CLAIMS

1. A modified IgG comprising: a feline IgG constant domain comprising at least one amino acid substitution relative to a wild-type feline IgG constant domain, wherein said substitution is at amino acid residue 247, 249, 250, 252, 254, 256, 285, 309, 311, 312, 314, 378, 399, 401, 402, 403, 404, 428, 430, 431, 432, 434, 436, or 437, numbered according to the Eu index as in Kabat.

2. The modified IgG of claim 1, wherein said constant domain comprising one or more of substitutions P247I, P247L, P247V, D249A, D249E, D249S, T250E, T250I, T250Q, T250S, T250V, S252A, S252C, S252D, S252E, S252F, S252G, S252H, S252I, S252K, S252L, S252N, S252P, S252Q, S252R, S252T, S252V, S252Y, S252M, S252W, S254A, S254D, S254E, S254F, S254G, S254H, S254K, S254L, S254M, S254C, S254I, S254N, S254P, S254Q, S254R, S254T, S254V, S254W, S254Y, T256A, T256C, T256D, T256E, T256F, T256G, T256H, T256I, T256K, T256L, T256M, T256N, T256P, T256Q, T256R, T256V, T256W, T256Y, T256S, Y285A, L309G, L309I, Q311F, Q311H, Q311I, Q311K, Q311L, Q311M, Q311R, Q311W, Q311Y, D312A, D312H, D312K, D312R, D312P, L314K, 316Q, A378C, A378D, A378E, A378F, A378G, A378H, A378I, A378K, A378L, A378M, A378N, A378P, A378Q, A378R, A378S, A378T, A378V, A378W, A378Y, D399M, D399T, D399V, D401R, G402R, T403R, Y404Q, S428A, S428C, S428D, S428E, S428F, S428G, S428H, S428I, S428K, S428L, S428N, S428P, S428R, S428T, S428V, S428W, S428Y, S428M, E430I, E430Q, A431Q, A431R, A431V, A431K, L432S, S434A, S434C, S434D, S434E, S434F, S434G, S434H, S434I, S434K, S434L, S434M, S434N, S434P, S434Q, S434R, S434T, S434V, S434W, S434Y, H436G, H436K, H436M, H436R, H436Y, T437A, and T437R.

3. The modified IgG of claim 1, wherein the modified IgG has a higher affinity for FcRn than the IgG having the wild-type feline IgG constant domain.

4. The modified IgG of claim 1, wherein the modified IgG is a feline or felinized IgG.

5. The modified IgG of claim 1, wherein the IgG is $IgG1_a$, $IgG1_b$, or IgG2.

6. The modified IgG of claim 1, wherein the IgG constant domain is a constant domain of $IgG1_a$, $IgG1_b$, or IgG2.

7. The modified IgG of claim 1, wherein the IgG constant domain comprises an Fc constant region having CH3 domain.

8. The modified IgG of claim 1, wherein the IgG constant domain comprises an Fc constant region having CH2 and CH3 domain.

9. The modified IgG of claim 1, wherein the wild-type feline IgG constant domain comprises the amino acid sequence set forth in SEQ ID NO.: 1, 3, or 4.

10. A pharmaceutical composition comprising the modified IgG of claim 1 and a pharmaceutically acceptable carrier.

11. A kit comprising the modified IgG of claim 1, in a container, and instructions for use.

12. A polypeptide comprising: a feline IgG constant domain comprising at least one amino acid substitution relative to a wild-type feline IgG constant domain, wherein said substitution is at amino acid residue 247, 249, 250, 252, 254, 256, 285, 309, 311, 312, 314, 378, 399, 401, 402, 403, 404, 428, 430, 431, 432, 434, 436, or 437, numbered according to the EU index as in Kabat.

13. The polypeptide of claim 12, wherein said constant domain comprising one or more of substitutions P247I, P247L, P247V, D249A, D249E, D249S, T250E, T250I, T250Q, T250S, T250V, S252A, S252C, S252D, S252E, S252F, S252G, S252H, S252I, S252K, S252L, S252N, S252P, S252Q, S252R, S252T, S252V, S252Y, S252M, S252W, S254A, S254D, S254E, S254F, S254G, S254H, S254K, S254L, S254M, S254C, S254I, S254N, S254P, S254Q, S254R, S254T, S254V, S254W, S254Y, T256A, T256C, T256D, T256E, T256F, T256G, T256H, T256I, T256K, T256L, T256M, T256N, T256P, T256Q, T256R, T256V, T256W, T256Y, T256S, Y285A, L309G, L309I, Q311F, Q311H, Q311I, Q311K, Q311L, Q311M, Q311R, Q311W, Q311Y, D312A, D312H, D312K, D312R, D312P, L314K, 316Q, A378C, A378D, A378E, A378F, A378G, A378H, A378I, A378K, A378L, A378M, A378N, A378P, A378Q, A378R, A378S, A378T, A378V, A378W, A378Y, D399M, D399T, D399V, D401R, G402R, T403R, Y404Q, S428A, S428C, S428D, S428E, S428F, S428G, S428H, S428I, S428K, S428L, S428N, S428P, S428R, S428T, S428V, S428W, S428Y, S428M, E430I, E430Q, A431Q, A431R, A431V, A431K, L432S, S434A, S434C, S434D, S434E, S434F,

S434G, S434H, S434I, S434K, S434L, S434M, S434N, S434P, S434Q, S434R, S434T, S434V, S434W, S434Y, H436G, H436K, H436M, H436R, H436Y, T437A, and T437R.

14. The polypeptide of claim 12, wherein the polypeptide has a higher affinity for FcRn than the polypeptide of the IgG having the wild-type feline IgG constant domain.

15. The polypeptide of claim 12, wherein the polypeptide is a polypeptide of a feline or felinized IgG.

16. The polypeptide of claim 12, wherein the IgG is $IgG1_a$, $IgG1_b$, or IgG2.

17. The polypeptide of claim 12, wherein the IgG constant domain is a constant domain of $IgG1_a$, $IgG1_b$, or IgG2.

18. The polypeptide of claim 12, wherein the IgG constant domain comprises an Fc constant region having CH3 domain.

19. The polypeptide of claim 12, wherein the IgG constant domain comprises an Fc constant region having CH2 and CH3 domain.

20. The polypeptide of claim 12, wherein the wild-type feline IgG constant domain comprises the amino acid sequence set forth in SEQ ID NO.: 1, 3, or 4.

21. An antibody comprising: a feline IgG constant domain comprising at least one amino acid substitution relative to a wild-type feline IgG constant domain, wherein said substitution is at amino acid residue 247, 249, 250, 252, 254, 256, 285, 309, 311, 312, 314, 378, 399, 401, 402, 403, 404, 428, 430, 431, 432, 434, 436, or 437, numbered according to the EU index as in Kabat.

22. The antibody of claim 21, wherein said constant domain comprising one or more of substitutions P247I, P247L, P247V, D249A, D249E, D249S, T250E, T250I, T250Q, T250S, T250V, S252A, S252C, S252D, S252E, S252F, S252G, S252H, S252I, S252K, S252L, S252N, S252P, S252Q, S252R, S252T, S252V, S252Y, S252M, S252W, S254A, S254D, S254E, S254F, S254G, S254H, S254K, S254L, S254M, S254C, S254I, S254N, S254P, S254Q, S254R, S254T, S254V, S254W, S254Y, T256A, T256C, T256D, T256E, T256F, T256G, T256H, T256I, T256K, T256L, T256M, T256N, T256P, T256Q, T256R, T256V, T256W, T256Y, T256S, Y285A, L309G, L309I,

Q311F, Q311H, Q311I, Q311K, Q311L, Q311M, Q311R, Q311W, Q311Y, D312A, D312H, D312K, D312R, D312P, L314K, 316Q, A378C, A378D, A378E, A378F, A378G, A378H, A378I, A378K, A378L, A378M, A378N, A378P, A378Q, A378R, A378S, A378T, A378V, A378W, A378Y, D399M, D399T, D399V, D401R, G402R, T403R, Y404Q, S428A, S428C, S428D, S428E, S428F, S428G, S428H, S428I, S428K, S428L, S428N, S428P, S428R, S428T, S428V, S428W, S428Y, S428M, E430I, E430Q, A431Q, A431R, A431V, A431K, L432S, S434A, S434C, S434D, S434E, S434F, S434G, S434H, S434I, S434K, S434L, S434M, S434N, S434P, S434Q, S434R, S434T, S434V, S434W, S434Y, H436G, H436K, H436M, H436R, H436Y, T437A, and T437R.

23. The antibody of claim 21, wherein the polypeptide has a higher affinity for FcRn than the polypeptide of the IgG having the wild-type feline IgG constant domain.

24. The antibody of claim 21, wherein the polypeptide is a polypeptide of a feline or felinized IgG.

25. The antibody of claim 21, wherein the IgG is $IgG1_a$, $IgG1_b$, or IgG2.

26. The antibody of claim 21, wherein the IgG constant domain is a constant domain of $IgG1_a$, $IgG1_b$, or IgG2.

27. The antibody of claim 21, wherein the IgG constant domain comprises an Fc constant region having CH3 domain.

28. The antibody of claim 21, wherein the IgG constant domain comprises an Fc constant region having CH2 and CH3 domain.

29. The antibody of claim 21, wherein the wild-type feline IgG constant domain comprises the amino acid sequence set forth in SEQ ID NO.: 1, 3, or 4.

30. A pharmaceutical composition comprising the antibody of claim 29 and a pharmaceutically acceptable carrier.

31. A kit comprising the antibody of claim 29, in a container, and instructions for use.

32. A vector comprising the nucleic acid sequence encoding the amino acid sequence of antibody of claim 21, wherein the wild-type feline IgG constant domain comprises the amino acid sequence set forth in SEQ ID NO.: 1, 3, or 4.

33. An isolated cell comprising the vector of claim 32.

34. A method of manufacturing an antibody or a molecule, the method comprising: providing the cell of claim 33; and culturing said cell.

35. A method of manufacturing an antibody, the method comprising: providing an antibody of any one of claims 21-19.

36. A fusion molecule comprising: a feline IgG constant domain comprising at least one amino acid substitution relative to a wild-type feline IgG constant domain, wherein said substitution is at amino acid residue 247, 249, 250, 252, 254, 256, 285, 309, 311, 312, 314, 378, 399, 401, 402, 403, 404, 428, 430, 431, 432, 434, 436, or 437, numbered according to the EU index as in Kabat.

37. The molecule of claim 36, wherein said constant domain comprising one or more of substitutions P247I, P247L, P247V, D249A, D249E, D249S, T250E, T250I, T250Q, T250S, T250V, S252A, S252C, S252D, S252E, S252F, S252G, S252H, S252I, S252K, S252L, S252N, S252P, S252Q, S252R, S252T, S252V, S252Y, S252M, S252W, S254A, S254D, S254E, S254F, S254G, S254H, S254K, S254L, S254M, S254C, S254I, S254N, S254P, S254Q, S254R, S254T, S254V, S254W, S254Y, T256A, T256C, T256D, T256E, T256F, T256G, T256H, T256I, T256K, T256L, T256M, T256N, T256P, T256Q, T256R, T256V, T256W, T256Y, T256S, Y285A, L309G, L309I, Q311F, Q311H, Q311I, Q311K, Q311L, Q311M, Q311R, Q311W, Q311Y, D312A, D312H, D312K, D312R, D312P, L314K, 316Q, A378C, A378D, A378E, A378F, A378G, A378H, A378I, A378K, A378L, A378M, A378N, A378P, A378Q, A378R, A378S, A378T, A378V, A378W, A378Y, D399M, D399T, D399V, D401R, G402R, T403R, Y404Q, S428A, S428C, S428D, S428E, S428F, S428G, S428H, S428I, S428K, S428L, S428N, S428P, S428R, S428T, S428V, S428W, S428Y, S428M, E430I, E430Q, A431Q, A431R, A431V, A431K, L432S, S434A, S434C, S434D, S434E, S434F, S434G, S434H, S434I, S434K, S434L, S434M, S434N, S434P, S434Q, S434R, S434T, S434V, S434W, S434Y, H436G, H436K, H436M, H436R, H436Y, T437A, and T437R.

38. The molecule of claim 36, wherein the polypeptide has a higher affinity for FcRn than the polypeptide of the IgG having the wild-type feline IgG constant domain.

39. The molecule of claim 36, wherein the polypeptide is a polypeptide of a feline or felinized IgG.

40. The molecule of claim 36, wherein the IgG is $IgG1_a$, $IgG1_b$, or IgG2.

41. The molecule of claim 36, wherein the IgG constant domain is a constant domain of $IgG1_a$, $IgG1_b$, or IgG2.

42. The molecule of claim 36, wherein the IgG constant domain comprises an Fc constant region having CH3 domain.

43. The molecule of claim 36, wherein the IgG constant domain comprises an Fc constant region having CH2 and CH3 domain.

44. The molecule of claim 36, wherein the wild-type feline IgG constant domain comprises the amino acid sequence set forth in SEQ ID NO.: 1, 3, or 4.

45. A pharmaceutical composition comprising the molecule of claim 36 and a pharmaceutically acceptable carrier.

46. A kit comprising the molecule of claim 36, in a container, and instructions for use.

47. The modified IgG of claim 1, wherein at least one of said mutations improves a biophysical property.

48. The modified IgG of claim 47, wherein said biophysical property is polyreactivity.

49. The polypeptide of claim 12, wherein at least one of said mutations improves a biophysical property.

50. The polypeptide of claim 49, wherein said biophysical property is polyreactivity.

51. The antibody of claim 21, wherein at least one of said mutations improves a biophysical property.

52. The antibody of claim 51, wherein said biophysical property is polyreactivity.

53. The molecule of claim 36, wherein at least one of said mutations improves a biophysical property.

54. The molecule of claim 53, wherein said biophysical property is polyreactivity.

55. Use of a therapeutically effective amount of an antibody comprising a feline IgG constant domain, said feline IgG constant domain comprising at least one amino acid substitution relative to a wild-type feline IgG constant domain, wherein said substitution is at amino acid residue amino acid residue 252, 311, or 428, numbered according to the EU index as in Kabat, in the manufacture of a medicament for increasing an antibody serum half-life in a cat, wherein said medicament is to be administered to said cat.

56. The use of claim 55, wherein said feline IgG constant domain comprises one or more of mutations S252H, S252Y, Q311W, S428L, S428M, and S428Y.

57. The use of claim 55, wherein said feline IgG constant domain comprises the mutations selected from a group: (1) S428L; (2) S252H and S428M; (3) S252Y and S428M; (4) S428M and Q311W; or (5) S428Y and Q311W.

58. The use of claim 55, wherein said feline IgG constant domain comprises the mutation S428L.

59. The use of claim 55, wherein said feline IgG constant domain comprises the combination of mutations S252H and S428M.

60. The use of claim 55, wherein said feline IgG constant domain comprises the combination of mutations S252Y and S428M.

61. The use of claim 55, wherein said feline IgG constant domain comprises the combination of mutations S428M and Q311W.

62. The use of claim 55, wherein said feline IgG constant domain comprises the combination of mutations S428Y and Q311W.

63. The use of claim 55, wherein said feline IgG constant domain has a higher serum half-life than an IgG having the wild-type feline IgG constant domain.

64. The use of claim 55, wherein the IgG is $IgG1_a$, $IgG1_{b,}$ or IgG2.

65. The use of claim 55, wherein the IgG constant domain is a constant domain of $IgG1_a$, $IgG1_{b,}$ or IgG2.

66. The use of claim 55, wherein the IgG constant domain comprises an Fc constant region having CH3 domain.

67. The use of claim 55, wherein the IgG constant domain comprises an Fc constant region having CH2 and CH3 domain.

68. The use of claim 55, wherein the wild-type feline IgG constant domain comprises the amino acid sequence set forth in SEQ ID NO.: 1, 3, or 4.

69. The use of claim 55, wherein said antibody is an anti-IL31 antibody.

70. Use of a therapeutically effective amount of the anti-IL31 antibody of claim 69, in the manufacture of a medicament for the treatment of an IL-31-mediated pruritic or allergic condition in a canine subject, wherein said medicament is to be administered to said subject.

71. The use of claim 70, wherein the IL-31-mediated pruritic or allergic condition is a pruritic condition selected from the group consisting of atopic dermatitis, eczema, psoriasis, scleroderma, and pruritis.