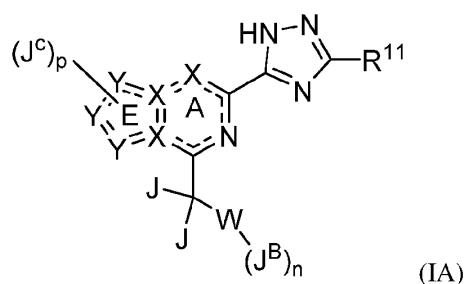


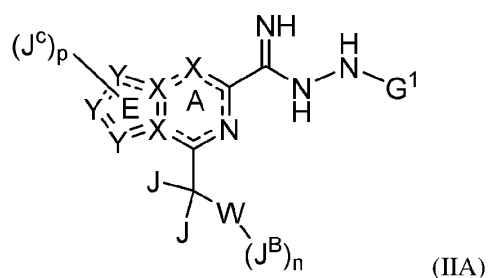
CLAIMS

1. A process for preparing a 3-substituted 1,2,4-triazole compound, comprising reacting an amidrazone compound with a carboxylic acid, an activated ester, a thioester, an acid halide, a thioacyl halide or an acid anhydride in the presence of a base; wherein
 5 when the carboxylic acid is used, an activating agent is also present, and wherein:
 (i) the amidrazone compound comprises an amidrazone bonded to an optionally substituted aryl or heteroaryl;
 (ii) the substituent at the 3 position of the 3-substituted 1,2,4-triazole compound is the optionally substituted aryl or heteroaryl bonded to the amidrazone;
 10 and
 (iii) the 3-substituted 1,2,4-triazole compound may be optionally substituted at the 5-position.
2. The process of claim 1, wherein the 3-substituted 1,2,4-triazole compound is
 15 represented by Formula IA:



or a salt thereof, and

wherein the process comprises reacting the amidrazone compound represented by Formula IIA:



or a salt thereof,

with $R^{11}C(O)OH$, $R^{11}C(O)X'$, $R^{11}C(S)X'$, $R^{11}C(O)OE'$, $R^{11}C(O)SR'$, or $R^{11}C(O)OR''$, wherein when $R^{11}C(O)OH$ is used, an activating agent is also present,

wherein:

rings E and A form the core of the molecule and are aromatic; each instance of X and Y is independently selected from N, NRⁿ and C; wherein a maximum of 4 instances of X and Y are simultaneously N and Rⁿ is H or C₁₋₆alkyl;

5 W is either

i) absent, with J^B connected directly to the carbon atom bearing two J groups, each J is independently hydrogen or methyl, n is 1 and J^B is a C₁₋₇ alkyl chain optionally substituted by up to 9 instances of fluorine; or

10 ii) a ring B that is a phenyl, a C₃₋₇ cycloalkyl ring or a 5 or 6-membered heteroaryl ring, containing 1 or 2 ring nitrogen atoms;

wherein when ring B is the phenyl or 5 or 6-membered heteroaryl ring; each J is independently hydrogen or methyl; n is an integer selected from 0 to 3; and each J^B is independently selected from halo, -CN, a C₁₋₆ aliphatic, -OR^B and a C₃₋₈ cycloaliphatic ring; and

15 wherein when ring B is the C₃₋₇ cycloalkyl ring; each J is hydrogen; n is an integer selected from 0 to 3 and each J^B is independently selected from halo, -CN, a C₁₋₆ aliphatic and -OR^{B1};

wherein each J^B that is a C₁₋₆ aliphatic and each J^B that is a C₃₋₈ cycloaliphatic ring are optionally and independently substituted with up to 3 instances of R³;

20 each R^B is independently a C₁₋₆ aliphatic or a C₃₋₈ cycloaliphatic ring; said R^B optionally and independently substituted with up to 3 instances of R^{3a};

each R^{B1} is independently selected from hydrogen, a C₁₋₆ aliphatic and a C₃₋₈ cycloaliphatic ring; wherein each of said C₁₋₆ aliphatic and each of said C₃₋₈ cycloaliphatic ring are optionally and independently substituted with up to 3 instances of R^{3b};

25 each R³, R^{3a} and R^{3b} is, in each instance, independently selected from halo, -CN, C₁₋₄ alkyl, C₁₋₄ haloalkyl, -O(C₁₋₄ alkyl) and -O(C₁₋₄ haloalkyl);

p is an integer selected from 1, 2 or 3;

30 each J^C is independently selected from hydrogen, halo, C₁₋₄ aliphatic, C₁₋₄ alkoxy and -CN; wherein each said C₁₋₄ aliphatic and C₁₋₄ alkoxy is optionally and independently substituted by up to 3 instances of C₁₋₄ alkoxy, C₁₋₄ haloalkoxy, -OH or halo

R¹¹ is H, -NR^{a2}R^{b2}, -C(O)NR^{a2}R^{b2}, -C(O)R^{15a}, -CN, C₂₋₆ alkenyl optionally and independently substituted with 0-2 occurrences of R^{b2}, C₂₋₆ alkynyl optionally and

independently substituted with 0-2 occurrences of R^{b2} ; C_{1-6} alkyl optionally and independently substituted with 0-3 occurrences of R^{15} , C_{1-6} alkoxy optionally and independently substituted with 0-5 occurrences of R^{15} , phenyl optionally and independently substituted with 0-3 occurrences of R^{15} , 5- to 6-membered heteroaryl optionally and independently substituted with 0-3 occurrences of R^{15} , C_{3-8} cycloalkyl optionally and independently substituted with 0-3 occurrences of R^{15} or 3-8 membered heterocyclyl optionally and independently substituted with 0-3 occurrences of R^{15} ; wherein each of said 5- to 6-membered heteroaryl and each of said 3-8 membered heterocyclyl contain up to 3 ring heteroatoms independently selected from N, O and S;

R^{15} is halo, $-OR^{b2}$, $-SR^{b2}$, $-NR^{a2}R^{b2}$, $-C(O)R^{b2}$, $-C(O)NR^{a2}R^{b2}$, $-NR^{b2}C(O)OR^{b2}$, $-OC(O)NR^{a2}R^{b2}$, C_{2-4} alkenoxy, C_{3-8} cycloalkyl optionally and independently substituted with 0-3 occurrences of R^{18} , phenyl optionally and independently substituted with 0-3 occurrences of R^{18} , 5- or 6-membered heteroaryl optionally and independently substituted with 0-3 occurrences of R^{18} or 3-10 membered heterocyclyl optionally and independently substituted with 0-3 occurrences of R^{18} ; wherein each of said 5- or 6-membered heteroaryl ring and each of said 3-10 membered heterocyclyl contain up to 3 ring heteroatoms independently selected from N, O and S;

R^{15a} is C_{3-8} cycloalkyl optionally and independently substituted with 0-3 occurrences of R^{18} , phenyl optionally and independently substituted with 0-3 occurrences of R^{18} , 5- or 6-membered heteroaryl optionally and independently substituted with 0-3 occurrences of R^{18} or 3-10 membered heterocyclyl optionally and independently substituted with 0-3 occurrences of R^{18} ; wherein each of said 5- or 6-membered heteroaryl ring and each of said 3-10 membered heterocyclyl contain up to 3 ring heteroatoms independently selected from N, O and S;

each R^{18} is independently selected from halo, hydroxyl, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} haloalkyl and phenyl;

R^{a2} is hydrogen, $-C(O)R^{b2}$, C_{1-6} alkyl or C_{1-6} haloalkyl;

R^{b2} is hydrogen, C_{1-6} alkyl or C_{1-6} haloalkyl;

X^* is a halide;

OE^* is a leaving group of an activated ester;

SR^* is a leaving group of a thioester;

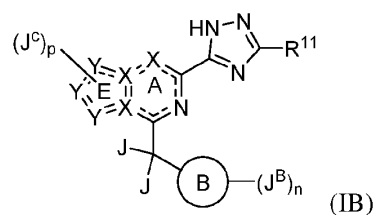
R^{**} is $C(O)R^{11}$, $C(O)R^{11a}$, $N=CR^{11b}R^{11c}$, $P(O)(OH)_2$, or $PH(O)OH$;

R^{11a} is a C₁₋₆alkyl;

R^{11b} and R^{11c} are each independently a C₁₋₆alkyl or phenyl, or R^{11b} and R^{11c} together with the carbon atom from which they are attached form a C₄₋₆cycloalkyl; and

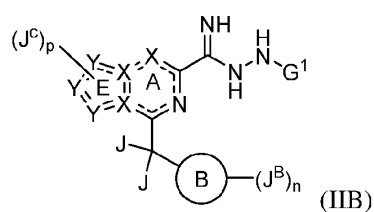
5 G¹ is an amidrazone protecting group.

3. The process of claim 2, wherein the 3-substituted 1,2,4-triazole compound of Formula IA or a salt thereof is of Formula IB



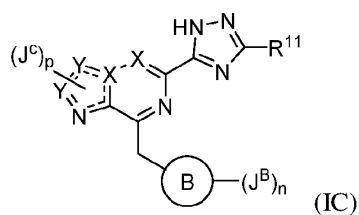
10 or a salt thereof, and

the amidrazone compound of Formula IIA is of Formula IIB



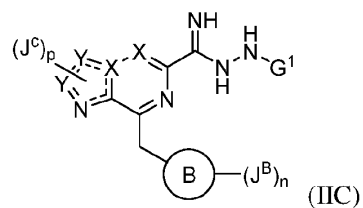
or a salt thereof.

15 4. The process of claim 3, wherein the 3-substituted 1,2,4-triazole compound of Formula
IB or a salt thereof is of Formula IC



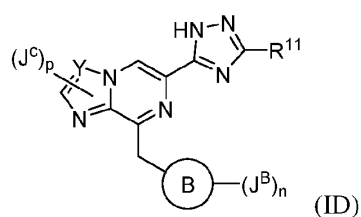
or a salt thereof,

and the amidrazone compound of Formula IIB is of Formula IIC



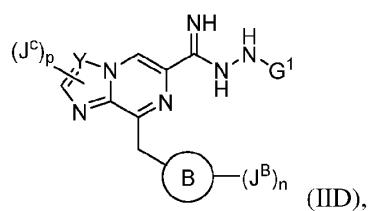
or a salt thereof.

5. The process of claim 4, wherein the 3-substituted 1,2,4-triazole compound of Formula
5 IC or a salt thereof is of Formula ID



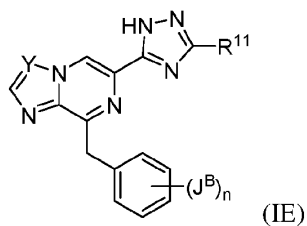
or a salt thereof, and

the amidrazone compound of Formula IIC is of Formula IID



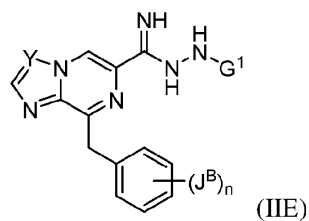
- 10 or a salt thereof,
 wherein Y is N or C.

6. The process of claim 5, wherein the 3-substituted 1,2,4-triazole compound of Formula ID or a salt thereof is of Formula IE



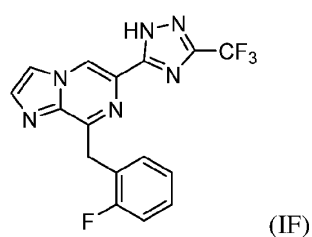
- 15 or a salt thereof, and

the amidrazone compound of Formula IID is of Formula IIE



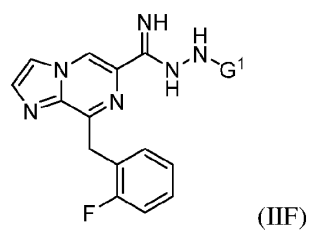
or a salt thereof.

7. The process of claim 6, wherein the 3-substituted 1,2,4-triazole compound of Formula
5 IE or a salt thereof is of Formula IF:



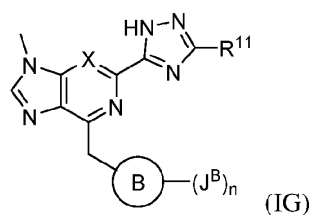
or a salt thereof,

the amidrazone compound of Formula IIE is of Formula IIF

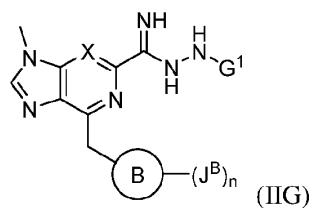


- 10 or a salt thereof.

8. The process of claim 4, wherein the 3-substituted 1,2,4-triazole compound of Formula
IC or a salt thereof is of Formula IG



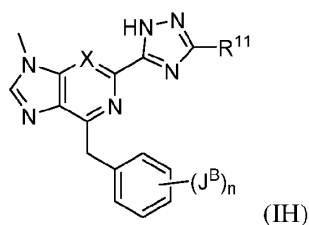
- 15 or a salt thereof, and
the amidrazone compound of Formula IIC is of Formula IIG



or a salt thereof,

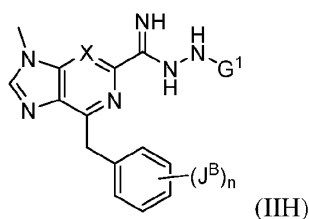
wherein X is C or N.

9. The process of claim 8, wherein the 3-substituted 1,2,4-triazole compound of Formula IG or a salt thereof is of Formula IH



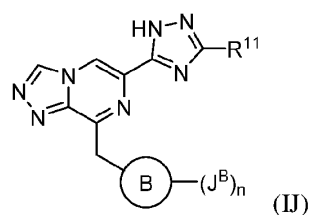
or a salt thereof, and

the amidrazone compound of Formula IIG is of Formula IIH



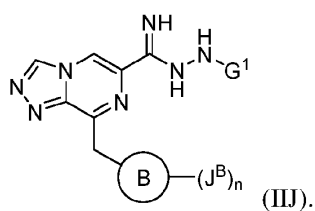
or a salt thereof.

10. The process of claim 4, wherein the 3-substituted 1,2,4-triazole compound of Formula IC or a salt thereof is of Formula IJ

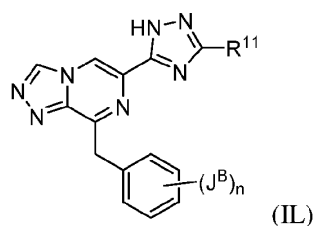


or a salt thereof, and

the amidrazone compound of Formula IIC is of Formula IJJ

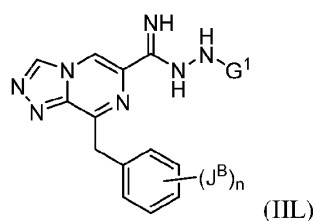


11. The process of claim 10, wherein the 3-substituted 1,2,4-triazole compound of Formula IJ or a salt thereof is of Formula IL



or a salt thereof, and

the amidrazone compound of Formula IIJ is of Formula IIL



or a salt thereof.

12. The process of any one of claims 2-5, 8 and 10, wherein
 Ring B is phenyl or a 5 or 6-membered heteroaryl ring, containing 1 or 2 ring nitrogen atoms.

13. The process of any one of claims 2-12, wherein:

J^B is independently halo or a C₁₋₆ alkyl optionally substituted with up to 3 instances of halo;

each J^C, when present, is independently selected from hydrogen, halo, -CN, and C₁₋₄ alkyl optionally and independently substituted by up to 3 instances of halo;

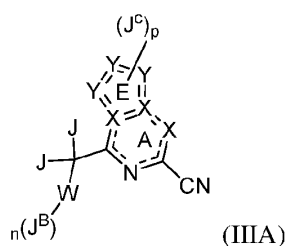
p, when present, is 1 or 2;

R¹¹ is H, -NR^{a2}R^{b2}, -C(O)NR^{a2}R^{b2}, -C(O)R^{15a}, -CN, C₁₋₆ alkyl optionally and independently substituted with 0-3 occurrences of R¹⁵, C₂₋₆ alkenyl optionally and

- independently substituted with 0-2 occurrences of R^{b2} , C_{2-6} alkynyl optionally and independently substituted with 0-2 occurrences of R^{b2} ; C_{1-6} alkoxy optionally and independently substituted with 0-5 occurrences of R^{15} , phenyl optionally and independently substituted with 0-3 occurrences of R^{15} , 5- to 6-membered heteroaryl optionally and independently substituted with 0-3 occurrences of R^{15} , C_{3-8} cycloalkyl optionally and independently substituted with 0-3 occurrences of R^{15} or 3-8 membered heterocyclyl optionally and independently substituted with 0-3 occurrences of R^{15} ; wherein each of said 5- to 6-membered heteroaryl and each of said 3-8 membered heterocyclyl contain up to 3 ring heteroatoms independently selected from N, O and S;
- R^{15} is halo, $-OR^{b2}$, $-SR^{b2}$, $-NR^{a2}R^{b2}$, $-C(O)R^{b2}$, $-C(O)NR^{a2}R^{b2}$, $-NR^{b2}C(O)OR^{b2}$, $-OC(O)NR^{a2}R^{b2}$, C_{2-4} alkenoxy, C_{3-8} cycloalkyl, phenyl, 5- or 6-membered heteroaryl, or 3-10 membered heterocyclyl; wherein each of said 5- or 6-membered heteroaryl ring and each of said 3-10 membered heterocyclyl contain up to 3 ring heteroatoms independently selected from N, O and S;
- R^{15a} is C_{3-8} cycloalkyl, phenyl, 5- or 6-membered or 3-10 membered heterocyclyl; wherein each of said 5- or 6-membered heteroaryl ring and each of said 3-10 membered heterocyclyl contain up to 3 ring heteroatoms independently selected from N, O and S; and
- R^{a2} is hydrogen, C_{1-6} alkyl or C_{1-6} haloalkyl; and
- R^{b2} is hydrogen, C_{1-6} alkyl or C_{1-6} haloalkyl.
14. The process of claim 13, wherein R^{11} is $-NR^{a2}R^{b2}$, C_{1-6} alkyl optionally and independently substituted with 0-3 occurrences of halo, 5- to 6-membered heteroaryl optionally and independently substituted with 0-3 occurrences of halo, or C_{3-8} cycloalkyl optionally and independently substituted with 0-3 occurrences of halo.
 15. The process of claim 14, wherein R^{11} is C_{1-6} alkyl optionally and independently substituted with 0-3 occurrences of halo.
 16. The process of claim 14, wherein R^{11} is CF_3 .
 17. The process of any one of claims 2-16, wherein G^1 is carbamate amino protecting group, amide amino protecting group, or sulfonyl amino protecting group.

18. The process of claim 17, wherein G^1 is tert-butoxycarbonyl (Boc), 2,2,2-trichloroethyloxycarbonyl (Troc), benzyloxycarbonyl (Cbz), 9-Fluorenylmethoxycarbonyl (Fmoc), methylsulfonyl, p-toluenesulfonyl (Tos), 4-nitrobenzenesulfonyl (NOSyl), 2-nitrobenzenesulfonyl, p-bromobenzenesulfonyl (Brosyl), trifluoroacetyl, acetyl or benzoyl.
5
19. The process of any one of claims 1-18, wherein the process comprises reacting the amidazone with $R^{11}C(O)OE'$, wherein $-OE'$ is $-O-(C_{1-6}alkyl)$, $-O-(C_{1-6} haloalkyl)$, $-O-(phenyl)$, $-O-(heteroaryl)$, $-O-(heterocyclyl)$, wherein the phenyl, heteroaryl, and heterocyclyl are optionally substituted with 1 to 6 groups independently selected from halo, cyano, nitro, oxo, SO_3H , and $SO_3C_{1-6}alkyl$.
10
20. The process of claim 19, wherein $-OE'$ is $-O-(C_{1-6} haloalkyl)$.
- 15 21. The process of claim 19, wherein $-OE'$ is $-O-(CH_2CF_3)$, $-O-(nitrophenyl)$ (e.g., 2 or 4-nitrophenyl), $-O-(dinitrophenyl)$ (e.g., 2,4-dinitrophenyl ester), $-O-(trichlorophenyl)$ (e.g., 2,4,5-trichlorophenyl), $-O-(pentafluorophenyl)$, $-O-(sulfo-tetrafluorophenyl)$ (e.g., 4-sulfo-2,3,5,6-tetrafluorophenyl), $-O-(succinimidyl)$, $-O-(benzotriazole)$, $-O-(7-azabenzotriazole)$, $-O-(phthalimidyl)$, $-O-(5-norbornene-endo-2,3-dicarboxyimide)$, or $-O-(sulfo-succinimidyl)$.
20
22. The process of any one of claims 1-18, wherein the process comprises reacting the amidazone with $R^{11}C(O)OR''$, wherein R'' is $N=CR^{11b}R^{11c}$, $P(O)(OH)_2$, or $PH(O)OH$.
- 25 23. The process of any one of claims 1-18, wherein the process comprises reacting the amidazone with $R^{11}C(O)OH$ in the presence of an activating agent.
24. The process of claim 23, wherein the activating agent is a carbodiimide, a uronium, a phosphonium, 2-alkyl-1-alkylcarbonyl-1,2-dihydroquinoline, 2-alkoxy-1-alkoxycarbonyl-1,2-dihydroquinoline, ethyl cyanohydroxyiminoacetate (Oxyma®), or alkylchloroformate.
30

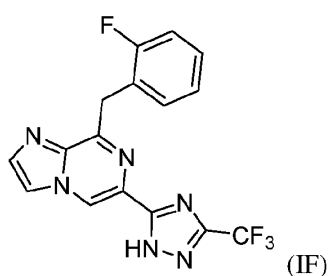
25. The process of any one of claims 1-18, wherein the process comprises reacting the amidazone with $R^{11}C(O)SR'$, wherein $-SR'$ is $-S-(\text{aryl})$, $-S-(C_{1-20}\text{alkyl})$, or $-S-(\text{heteroaryl})$.
- 5 26. The process of claim 25, wherein $-SR'$ is $-S-(\text{ethyl})$, $-S-(\text{dodecyl})$, $-S-(p\text{-chlorophenyl})$, or $-S-(2\text{-benzothiazolyl})$.
27. The process of any one of claims 1-26, wherein the base is selected from the group consisting of trialkylamine, a phosphazene, 1,8-diazabicyclo(5.4.0)undec-7-ene (DBU), 1,5-diazabicyclo[4.3.0]non-5-ene (DBN), guanidine, 1,1,3,3-tetramethylguanidine, optionally substituted pyridine or 1,4-diazabicyclo[2.2.2]octane (DABCO).
- 10 28. The process of claim 27, wherein the base is 4-dimethylaminopyridine (DMAP).
- 15 29. The process of claim 27, wherein the base is DABCO.
30. The process of any one of claims 1-29, wherein the process further comprises deprotecting the amidrazone protecting group if necessary after the reaction of the amidrazone compound with the carboxylic acid, the acid halide, the thioacyl halide, the activated ester, the thioester or the acid anhydride by reacting the reaction product with an amidrazone deprotecting agent.
- 20 31. The process of claim 2, wherein the amidrazone compound of Formula IIA or a salt thereof is prepared by a process comprising reacting a compound of Formula IIIA:
- 25



or a salt thereof,

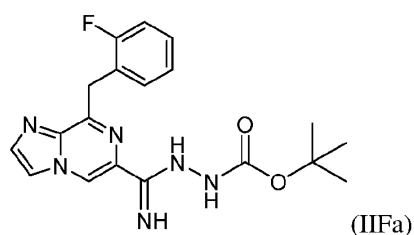
first with a second base and second with a compound of Formula H_2NNHG^1 in a reaction solvent.

32. The process of claim 31, wherein the reaction solvent is an alcohol.
33. The process of claim 32, wherein the reaction solvent is MeOH.
- 5 34. The process of any one of claims 31-33, wherein the second base is NaOMe.
35. The process of any one of claims 31-34, where the compound of Formula H_2NNHG^1 is $H_2NNHC(O)OC(CH_3)_3$, $H_2NNHC(O)OCH_2CCl_3$, $H_2NNHC(O)Obenzyl$,
 10 $H_2NNHC(O)OCH_2(9\text{-fluorenyl})$, $NH_2NHSO_2CH_3$, $NH_2NHSO_2(p\text{-toluene})$,
 $NH_2NHSO_2(4\text{-nitrophenyl})$, $NH_2NHSO_2(2\text{-nitrophenyl})$, $NH_2NHSO_2(4\text{-bromophenyl})$, $NH_2NHC(O)CF_3$, $H_2NNHC(O)phenyl$ or $H_2NNHC(O)CH_3$.
36. The process of claim 1, wherein the 1,2,4-triazole compound is represented by
 15 Formula IF



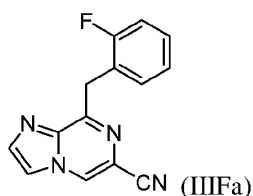
or a salt thereof; and

wherein the process comprising reacting an amidrazone of Formula IIFa:



- 20 or a salt thereof, with $CF_3C(O)OCH_2CF_3$ in the presence of the base.
37. The process of claim 36, wherein the base is DABCO.

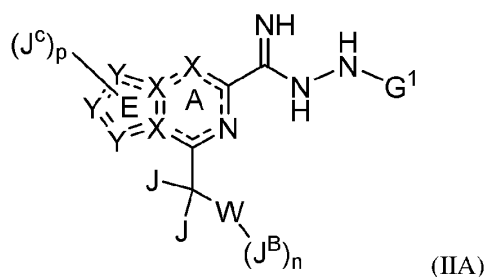
38. The process of claim 36 or 37, wherein the process further comprises purifying the 1,2,4-triazole compound of Formula IF by crystallization.
39. The process of claim 38, wherein the crystallization is carried out by adding n-heptane to the reaction mixture after the completion of the reaction between the amidrazone compound of Formula IIFa and $\text{CF}_3\text{C}(\text{O})\text{OCH}_2\text{CF}_3$.
40. The process of any one of claims 36-39, wherein the amidrazone compound of Formula IIFa or a salt thereof is prepared by a process comprising the step of reacting a compound of Formula IIIFa:



or a salt thereof,

first with a second base and second with $\text{H}_2\text{NNHC}(\text{O})\text{OC}(\text{CH}_3)_3$ in a reaction solvent.

41. The process of claim 40, wherein the reaction solvent is an alcohol.
42. The process of claim 41, wherein the reaction solvent is MeOH.
43. The process of any one of claims 40-42, wherein the second base is NaOMe.
44. A compound represented by Formula IIA:



or a salt thereof, wherein:

rings E and A form the core of the molecule and are aromatic; each instance of X and Y is independently selected from N, NRⁿ and C; wherein a maximum of 4 instances of X and Y are simultaneously N and Rⁿ is H or C₁₋₆alkyl;

W is either

5 i) absent, with J^B connected directly to the carbon atom bearing two J groups, each J is independently hydrogen or methyl, n is 1 and J^B is a C₁₋₇ alkyl chain optionally substituted by up to 9 instances of fluorine; or

ii) a ring B that is a phenyl, a C₃₋₇ cycloalkyl ring or a 5 or 6-membered heteroaryl ring, containing 1 or 2 ring nitrogen atoms;

10 wherein when ring B is the phenyl or 5 or 6-membered heteroaryl ring; each J is independently hydrogen or methyl; n is an integer selected from 0 to 3; and each J^B is independently selected from halo, -CN, a C₁₋₆ aliphatic, -OR^B and a C₃₋₈ cycloaliphatic ring; and

15 wherein when ring B is the C₃₋₇ cycloalkyl ring; each J is hydrogen; n is an integer selected from 0 to 3 and each J^B is independently selected from halo, -CN, a C₁₋₆ aliphatic and -OR^{B1};

wherein each J^B that is a C₁₋₆ aliphatic and each J^B that is a C₃₋₈ cycloaliphatic ring are optionally and independently substituted with up to 3 instances of R³;

20 each R^B is independently a C₁₋₆ aliphatic or a C₃₋₈ cycloaliphatic ring; said R^B optionally and independently substituted with up to 3 instances of R^{3a};

each R^{B1} is independently selected from hydrogen, a C₁₋₆ aliphatic and a C₃₋₈ cycloaliphatic ring; wherein each of said C₁₋₆ aliphatic and each of said C₃₋₈ cycloaliphatic ring are optionally and independently substituted with up to 3 instances of R^{3b};

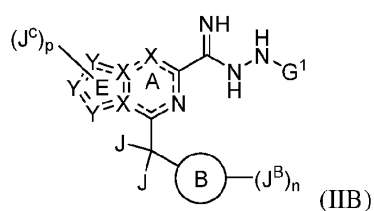
25 each R³, R^{3a} and R^{3b} is, in each instance, independently selected from halo, -CN, C₁₋₄ alkyl, C₁₋₄ haloalkyl, -O(C₁₋₄ alkyl) and -O(C₁₋₄ haloalkyl);

p is an integer selected from 1, 2 or 3;

30 each J^C is independently selected from hydrogen, halo, C₁₋₄ aliphatic, C₁₋₄ alkoxy and -CN; wherein each said C₁₋₄ aliphatic and C₁₋₄ alkoxy is optionally and independently substituted by up to 3 instances of C₁₋₄ alkoxy, C₁₋₄ haloalkoxy, -OH or halo; and

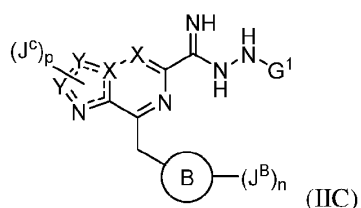
G¹ is an amidrazone protecting group.

45. The compound of claim 43, wherein the compound of Formula IIA is of Formula IIB



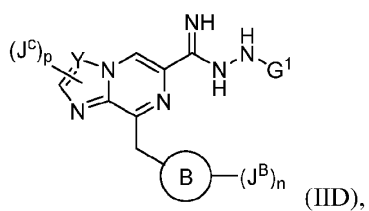
or a salt thereof.

46. The compound of claim 45, wherein the compound of Formula IIB is of Formula IIC



or a salt thereof.

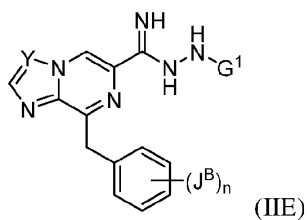
47. The compound of claim 46, wherein the compound of Formula IIC is of Formula IID



or a salt thereof; and

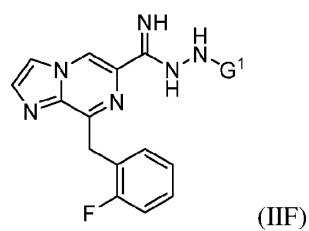
wherein Y is N or C.

48. The compound of claim 47, wherein the compound of Formula IID is of Formula IIE



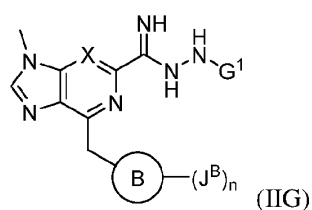
or a salt thereof.

49. The compound of claim 48, wherein the compound of Formula IIE is of Formula IIF



or a salt thereof.

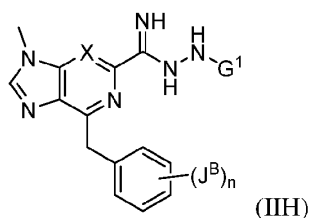
50. The compound of claim 46, wherein the compound of Formula IIC is of Formula IIG



or a salt thereof; and

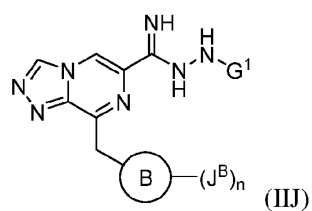
wherein X is C or N.

51. The compound of claim 50, wherein the compound of Formula IIG is of Formula IIH



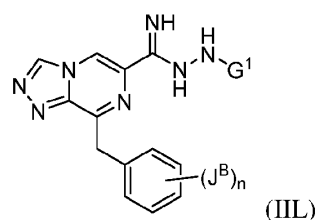
or a salt thereof.

52. The compound of claim 46, wherein the compound of Formula IIC is of Formula IIJ



or a salt thereof.

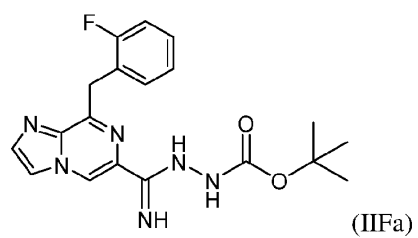
53. The compound of claim 52, wherein the compound of Formula IIJ is of Formula IIL



or a salt thereof.

- 5 54. The compound of any one of claims 44-47, 50 and 52, wherein
 Ring B is phenyl or a 5 or 6-membered heteroaryl ring, containing 1 or 2 ring
 nitrogen atoms.
- 10 55. The compound of any one of claims 44-54, wherein:
 J^B is independently halo or a C_{1-6} alkyl optionally substituted with up to 3
 instances of halo;
 each J^C , when present, is independently selected from hydrogen, halo, -CN,
 and C_{1-4} alkyl optionally and independently substituted by up to 3 instances of halo;
 p, when present, is 1 or 2.
- 15 56. The compound of any one of claims 44-55, wherein G^1 is carbamate amino protecting
 group, amide amino protecting group, or sulfonyl amino protecting group.
- 20 57. The compound of claim 56, wherein G^1 is tert-butoxycarbonyl (Boc), 2,2,2-
 trichloroethyloxycarbonyl (Troc), benzyloxycarbonyl (Z), 9-
 Fluorenylmethoxycarbonyl (Fmoc), methylsulfonyl, p-toluenesulfonyl (Tos), 4-
 nitrobenzenesulfonyl (NOSyl), 2-nitrobenzenesulfonyl, p-bromobenzenesulfonyl
 (Brosyl), trifluoroacetyl, acetyl or benzoyl.

58. The compound of claim 44, wherein the compound is represented by Formula II Fa:



or a salt thereof.