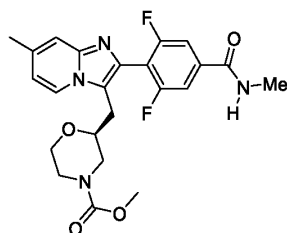


CLAIMS

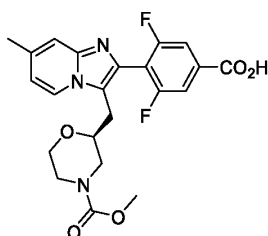
WHAT IS CLAIMED IS:

1. A process for the preparation of methyl (S)-2-((2-(2,6-difluoro-4-(methylcarbamoyl)phenyl)-7-methylimidazo[1,2-a]pyridin-3-yl)methyl)morpholine-4-carboxylate (Compound 1):



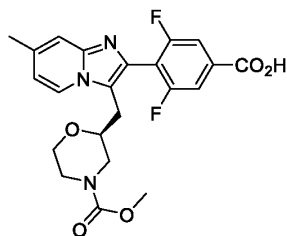
(Compound 1),

comprising contacting a compound with the structure:

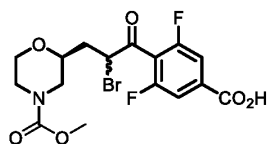


with an amide coupling reagent and methylamine or a salt of methylamine.

2. The process of claim 1, wherein the amide coupling reagent is carbonyldiimidazole.
3. The process of claim 1, wherein the amide coupling reagent is propanephosphonic acid anhydride (T3P).
4. The process of any one of claims 1-3, wherein the compound with the structure:

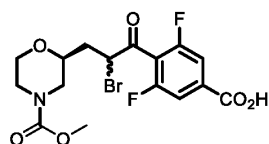


is prepared by a process comprising contacting a compound with the structure:

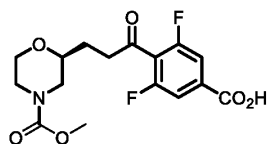


with 2-amino-4-methylpyridine and optionally sodium borohydride.

5. The process of any one of claims 1-4, wherein the compound with the structure:



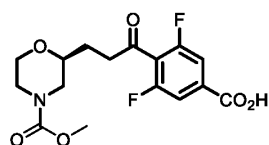
is prepared by a process comprising contacting a compound with the structure:



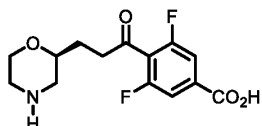
with a brominating reagent.

6. The process of claim 5, wherein the brominating agent is N-bromosuccinimide in the presence of acid.

7. The process of any one of claims 1-6, wherein the compound with the structure:



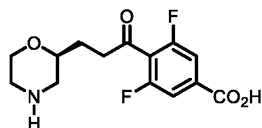
is prepared by a process comprising contacting a compound with the structure:



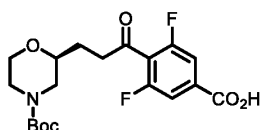
with methyl chloroformate and a base.

8. The process of claim 7, wherein the base is sodium bicarbonate.

9. The process of any one of claims 1-8, wherein the compound with the structure:



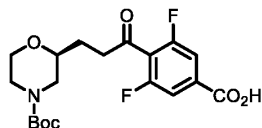
is prepared by a process comprising contacting a compound with the structure:



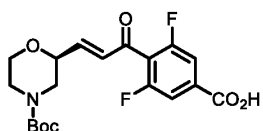
with hydrogen chloride in the presence of a solvent.

10. The process of claim 9, wherein the solvent is ethyl acetate.

11. The process of any one of claims 1-10, wherein the compound with the structure:



is prepared by a process comprising contacting a compound with the structure:

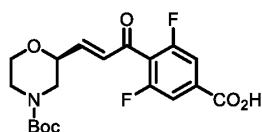


with a hydrogenation catalyst and hydrogen.

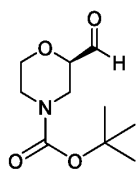
12. The process of claim 11, wherein the hydrogenation catalyst is palladium on carbon, palladium hydroxide, rhodium on carbon, rhodium on alumina, platinum oxide, or platinum on carbon.

13. The process of claim 12, wherein the hydrogenation catalyst is palladium on carbon.

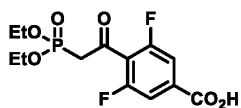
14. The process of any one of claims 1-13, wherein the compound with the structure:



is prepared by a process comprising contacting a compound with the structure:



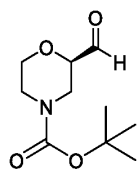
with a compound with the structure:



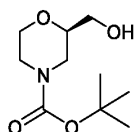
with a base.

15. The process of claim 14, wherein the base is a mixture of potassium bicarbonate and potassium carbonate.

16. The process of any one of claims 1-15, wherein the compound with the structure:

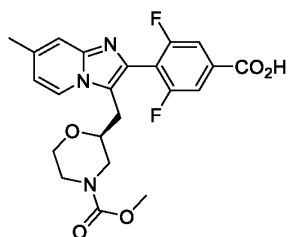


is prepared by a process comprising contacting a compound with the structure:

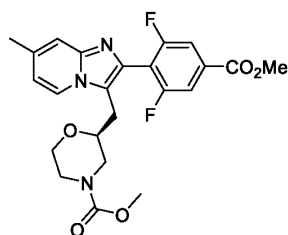


with 2,2,6,6-tetramethylpiperidine 1-oxyl or T3P.

17. The process of any one of claims 1-3, wherein the compound with the structure:



is prepared by a process comprising contacting a compound with the structure:



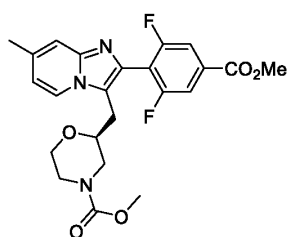
with a base, and optionally sodium borohydride, in the presence of a solvent.

18. The process of claim 17, wherein the solvent is aqueous tetrahydrofuran, dioxane, 2-methyl tetrahydrofuran, aqueous methanol, aqueous ethanol, or aqueous acetonitrile.

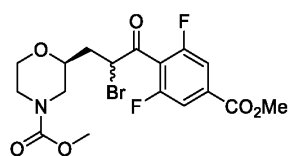
19. The process of claim 17, wherein the solvent is aqueous tetrahydrofuran.

20. The process of any one of claims 17-19, wherein the base is lithium hydroxide.

21. The process of any one of claims 17-20, wherein the compound with the structure:

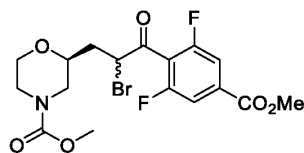


is prepared by a process comprising contacting a compound with the structure:

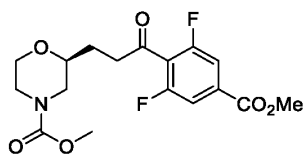


with 2-amino-4-methylpyridine.

22. The process of claim 21, wherein the compound with the structure:



is prepared by a process comprising contacting a compound with the structure:

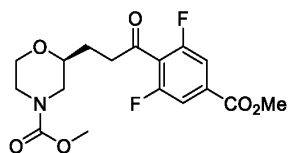


with a brominating agent.

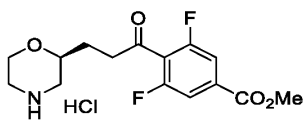
23. The process of claim 22, wherein the brominating agent is copper(II) bromide.

24. The process of claim 22, wherein the brominating agent is liquid bromine.

25. The process of any one of claims 22-24, wherein the compound with the structure:



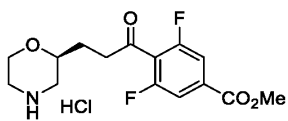
is prepared by a process comprising contacting a compound with the structure:



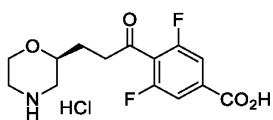
with methyl chloroformate and a base.

26. The process of claim 25, wherein the base is sodium bicarbonate.

27. The process of claim 26, wherein the compound with the structure:

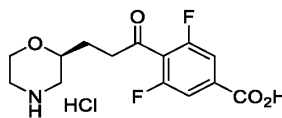


is prepared by a process comprising contacting a compound with the structure:

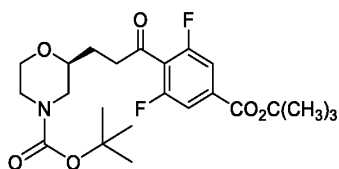


with hydrogen chloride and methanol.

28. The process of claim 27, wherein the compound with the structure:



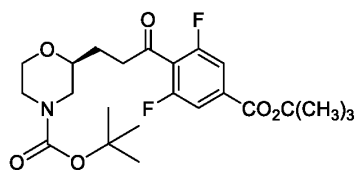
is prepared by a process comprising contacting a compound with the structure:



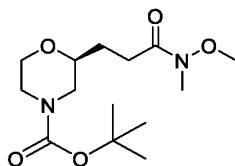
with hydrogen chloride in the presence of a solvent.

29. The process of claim 28, wherein the solvent is ethyl acetate.

30. The process of claim 28 or 29, wherein the compound with the structure:



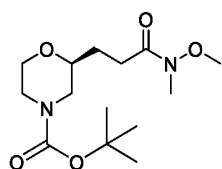
is prepared by a process comprising contacting a compound with the structure:



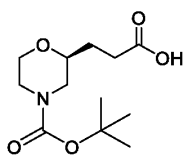
with tert-butyl 3,5-difluorobenzoate and a base.

31. The process of claim 30, wherein the base is lithium diisopropylamide.

32. The process of claim 30 or 31, wherein the compound with the structure:



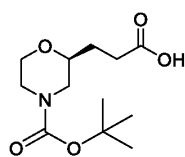
is prepared by a process comprising contacting a compound with the structure:



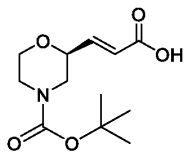
with N,O-dimethylhydroxylamine, an amide coupling reagent, and 1-hydroxybenzotriazole.

33. The process of claim 32, wherein the amide coupling reagent is 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide.

34. The process of claim 32 or 33, wherein the compound with the structure:



is prepared by a process comprising contacting a compound with the structure:

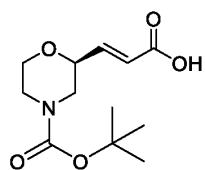


with a hydrogenation catalyst and hydrogen.

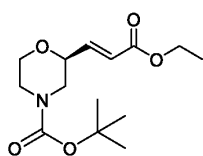
35. The process of claim 34, wherein the hydrogenation catalyst is palladium on carbon, palladium hydroxide, rhodium on carbon, rhodium on alumina, platinum oxide, or platinum on carbon.

36. The process of claim 35, wherein the hydrogenation catalyst is palladium on carbon.

37. The process of any one of claims 34-36, wherein the compound with the structure:



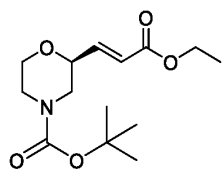
is prepared by a process comprising contacting a compound with the structure:



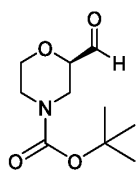
with a base in aqueous tetrahydrofuran.

38. The process of claim 37, wherein the base is sodium hydroxide.

39. The process of claim 37 or 38, wherein the compound with the structure:

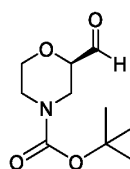


is prepared by a process comprising contacting a compound with the structure:

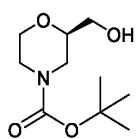


with (carbethoxymethylene)triphenylphosphorane.

40. The process of claim 39, wherein the compound with the structure:



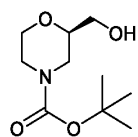
is prepared by a process comprising contacting a compound with the structure:



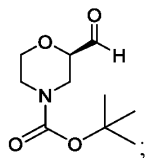
with 2,2,6,6-tetramethylpiperidine 1-oxyl.

41. A process for the preparation of methyl (S)-2-((2-(2,6-difluoro-4-(methylcarbamoyl)phenyl)-7-methylimidazo[1,2-a]pyridin-3-yl)methyl)morpholine-4-carboxylate (Compound 1), comprising:

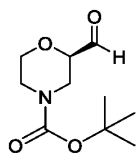
A) the reaction of a compound with the structure:



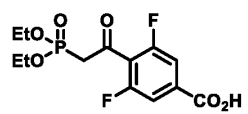
with 2,2,6,6-tetramethylpiperidine 1-oxyl or T3P to produce a compound with the structure:



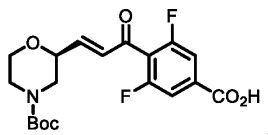
B) followed by the reaction of the compounds with the structures:



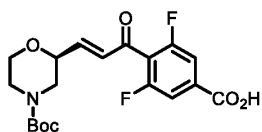
and



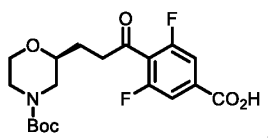
with potassium carbonate and potassium bicarbonate to produce a compound with the structure:



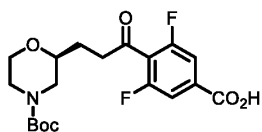
C) followed by the reaction of the compound with the structure:



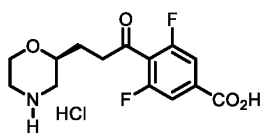
with palladium on carbon and hydrogen to produce a compound with the structure:



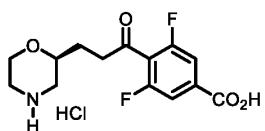
D) followed by the reaction of the compound with the structure:



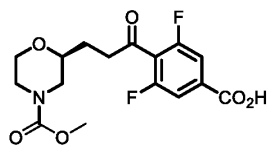
with hydrogen chloride in ethyl acetate to produce a compound with the structure;



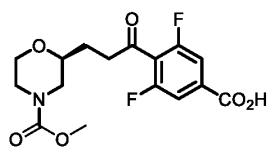
E) followed by the reaction of the compound with the structure:



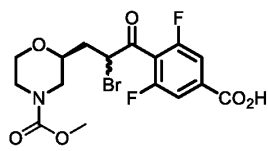
with methyl chloroformate and sodium bicarbonate to produce a compound with the structure:



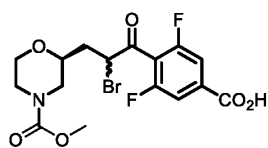
F) followed by the reaction of the compound with the structure:



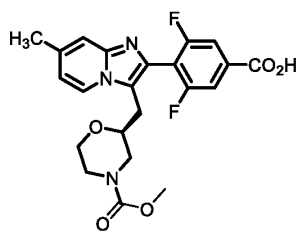
 with N-bromosuccinimide and acid to produce a compound with the structure:



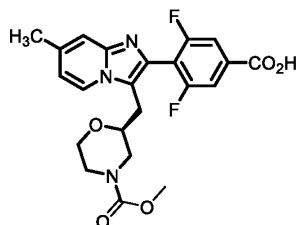
G) followed by the reaction of the compound with the structure:



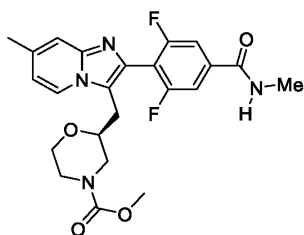
 with 2-amino-4-methylpyridine and optionally sodium borohydride to produce a compound with the structure:



H) followed by the reaction of the compound with the structure:

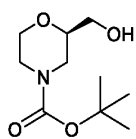


with the structure:

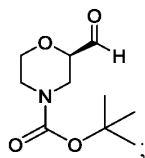


42. A process for the preparation of methyl (S)-2-((2-(2,6-difluoro-4-(methylcarbamoyl)phenyl)-7-methylimidazo[1,2-a]pyridin-3-yl)methyl)morpholine-4-carboxylate (Compound 1), comprising:

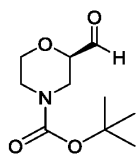
A) the reaction of a compound with the structure:



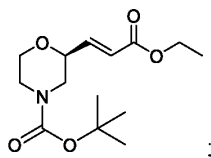
with 2,2,6,6-tetramethylpiperidine 1-oxyl to produce a compound with the structure:



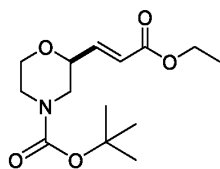
B) followed by the reaction of the compound with the structure:



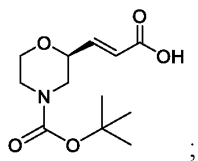
with (carbethoxymethylene)triphenylphosphorane to produce a compound with the structure:



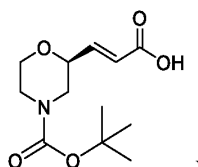
C) followed by the reaction of the compound with the structure:



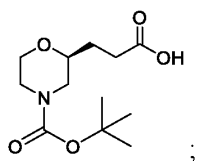
with sodium hydroxide in aqueous tetrahydrofuran to produce a compound with the structure:



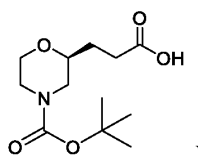
D) followed by the reaction of the compound with the structure:



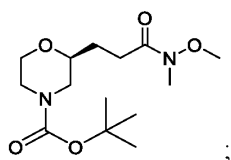
with palladium on carbon and hydrogen to produce a compound with the structure;



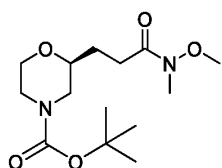
E) followed by the reaction of the compound with the structure:



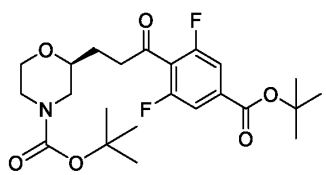
with N,O-dimethylhydroxylamine, 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide, and 1-hydroxybenzotriazole to produce a compound with the structure:



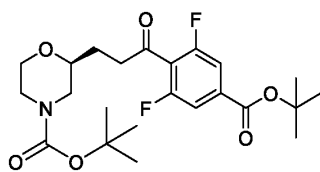
F) followed by the reaction of the compound with the structure:



with tert-butyl 3,5-difluorobenzoate and lithium diisopropylamide to produce a compound with the structure:

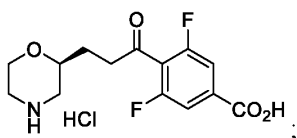


G) followed by the reaction of the compound with the structure:

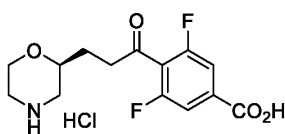


with hydrogen chloride in ethyl acetate to produce a compound

with the structure:

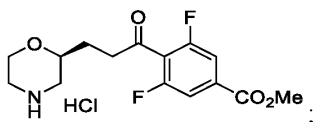


H) followed by the reaction of the compound with the structure:

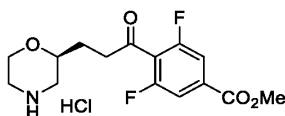


with hydrogen chloride and methanol to produce a compound with

the structure:

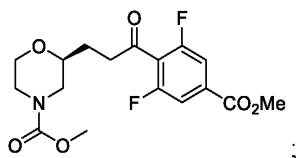


I) followed by the reaction of the compound with the structure:

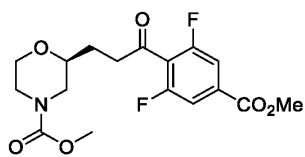


with methyl chloroformate and sodium bicarbonate to produce a

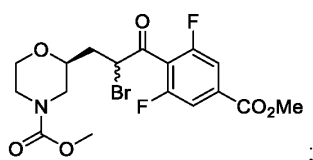
compound with the structure:



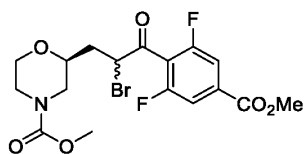
J) followed by the reaction of the compound with the structure:



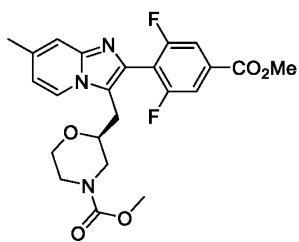
with copper(II) bromide to produce a compound with the structure:



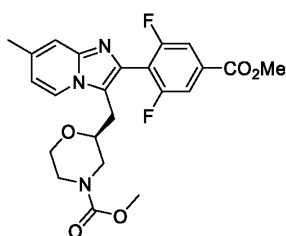
K) followed by the reaction of the compound with the structure:



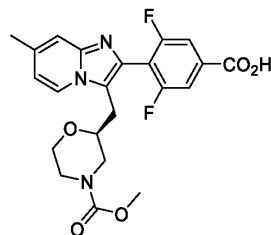
with 2-amino-4-methylpyridine to produce a compound with the structure:



L) followed by the reaction of the compound with the structure:

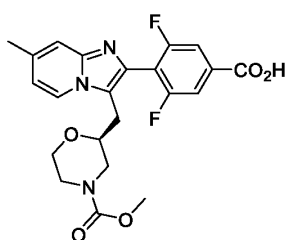


with lithium hydroxide in aqueous tetrahydrofuran and then sodium

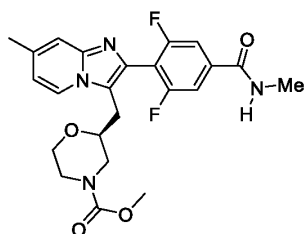


borohydride to produce a compound with the structure:

M) followed by the reaction of the compound with the structure:

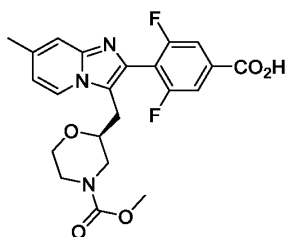


with carbonyldiimidazole and methylamine to produce a compound



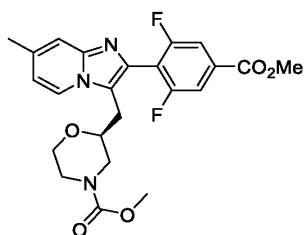
with the structure:

43. A compound having the structure:



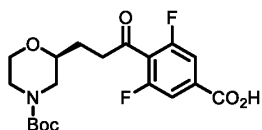
; or a pharmaceutically acceptable salt thereof.

44. A compound having the structure:



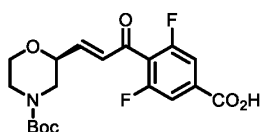
; or a pharmaceutically acceptable salt thereof.

45. A compound having the structure:



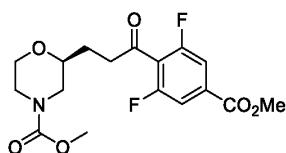
; or a pharmaceutically acceptable salt thereof.

46. A compound having the structure:



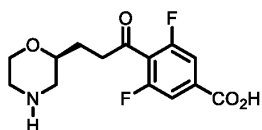
; or a pharmaceutically acceptable salt thereof.

47. A compound having the structure:



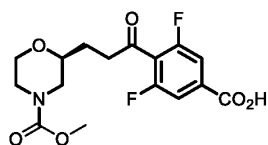
; or a pharmaceutically acceptable salt thereof.

48. A compound having the structure:



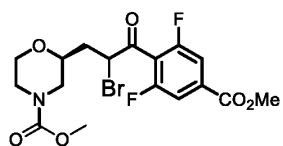
; or a pharmaceutically acceptable salt thereof.

49. A compound having the structure:



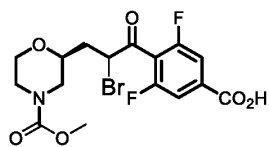
; or a pharmaceutically acceptable salt thereof.

50. A compound having the structure:



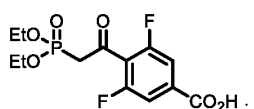
; or a pharmaceutically acceptable salt thereof.

51. A compound having the structure:



; or a pharmaceutically acceptable salt thereof.

52. A compound having the structure:



; or a pharmaceutically acceptable salt thereof.