CLAIMS:

1. A bispecific construct comprising an anti-TSLP antibody, or binding domain thereof, linked to an anti-SCF antibody, or binding domain thereof, wherein:

I.

(a) the anti-TSLP antibody, or binding domain thereof, comprises heavy chain variable region CDR1, CDR2 and CDR3 domains having the amino acid sequences respectively set forth in (i) SEQ ID NOs: 6, 7, and 8, (ii) SEQ ID NOs: 2, 3, and 4, (iii) SEQ ID NOs: 10, 11, and 12, (iv) SEQ ID NOs: 14, 15, and 16, and light chain variable region CDR1, CDR2 and CDR3 domains having the amino acid sequences respectively set forth in (v) SEQ ID NOs: 18, 19, and 20, (vi) SEQ ID NOs: 22, 23, and 24, (vii) SEQ ID NOs: 26, 27, and 28, (viii) SEQ ID NOs: 30, 31, and 32; and

(b) the anti-SCF antibody, or binding domain thereof, comprises heavy chain variable region CDR1, CDR2 and CDR3 domains having the amino acid sequences respectively set forth in (i) SEQ ID NOs: 46, 47, and 48, (ii) SEQ ID NOs: 38, 39, and 40, (iii) SEQ ID NOs: 42, 43, and 44, (iv) SEQ ID NOs: 34, 35, and 36, and light chain variable region CDR1, CDR2 and CDR3 domains having the amino acid sequences respectively set forth in (v) SEQ ID NOs: 58, 59, and 60, (vi) SEQ ID NOs: 54, 55, and 56, (vii) SEQ ID NOs: 50, 51, and 52, (viii) SEQ ID NOs: 62, 63, and 64; or

II.

(a) the anti-TSLP antibody, or binding domain thereof, comprises a heavy chain variable region having the amino acid sequences set forth in SEQ ID NOs: 5, 1, 9, 13, or a sequence at least 90% identical thereto, and a light chain variable region having the amino acid sequences set forth in SEQ ID NOs: 17, 21, 25, 29, or a sequence at least 90% identical thereto; and

(b) the anti-SCF antibody, or binding domain thereof, comprises a heavy chain variable region having the amino acid sequences set forth in SEQ ID NOs:45, 33, 37, 41, or a sequence at least 90% identical thereto, and a light chain variable region having the amino acid sequences set forth in SEQ ID NOs: 57, 49, 53, 61, or a sequence at least 90% identical thereto.

2. The bispecific construct of claim 1, wherein:

I. the anti-TSLP antibody, or binding domain thereof, comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in (a) SEQ ID NOs: 5 and 17, (b) SEQ ID NOs: 1 and 21, (c) SEQ ID NOs: 1 and 25, (d) SEQ ID NOs: 1 and 29, (e) SEQ ID NOs: 1 and 17, (f) SEQ ID NOs: 5 and 21, (g) SEQ ID NOs: 5 and 25, (h) SEQ ID NOs: 5 and 29, (i) SEQ ID NOs: 9 and 17, (j) SEQ ID NOs: 9 and 21, (k) SEQ ID NOs: 9 and 25, (l) SEQ ID NOs: 9 and 29, (m) SEQ ID NOs: 13 and 17, (n) SEQ ID NOs: 13 and 21, (o) SEQ ID NOs: 13 and 25, or (p) SEQ ID NOs: 13 and 29; or

II. the anti-SCF antibody, or binding domain thereof, comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in (a) SEQ ID NOs: 45 and 57, (b) SEQ ID NOs: 33 and 53, (c) SEQ ID NOs: 33 and 57, (d) SEQ ID NOs: 33 and 61, (e) SEQ ID NOs: 37 and 49, (f) SEQ ID NOs: 37 and 53, (g) SEQ ID NOs: 37 and 57, (h) SEQ ID NOs: 33 and 61, (i) SEQ ID NOs: 41 and 49, (j) SEQ ID NOs: 41 and 53, (k) SEQ ID NOs: 41 and 57, (l) SEQ ID NOs: 41 and 61, (m) SEQ ID NOs: 45 and 49, (n) SEQ ID NOs: 45 and 53, (o) SEQ ID NOs: 33 and 49, (p) SEQ ID NO:s: 37 and 61, or (q) SEQ ID NOs: 45 and 61.

3. The bispecific construct of claim 1 or 2, wherein (a) the anti-TSLP antibody, or binding domain thereof, further comprises a human IgG1 constant domain or (b) the anti-SCF antibody, or binding domain thereof, further comprises a human IgG1 constant domain, or (c) the anti-SCF antibody, or binding domain thereof, is linked to the C-terminus of the heavy chain of the anti-TSLP antibody, or binding domain thereof, or (d) the anti-TSLP antibody, or binding domain thereof, is linked to the C-terminus of the heavy chain of the anti-SCF antibody, or binding domain thereof, or (e) wherein the anti-SCF binding domain is a scFv or (f) the anti-TSLP binding domain is a scFv, or (g) the anti-TSLP antibody, or binding domain thereof, and the anti-SCF antibody, or binding domain thereof, are genetically fused, or (h) the anti-TSLP antibody, or binding domain thereof, and the anti-SCF antibody, or binding domain thereof, are chemically conjugated.

4. A bispecific construct comprising an anti-TSLP antibody linked to an anti-SCF scFv, wherein:

I.

(a) the anti-SCF scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 34, 35, and 36, respectively, and light chain variable region CDR1, CDR2 and CDR3

domains comprising the amino acid sequences as set forth in SEQ ID NOs: 62, 63, and 64, respectively; and

(b) the anti-TSLP antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 2, 3, and 4, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively, and a human IgG1 constant domain; or

II.

(a) the anti-SCF scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 33 and 61; and

(b) the anti-TSLP antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 1 and 17, and a human IgG1 constant domain; or

III.

(a) the anti-SCF scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 38, 39, and 40, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 62, 63, and 64, respectively; and

(b) the anti-TSLP antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 2, 3, and 4, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively, and a human IgG1 constant domain; or

IV.

(a) the anti-SCF scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 37 and 61; and

(b) the anti-TSLP antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 1 and 17, and a human IgG1 constant domain; or

V.

(a) the anti-SCF scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 46, 47, and 48, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 58, 59, and 60, respectively; and

(b) the anti-TSLP antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 2, 3, and 4, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively, and a human IgG1 constant domain; or

VI.

(a) the anti-SCF scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 45 and 57; and

(b) the anti-TSLP antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 1 and 17, and a human IgG1 constant domain; or

VII.

(a) the anti-SCF scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 34, 35, and 36, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 62, 63, and 64, respectively; and

(b) the anti-TSLP antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 6, 7, and 8, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively, and a human IgG1 constant domain; or

VIII.

(a) the anti-SCF scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 33 and 61; and

(b) the anti-TSLP antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 5 and 17, and a human IgG1 constant domain; or

IX.

(a) the anti-SCF scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 38, 39, and 40, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 62, 63, and 64, respectively; and

(b) the anti-TSLP antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 6, 7, and 8, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively, and a human IgG1 constant domain; or

X.

(a) the anti-SCF scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 37 and 61; and

(b) the anti-TSLP antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 5 and 17, and a human IgG1 constant domain; or

XI.

(a) the anti-SCF scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 46, 47, and 48, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 58, 59, and 60, respectively; and

(b) the anti-TSLP antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 6, 7, and 8, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively, and a human IgG1 constant domain; or

XII.

(a) the anti-SCF scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 45 and 57; and

(b) the anti-TSLP antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 5 and 17, and a human IgG1 constant domain.

5. A bispecific construct comprising an anti-SCF antibody linked to an anti-TSLP scFv, wherein:

I.

(a) the anti-SCF antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 34, 35, and 36, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 62, 63, and 64, respectively, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 2, 3, and 4, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively; or

II.

(a) the anti-SCF antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 33 and 61, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 1 and 17.

III.

(a) the anti-SCF antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 38, 39, and 40, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 62, 63, and 64, respectively, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 2,

3, and 4, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively; or

IV.

(a) the anti-SCF antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 37 and 61, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 1 and 17; or

V.

(a) the anti-SCF antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 46, 47, and 48, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 58, 59, and 60, respectively, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 2, 3, and 4, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively; or

VI.

(a) the anti-SCF antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 45 and 57, and a human IgG1 constant domain; and

(b) the anti-TSLP antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 1 and 17; or

VII.

(a) the anti-SCF antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 34, 35, and 36, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 62, 63, and 64, respectively, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 6, 7, and 8, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively; or

VIII.

(a) the anti-SCF antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 33 and 61, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 5 and 17; or

IX.

(a) the anti-SCF antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 38, 39, and 40, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 62, 63, and 64, respectively, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 6, 7, and 8, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively; or

X.

(a) the anti-SCF antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 37 and 61, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 5 and 17; or

XI.

(a) the anti-SCF antibody comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 46, 47, and 48, respectively, and light chain variable region CDR1, CDR2 and CDR3

domains comprising the amino acid sequences as set forth in SEQ ID NOs: 58, 59, and 60, respectively, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 6, 7, and 8, respectively, and light chain variable region CDR1, CDR2 and CDR3 domains comprising the amino acid sequences as set forth in SEQ ID NOs: 18, 19, and 20, respectively; or

XII.

(a) the anti-SCF antibody comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 45 and 57, and a human IgG1 constant domain; and

(b) the anti-TSLP scFv comprises heavy and light chain variable regions respectively comprising the amino acid sequences set forth in SEQ ID NOs: 5 and 17.

6. A bispecific construct comprising an anti-SCF antibody linked to an anti-TSLP scFv, comprising:

(a) the amino acid sequence set forth in SEQ ID NO: 65 or encoded by the nucleotide sequence set forth in SEQ ID NO: 66; or

(b) the amino acid sequence set forth in SEQ ID NO: 67 or encoded by the nucleotide sequence set forth in SEQ ID NO: 68.

7. The bispecific construct of claim 4, wherein:

(a) the anti-SCF scFv is linked to the C-terminus of the heavy chain of the anti-TSLP antibody;

(b) the antibody and scFv are genetically fused; or

(c) the antibody and scFv are chemically conjugated.

8. The bispecific construct of claim 5, wherein:

(a) the anti-TSLP scFv is linked to the C-terminus of the heavy chain of the anti-SCF antibody;

(b) the antibody and scFv are genetically fused; or

(c) the antibody and scFv are chemically conjugated.

9. A composition comprising the bispecific construct of any one of claims 1-8 and a pharmaceutically acceptable carrier.

10. A kit comprising the bispecific construct of any one of claims 1-8 and instructions for use.

11. A nucleic acid molecule coding for the bispecific construct as set forth in any one of claims 1-8, e.g., an isolated nucleic acid molecule comprising the nucleotide sequence as set forth in SEQ ID NO: 65-69, 269-272, 274-277, 281-284, 286-289, or 350.

12. The nucleic acid molecule as set forth in claim 11 in the form of an expression vector.

13. An *in vitro* method of blocking TSLP from binding to TLSPR expressed on immune cells, comprising contacting the immune cells with the bispecific construct of any one of claims 1-8, or the composition of claim 9, in an amount effective to block TSLP from binding to TSLPR.

14. An *in vitro* method of blocking SCF from binding to c-Kit expressed on immune cells, comprising contacting the immune cells with the bispecific construct of any one of claims 1-8, or the composition of claim 9, in an amount effective to block SCF from binding to c-Kit.

15. The bispecific construct of any one of claims 1-8, or the composition of claim 9, for use in a method of inhibiting activation of immune cells.

16. The bispecific construct of any one of claims 1-8, or the composition of claim 9, for use in a method of reducing accumulation of immune cells within organs or tissues.

17. The bispecific construct of any one of claims 1-8, or the composition of claim 9, for use in a method of reducing inflammation.

18. The bispecific or composition according to any one of claims 15-17, for use in treating a disorder of the immune system, allergic inflammation, allergic airway inflammation, DC-mediated inflammatory Th2 responses, atopic dermatitis, atopic eczema,

asthma, obstructive airways disease, chronic obstructive pulmonary disease, a food allergy, inflammatory arthritis, rheumatoid arthritis, psoriasis, an IgE-mediated disorder, rhino-conjunctivitis, a fibrotic disease, a disease associated with tissue remodeling, idiopathic pulmonary fibrosis, chronic obstructive pulmonary disease, acute respiratory distress syndrome, cystic fibrosis, peribronchial fibrosis, hypersensitivity pneumonitis, asthma, sclerodoma, inflammation, liver cirrhosis, renal fibrosis, parenchymal fibrosis, endomyocardial fibrosis, mediastinal fibrosis, nodular subepidermal fibrosis, fibrous histiocytoma, fibrothorax, hepatic fibrosis, fibromyalgia, gingival fibrosis, radiation-induced fibrosis, a cardiovascular disease, a gastrointestinal disease, lung disease, a metabolic disease (such as Type 2 diabetes), a neurodegenerative disease (such as Parkinson's disease), or colon cancer.

19. Use of the bispecific construct of any one of claims 1-8, or the composition of claim 9, in the manufacture of a medicament for inhibiting activation of immune cells.

20. Use of the bispecific construct of any one of claims 1-8, or the composition of claim 9, in the manufacture of a medicament for reducing accumulation of immune cells within organs or tissues.

21. Use of the bispecific construct of any one of claims 1-8, or the composition of claim 9, in the manufacture of a medicament for reducing inflammation.

22. The use of any one of claims 19-21, wherein the medicament is for treating a disorder of the immune system, allergic inflammation, allergic airway inflammation, DC-mediated inflammatory Th2 responses, atopic dermatitis, atopic eczema, asthma, obstructive airways disease, chronic obstructive pulmonary disease, a food allergy, inflammatory arthritis, rheumatoid arthritis, psoriasis, an IgE-mediated disorder, rhino-conjunctivitis, a fibrotic disease, a disease associated with tissue remodeling, idiopathic pulmonary fibrosis, chronic obstructive pulmonary disease, acute respiratory distress syndrome, cystic fibrosis, peribronchial fibrosis, hypersensitivity pneumonitis, asthma, sclerodoma, inflammation, liver cirrhosis, renal fibrosis, parenchymal fibrosis, endomyocardial fibrosis, mediastinal fibrosis, nodular subepidermal fibrosis, fibrous histiocytoma, fibrothorax, hepatic fibrosis, fibromyalgia, gingival fibrosis, radiation-induced fibrosis, a cardiovascular disease, a

gastrointestinal disease, lung disease, a metabolic disease (such as Type 2 diabetes), a neurodegenerative disease (such as Parkinson's disease), or colon cancer.