WHAT IS CLAIMED IS:

1. Use of diethyl azelate in the manufacture of a pharmaceutical composition for treating insulin resistance, wherein the pharmaceutical composition is to be administered at a dose in a range from 0.5 mg/kg/day to 2.5 mg/kg/day.

2. The use of claim 1, wherein the pharmaceutical composition is to be administered enterically.

3. The use of claim 2, where the pharmaceutical composition is to be administered orally.

4. The use of claim 1, wherein the pharmaceutical composition is to be administered parenterally.

5. The use of claim 4, wherein the parenteral administration is to be performed intramuscularly, subcutaneously, intravenously, or combinations thereof.

6. The use of claim 1, wherein a second active ingredient is to be administered.

7. The use of claim 6, wherein the second active ingredient comprises one or more selected from the group consisting of a C_1-C_4 alkyl ester azelate different from diethyl azelate, a biguanide, a thiazolidinedione, a corticosteroid, insulin, a lipase inhibitor, a glucagon like peptide-1 (GLP-1) agonist, and combinations thereof.

8. The use of claim 7, wherein the biguanide comprises metformin, buformin, phenformin, or combinations thereof.

9. The use of claim 7, wherein the thiazolidinedione comprises pioglitazone, rosiglitazone, or combinations thereof.

10. The use of claim 7, wherein the corticosteroid comprises prednisone.

11. The use of claim 7, wherein the insulin is formulated as a rapid-acting formulation, an intermediate-acting formulation, a long-acting formulation, or combinations thereof.

12. The use of claim 7, wherein the lipase inhibitor comprises orlistat.

13. The use of claim 7, wherein the GLP-1 agonist comprises exenatide, liraglutide, and combinations thereof.

14. Use of diethyl azelate in the manufacture of a pharmaceutical composition for treating insulin resistance, wherein the pharmaceutical composition is to be orally administered to a subject at a dosage range from about 0.5 mg/kg/day to about 2.5 mg/kg/day.

15. The use of claim 14, wherein the pharmaceutical composition is enterically coated.

16. The use of claim 14, wherein the pharmaceutical composition is configured for immediate release of diethyl azelate.

17. The use of claim 14, wherein the pharmaceutical composition is configured for extended release of diethyl azelate.

18. The use of claim 14, wherein the pharmaceutical composition is configured for both immediate and extended release of diethyl azelate.

19. The use of claim 14, wherein the pharmaceutical composition is to be administered once, twice or thrice daily.