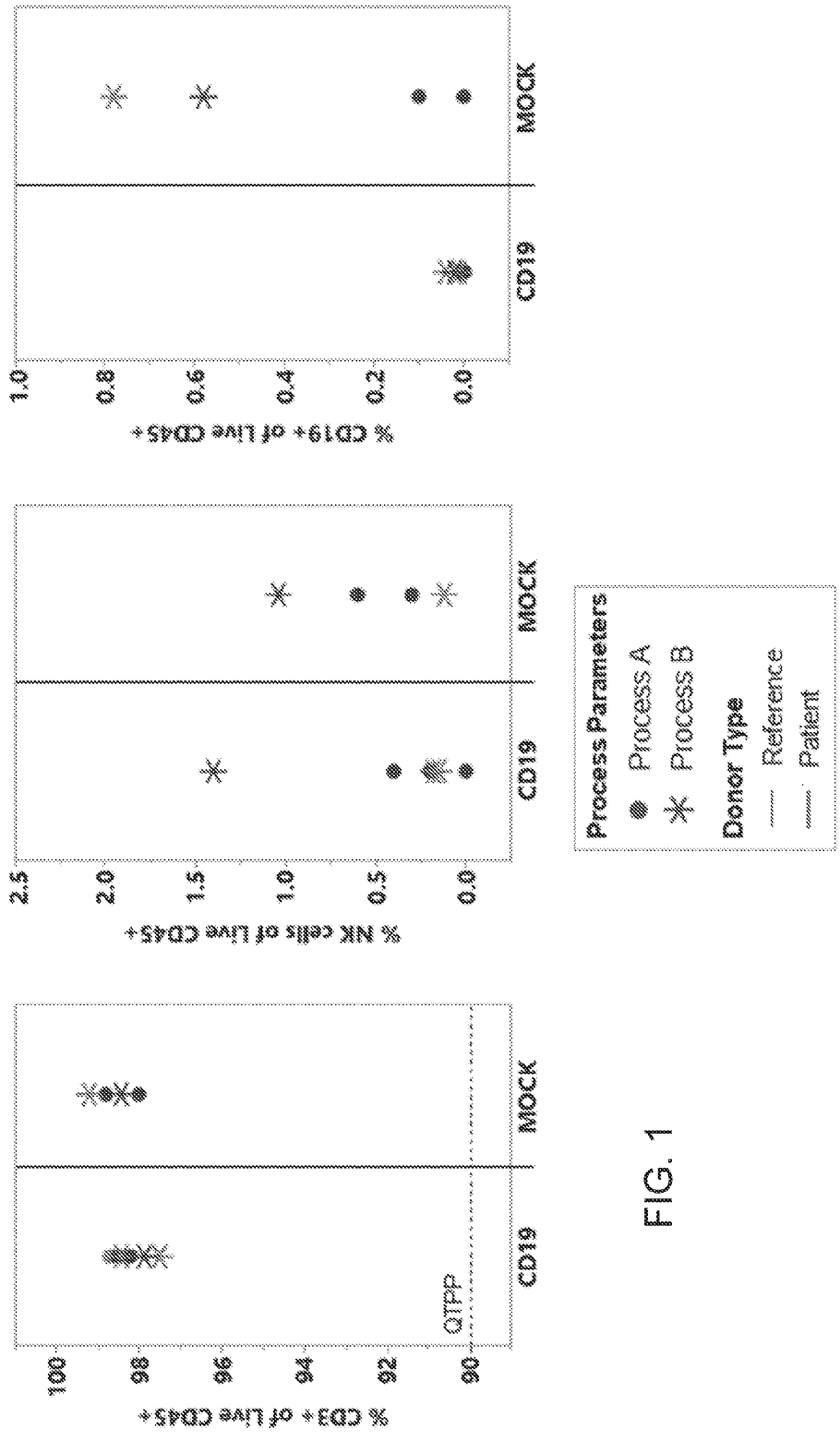

% CD3+ of Live CD45+
100
98
96
94
92
90
QTPP
CD19
MOCK
% NK cells of Live CD45+
2.5
2.0
1.5
1.0
0.5
0.0
CD19
MOCK
% CD19+ of Live CD45+
1.0
0.8
0.6
0.4
0.2
0.0
CD19
MOCK
Process Parameters
Process A
Process B
Donor Type
Reference
Patient

FIG. 1

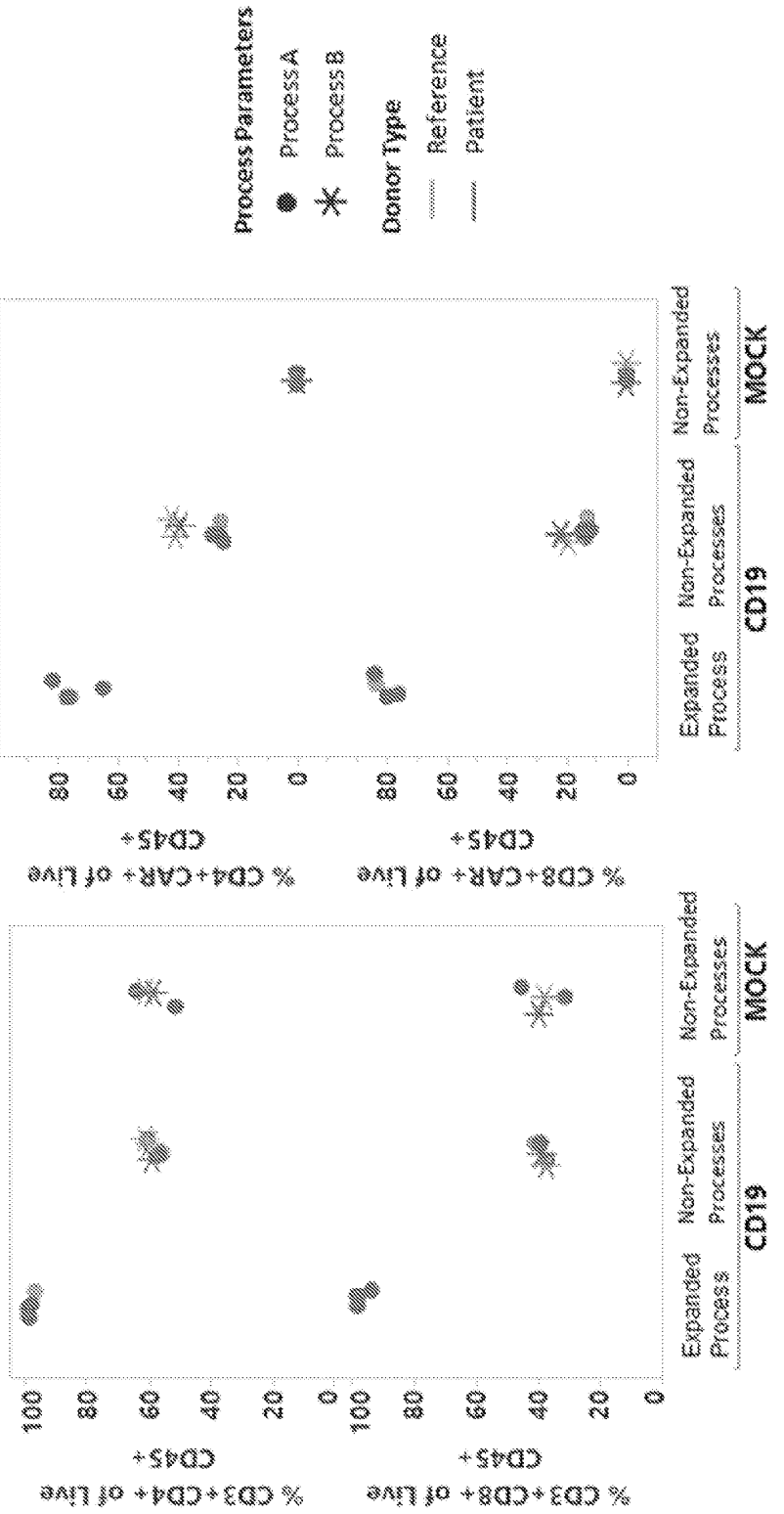

Process Parameters
Process A
Process B
Donor Type
Reference
Patient
% CD3+CD8+ of Live CD45+
% CD3+CD4+ of Live CD45+
% CD8+CAR+ of Live CD45+
% CD4+CAR+ of Live CD45+
100
80
60
40
20
0
Expanded Process
Non-Expanded Processes
CD19
MOCK

FIG. 2

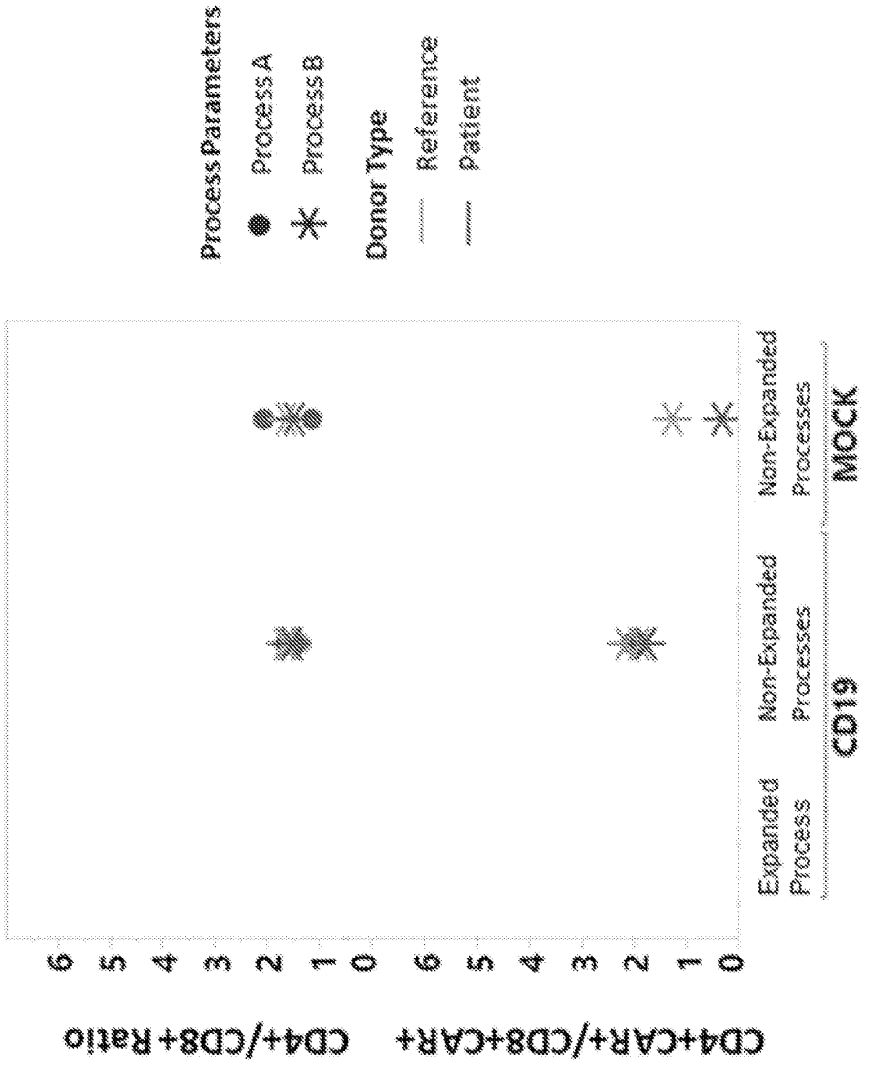

Process Parameters
Process A
Process B
Donor Type
Reference
Patient
CD4+CAR+/CD8+CAR+ CD4+/CD8+ Ratio
0
1
2
3
4
5
6
Expanded Process
Non-Expanded Processes
Non-Expanded Processes
CD19
MOCK

FIG. 3

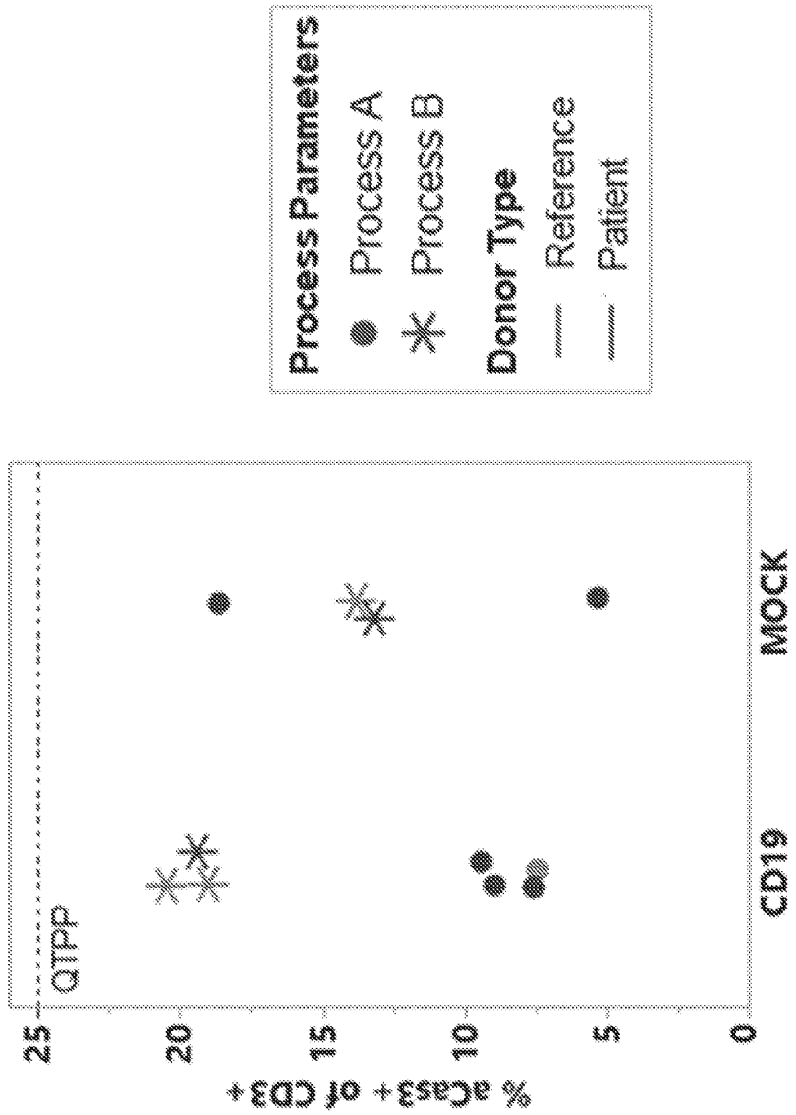

Process Parameters
Process A
Process B
Donor Type
Reference
Patient
% aCas3+ of CD3+
25
20
15
10
5
0
QTPP
CD19
MOCK

FIG. 4

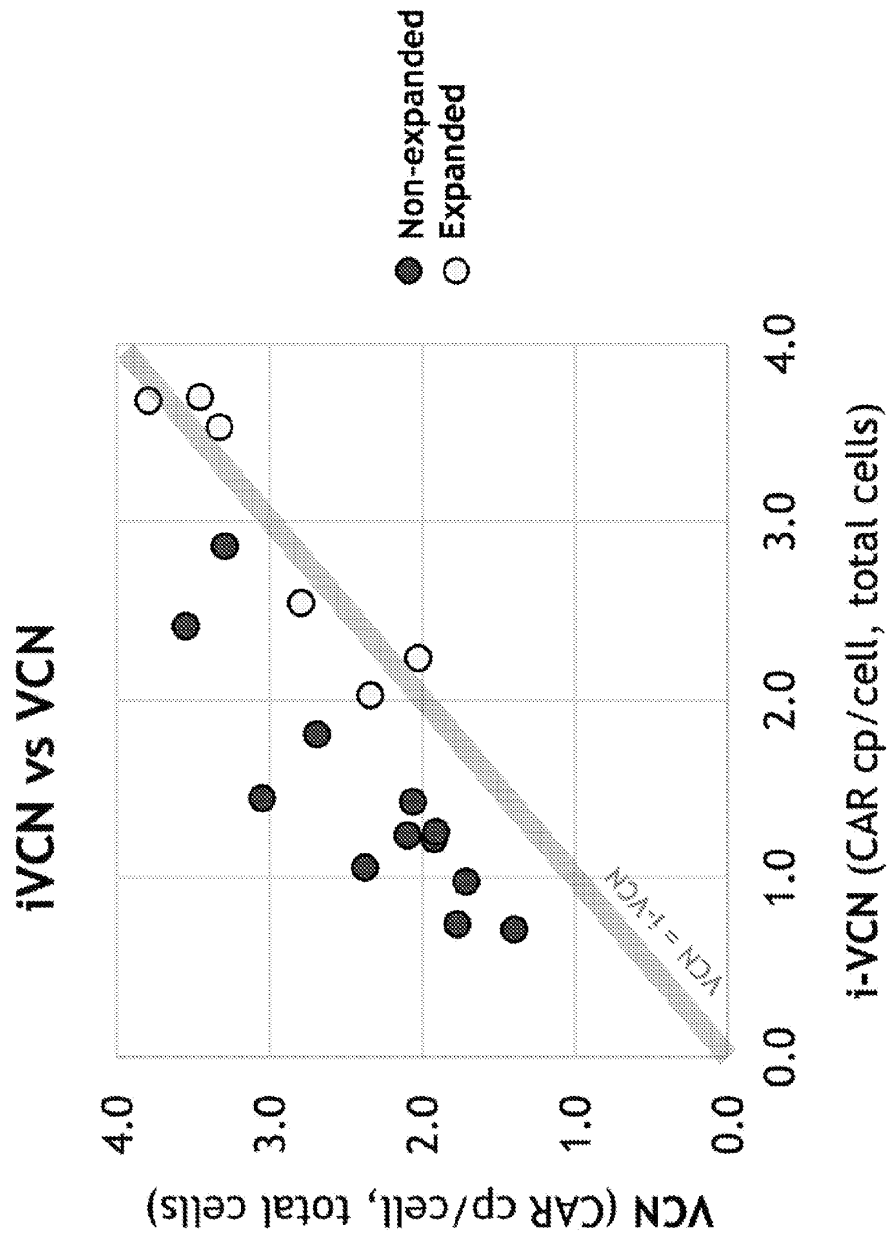

iVCN vs VCN
Non-expanded
Expanded
VCN = iVCN
i-VCN (CAR cp/cell, total cells)
VCN (CAR cp/cell, total cells)
0.0
1.0
2.0
3.0
4.0

FIG. 5A

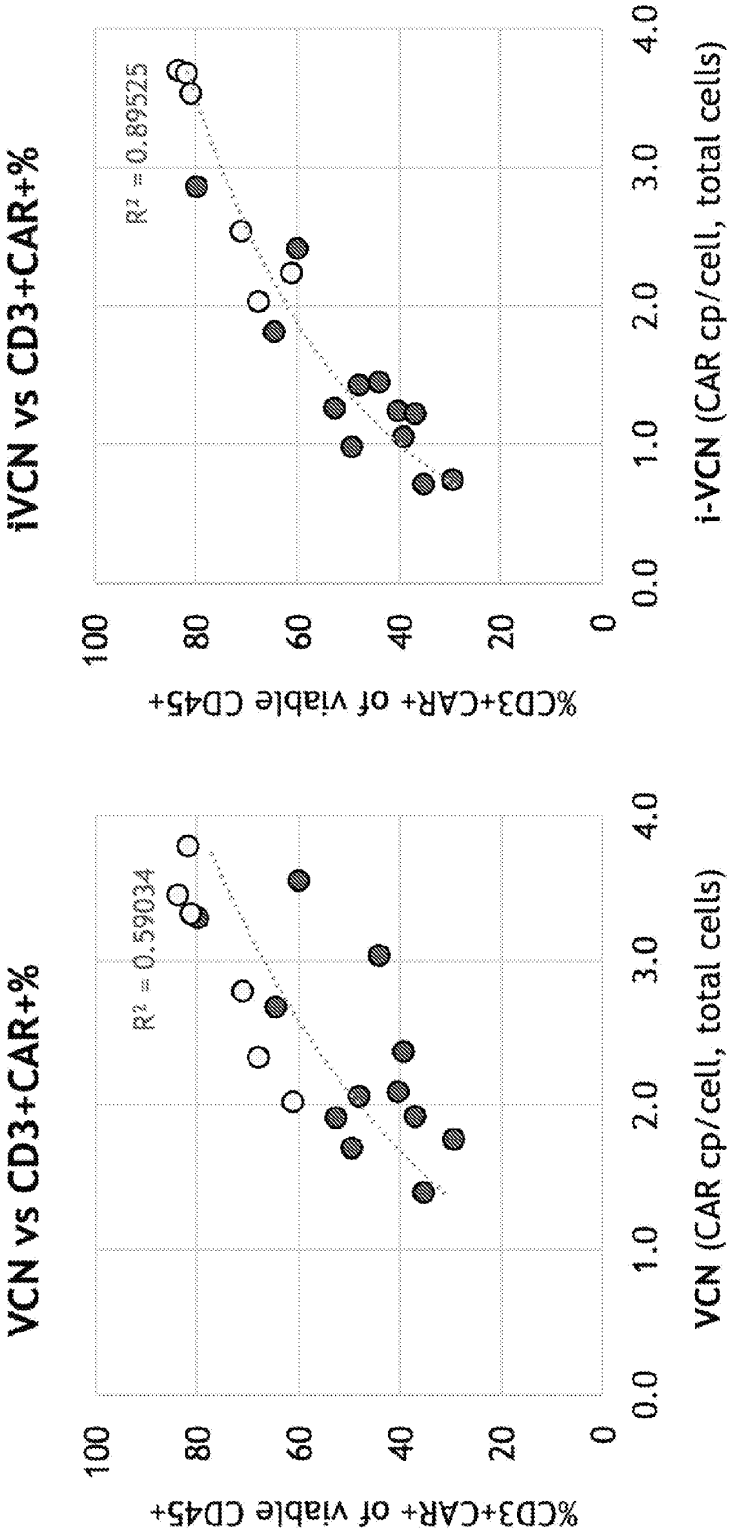
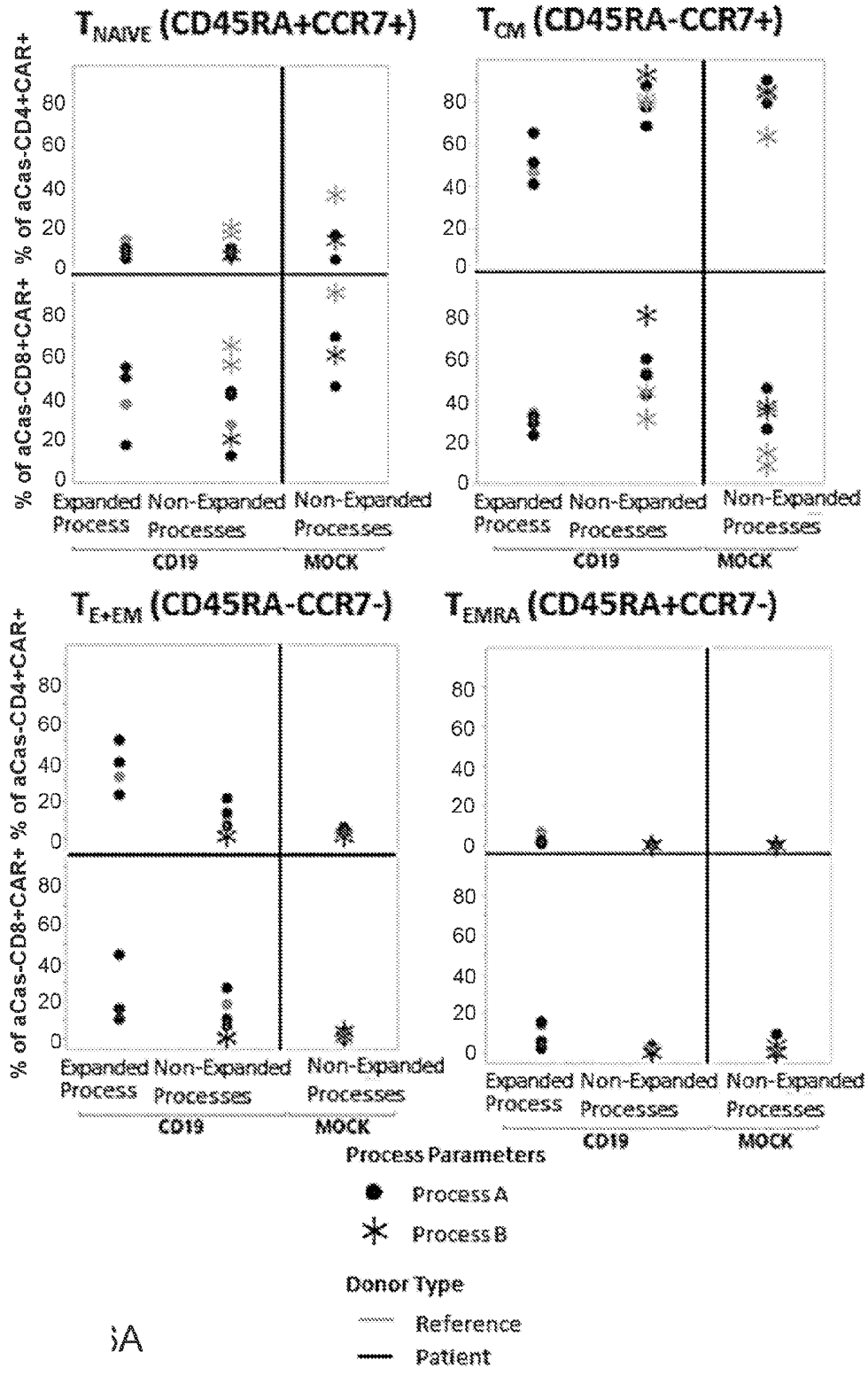

VCN vs CD3+CAR+%
R² = 0.59034
%CD3+CAR+ of viable CD45+
VCN (CAR cp/cell, total cells)
0
20
40
60
80
100
0.0
1.0
2.0
3.0
4.0

FIG. 5B

iVCN vs CD3+CAR+%
R² = 0.89525
%CD3+CAR+ of viable CD45+
i-VCN (CAR cp/cell, total cells)
0
20
40
60
80
100
0.0
1.0
2.0
3.0
4.0
Non-expanded
Expanded

FIG. 5C


T NAIVE (CD45RA+CCR7+)
T CM (CD45RA-CCR7+)
T E+EM (CD45RA-CCR7-)
T EMRA (CD45RA+CCR7-)
% of aCas-CD8+CAR+ % of aCas-CD4+CAR+
0
20
40
60
80
Expanded Process
Non-Expanded Processes
CD19
MOCK
Process Parameters
Process A
Process B
Donor Type
Reference
Patient

SA

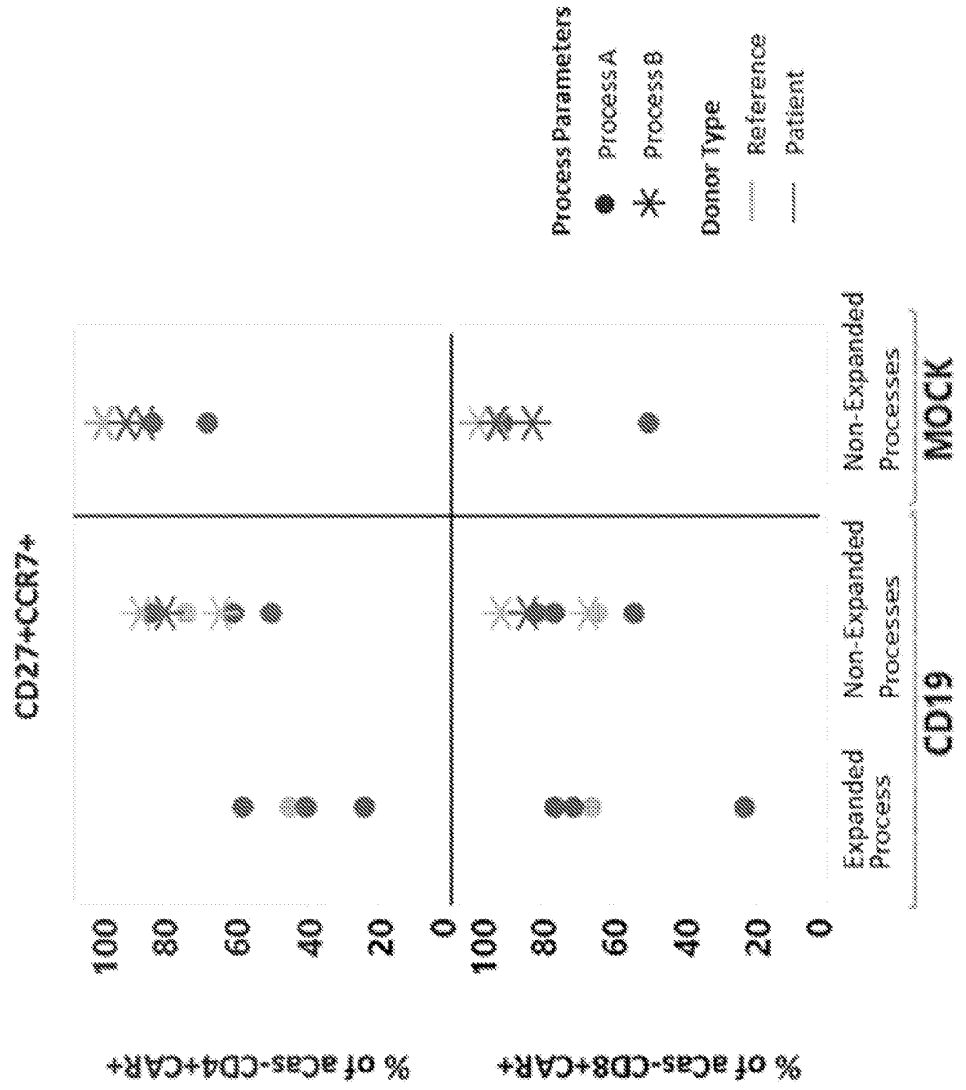

CD27+CCR7+
% of aCas-CD4+CAR+
% of aCas-CD8+CAR+
100
80
60
40
20
0
Expanded Process
Non-Expanded Processes
Non-Expanded Processes
CD19
MOCK
Process Parameters
Process A
Process B
Donor Type
Reference
Patient

FIG. 6B

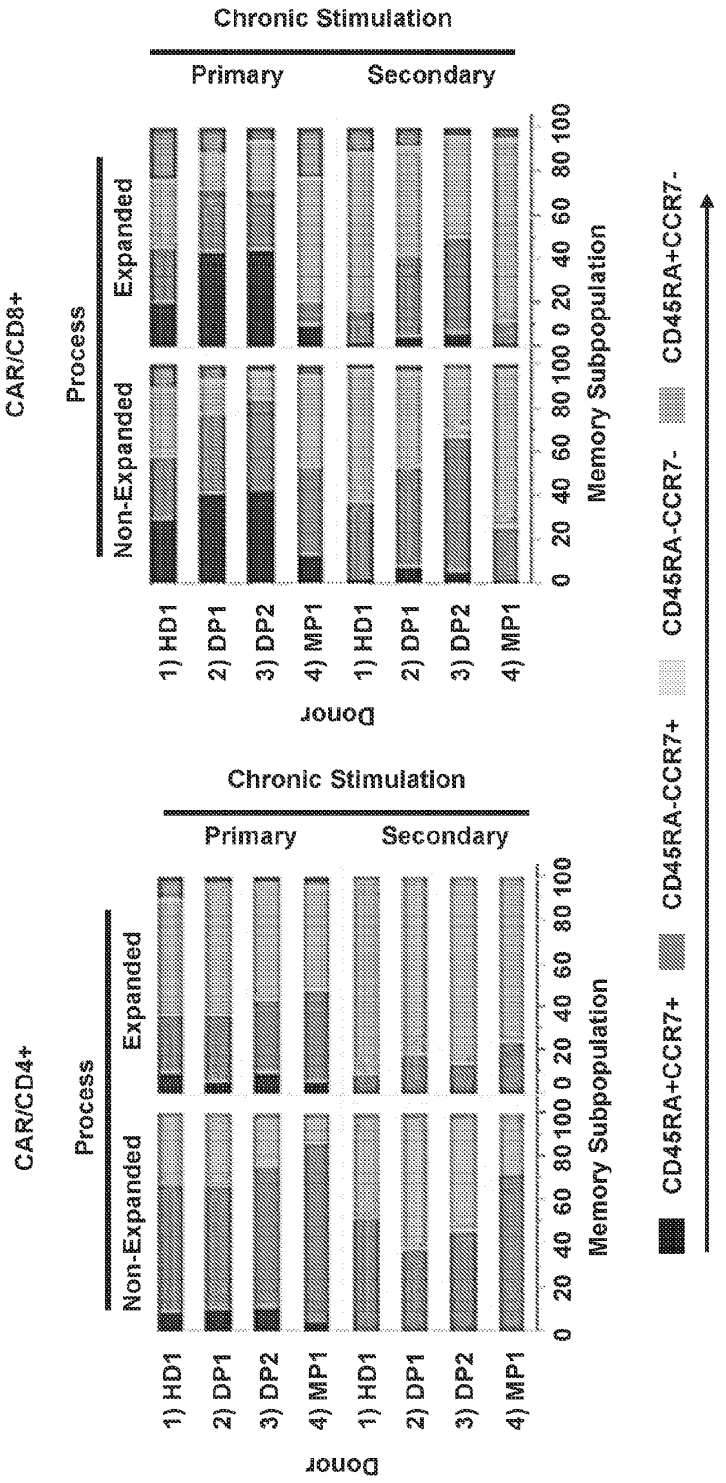

CAR/CD8+
Process
Non-Expanded
Expanded
Chronic Stimulation
Primary
Secondary
Donor
1) HD1
2) DP1
3) DP2
4) MP1
0 20 40 60 80 100 0 20 40 60 80 100
Memory Subpopulation
CAR/CD4+
CD45RA+CCR7+
CD45RA-CCR7+
CD45RA-CCR7-
CD45RA+CCR7-

FIG. 7A

FIG. 7B

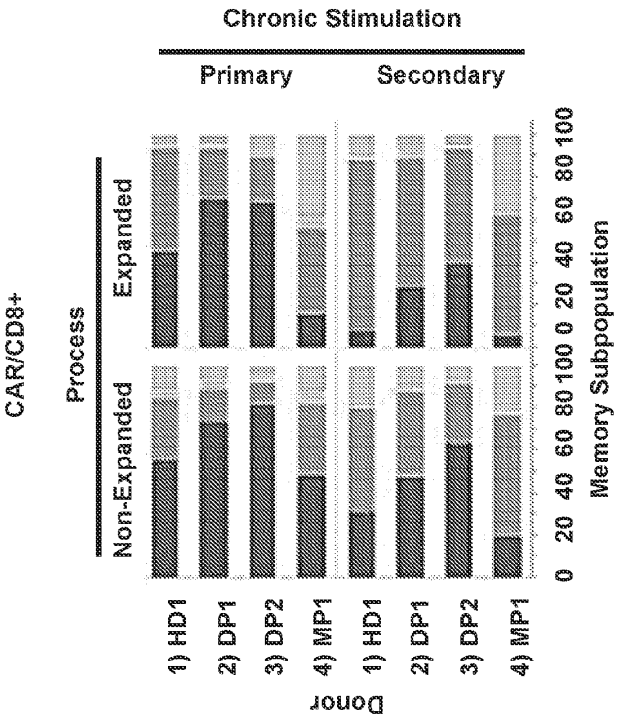

CAR/CD8+
Process
Non-Expanded
Expanded
Chronic Stimulation
Primary
Secondary
Donor
1) HD1
2) DP1
3) DP2
4) MP1
0 20 40 60 80 100 0 20 40 60 80 100
Memory Subpopulation

FIG. 7D

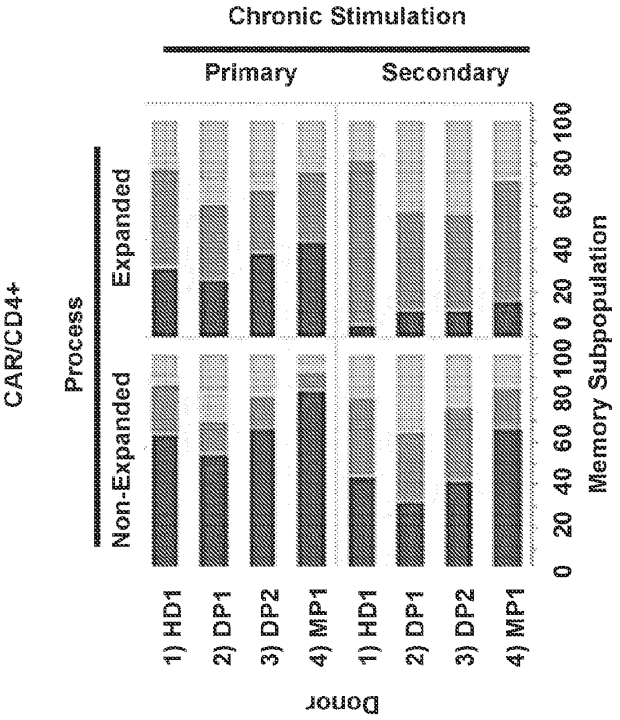

CAR/CD4+
Process
Non-Expanded
Expanded
Chronic Stimulation
Primary
Secondary
Donor
1) HD1
2) DP1
3) DP2
4) MP1
0 20 40 60 80 100 0 20 40 60 80 100
Memory Subpopulation
CD27+CCR7+
CD27+CCR7-
CD27-CCR7+
CD27-CCR7-

FIG. 7C

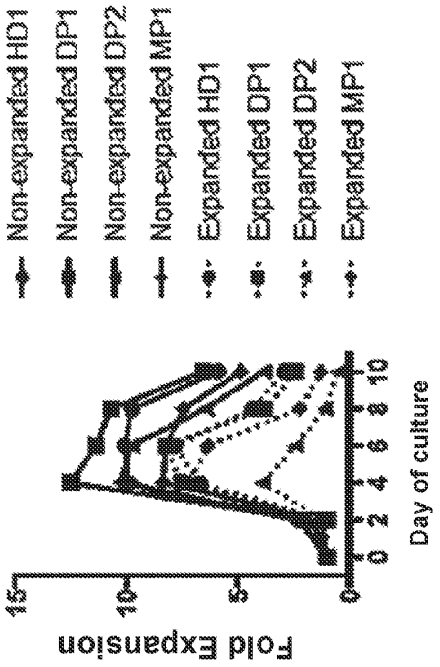


FIG. 8C

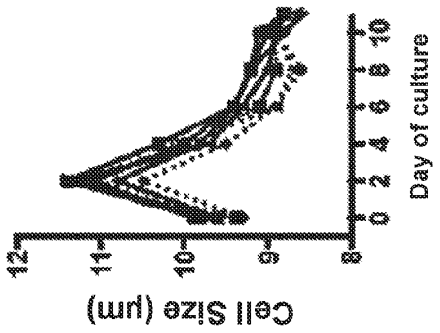


FIG. 8B

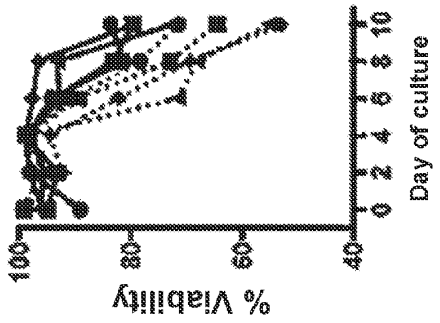


FIG. 8A

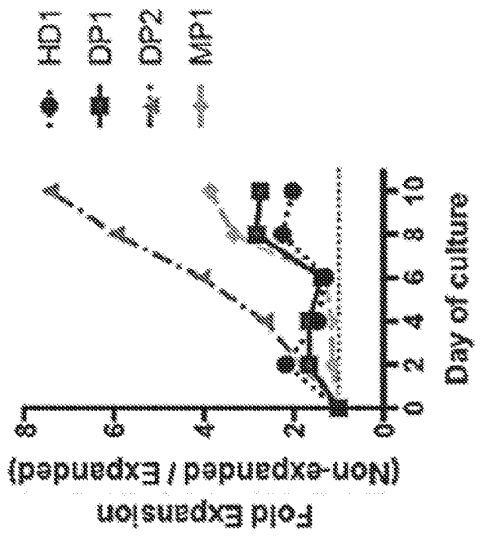


FIG. 8F

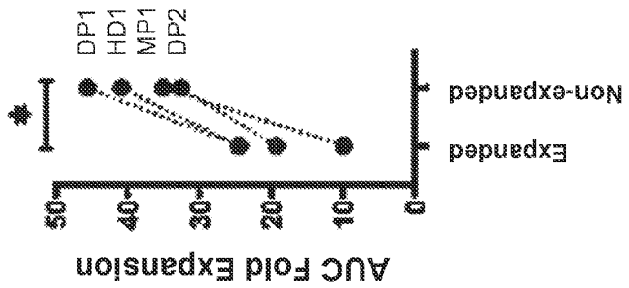


FIG. 8E

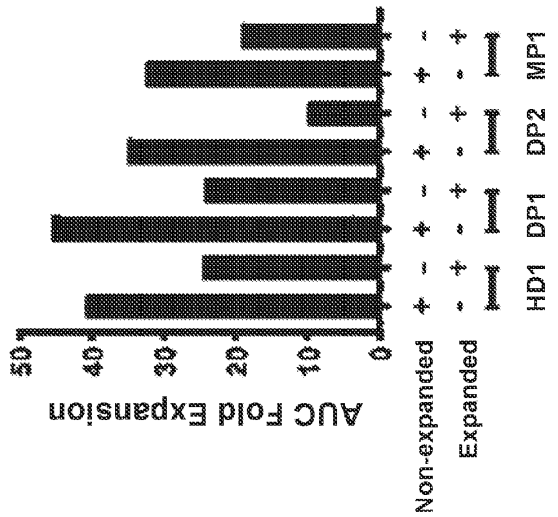


FIG. 8D

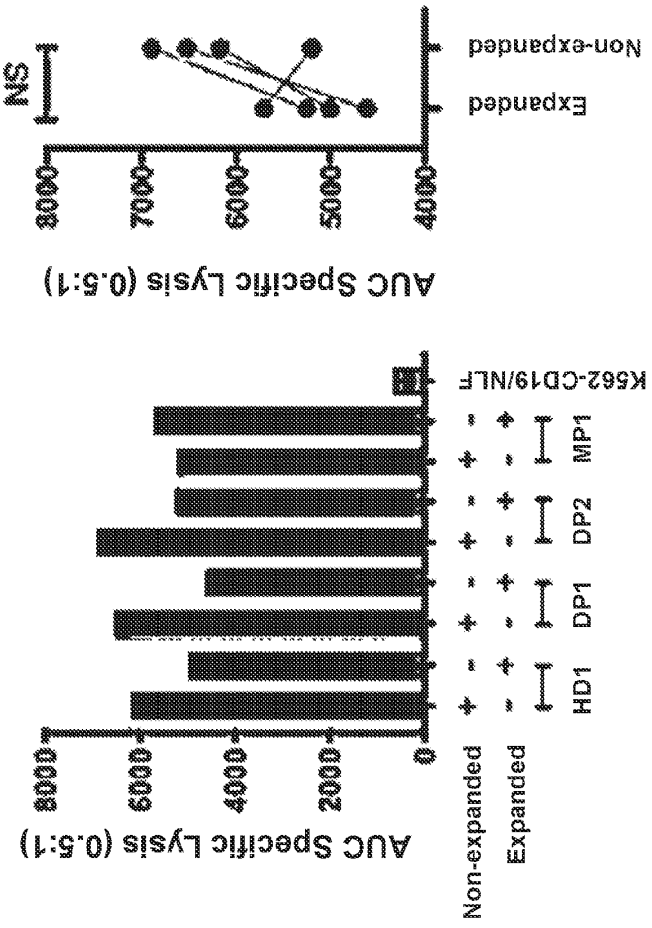
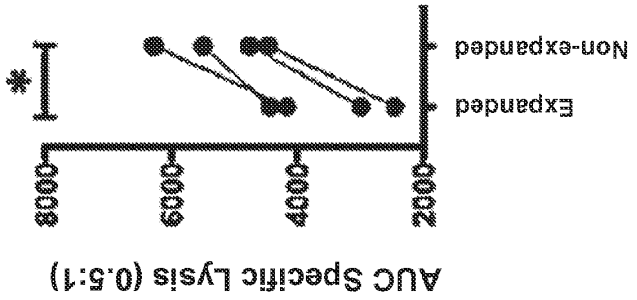

AUC Specific Lysis (0.5:1)
8000
6000
4000
2000
0
Non-expanded
Expanded
HD1
DP1
DP2
MP1
K562-CD19/NLF
AUC Specific Lysis (0.5:1)
8000
7000
6000
5000
4000
NS
Expanded
Non-expanded

FIG. 9A


AUC Specific Lysis (0.5:1)
8000
6000
4000
2000
*
Expanded
Non-expanded

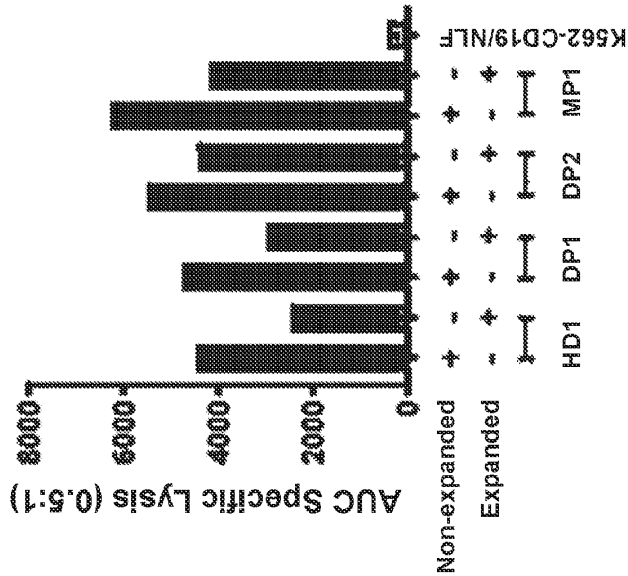

AUC Specific Lysis (0.5:1)
8000
6000
4000
2000
0
Non-expanded
Expanded
HD1
DP1
DP2
MP1
K562-CD19/NLF

FIG. 9B

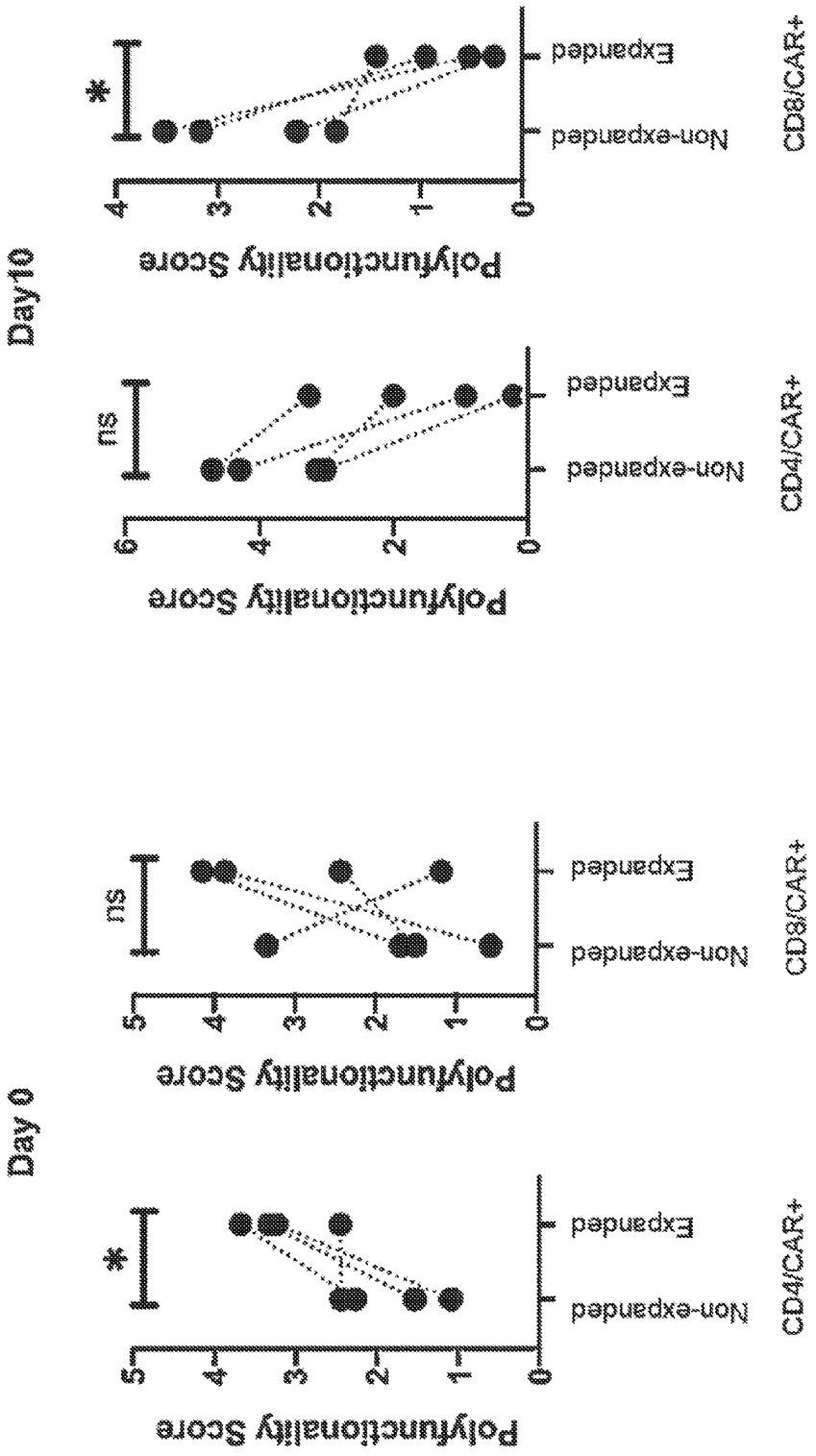

Day 0
Day10
CD4/CAR+
CD8/CAR+
Non-expanded
Expanded
Polyfunctionality Score
*
ns
0
1
2
3
4
5
6

FIG. 10

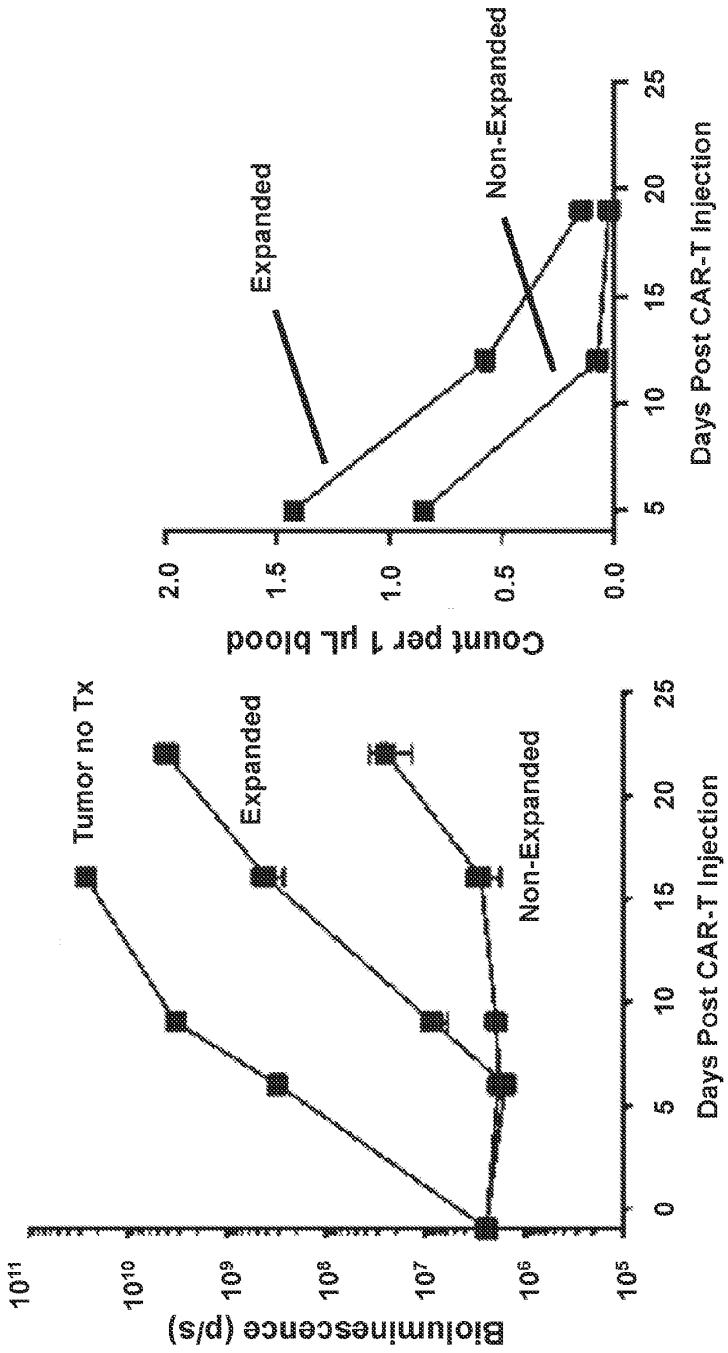


FIG. 11A

FIG. 11B

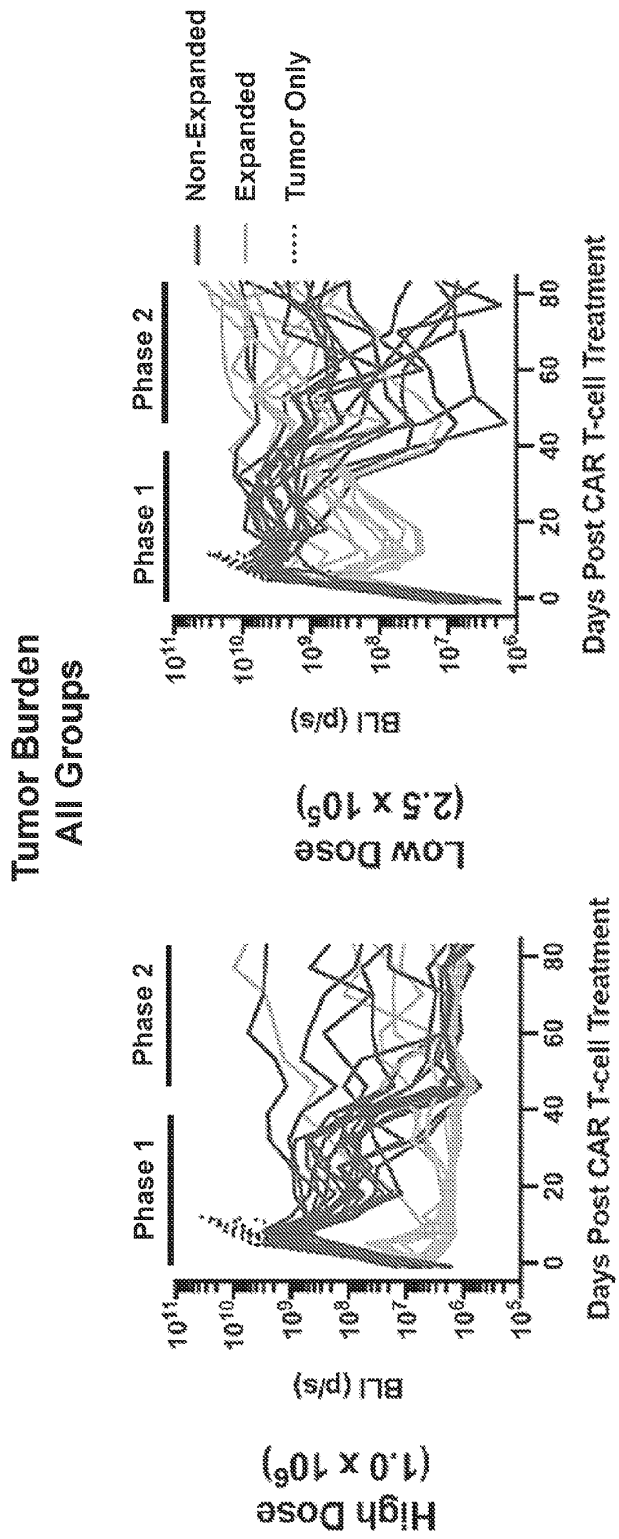

Tumor Burden
All Groups
High Dose
(1.0 x 10^6)
Low Dose
(2.5 x 10^5)
Phase 1
Phase 2
BLI (p/s)
Days Post CAR T-cell Treatment
Non-Expanded
Expanded
Tumor Only

FIG. 12A

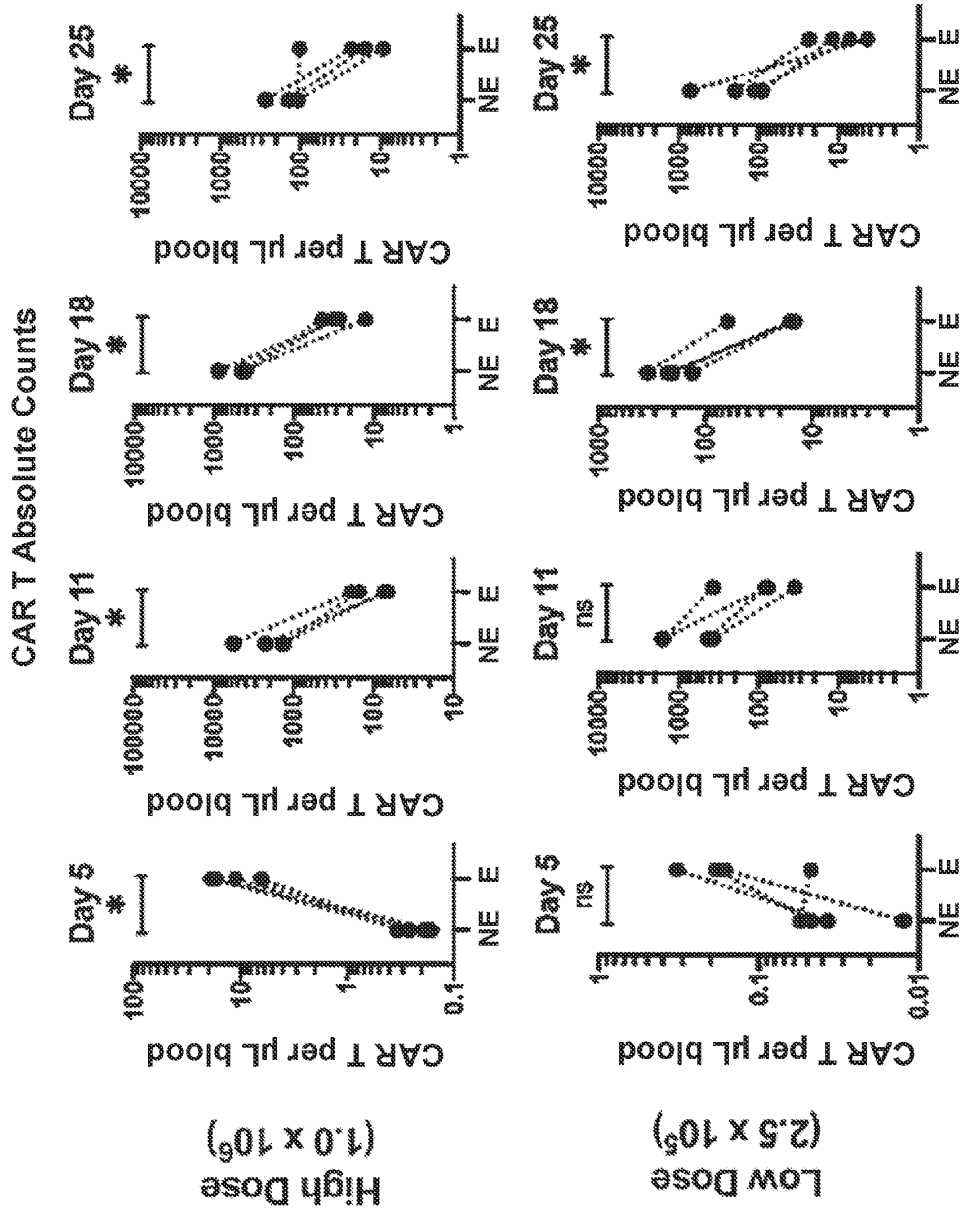

CAR T Absolute Counts
High Dose
(1.0 x 10^6)
Low Dose
(2.5 x 10^5)
Day 5
Day 11
Day 18
Day 25
*
ns
CAR T per µL blood
NE
E

FIG. 12B