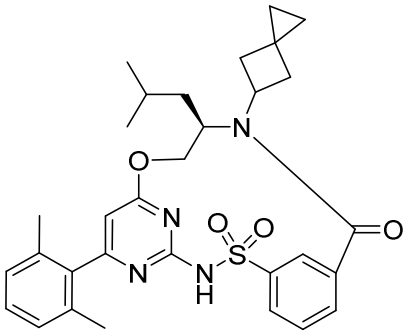
CLAIMS:

1. A compound selected from Compound **I**:



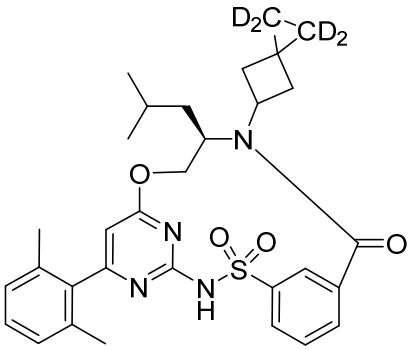
I,

deuterated derivatives of Compound **I**, and pharmaceutically acceptable salts thereof.

2. The compound of claim 1, wherein the compound is Compound **I**.

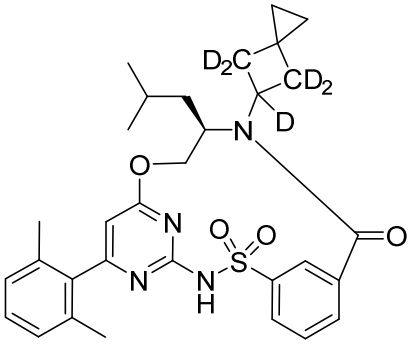
3. The compound of claim 1, wherein the deuterated derivative of Compound **I** is selected from:

Compound **Ia**:



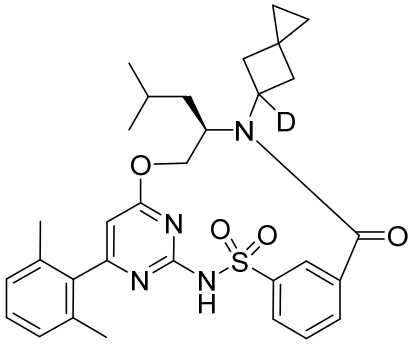
Ia,

Compound **Ib**:



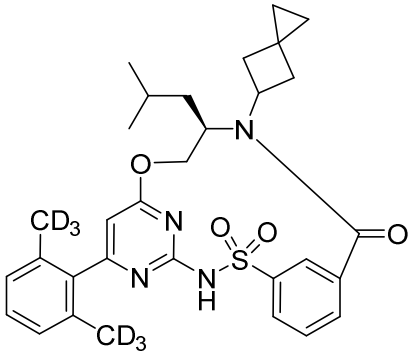
Ib,

Compound **Ic**:



Ic,

Compound **Id**:



Id,

and pharmaceutically acceptable salts thereof.

4. The compound of claim 1 or 2, wherein the compound is a potassium salt.

5. The compound of claim 1 or 2, wherein the compound is a sodium salt.

6. The compound of claim 1 or 2, wherein the compound is a calcium salt.

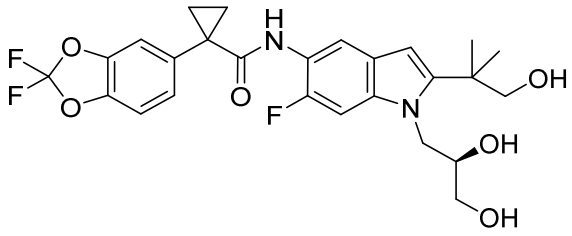
7. Use of the compound of any one of claims 1 to 6 in the manufacture of a medicament for the treatment of a CFTR-mediated disorder.

8. The use of claim 7, wherein the CFTR-mediated disorder is CF.

9. The use of claim 7, wherein the compound is Compound **I** or a pharmaceutically acceptable salt thereof.

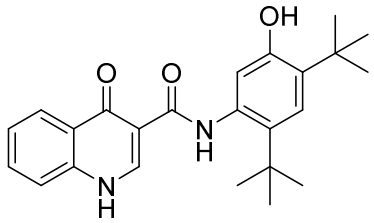
10. The use of any one of claims 7 to 9, wherein the medicament is to be administered with one or more compounds selected from:

Compound **II:**



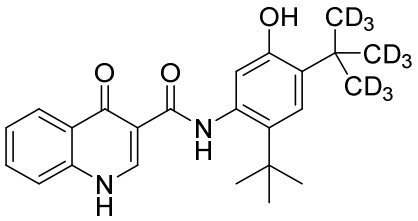
II,

Compound **III**:



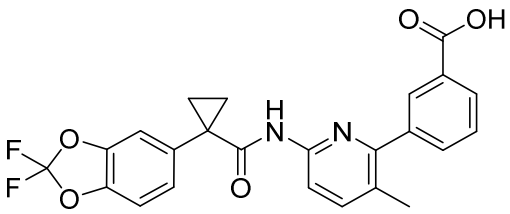
III,

Compound **III-d**:



III-d, and

Compound **IV**:



IV,

and pharmaceutically acceptable salts of Compounds **II**, **III**, **III-d**, and **IV**.

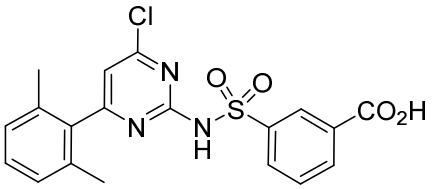
11. The use of claim 10, wherein Compound **I** is to be administered withCompound **III** or Compound **III-d**.

12. The use of claim 10, wherein Compound **I** is to be administered with:

a) Compound **II**, and

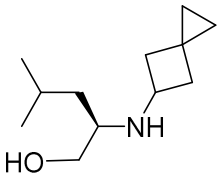
b) Compound **III** or Compound **III-d**.

13. A process for preparing Compound **I**, comprising reacting compound **8**:



8

with compound **3**:

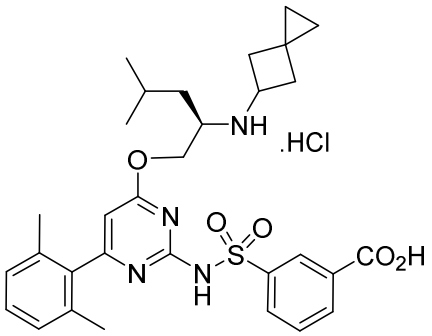


3

to produce Compound **I**.

14. A process for preparing Compound **I**, comprising:

a) reacting compound **8** with compound **3**, and subsequent treatment with HCl to produce compound **9**:



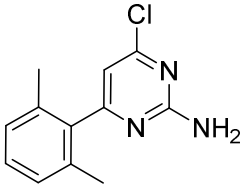
9,

and

b) converting compound **9** into Compound **I**.

15. The process of claim 13 or 14, wherein compound **8** is prepared by

a) reacting compound **7**:



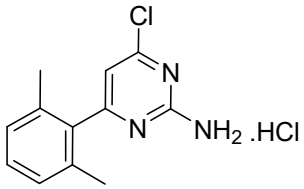
7

with methyl 3-chlorosulfonylbenzoate and a first base,

b) treatment with a second base, and

c) treating the reaction mixture with HCl to produce compound **8**.

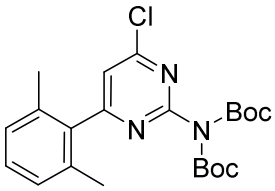
16. The process of claim 15, wherein compound **7** is prepared by converting compound **7·HCl**:



7·HCl

into compound **7**.

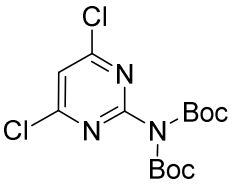
17. The process of claim 16, wherein compound **7·HCl** is prepared by converting compound **6**:



6

into compound **7·HCl**.

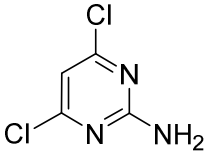
18. The process of claim 17, wherein compound **6** is prepared by reacting compound **5**:



5

with 2,6-dimethylphenylboronic acid to produce compound **6**.

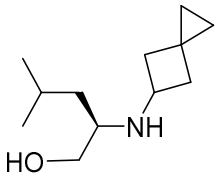
19. The process of claim 18, wherein compound **5** is prepared by converting compound **4**:



4

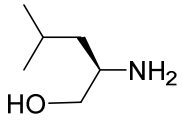
into compound **5**.

20. The process of claim 13 or 14, wherein compound **3**:



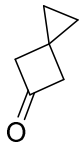
3

is prepared by reacting compound **1**:



1

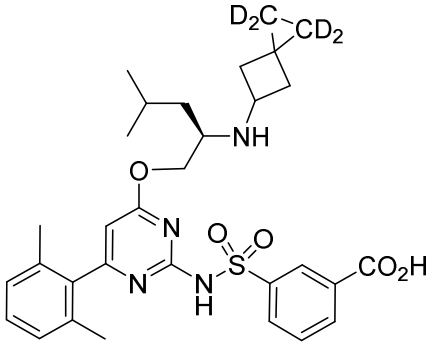
with compound **2**:



2

to produce compound **3**.

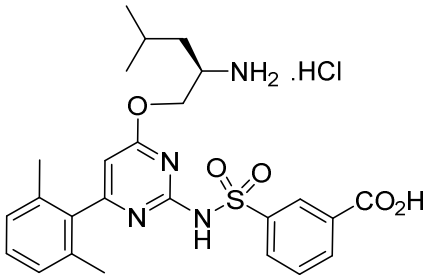
21. A process for preparing Compound **Ia**, comprising converting compound **20**:



20

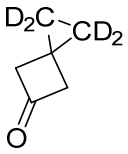
into compound **Ia**.

22. The process of claim 21, wherein compound **20** is produced by reacting compound **19**:



19

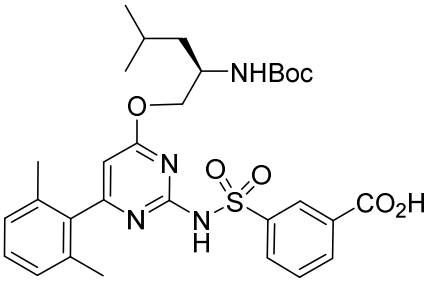
and compound **17**:



17

to produce compound **20**.

23. The process of claim 22, wherein compound **19** is prepared by converting compound **18**:

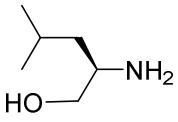


18

into compound **19**.

24. The process of claim 23, wherein compound **18** is prepared by

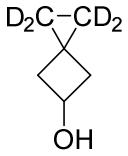
a) reacting compound **8** with compound **1**:



1

b) converting the product of step a) into compound **18**.

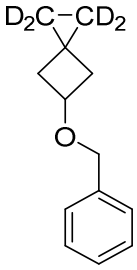
25. The process of claim 22, wherein compound **17** is prepared by converting compound **16**:



16

into compound **17**.

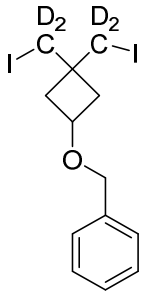
26. The process of claim 25, wherein compound **16** is prepared by converting compound **15**:



15

into compound **16**.

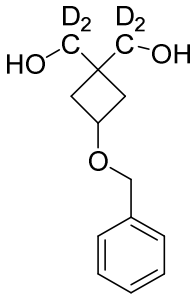
27. The process of claim 26, wherein compound **15** is prepared by converting compound **14**:



14

into compound **15**.

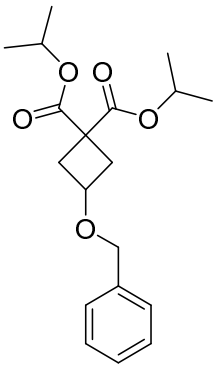
28. The process of claim 27, wherein compound **14** is prepared by converting compound **13**:



13

into compound **14**.

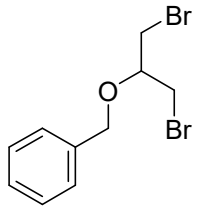
29. The process of claim 28, wherein compound **13** is prepared by converting compound **12**:



12

into compound **13**.

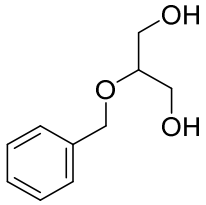
30. The process of claim 29, wherein compound **12** is prepared by reacting compound **11**:



11

with diisopropyl propanedioate to form compound **12**.

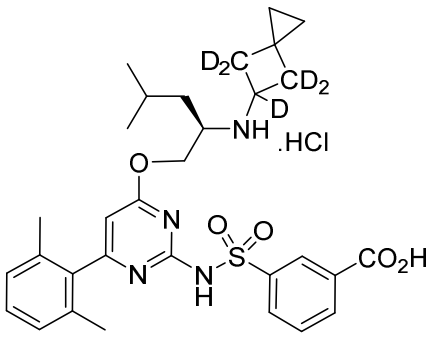
31. The process of claim 30, wherein compound **11** is prepared by converting compound **10**:



10

into compound **11**.

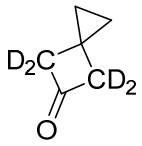
32. A process for preparing Compound **Ib**, comprising converting compound **22**:



22

into compound **Ib**.

33. The process of claim 32, wherein compound **22** is prepared by reacting compound **19** with compound **21**:

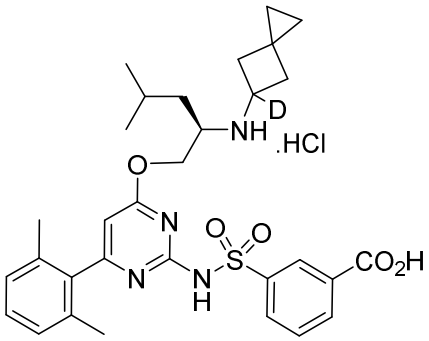


21

to produce compound **22**.

34. The process of claim 33, wherein compound **21** is prepared by converting compound **2** into compound **21**.

35. A process for preparing Compound **Ic**, comprising converting compound **23**:

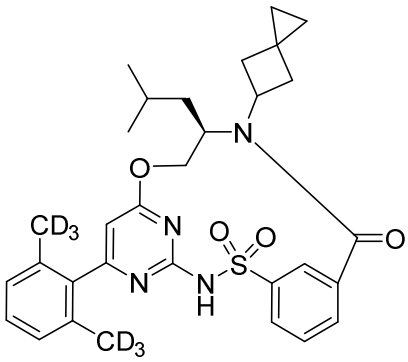


23

into compound **Ic**.

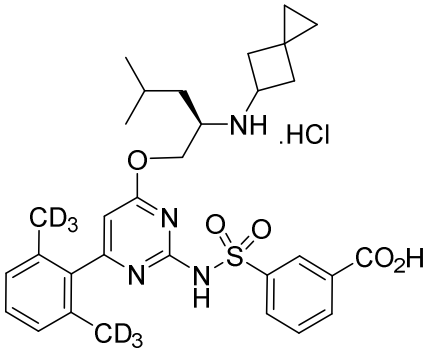
36. The process of claim 35, wherein compound **23** is prepared by reacting compound **19** with compound **2** to produce compound **23**.

37. A process for preparing Compound **Id**:



1d,

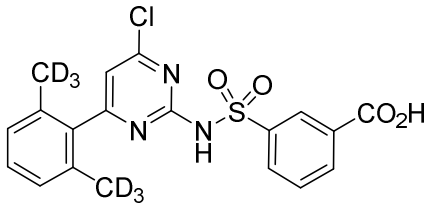
comprising converting compound **35**:



35

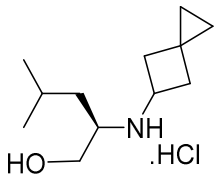
into compound **Id**.

38. The process of claim 37, wherein compound **35** is prepared by reacting compound **34**:



34

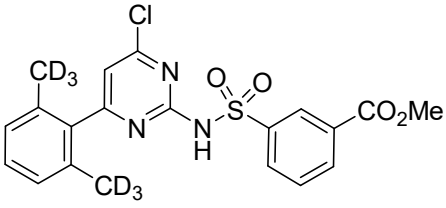
with compound **3·HCl**:



3·HCl

to produce compound **35**.

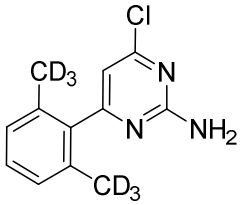
39. The process of claim 38, wherein compound **34** is prepared by converting compound **33**:



33

into compound **34**.

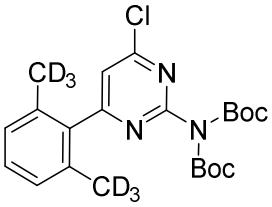
40. The process of claim 39, wherein compound **33** is prepared by reacting compound **32**:



32

with methyl 3-chlorosulfonylbenzoate to produce compound **33**.

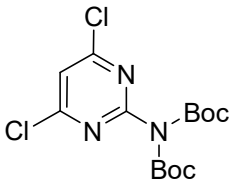
41. The process of claim 40, wherein compound **32** is prepared by converting compound 31:



31

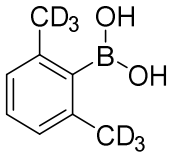
into compound **32**.

42. The process of claim 41, wherein compound **31** is prepared by reacting compound **5**:



5

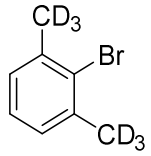
with compound **30**:



30

to produce compound **31**.

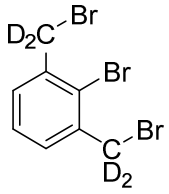
43. The process of claim 42, wherein compound **30** is prepared by converting compound **29**:



29

into compound **30**.

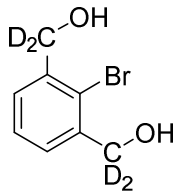
44. The process of claim 43, wherein compound **29** is prepared by converting compound **28**:



28

into compound **29**.

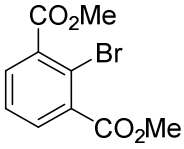
45. The process of claim 44, wherein compound **28** is prepared by converting compound **27**:



27

into compound **28**.

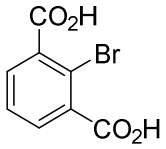
46. The process of claim 45, wherein compound **27** is prepared by converting compound **26**:



26

into compound **27**.

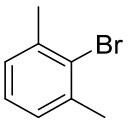
47. The process of claim 46, wherein compound **26** is prepared by converting compound **25**:



25

into compound **26**.

48. The process of claim 47, wherein compound **25** is prepared by converting compound **24**:



24

into compound **25**.

49. The process of claim 38, wherein compound **3·HCl** is prepared by treating compound **3** with HCl to produce compound **3·HCl**.

50. Compound of any one of claims 1 to 6 for use in therapy.

51. Compound of any one of claims 1 to 6 for use in the treatment of cystic fibrosis.