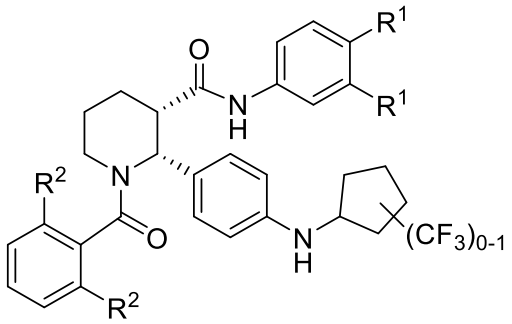
SUMMARY

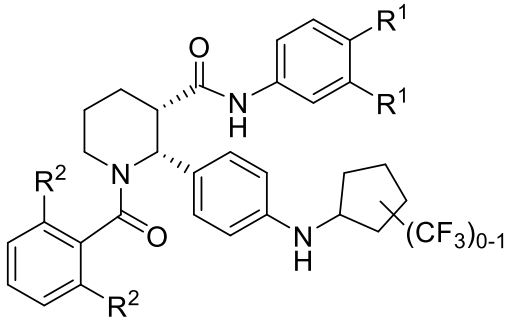
[0005] In one aspect, the present disclosure refers to the use of a compound having formula **(I)**



(I)

or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating a human suffering from or susceptible to complement 3 glomerulopathy, wherein about 10 mg or 30 mg of said compound is to be used twice daily, wherein each R^1 is independently selected from the group consisting of CH_3, CF_3, CH_2CH_3, Cl, 1-pyrrolidine, -O-$CH(CH_3)_2$, and CH_2OH; and each R^2 is independently selected from the group consisting of CH_3 and F.

[0006] The present disclosure is directed to a method of treating certain human patient populations suffering from or susceptible to complement 3 (C3) glomerulopathy comprising administering to the human an effective amount of a C5aR antagonist of Formula I



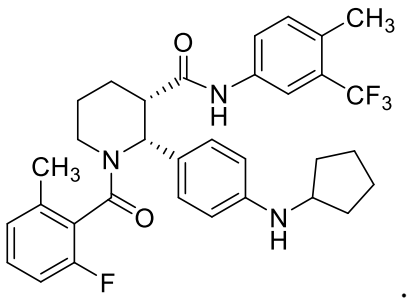
(I)

or a pharmaceutically acceptable salt thereof. In some embodiments said therapeutically effective amount is about 10 mg or 30 mg of the compound twice daily. In some embodiments,

each R^1 is independently selected from the group consisting of CH_3, CF_3, CH_2CH_3, Cl, 1-pyrrolidine, -O-$CH(CH_3)_2$, and CH_2OH; and

each R^2 is independently selected from the group consisting of CH_3 and F.

[0007] In some examples, the C5aR antagonist is a compound having the formula:

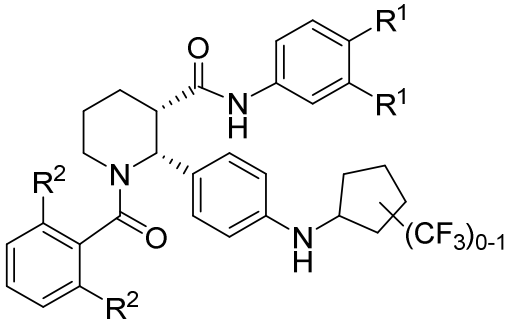


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[0008] In some examples, the C5aR antagonist is a compound having the formula:

WHAT IS CLAIMED IS:

1. Use of a compound having formula **(I)**



(I)

or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating a human suffering from or susceptible to complement 3 glomerulopathy, wherein about 10 mg or 30 mg of said compound is to be used twice daily, wherein

each R^1 is independently selected from the group consisting of CH_3, CF_3, CH_2CH_3, Cl, 1-pyrrolidine, -O-$CH(CH_3)_2$, and CH_2OH; and

each R^2 is independently selected from the group consisting of CH_3 and F.

2. The use of claim 1, wherein humans with an eGFR of < 60 mL/min/1.73 m^2 at baseline have a significant improvement in renal function relative to placebo.

3. The use of claim 2, wherein the change in eGFR from baseline to after week 26 in humans receiving a compound of Formula I is at least a 10% improvement.

4. The use of claim 2 or 3, wherein the change in eGFR from baseline to after week 26 in humans receiving placebo is at least a 5% worsening.

5. The use of claim 1, wherein the human has a baseline C5b-9 blood plasma concentration of >244ng/mL.

6. The use of claim 1, wherein the human has a baseline C5b-9 blood plasma concentration of ≤ 244ng/mL.

7. The use of claim 1, wherein the human has a high baseline C3, C3d, C3c, C3adesArg, or C4 plasma level.

8. The use of claim 1, wherein the human has a low baseline C3, C3d, C3c, C3adesArg, or C4 plasma level.

9. The use of claim 1, wherein the human has a high baseline C3 nephritic factor plasma level.

10. The use of claim 1, wherein the human has a low baseline C3 nephritic factor plasma level.

11. The use of claim 1, wherein the human has a high baseline C5, C5a, C5b-9, or C5adesArg nephritic factor plasma level.

12. The use of claim 1, wherein the human has a low baseline C5, C5a, C5b-9, or C5adesArg plasma level.

13. The use of claim 1, wherein the human has a high baseline Serum Complement Factor H or Serum Complement Factor B plasma level.

14. The use of claim 1, wherein the human has a low baseline Serum Complement Factor H or Serum Complement Factor B plasma level.

15. The use of claim 1, wherein the human has a high baseline Serum Paraprotein plasma level.

16. The use of claim 1, wherein the human has a low baseline Serum Paraprotein plasma level.

17. The use of claim 1, wherein the human has a high baseline Complement Factor H Related Protein 5 (CFHR5) plasma level.

18. The use of claim 1, wherein the human has a low baseline Complement Factor H Related Protein 5 (CFHR5) plasma level.

19. The use of any one of claims **7**, **9**, **11**, **13**, **15**, or **17**, wherein said high baseline protein plasma level comprises 20% or more of the reference protein in the humans blood plasma as compared to a threshold value.

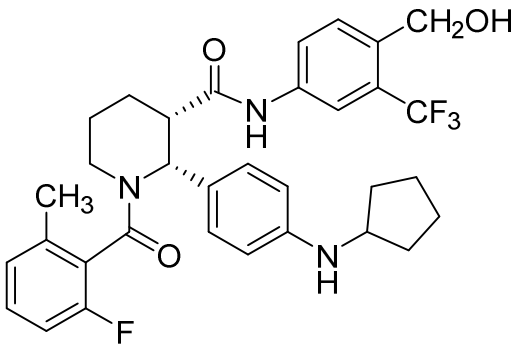
20. The use of any one of claims **8**, **10**, **12**, **14**, **16**, or **18**, wherein said low baseline protein plasma level comprises < 20% increase of the reference protein in the humans blood plasma as compared to a threshold value or lower amounts of the reference protein in the human's blood plasma.

21. The use of claim 1, wherein the human has a complement protein plasma level baseline that is 20% or more below the average plasma level for the complement protein in healthy individuals who are not diagnosed with C3G.

22. The use of claim **21**, wherein the complement protein is selected from the group consisting of C2, C3, C3d, C3c, C3adesArg, C4, C5a, C5b-9, and C5adesArg.

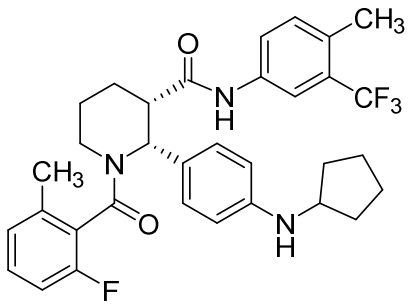
23. The use of claim **21**, wherein the complement protein is C4.

24. The use of any one of claims 1 to **23**, wherein the compound is



or a pharmaceutically acceptable salt thereof.

25. The use of any one of claims 1 to **23**, wherein the compound is



or a pharmaceutically acceptable salt thereof.

26. The use of any one of claims 1 to **25**, wherein the human suffers from complement 3 glomerulonephritis.

27. The use of any one of claims 1 to **25**, wherein the human suffers from progressive complement 3 glomerulonephritis.

28. The use of any one of claims 1 to **25**, wherein the human suffers from recurrent complement 3 glomerulonephritis after a renal transplant.

29. The use of any one of claims 1 to **25**, wherein the human suffers from dense deposit disease.

30. The use of any one of claims 1 to **25**, wherein the complement 3 glomerulopathy is refractory to other treatment.

31. The use of any one of claims 1 to **25**, wherein the human has refractory disease to immunosuppressive drugs.

32. The use of any one of claims 1 to **25**, wherein the human has refractory disease to one or more of rituximab, cyclophosphamide, mycophenolate mofetil, tacrolimus, and steroids.

33. The use of any one of claims 1 to **32**, wherein the compound is to be administered orally.

34. The use of any one of claims 1 to **33**, wherein the compound is to be administered twice daily.

35. The use of any one of claims 1 to **33**, wherein the human receives 30 mg of the compound twice daily.

36. The use of any one of claims 1 to **33**, wherein the human receives 20 mg of the compound twice daily.

37. The use of any one of claims 1 to **33**, wherein the human receives 10 mg of the compound twice daily.

38. The use of any one of claims 1 to **37**, wherein the human has a Complement factor H related protein 5 (CFHR5) mutation.

39. The use of any one of claims 1 to **38**, wherein the human receives treatment for 12 weeks.

40. The use of any one of claims 1 to **38**, wherein the human receives treatment for 26 weeks.

41. The use of any one of claims 1 to **38**, wherein the human receives treatment for 52 weeks