

1beta and TNF alpha; and enhanced and/or delayed production of IL-2 and IFNg. In some examples, the anti-TCRβV antibodies disclosed herein result in expansion of an immune cell, e.g., a T cell, or a subset of memory effector T cells known as T_{EMRA}), an NK cell, or other immune cells (e.g., as described herein). Also provided herein are methods of making said anti-TCRβV antibody molecules, and methods of using said anti-TCRβV antibody molecules including, methods of using an anti-TCRβV antibody molecule for expanding an immune cell or an immune cell population. This disclosure further provides multispecific molecules, *e.g.*, bispecific molecules, comprising said anti-TCRβV antibody molecules. In some examples, compositions comprising anti-TCRβV antibody molecules of the present disclosure, can be used, *e.g.*, to activate and/or redirect T cells to treat an infectious disease. In some examples, compositions comprising anti-TCRβV antibody molecules as disclosed herein limit the unwanted side-effects of CRS, *e.g.*, CRS associated with anti-CD3e targeting.

Accordingly, provided herein are, anti-TCRβV antibody molecules, multispecific or multifunctional molecules (*e.g.*, multispecific or multifunctional antibody molecules) (also referred to herein as a “composition”) that comprise anti-TCRβV antibody molecules, nucleic acids encoding the same, methods of producing the aforesaid molecules, pharmaceutical compositions comprising aforesaid molecules, and methods of treating a disease or disorder, *e.g.*, an infectious disease, *e.g.*, as described herein, using the aforesaid molecules. The antibody molecules and pharmaceutical compositions disclosed herein can be used (alone or in combination with other agents or therapeutic modalities) to treat, prevent and/or diagnose disorders and conditions, *e.g.*, an infectious disease, *e.g.*, as described herein.

In one aspect, the disclosure provides a composition comprising a multispecific molecule, wherein the multispecific molecule comprises:

(1) an anti-TCRβV ~~moiety~~ antibody molecule, and

(2) an infectious disease-targeting moiety;

wherein the infectious disease-targeting moiety comprises an antibody molecule, a receptor molecule, or a ligand molecule that binds to an antigen, wherein the antigen is from an infectious agent or is presented on a surface of a cell infected by the infectious agent; and

wherein the anti-TCR β V antibody molecule binds and activates T cells.

In one aspect, the disclosure provides a recombinant polynucleotide comprising a sequence encoding the multispecific molecule of the composition as described herein.

In one aspect, the disclosure provides a medicament comprising the composition as described herein, and a pharmaceutically acceptable carrier, excipient, or stabilizer.

In one aspect, the disclosure provides a use of a pharmaceutical composition comprising the composition as described herein ~~in~~ in the manufacture of a medicament for treating an infectious disease in a subject in need thereof.

In one aspect, the disclosure provides a composition as described herein for use in therapy.

In one example, the disclosure provides a non-murine, *e.g.*, human or humanized antibody molecule, which binds, *e.g.*, specifically binds, to a T cell receptor beta variable (TCR β V) region. In some examples, binding of the anti-TCR β V antibody molecule to a TCR β V region results in one, two, three, four, five, six, seven, eight, nine, ten or more (*e.g.*, all) of the following:

- (i) reduced level, *e.g.*, expression level, and/or activity of IL-1 β ;
- (ii) reduced level, *e.g.*, expression level, and/or activity of IL-6;
- (iii) reduced level, *e.g.*, expression level, and/or activity of TNF α ;
- (iv) increased level, *e.g.*, expression level, and/or activity of IL-2;
- (v) a delay, *e.g.*, at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or more hours delay, in increased level, *e.g.*, expression level, and/or activity of IL-2;
- (vi) a delay, *e.g.*, at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 hours delay, in increased level, *e.g.*, expression level, and/or activity of IFN γ ;
- (vii) reduced T cell proliferation kinetics;
- (viii) reduced cytokine storm, *e.g.*, cytokine release syndrome (CRS), *e.g.*, as measured by an assay of Example 3;
- (ix) cell killing, *e.g.*, target cell killing;
- (x) increased level, *e.g.*, expression level, and/or activity of IL-15; or
- (xi) increased Natural Killer (NK) cell proliferation, *e.g.*, expansion.

CLAIMS

What is claimed is:

1. A composition comprising a multispecific molecule, wherein the multispecific molecule comprises:

- (1) an anti-TCR β V ~~antibody molecule moiety~~, and
- (2) an infectious disease-targeting moiety;

~~2. —The composition of claim 1,~~ wherein the infectious disease-targeting moiety comprises an antibody molecule, a receptor molecule, or a ligand molecule that binds to an antigen, ~~and~~ wherein the antigen is from an infectious agent or is presented on a surface of a cell infected by the infectious agent; ~~and~~
wherein the anti-TCR β V antibody molecule binds and activates T cells.

23. The composition of claim 1 ~~or 2~~, wherein the infectious agent comprises a bacterium, a virus or a eukaryotic infectious agent.

34. The composition of claim 2 ~~any one of claims 1-3~~, wherein:

(a) the bacterium comprises a mycobacterium tuberculosis;

(b) ~~5. —The composition of any one of claims 1-3, wherein~~ the virus comprises an Epstein-Barr virus (EBV), an influenza virus, a human immunodeficiency virus (HIV), a hepatitis virus, a herpes virus, an adenovirus, a flavivirus, a echovirus, a rhinovirus, a coxsackie virus, a cornovirus, a respiratory syncytial virus, a mumps virus, a rotavirus, a measles virus, a rubella virus, a parvovirus, a vaccinia virus, a HTLV virus, a dengue virus, a papillomavirus, a molluscum virus, a poliovirus, a rabies virus, a JC virus, a arboviral encephalitis virus, a simian immunodeficiency virus (SIV) or a human cytomegalovirus (HCMV) ~~or~~;

(c) the eukaryotic infectious agent comprises a fungus or a parasite, optionally, a malaria parasite.

46. The composition of any one of claims 1-3, wherein the ~~antigen~~ eukaryotic infectious agent comprises a protein, a polypeptide, a peptide, a nucleic acid, a sugar, a lipid, fungus or any combination thereof ~~a parasite~~.

57. The composition of any one of claims 1-~~43~~, wherein the antigen comprises EBNA3, EBNA1, BZLF1, amatrix protein, HIV Gag, HIV Env, HIV p24 capsid, SIV Tat, SIV Gag, or HCMV pp65.

6. The composition of any one of claims 1-5, wherein the antigen comprises EBNA3 (339-347), EBNA1 (407-417), BZLF1 (52-64), influenza virus matrix protein (58-66), HIV Gag p17 (77-85), HIV Env, HIV p24 capsid, SIV Tat (28-35), SIV Gag (181-189), or HCMV pp65 (495-503).

78. The composition of any one of claims 1-~~67~~, wherein:

1) the infectious agent is EBV, the anti-TCR β V antibody molecule binds to the TCR β V7 subfamily, and the antigen is EBNA3 (339-347);

2) the infectious agent is EBV, the anti-TCR β V antibody molecule binds to the TCR β V9 subfamily, and the antigen is EBNA1 (407-417);

3) the infectious agent is EBV, the anti-TCR β V antibody molecule binds to the TCR β V10 subfamily, and the antigen is BZLF1 (52-64);

4) the infectious agent is an influenza virus, the anti-TCR β V antibody molecule binds to the TCR β V19 subfamily, and the antigen is Matrix protein (58-66); or

5) the infectious agent is HIV, the anti-TCR β V antibody molecule binds to the TCR β V5 subfamily, and the antigen is Gag p17 (77-85) ~~the antigen comprises a protein, a polypeptide, a peptide, a nucleic acid, a sugar, a small molecule, a lipid, or any combination thereof.~~

~~9. The composition of any one of claims 1-8, wherein the infectious disease-targeting moiety comprises an antibody molecule, a receptor molecule, or a ligand molecule.~~

~~10. The composition of any one of claims 1-9, wherein the infectious disease-targeting moiety binds to a conformational or a linear epitope of the antigen.~~

844. The composition of any one of claims 1-~~740~~, wherein the anti-TCR β V antibody molecule~~moiety~~ is a full-length antibody, a Fab, a F(ab')₂, an Fv, a single chain Fv, a single domain antibody, a half arm antibody, a diabody (dAb), a bivalent antibody, a monovalent antibody, a bispecific antibody ~~or fragment thereof~~, or a camelid antibody.

~~912~~. The composition of any one of claims 1-~~6 and 811~~, wherein the TCR β V is selected from the group consisting of a TCR β V6 subfamily, a TCR β V10 subfamily, a TCR β V12 subfamily, a TCR β ~~V5 subfamily, a TCR β~~ V7 subfamily, a TCR β V11 subfamily, a TCR β V14 subfamily, a TCR β V16 subfamily, a TCR β V18 subfamily, a TCR β V9 subfamily, a TCR β V13 subfamily, a TCR β V4 subfamily, a TCR β ~~V3 subfamily, a TCR β~~ V2 subfamily, a TCR β V15 subfamily, a TCR β V30 subfamily, a TCR β V19 subfamily, a TCR β V27 subfamily, a TCR β V28 subfamily, a TCR β V24 subfamily, a TCR β V20 subfamily, TCR β V25 subfamily, a TCR β V29 subfamily, a TCR β V1 subfamily, a TCR β V17 subfamily, a TCR β V21 subfamily, a TCR β V23 subfamily, and a TCR β V26 subfamily.

10. The composition of any one of claims 1-6, 8, and 9, wherein the TCR β V is selected from the group consisting of a TCR β V6 subfamily, a TCR β V10 subfamily, and a TCR β V12 subfamily.

~~1113~~. The composition of any one of claims 1-~~1012~~, wherein the anti-TCR β V antibody moleculemoiety comprises a murine, human, or humanized antibody molecule, wherein the murine, human, or humanized antibody molecule is selected from the group consisting of a full-length antibody, an Fab, an Fab', an F(ab')₂, an F(ab)₂, a variable or a fragment (Fv), a single domain antibody, a single chain variable fragment (scFv), a diabody, a bivalent antibody, a bispecific antibody, or a camelid antibodythereof.

12. The composition of any one of claims 1-11, wherein the anti-TCR β V antibody molecule comprises a heavy chain variable region (VH) and a light chain variable region (VL) that respectively comprise a heavy chain complementarity determining region 1 (HC CDR1), a heavy chain complementarity determining region 2 (HC CDR2), and a heavy chain complementarity determining region 3 (HC CDR3), and a light chain complementarity determining region 1 (LC CDR1), a light chain complementarity determining region 2 (LC CDR2), and a light chain complementarity determining region 3 (LC CDR3) having the sequences of:

- (i) SEQ ID NOs: 3, 4, and 5, and SEQ ID NOs: 6, 7, and 8, respectively,
- (ii) SEQ ID NOs: 45, 46, and 47, and SEQ ID NOs: 51, 52, and 53, respectively,
- (iii) SEQ ID NOs: 48, 49, and 50, and SEQ ID NOs: 54, 55, and 56, respectively,
- (iv) SEQ ID NOs: 17, 18, and 19, and SEQ ID NOs: 20, 21, and 22, respectively,
- (v) SEQ ID NOs: 57, 58, and 59, and SEQ ID NOs: 63, 64, and 65, respectively;

(vi) SEQ ID NOs: 60, 61, and 62, and SEQ ID NOs: 66, 67, and 68, respectively;
(vii) SEQ ID NOs: 1315, 1316, and 1317, and SEQ ID NOs: 1321, 1322, and 1323,
respectively;
(viii) SEQ ID NOs: 1318, 1319, and 1317, and SEQ ID NOs: 1321, 1322, and 1323,
respectively;
(ix) SEQ ID NOs: 1320, 1316, and 1317, and SEQ ID NOs: 1321, 1322, and 1323,
respectively;
(x) SEQ ID NOs: 1298, 1299, and 1300, and SEQ ID NOs: 1305, 1306, and 1307,
respectively;
(xi) SEQ ID NOs: 1302, 1303, and 1301, and SEQ ID NOs: 1308, 1306, and 1307,
respectively;
(xii) SEQ ID NOs: 1304, 1299, and 1301, and SEQ ID NOs: 1305, 1306, and 1307,
respectively;
(xiii) SEQ ID NOs: 1288, 1289, and 1290, and SEQ ID NOs: 1294, 1295, and 1296,
respectively;
(xiv) SEQ ID NOs: 1291, 1292, and 1290, and SEQ ID NOs: 1297, 1295, and 1296,
respectively;
(xv) SEQ ID NOs: 1293, 1289, and 1290, and SEQ ID NOs: 1294, 1295, and 1296,
respectively;
(xvi) SEQ ID NOs: 1102, 1103, and 1104, and SEQ ID NOs: 1107, 1108, and 1109,
respectively;
(xvii) SEQ ID NOs: 1105, 1106, and 1104, and SEQ ID NOs: 1110, 1108, and 1109,
respectively;
(xviii) SEQ ID NOs: 3474, 1103, and 1104, and SEQ ID NOs: 1107, 1108, and 1109,
respectively;
(xix) SEQ ID NOs: 1120, 1121, and 1122, and SEQ ID NOs: 1126, 1127, and 1128,
respectively;
(xx) SEQ ID NOs: 1123, 1124, and 1122, and SEQ ID NOs: 3475, 1127, and 1128,
respectively;
(xxi) SEQ ID NOs: 1125, 1121, and 1122, and SEQ ID NOs: 1126, 1127, and 1128,
respectively;

(xxii) SEQ ID NOs: 1141, 1142, and 1143, and SEQ ID NOs: 1147, 1148, and 1149, respectively;

(xxiii) SEQ ID NOs: 1144, 1145, and 1143, and SEQ ID NOs: 1150, 1148, and 1149, respectively;

(xxiv) SEQ ID NOs: 1146, 1142, and 1143, and SEQ ID NOs: 1147, 1148, and 1149, respectively;

(xxv) SEQ ID NOs: 1163, 1164, and 1165, and SEQ ID NOs: 1168, 1169, and 1170, respectively;

(xxvi) SEQ ID NOs: 1166, 1167, and 1165, and SEQ ID NOs: 3476, 1169, and 1170, respectively;

(xxvii) SEQ ID NOs: 1166, 1164, and 1165, and SEQ ID NOs: 1168, 1169, and 1170, respectively;

(xxviii) SEQ ID NOs: 1185, 1186, and 1187, and SEQ ID NOs: 1191, 1192, and 1193, respectively;

(xxix) SEQ ID NOs: 1188, 1189, and 1187, and SEQ ID NOs: 1194, 1192, and 1193, respectively;

(xxx) SEQ ID NOs: 1190, 1186, and 1187, and SEQ ID NOs: 1191, 1192, and 1193, respectively;

(xxxi) SEQ ID NOs: 1208, 1209, and 1210, and SEQ ID NOs: 1214, 1215, and 1216, respectively;

(xxxii) SEQ ID NOs: 1211, 1212, and 1210, and SEQ ID NOs: 1217, 1215, and 1216, respectively;

(xxxiii) SEQ ID NOs: 1213, 1209, and 1210, and SEQ ID NOs: 1214, 1215, and 1216, respectively;

(xxxiv) SEQ ID NOs: 1229, 1230, and 1231, and SEQ ID NOs: 1235, 1236, and 1237, respectively;

(xxxv) SEQ ID NOs: 1232, 1233, and 1231, and SEQ ID NOs: 1238, 1236, and 1237, respectively;

(xxxvi) SEQ ID NOs: 1234, 1230, and 1231, and SEQ ID NOs: 1235, 1236, and 1237, respectively;

(xxxvii) SEQ ID NOs: 1248, 1249, and 1250, and SEQ ID NOs: 1254, 1255, and 1256, respectively;

(xxxviii) SEQ ID NOs: 1251, 1252, and 1250, and SEQ ID NOs: 1257, 1255, and 1256, respectively;

(xxxix) SEQ ID NOs: 1253, 1249, and 1250, and SEQ ID NOs: 1254, 1255, and 1256, respectively;

(xxxx) SEQ ID NOs: 1268, 1269, and 1270, and SEQ ID NOs: 1275, 1276, and 1277, respectively;

(xxxxi) SEQ ID NOs: 1271, 1272, and 1270, and SEQ ID NOs: 1275, 1276, and 1277, respectively; or

(xxxxii) SEQ ID NOs: 1273, 1269, and 1270, and SEQ ID NOs: 1275, 1276, and 1277, respectively.

1314. The composition of claim 1213, wherein the ~~humanized-anti-TCR β V~~ antibody molecule comprises a ~~heavy-chain-variable-(VH)-domain-comprises-as~~ and a VL comprising amino acid sequences with at least 80% sequence identity to ~~a sequence selected from the group consisting of SEQ ID NOs: 1310-1312.~~;

(a) the sequences of SEQ ID NO:1 and SEQ ID NO: 2, respectively;

(b) the sequences of SEQ ID NO: 9 and SEQ ID NO: 10, respectively;

(c) the sequences of SEQ ID NO: 9, and SEQ ID NO: 11, respectively;

(d) the sequences of SEQ ID NO: 1100 and SEQ ID NO: 1101, respectively;

(e) any one sequence selected from the group consisting of SEQ ID NOs: 15 and 23-25, and any one sequence selected from the group consisting of SEQ ID NOs: 16, 26, 27, 28, 29, and 30, respectively;

(f) the sequences of SEQ ID NO: 232 and SEQ ID NO: 233, respectively;

(g) the sequences of SEQ ID NO: 1325 and SEQ ID NO: 1324, respectively;

(h) any one sequence selected from the group consisting of SEQ ID NOs: 3040-3089, and any one sequence selected from the group consisting of SEQ ID NOs: 3000-3039, respectively;

(i) any one sequence selected from the group consisting of SEQ ID NOs: 3091 and 3133-3182, and any one sequence selected from the group consisting of SEQ ID NOs: 3092-3132, respectively;

- (j) any one sequence selected from the group consisting of SEQ ID NOs: 3183 and 3225-3274, and any one sequence selected from the group consisting of SEQ ID NOs: 3184-3224, respectively;
- (k) any one sequence selected from the group consisting of SEQ ID NOs: 1112-1116, and any one sequence selected from the group consisting of SEQ ID NOs: 1111 and 1117-1119, respectively;
- (l) any one sequence selected from the group consisting of SEQ ID NOs: 1130-1135, and any one sequence selected from the group consisting of SEQ ID NOs: 1129 and 1136-1140, respectively;
- (m) any one sequence selected from the group consisting of SEQ ID NOs: 1152-1157, and any one sequence selected from the group consisting of SEQ ID NOs: 1151 and 1158-1162, respectively;
- (n) any one sequence selected from the group consisting of SEQ ID NOs: 1172-1177 and any one sequence selected from the group consisting of SEQ ID NOs: 1171 and 1178-1184, respectively;
- (o) any one sequence selected from the group consisting of SEQ ID NOs: 1196-1202, and any one sequence selected from the group consisting of SEQ ID NOs: 1195 and 1203-1207, respectively;
- (p) any one sequence selected from the group consisting of SEQ ID NOs: 1219-1223, and any one sequence selected from the group consisting of SEQ ID NOs: 1218 and 1224-1227, respectively;
- (q) any one sequence selected from the group consisting of SEQ ID NOs: 1240-1243, and any one sequence selected from the group consisting of SEQ ID NOs: 1239 and 1244-1247, respectively;
- (r) any one sequence selected from the group consisting of SEQ ID NOs: 1259-1263, and any one sequence selected from the group consisting of SEQ ID NOs: 1258 and 1264-1267, respectively; or
- (s) any one sequence selected from the group consisting of SEQ ID NOs: 1274 and 1283-1287, and any one sequence selected from the group consisting of SEQ ID NOs: 1278-1282, respectively.

1415. The composition of claim 1-13, wherein the humanized-anti-TCR β V antibody molecule comprises a light chain variable-VH and a (VL)-domain comprises as comprising the amino acid sequences with at least 80% sequence identity to a sequence selected from the group consisting of SEQ ID NOs: 1313-1314. of:

- 1) SEQ ID NO:1 and SEQ ID NO: 2, respectively;
- 2) SEQ ID NO: 9 and SEQ ID NO: 10, respectively;
- 3) SEQ ID NO: 9, and SEQ ID NO: 11, respectively;
- 4) SEQ ID NO: 1100 and SEQ ID NO: 1101, respectively;
- 5) SEQ ID NO: 82 and SEQ ID NO: 81, respectively;
- 6) SEQ ID NO: 85 and SEQ ID NO: 84, respectively;
- 7) SEQ ID NO: 88 and SEQ ID NO: 87, respectively;
- 8) SEQ ID NO: 91 and SEQ ID NO: 90, respectively;
- 9) SEQ ID NO: 94 and SEQ ID NO: 93, respectively;
- 10) SEQ ID NO: 97 and SEQ ID NO: 96, respectively;
- 11) SEQ ID NO: 100 and SEQ ID NO: 99, respectively;
- 12) SEQ ID NO: 103 and SEQ ID NO: 102, respectively;
- 13) SEQ ID NO: 106 and SEQ ID NO: 105, respectively;
- 14) SEQ ID NO: 112 and SEQ ID NO: 111, respectively;
- 15) SEQ ID NO: 109 and SEQ ID NO: 108, respectively;
- 16) SEQ ID NO: 115 and SEQ ID NO: 114, respectively;
- 17) SEQ ID NO: 118 and SEQ ID NO: 117, respectively;
- 18) SEQ ID NO: 121 and SEQ ID NO: 120, respectively;
- 19) SEQ ID NO: 124 and SEQ ID NO: 123, respectively;
- 20) SEQ ID NO: 127 and SEQ ID NO: 126, respectively;
- 21) SEQ ID NO: 130 and SEQ ID NO: 129, respectively;
- 22) SEQ ID NO: 133 and SEQ ID NO: 132, respectively;
- 23) SEQ ID NO: 136 and SEQ ID NO: 135, respectively;
- 24) SEQ ID NO: 139 and SEQ ID NO: 138, respectively;
- 25) SEQ ID NO: 142 and SEQ ID NO: 141, respectively;
- 26) SEQ ID NO: 145 and SEQ ID NO: 144, respectively;
- 27) SEQ ID NO: 148 and SEQ ID NO: 147, respectively;

28) SEQ ID NO: 151 and SEQ ID NO: 150, respectively;
29) SEQ ID NO: 155 and SEQ ID NO: 154, respectively;
30) SEQ ID NO: 158 and SEQ ID NO: 157, respectively;
31) SEQ ID NO: 161 and SEQ ID NO: 160, respectively;
32) SEQ ID NO: 164 and SEQ ID NO: 163, respectively;
33) SEQ ID NO: 167 and SEQ ID NO: 166, respectively;
34) SEQ ID NO: 170 and SEQ ID NO: 169, respectively;
35) SEQ ID NO: 173 and SEQ ID NO: 172, respectively;
36) SEQ ID NO: 176 and SEQ ID NO: 175, respectively;
37) SEQ ID NO: 179 and SEQ ID NO: 178, respectively;
38) SEQ ID NO: 182 and SEQ ID NO: 181, respectively;
39) SEQ ID NO: 185 and SEQ ID NO: 184, respectively;
40) SEQ ID NO: 188 and SEQ ID NO: 187, respectively;
41) SEQ ID NO: 191 and SEQ ID NO: 190, respectively;
42) SEQ ID NO: 194 and SEQ ID NO: 193, respectively;
43) SEQ ID NO: 197 and SEQ ID NO: 196, respectively;
44) SEQ ID NO: 200 and SEQ ID NO: 199, respectively;
45) SEQ ID NO: 203 and SEQ ID NO: 202, respectively;
46) any one sequence selected from the group consisting of SEQ ID NOs: 207, 209, 211, 213, 215, 217, 219, 221, 223, and 225, and SEQ ID NO, 10, respectively;
47) any one sequence selected from the group consisting of SEQ ID NOs: 1310, 1311, and 1312, and any one sequence selected from the group consisting of SEQ ID NOs: 1313 and 1314, respectively;
48) any one sequence selected from the group consisting of SEQ ID NOs: 3040-3089, and any one sequence selected from the group consisting of SEQ ID NOs: 3000-3039, respectively;
49) any one sequence selected from the group consisting of SEQ ID NOs: 3091 and 3133-3182, and any one sequence selected from the group consisting of SEQ ID NOs: 3092-3132, respectively;

50) any one sequence selected from the group consisting of SEQ ID NOs: 3183 and 3225-3274, and any one sequence selected from the group consisting of SEQ ID NOs: 3184-3224, respectively;

51) any one sequence selected from the group consisting of SEQ ID NOs: 1112-1116, and any one sequence selected from the group consisting of SEQ ID NOs: 1111 and 1117-1119, respectively;

52) any one sequence selected from the group consisting of SEQ ID NOs: 1130-1135, and any one sequence selected from the group consisting of SEQ ID NOs: 1129 and 1136-1140, respectively;

53) any one sequence selected from the group consisting of SEQ ID NOs: 1152-1157, and any one sequence selected from the group consisting of SEQ ID NOs: 1151 and 1158-1162, respectively;

54) any one sequence selected from the group consisting of SEQ ID NOs: 1172-1177 and any one sequence selected from the group consisting of SEQ ID NOs: 1171 and 1178-1184, respectively;

55) any one sequence selected from the group consisting of SEQ ID NOs: 1196-1202, and any one sequence selected from the group consisting of SEQ ID NOs: 1195 and 1203-1207, respectively;

56) any one sequence selected from the group consisting of SEQ ID NOs: 1219-1223, and any one sequence selected from the group consisting of SEQ ID NOs: 1218 and 1224-1227, respectively;

57) any one sequence selected from the group consisting of SEQ ID NOs: 1240-1243, and any one sequence selected from the group consisting of SEQ ID NOs: 1239 and 1244-1247, respectively;

58) any one sequence selected from the group consisting of SEQ ID NOs: 1259-1263, and any one sequence selected from the group consisting of SEQ ID NOs: 1258 and 1264-1267, respectively; or

59) any one sequence selected from the group consisting of SEQ ID NOs: 1274 and 1283-1287, and any one sequence selected from the group consisting of SEQ ID NOs: 1278-1282, respectively.

~~1546.~~ The composition of ~~claim 12 or any one of claims 1-13~~, wherein the anti-TCR β V ~~antibody molecule moiety~~ comprises an amino acid sequence with at least 80% sequence identity to a sequence selected from the group consisting of SEQ ID NOs: ~~32811309, 1326-1342~~ and ~~1338-13431344~~.

~~1647.~~ The composition of any one of claims 1-~~1543~~, wherein the anti-TCR β V ~~moiety-antibody molecule~~ comprises ~~any one sequence selected from the group consisting of SEQ ID NOs: 80, 83, 86, 89, 92, 95, 98, 101, 104, 107, 110, 113, 116, 119, 122, 125, 128, 131, 134, 137, 140, 143, 146, 149, 153, 156, 159, 162, 165, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198, 201, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 1309, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1344, 3281 and 1338-1343.~~

~~(i) a VH comprising a heavy chain complementarity determining region 1 (HC CDR1) of any one of the sequences selected from the group consisting of SEQ ID NOs: 1102, 1105, 3474, 1120, 1123, 1125, 1141, 1144, 1163, 1166, 1185, 1188, 1190, 1208, 1211, 1213, 1229, 1232, 1234, 1248, 1251, 1253, 1268, 1271, and 1273; a heavy chain complementarity determining region 2 (HC CDR2) of any one of the sequences selected from the group consisting of SEQ ID NOs: 1103, 1106, 1121, 1124, 1142, 1145, 1164, 1167, 1186, 1189, 1209, 1212, 1230, 1233, 1230, 1249, 1252, 1269, 1272, and 1269; and a heavy chain complementarity determining region 3 (HC CDR3) of any one of the sequences selected from the group consisting of SEQ ID NOs: 1104, 1122, 1143, 1165, 1187, 1210, 1231, 1250, and 1270; and/or~~

~~(ii) a VL comprising a light chain complementarity determining region 1 (LC CDR1) of any one of the sequences selected from the group consisting of SEQ ID NOs: 1107, 1110, 1126, 1147, 1168, 3476, 1191, 1194, 1214, 1217, 1235, 1238, 1254, 1257, and 1275; a light chain complementarity determining region 2 (LC CDR2) of any one of the sequences selected from the group consisting of SEQ ID NOs: 1108, 1127, 1148, 1169, 1192, 1215, 1236, 1255, and 1276; and a light chain complementarity determining region 3 (LC CDR3) of any one of the sequences selected from the group consisting of SEQ ID NOs: 1109, 1128, 1149, 1170, 1193, 1216, 1237, 1256, and 1277.~~

~~18. The composition of claim 17, wherein the anti-TCR β V moiety comprises:~~

(i) a VH comprising an amino acid sequence with at least 95% sequence identity to SEQ ID NOs: 1112-1116, 1130-1135, 1152-1157, 1172-1177, 1196-1202, 1219-1223, 1240-1243, 1259-1263, 1274, and 1283-1287; and/or

(ii) a VL comprising an amino acid sequence with at least 95% sequence identity to SEQ ID Nos: 1111, 1117-1119, 1129, 1136-1140, 1151, 1158-1162, 1171, 1178-1184, 1195, 1203-1207, 1218, 1224-1227, 1239, 1244-1247, 1258, 1264-1267, and 1278-1282.

1719. The composition of any one of claims 1-1648, wherein the multispecific molecule further comprises a cytokine molecule, ~~an immune cell engager, or a stromal modifying moiety.~~

18. The composition of claim 17, wherein the cytokine molecule is selected from the group consisting of interleukin-2 (IL-2), interleukin-7 (IL-7), interleukin-12 (IL-12), interleukin-15 (IL-15), interleukin-18 (IL-18), interleukin-21 (IL-21), interferon gamma, and any combination thereof.

1920. A recombinant polynucleotide comprising a sequence encoding the multispecific molecule of the composition of any one of claims 1-1849.

2024. A medicament comprising the composition of any one of claims 1-1849, and a pharmaceutically acceptable carrier, excipient, or stabilizer.

2122. Use of a pharmaceutical composition comprising the composition of any one of claims 1-1849 in the manufacture of a medicament for treating an infectious disease in a subject in need thereof.

2223. The use of claim 2122, wherein the infectious disease is selected from Epstein-Barr vims (EBV), influenza, human immunodeficiency vims (HIV), simian immunodeficiency vims (SIV), tuberculosis, malaria, or human cytomegalovims (HCMV), or a combination thereof.

2324. The composition of any one of claims 1-1849 for use in therapy.