formula (I) has a structure selected from the group consisting of:





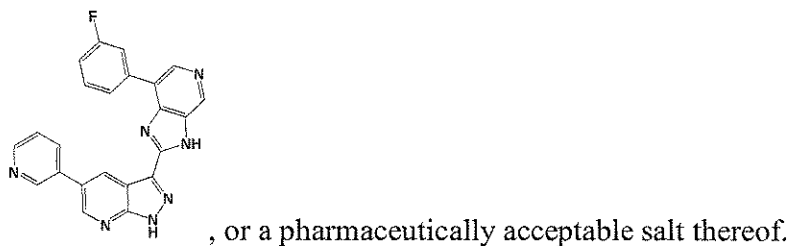






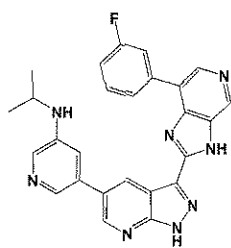
or a pharmaceutically acceptable salt thereof.

43. The use of either claim 41 or 42, wherein the compound has a structure of:



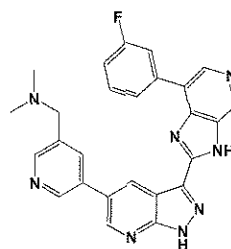
, or a pharmaceutically acceptable salt thereof.

44. The use of either claim 41 or 42, wherein the compound has a structure of:



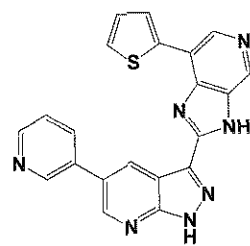
, or a pharmaceutically acceptable salt thereof.

45. The use of either claim 41 or 42, wherein the compound has a structure of:



, or a pharmaceutically acceptable salt thereof.

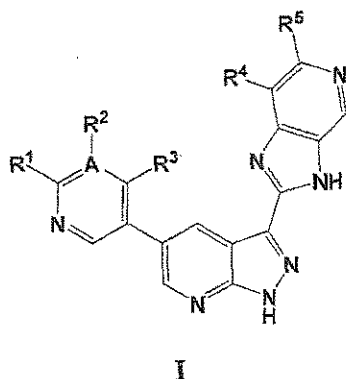
46. The use of either claim 41 or 42, wherein the compound has a structure of:



, or a pharmaceutically acceptable salt thereof.

WHAT IS CLAIMED IS:

1. A compound or pharmaceutically acceptable salt thereof having the structure of Formula I:



wherein:

R¹ is H;

R² is selected from the group consisting of -C₁₋₃ alkyl, halide, -(C₁₋₉ alkyl)_naryl(R⁶)_q, -(C₁₋₉ alkyl)_nheteroaryl(R⁷)_q, -(C₁₋₉ alkyl)_nheterocyclyl(R⁸)_q, -(C₁₋₉ alkyl)_nN(R⁹)₂, -OR¹⁰, and -NHC(=O)R¹¹;

R³ is H;

R⁴ is selected from the group consisting of -aryl(R¹³)_q, -heterocyclyl(R¹⁴)_q, and -heteroaryl(R¹⁵)_q;

R⁵ is H;

each R⁶ is a substituent attached to the aryl ring and independently selected from the group consisting of H, -C₁₋₉ alkyl, halide, CF₃ and CN;

each R⁷ is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, -C₁₋₉ alkyl, halide, CF₃ and CN;

each R⁸ is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, halide, -(C₁₋₃ alkyl)_naryl(R⁶)_q, and -C₁₋₄ alkyl;

each R⁹ is independently selected from the group consisting of H, -C₁₋₉ alkyl, -(C₁₋₃ alkyl)_naryl(R⁶)_q, -(C₁₋₃ alkyl)_ncarbocyclyl and -(C₁₋₉ alkyl)N(R¹⁶)₂;

alternatively, two adjacent R⁹ may be taken together with the atoms to which they are attached to form a heterocyclyl(R¹⁷)_q;

R^{10} is selected from the group consisting of H, $-CF_3$, $-(C_{1-3} \text{ alkyl})_n \text{ aryl}(R^6)_q$, and $-C_{1-9} \text{ alkyl}$;

R^{11} is $-(C_{1-3} \text{ alkyl})_n \text{ aryl}(R^6)_q$;

each R^{13} is a substituent attached to the aryl ring and independently selected from the group consisting of H, halide, $-CF_3$, CN, $-(C_{1-3} \text{ alkyl})_n \text{ heterocyclyl}(R^8)_q$, $-(C_{1-9} \text{ alkyl})_n N(R^9)_2$ and $-(C_{1-9} \text{ alkyl})_n NHSO_2 R^{18}$;

each R^{14} is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, lower alkyl, halide, $-CF_3$ and CN;

each R^{15} is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, $-C_{1-3} \text{ alkyl}$, halide, $-CF_3$, CN, $-C(=O)(C_{1-3} \text{ alkyl})$, $-(C_{1-9} \text{ alkyl})_n N(R^9)_2$ and $-(C_{1-9} \text{ alkyl})_n NHSO_2 R^{18}$;

each R^{16} is independently selected from the group consisting of H and $-C_{1-3} \text{ alkyl}$;

each R^{17} is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, $-(C_{1-9} \text{ alkyl})_n \text{ aryl}(R^6)_q$, and $-C_{1-9} \text{ alkyl}$;

each R^{18} is a $-C_{1-3} \text{ alkyl}$;

A is N or C;

with the proviso that if A is N then R^2 is nil;

each q is independently an integer of 1 to 5; and

each n is independently an integer of 0 or 1.

2. The compound of claim 1 wherein aryl is phenyl.
3. The compound of claim 1 wherein heteroaryl is pyridinyl.
4. The compound of claim 1 wherein heterocyclyl is selected from the group consisting of azetidiny, pyrrolidinyl, morpholinyl, piperazinyl and piperidinyl.
5. The compound of claim 1 wherein R^2 is selected from the group consisting of $-(C_{1-9} \text{ alkyl})_n \text{ heterocyclyl}(R^8)_q$, $-NHC(=O)R^{11}$ and $-(C_{1-9} \text{ alkyl})_n N(R^9)_2$.
6. The compound of claim 5 wherein R^2 is $-CH_2N(R^9)_2$ or $-N(R^9)_2$.
7. The compound of claim 6 wherein R^9 is independently selected from the group consisting of H, Me, Et, $-CH_2\text{phenyl}$ and $-CH_2\text{carbocyclyl}$.
8. The compound of claim 5 wherein R^2 is $-NHC(=O)R^{11}$.
9. The compound of claim 8 wherein R^{11} is selected from the group consisting of $\text{phenyl}(R^6)_q$, and $-CH_2\text{phenyl}(R^6)_q$.

10. The compound according to any one of claims 1-9, in which R^4 is phenyl(R^{13})_q.

11. The compound according to any one of claims 1-9, in which R^4 is -heterocyclyl(R^{14})_q.

12. The compound according to any one of claims 1-9, in which R^4 is -heteroaryl(R^{15})_q.

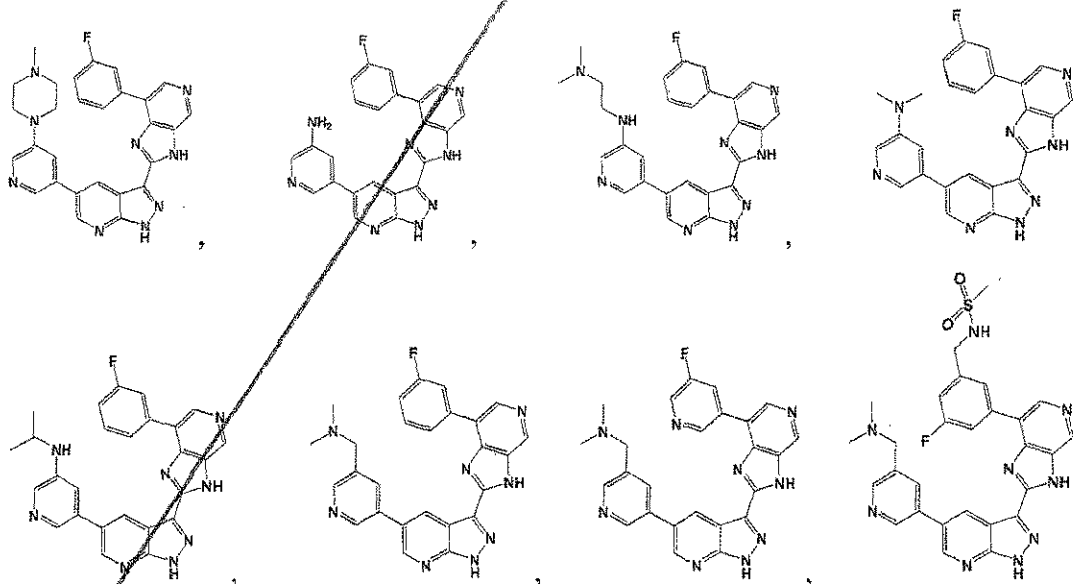
13. The compound of claim 10, wherein R^{13} is one substituent attached to the phenyl comprising a fluorine atom.

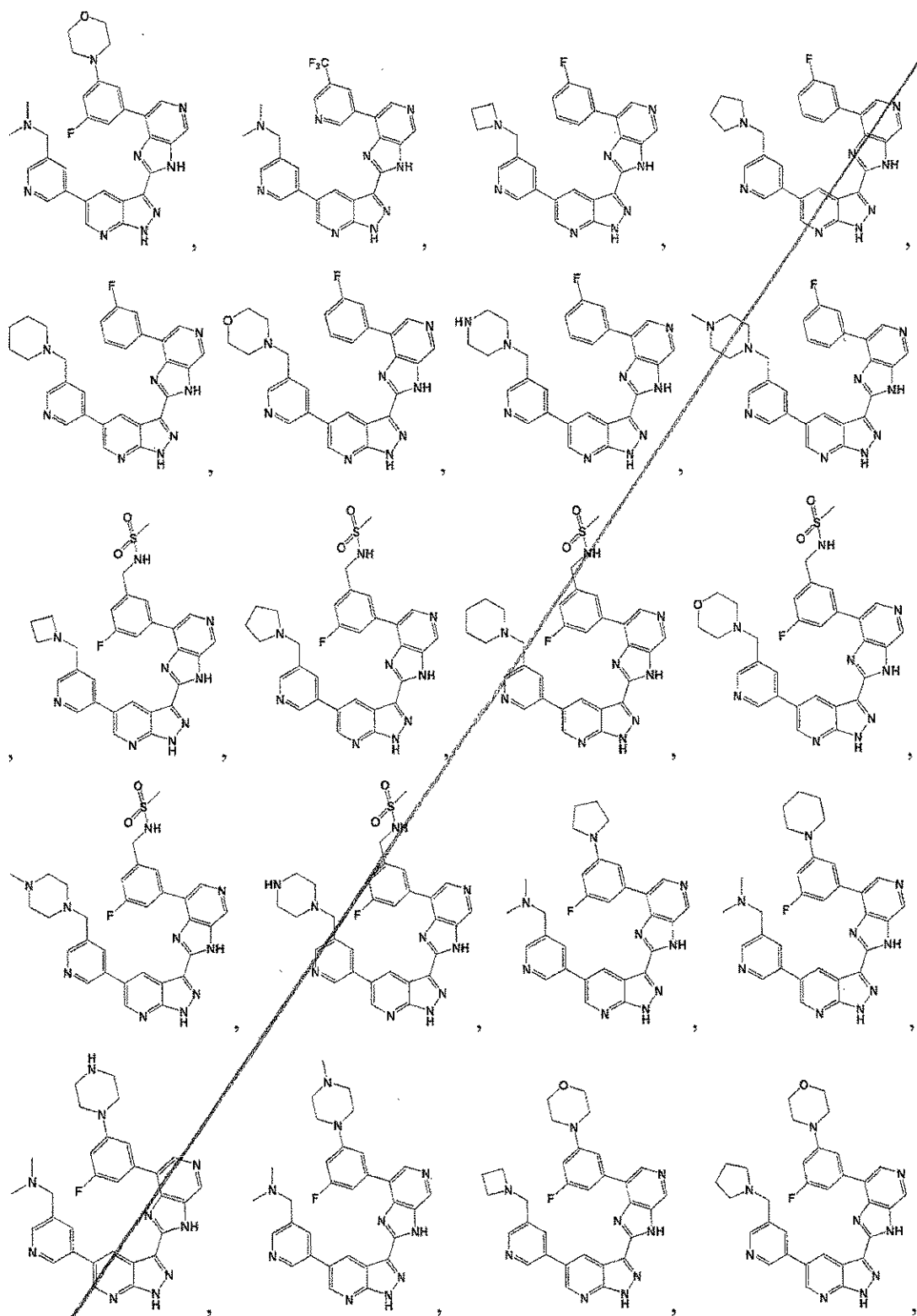
14. The compound of claim 10, wherein R^{13} is two substituents each attached to the phenyl comprising a fluorine atom and either a $-NHCH_2CH_2N(R^{16})_2$ or a $-CH_2NHSO_2R^{18}$.

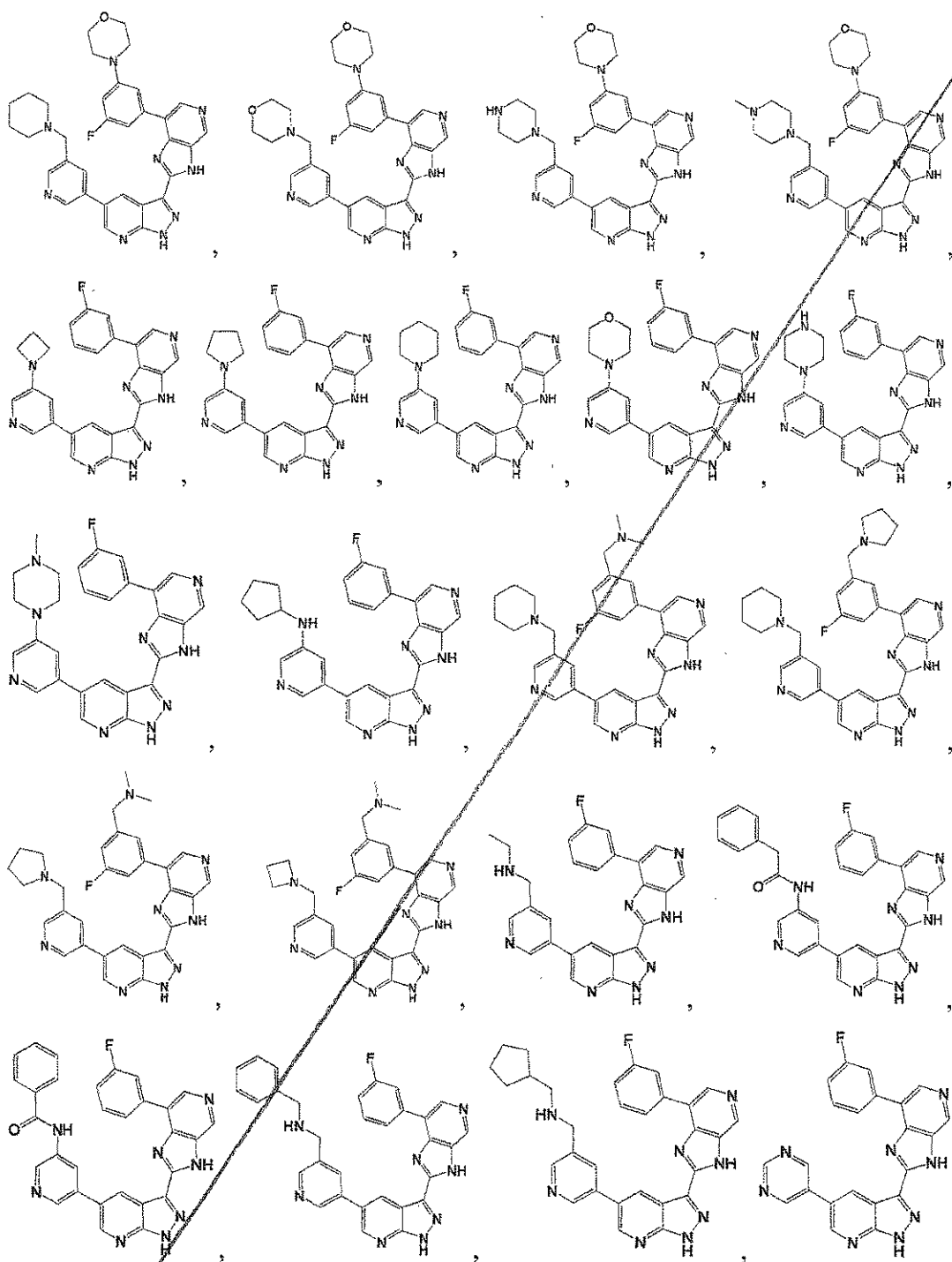
15. The compound of claim 11, wherein the heterocyclyl is selected from the group consisting of piperazinyl and piperidinyl; and the R^{14} is H or Me.

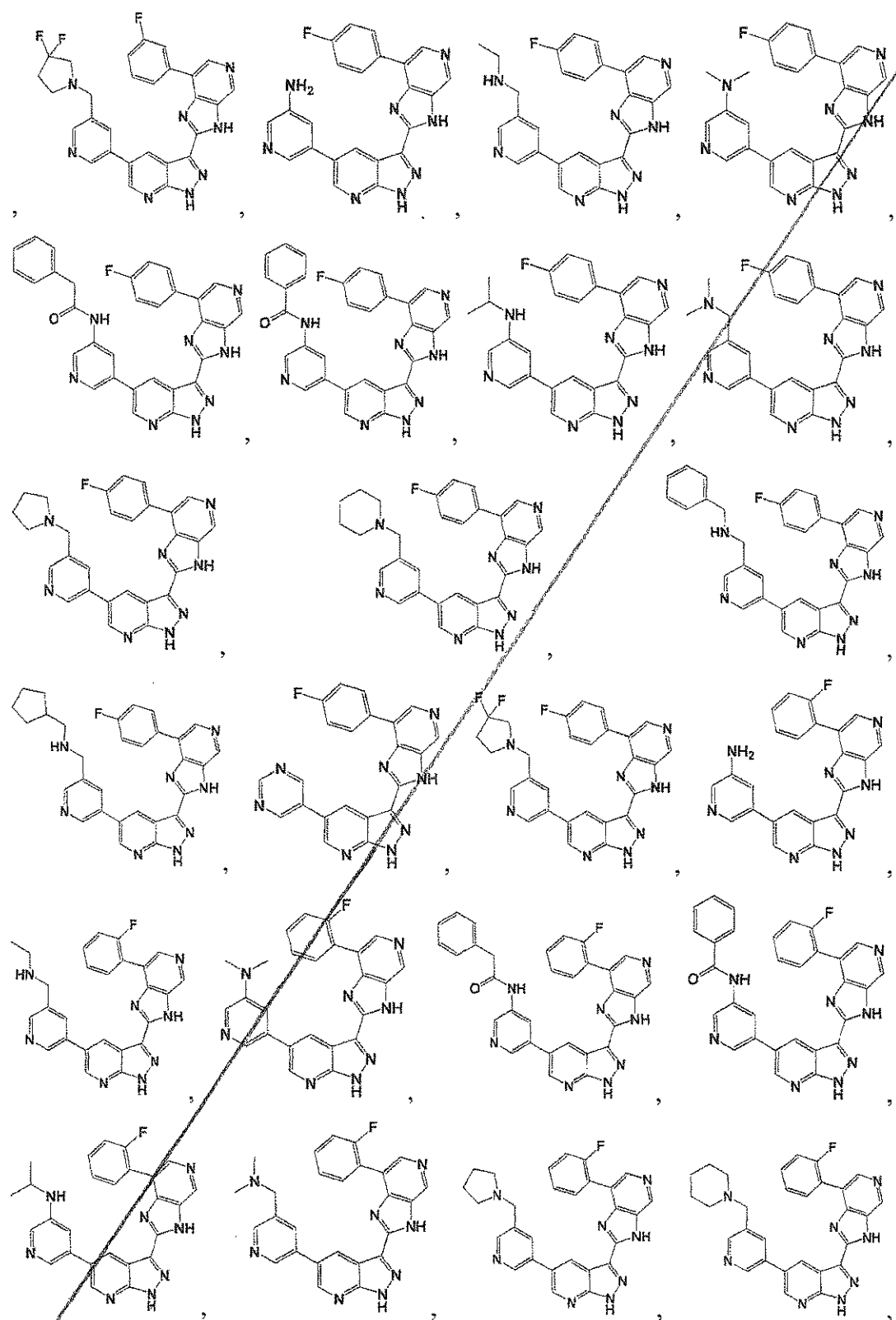
16. The compound of claim 12, wherein the heteroaryl is selected from the group consisting of pyridinyl, furyl, thiophenyl and imidazolyl; and R^{15} is $-C_{1-3}$ alkyl or halide.

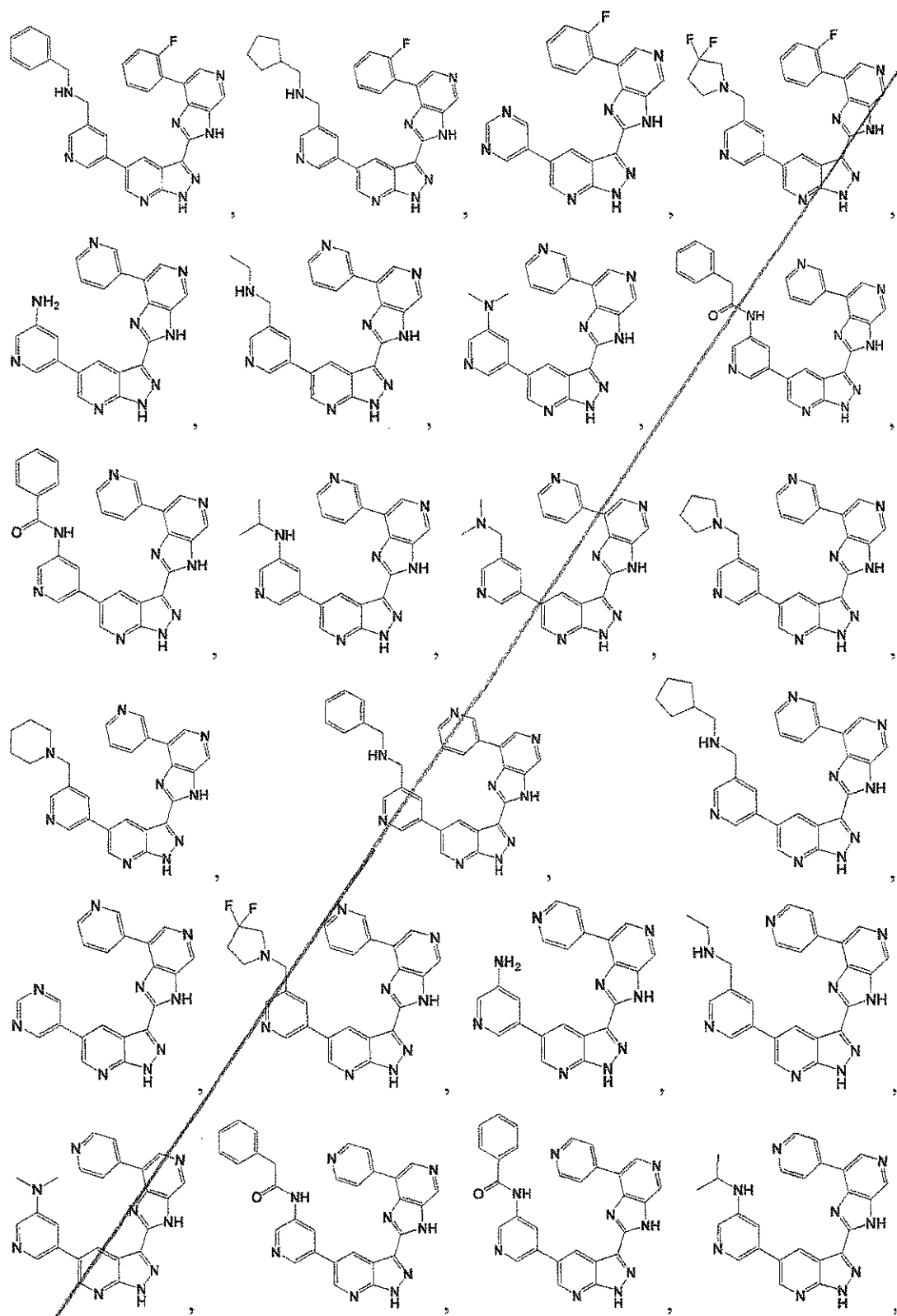
17. The compound of claim 1 having a structure selected from the group consisting of:

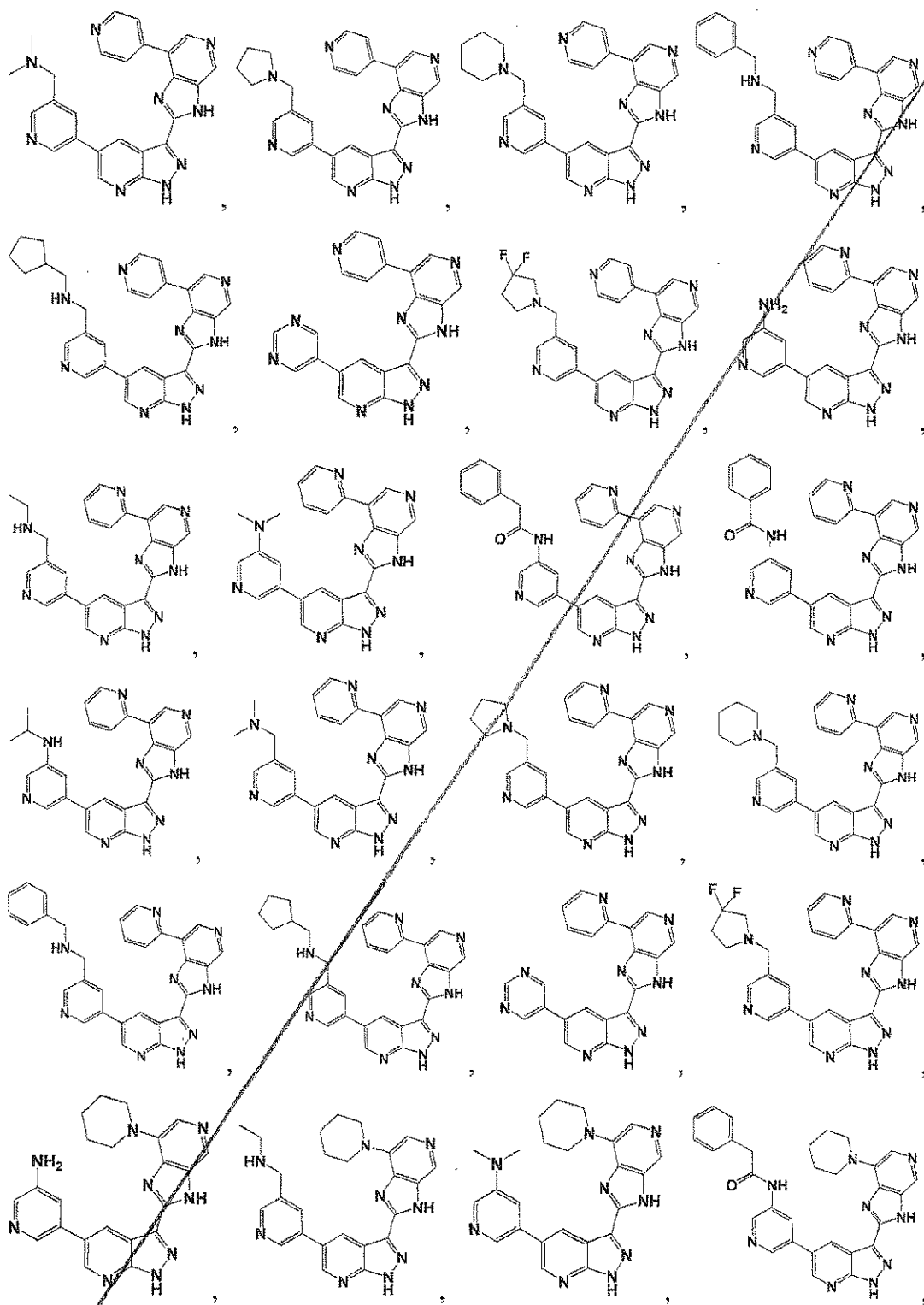


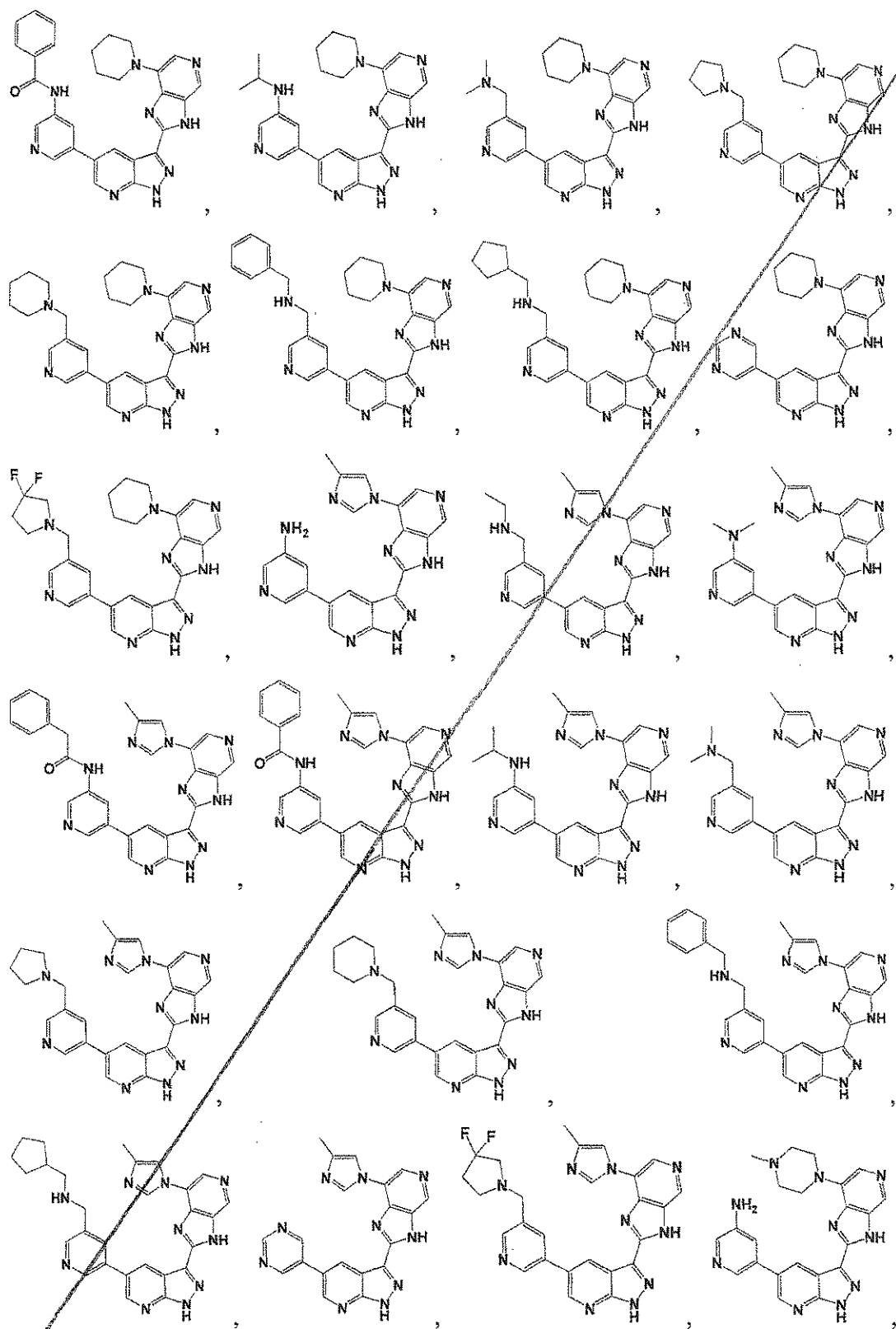


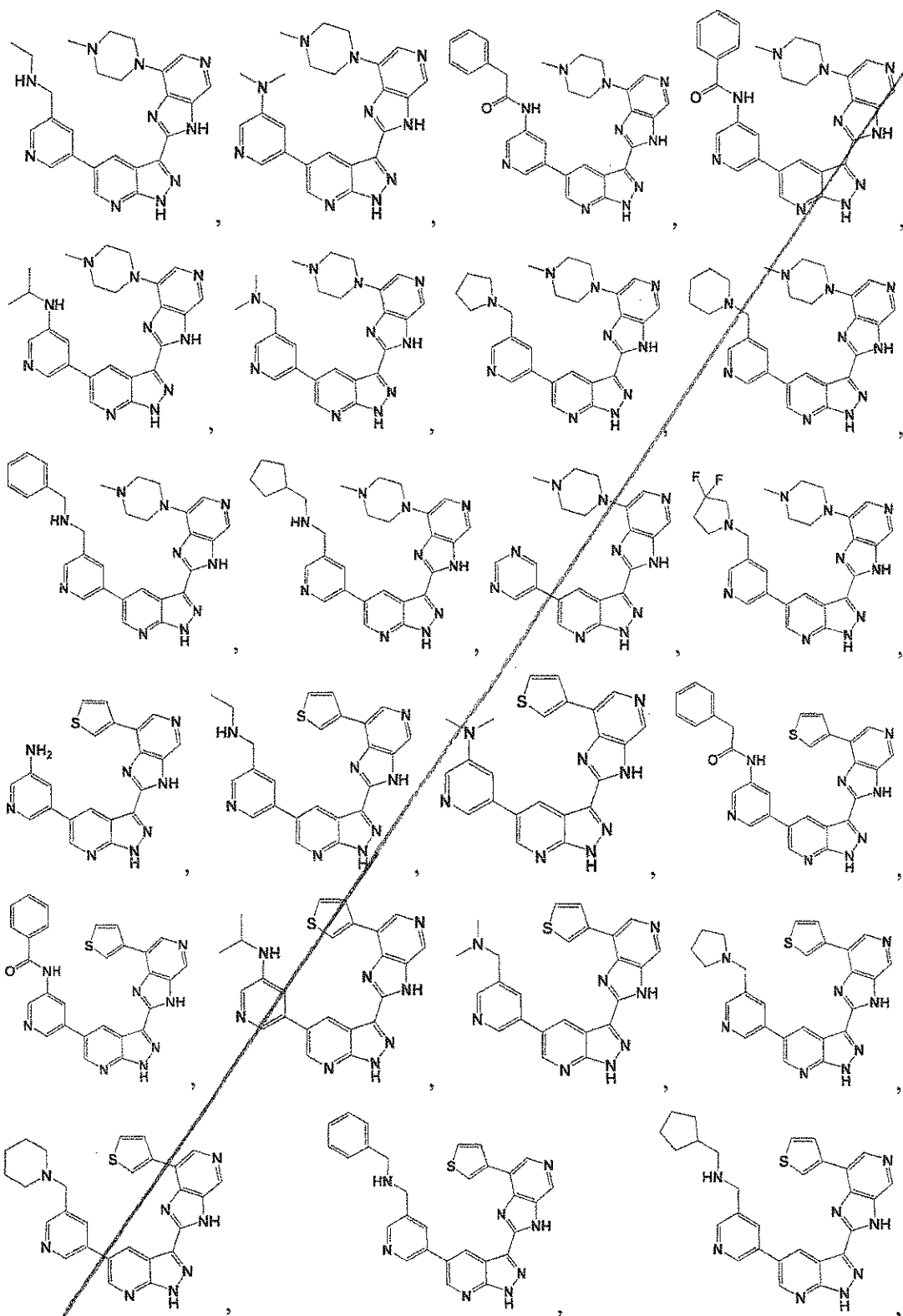


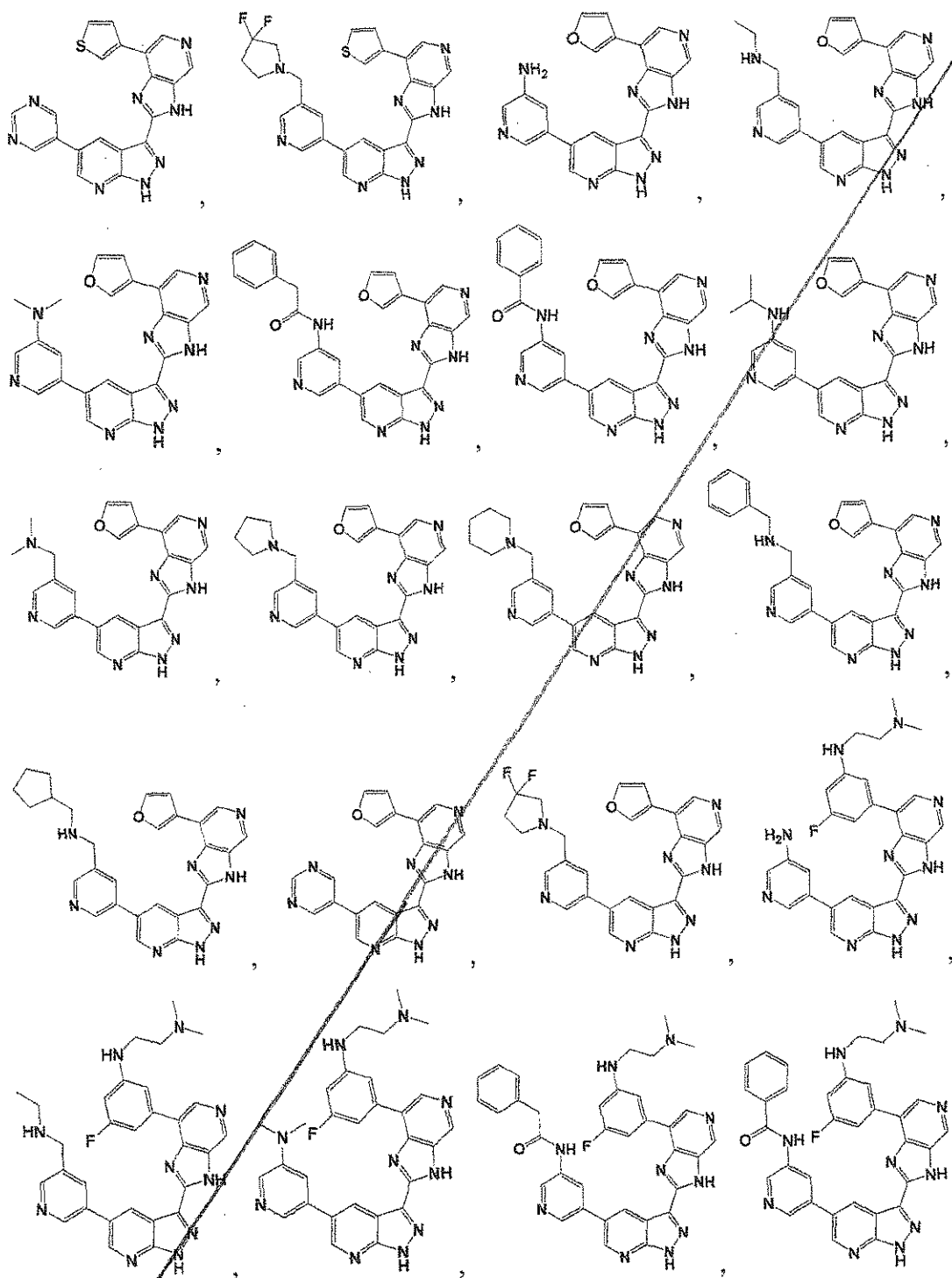


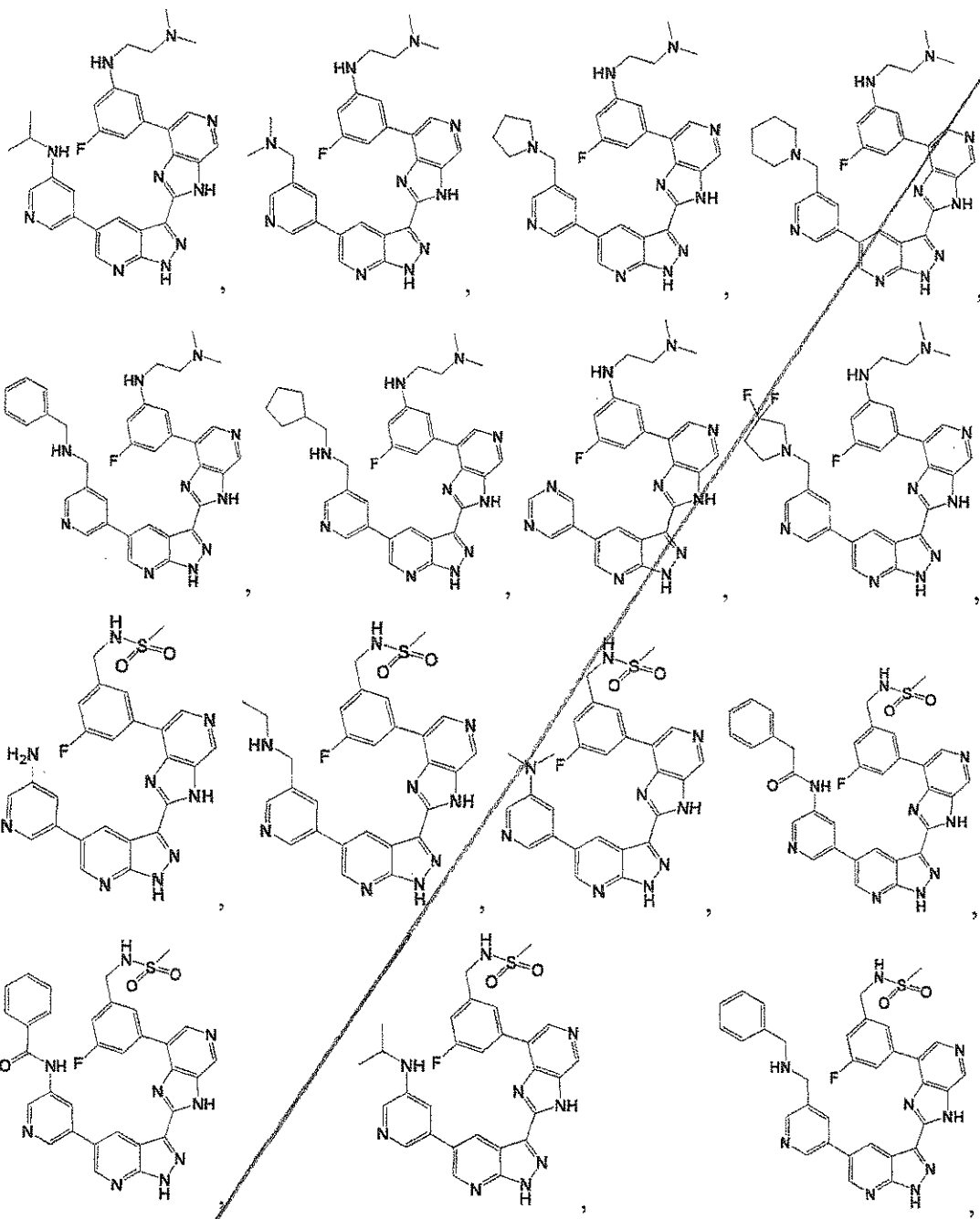


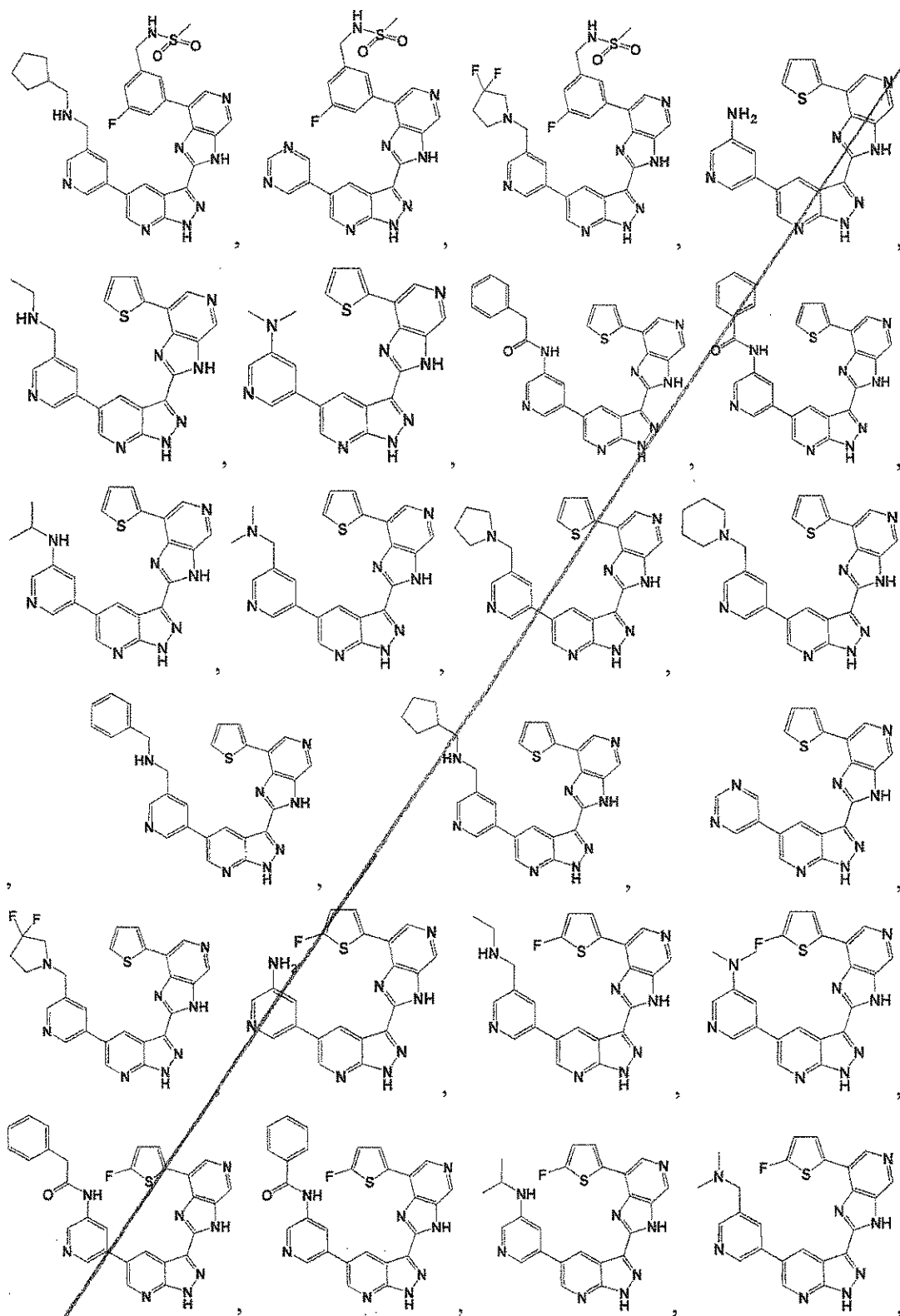


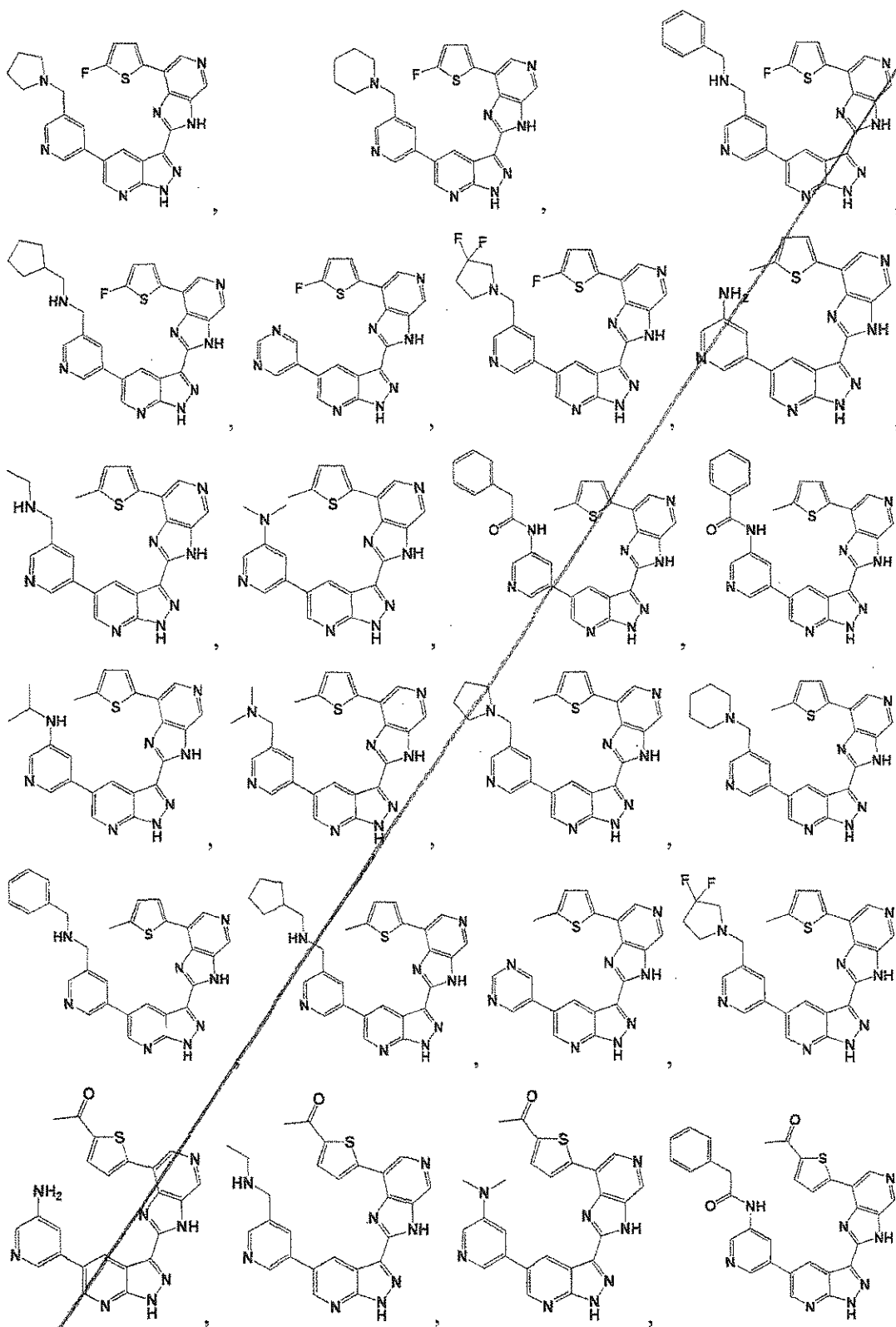


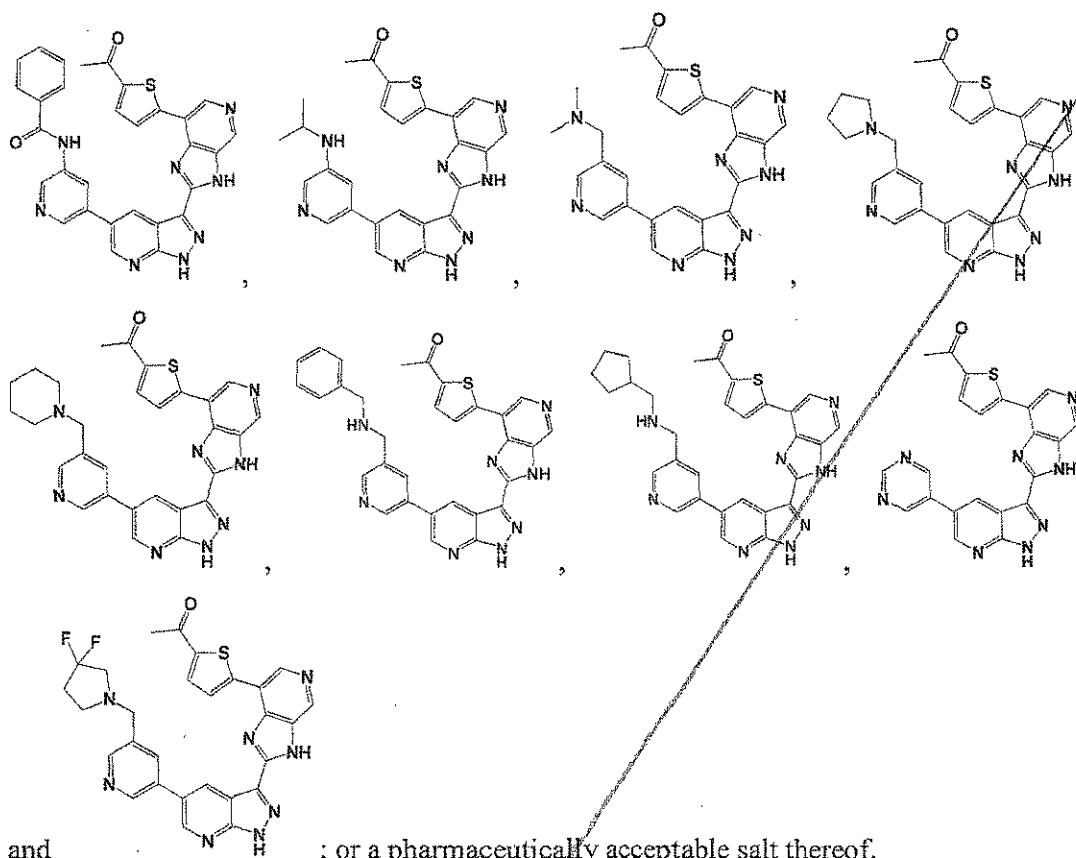






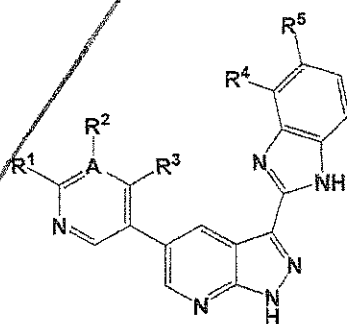






and ; or a pharmaceutically acceptable salt thereof.

18. A compound or pharmaceutically acceptable salt thereof having the structure of Formula II:



II

wherein,

R¹ is H;

R^2 is selected from the group consisting of $-C_{1-3}$ alkyl, halide, $-(C_{1-9}$ alkyl) $_n$ aryl(R^6) $_q$, $-(C_{1-9}$ alkyl) $_n$ heteroaryl(R^7) $_q$, $-(C_{1-9}$ alkyl) $_n$ heterocyclyl(R^8) $_q$, $-(C_{1-9}$ alkyl) $_n$ N(R^9) $_2$, $-OR^{10}$ and $-NHC(=O)R^{11}$;

R^3 is H;

R^4 is selected from the group consisting of H, $-aryl(R^{13})_q$, $-heterocyclyl(R^{14})_q$, and $-heteroaryl(R^{15})_q$;

R^5 is H;

each R^6 is a substituent attached to the aryl ring and independently selected from the group consisting of H, $-C_{1-9}$ alkyl, halide, CF_3 and CN;

each R^7 is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, $-C_{1-9}$ alkyl, halide, CF_3 and CN;

each R^8 is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, halide, $-(C_{1-3}$ alkyl) $_n$ aryl(R^6) $_q$, and $-C_{1-4}$ alkyl;

each R^9 is independently selected from the group consisting of H, $-C_{1-9}$ alkyl, $-(C_{1-3}$ alkyl) $_n$ aryl(R^6) $_q$, $-(C_{1-3}$ alkyl) $_n$ carbocyclyl and $-(C_{1-9}$ alkyl)N(R^{16}) $_2$;

alternatively, two adjacent R^9 , may be taken together with the atoms to which they are attached to form a heterocyclyl(R^{17}) $_q$;

R^{10} is selected from the group consisting of H, $-CF_3$, $-(C_{1-3}$ alkyl) $_n$ aryl(R^6) $_q$, and $-C_{1-9}$ alkyl;

R^{11} is $-(C_{1-3}$ alkyl) $_n$ aryl(R^6) $_q$;

each R^{13} is a substituent attached to the aryl ring and independently selected from the group consisting of H, halide, $-CF_3$, CN, $-(C_{1-3}$ alkyl) $_n$ heterocyclyl(R^8) $_q$, $-(C_{1-9}$ alkyl) $_n$ N(R^9) $_2$ and $-(C_{1-9}$ alkyl) $_n$ NHSO $_2R^{18}$;

each R^{14} is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, $-C_{1-3}$ alkyl, halide, $-CF_3$ and CN;

each R^{15} is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, $-C_{1-3}$ alkyl, halide, $-CF_3$, CN, $-C(=O)(C_{1-3}$ alkyl), $-(C_{1-9}$ alkyl) $_n$ N(R^9) $_2$ and $-(C_{1-9}$ alkyl) $_n$ NHSO $_2R^{18}$;

each R^{16} is independently selected from the group consisting of H and $-C_{1-3}$ alkyl;

each R^{17} is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, $-(C_{1-9}$ alkyl) $_n$ aryl(R^6) $_q$, and $-C_{1-9}$ alkyl;

each R^{18} is a $-C_{1-3}$ alkyl;

A is N or C;

with the proviso that if A is N then R^2 is nil;

each q is independently an integer of 1 to 5; and

each n is independently an integer of 0 or 1.

19. The compound of claim 18 wherein aryl is phenyl.

20. The compound of claim 18 wherein heteroaryl is pyridinyl.

21. The compound of claim 18 wherein heterocyclyl is selected from the group consisting of azetidiny, pyrrolidinyl, morpholinyl, piperazinyl and piperidinyl.

22. The compound of claim 18 wherein R^2 is selected from the group consisting of H, $-(C_{1-9} \text{ alkyl})_n$, heterocyclyl(R^8)_q, $-NHC(=O)R^{11}$ and $-(C_{1-9} \text{ alkyl})_nN(R^9)_2$.

23. The compound of claim 22 wherein R^2 is $-\text{CH}_2N(R^9)_2$ or $-N(R^9)_2$.

24. The compound of claim 23 wherein R^9 is independently selected from the group consisting of H, Me, Et, $-\text{CH}_2\text{phenyl}$ and $-\text{CH}_2\text{carbocyclyl}$.

25. The compound of claim 22 wherein R^2 is $-NHC(=O)R^{11}$.

26. The compound of claim 25 wherein R^{11} is selected from the group consisting of phenyl(R^6)_q and $-\text{CH}_2\text{phenyl}(R^6)_q$.

27. The compound according to any one of claims 18-26, in which R^4 is phenyl(R^{13})_q.

28. The compound according to any one of claims 18-26, in which R^4 is heterocyclyl(R^{14})_q.

29. The compound according to any one of claims 18-26, in which R^4 is heteroaryl(R^{15})_q.

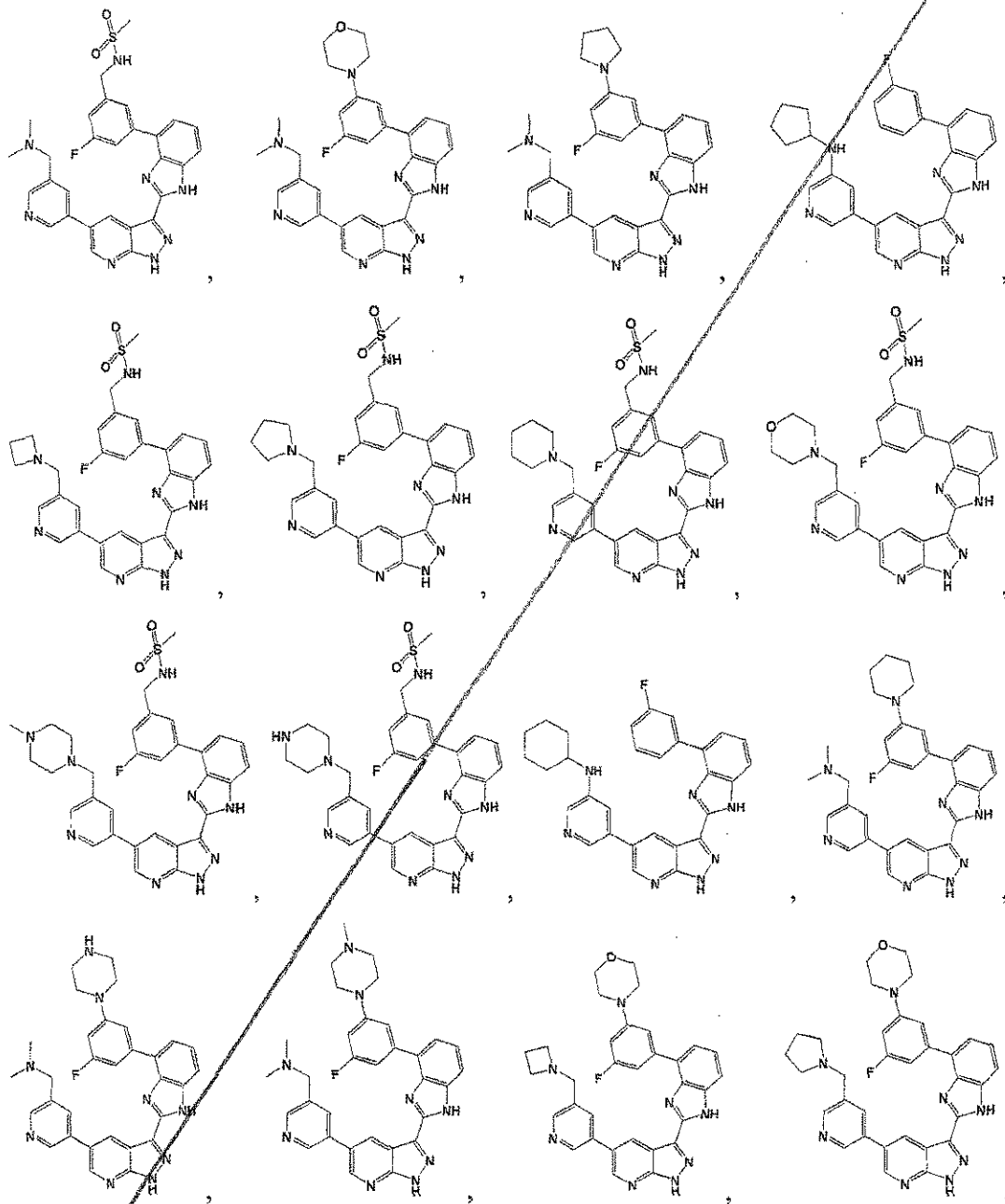
30. The compound of claim 27 wherein R^{13} is one substituent attached to the phenyl comprising a fluorine atom.

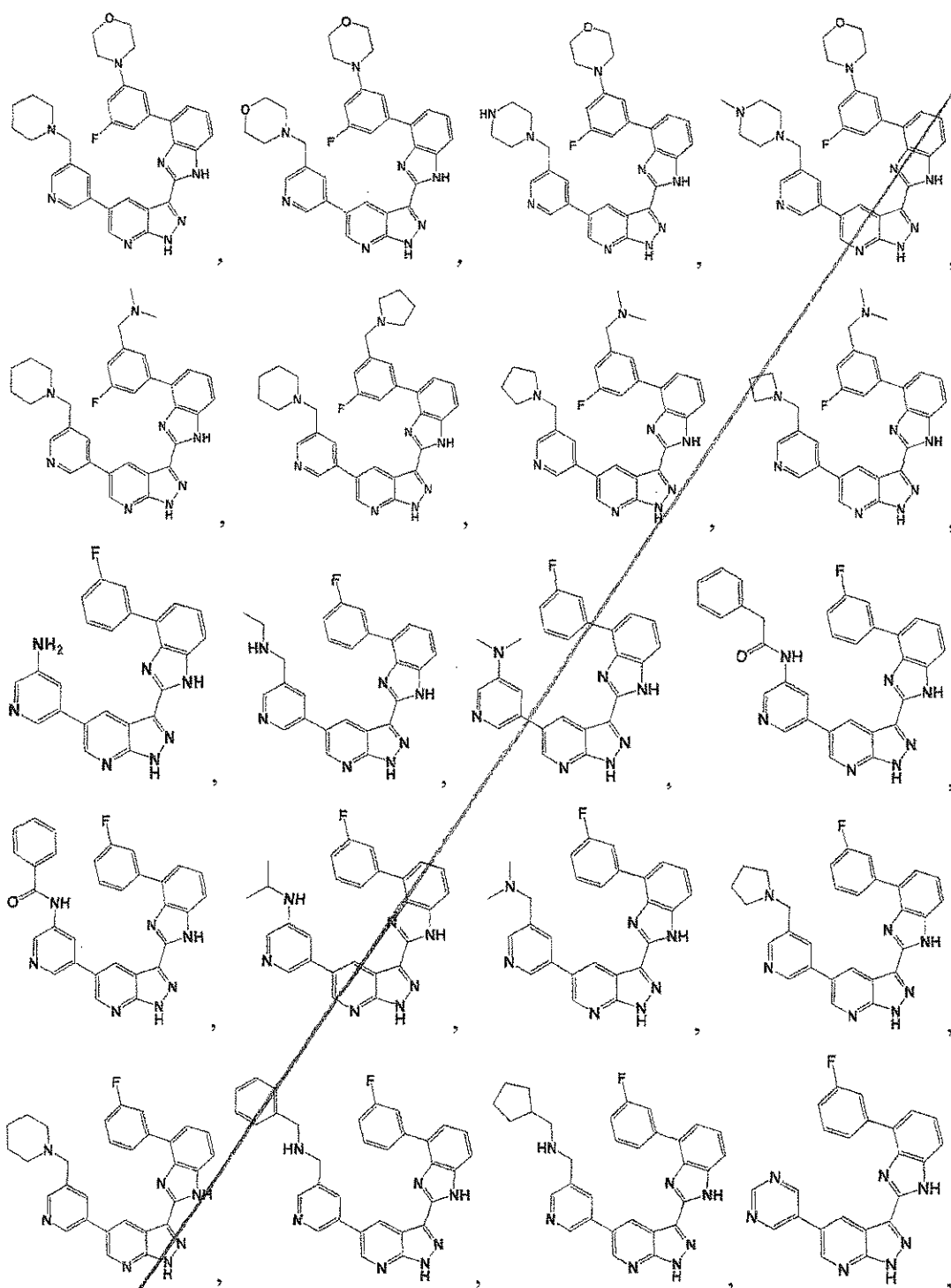
31. The compound of claim 27 wherein R^{13} is two substituents each attached to the phenyl comprising a fluorine atom and either $-\text{NHCH}_2\text{CH}_2N(R^{16})_2$ or $-\text{CH}_2\text{NH}\text{SO}_2R^{18}$.

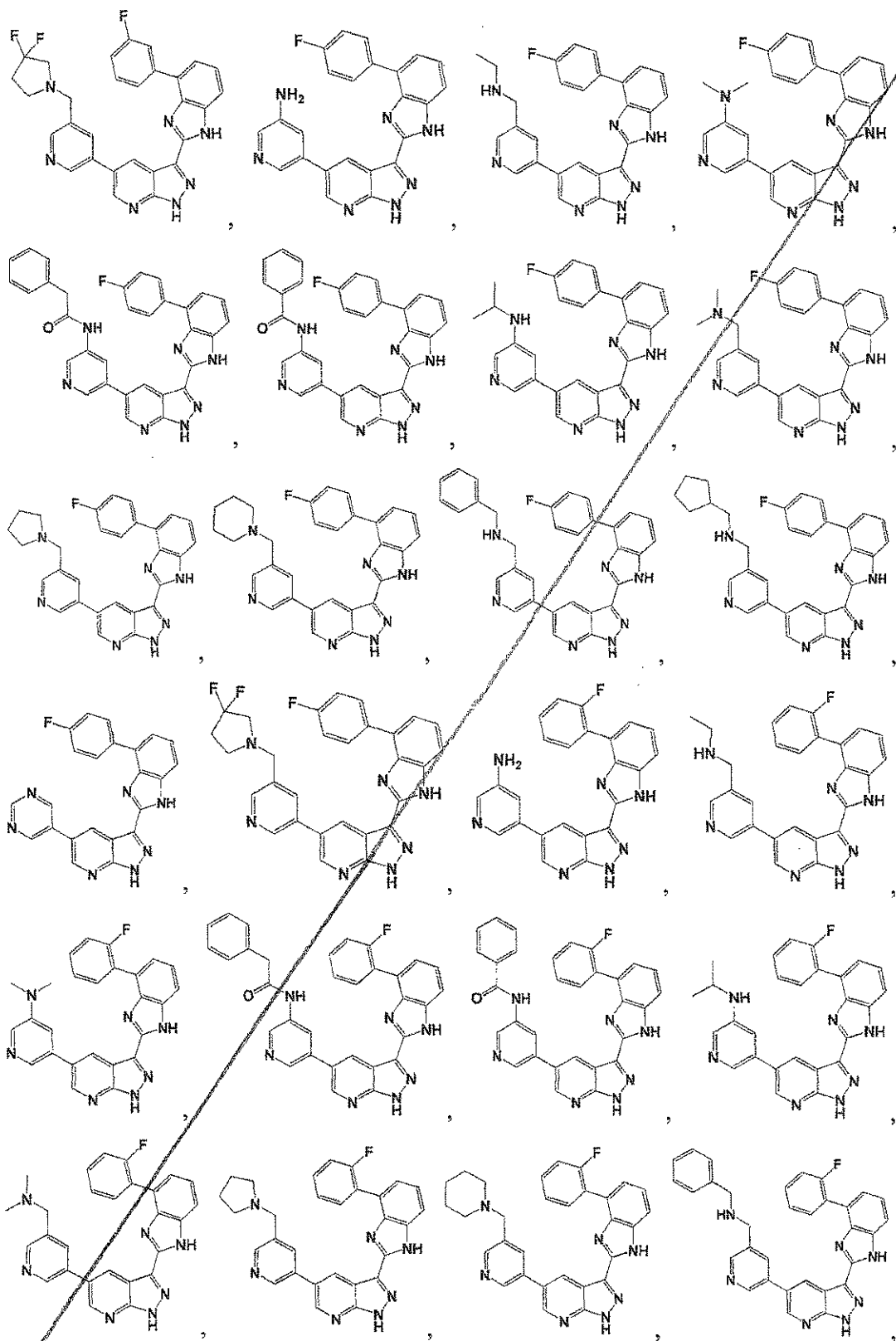
32. The compound of claim 28 wherein the heterocyclyl is selected from the group consisting of piperazinyl and piperidinyl; and the R^{14} is H or Me.

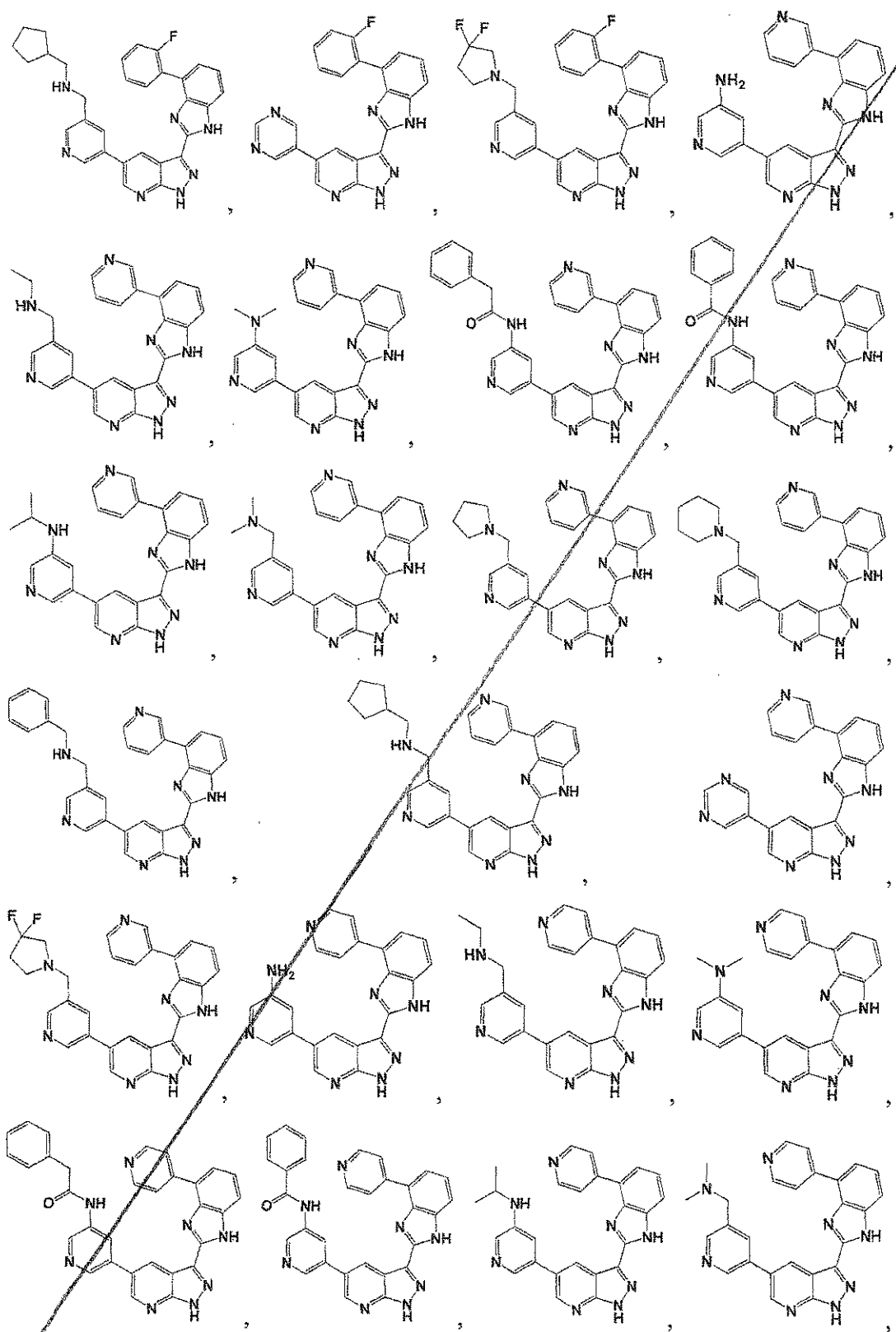
33. The compound of claim 29 wherein the heteroaryl is selected from the group consisting of pyridinyl, furyl, thiophenyl and imidazolyl; and R¹⁵ is -C₁₋₃ alkyl or halide.

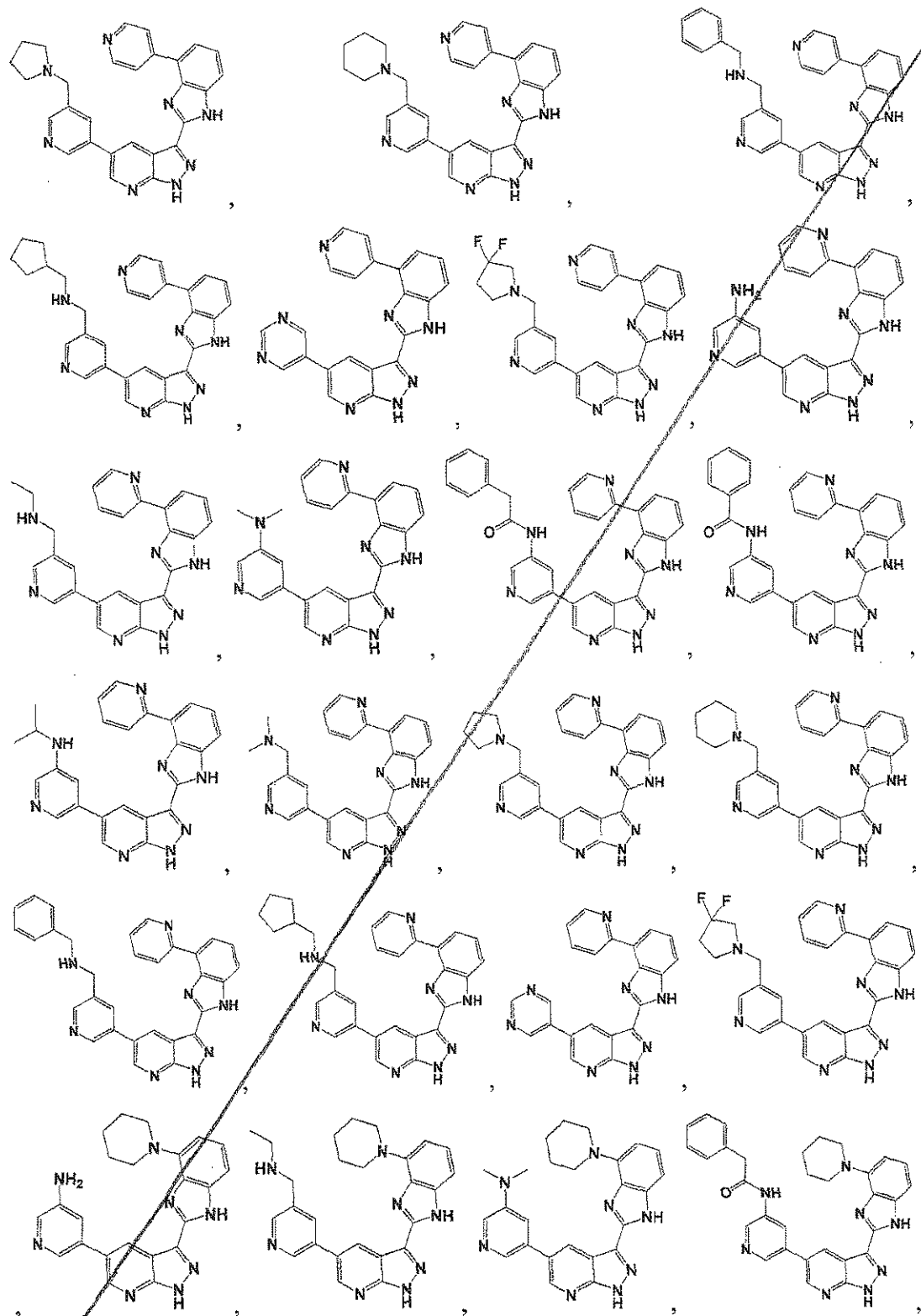
34. The compound of claim 18 having a structure selected from the group consisting of:

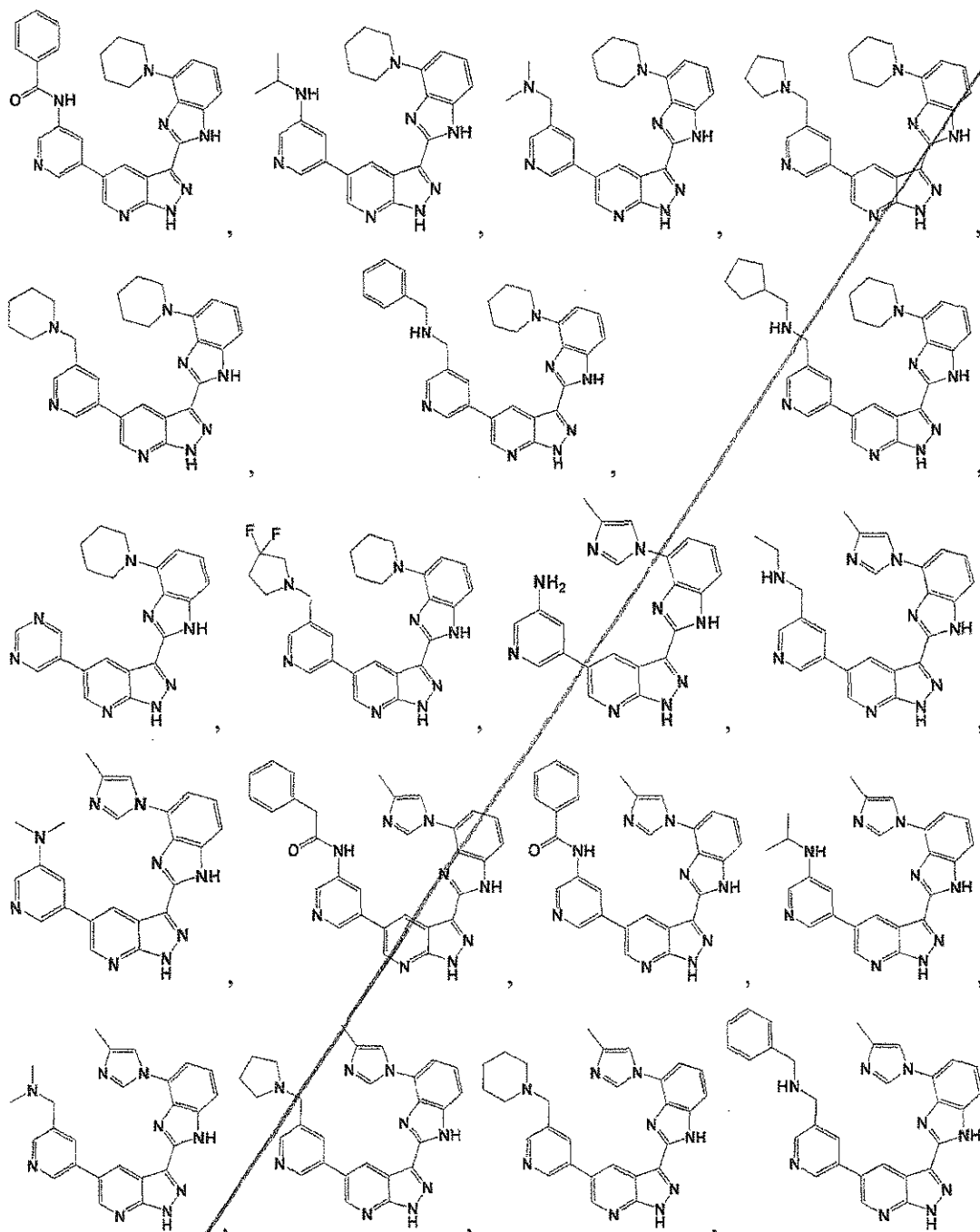


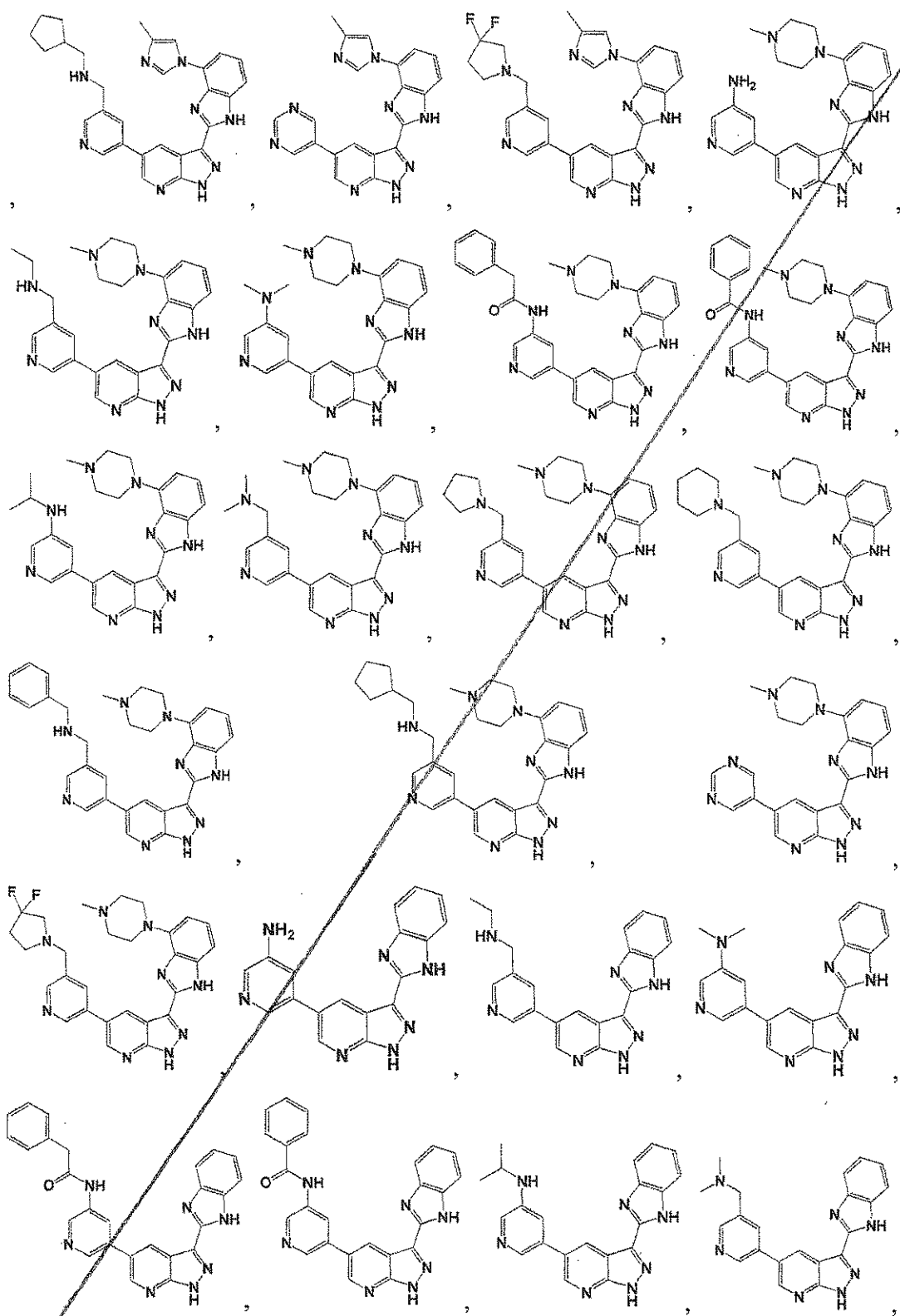


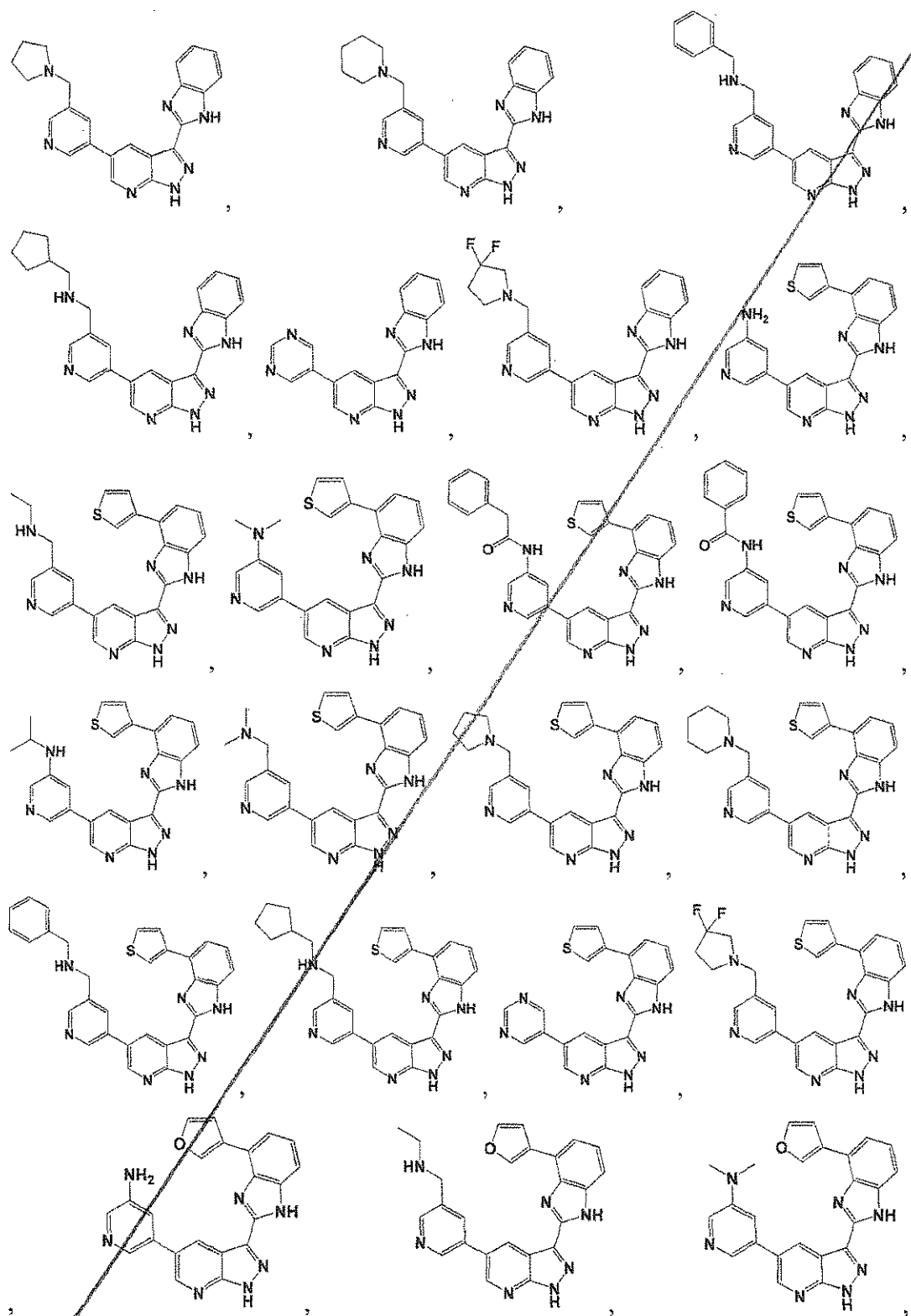


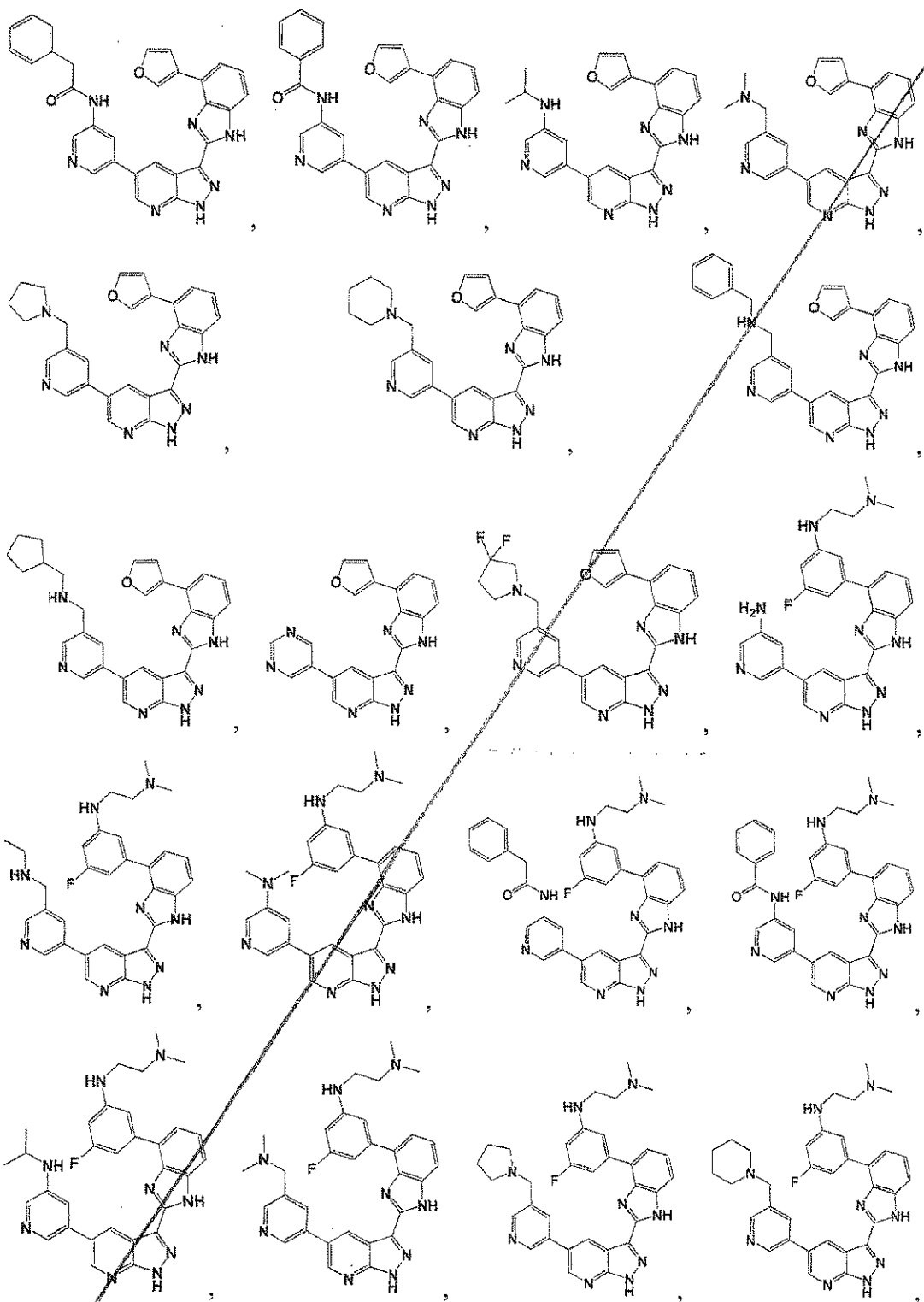


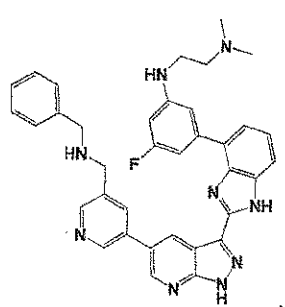
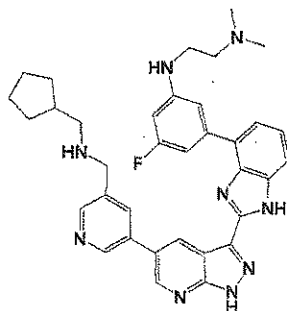
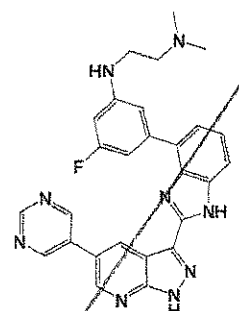
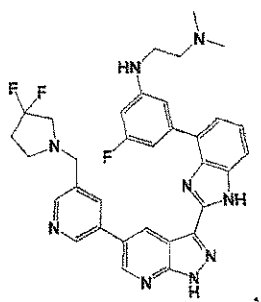
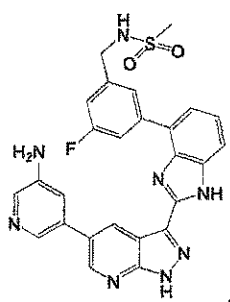
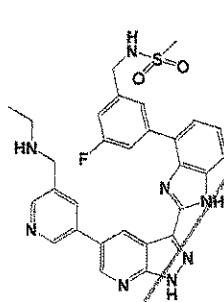
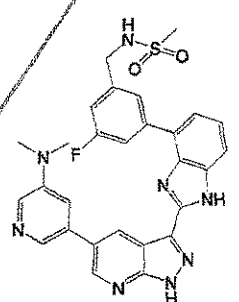
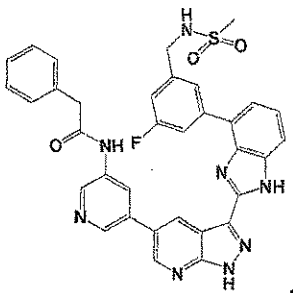
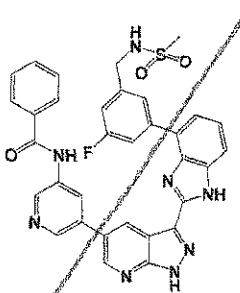
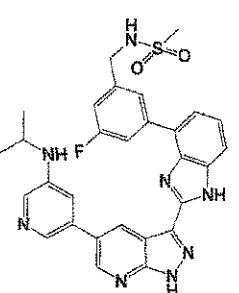
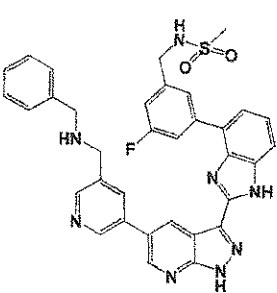
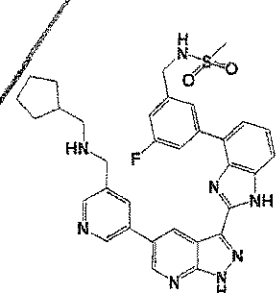
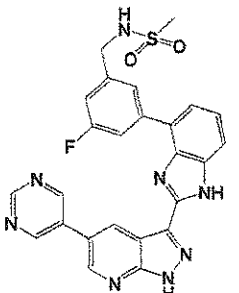
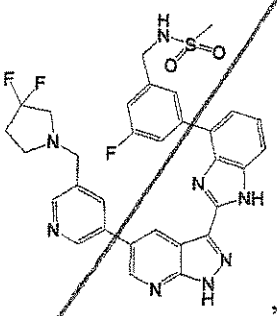
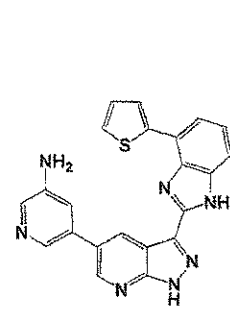
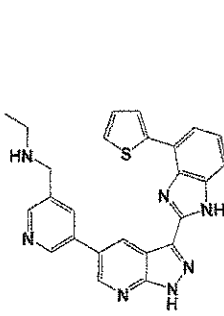
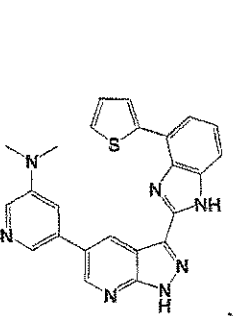


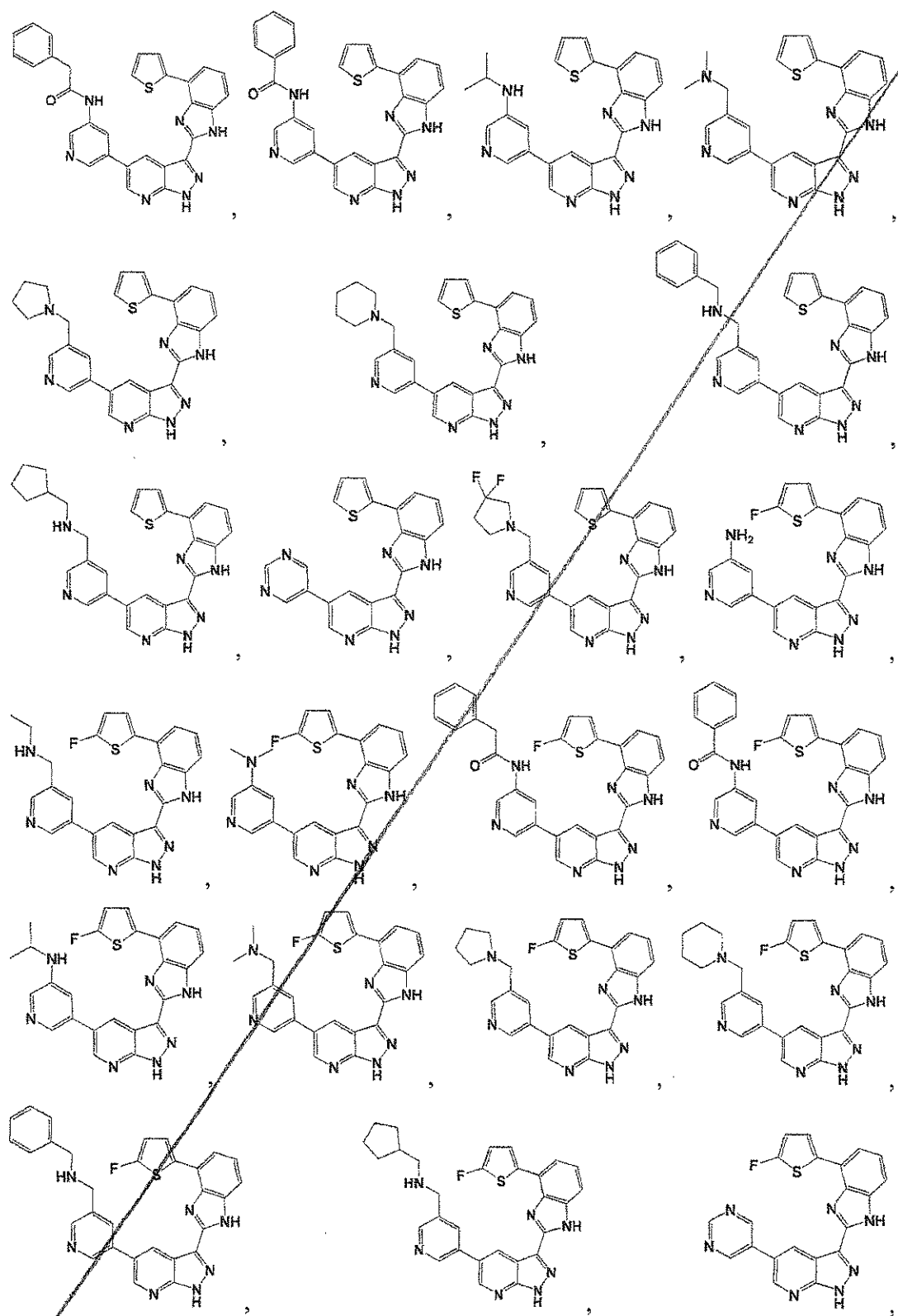


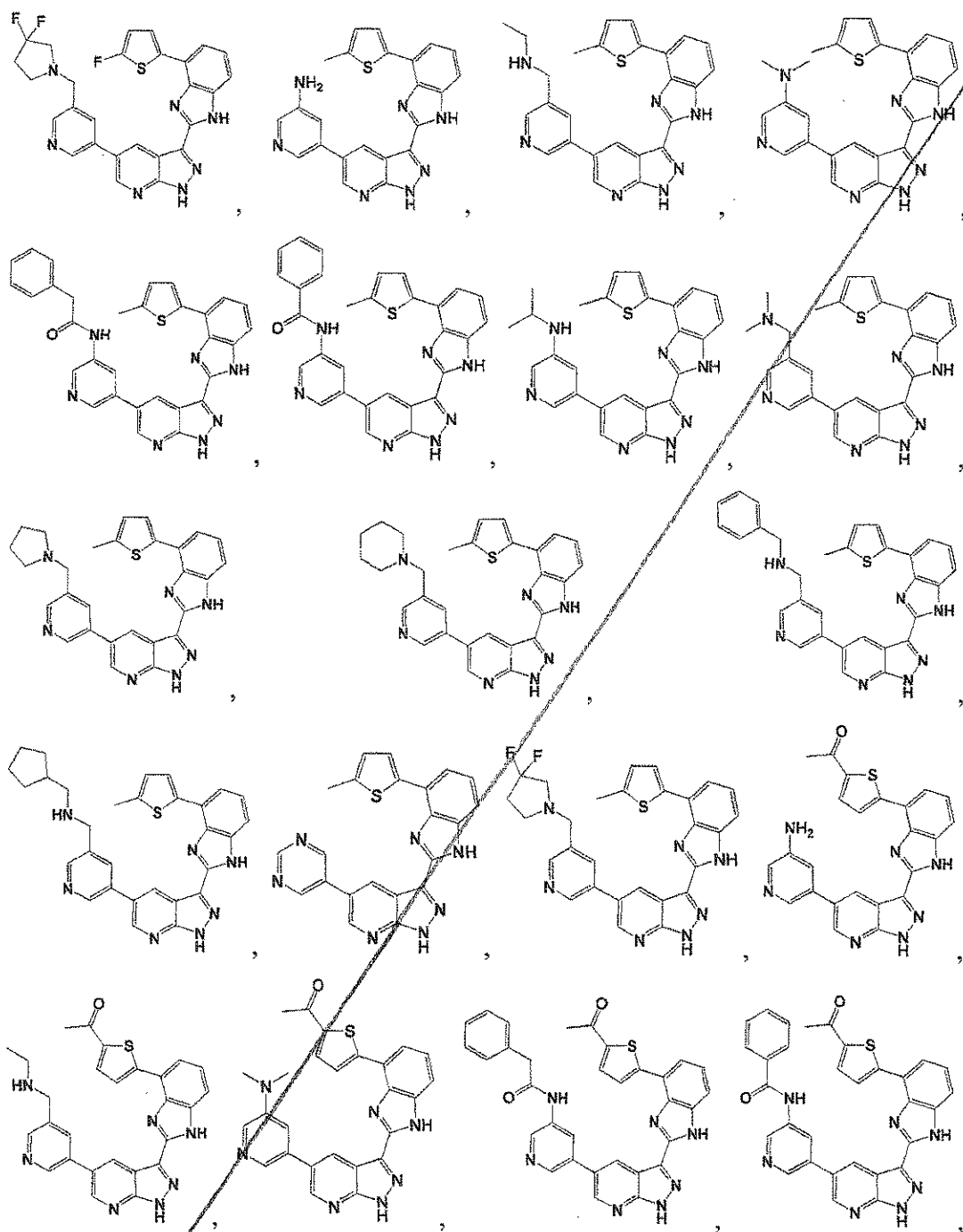


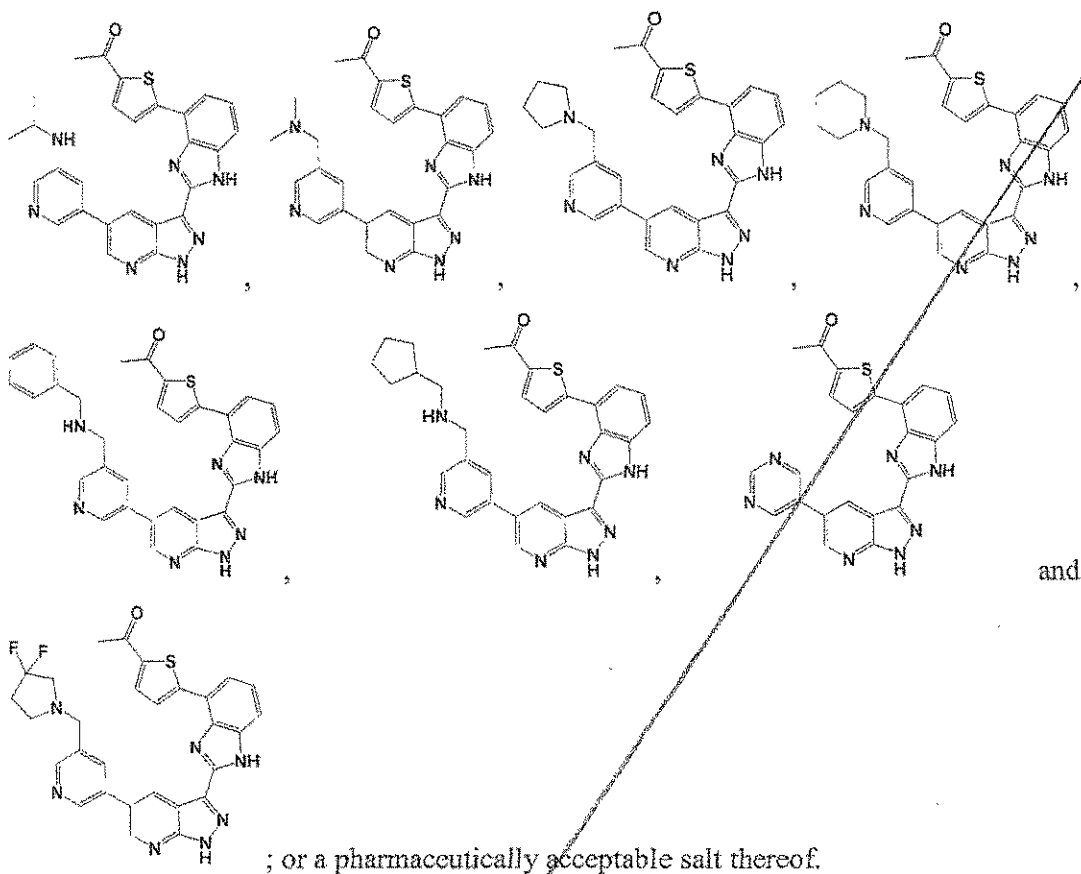




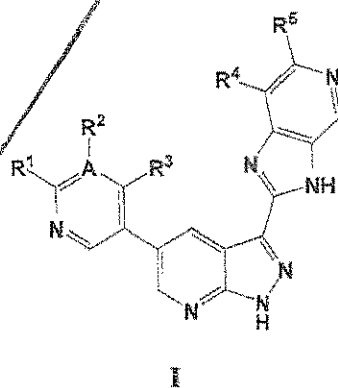








35. A compound, or pharmaceutically acceptable salt thereof, having the structure of Formula I:



wherein:
 R^1 is H;
 R^2 is independently selected from the group consisting of H and $-(C_{1-9} \text{ alkyl})_n N(R^9)_2$;

R^3 is H;

R^4 is independently selected from the group consisting of $-\text{aryl}(R^{13})_q$, $-\text{furyl}(R^{15})_q$, and $-\text{thiophenyl}(R^{15})_q$;

R^5 is H;

each R^8 is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, halide, and $-\text{C}_{1-4}$ alkyl;

each R^9 is independently selected from the group consisting of H, $-\text{C}_{1-9}$ alkyl, $-(\text{C}_{1-3} \text{ alkyl})_n \text{carbocyclyl}$ and $-(\text{C}_{1-9} \text{ alkyl})\text{N}(R^{16})_2$;

each R^{13} is 1-2 substituents each attached to the aryl ring and independently selected from the group consisting of H, halide, $-(\text{C}_{1-3} \text{ alkyl})_n \text{heterocyclyl}(R^8)_q$, $-(\text{C}_{1-9} \text{ alkyl})_n \text{N}(R^9)_2$ and $-(\text{C}_{1-9} \text{ alkyl})_n \text{NHSO}_2 R^{18}$;

each R^{15} is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, lower alkyl, halide, $-\text{CF}_3$, CN , and $-\text{C}(=\text{O})(\text{C}_{1-3} \text{ alkyl})$;

each R^{16} is independently selected from the group consisting of H and lower alkyl;

each R^{18} is a lower alkyl;

A is C;

each q is independently an integer of 1 or 2; and

each n is independently an integer of 0 or 1.

36. The compound of claim 35, wherein the R^{13} heterocyclyl is selected from the group consisting of azetidiny(R^8) $_q$, pyrrolidinyl(R^8) $_q$, piperidinyl(R^8) $_q$, piperazinyl(R^8) $_q$, and morpholinyl(R^8) $_q$.

37. The compound of claim 35, wherein R^2 is H.

38. The compound of claim 35, wherein R^2 is $-(\text{C}_{1-9} \text{ alkyl})_n \text{N}(R^9)_2$.

39. The compound of claim 39, wherein R^2 is $-\text{CH}_2\text{N}(R^9)_2$ or $-\text{N}(R^9)_2$.

40. The compound according to any of the claims 35 and 39, wherein R^9 is independently selected from the group consisting of H, Me, Et, n-propyl, isopropyl, and $-\text{CH}_2\text{carbocyclyl}$.

41. The compound according to any of the claims 35-40, wherein R^4 is phenyl(R^{13}) $_q$.

42. The compound according to any of the claims 35 and 37-40, wherein R^4 is -furyl(R^{15})_q.

43. The compound according to any of the claims 35 and 37-40, wherein R^4 is -thiophenyl(R^{15})_q.

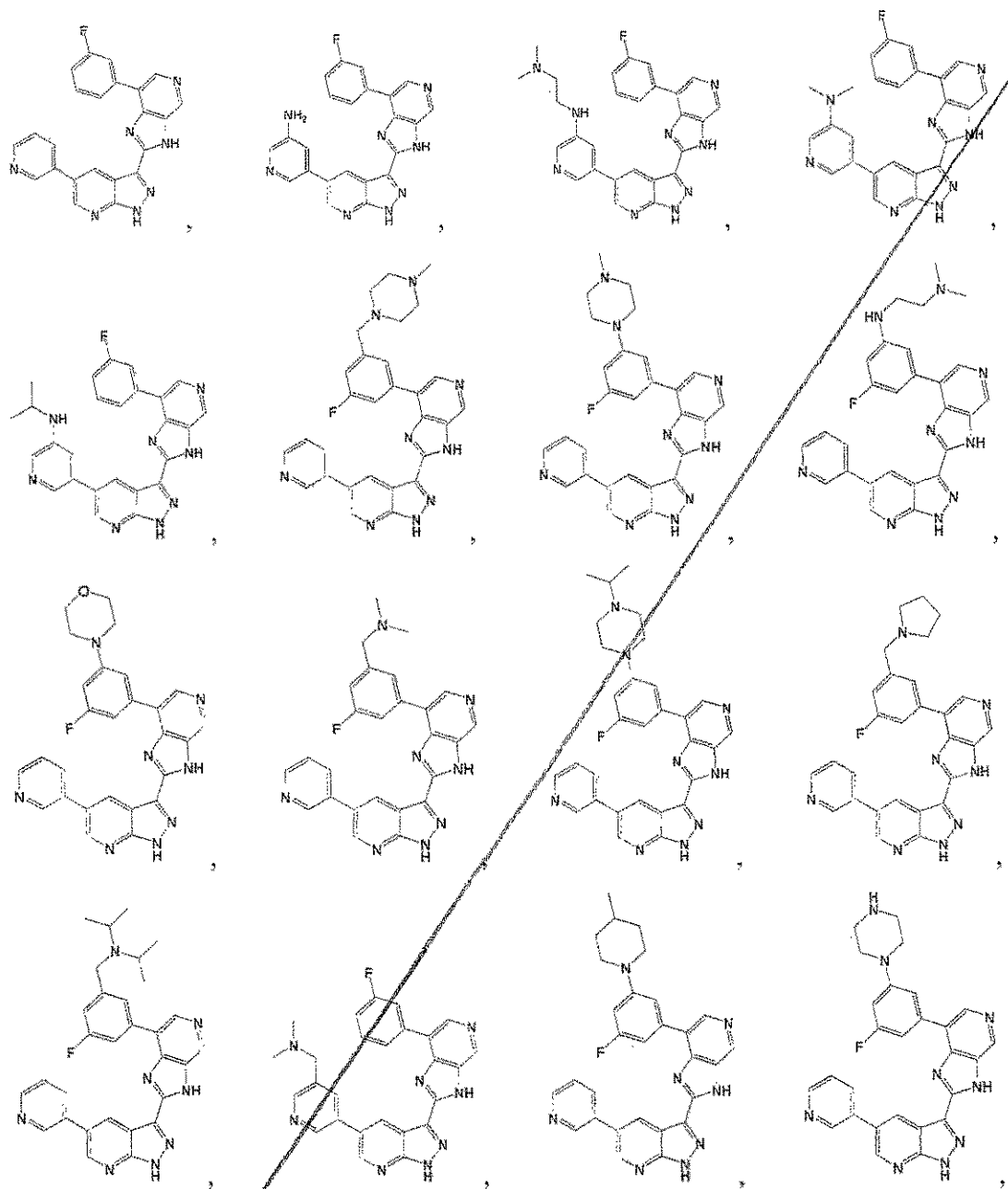
44. The compound according to any of the claims 35 and 37-41, wherein R^{13} is one substituent attached to the phenyl ring and the substituent is a fluorine atom.

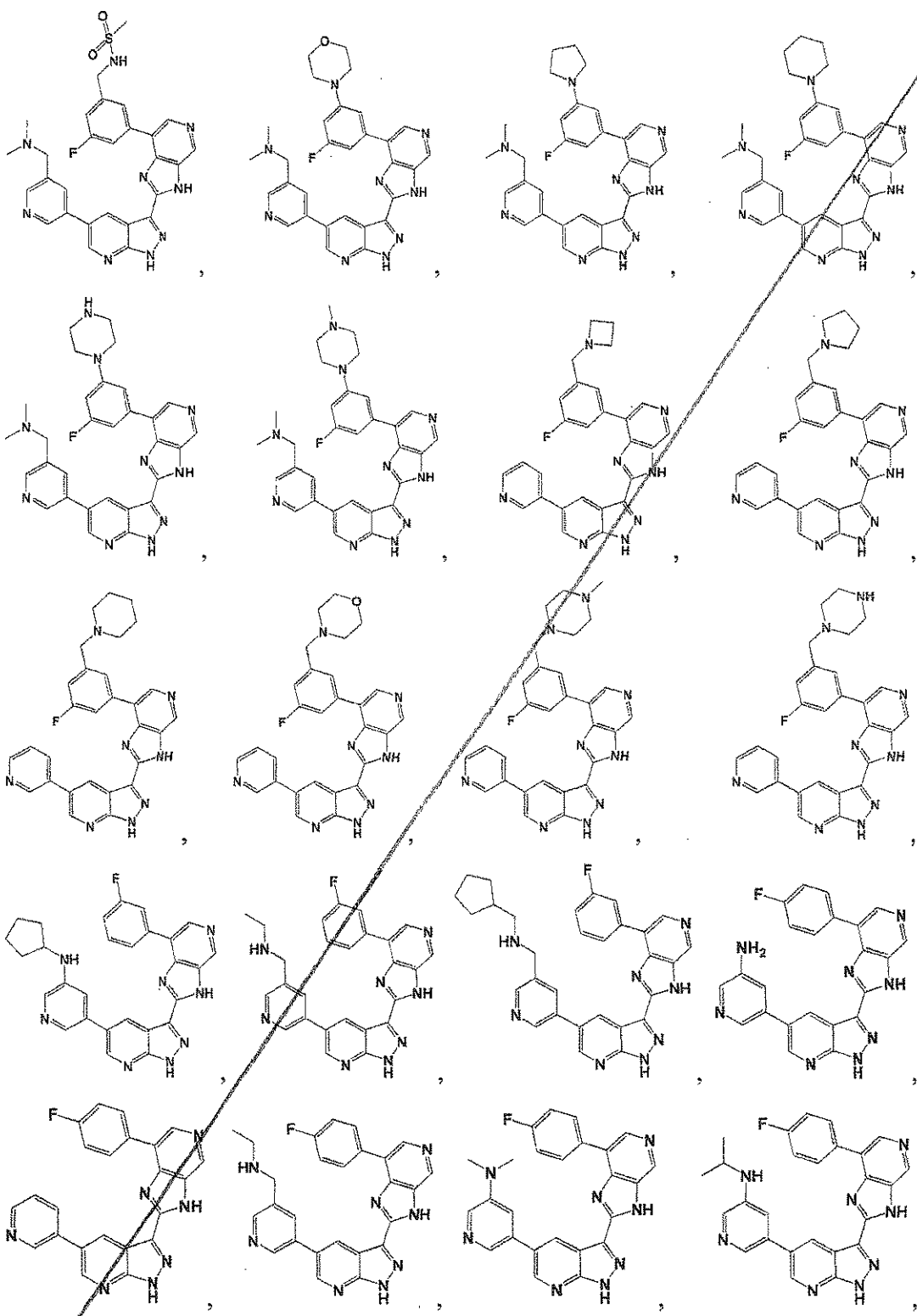
45. The compound according to any of the claims 35 and 37-41, wherein R^{13} is two substituents each attached to the phenyl ring and the substituents are a fluorine atom and $-N(R^9)_2$, wherein R^9 is independently selected from the group consisting of H and $-CH_2CH_2N(R^{16})_2$, and wherein R^{16} is independently selected from the group consisting of H, Me, and Et.

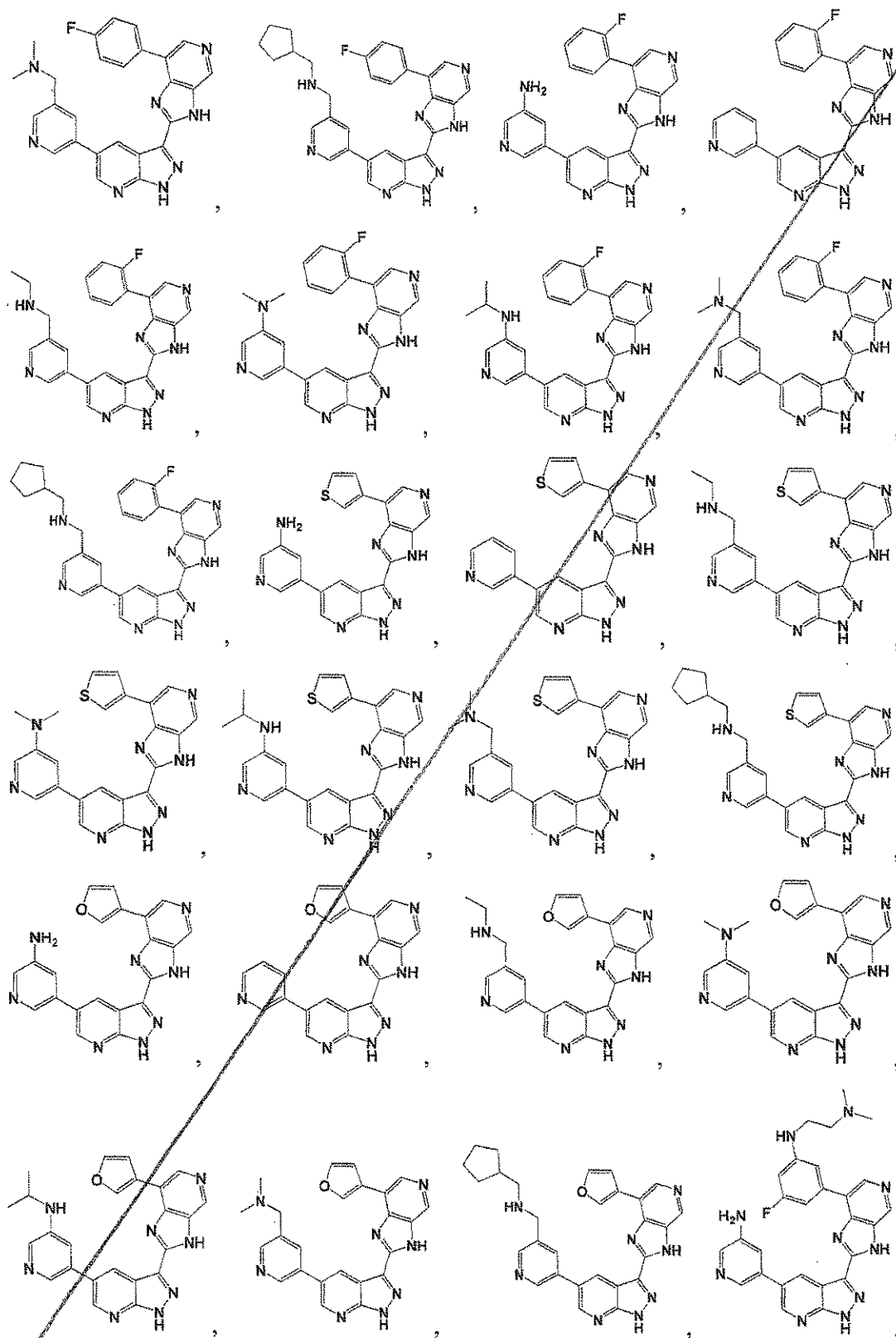
46. The compound according to any of the claims 35 and 37-41, wherein R^{13} is two substituents each attached to the phenyl ring and the substituents are a fluorine atom and $-(CH_2)_nNHSO_2R^{18}$, wherein R^9 is independently selected from the group consisting of Me and Et.

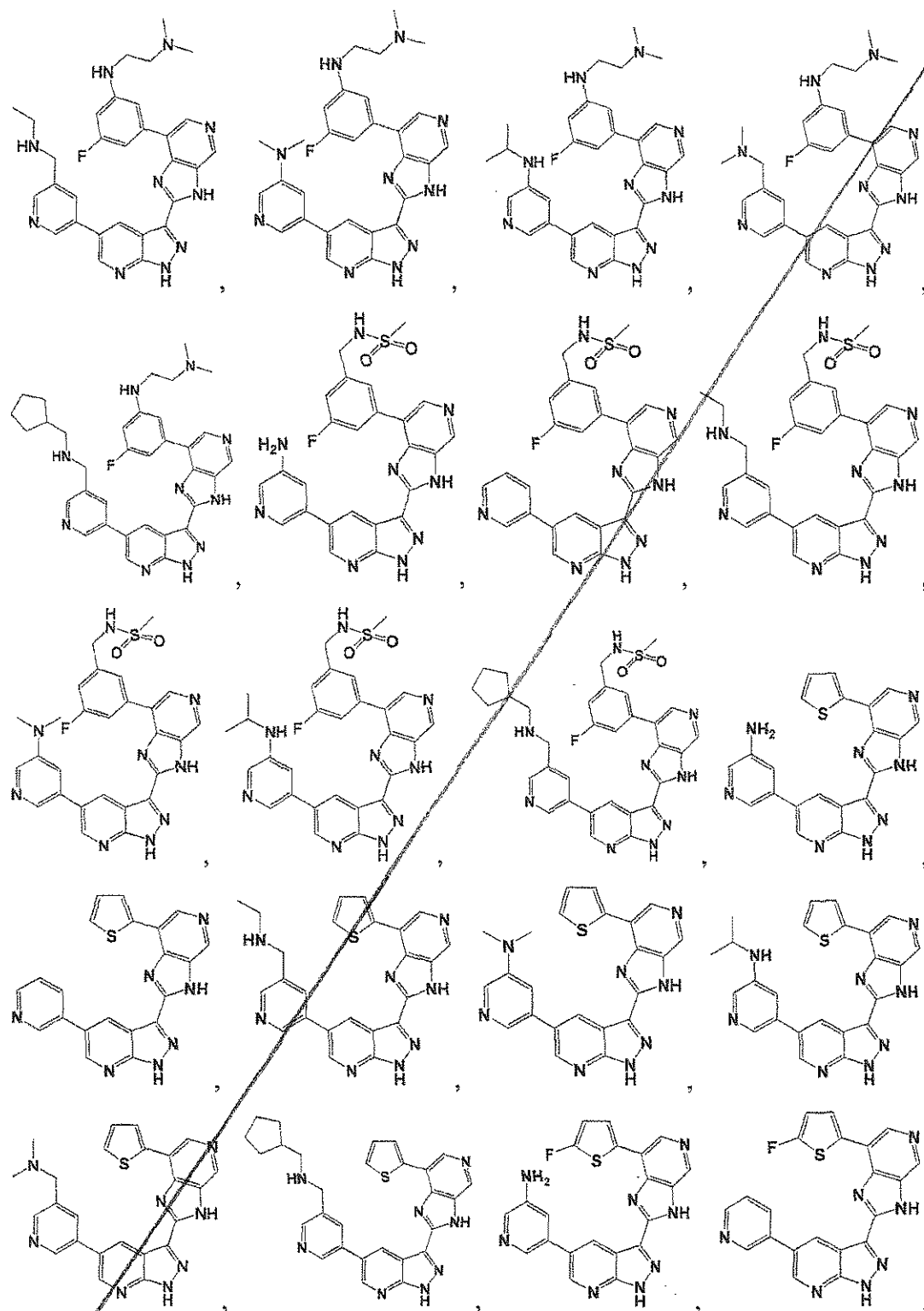
47. The compound according to any of the claims 35, 37-40, and 42, wherein R^{15} is one substituent attached to the thiophenyl ring and the substituents are selected from the group consisting of H, F, Me, and $-C(=O)Me$.

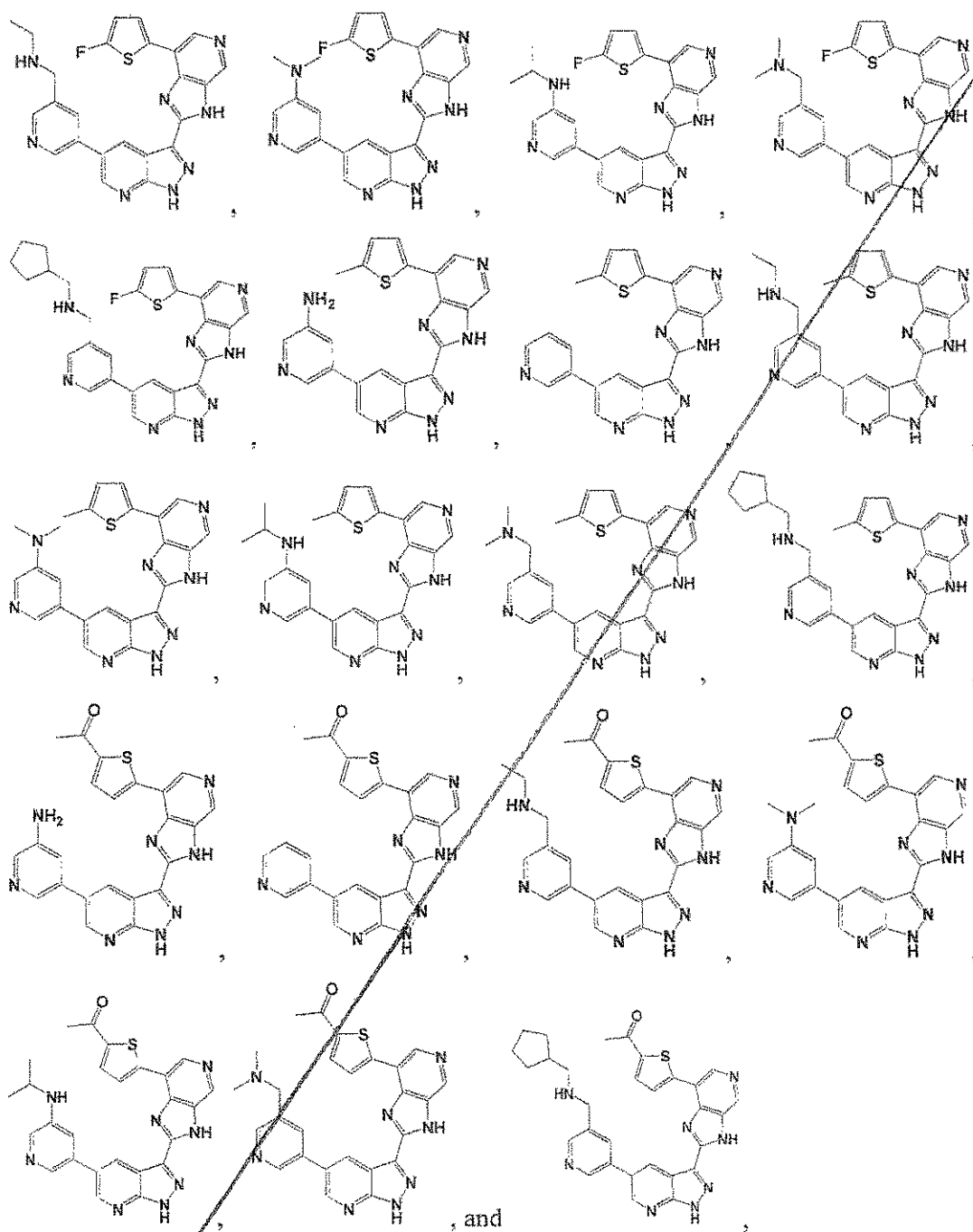
48. The compound of claim 35, wherein the compound of Formula (I) has a structure selected from the group consisting of:





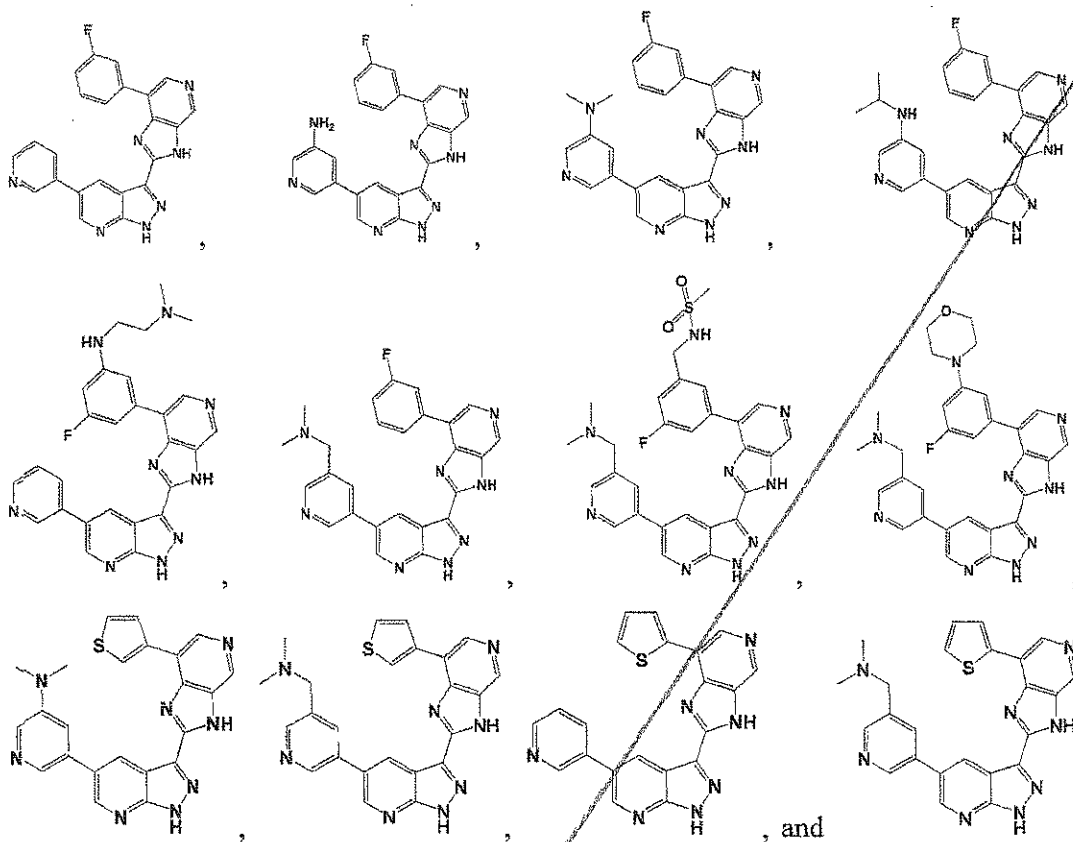






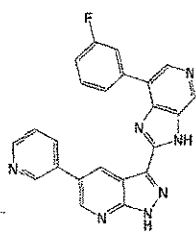
or a pharmaceutically acceptable salt thereof.

49. The compound of either claim 35 or 48, wherein the compound of Formula (I) has a structure selected from the group consisting of:



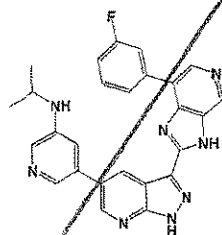
, or a pharmaceutically acceptable salt thereof.

50. The compound according to any of the claims 35 and 48-49, wherein the compound has a structure of:



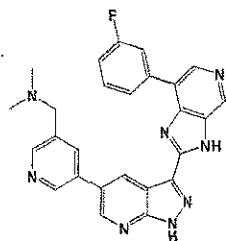
, or a pharmaceutically acceptable salt thereof.

51. The compound according to any of the claims 35 and 48-49, wherein the compound has a structure of:



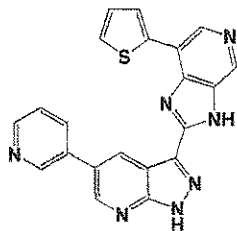
, or a pharmaceutically acceptable salt thereof.

52. The compound according to any of the claims 35 and 48-49, wherein the compound has a structure of:



, or a pharmaceutically acceptable salt thereof.

53. The compound according to any of the claims 35 and 48-49, wherein the compound has a structure of:



, or a pharmaceutically acceptable salt thereof.

54. A pharmaceutical composition comprising a compound according to any one of the claims 1-53 and 81-82, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

55. A compound according to any one of claims 1-53 and 81-82, or a pharmaceutically acceptable salt thereof, for use in treating a disorder or disease in a patient, wherein the disorder or disease is selected from the group consisting of: diabetic retinopathy, pulmonary fibrosis, idiopathic pulmonary fibrosis (IPF), rheumatoid arthritis, scleroderma, a mycotic or viral infection, a bone or cartilage disease, Alzheimer's disease, dementia, Parkinson's disease, lung disease, and cancer.

56. The compound for use of claim 55, wherein the disorder or disease is cancer.

57. The compound for use of claim 55, wherein the disorder or disease is diabetic retinopathy.

58. The compound for use of claim 55, wherein the disorder or disease is pulmonary fibrosis.

59. The compound for use of claim 55, wherein the disorder or disease is idiopathic pulmonary fibrosis (IPF).

60. The compound for use of claim 55, wherein the disorder or disease is rheumatoid arthritis.

61. The compound for use of claim 55, wherein the disorder or disease is scleroderma.

62. The compound for use of claim 55, wherein the disorder or disease is a mycotic or viral infection.

63. The compound for use of claim 55, wherein the disorder or disease is a bone or cartilage disease.

64. The compound for use of claim 55, wherein the disorder or disease is Alzheimer's disease.

65. The compound for use of claim 55, wherein the disorder or disease is dementia.

66. The compound for use of claim 55, wherein the disorder or disease is Parkinson's disease.

67. The compound for use of claim 55, wherein the disorder or disease is lung disease.

68. The compound for use of either claim 55 or 63, wherein the bone or cartilage disease is osteoarthritis.

69. A compound according to any one of claims 1-53, or a pharmaceutically acceptable salt thereof, for use in treating a disorder or disease in a patient, wherein the disorder or disease is selected from the group consisting of: polyposis coli, osteoporosis-pseudoglioma syndrome, familial exudative vitreoretinopathy, retinal angiogenesis, early coronary disease, tetra-amelia syndrome, Müllerian-duct regression and virilization, SERKAL syndrome, diabetes mellitus type 2, Fuhrmann syndrome, Al-Awadi/Raas-Rothschild/Schinzel phocomelia syndrome, odonto-onycho-dermal dysplasia, obesity, split-hand/foot malformation, caudal duplication syndrome, tooth agenesis, Wilms tumor, skeletal dysplasia, focal dermal hypoplasia, autosomal recessive anonychia, neural tube defects, alpha-thalassemia (ATRX) syndrome, fragile X syndrome, ICF syndrome, Angelman syndrome, Prader-Willi syndrome, Beckwith-Wiedemann Syndrome, Norrie disease, and Rett syndrome.

70. The compound for use of either claim 55 or 69, wherein the patient is a human.

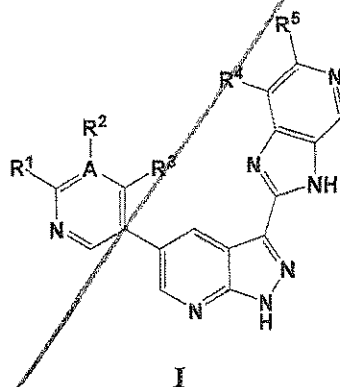
71. The compound for use of claim 56, wherein the cancer is chosen from: hepatocellular carcinoma, colon cancer, breast cancer, pancreatic cancer leukemia, lymphoma, sarcoma, and ovarian cancer.

72. The compound for use of claim 55, wherein the compound inhibits one or more proteins in the Wnt pathway.

73. The compound for use of claim 55, wherein the compound inhibits signaling induced by one or more Wnt proteins.

74. The compound for use of claim 55, wherein the compound inhibits a kinase activity.

75. Use of a compound, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating idiopathic pulmonary fibrosis (IPF), the compound having the structure of Formula I:



wherein:

R^1 is H;

R^2 is independently selected from the group consisting of H and $-(C_{1-9} \text{ alkyl})_n N(R^9)_2$;

R^3 is H;

R^4 is independently selected from the group consisting of $-\text{aryl}(R^{13})_q$, $-\text{furyl}(R^{15})_q$, and $-\text{thiophenyl}(R^{15})_q$;

R^5 is H;

each R^8 is a substituent attached to the heterocyclyl ring and independently selected from the group consisting of H, halide, and $-C_{1-4}$ alkyl;

each R^9 is independently selected from the group consisting of H, $-C_{1-9}$ alkyl, $-(C_{1-3}$ alkyl) $_n$ carbocyclyl and $-(C_{1-9}$ alkyl) $N(R^{16})_2$;

each R^{13} is 1-2 substituents each attached to the aryl ring and independently selected from the group consisting of H, halide, $-(C_{1-3}$ alkyl) $_n$ heterocyclyl(R^8) $_q$, $-(C_{1-9}$ alkyl) $_nN(R^9)_2$ and $-(C_{1-9}$ alkyl) $_nNHSO_2R^{18}$;

each R^{15} is a substituent attached to the heteroaryl ring and independently selected from the group consisting of H, lower alkyl, halide, $-CF_3$, CN, and $-C(=O)(C_{1-3}$ alkyl);

each R^{16} is independently selected from the group consisting of H and lower alkyl;

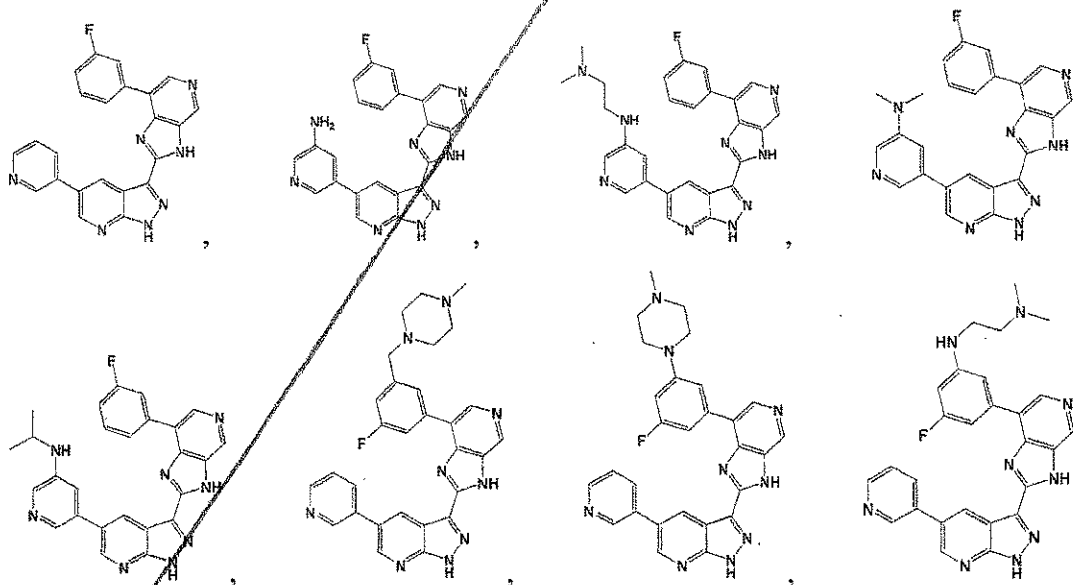
each R^{18} is a lower alkyl;

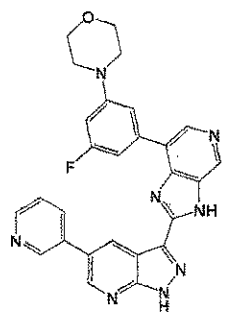
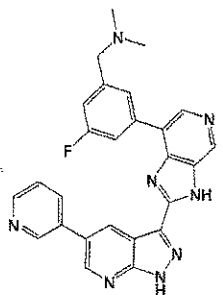
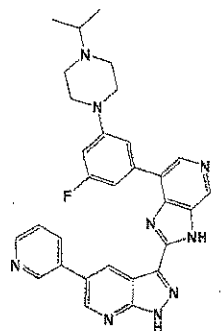
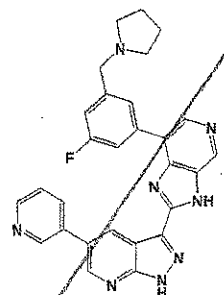
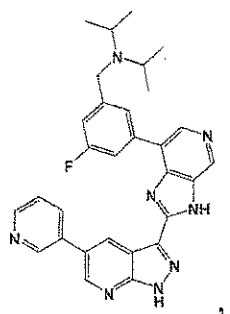
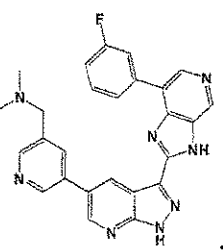
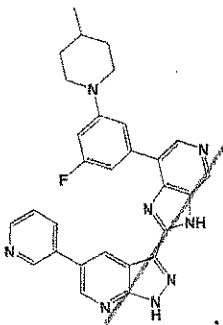
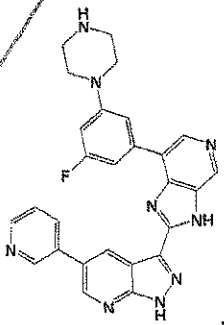
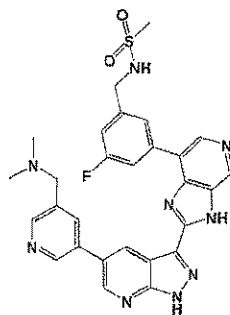
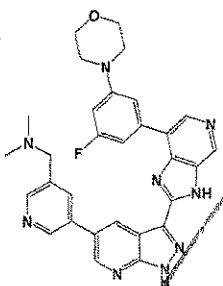
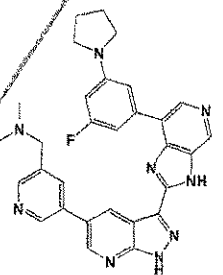
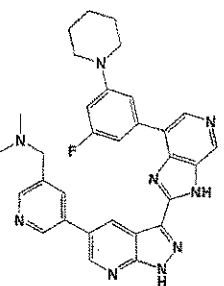
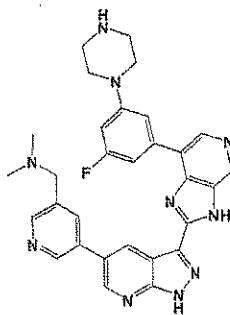
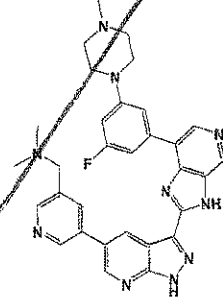
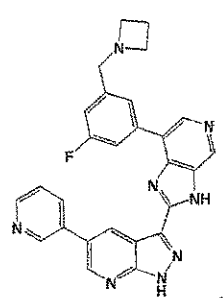
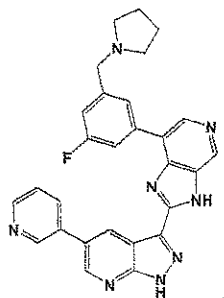
A is C;

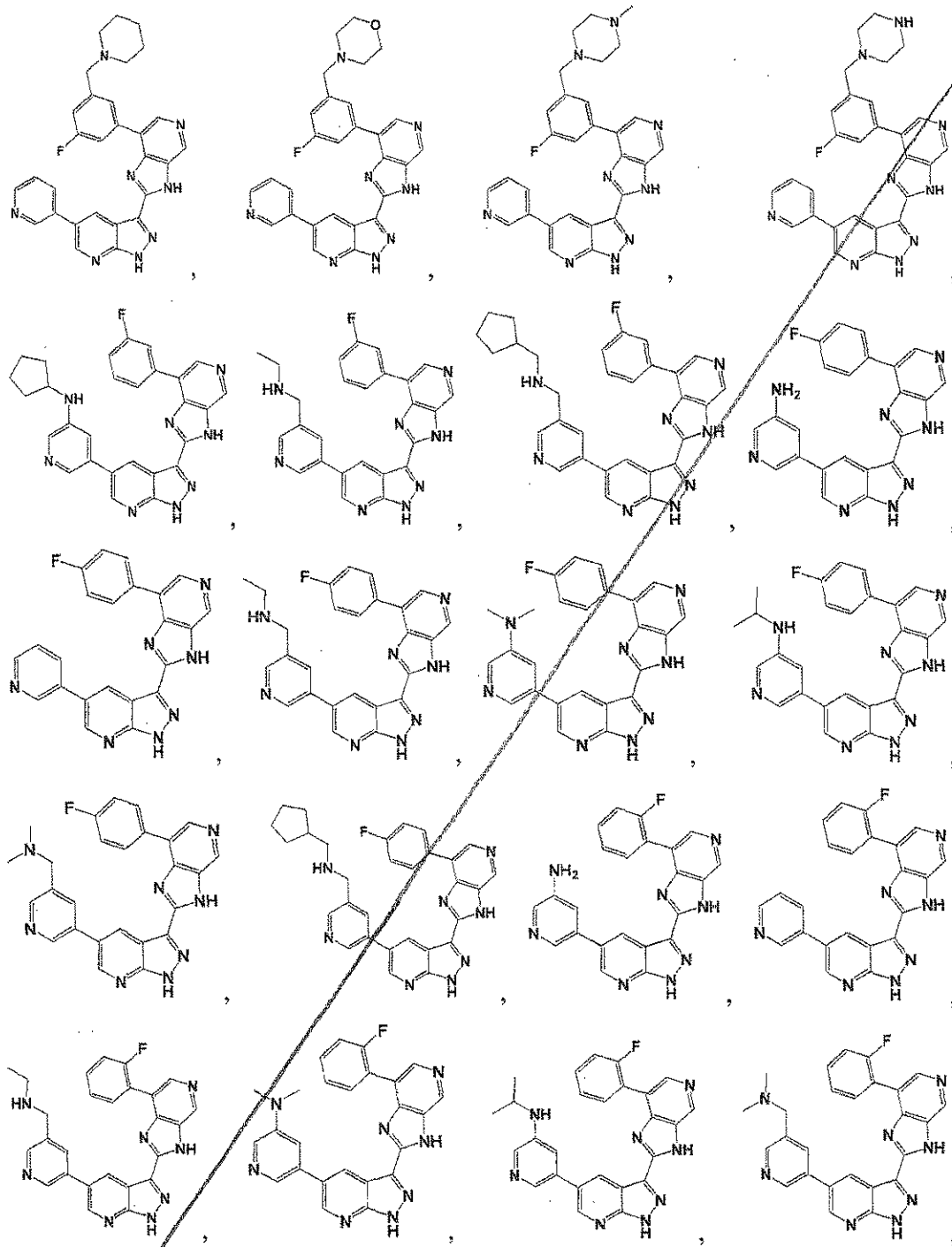
each q is independently an integer of 1 or 2; and

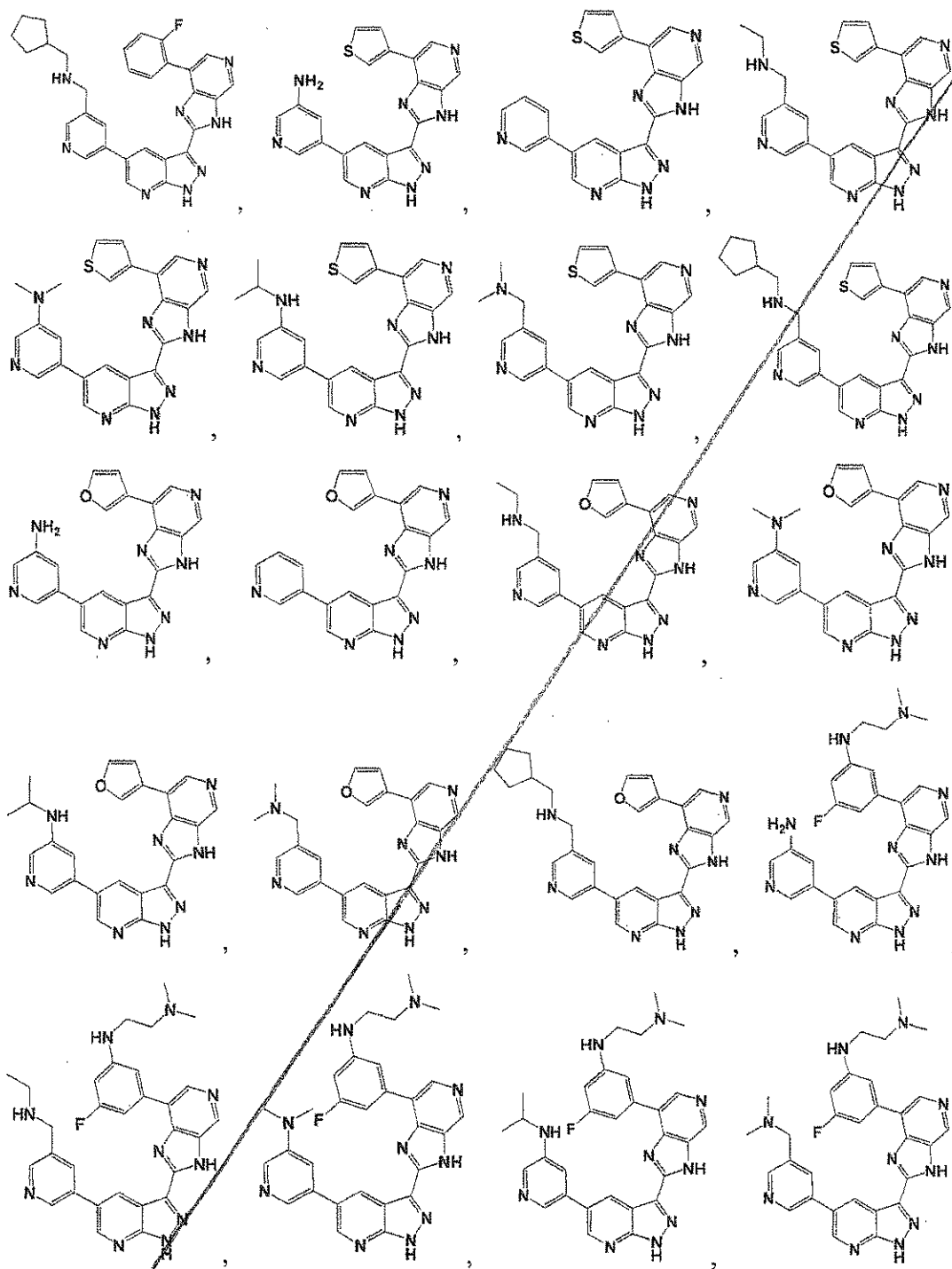
each n is independently an integer of 0 or 1.

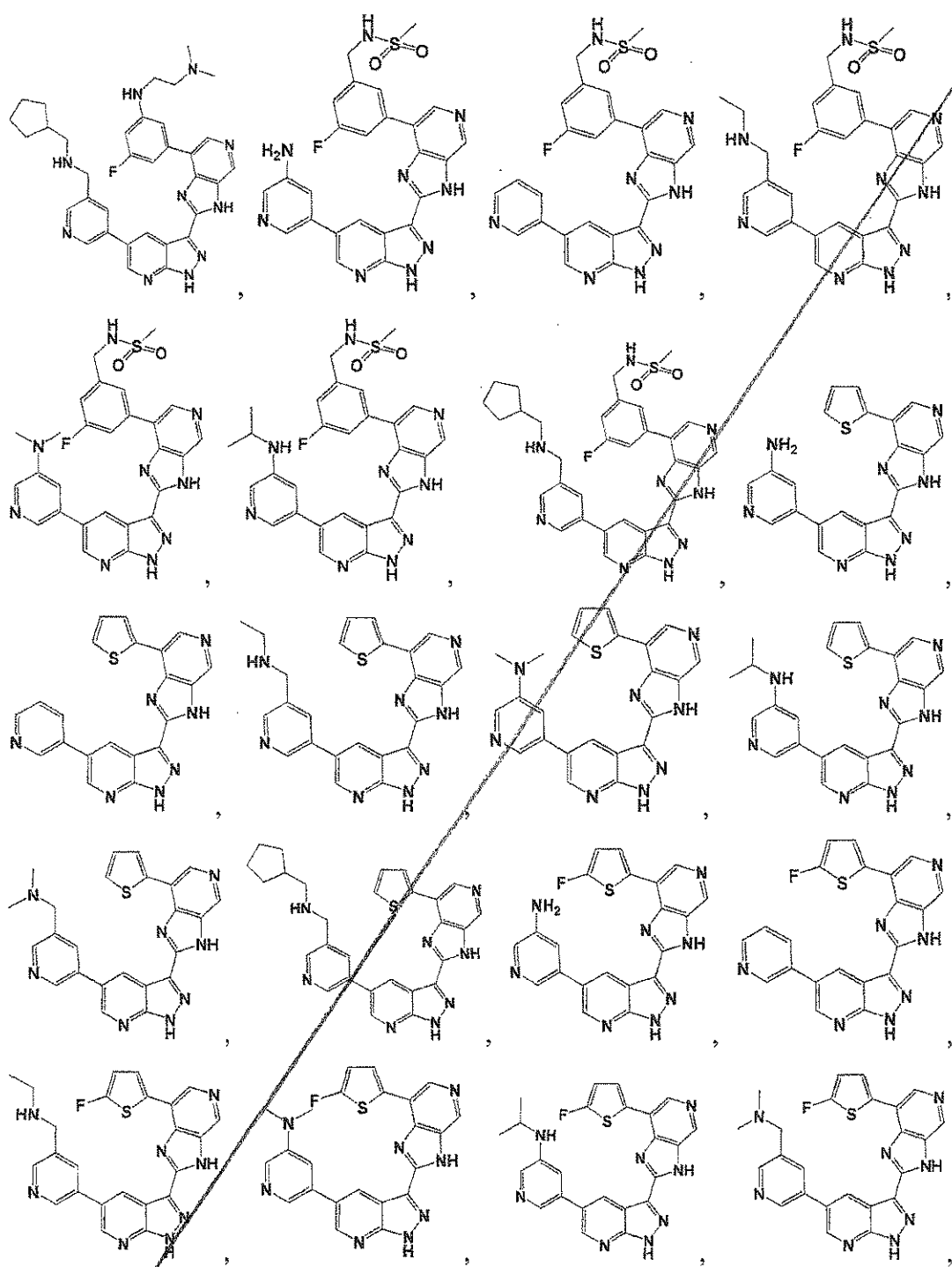
76. The use of claim 75, wherein the compound of Formula (I) has a structure selected from the group consisting of:

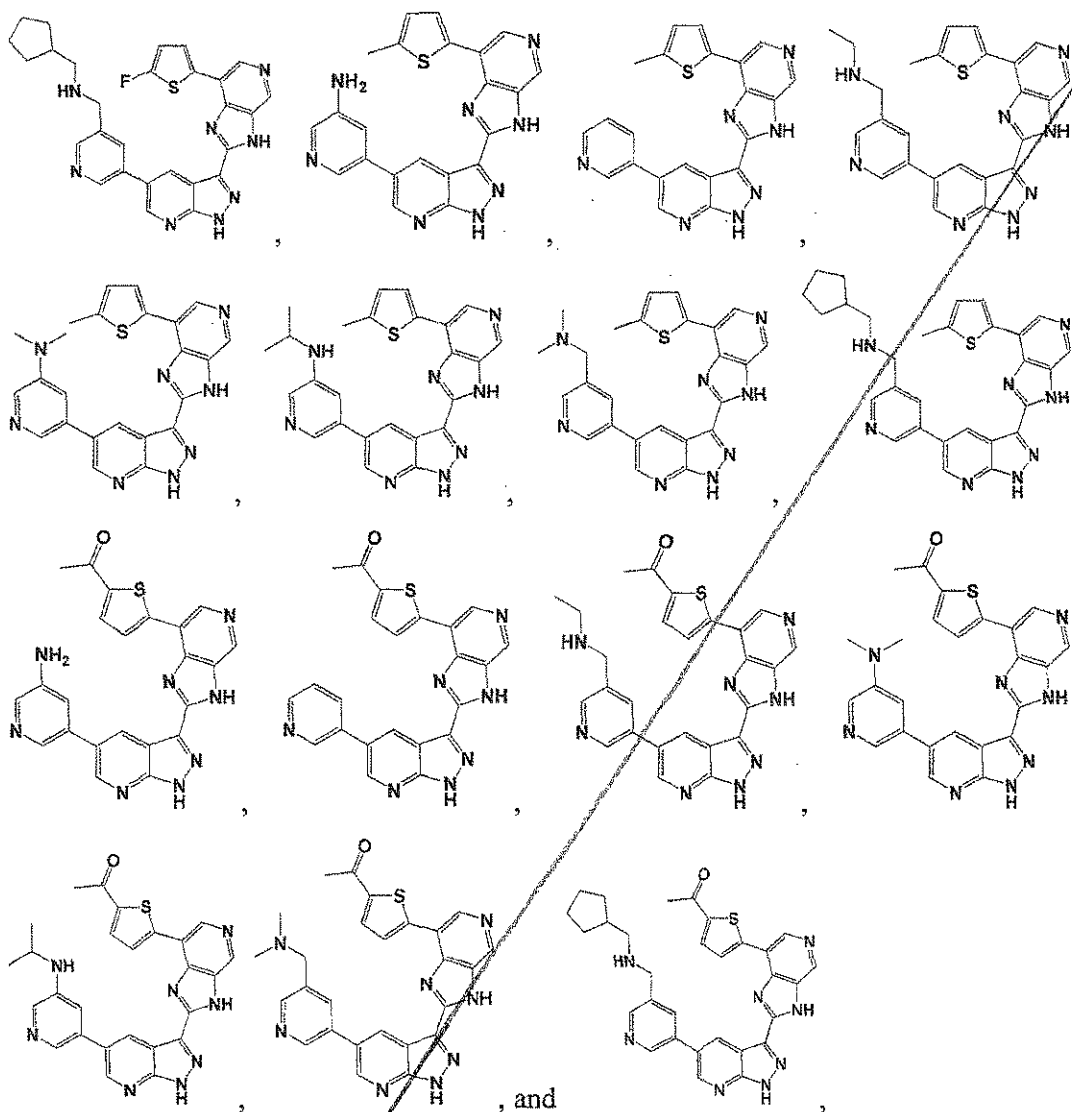






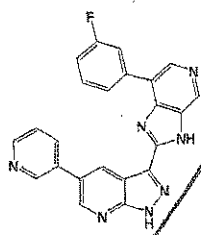






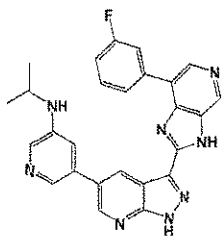
or a pharmaceutically acceptable salt thereof.

77. The use of either claim 75 or 76, wherein the compound has a structure of:



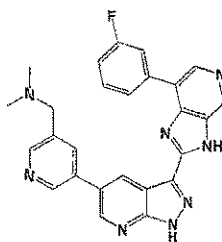
, or a pharmaceutically acceptable salt thereof.

78. The use of either claim 75 or 76, wherein the compound has a structure of:



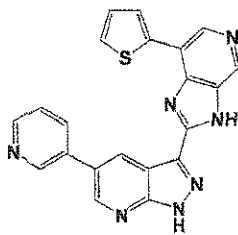
, or a pharmaceutically acceptable salt thereof.

79. The use of either claim 75 or 76, wherein the compound has a structure of:



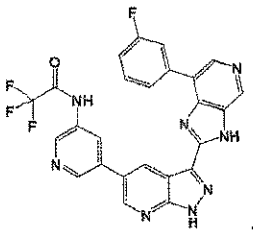
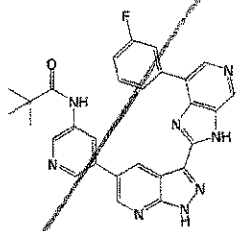
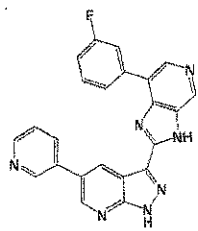
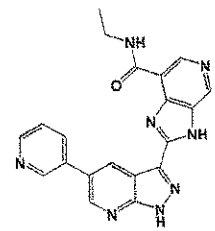
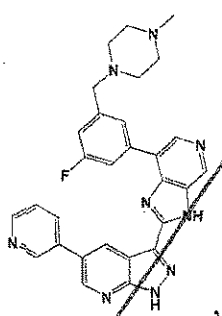
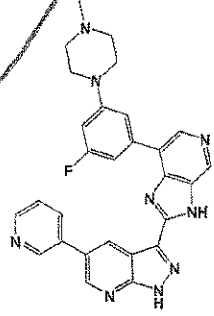
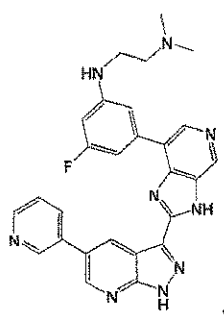
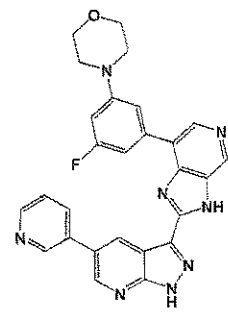
, or a pharmaceutically acceptable salt thereof.

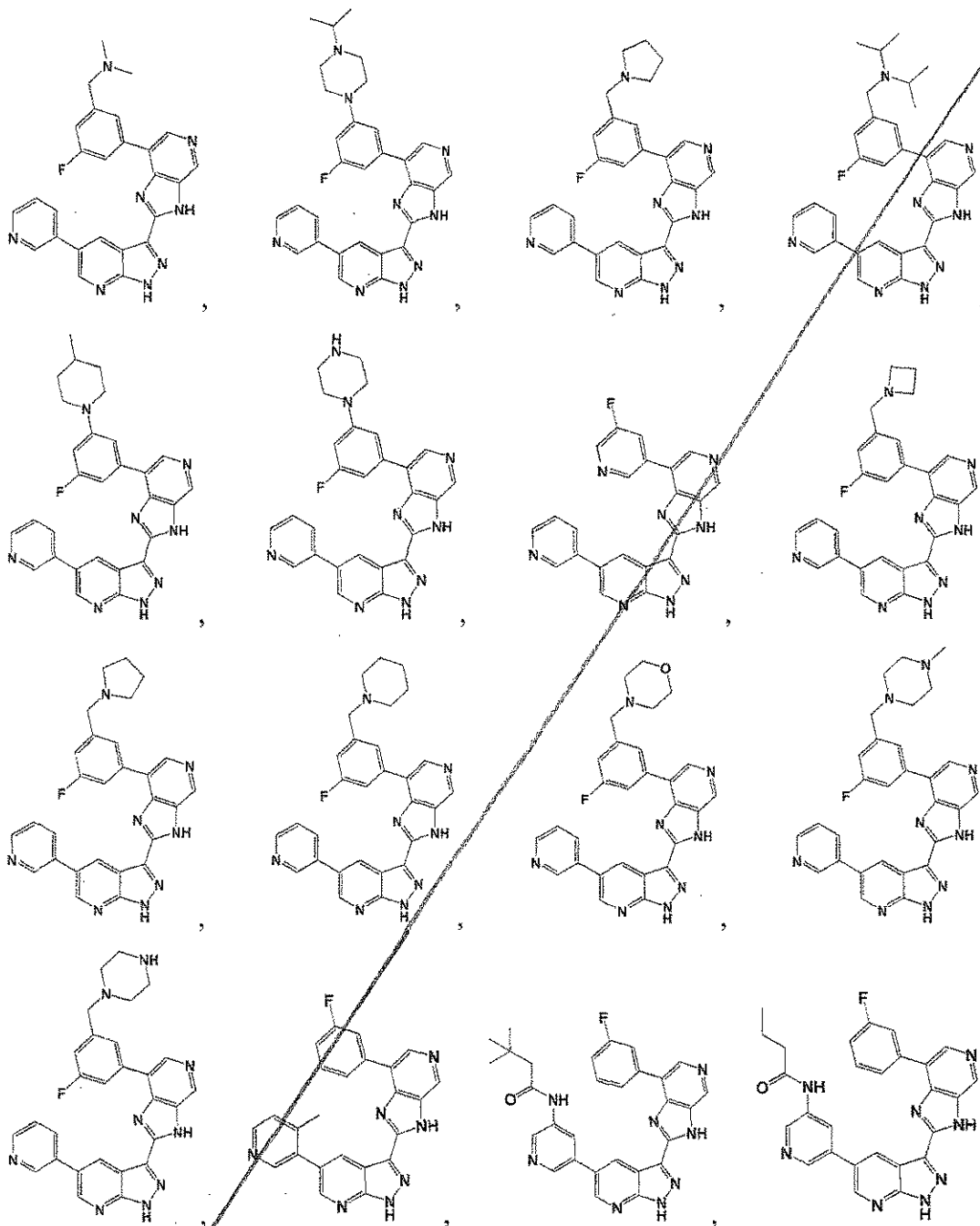
80. The use of either claim 75 or 76, wherein the compound has a structure of:

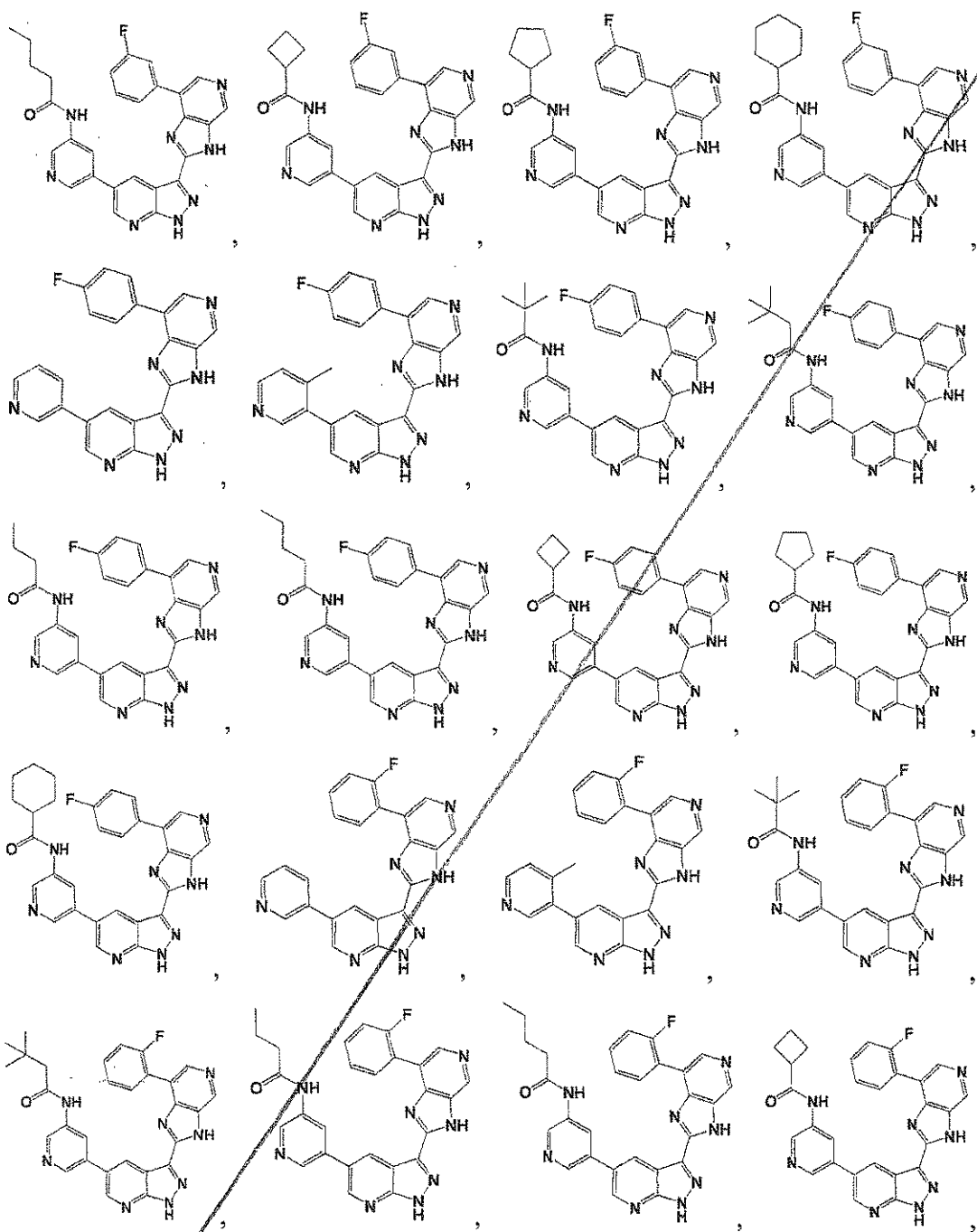


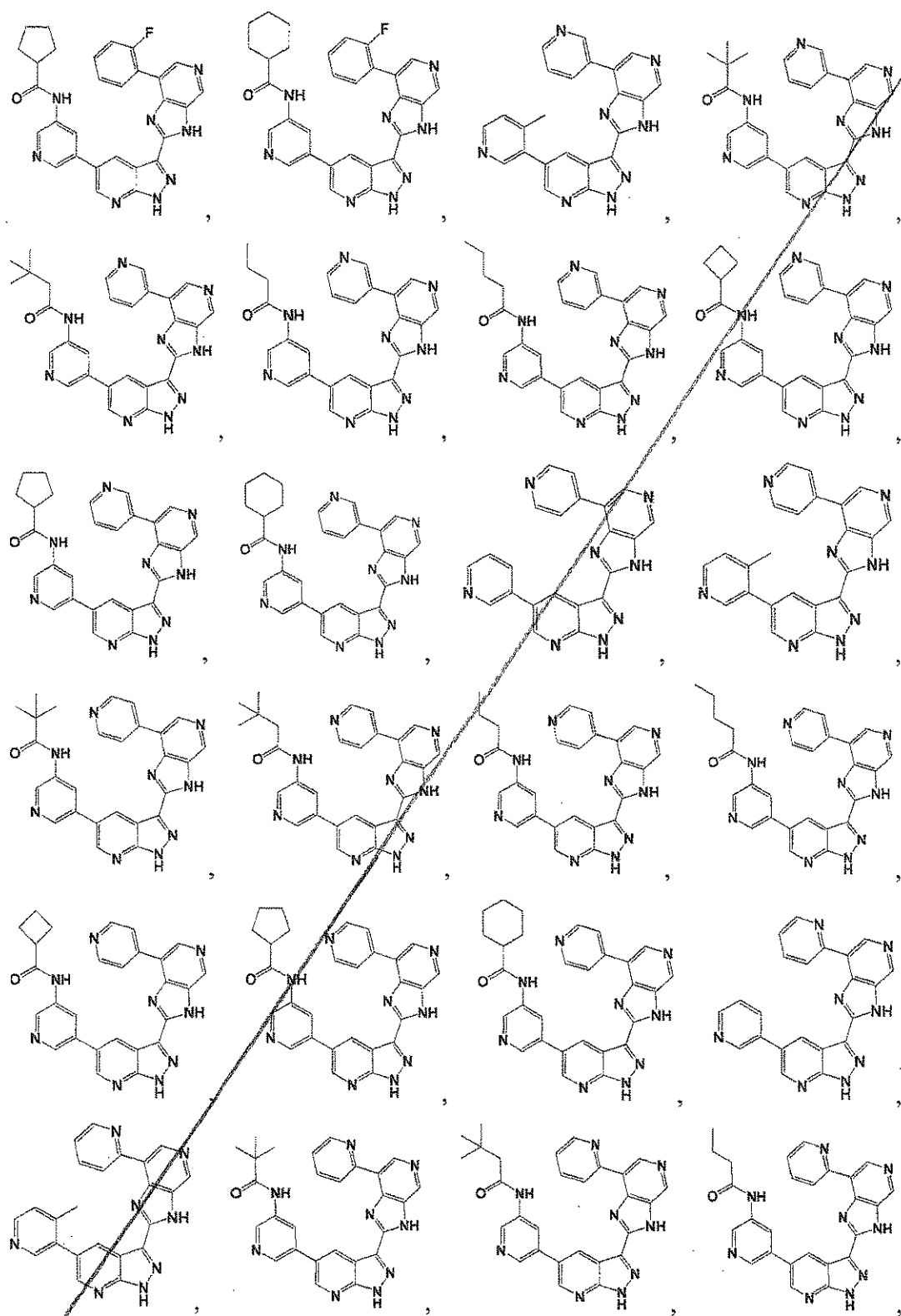
, or a pharmaceutically acceptable salt thereof.

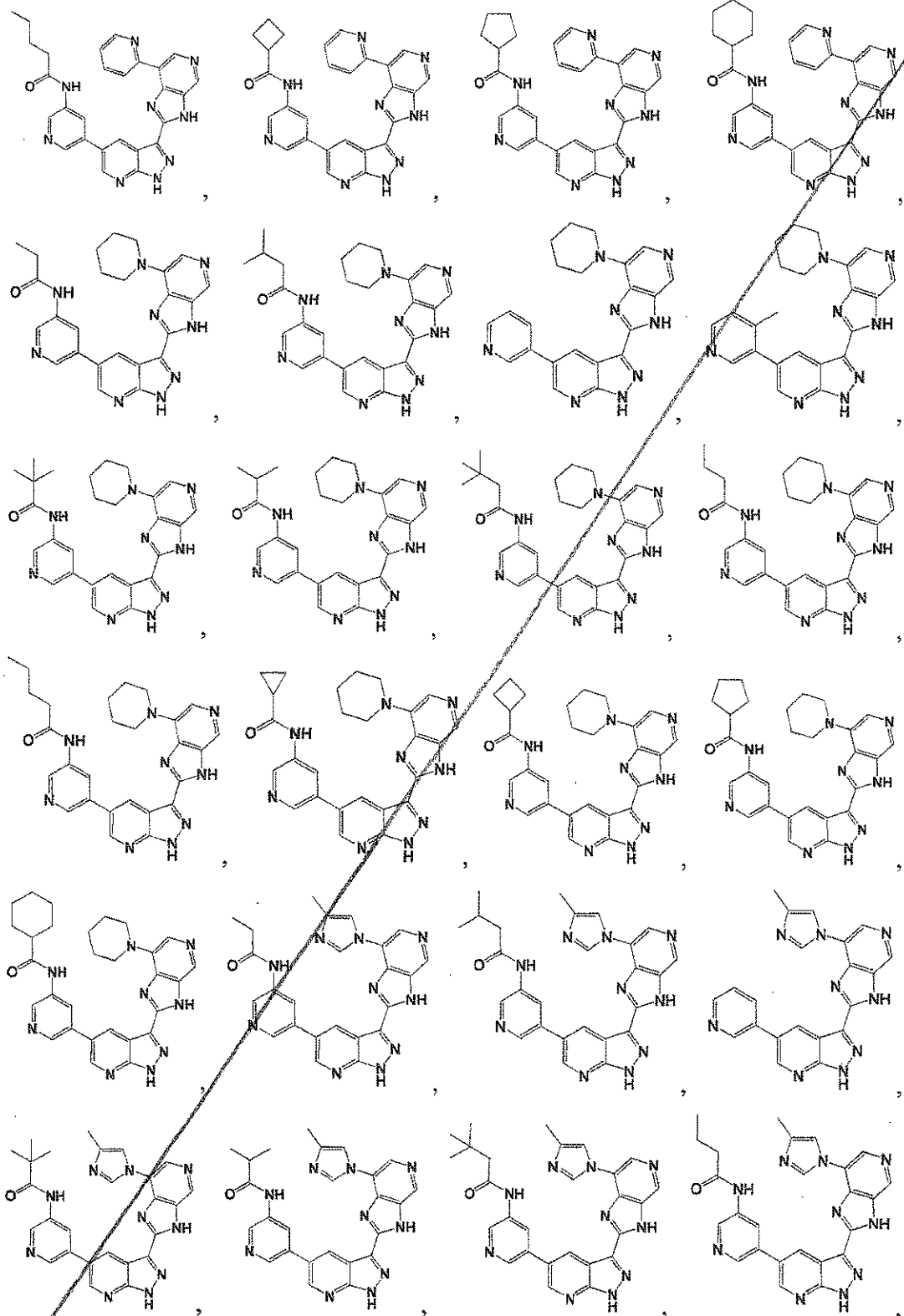
81. A compound having a structure selected from the group consisting of:

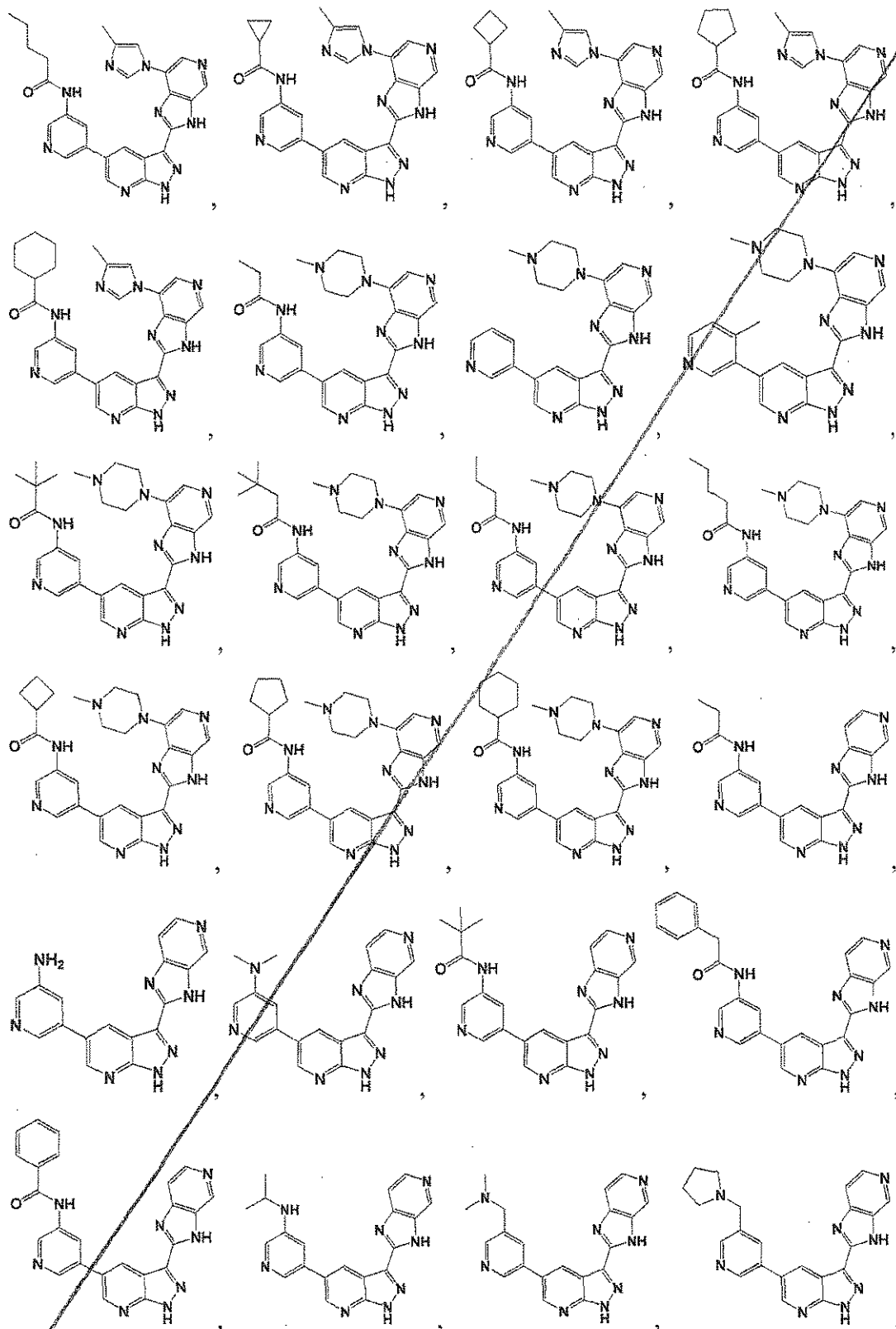


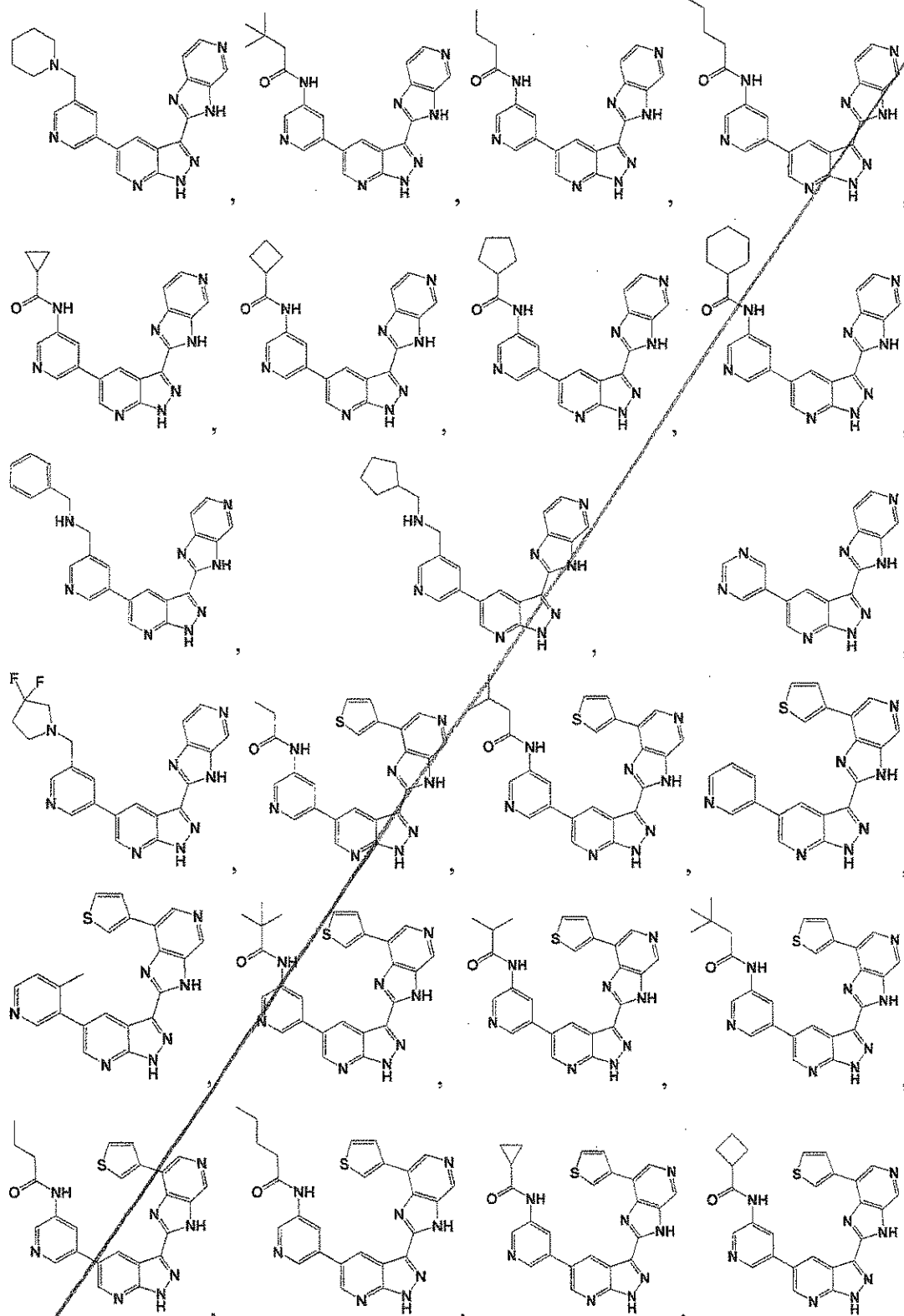


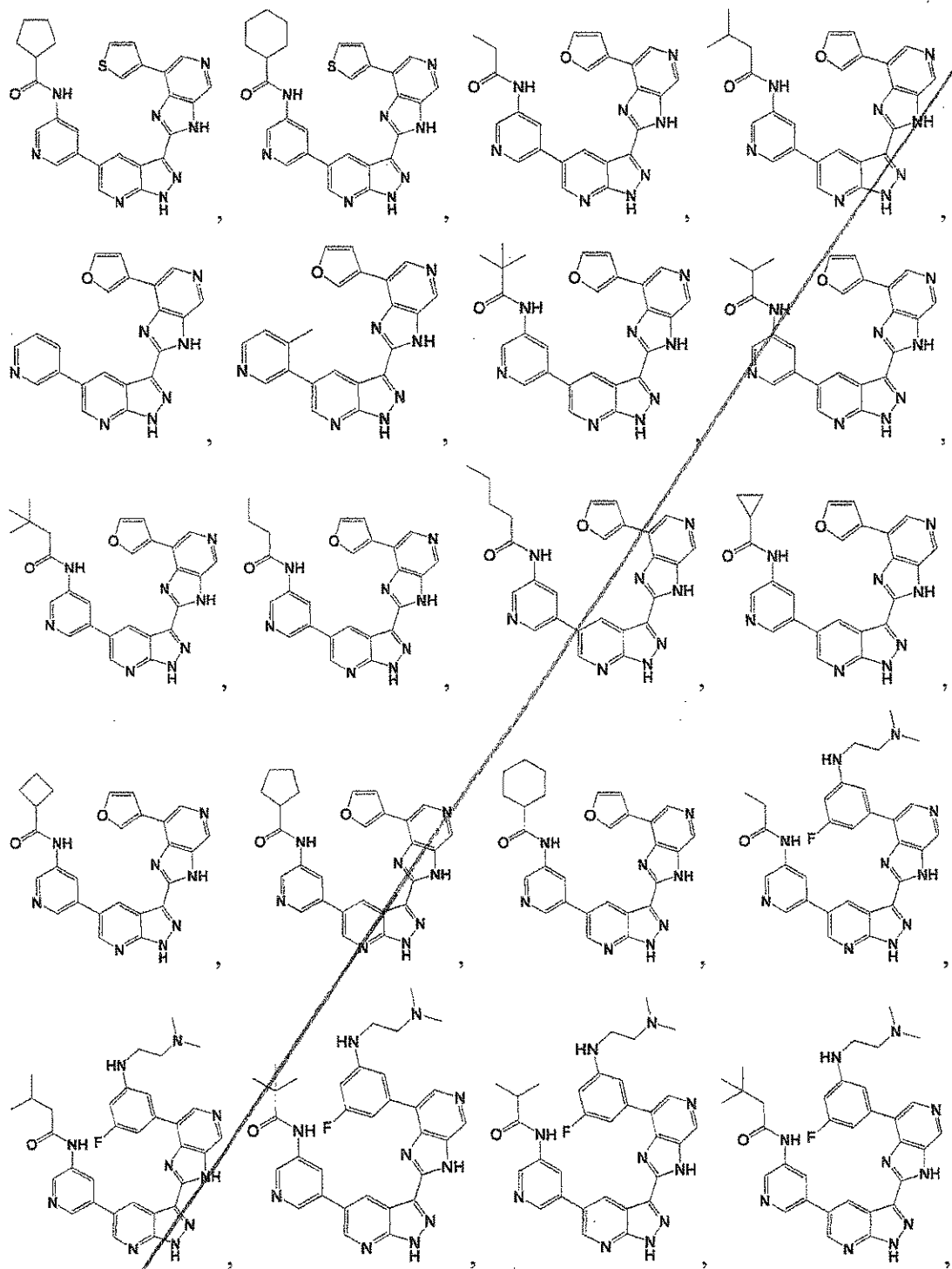


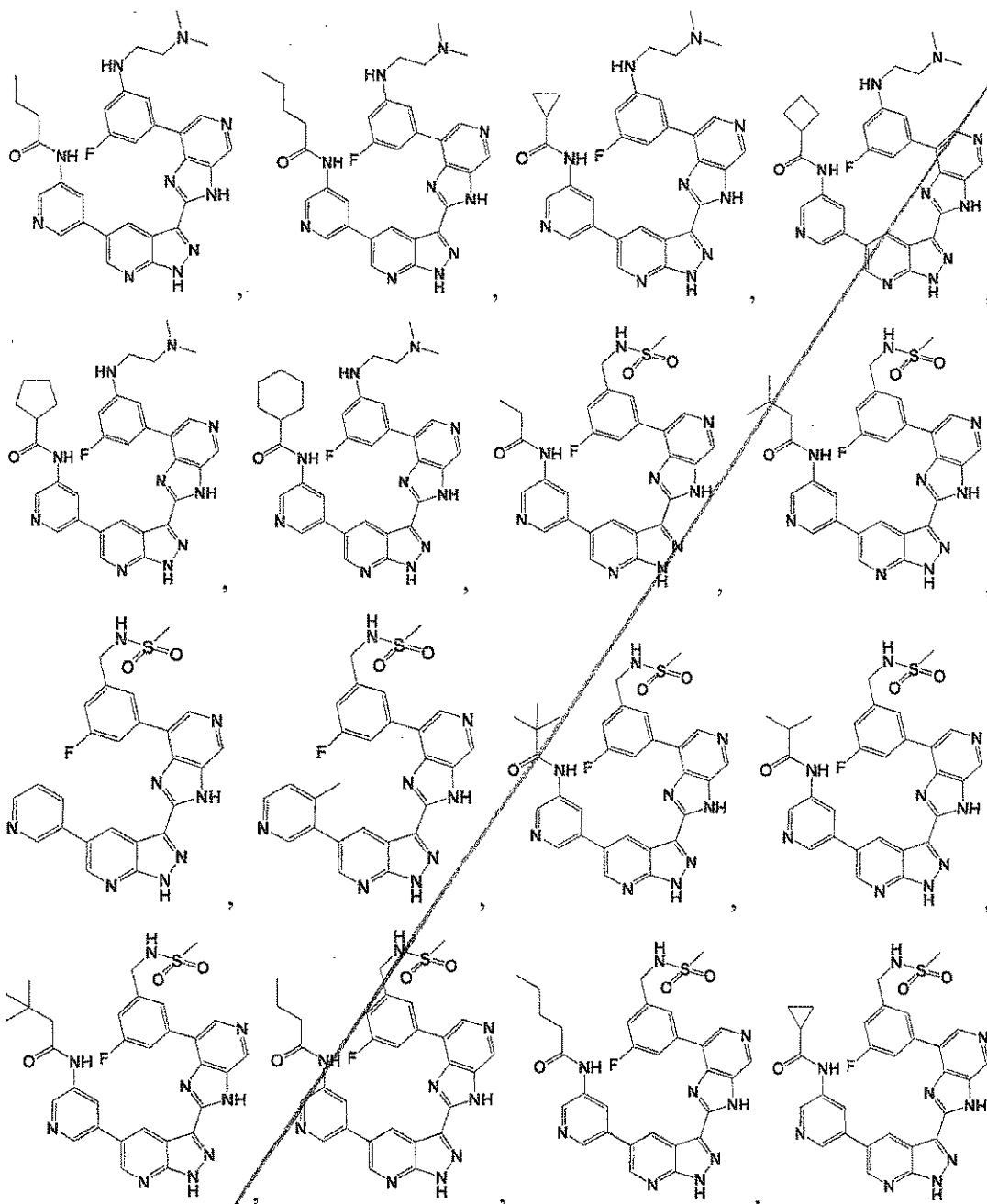


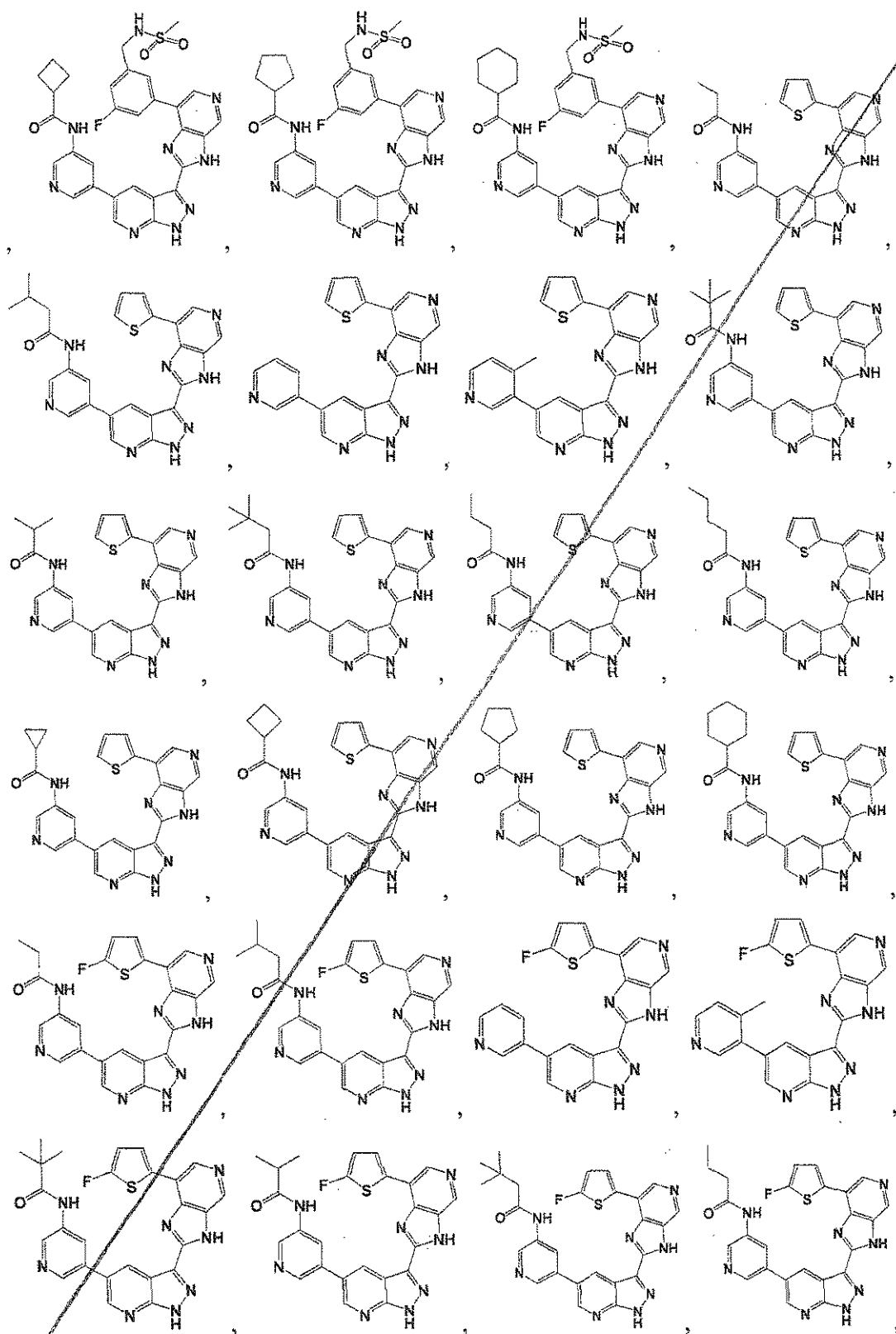


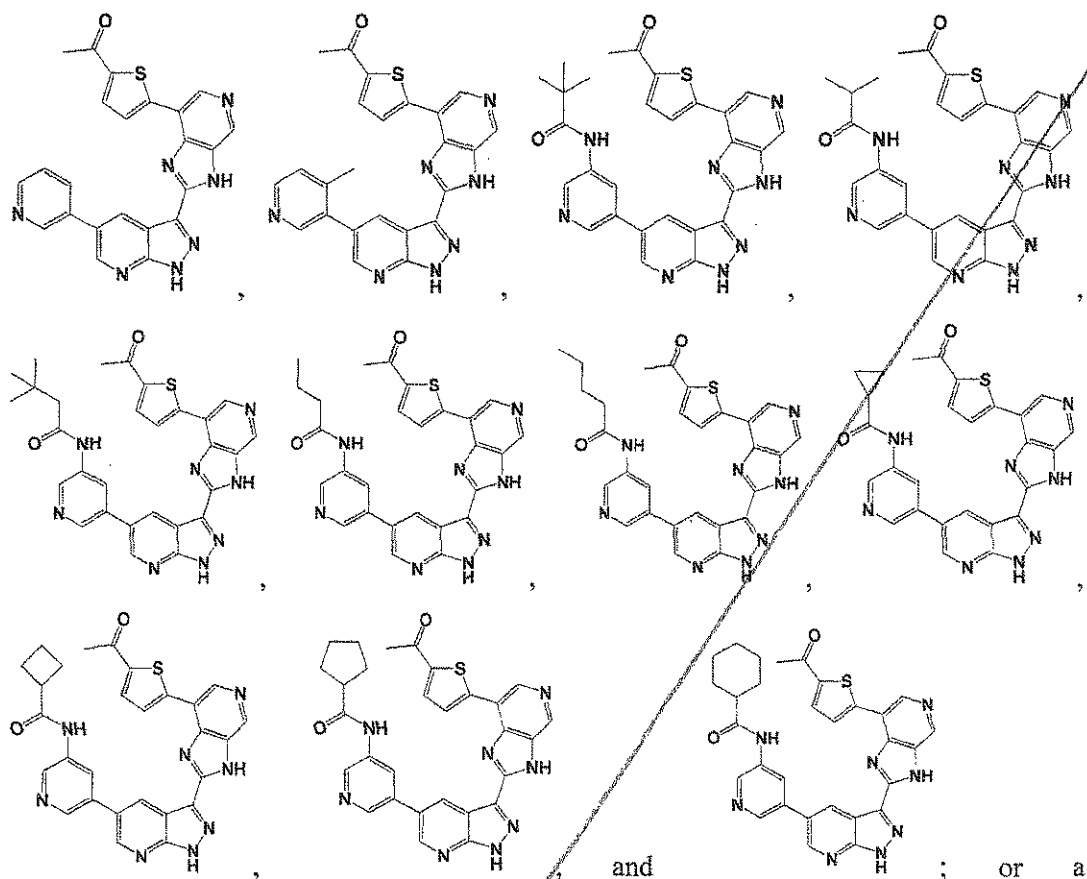






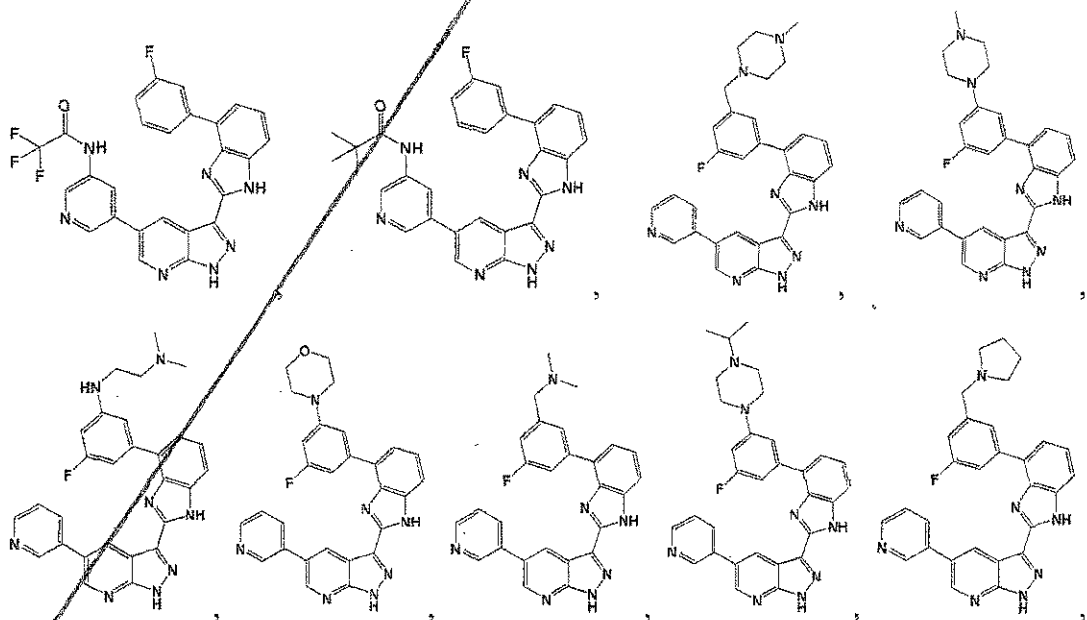


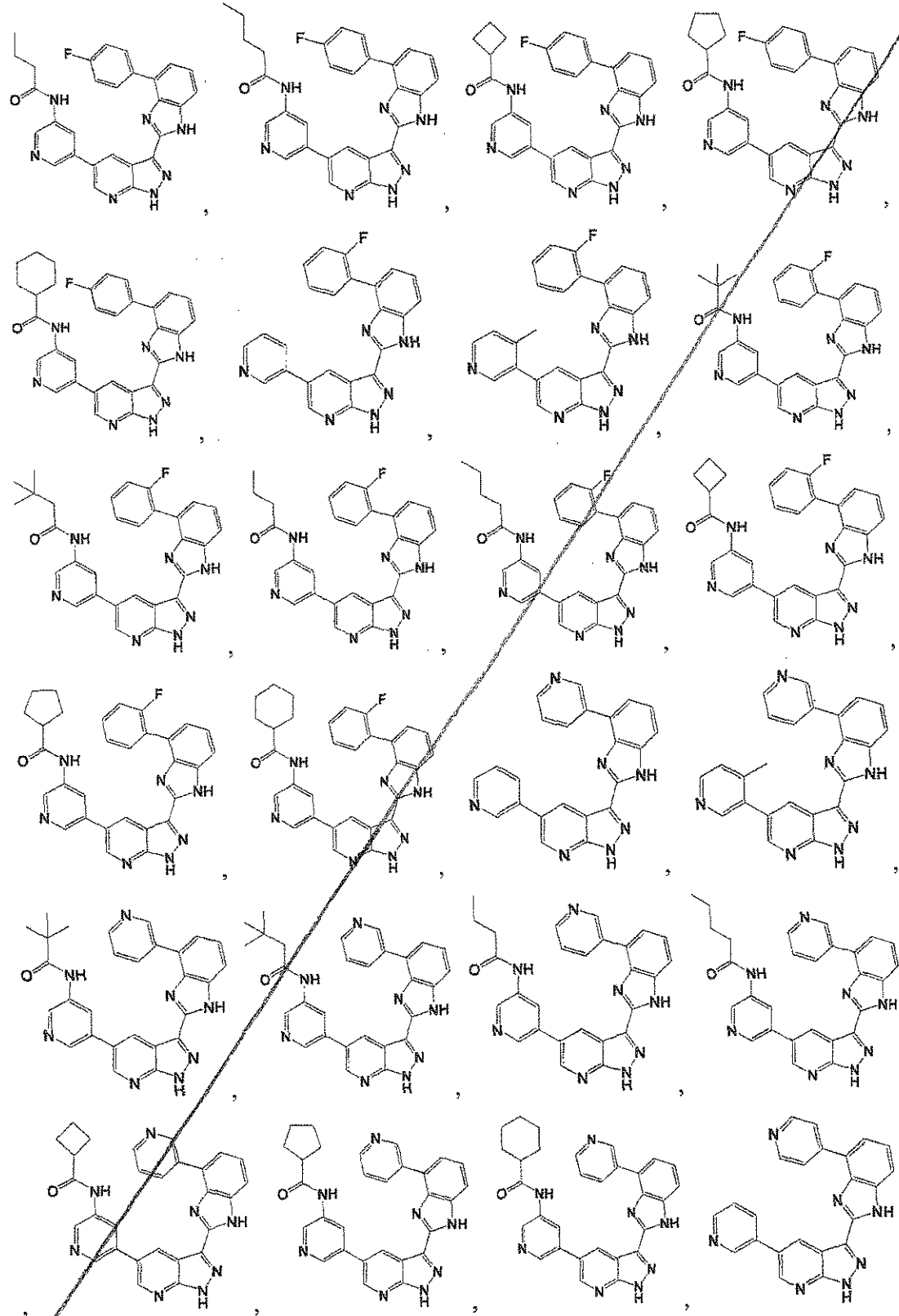


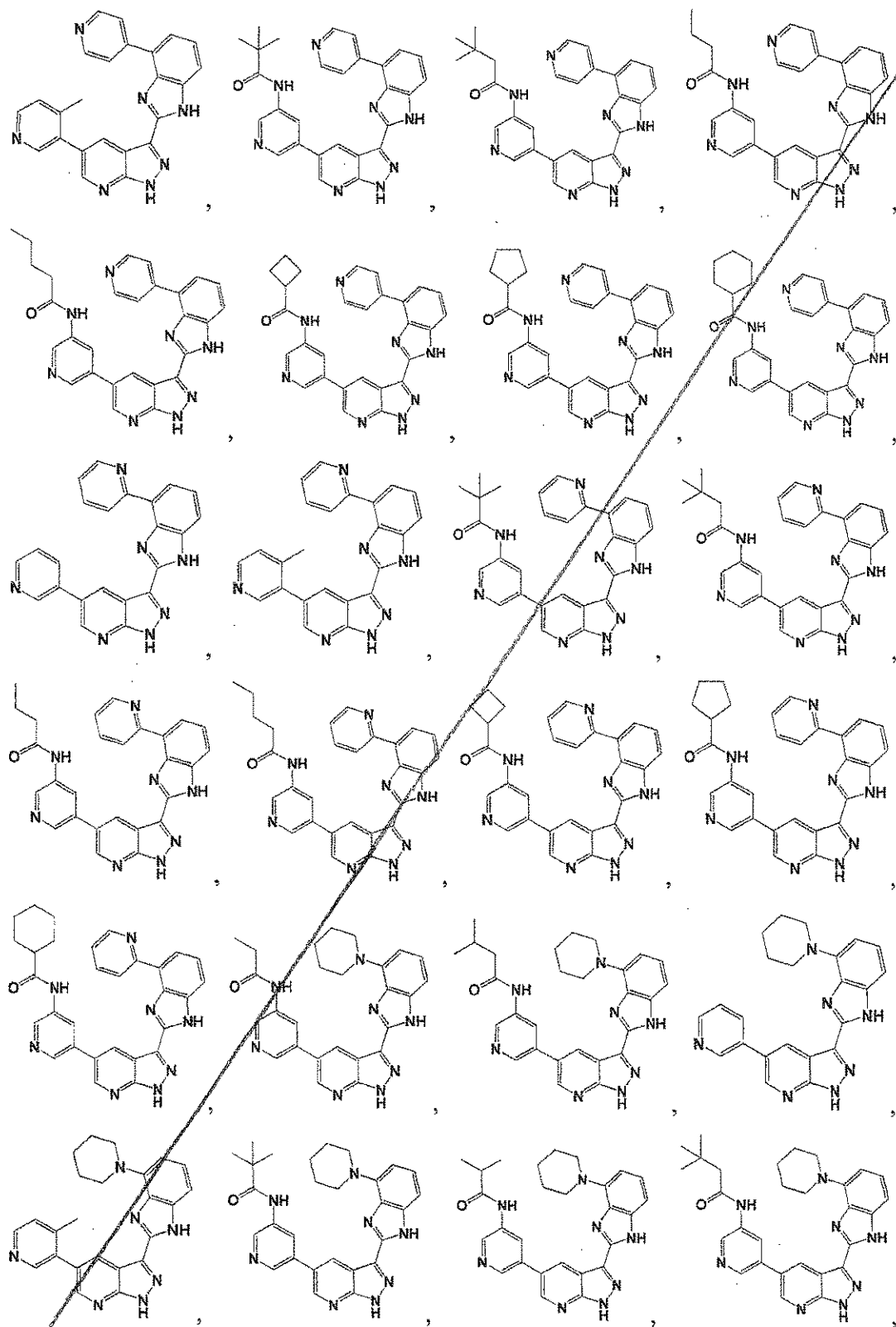


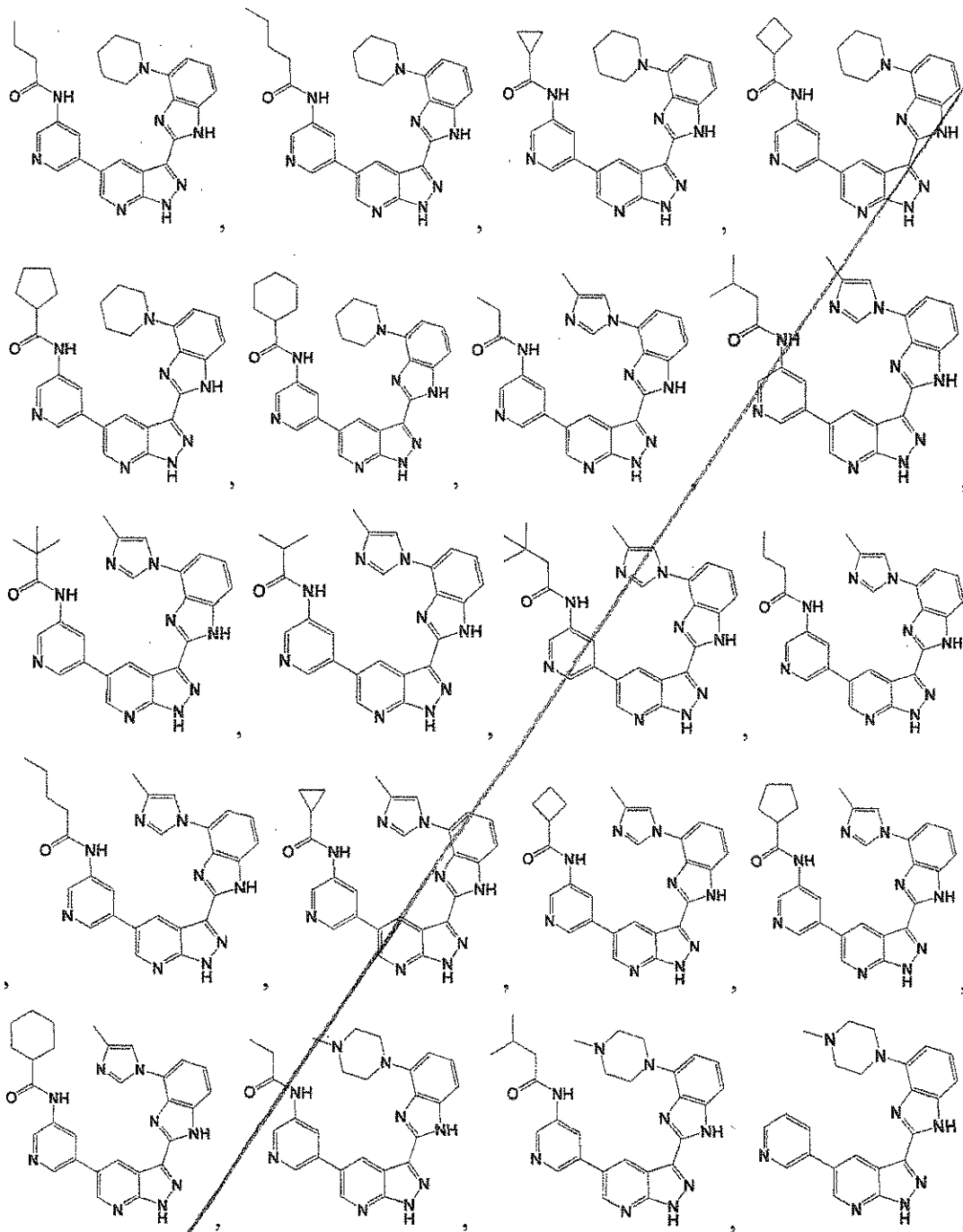
pharmaceutically acceptable salt thereof.

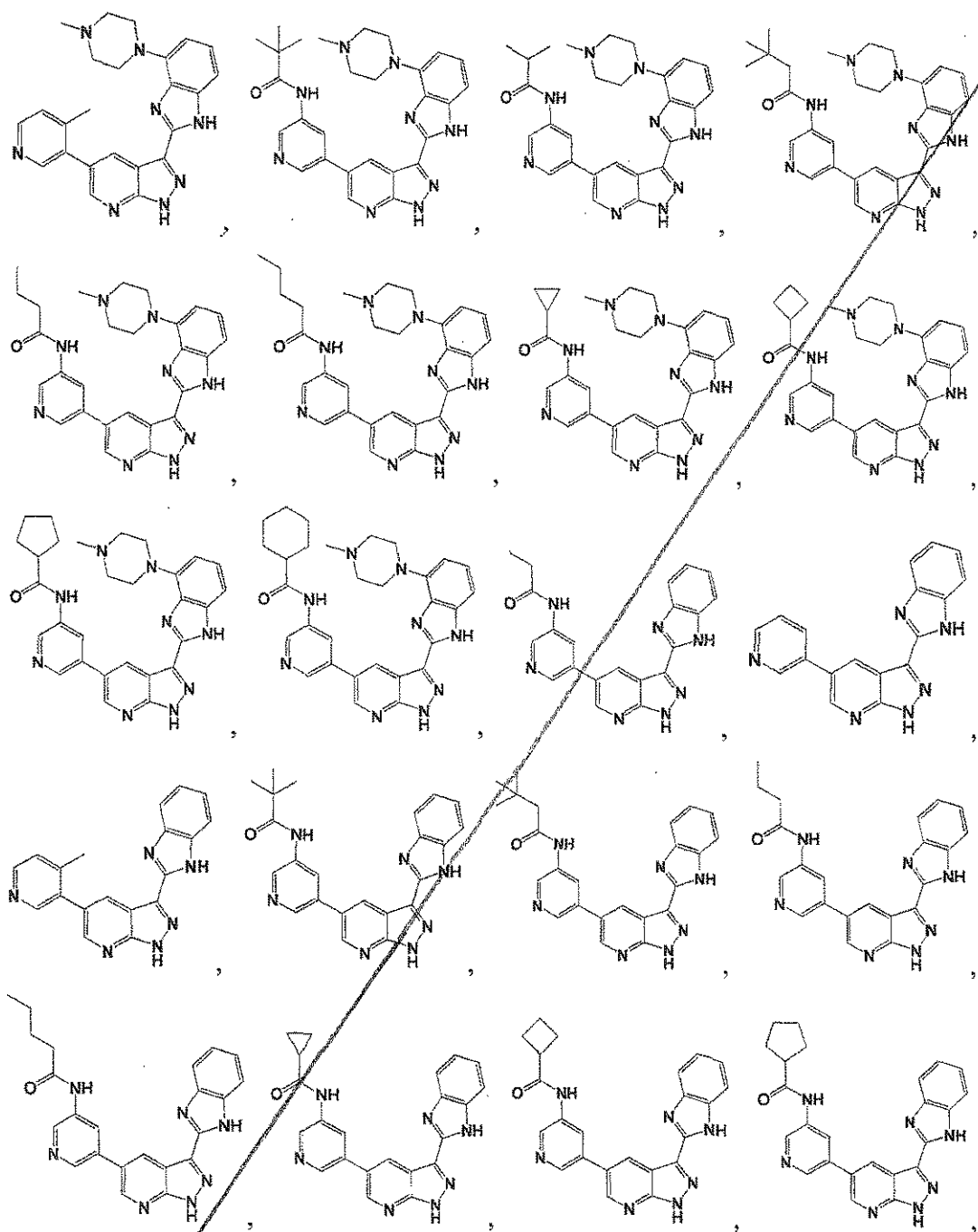
82. A compound having a structure selected from the group consisting of:

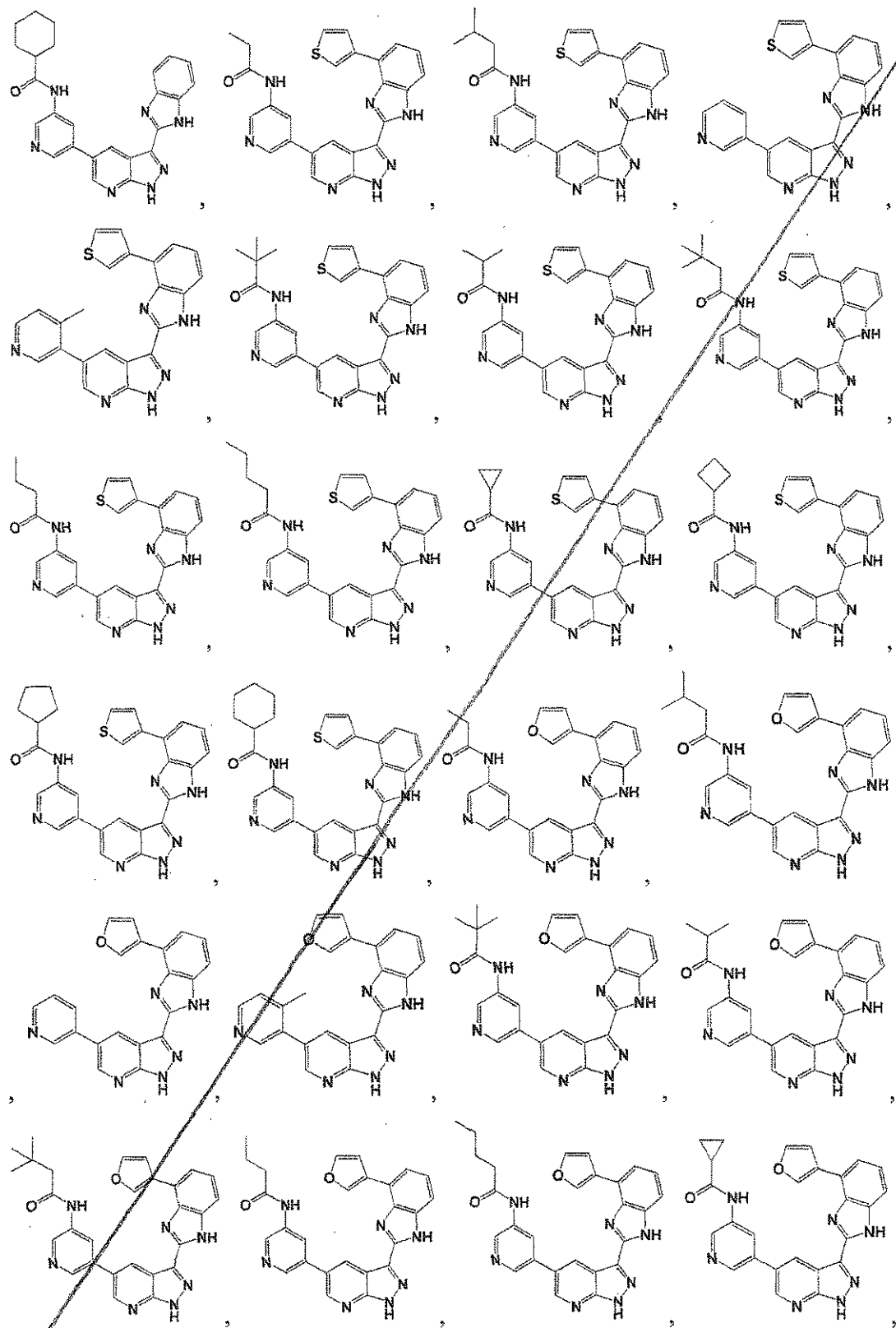


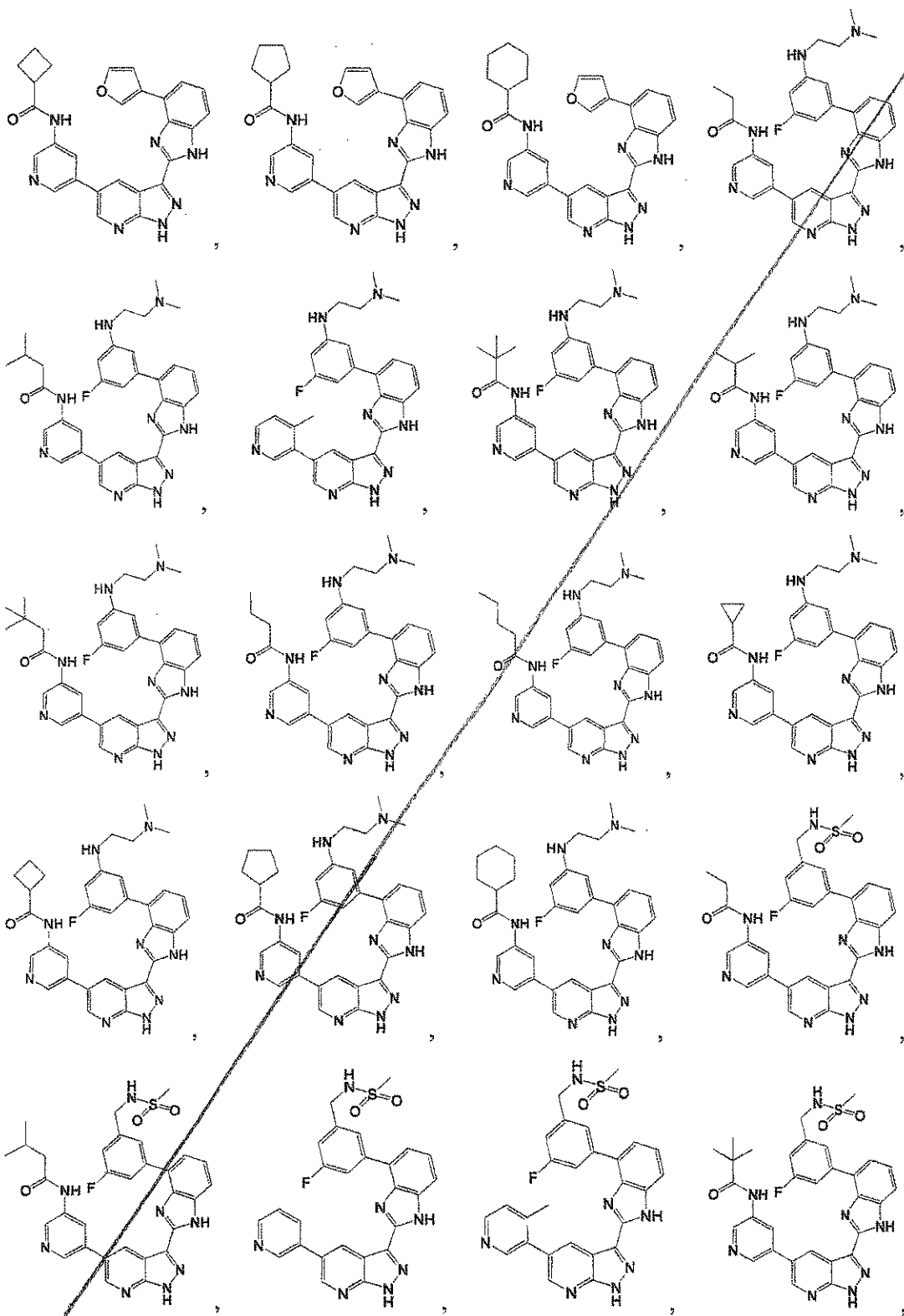


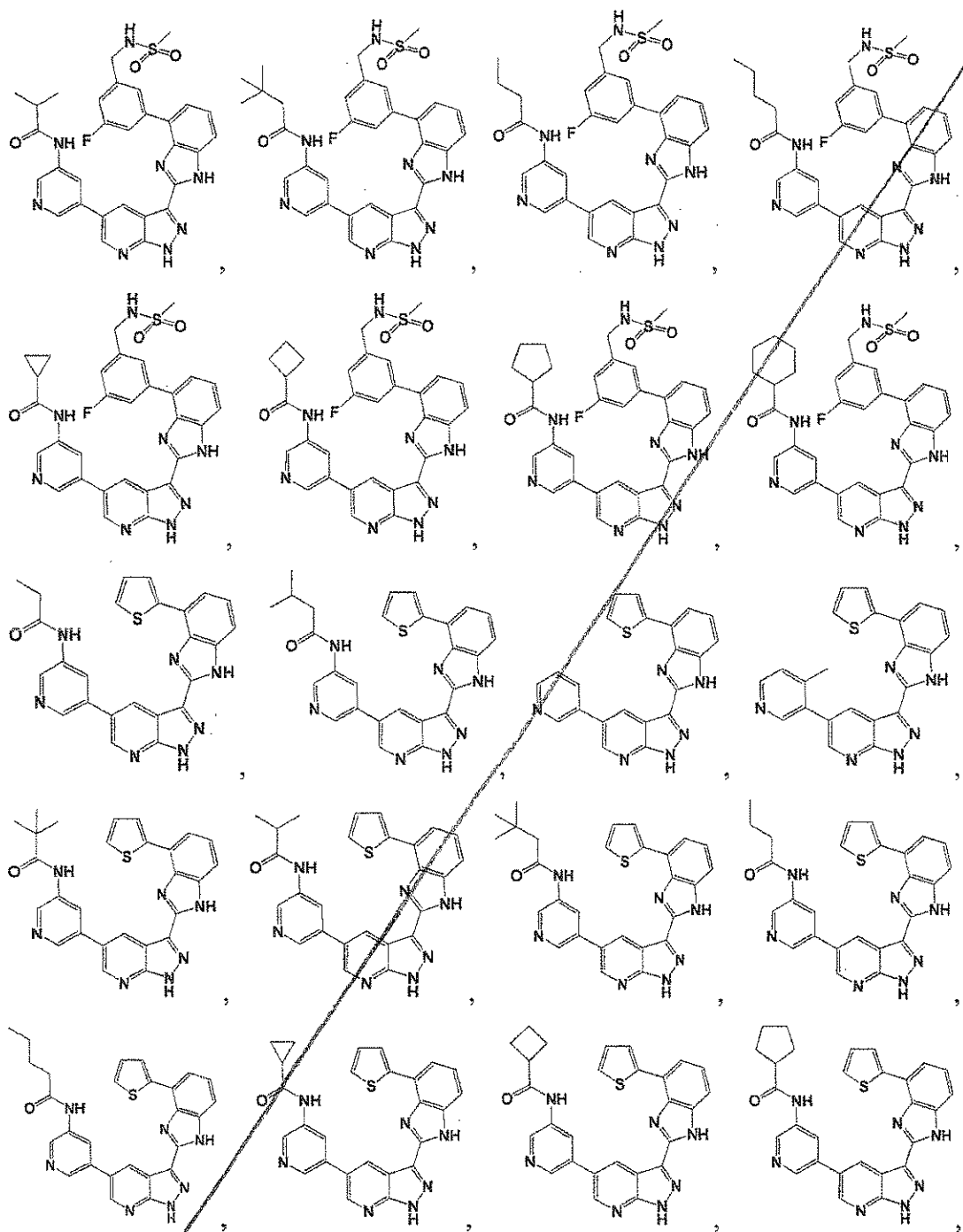


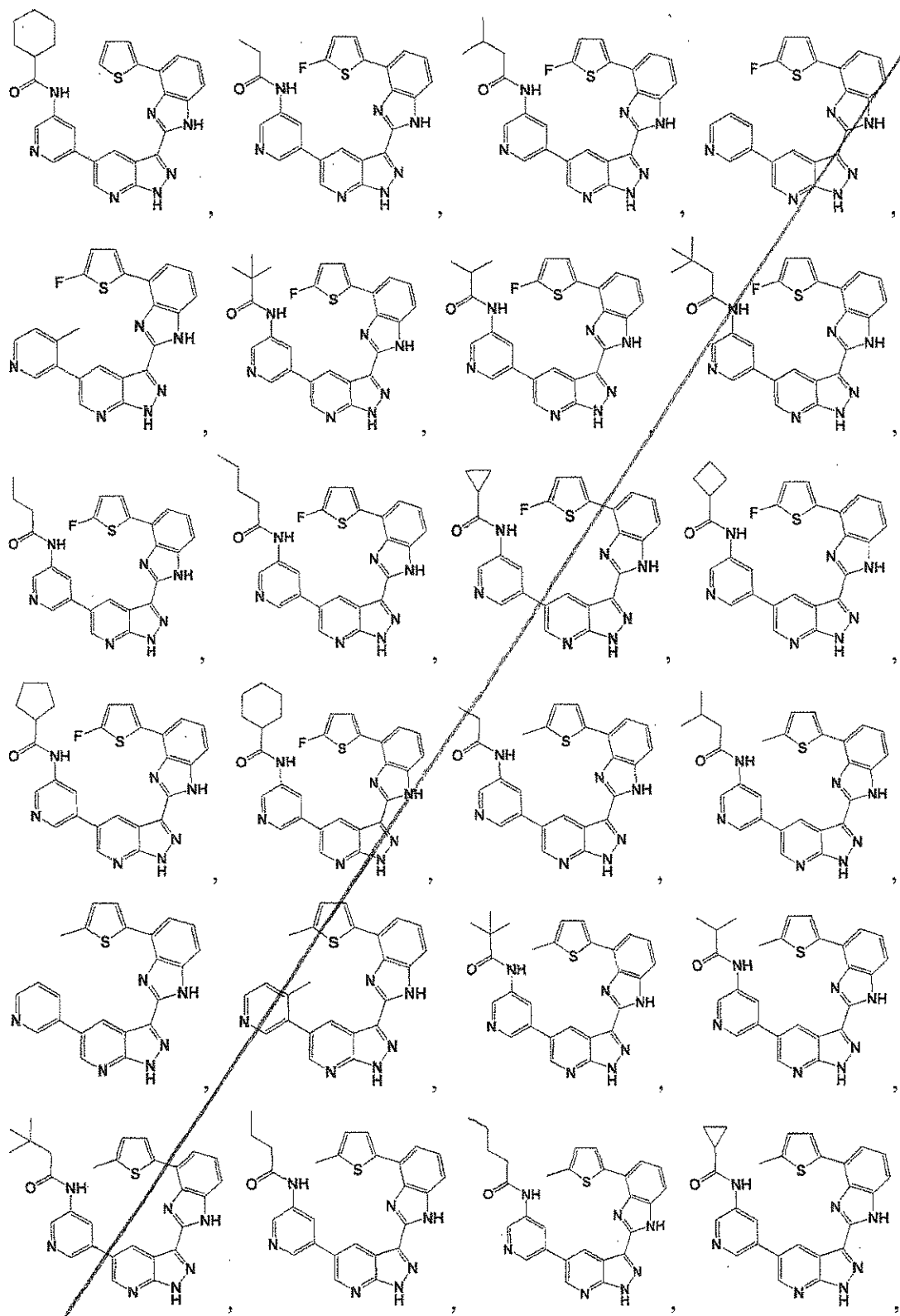


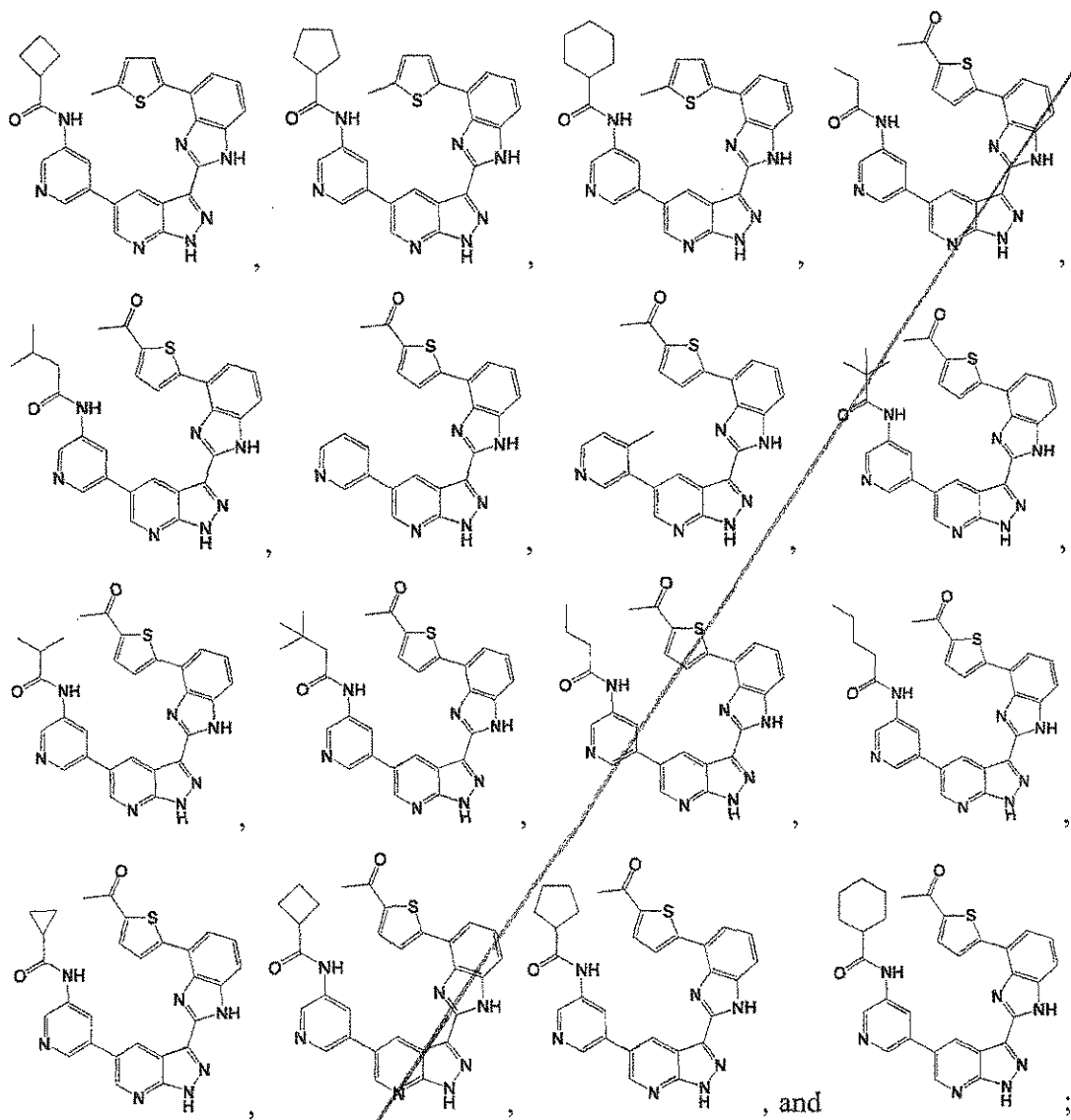












or a pharmaceutically acceptable salt thereof.