WHAT IS CLAIMED IS:

1. Use of a viral gene therapy vector in the manufacture of a medicament for gene therapy and use of a viral RNA segment comprising a T cell immune-inhibitory domain in the manufacture of a medicament for T cell Receptor (TCR)-mediated signaling in a subject, wherein said viral RNA segment comprises about 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 30, 35, 40, 45, 50, 51, 75, 100, 150, 175, 200, 225, 250, 300, 400 or 500 consecutive bases of the T cell immune-inhibitory domain, and wherein the T cell immune-inhibitory domain reduces host immune reaction against the viral gene therapy vector.

2. The use of claim 1, wherein the viral RNA segment encodes HCV E2 sequences, GBV-C E2, YFV envelope or HIV gp41 sequences.

3. The use of claim 2, wherein the viral RNA segment further encodes non-HCV E2 sequences, non-GBV-C E2 sequences, non-YFV env sequences or non-HIV gp41 sequences.

4. The use of claim 1, wherein the T cell is a helper T cell suppressor T cell, or a killer T cell.

5. The use of claim 1, wherein said subject is a non-human mammal.

6. The use of claim 1, wherein said subject is a human.

7. The use of claim 1, wherein the medicament is to be administered intravenously, intra-arterially, orally, subcutaneously, topically or intraperitoneally.

8. The use of claim 1, further comprising a second anti-inflammatory agent to be administered.

9. The use of claim 8, wherein said second anti-inflammatory agent is a steroid or a COX-2 inhibitor.

10. The use of claim 8, wherein said second anti-inflammatory agent is to be contacted prior to or after said viral RNA segment.

11. The use of claim 8, wherein said second anti-inflammatory agent is to be contacted at the same time as said viral RNA segment.

12. The use of claim 1, wherein said viral RNA segment is provided in combination with a gene therapy vector.

13. The use of claim 1, further comprising a gene therapy vector to be administered.

14. The use of claim 12 or 13, wherein said gene therapy vector comprises a viral gene therapy vector.

15. The use of claim 14, wherein said viral gene therapy vector comprises an adeno-associated virus (AAV) vector.

16. The use of claim 1, wherein said viral RNA segment comprises at least one non-natural base.

17. The use of claim 1, wherein said viral RNA segment comprises a Dicer substrate.

18. The use of claim 1, wherein said viral RNA segment is to be administered at 0.1-500 mg/kg/d.

19. The use of claim 1, wherein said viral RNA segment is to be administered daily or weekly.

20. The use of claim 18, wherein said viral RNA segment is to be administered daily for 7 days, 2 weeks, 3 weeks, 4 weeks, one month, 6 weeks, 8 weeks, two months, 12 weeks, or 3 months, or weekly for 2 weeks, 3 weeks, 4 weeks, 6 weeks, 8 weeks, 10 weeks, or 12 weeks.

21. The use of claim 1, wherein said viral RNA segment is derived from Human Immunodeficiency Virus envelope gp120/160, Yellow Fever Virus envelope protein, Bovine Viral Diarrhea Virus envelope protein, Classical Swine Fever Virus envelope protein, influenza envelope protein, Dengue Virus envelope protein, West Nile Virus envelope protein, and Japanese Encephalitis Virus envelope protein.

22. A composition comprising a viral RNA segment comprising a T cell immune-inhibitory domain, formulated with a pharmaceutically acceptable carrier buffer or diluent, wherein said viral RNA segment comprises about 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 30, 35, 40, 45, 50, 51, 75, 100 consecutive bases of the native viral genome from which it is derived.

23. The composition of claim 22, wherein said viral RNA segment is about 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 30, 35, 40, 45, 50, 51, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300, 400 or 500 bases in length.

24. The composition of claim 22, wherein said viral RNA segment is fused to a non-viral sequence.

25. The composition of claim 22, formulated for pharmaceutical administration, such as topically, cutaneously, subcutaneously, alimentrarily or parenterally.

26. Use of a viral RNA segment in the manufacture of a medicament for inducing an immune response in a subject, wherein said viral RNA segment comprises one or more modified T cell immune-inhibitory domains.

27. The use of claim 26, wherein said modified site comprises Dicer substrate.

28. The use of claim 26, wherein said RNA virus is from the *Reoviridae*, *Atroviridae*, *Caliciviridae*, *Hepeviridae*, *Picornaviridae*, *Togaviridae*, *Flaviviridae*, *Coronaviridae*, *Orthomyxoviridae*, *Arenaviridae*, *Bunyaviridae*, *Paramyxoviridae*, *Filoviridae*, *Rabdoviridae*, or *Retroviridae* family.

29. The use of claim 26, wherein said RNA virus is GBV-C, Hepatitis C Virus, Human Immunodeficiency Virus, influenza virus, Dengue Virus, West Nile Virus, Japanese Encephalitis Virus, Bovine Viral Diarrhea Virus, Classical Swine Fever Virus or Yellow Fever Virus.

30. The use of claim 26, wherein said viral RNA segment is free from other viral sequences.

31. The use of claim 26, wherein said viral RNA segment is delivered via expression from an expression vector.

32. The use of claim 31, wherein said expression vector is a viral expression vector.

33. The use of claim 26, wherein said viral RNA segment is comprised in lipid vehicle or nanoparticle.

34. The use of claim 26, wherein said viral RNA segment is to be administered with a second viral RNA segment from a distinct serotype or strain of said virus.

35. The use of claim 26, wherein said viral RNA segment is to be administered more than once.

36. The use of claims30, 31, 32 or 33, wherein said viral RNA segment is formulated with an adjuvant.

37. The use of claim 26, wherein said viral RNA segment is from HCV E2.

38. The use of claim 26, wherein said viral RNA segment is from YFV env.

39. The use of claim 26, wherein said viral RNA segment is from GBV-C E2.

40. The use of claim 26, wherein a modified domain comprises a deletion or a substitution as compared to the natural sequence.

41. The use of claim 40, wherein said subject is a human subject.

42. The use of claim 40, wherein said subject is a non-human animal subject.

43. A vaccine comprising a viral RNA segment having a modification in a T cell immune-inhibitory domain.

44. The vaccine of claim 43, wherein said modification comprises a deleted segment or a mutated segment.

45. The vaccine of claim 43, wherein said viral RNA segment comprises about 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 30, 35, 40, 45, 50, 51, 75, or 100 consecutive residues of the native viral genome from which it is derived.

46. The vaccine of claim 43, wherein said viral RNA segment is about 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 30, 35, 40, 45, 50, 51, 75, 100, 125, 150, 175, 200, 219 or 250 bases in length.

47. The vaccine of claim 43, wherein said viral RNA segment is fused to a non-viral sequence.

48. The vaccine of claim 43, formulated with an adjuvant.

49. The vaccine of claim 43, wherein said viral RNA segment is from an HCV coding region.

50. Use of

a) an expression cassette comprising a heterologous gene segment under the control of a promoter operable in cells of said subject and

b) a viral RNA segment comprising a T cell immune-inhibitory domain

in the manufacture of a medicament for performing gene transfer in a subject, wherein said viral RNA segment comprises about 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 30, 35, 40, 45, 50, 51, 75, 100, 150, 175, 200, 225, 250, 300, 400 or 500 consecutive bases of the T cell immune-inhibitory domain.

51. The use of claim 50, wherein said expression cassette further comprises the viral RNA segment comprising the T cell immune-inhibitory domain.

52. The use of claim 50, wherein said expression cassette comprises a viral vector.

53. The use of claim 50, wherein said viral vector comprises an adeno-associated virus (AAV) vector.

54. A pharmaceutical composition comprising a nucleic acid having the sequence:

CTCACGCCAAGGTGCCTGATCGACTACCCCTACAGGCTCTGGCATTATCC (SEQ ID NO: 3)

or

CTCACGCCAAGGTGCCTGATCGACTACCCCTACAGGCTCTGGCATTACCCC (SEQ ID NO: 4).

or

GACAACAACCTTTACAAACTACATGGT (SEQ ID NO: 5).

55. A pharmaceutical composition comprising a nucleic acid sequence selected from GCATTATCC (SEQ ID NO: 38), GCAUUAUCC (SEQ ID NO: 39), GCATTACCCC (SEQ ID NO: 40), GCAUUACCCC (SEQ ID NO: 41), CUUUACAAAA (SEQ ID NO: 42), or CTTTACAAA (SEQ ID NO: 43), wherein said nucleic acid consists essentially of at least about 20 base pairs and no more than about 55 base pairs.

56. The use of claim 1, wherein the viral gene therapy vector is manufactured in a different medicament from the viral RNA segment.

57. The use of claim 1, wherein the viral gene therapy vector is manufactured in a medicament different from the viral RNA segment.