allergic disease, asthma, AtD, joint inflammation, arthritis, RA, or other inflammatory disorders such as, IBD, CD and/or UC.

[6a] In an aspect of the present disclosure, there is provided a compound comprising X, wherein X is an antigen binding fragment that binds human GITR (SEQ ID NO: 20) and comprises a heavy chain variable region (VH) and a light chain variable region (VL), wherein the VH comprises heavy chain complementarity determining regions HCDR1, HCDR2, and HCDR3, and the VL comprises light chain complementarity determining regions LCDR1, LCDR2, and LCDR3, wherein

i. the HCDR1 comprises SEQ ID NO: 1,

ii. the HCDR2 comprises SEQ ID NO: 2 or SEQ ID NO: 7,

iii. the HCDR3 comprises SEQ ID NO: 3,

iv. the LCDR1 comprises SEQ ID NO: 4,

v. the LCDR2 comprises SEQ ID NO: 5, and

vi. the LCDR3 comprises SEQ ID NO: 6.

[6b] In another aspect of the present disclosure, there is provided a nucleic acid comprising SEQ ID NO: 17.

[6c] In a further aspect of the present disclosure, there is provided a nucleic acid comprising SEQ ID NO: 18.

[6d] In another aspect of the present disclosure, there is provided a nucleic acid comprising SEQ ID NO: 19.

[6e] In a further aspect of the present disclosure, there is provided a vector comprising a nucleic acid as shown in SEQ ID NO: 17, SEQ ID NO: 18, or SEQ ID NO: 19.

[6f] In another aspect of the present disclosure, there is provided a cell comprising the vector as disclosed herein.

[6g] In a further aspect of the present disclosure, there is provided a process of producing a compound comprising culturing the cell as disclosed herein under conditions such that the antibody is expressed and recovering the expressed antibody from the culture medium.

[6h] In another aspect of the present disclosure, there is provided a compound produced by the process as disclosed herein.

[6i] In a further aspect of the present disclosure, there is provided a pharmaceutical composition comprising the compound as disclosed herein, and a pharmaceutically acceptable excipient, diluent or carrier.

[6j] In another aspect of the present disclosure, there is provided a compound as disclosed herein for use in therapy.

[6k] In a further aspect of the present disclosure, there is provided a compound as disclosed herein for use in the treatment of an autoimmune disorder, allergic disease, asthma, atopic dermatitis (AtD), inflammatory disorder, joint inflammation, arthritis, rheumatoid arthritis (RA), inflammatory bowel disease (IBD), Crohn's disease (CD) or ulcerative colitis (UC).

[6l] In another aspect of the present disclosure, there is provided a use of the compound as disclosed herein in the manufacture of a medicament for the treatment of an autoimmune disorder, allergic disease, asthma, AtD, inflammatory disorder, joint inflammation, arthritis, rheumatoid arthritis, IBD, CD or UC.

[7] Accordingly, the present invention provides novel human GITR antagonist compounds that 1) bind human GITR with desirable association and dissociation rates for optimal antagonistic activity, 2) block GITRL binding to GITR and prevent GITR activation, 3) lack detectable stimulation of human GITR 4) have sufficient pharmacokinetic (PK) and/or pharmacodynamic (PD) profiles and demonstrable *in vivo* efficacy as an monotherapy for the treatment and/or prevention of autoimmune disorders, allergic disease, asthma, atopic dermatitis, joint inflammation, arthritis, rheumatoid arthritis, or other inflammatory disorders such as, IBD, CD and/or UC, 5) cause no significant induction of cytokine release, 6) have low immunogenicity (i.e., sufficiently non-immunogenic in cynomolgus monkeys and/or humans), and 7) demonstrate *in vitro* and *in vivo* physical and chemical stability including, but not limited to, thermal stability, solubility, low self-association, and pharmacokinetic characteristics which are acceptable for development and/or use in the treatment of autoimmune disorders, allergic disease, asthma, AtD, joint inflammation, arthritis, RA, or other inflammatory disorders such as, IBD, CD and/or UC.

[8] The present disclosure provides compounds comprising an anti-human GITR antigen binding fragment comprising: 1) a heavy chain variable region (HCVR) comprising an HCDR1 having the amino acid sequence of SEQ ID NO: 1, an HCDR2 having the amino acid sequence of SEQ ID NO: 2 or 7, an HCDR3 having the amino acid sequence of SEQ ID NO: 3; and 2) a light chain variable region (LCVR) comprising an LCDR1 having the amino acid sequence of

SEQ ID NO: 4, an LCDR2 having the amino acid sequence of SEQ ID NO: 5, and an LCDR3 having the amino acid sequence of SEQ ID NO: 6.

[9] In some instances, the compounds herein are of the formula (from amino-terminus (N-terminus) to carboxy-terminus (C-terminus)): X-L-M (wherein the N-terminus of L is fused to the C-terminus of the HC of X and the C-terminus of L is fused to the N-terminus of M); or X-L-M (wherein the N-terminus of L is fused to the C-terminus of the LC of X and the C-terminus of L is fused to the N-terminus of M); or M-L-X (wherein the N-terminus of L is fused to the C-terminus of M and the C-terminus of L is fused to the N-terminus of the HC of X);); or M-L-X (wherein the N-terminus of L is fused to the C-

CLAIMS:

1. A compound comprising X, wherein X is an antigen binding fragment that binds human GITR (SEQ ID NO: 20) and comprises a heavy chain variable region (VH) and a light chain variable region (VL), wherein the VH comprises heavy chain complementarity determining regions HCDR1, HCDR2, and HCDR3, and the VL comprises light chain complementarity determining regions LCDR1, LCDR2, and LCDR3, wherein
    i. the HCDR1 comprises SEQ ID NO: 1,
    ii. the HCDR2 comprises SEQ ID NO: 2 or SEQ ID NO: 7,
    iii. the HCDR3 comprises SEQ ID NO: 3,
    iv. the LCDR1 comprises SEQ ID NO: 4,
    v. the LCDR2 comprises SEQ ID NO: 5, and
    vi. the LCDR3 comprises SEQ ID NO: 6.
2. The compound of claim 1 having the formula:

    X-L-M or M-L-X,

    wherein X is an antibody Fab fragment or an antibody Fab' fragment;

    wherein M is a VHH moiety that binds to human serum albumin; and

    wherein L (if present) is a linker.
3. The compound of claim 2, wherein the VHH moiety comprises SEQ ID NO: 13, or an amino acid sequence having at least ~~about~~ 90% to ~~about~~ 99% sequence similarity thereto.
4. The compound of any one of claims 2-3, wherein the VHH moiety is fused to the C-terminus of the heavy chain first constant domain (CH1) of the Fab fragment via L.
5. The compound of any one of claims 1-4, wherein X comprises a VL having SEQ ID NO: 10.
6. The compound of any one of claims 1-5, wherein X comprises a VH having SEQ ID NO: 8 or a VH having SEQ ID NO: 9.
7. The compound of any one of claims 2-6, wherein L comprises a peptide linker selected from the group consisting of SEQ ID NO: 11 and~~,~~ SEQ ID NO: 12~~, and SEQ ID NO:23~~.

8. The compound of any one of claims 1-7, wherein X comprises a light chain (LC) as shown in SEQ ID NO: 16.
9. The compound of any one of claims 1-8, wherein X comprises a HC as shown in SEQ ID NO: 14 or a HC as shown in SEQ ID NO: 15.
10. A nucleic acid comprising SEQ ID NO: 17.
11. A nucleic acid comprising SEQ ID NO: 18.
12. A nucleic acid comprising SEQ ID NO: 19.
13. A vector comprising a nucleic acid as shown in SEQ ID NO: 17, SEQ ID NO: 18, or SEQ ID NO: 19.
14. A cell comprising the vector of claim ~~12~~13.
15. A process of producing a compound comprising culturing the cell of claim ~~13~~ 14 under conditions such that the antibody is expressed and recovering the expressed antibody from the culture medium.
16. A compound produced by the process of claim ~~14~~15.
17. A pharmaceutical composition comprising the compound of any one of claims 1-9, and a pharmaceutically acceptable excipient, diluent or carrier.
~~18. A method of treating a GITR associated disorder by inhibiting GITR activities in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the compound of any one of claims 1-9, or the pharmaceutical composition of claim 17.~~
~~19. The method of claim 18, wherein the GITR associated disorder is an autoimmune disorder, allergic disease, asthma, atopic dermatitis (AtD), inflammatory disorder, joint inflammation, arthritis, rheumatoid arthritis (RA), inflammatory bowel disease (IBD), Crohn's disease (CD) or ulcerative colitis (UC).~~
~~20.~~18. The compound of any one of claims 1-9 for use in therapy.
~~21.~~19. The compound of any one of claims 1-9 for use in the treatment of an autoimmune disorder, allergic disease, asthma, atopic dermatitis (AtD), inflammatory disorder, joint inflammation, arthritis, rheumatoid arthritis (RA), inflammatory bowel disease (IBD), Crohn's disease (CD) or ulcerative colitis (UC).
~~22.~~20. Use of the compound of ~~claim 20 or 21~~any one of claims 1-9, in the manufacture of a medicament for the treatment of an autoimmune disorder,

allergic disease, asthma, AtD, inflammatory disorder, joint inflammation, arthritis, rheumatoid arthritis, IBD, CD or UC.