Claims:

1. Use of an anti-IL-4 receptor alpha (IL-4Rα) lipocalin mutein comprising the amino acid sequence set forth in SEQ ID NO: 1, or a variant or fragment thereof, for the manufacture of a medicament for use in treatment of asthma in a human subject, wherein the treatment comprises administering said lipocalin mutein, or variant or fragment thereof, to said subject by inhalation at least once per day, wherein the delivered dose of said lipocalin mutein, or a variant or fragment thereof, is from about 0.1mg to about 160mg.

2. The use of claim 1, wherein the delivered dose of said lipocalin mutein, or variant or fragment thereof, is at least about 8mg.

3. The use of claim 2, wherein the delivered dose results in systemic exposure of said lipocalin mutein, or variant or fragment thereof.

4. The use of any one of claims 2 or 3, wherein administering said lipocalin mutein, or variant or fragment thereof, to said subject results in inhibition of IL-4 stimulated STAT6 phosphorylation in CD3+ T cells in said subject.

5. The use of claim 4, wherein administering said lipocalin mutein, or variant or fragment thereof, results in at least about 10%, at least about 20%, at least about 30%, at least about 40%, at least about 50%, at least about 60%, at least about 70%, at least about 80%, at least about 90%, at least about 95%, or at least about 99% inhibition of IL-4 stimulated STAT6 phosphorylation in CD3+ T cells in the subject.

6. The use of claim 2 or 3, wherein administering said lipocalin mutein, or variant or fragment thereof, results in inhibition of IL-4 stimulated STAT6 phosphorylation in CD3+ T cells with an IC_{50} of about 10nM or lower.

7. The use of claim 1, wherein the delivered dose of the lipocalin mutein, or variant or fragment thereof, is less than about 2mg.

8. The use of any one of the preceding claims, wherein fractional nitric oxide concentration in exhaled breath (FeNO) is reduced following administration of said lipocalin mutein, or variant or fragment thereof, to said subject.

9. The use of claim 8, wherein FeNO is reduced by at least 10%, by at least 15%, by at least 20%, by at least 25%, by at least 30%, by at least 35%, by at least 40%, by at least 45% or by at least 50% following administration of said lipocalin mutein, or variant or fragment thereof, to said subject.

10. The use of any one of the preceding claims, wherein said lipocalin mutein, or variant or fragment thereof, is administered to the subject by nebulisation.

11. The use of claim 1, wherein the delivered dose of said lipocalin mutein, or a variant or fragment thereof, is from about 0.2mg to about 60mg.

12. The use of claim 1 or 11, wherein the delivered dose of said lipocalin mutein, or variant or fragment thereof, is at least about 6mg.

13. The use of claim 12, wherein the delivered dose of said lipocalin mutein, or variant or fragment thereof, of at least about 6mg is administered twice daily.

14. The use of claim 12 or 13, wherein the delivered dose results in systemic exposure of said lipocalin mutein, or variant or fragment thereof.

15. The use of any one of claims 12-14, wherein administering said lipocalin mutein, or variant or fragment thereof, to said subject results in inhibition of IL-4 stimulated STAT6 phosphorylation in CD3+ T cells in said subject.

16. The use of claim 15, wherein administering said lipocalin mutein, or variant or fragment thereof, results in at least about 10%, at least about 20%, at least about 30%, at least about 40%, at least about 50%, at least about 60%, at least about 70%, at least about 80%, at least about 90%, at least about 95%, or at least about 99% inhibition of IL-4 stimulated STAT6 phosphorylation in CD3+ T cells in the subject.

17. The use of claim 12-14, wherein administering said lipocalin mutein, or variant or fragment thereof, results in inhibition of IL-4 stimulated STAT6 phosphorylation in CD3+ T cells with an IC_{50} of about 10nM or lower.

18. The use of claim 1 or 11, wherein the delivered dose of the lipocalin mutein, or variant or fragment thereof, is about 2mg or less.

19. The use of claim 18, wherein the delivered dose of the lipocalin mutein, or variant or fragment thereof, of about 2mg or less is administered twice daily.

20. The use of claim 11, 18 or 19, wherein the delivered dose results in local lung exposure of said lipocalin mutein, or variant or fragment thereof.

21. The use of any one of claims 11-20, wherein fractional nitric oxide concentration in exhaled breath (FeNO) is reduced following administration of said lipocalin mutein or variant or fragment thereof to said subject.

22. The use of claim 21, wherein FeNO is reduced by at least 10%, by at least 15%, by at least 20%, by at least 25%, by at least 30%, by at least 35%, by at least 40%, by at least 45% or by at least 50% following administration of said lipocalin mutein or variant or fragment thereof to said subject.

23. The use of any one of claims 11-22, wherein said lipocalin mutein, or variant or fragment thereof, is administered to the subject by nebulisation.