We claim:

1. A process for preparing a compound of formula (7)

$$\left(\begin{array}{c} X_{n} \\ X_{n} \\ X_{n} \end{array} \right)_{(R^{6})_{s}} \left(\begin{array}{c} (R^{2})_{s} \\ (R^{2})_{s} \\ (R^{6})_{s} \end{array} \right)_{(R^{6})_{s}} \left(\begin{array}{c} (R^{2})_{s} \\ (R^{2})_{s} \\ (R^{6})_{s} \end{array} \right)$$

or a pharmaceutically acceptable salt thereof;

wherein

n is 0, 1, or 2;

s is 0, 1, 2, 3, or 4;

u and v are each independently selected from 0, 1, 2, or 3;

X is selected from O, S, S(O), SO₂, CH₂, CHR⁵, and C(R⁵)₂;

provided that when n is 0, X is selected from CH₂, CHR⁵, and C(R⁵)₂;

R¹ and R² are each independently selected from alkoxy, alkyl, and halo; and when s is 2, 3, or 4, each R⁵ on the ring is independently selected from alkoxy, alkyl, and aryl, wherein the alkyl can optionally form a fused three- to six-membered ring with an adjacent carbon atom, wherein the three- to six-membered ring is optionally substituted with one or two alkyl groups;

provided that the two heterocyclic rings substituting the imidazole rings are identical; the process comprising:

(a) reacting a compound of formula (3)

(3);

wherein

u, v, R^1 , and R^2 are as described for formula (7); and LG is a leaving group;

with a compound of formula (4)

wherein PG is a nitrogen protecting group;

- (b) treating the product of step (a) with a reagent selected from ammonium acetate, ammonium formate, ammonium sulfamate, ammonium phosphate, ammonium citrate, ammonium carbamate, and ammonia; and
- (c) treating the product of step (b) with a deprotecting agent.
 - 2. The process as claimed in claim 1 wherein

n is 1; s is 0; u and v are each 0; and X is CH_2 .

- 3. The process as claimed in claim 1 wherein LG is a halide.
- 4. The process as claimed in claim 3 wherein the halide is a bromide.

- 5. The process as claimed in claim 1 wherein step (a) is conducted with a base.
- 6. The process as claimed in claim 5 wherein the base is diisopropylethylamine.
- 7. The process as claimed in claim 1 wherein the reagent used in step (b) is ammonium acetate.
- 8. The process as claimed in claim 1 wherein PG is represented by the formula:

wherein

- ss denotes the point of attachment to the parent molecular moiety; and R' is selected from alkyl, aryl, and arylalkyl.
- 9. The process as claimed in claim 8 wherein PG is tert-butoxycarbonyl.
- 10. The process as claimed in claim 9 wherein the deprotecting agent of step (c) is an acid.
- 11. The process as claimed in claim 10 wherein the acid is hydrochloric acid.

Dated this 8th day of February 2010

[NEHA SRIVASTAVA] IN/PA 1342

OF REMFRY & SAGAR

ATTORENY FOR THE APPLCIANT(S)

Maryado of Capy 18: 854 Decry 2010. PCT/US2008/071696

CLAIMS

What is claimed is:

5 1. A process for preparing a compound of formula (7)

(7);

or a pharmaceutically acceptable salt thereof; wherein

n is 0, 1, or 2;

s is 0, 1, 2, 3, or 4;

u and v are each independently selected from 0, 1, 2, or 3;

X is selected from O, S, S(O), SO₂, CH₂, CHR⁵, and C(R⁵)₂; provided that when n is 0, X is selected from CH₂, CHR⁵, and C(R⁵)₂;

- 15 R¹ and R² are each independently selected from alkoxy, alkyl, and halo; and when s is 2, 3, or 4, each R⁵ on the ring is independently selected from alkoxy, alkyl, and aryl, wherein the alkyl can optionally form a fused three- to six-membered ring with an adjacent carbon atom, wherein the three- to six-membered ring is optionally substituted with one or two alkyl groups;
- 20 provided that the two heterocyclic rings substituting the imidazole rings are identical; the process comprising:
 - (a) reacting a compound of formula (3)

$$\begin{array}{c} O \\ \downarrow G \\ \downarrow$$

25 wherein

u, v, R1, and R2 are as described for formula (7); and

LG is a leaving group; with a compound of formula (4)

- 5 wherein PG is a nitrogen protecting group;
 - (b) treating the product of step (a) with a reagent selected from ammonium acetate, ammonium formate, ammonium sulfamate, ammonium phosphate, ammonium citrate, ammonium carbamate, and ammonia; and
 - (c) treating the product of step (b) with a deprotecting agent.

10 as claimed in

2. The process of claim 1 wherein

n is 1;

s is 0;

u and v are each 0; and

15 X is CH₂.

-, .

20

as claimed in

- 3. The process of claim 1 wherein LG is a halide.
- 4. The process of claim 3 wherein the halide is a bromide.

- 5. The process of claim 1 wherein step (a) is conducted with a base.
- 6. The process of claim 5 wherein the base is diisopropylethylamine.
- 7. The process of claim 1 wherein the reagent used in step (b) is ammonium acetate.
 - 8. The process of claim 1 wherein PG is represented by the formula:

5

10

9.

wherein

denotes the point of attachment to the parent molecular moiety; and R' is selected from alkyl, aryl, and arylalkyl.

- The process of claim 8 wherein PG is tert-butoxycarbonyl.
 - The process of claim 9 wherein the deprotecting agent of step (c) is an acid. 10. as electored in
 - The process of claim 10 wherein the acid is hydrochloric acid. 11.

A process for preparing a compound of formula (I) 12.

$$O = \begin{pmatrix} R^9 \\ N \\ N \\ R^9 \end{pmatrix} \begin{pmatrix} R^5 \\ N \\ N \\ R^9 \end{pmatrix} \begin{pmatrix} R^5 \\ N \\ N \\ R^9 \end{pmatrix} \begin{pmatrix} R^5 \\ N \\ N \\ R^9 \end{pmatrix}$$

wherein

n is 0, 1, or 2; 15

s is 0, 1, 2, 3, or 4;

u and v are each independently selected from 0, 1, 2, or 3;

X is selected from O, S, S(O), SO₂, CH₂, CHR⁵, and C(R⁵)₂; provided that when n is 0, X is selected from CH₂, CHR⁵, and C(R⁵)₂;

R¹ and R² are each independently selected from alkoxy, alkyl, and halo; and 20 when s is 2, 3, or 4, each R⁵ on the ring is independently selected from alkoxy, alkyl, and aryl, wherein the alkyl can optionally form a fused three- to sixmembered ring with an adjacent carbon atom, wherein the three- to six-membered ring is optionally substituted with one or two alkyl groups;

provided that the two heterocyclic rings substituting the imidazole rings are identical; 25 and

R⁹ is selected from alkoxy, alkoxyalkyl, alkoxycarbonyl, alkoxycarbonylalkyl, alkyl, alkylcarbonylalkyl, aryl, arylalkenyl, arylalkoxy, arylalkyl, aryloxyalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, cycloalkyloxyalkyl, haloalkyl, heterocyclyl, heterocyclylalkenyl, heterocyclylalkoxy, heterocyclylalkyl, heterocyclyloxyalkyl, hydroxyalkyl, -NR°R^d, (NR°R^d)alkenyl, (NR°R^d)alkyl, and (NR°R^d)carbonyl;

- 5 the process comprising:
 - (a) reacting a compound of formula (3)

$$(R^2)_{u} \qquad (R^1)_{v}$$

$$LG \qquad (3);$$

wherein

10 u, v, R¹, and R² are as described for formula (7); and LG is a leaving group;

with a compound of formula (4)

$$\begin{array}{c|c}
 & PG \\
 & N - () \\
 & N \\
 & X \\
 & N \\$$

- 15 wherein PG is a nitrogen protecting group;
 - (b) treating the product of step (a) with a reagent selected from ammonium acetate, ammonium formate, ammonium sulfamate, ammonium phosphate, ammonium citrate, ammonium carbamate, and ammonia; and;
- (c) treating the product of step (b) with a deprotecting agent to provide a compound of formula (7)

$$\left(\begin{array}{c} (\mathbb{R}^{2})_{ij} & (\mathbb{R}^{1})_{i} \\ (\mathbb{R}^{2})_{ij} & (\mathbb{R}^{1})_{i} \\ (\mathbb{R}^{5})_{s} \end{array} \right)_{n}$$

(7); and

(d) treating the compound of formula (7) with a compound of formula (8)

10

HO R⁹
(8);

wherein R9 is as defined above.

- '5 13. The process of claim 12 wherein n is 1; s is 0; u and v are each 0; and X is CH₂.
- 14. The process of claim 12 wherein LG is a halide.
 - 15. The process of claim 14 wherein the halide is a bromide.
- 15 16. The process of claim 12 wherein step (a) is conducted with a base.
 - 17. The process of claim 16 wherein the base is diisopropylethylamine.
- , 18. The process of claim 12 wherein the reagent used in step (b) is ammonium 20 acetate.
 - 19. The process of claim 12 wherein PG is represented by the formula:

wherein

- 25 s denotes the point of attachment to the parent molecular moiety; and R' is selected from alkyl, aryl, and arylalkyl.
 - 20. The process of claim 19 wherein PG is tert-butoxycarbonyl.
- 30 21. The process of claim 20 wherein the deprotecting agent of step (c) is an acid.

.22. The process of claim 21 wherein the acid is hydrochloric acid.

Dated this 8th

day of February,

2010.

[HRISHIKESH RAY CHAUDHURY] OF REMFRY & SAGAR ATTORNEY FOR THE APPLIÇANTS.