1. Use of an effective amount of methotrexate for the manufacture of a medicament for the treatment of a disease selected from multiple sclerosis, Fabry disease, Gauche disease, Mucopolysaccharidosis I, Pompe disease, host-vs-graft disease, graft-vs-host disease, rheumatoid arthritis, psoriasis, diabetes, lupus, sclerodoma, chronic B-cell lymphocytic leukemia, vasculitis, thyroid autoimmunity, thrombocytopenic purpura, immune thrombocytopenia, Goodpasture's disease, autoimmune neutropenia, autoimmune hemolytic anemia, and autoimmune lymphopenia or a subject is in need of tissue transplantation, wherein the methotrexate increases the efficacy of a therapeutic in a subject having said disease or in need of said tissue transplantation who is in need of treatment with the therapeutic, wherein methotrexate is administered in a single cycle consisting of 1 day of methotrexate administration or 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11 consecutive days of methotrexate administration, wherein the effective amount of methotrexate is less than 5 mg/kg.

2. The use of claim 1, wherein the efficacy of the therapeutic comprises

a. inducing immune tolerance toward the therapeutic treatment;

b. inhibiting antibody responses to the therapeutic in the subject;

c. alleviating an infusion reaction to the therapeutic in the subject;

d. reducing secondary autoimmunity in the subject;

e. increasing the percentage of T regulatory cells in the T cell population in the subject;

f. increasing the percentage of B regulatory cells in the B cell population in the subject;

g. inhibiting T cell responses in the subject;

h. prolonging the pharmacokinetics of a therapeutic agent in the subject; or

i. depleting lymphocytes in the subject; or

j. inducing immune tolerance toward the transplanted tissue in the subject.

3. The use of claim 1-2, wherein the therapeutic is a protein therapeutic.

4. The use of claim 1-2, wherein the subject is a human.

5. The use of claim 1-2, wherein the therapeutic is an antibody therapeutic.

6. The use of claim 5, wherein the antibody therapeutic is a monoclonal antibody therapeutic.

7. The use of any one of claims 5 or 6, wherein the antibody therapeutic is a lymphocyte-depleting agent.

8. The use of claim 7, wherein the antibody therapeutic is alemtuzumab.

9. The use of claim 8, wherein the subject is a multiple sclerosis patient.

10. The use of claim 9, wherein the antibody therapeutic is a polyclonal antibody therapeutic.

11. The use of claim 10, wherein the antibody therapeutic is polyclonal rabbit anti-thymocyte globulin antibody.

12. The use of claim 11, wherein the subject is a human patient who is in need of organ transplantation, has aplastic anemia, and/or has or is at risk of having graft-versus-host disease.

13. The use of any one of claims 1-2, wherein the therapeutic is an enzyme.

14. The use of claim 13, wherein the enzyme is human alpha-galactosidase A.

15. The use of claim 14, wherein the enzyme is human acid alpha-glucosidase.

16. The use of any one of claims 1-15, wherein the effective amount is 0.1mg/kg to 5mg/kg.

17. The use of any one of claims 1-15, wherein the single cycle of methotrexate is administered between 48 hours prior to and 48 hours after the onset of the therapeutic treatment.

1. Use of an effective amount of methotrexate for the manufacture of a medicament for the treatment of a disease selected from multiple sclerosis, Fabry disease, Gauche disease, Mucopolysaccharidosis I, Pompe disease, host-vs-graft disease, graft-vs-host disease, rheumatoid arthritis, psoriasis, diabetes, lupus, sclerodoma, chronic B-cell lymphocytic leukemia, vasculitis, thyroid autoimmunity, thrombocytopenic purpura, immune thrombocytopenia, Goodpasture's disease, autoimmune neutropenia, autoimmune hemolytic anemia, and autoimmune lymphopenia or a subject is in need of tissue transplantation, wherein the methotrexate increases the efficacy of a therapeutic that is capable of eliciting an undesired immune response in a subject having said disease or wherein the methotrexate increases the efficacy of a therapeutic in a subject in need of said tissue transplantation who is in need of treatment with the therapeutic, wherein methotrexate is to be administered in a single cycle consisting of 1 day of methotrexate administration or 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11 consecutive days of methotrexate administration, wherein the effective amount of methotrexate is less than 5 mg/kg.

2. The use of claim 1, wherein the efficacy of the therapeutic comprises

a. inducing immune tolerance toward the therapeutic treatment;

b. inhibiting antibody responses to the therapeutic in the subject;

c. alleviating an infusion reaction to the therapeutic in the subject;

d. reducing secondary autoimmunity in the subject;

e. increasing the percentage of T regulatory cells in the T cell population in the subject;

f. increasing the percentage of B regulatory cells in the B cell population in the subject;

g. inhibiting T cell responses in the subject;

h. prolonging the pharmacokinetics of a therapeutic agent in the subject; or

i. depleting lymphocytes in the subject; or

j. inducing immune tolerance toward the transplanted tissue in the subject.

3. The use of claim 1-2, wherein the therapeutic is a protein therapeutic.

4. The use of claim 1-2, wherein the subject is a human.

5. The use of claim 1-2, wherein the therapeutic is an antibody therapeutic.

6. The use of claim 5, wherein the antibody therapeutic is a monoclonal antibody therapeutic.

7. The use of any one of claims 5 or 6, wherein the antibody therapeutic is a lymphocyte-depleting agent.

8. The use of claim 7, wherein the antibody therapeutic is alemtuzumab.

9. The use of claim 8, wherein the subject is a multiple sclerosis patient.

10. The use of claim 5, wherein the antibody therapeutic is a polyclonal antibody therapeutic.

11. The use of claim 5, wherein the antibody therapeutic is polyclonal rabbit anti-thymocyte globulin antibody.

12. The use of claim 11, wherein the subject is a human patient who is in need of organ transplantation, has aplastic anemia, and/or has or is at risk of having graft-versus-host disease.

13. The use of any one of claims 1-2, wherein the therapeutic is an enzyme.

14. The use of claim 13, wherein the enzyme is human alpha-galactosidase A.

15. The use of claim 14, wherein the enzyme is human acid alpha-glucosidase.

16. The use of any one of claims 1-15, wherein the effective amount is 0.1mg/kg to 5mg/kg.

17. The use of any one of claims 1-15, wherein the single cycle of methotrexate is administered between 48 hours prior to and 48 hours after the onset of the therapeutic treatment.