What is claimed:

1. Use of a peptide in the manufacture of a composition for preventing atherosclerosis in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
2. The use of any of the preceding claims, wherein the subject suffers from dyslipidemia, hyperlipidemia, hypercholesterolemia, atherosclerosis, cardiovascular disease, and/or coronary heart disease.
3. Use of a peptide in the manufacture of a composition for treating atherosclerosis in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
4. Use of a peptide in the manufacture of a composition for treating cardiovascular disease in a subject in need of such treatment, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
5. Use of a peptide in the manufacture of a composition for reversing atherosclerosis in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
6. Use of a peptide in the manufacture of a composition to prevent, modulate, or reduce calcification of vessel walls in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
7. Use of a peptide in the manufacture of a composition for lowering LDL cholesterol in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
8. Use of a peptide in the manufacture of a composition for preventing, modulating, reducing, treating, and/or reversing type 2 diabetes in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
9. Use of a peptide in the manufacture of a composition for modulating and/or increasing glucose transport protein 4 (GLUT4) in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
10. Use of a peptide in the manufacture of a composition for modulating and/or reducing IFN-γ in a cell or a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.

11. Use of a peptide in the manufacture of a composition for modulating and/or reducing interleukin-2 signaling in a cell or a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
12. Use of a peptide in the manufacture of a composition for modulating and/or reducing interleukin 17 (IL-17) in a cell or a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
13. Use of a peptide in the manufacture of a composition for modulating and/or reducing interleukin 17 (IL-17) in a cell or a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29, wherein, the subject suffers from a condition selected from the group comprising type I diabetes, type 2 diabetes, multiple sclerosis, systemic lupus erythematosa, rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, chronic obstructive pulmonary disease, asthma, atherosclerosis, vasculitis, hypertension, thyroiditis, primary biliary cirrhosis, Paget's disease, Addison's disease, acute respiratory distress syndrome, acute lung injury, and/or aseptic chronic inflammation.
14. Use of a peptide in the manufacture of a composition for preventing, modulating, or reducing autoimmune disease, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
15. Use of a peptide in the manufacture of a composition for preventing, modulating, reducing, treating, and/or reversing autoimmune and/or auto-inflammatory disease in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
16. Use of a peptide in the manufacture of a composition for preventing, modulating, reducing, treating, and/or reversing an autoimmune and/or auto-inflammatory disease in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29, wherein the subject suffers from a condition selected from the group comprising type I diabetes, multiple sclerosis, systemic lupus erythematosa, rheumatoid arthritis, Crohn's disease, inflammatory bowel disease, chronic obstructive pulmonary disease, asthma, atherosclerosis, vasculitis, hypertension, thyroiditis, primary biliary cirrhosis, Paget's disease, Addison's disease, acute respiratory distress syndrome, acute lung injury, type 2 diabetes, and/or aseptic chronic inflammation.

17. Use of a peptide in the manufacture of a composition for preventing, modulating, reducing, treating, and/or reversing autoimmune and/or autoinflammatory disease in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
18. Use of a peptide in the manufacture of a composition for preventing, modulating, reducing, treating, and/or reversing glucose intolerance and/or insulin insensitivity in a subject, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
19. A use method of any of the preceding claims, wherein the peptide binds to CD40.
20. The use of any of the preceding claims, wherein said peptide binds to a CD40 protein with a Kd of greater than 10^{-6}.
21. The use of any of the preceding claims, wherein said peptide affects the interaction of CD40 and CD154.
22. The use of any of the preceding claims, wherein said peptide inhibits the binding of CD40 to CD154.
23. The use of any of the preceding claims, wherein said peptide binds CD40 at the site where CD40 interacts with CD154.
24. The use of any of the preceding claims, wherein said peptide inhibits the expansion of Th40 cells.
25. The use method of any of the preceding claims, wherein said peptide reduces the number of Th40 cells.
26. The use method of any of the preceding claims, wherein said peptide alters the cytokine expression profile of a cell population treated with said peptide.
27. The use of any of the preceding claims, wherein the subject does not produce autoantibodies responsive to the peptide.
28. The use of any of the preceding claims, wherein the subject does not produce autoantibodies responsive to CD154.
29. The use of any of the preceding claims, wherein the subject does not produce autoantibodies responsive to GLUT 4.
30. The use of any of the preceding claims, wherein the subject's T cells do not elicit T cell antigen recall.

31. The use of any of the preceding claims, wherein the peptide modulates glucose transport protein 4 (GLUT 4).
32. The use of any of the preceding claims, wherein the peptide modulates expression and/or activity of IL-2 or IL-17A.
33. The use of any of the preceding claims, wherein the peptide modulates expression and/or activity of IFN-γ.
34. The use of any of the preceding claims, wherein the peptide reduces or inhibits interleukin-2 signaling.
35. The use of any of the preceding claims, wherein the peptide reduces or inhibits interleukin 17 (IL-17) signaling.
36. The use of any of the preceding claims, wherein the composition is formulated for delivery according to a method selected from the group comprising intramuscular (IM) delivery, intravenous (IV) delivery, subcutanerous (SC) delivery, oral delivery, gavage delivery, emolument/skin delivery, transdermal patch, or nasal administration.
37. The use of any of the preceding claims, wherein the composition is formulated for delivery according to a method selected from the group comprising an implantable device, a hydrophilic polymer formulation, a permeable polymeric membrane, injectable gel implants, solvent extraction system, phase inversion system, thermosensitive gels, pH dependent *in situ* gels, microparticles, microspheres, nanoparticles, nanospheres, bio-degradable implants, or photoactivated depot.
38. Use of a peptide that is 6 amino acids in length, has an amino acid sequence of SEQ ID NO: 28 or 29, and binds CD40 protein in the manufacture of a composition for identification of a subject at risk for developing cardiovascular disease and/or atherosclerosis, the identification comprising obtaining a sample containing T-cells from a subject to be tested, contacting the sample with the peptide, detecting the CD40-bound peptide, and determining the level of Th40 cells from the amount of CD40 bound, wherein a level of Th40 cells greater than 25% of the total T-cell population indicates the subject is at risk for developing cardiovascular disease and/or developing atherosclerosis.
39. Use of a peptide that is 6 amino acids in length, has an amino acid sequence of SEQ ID NO: 28 or 29, and binds CD40 protein in the manufacture of a composition for identification of a subject at risk for developing type 2 diabetes, wherein the identification

comprises obtaining a sample containing T-cells from the subject to be tested, contacting the sample with the peptide, detecting the CD40-bound peptide, and determining the level of Th40 cells from the amount of CD40 bound, wherein a level of Th40 cells greater than 25% of the total T-cell population indicates the subject is at risk for developing type 2 diabetes.

40. Use of a peptide that is 6 amino acids in length, has an amino acid sequence of SEQ ID NO: 28 or 29, and binds CD40 protein in the manufacture of a composition for identification of a subject at risk for developing autoimmune disease and/or type 2 diabetes, wherein the identification comprises obtaining a sample containing T-cells from the subject to be tested, contacting the sample with the peptide, detecting the CD40-bound peptide, and determining the level of Th40 cells from the amount of CD40 bound, wherein a level of Th40 cells greater than 25% of the total T-cell population indicates the subject is at risk for developing autoimmune disease and/or developing type 2 diabetes.
41. The use of any of the preceding claims, wherein the peptide binds to multiple bone marrow derived cell types that express CD40 of approximately 45kDa.
42. The use of any of the preceding claims, wherein said peptide binds to multiple bone marrow derived cell types which express CD40 of approximately 45kDa, including splenic CD4hi cells, CD8 cells, and other antigen presenting cells.
43. The use of any of the preceding claims, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28.
44. The use of any of the preceding claims, wherein the peptide is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 29.
45. The use of any of the preceding claims, wherein said peptide is obtained from natural sources or is synthesized.
46. The use of any of the preceding claims, wherein the subject is human.
47. The use of any of the preceding claims, wherein the subject is animal.
48. A composition comprising a peptide that is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29.
49. A composition comprising a peptide that is 6 amino acids in length and has an amino acid sequence of SEQ ID NO: 28 or 29 for use as a medicament.