CLAIMS

1. Use of a C1q inhibitor in the manufacture of a medicament for preventing, reducing risk of developing, or treating a blood disorder.

2. The use of claim 1, wherein the C1q inhibitor is an antibody, an aptamer, an antisense nucleic acid or a gene editing agent.

3. The use of claim 1, wherein the inhibitor is an anti-C1q antibody.

4. The use of claim 3, wherein the anti-C1q antibody inhibits the interaction between C1q and an autoantibody or between C1q and C1r, or between C1q and C1s.

5. The use of claim 3, wherein the anti-C1q antibody promotes clearance of C1q from circulation or a tissue.

6. The use of any one of claims 3-5, wherein the antibody is a monoclonal antibody, a polyclonal antibody, a recombinant antibody, a humanized antibody, a human antibody, a chimeric antibody, a monovalent antibody, a multispecific antibody, an antibody fragment, or antibody derivative thereof.

7. The use of claim 6, wherein the antibody is an antibody fragment and the antibody fragment is a Fab fragment, a Fab' fragment, a F(ab')2 fragment, a Fv fragment, a diabody, or a single chain antibody molecule.

8. The use of any one of claims 3-7, wherein the antibody comprises a light chain variable domain comprising an HVR-L1 having the amino acid sequence of SEQ ID NO: 5, an HVR-L2 having the amino acid of SEQ ID NO: 6, and an HVR-L3 having the amino acid of SEQ ID NO: 7.

9. The use of any one of claims 3-8, wherein the antibody comprises a heavy chain variable domain comprising an HVR-H1 having the amino acid sequence of SEQ ID NO: 9, an HVR-H2 having the amino acid of SEQ ID NO: 10, and an HVR-H3 having the amino acid of SEQ ID NO: 11.

10. The use of any one of claims 3-9, wherein the antibody comprises a light chain variable domain comprising an amino acid sequence with at least about 95% homology to the amino acid sequence selected from SEQ ID NO: 4 and 35-38 and wherein the light chain variable domain comprises an HVR-L1 having

the amino acid sequence of SEQ ID NO: 5, an HVR-L2 having the amino acid of SEQ ID NO: 6, and an HVR-L3 having the amino acid of SEQ ID NO: 7.

11. The use of claim 10, wherein the light chain variable domain comprising an amino acid sequence selected from SEQ ID NO: 4 and 35-38.

12. The use of any one of claims 3-11, wherein the antibody comprises a heavy chain variable domain comprising an amino acid sequence with at least about 95% homology to the amino acid sequence selected from SEQ ID NO: 8 and 31-34 and wherein the heavy chain variable domain comprises an HVR-H1 having the amino acid sequence of SEQ ID NO: 9, an HVR-H2 having the amino acid of SEQ ID NO: 10, and an HVR-H3 having the amino acid of SEQ ID NO: 11.

13. The use of claim 12, wherein the heavy chain variable domain comprising an amino acid sequence selected from SEQ ID NO: 8 and 31-34.

14. The use of any one of claims 3-13, wherein the antibody is an antibody fragment comprising a heavy chain Fab fragment of SEQ ID NO: 39 and a light chain Fab fragment of SEQ ID NO: 40.

15. The use of any one of claims 3-14, wherein the medicament is to be administered by parenteral injection or infusion.

16. The use of claim 15, wherein the parenteral injection or infusion is a subcutaneous, intramuscular injection, or an intravenous injection or infusion.

17. The use of any one of claims 3-13, wherein the antibody is a full-length antibody.

18. The use of claim 17, wherein the antibody is to be administered by intravenous injection or infusion at a dose between 10 mg/kg and 150 mg/kg or at a dose between 75 mg/kg and 100 mg/kg.

19. The use of any one of claims 17-18, wherein the medicament is to be administered once a week, once every other week, or once a month.

20. The use of claim 17, wherein the antibody is to be administered by subcutaneous or intramuscular injection at a dose between 1 mg/kg and 10 mg/kg.

21. The use of claim 20, wherein the antibody is to be administered by subcutaneous or intramuscular injection at a dose between 3 mg/kg and 5 mg/kg.

22. The use of claims 20 or 21, wherein the medicament is to be administered daily, once every other day, once a week, once every other week, or once a month.

23. The use of any one of claims 3-14, wherein the antibody is an antibody fragment.

24. The use of claim 23, wherein the antibody fragment is to be administered at a dose between 0.1 mg/kg and 50 mg/kg or at a dose between 0.3 mg/kg and 10 mg/kg.

25. The use of any one of claims 23-24, wherein the medicament is to be administered daily, once every other day, once a week, once every other week, or once a month.

26. The use of claim 25, wherein the medicament is to be administered at an initial predose that is higher than the daily, once every other day, once a week, once every other week, or once a month dose.

27. The use of claim 26, wherein the initial predose is between 3 mg/kg and 50 mg/kg or is between 3 mg/kg and 20 mg/kg.

28. The use of any one of claims 23-27, wherein the antibody fragment has a shorter half-life as compared to its corresponding full-length antibody.

29. The use of any one of claims 23-28, wherein the antibody fragment is rapidly cleared, thereby sparing C1q activity outside the blood space.

30. The use of any one of claims 23-29, wherein the antibody selectively inhibits C1q within the blood space, thereby sparing C1q activity outside the blood space.

31. The use of claim 30, wherein the blood space is confined within a blood vessel.

32. The use of claim 31, wherein the blood vessel is an artery, an arteriole, a capillary, a venule, or a vein.

33. The use of any one of claims 30-32, wherein the blood space comprises serum, platelets, endothelial cells, blood cells, or hematopoietic cells.

34. The use of any one of claims 30-33, wherein inhibiting C1q within the blood space reduces tissue damage in a highly vascularized tissue.

35. The use of claim 34, wherein the highly vascularized tissue is kidney, alveoli, capillary bed, or glomerulus.

36. The use of any one of claims 1-35, wherein the blood disorder is a complement-mediated blood disorder.

37. The use of claim any one of claims 1-36, wherein the blood disorder is cold agglutinin hemolytic anemia (cold agglutinin disease), cold antibody hemolytic anemia, ABO incompatible acute hemolytic reactions, warm agglutinin hemolytic anemia, warm antibody hemolytic anemia, warm autoimmune hemolytic anemia (WAIHA), autoimmune hemolytic anemia (AIHA) autoimmune thrombocytopenia, antiphospholipid syndrome, Evan's syndrome, neonatal alloimmune thrombocytopenia, red blood cell alloimmunization, Felty's syndrome, antibody mediated thrombocytopenia, heparin-induced thrombocytopenia (HIT), heparin-induced thrombocytopenia and thrombosis (HITT), thrombotic thrombocytopenic purpura (TTP), immune thrombocytopenic purpura (ITP), thrombocytopenia, thrombosis, vasculitis, lupus nephritis, systemic lupus erythematosus (SLE), glomerulonephritis, anti-phospholipid antibody syndrome (APS), an infection, or a drug-induced hematologic disorder.

38. The use of claim 37, wherein the infection is pneumonia, mycoplasma, mononucleosis, hepatitis C, human immunodeficiency virus (HIV), or coronavirus.

39. The use of any one of claim 38, wherein the coronavirus is selected from SARS-CoV, MERS-CoV, HCoV, HKU1, and SARS-CoV-2.

40. The use of claim 39, wherein the coronavirus is SARS-CoV-2.

41. The use of claim 40, wherein the SARS-CoV-2 is confirmed by reverse-transcription polymerase chain reaction (RT-PCR) from respiratory tract or blood specimens.

42. The use of claim 37, wherein the blood disorder is cold agglutinin hemolytic anemia (cold agglutinin disease).

43. The use of claim 37, wherein the blood disorder is warm autoimmune hemolytic anemia (WAIHA).

44. The use of claim 37, wherein the blood disorder is lupus nephritis.

45. The use of claim 37, wherein the blood disorder is heparin-induced thrombocytopenia (HIT).

46. The use of claim 37, wherein the blood disorder is heparin-induced thrombocytopenia and thrombosis (HITT).

47. The use of claim 37, wherein the blood disorder is immune thrombocytopenic purpura (ITP).

48. The use of claim 37, wherein the drug-induced hematologic disorder is aplastic anemia, agranulocytosis, megaloblastic anemia, hemolytic anemia, or thrombocytopenia.