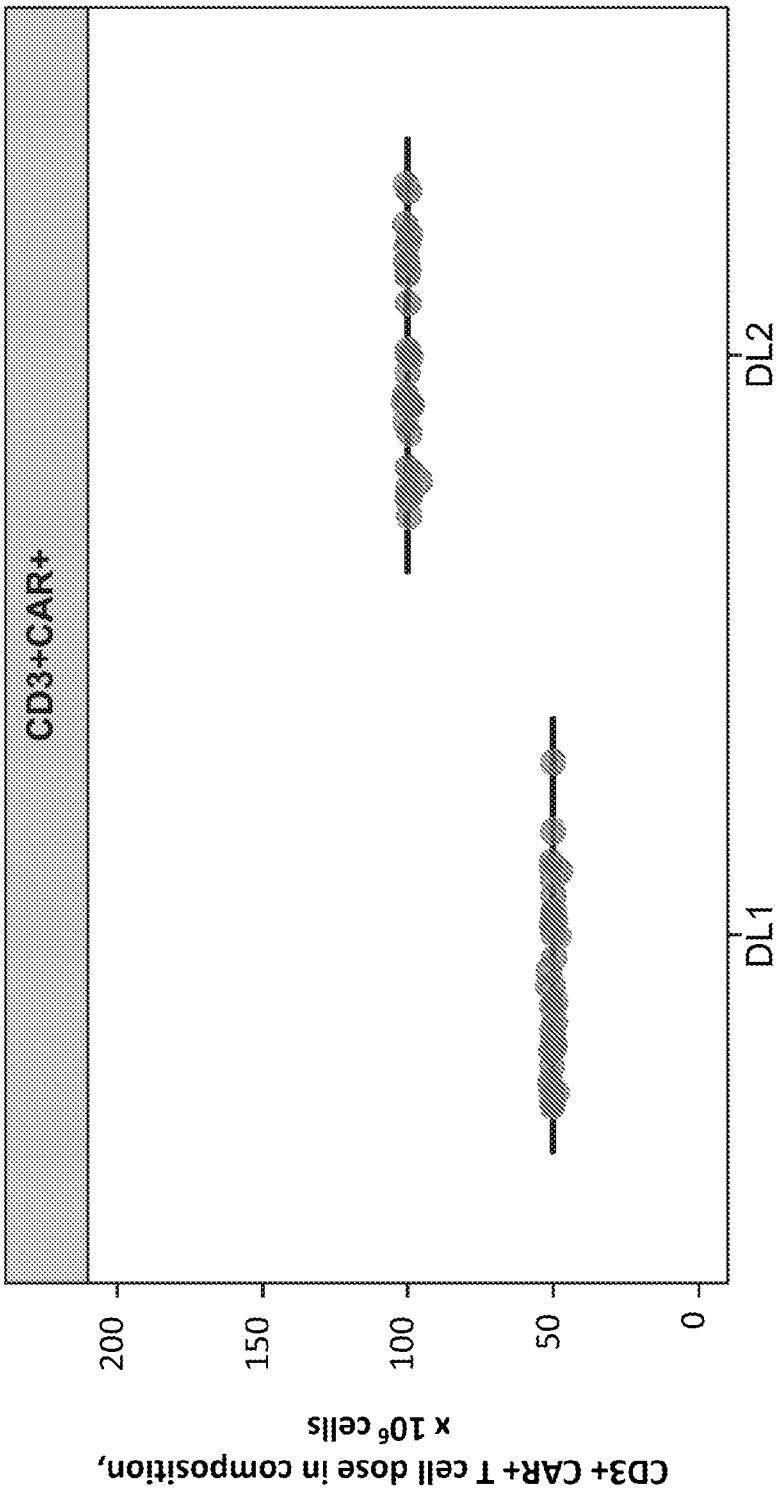

CD3+CAR+
CD3+ CAR+ T cell dose in composition,
x 10^6 cells
200
150
100
50
0
DL1
DL2

FIG. 1A

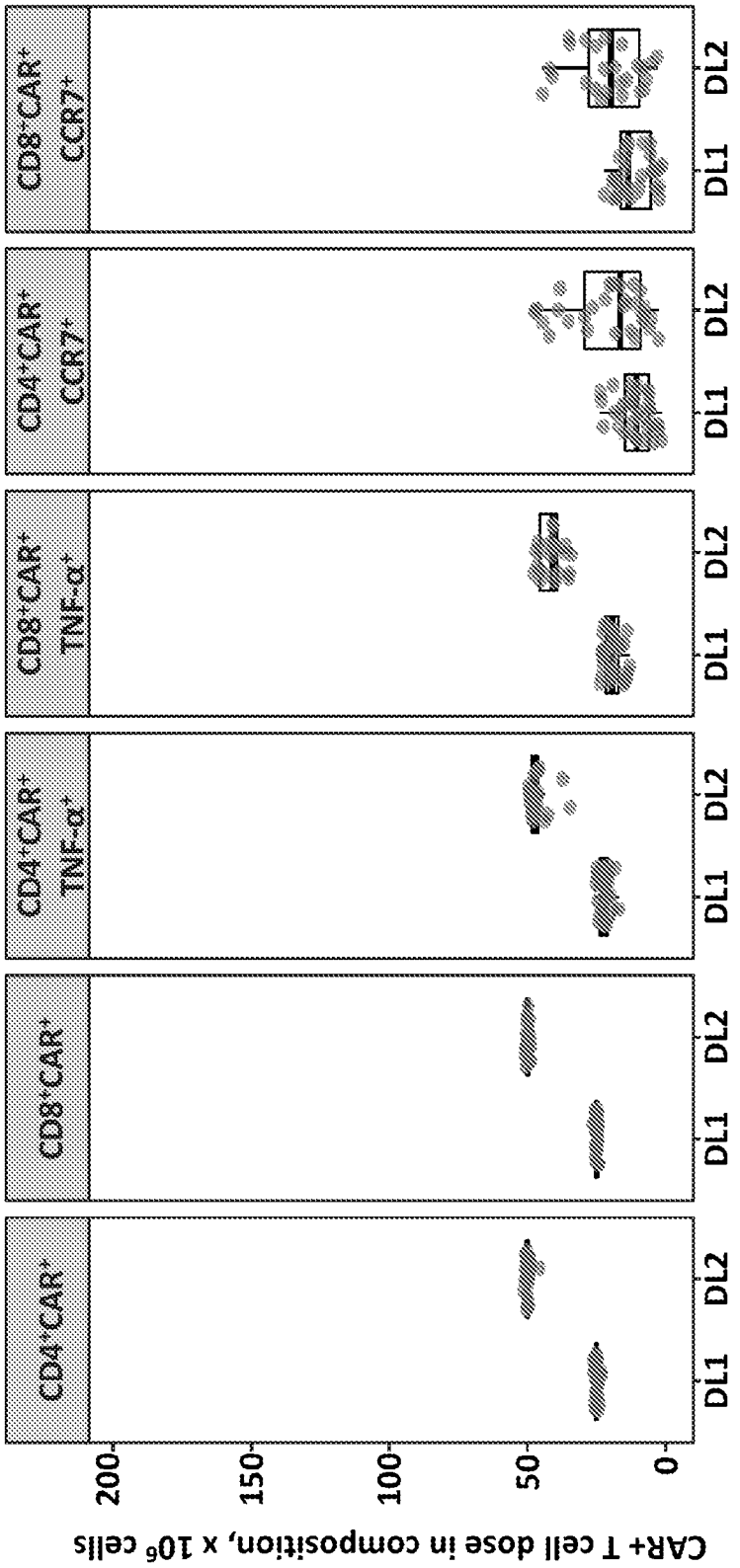

CD4+CAR+
CD8+CAR+
CD4+CAR+ TNF-α+
CD8+CAR+ TNF-α+
CD4+CAR+ CCR7+
CD8+CAR+ CCR7+
DL1
DL2
200
150
100
50
0
CAR+ T cell dose in composition, x 10^6 cells

FIG. 1B

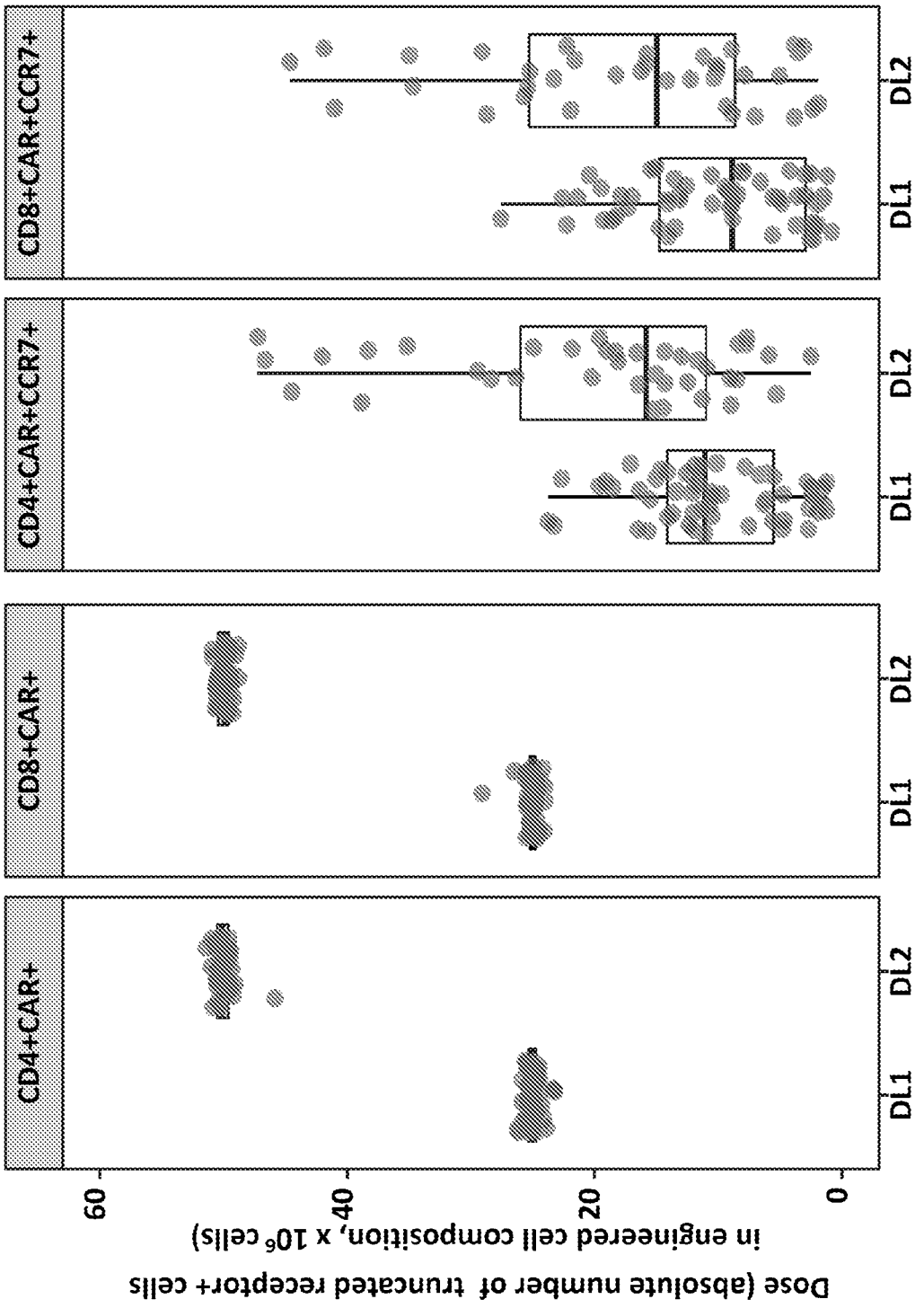

CD4+CAR+
CD8+CAR+
CD4+CAR+CCR7+
CD8+CAR+CCR7+
DL1
DL2
0
20
40
60
Dose (absolute number of truncated receptor+ cells
in engineered cell composition, x 10^6 cells)

FIG. 1C

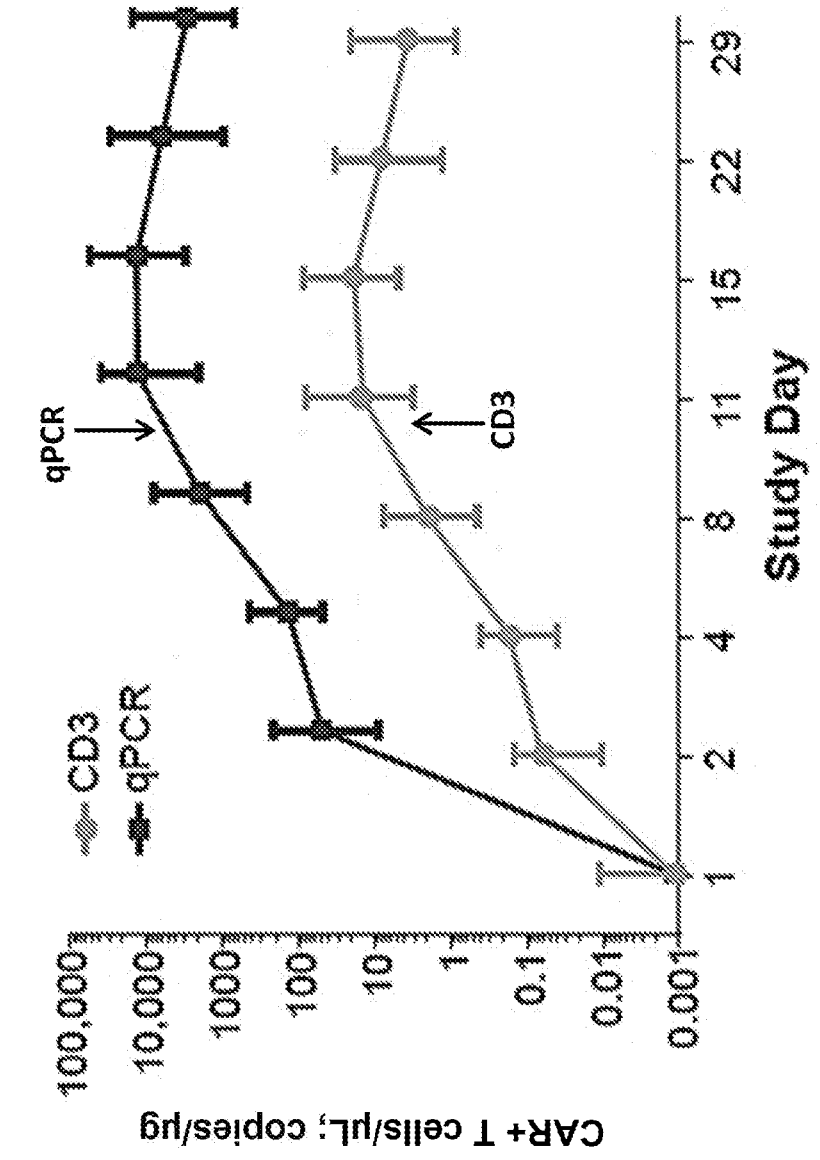
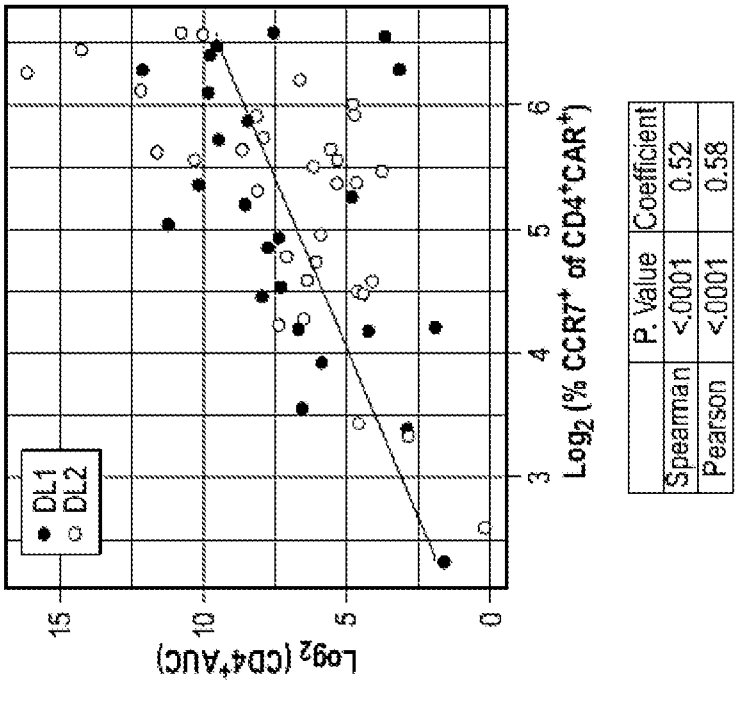

CAR+ T cells/μL; copies/μg
100,000
10,000
1000
100
10
1
0.1
0.01
0.001
1
2
4
8
11
15
22
29
Study Day
qPCR
CD3
qPCR
CD3

FIG. 2



	P. Value	Coefficient
Spearman	<.0001	0.52
Pearson	<.0001	0.58

	P. Value	Coefficient
Spearman	2.00E-03	0.42
Pearson	7.00E-04	0.45

FIG. 3A

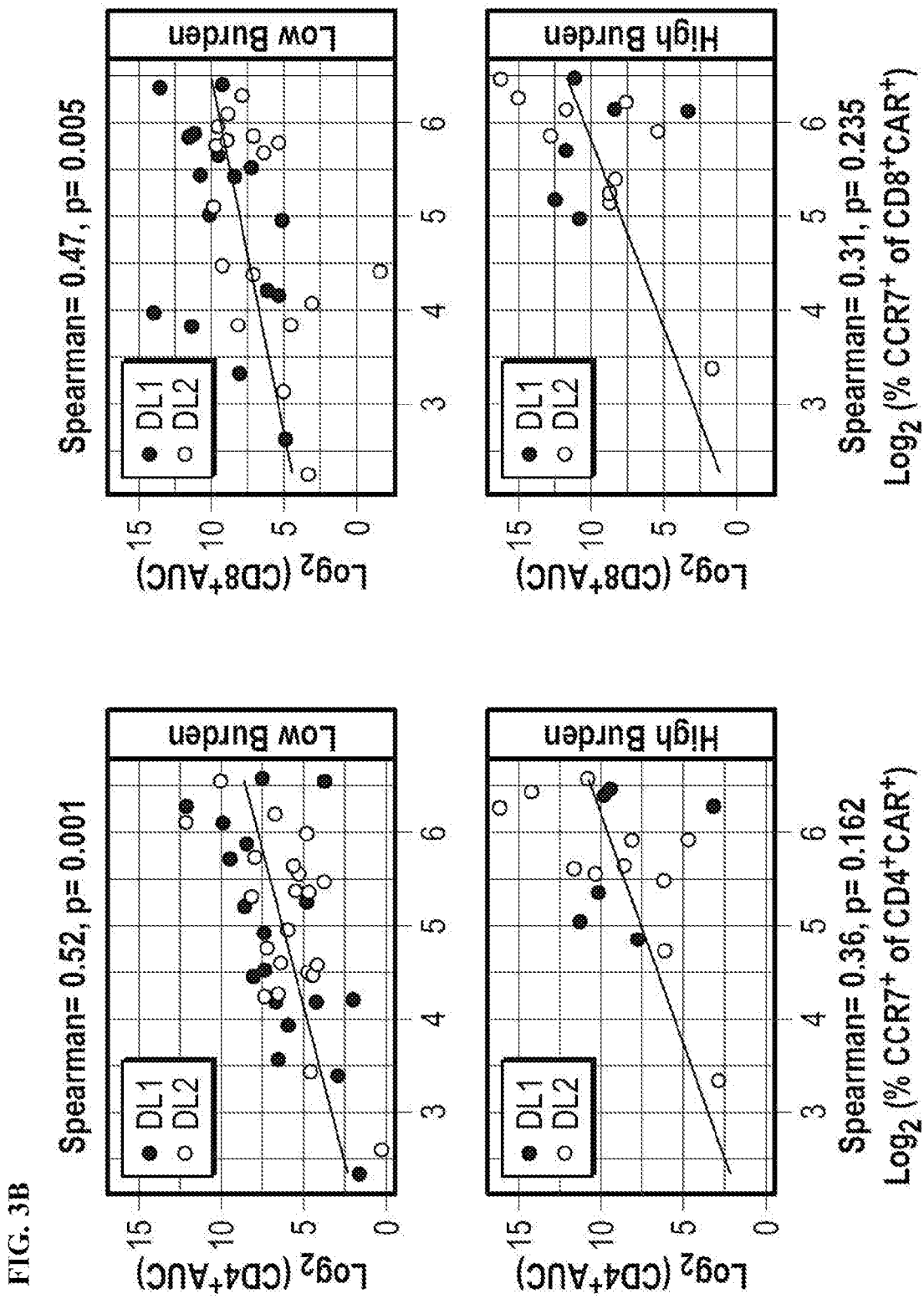
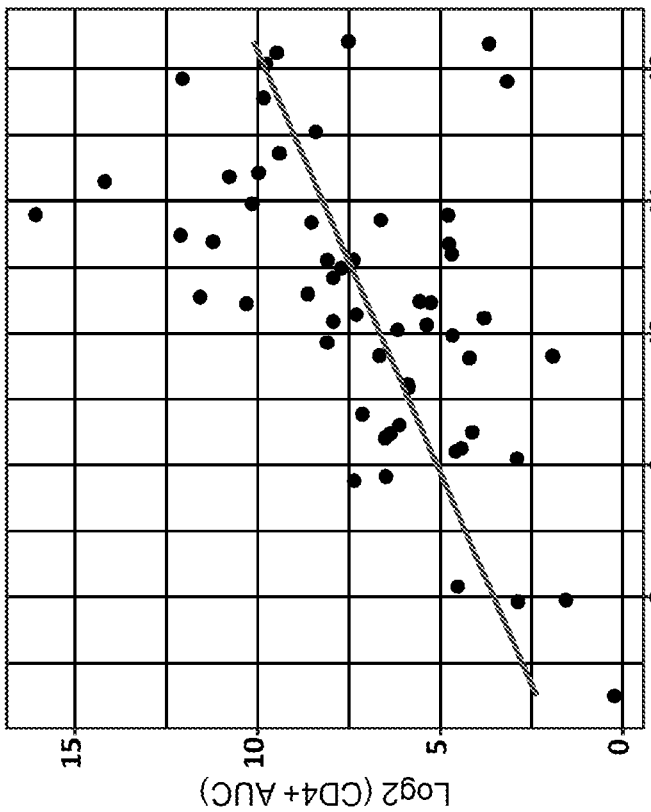
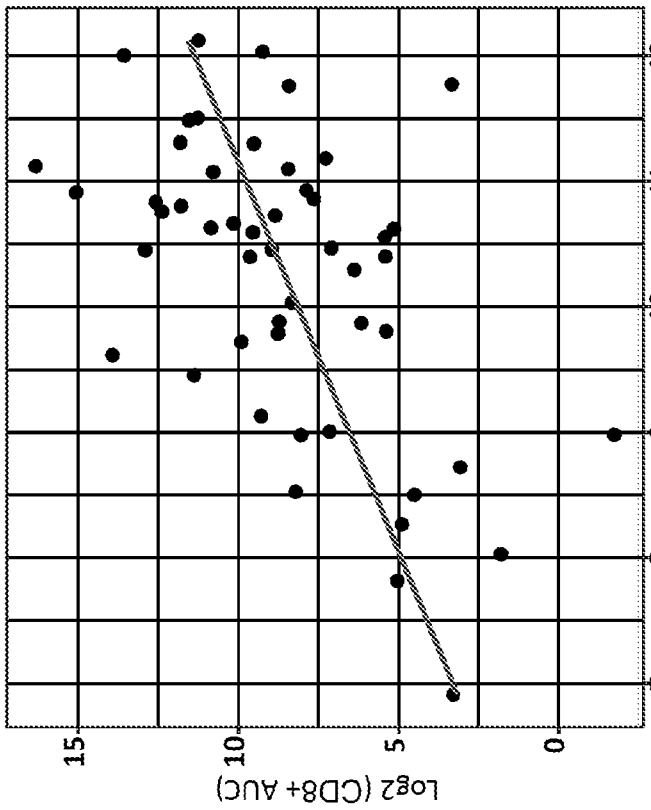

Low Burden
High Burden
DL1
DL2
Spearman= 0.47, p= 0.005
Spearman= 0.31, p= 0.235
Spearman= 0.52, p= 0.001
Spearman= 0.36, p= 0.162
Log2 (CD8+AUC)
Log2 (CD4+AUC)
Log2 (% CCR7+ of CD8+CAR+)
Log2 (% CCR7+ of CD4+CAR+)

FIG. 3B

FIG. 3C



	P value	Correlation coefficient
Spearman	<0.001	0.583
Pearson	<0.001	0.555



	P value	Correlation coefficient
Spearman	<0.001	0.510
Pearson	<0.001	0.537

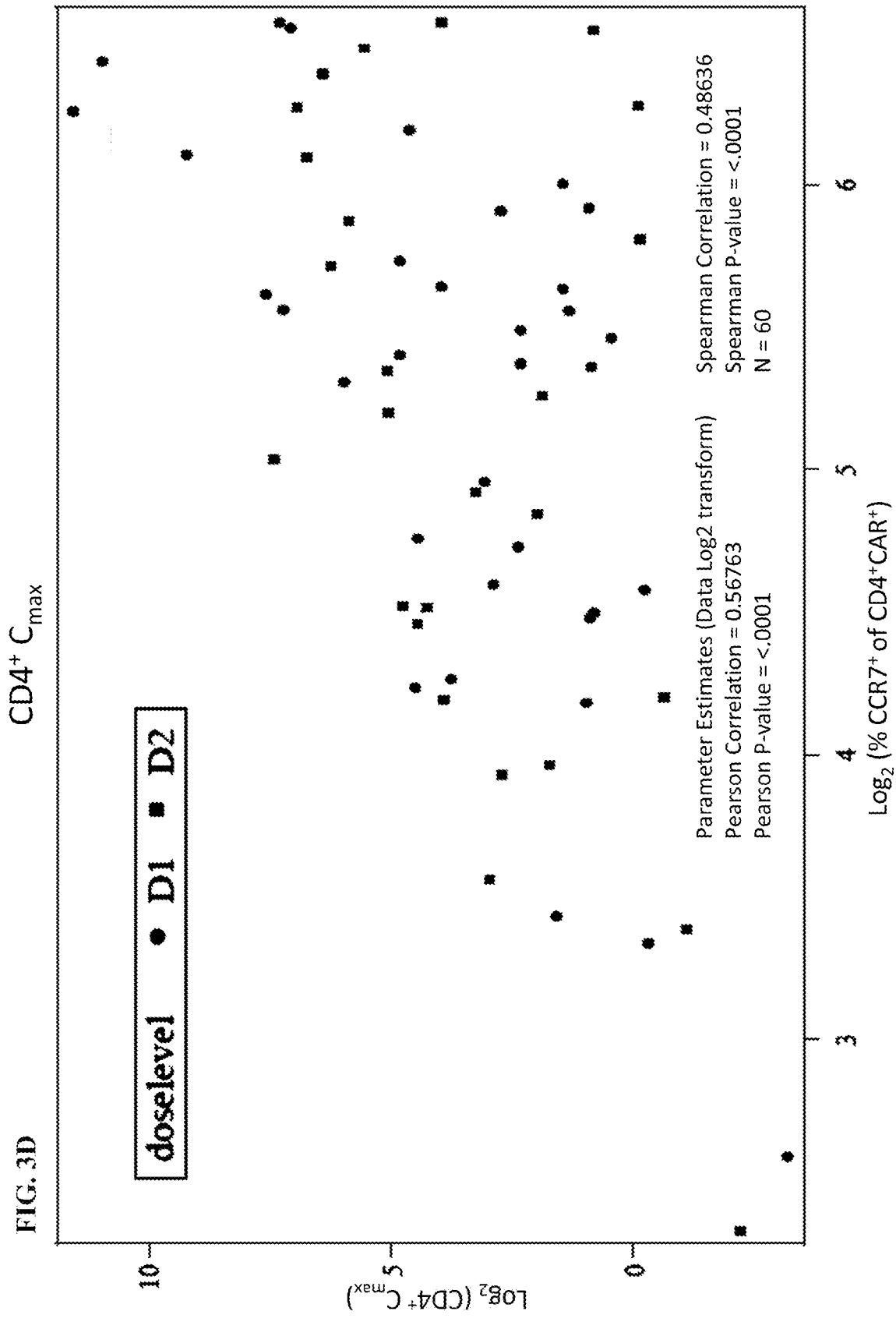

CD4+ Cmax
doselevel
D1
D2
Log2 (CD4+ Cmax)
10
5
0
3
4
5
6
Log2 (% CCR7+ of CD4+CAR+)
Parameter Estimates (Data Log2 transform)
Pearson Correlation = 0.56763
Pearson P-value = <.0001
Spearman Correlation = 0.48636
Spearman P-value = <.0001
N = 60

FIG. 3D

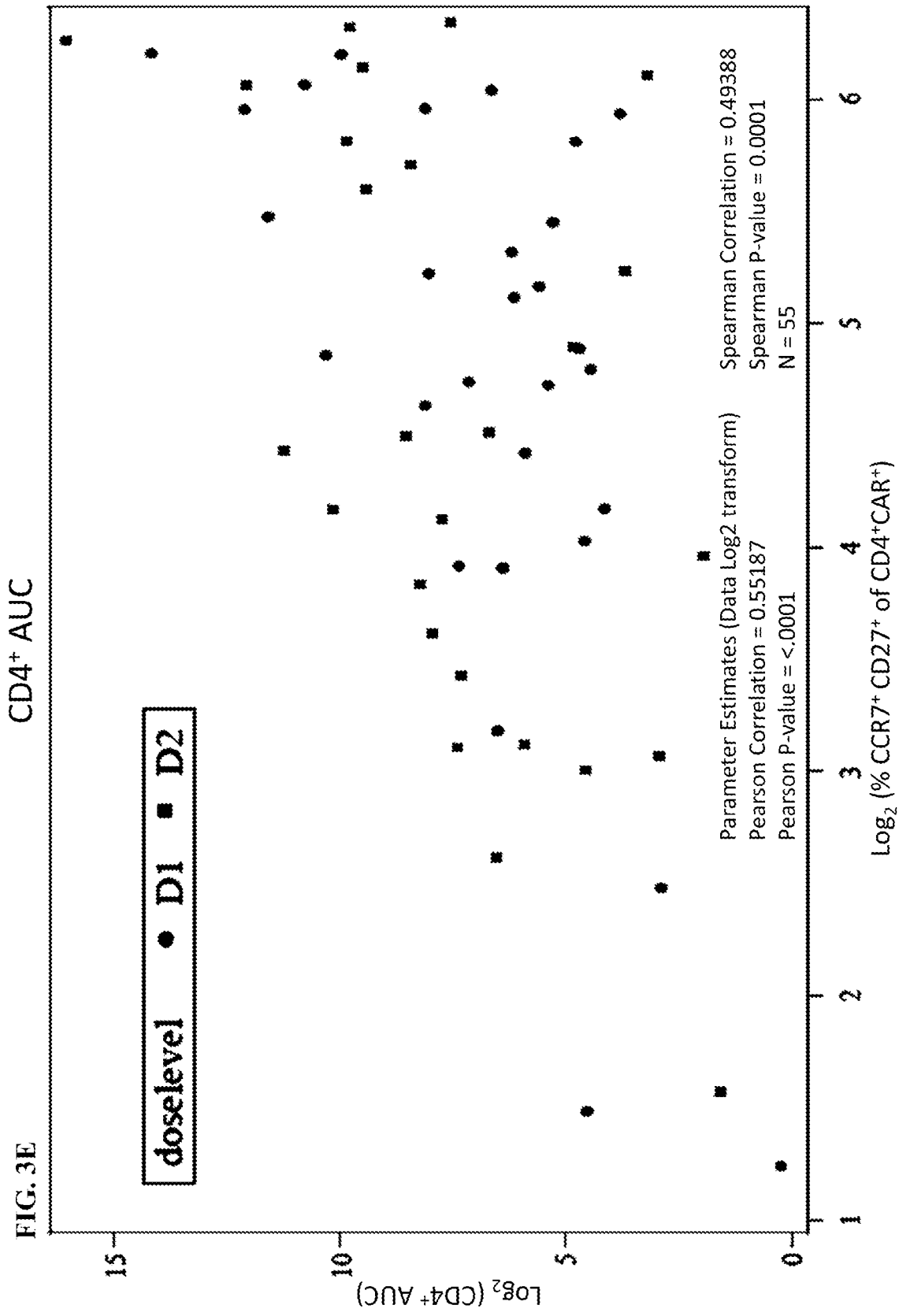

CD4+ AUC
doselevel
D1
D2
Log2 (CD4+ AUC)
Log2 (% CCR7+ CD27+ of CD4+CAR+)
Parameter Estimates (Data Log2 transform)
Pearson Correlation = 0.55187
Pearson P-value = <.0001
Spearman Correlation = 0.49388
Spearman P-value = 0.0001
N = 55

FIG. 3E

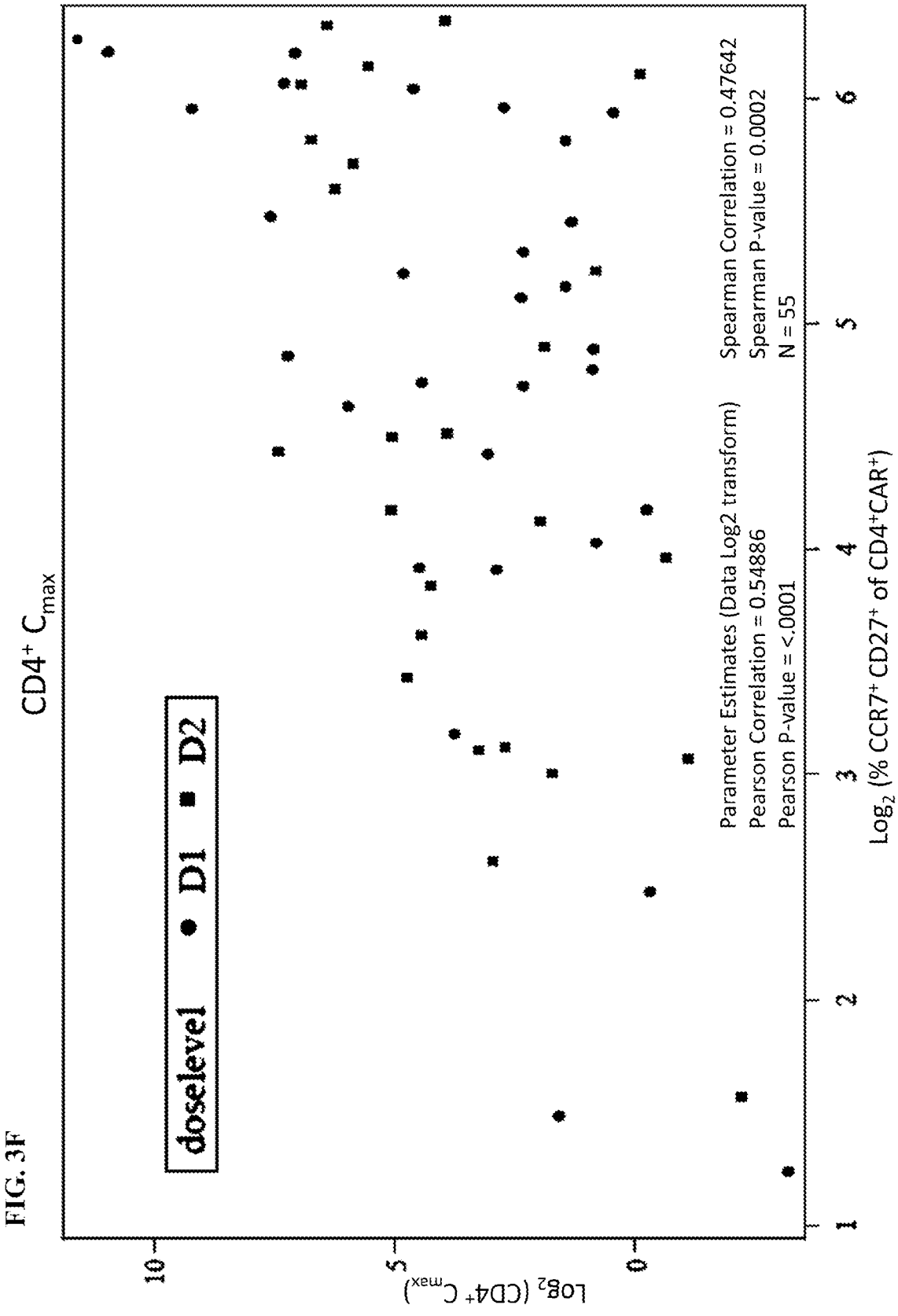

CD4+ Cmax
doselevel ● D1 ■ D2
Log2 (CD4+ Cmax)
10
5
0
1
2
3
4
5
6
Log2 (% CCR7+ CD27+ of CD4+CAR+)
Parameter Estimates (Data Log2 transform)
Pearson Correlation = 0.54886
Pearson P-value = <.0001
Spearman Correlation = 0.47642
Spearman P-value = 0.0002
N = 55

FIG. 3F

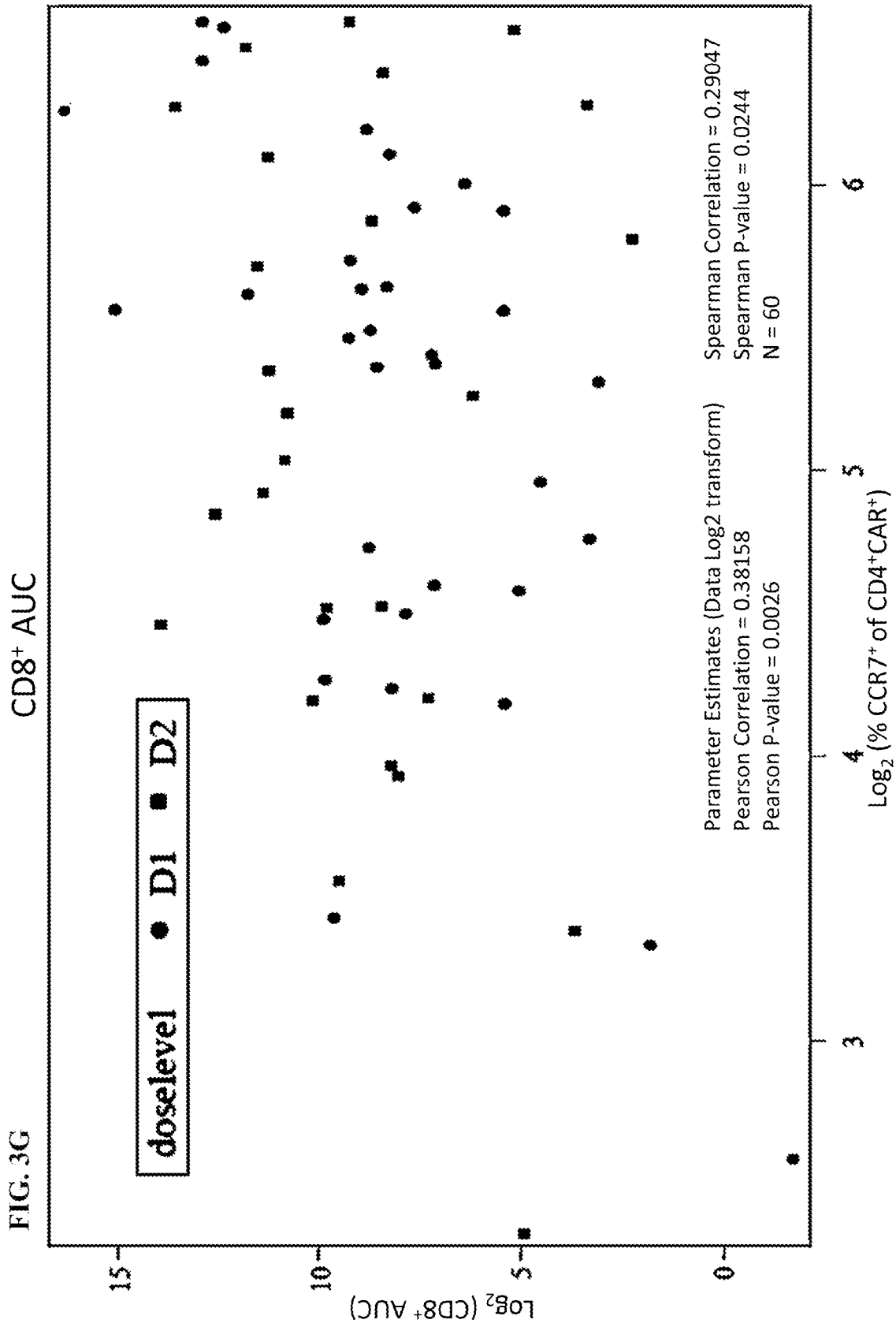

CD8+ AUC
doselevel
D1
D2
Parameter Estimates (Data Log2 transform)
Pearson Correlation = 0.38158
Pearson P-value = 0.0026
Spearman Correlation = 0.29047
Spearman P-value = 0.0244
N = 60
Log2 (CD8+ AUC)
Log2 (% CCR7+ of CD4+CAR+)
15
10
5
0
3
4
5
6

FIG. 3G

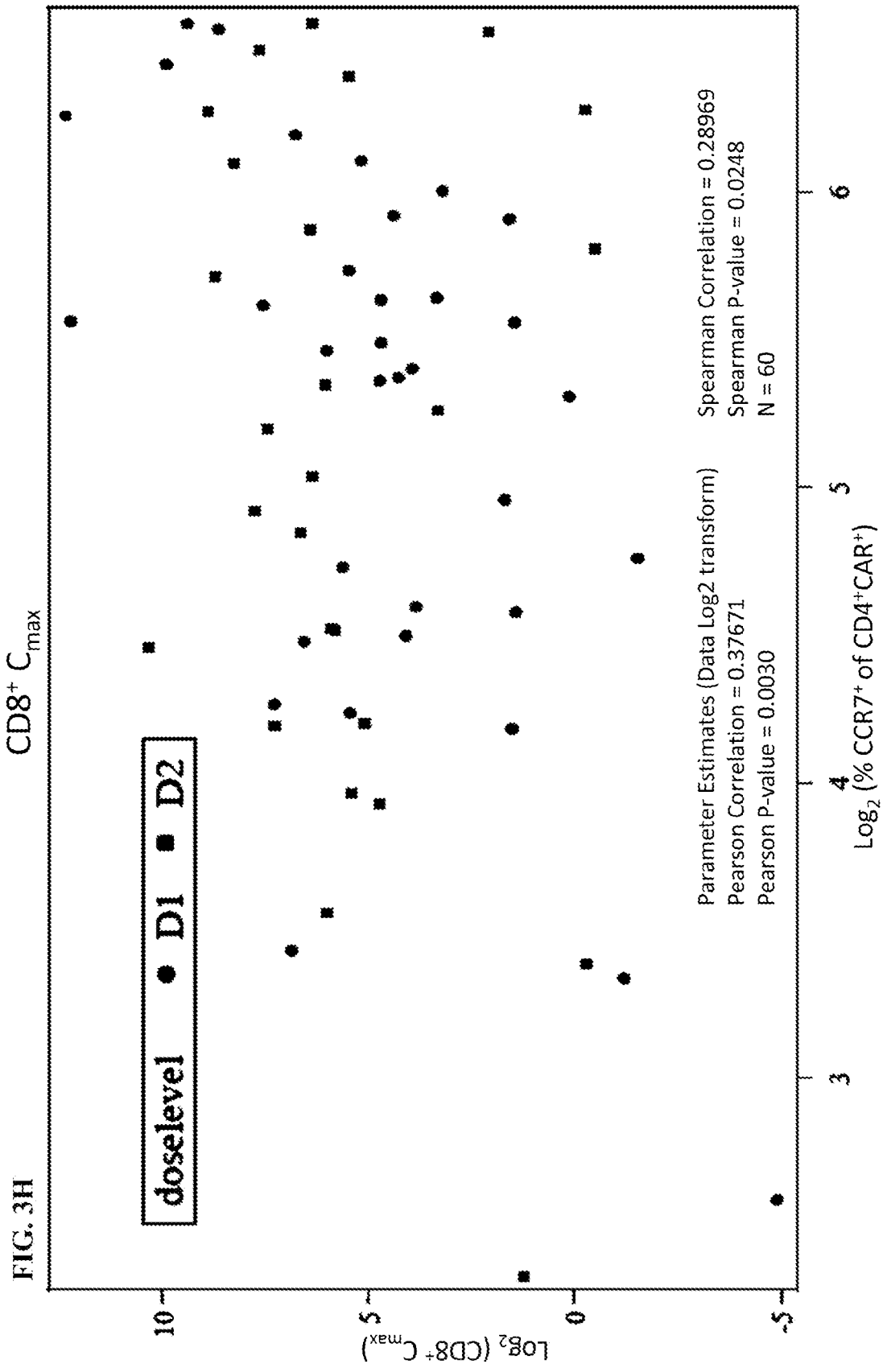

CD8+ Cmax
doselevel D1 D2
Log2 (CD8+ Cmax)
10
5
0
-5
3
4
5
6
Log2 (% CCR7+ of CD4+CAR+)
Parameter Estimates (Data Log2 transform)
Pearson Correlation = 0.37671
Pearson P-value = 0.0030
Spearman Correlation = 0.28969
Spearman P-value = 0.0248
N = 60

FIG. 3H

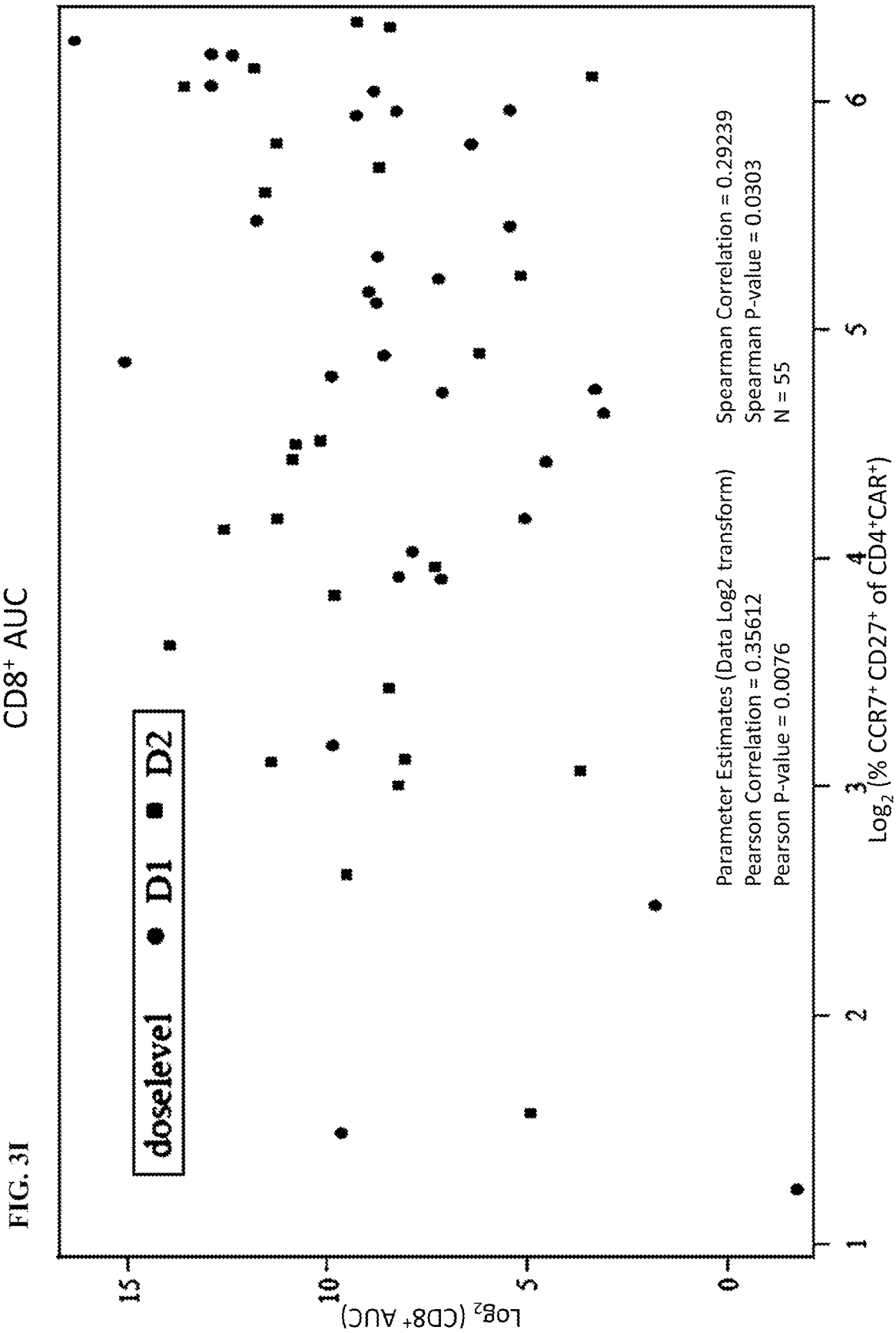

CD8+ AUC
doselevel
D1
D2
Log2 (CD8+ AUC)
Log2 (% CCR7+ CD27+ of CD4+CAR+)
Parameter Estimates (Data Log2 transform)
Pearson Correlation = 0.35612
Pearson P-value = 0.0076
Spearman Correlation = 0.29239
Spearman P-value = 0.0303
N = 55

FIG. 3I

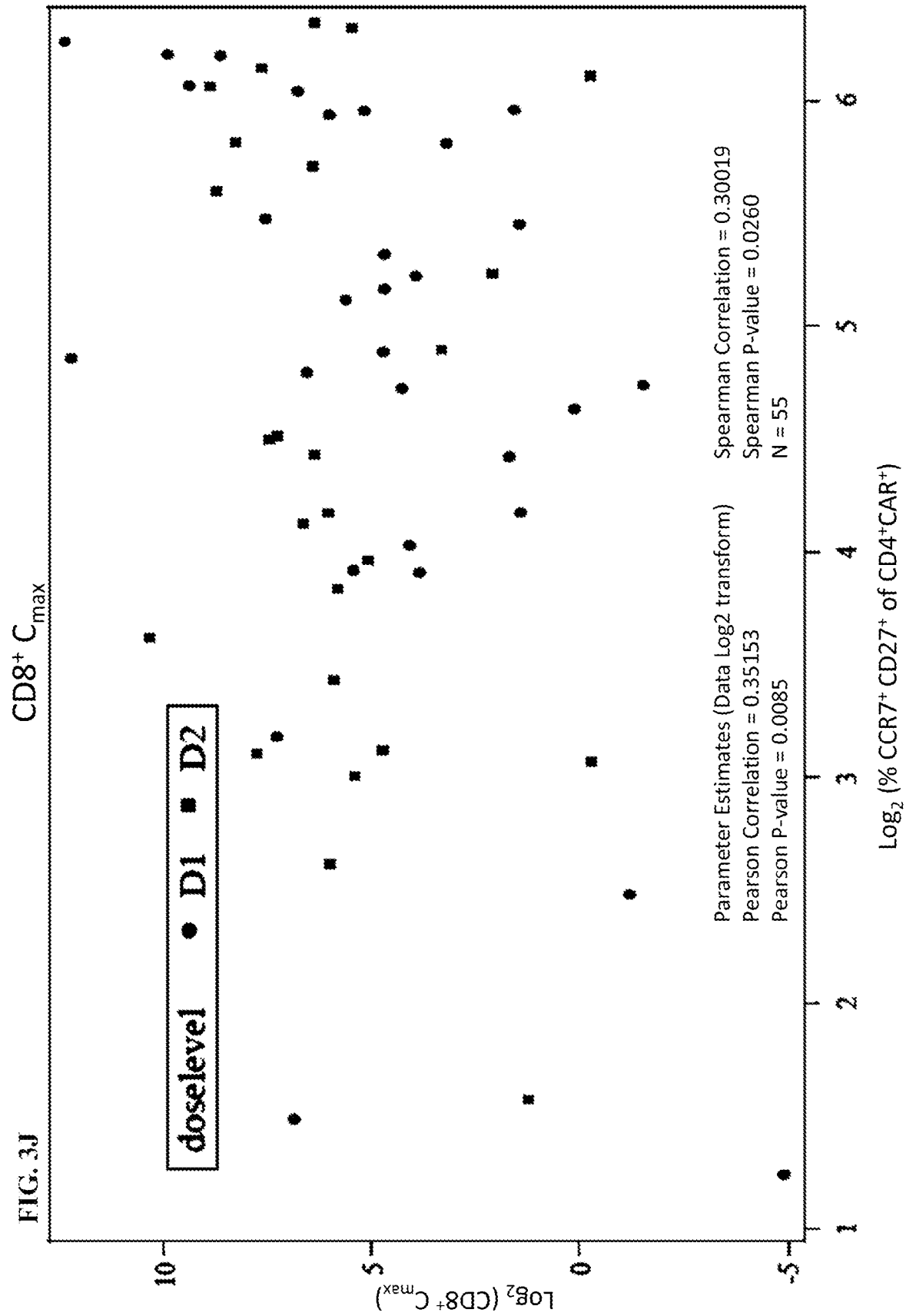
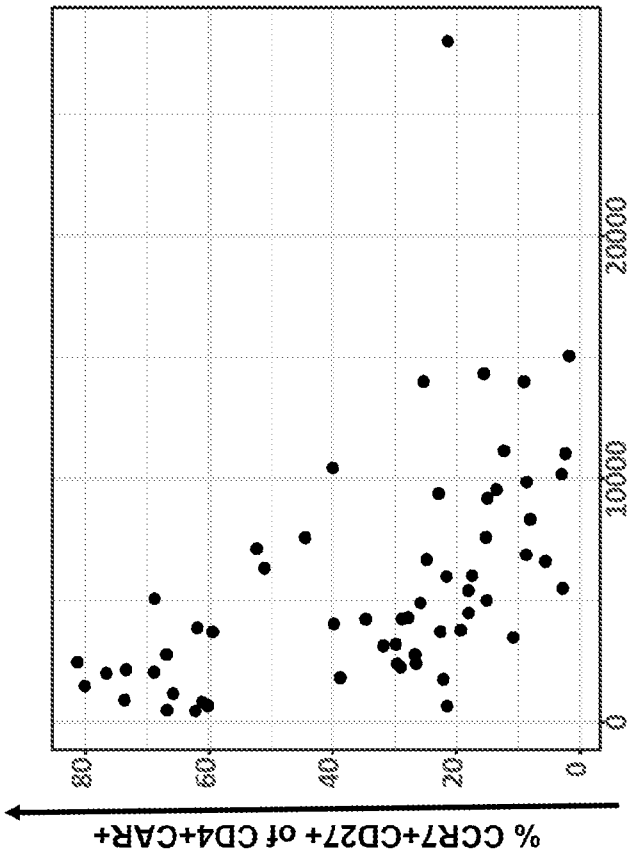

CD8+ Cmax
doselevel
D1
D2
Parameter Estimates (Data Log2 transform)
Pearson Correlation = 0.35153
Pearson P-value = 0.0085
Spearman Correlation = 0.30019
Spearman P-value = 0.0260
N = 55
Log2 (CD8+ Cmax)
Log2 (% CCR7+ CD27+ of CD4+CAR+)
10
5
0
-5
1
2
3
4
5
6

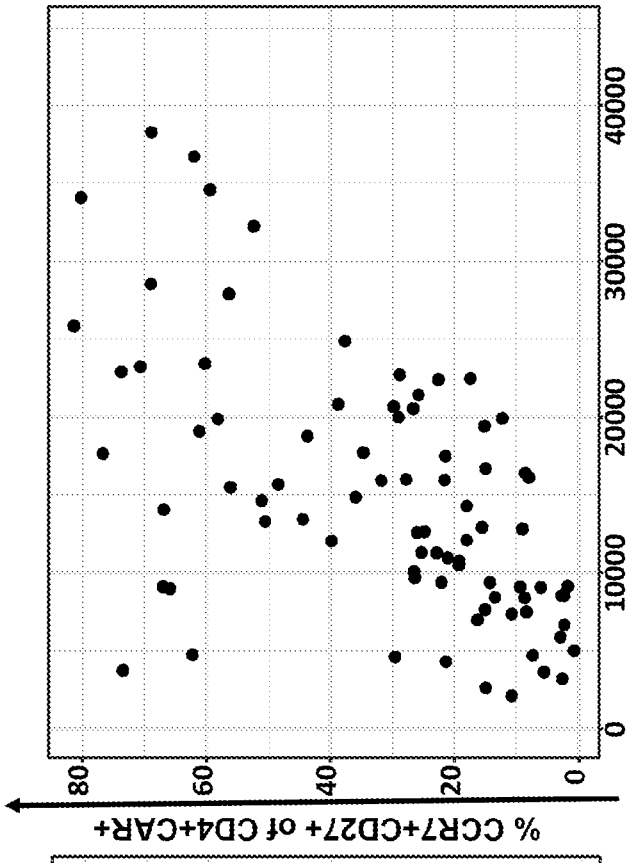
FIG. 3J

FIG. 4A



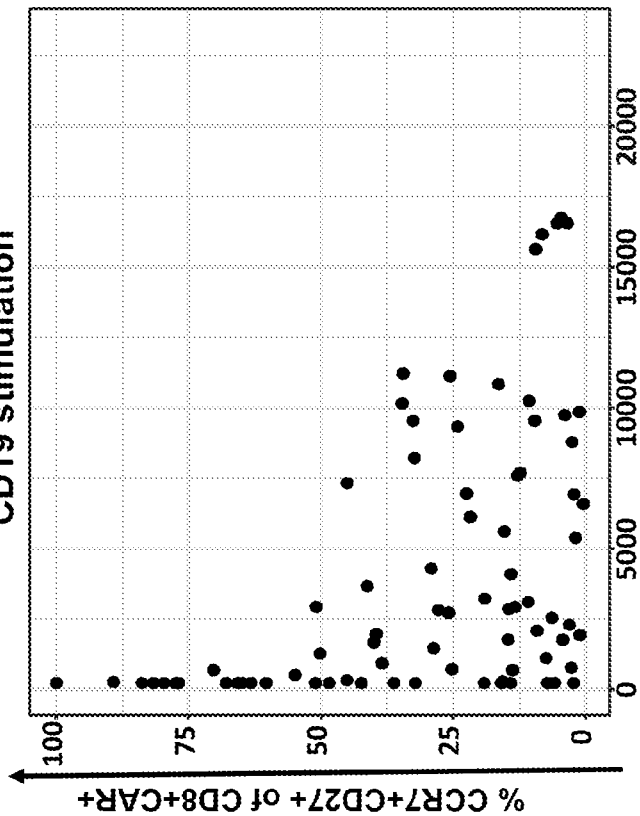
	P Value	Coefficient
Spearman	8.81E-09	-0.67
Pearson	2.55E-05	-0.51

FIG. 4B



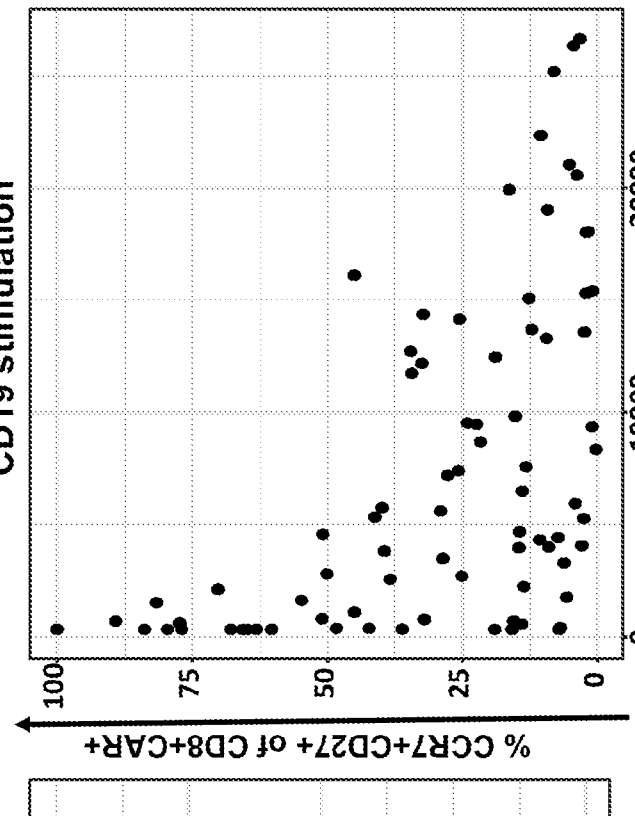
	P Value	Coefficient
Spearman	2.25E-08	0.55
Pearson	5.29E-08	0.54

FIG. 5A



	P Value	Coefficient
Spearman	9.96E-06	-0.47
Pearson	5.08E-05	-0.44

FIG. 5B



	P Value	Coefficient
Spearman	7.69E-09	-0.59
Pearson	4.25E-07	-0.53

FIG. 6B

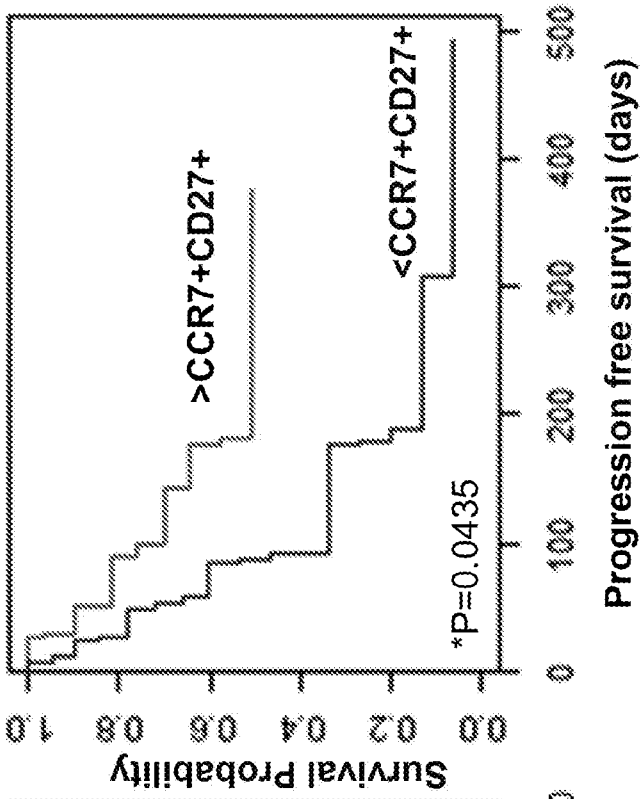

CD8+ CAR+
>CCR7+CD27+
<CCR7+CD27+
*P=0.0435
Survival Probability
0.0
0.2
0.4
0.6
0.8
1.0
0
100
200
300
400
500
Progression free survival (days)

FIG. 6A

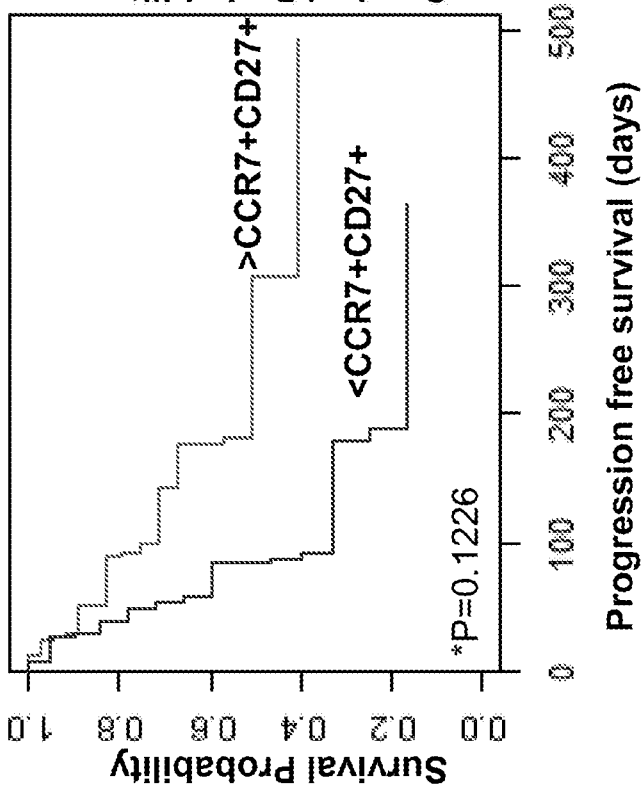

CD4+ CAR+
>CCR7+CD27+
<CCR7+CD27+
*P=0.1226
Survival Probability
0.0
0.2
0.4
0.6
0.8
1.0
0
100
200
300
400
500
Progression free survival (days)

FIG. 6D

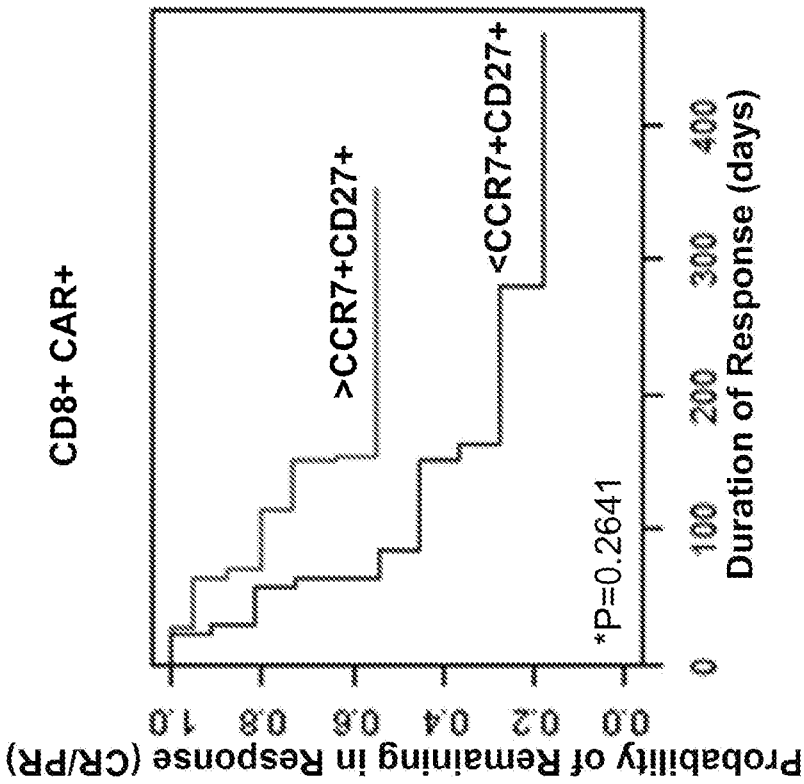
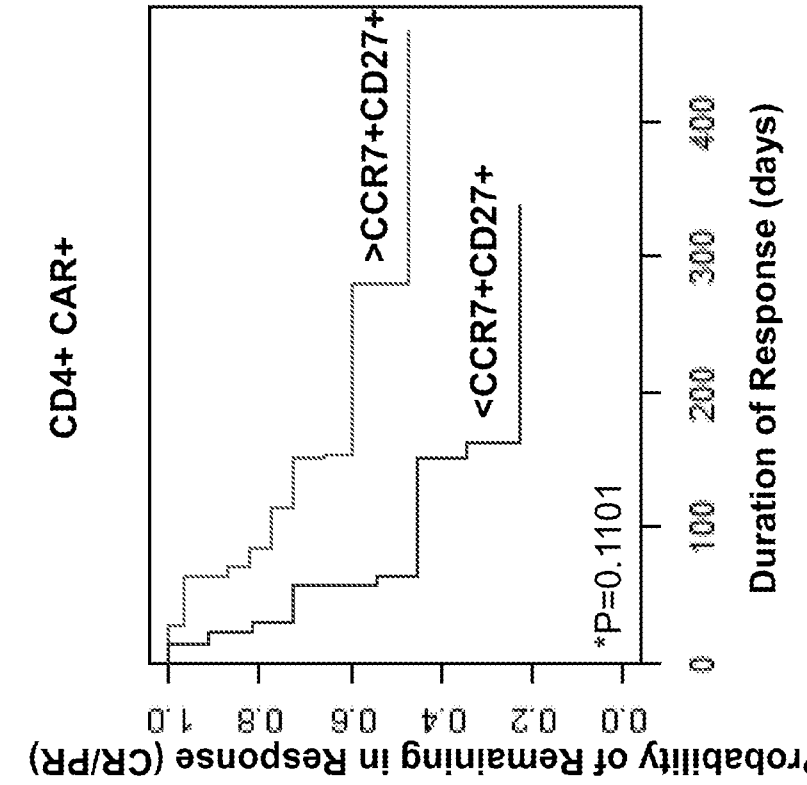

CD8+ CAR+
>CCR7+CD27+
<CCR7+CD27+
*P=0.2641
Probability of Remaining in Response (CR/PR)
0.0
0.2
0.4
0.6
0.8
1.0
0
100
200
300
400
Duration of Response (days)

FIG. 6C


CD4+ CAR+
>CCR7+CD27+
<CCR7+CD27+
*P=0.1101
Probability of Remaining in Response (CR/PR)
0.0
0.2
0.4
0.6
0.8
1.0
0
100
200
300
400
Duration of Response (days)

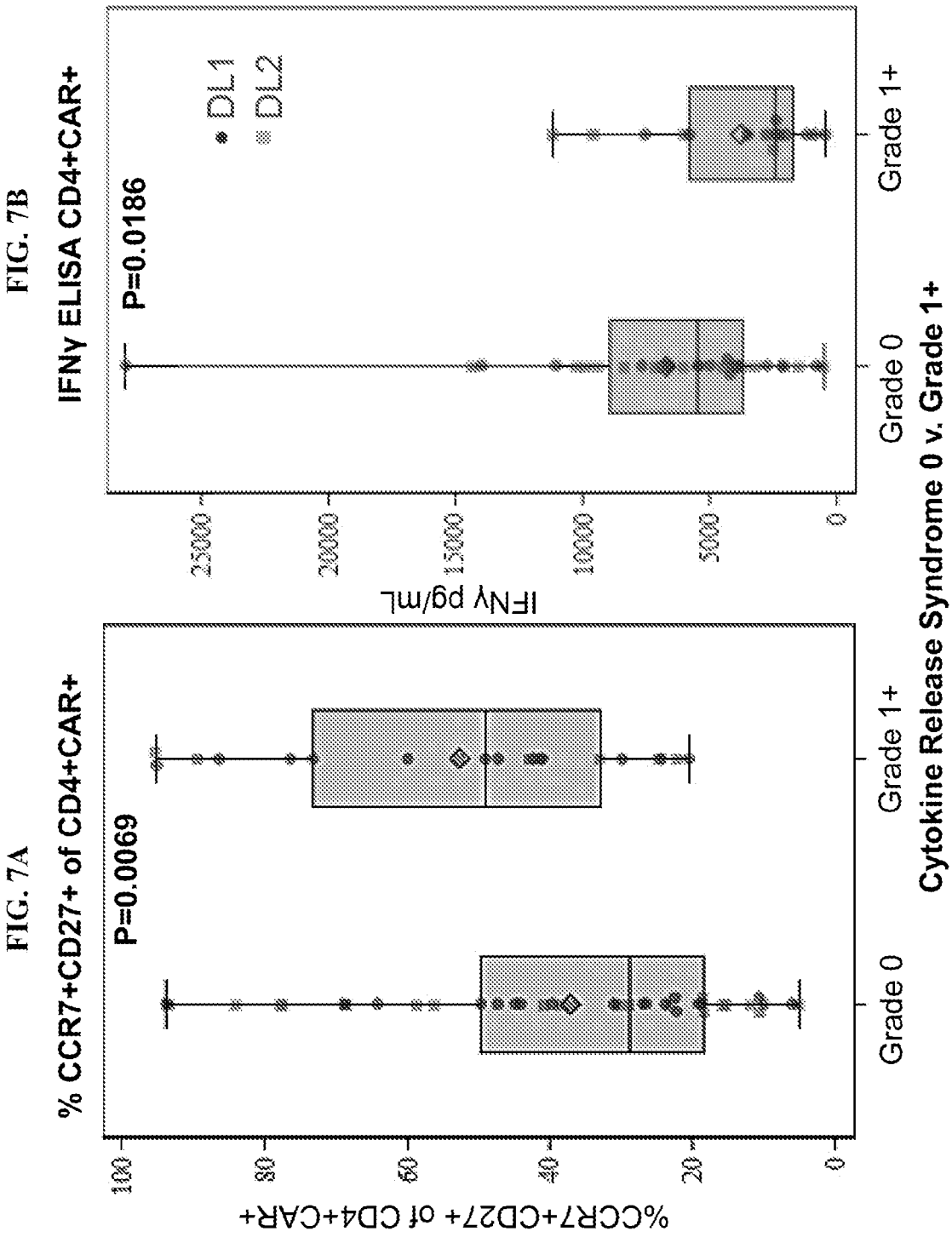

FIG. 7A
% CCR7+CD27+ of CD4+CAR+
P=0.0069
%CCR7+CD27+ of CD4+CAR+
100
80
60
40
20
0
Grade 0
Grade 1+
FIG. 7B
IFNγ ELISA CD4+CAR+
P=0.0186
DL1
DL2
IFNγ pg/mL
25000
20000
15000
10000
5000
0
Grade 0
Grade 1+
Cytokine Release Syndrome 0 v. Grade 1+

FIG. 7C

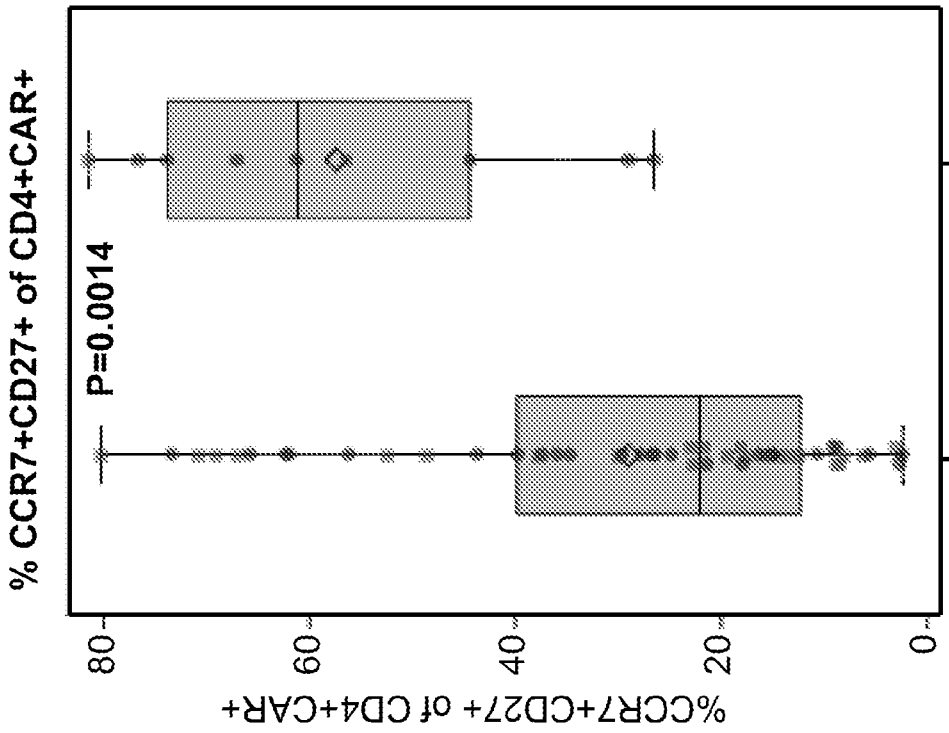

% CCR7+CD27+ of CD4+CAR+
P=0.0014
%CCR7+CD27+ of CD4+CAR+
80
60
40
20
0
Grade 0-2
Grade 3+
Neurotoxicity Grade 0-2 v. Grade 3+

FIG. 7D

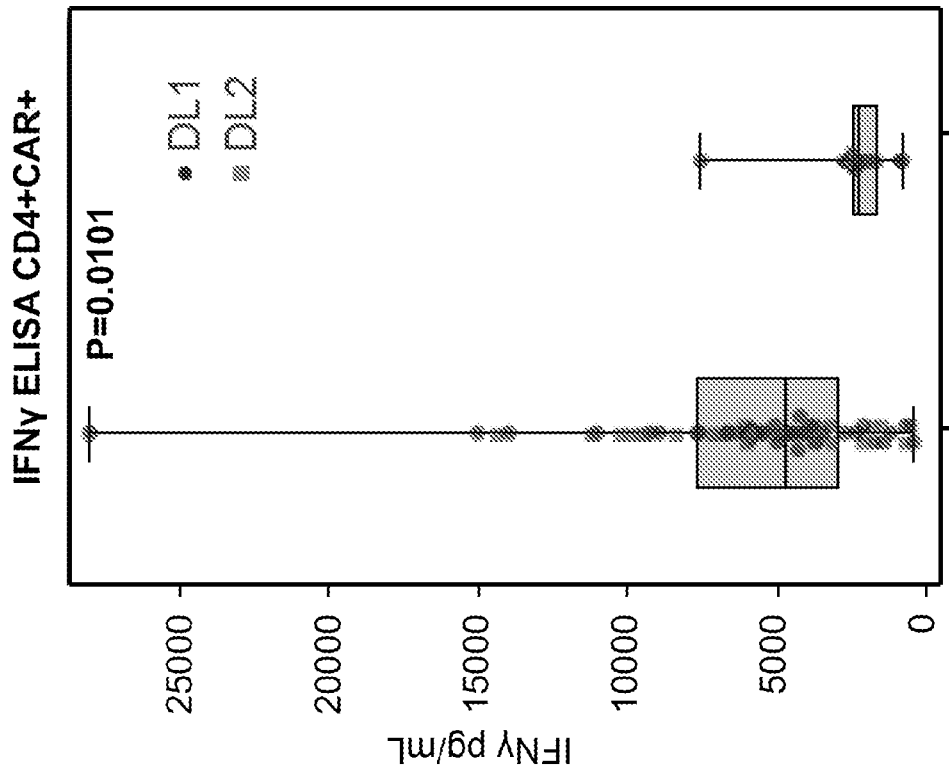

IFNγ ELISA CD4+CAR+
P=0.0101
DL1
DL2
IFNγ pg/mL
25000
20000
15000
10000
5000
0
Grade 0-2
Grade 3+

FIG. 8A

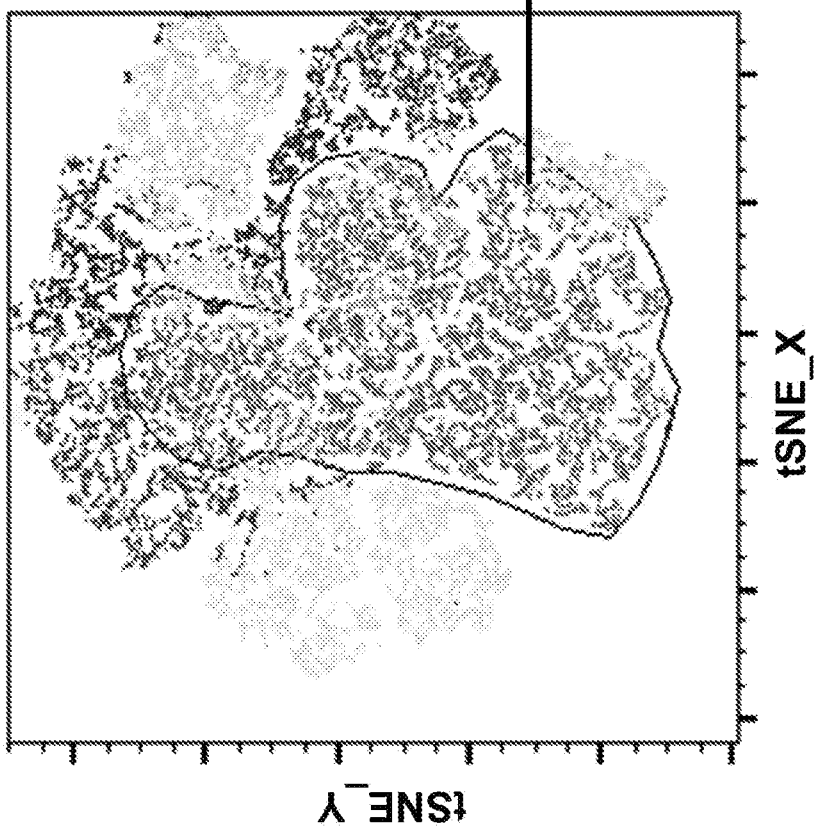
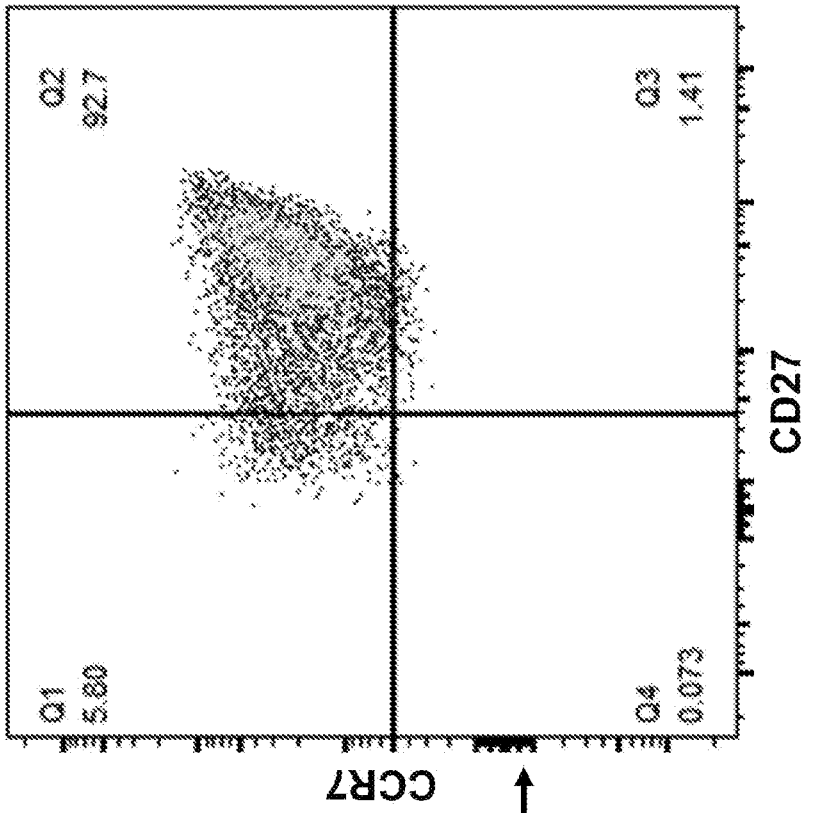


FIG. 8B



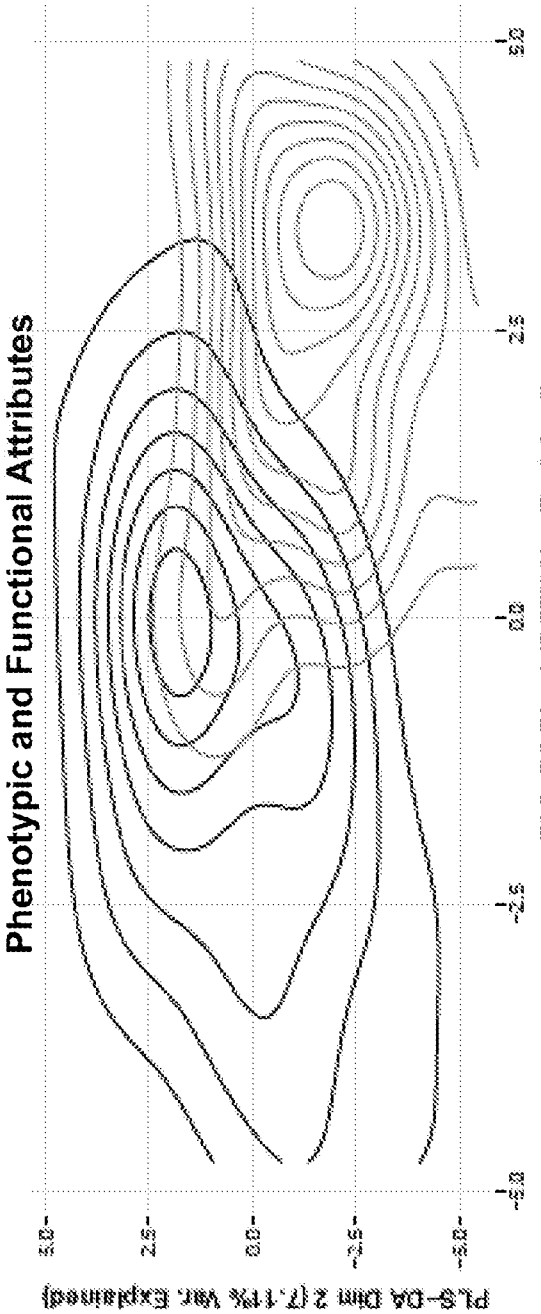

Phenotypic and Functional Attributes
PLS-DA Dim 2 (7.11% Var. Explained)
PLS-DA Dim 1 (8.55% Var. Explained)

FIG. 9A

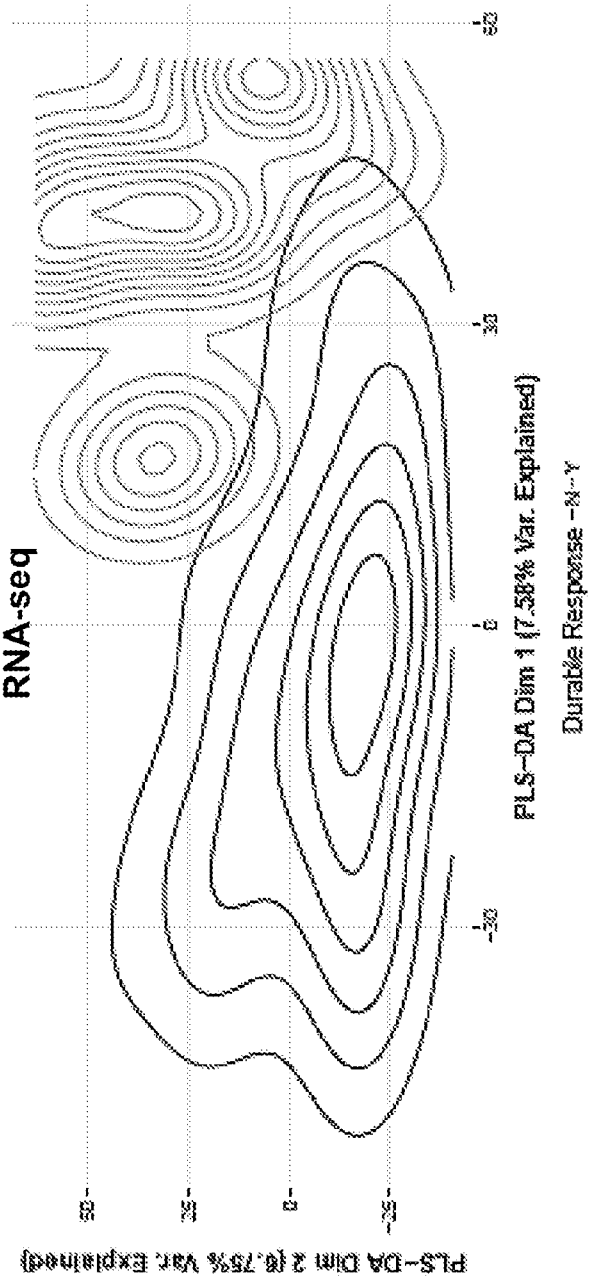

RNA-seq
PLS-DA Dim 2 (6.75% Var. Explained)
PLS-DA Dim 1 (7.38% Var. Explained)
Durable Response - N - Y

FIG. 9B

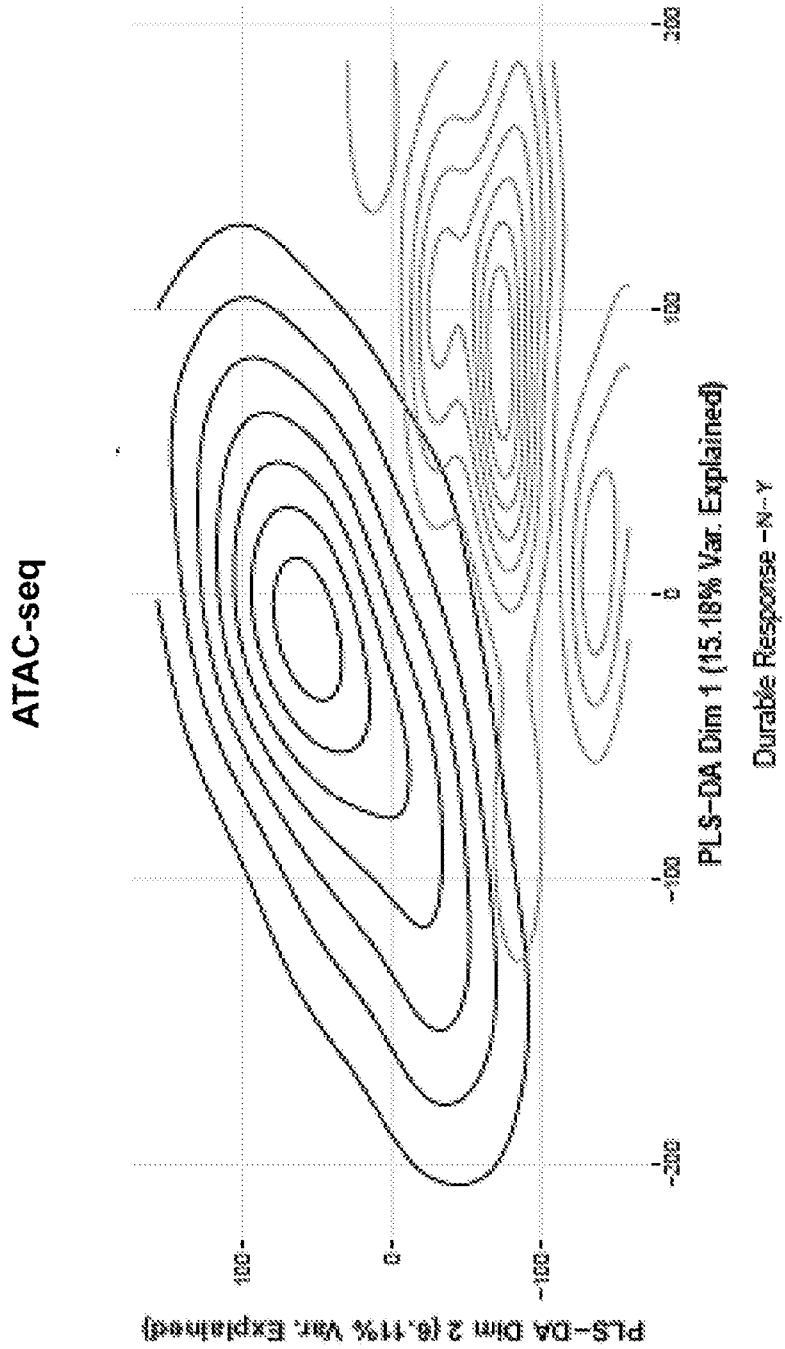

ATAC-seq
PLS-DA Dim 2 (6.11% Var. Explained)
100
0
-100
PLS-DA Dim 1 (15.18% Var. Explained)
-200
-100
0
100
200
Durable Response - N - Y

FIG. 9C

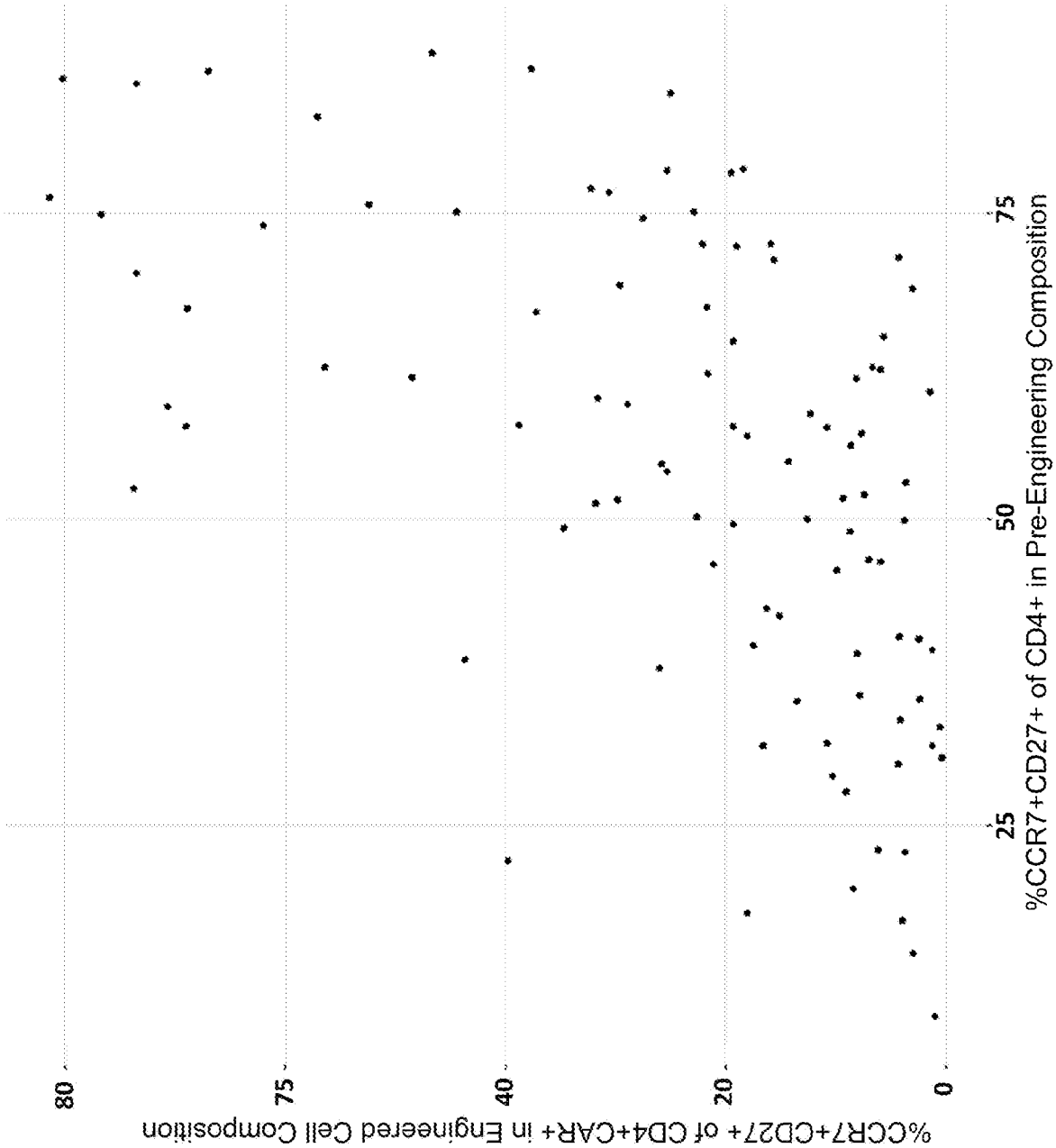

%CCR7+CD27+ of CD4+CAR+ in Engineered Cell Composition
80
75
40
20
0
%CCR7+CD27+ of CD4+ in Pre-Engineering Composition
25
50
75

FIG. 10A

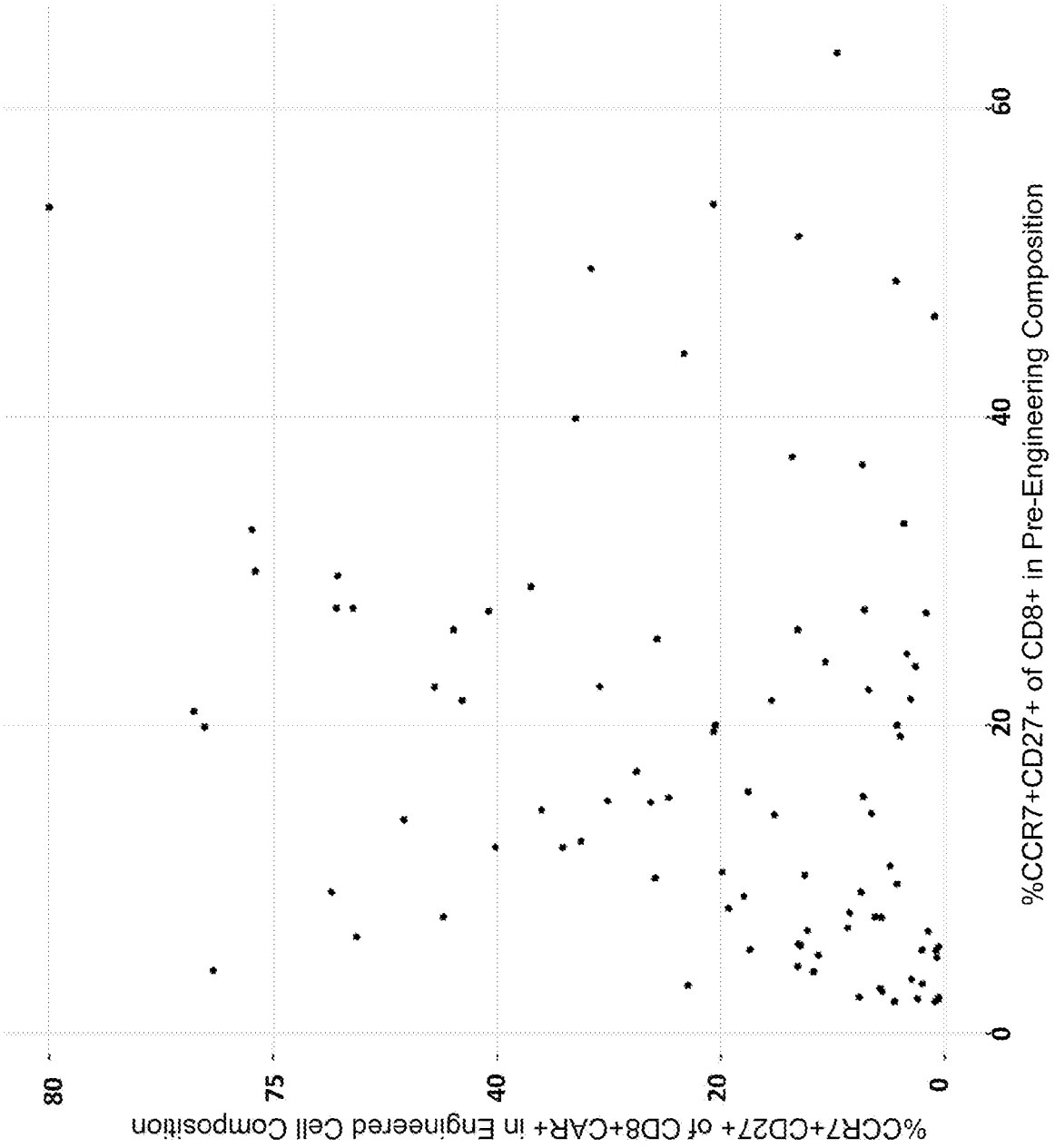

%CCR7+CD27+ of CD8+CAR+ in Engineered Cell Composition
80
75
40
20
0
%CCR7+CD27+ of CD8+ in Pre-Engineering Composition
0
20
40
60

FIG. 10B

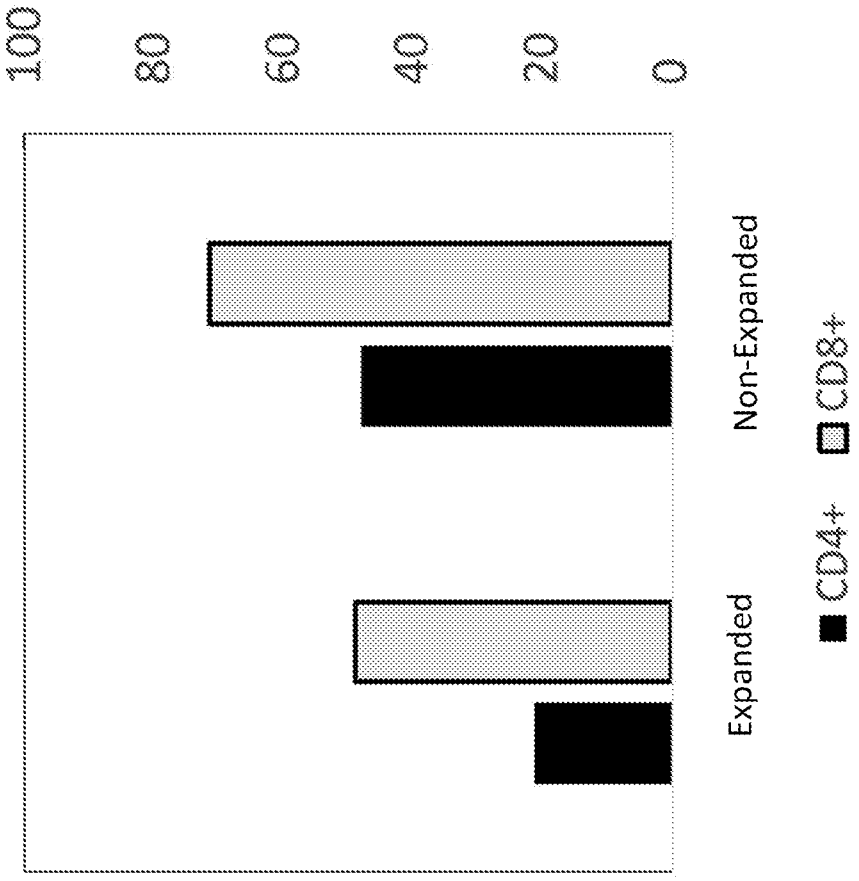

Cells %CCR7+CD27+
100
80
60
40
20
0
Non-Expanded
Expanded
CD4+
CD8+

FIG. 11A

FIG. 11B

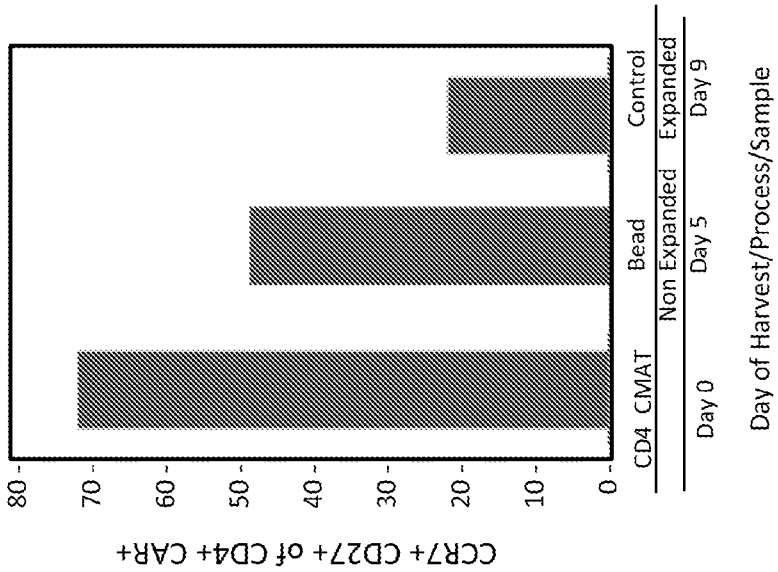
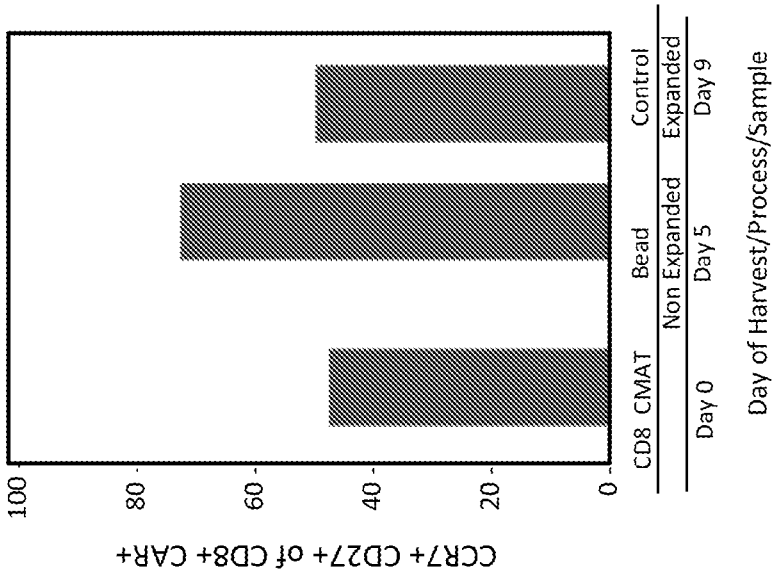


FIG. 11C



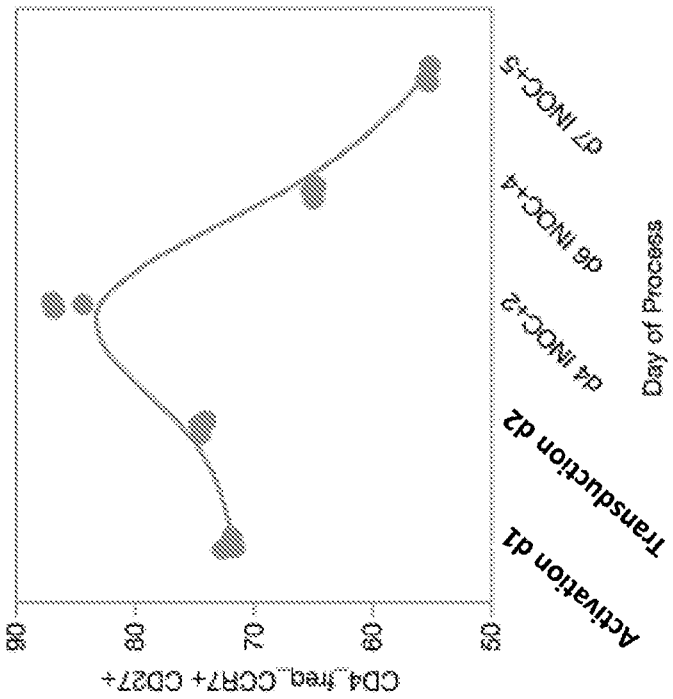

CD4_Treg_CCR7+ CD27+
80
60
40
20
0
Activation d1
Transduction d2
d4 INOC+2
d6 INOC+4
d7 INOC+5
Day of process

FIG. 11D

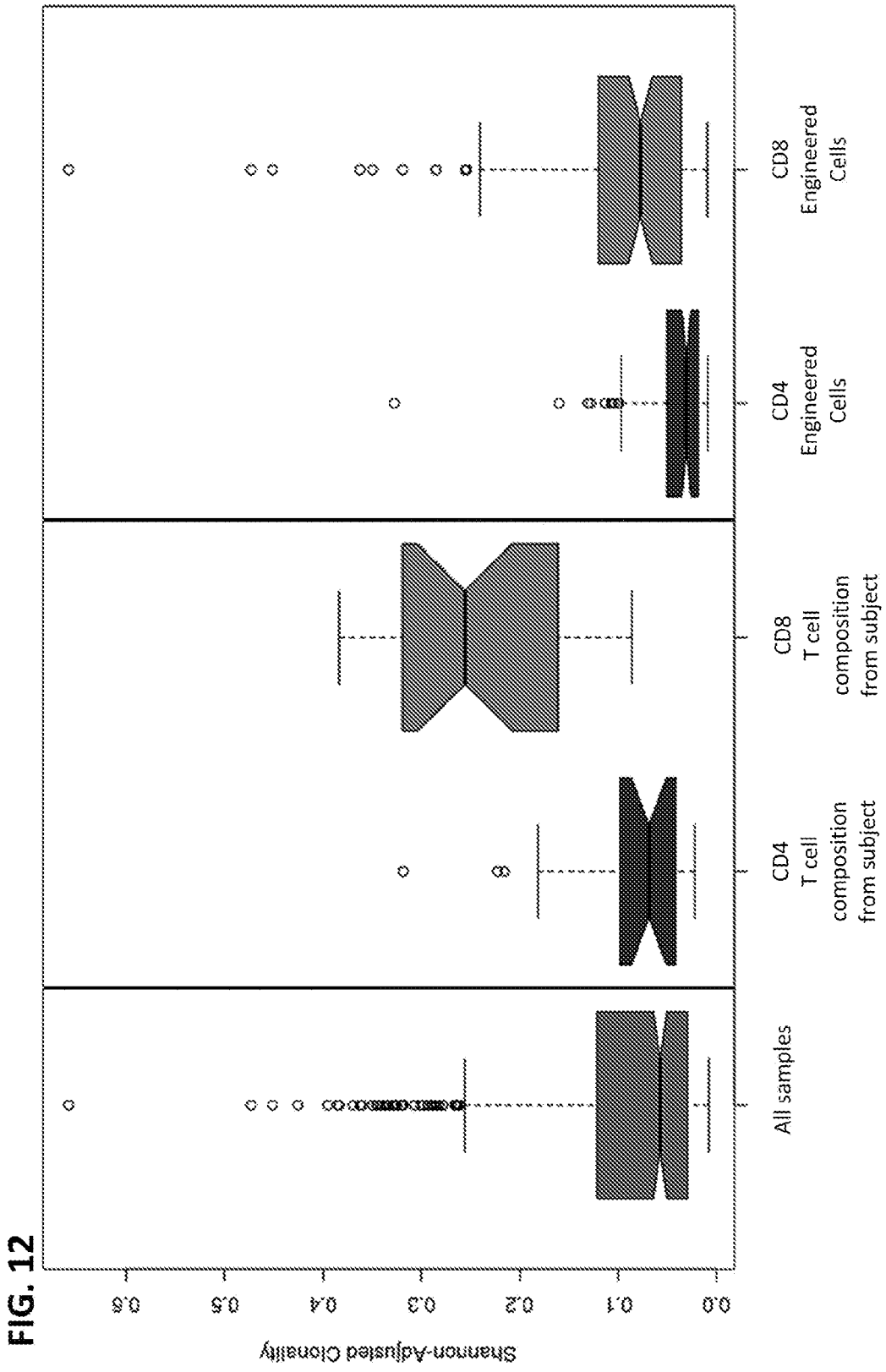

Shannon-Adjusted Clonality
0.0
0.1
0.2
0.3
0.4
0.5
0.6
All samples
CD4 T cell composition from subject
CD8 T cell composition from subject
CD4 Engineered Cells
CD8 Engineered Cells

FIG. 12

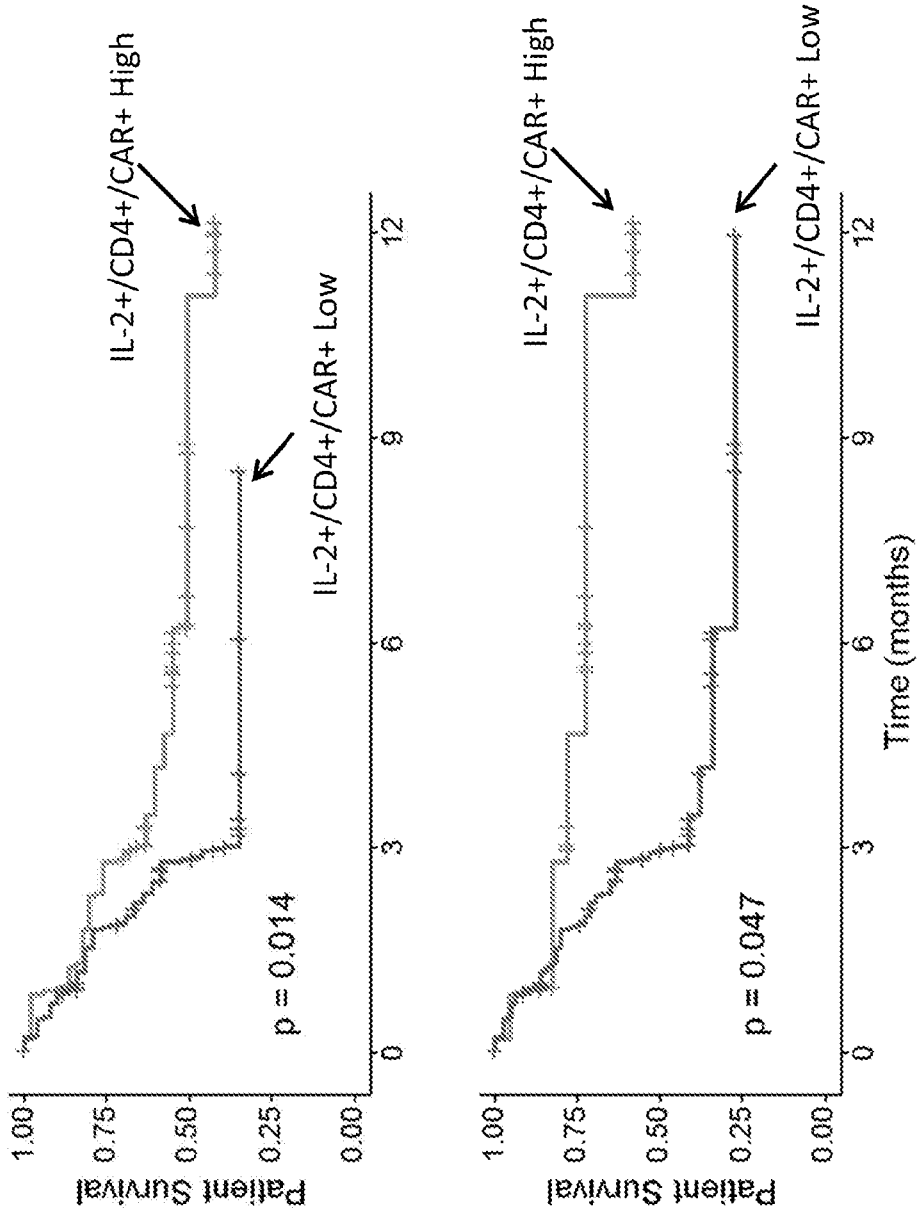

IL-2+/CD4+/CAR+ High
IL-2+/CD4+/CAR+ Low
p = 0.014
Patient Survival
1.00
0.75
0.50
0.25
0.00
0
3
6
9
12
IL-2+/CD4+/CAR+ High
IL-2+/CD4+/CAR+ Low
p = 0.047
Patient Survival
Time (months)

FIG. 13A

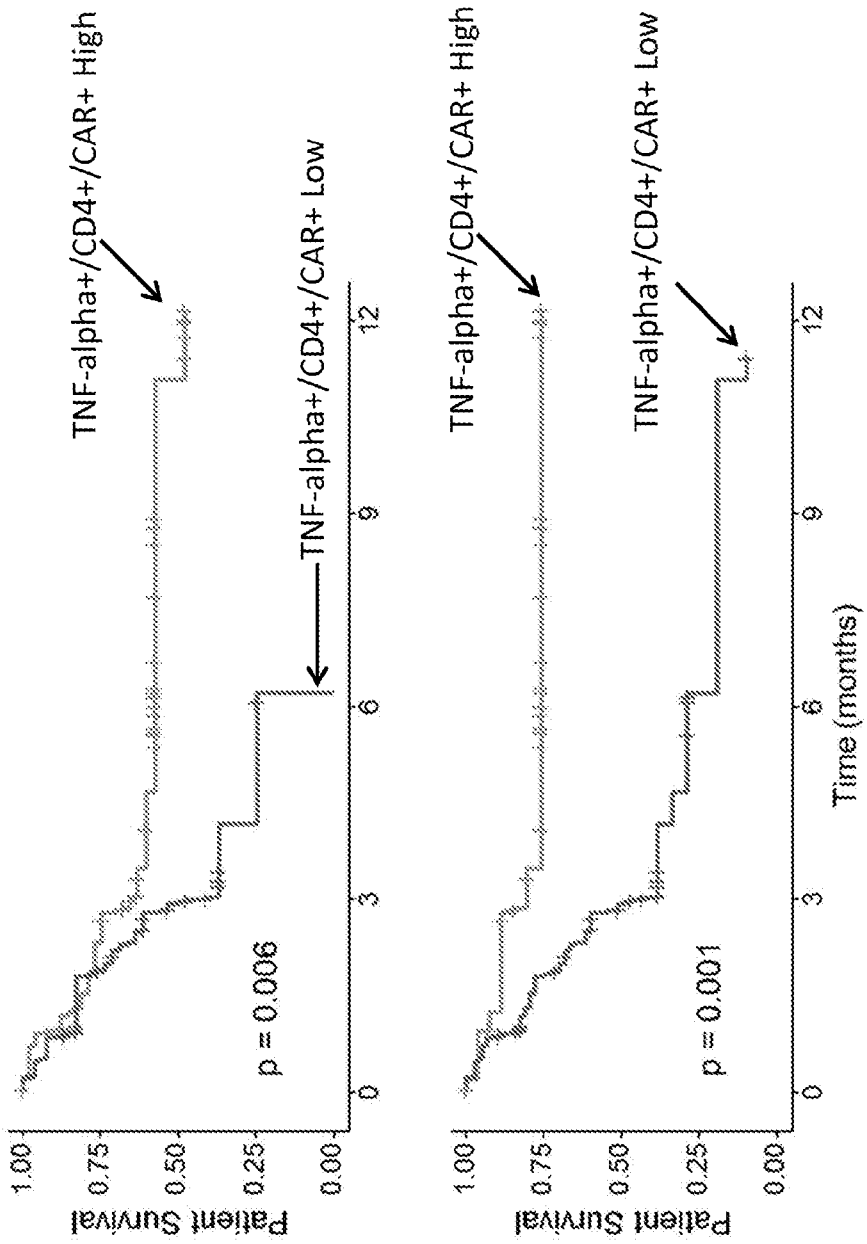

TNF-alpha+/CD4+/CAR+ High
TNF-alpha+/CD4+/CAR+ Low
p = 0.006
Patient Survival
1.00
0.75
0.50
0.25
0.00
0
3
6
9
12
TNF-alpha+/CD4+/CAR+ High
TNF-alpha+/CD4+/CAR+ Low
p = 0.001
Patient Survival
Time (months)

FIG. 13B

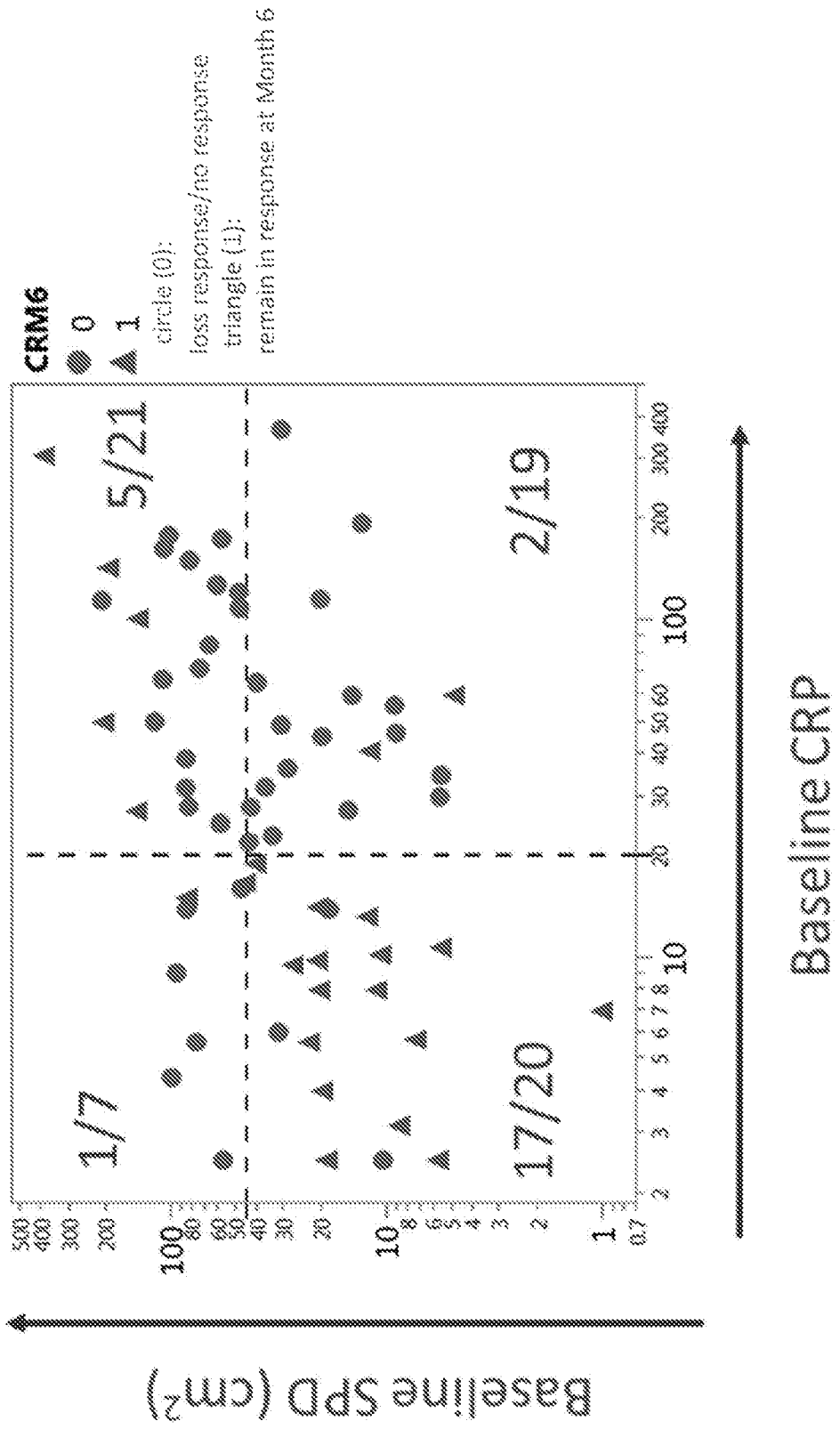

CRM6
0
1
circle (0): loss response/no response
triangle (1): remain in response at Month 6
1/7
5/21
17/20
2/19
Baseline SPD (cm²)
Baseline CRP

FIG. 14

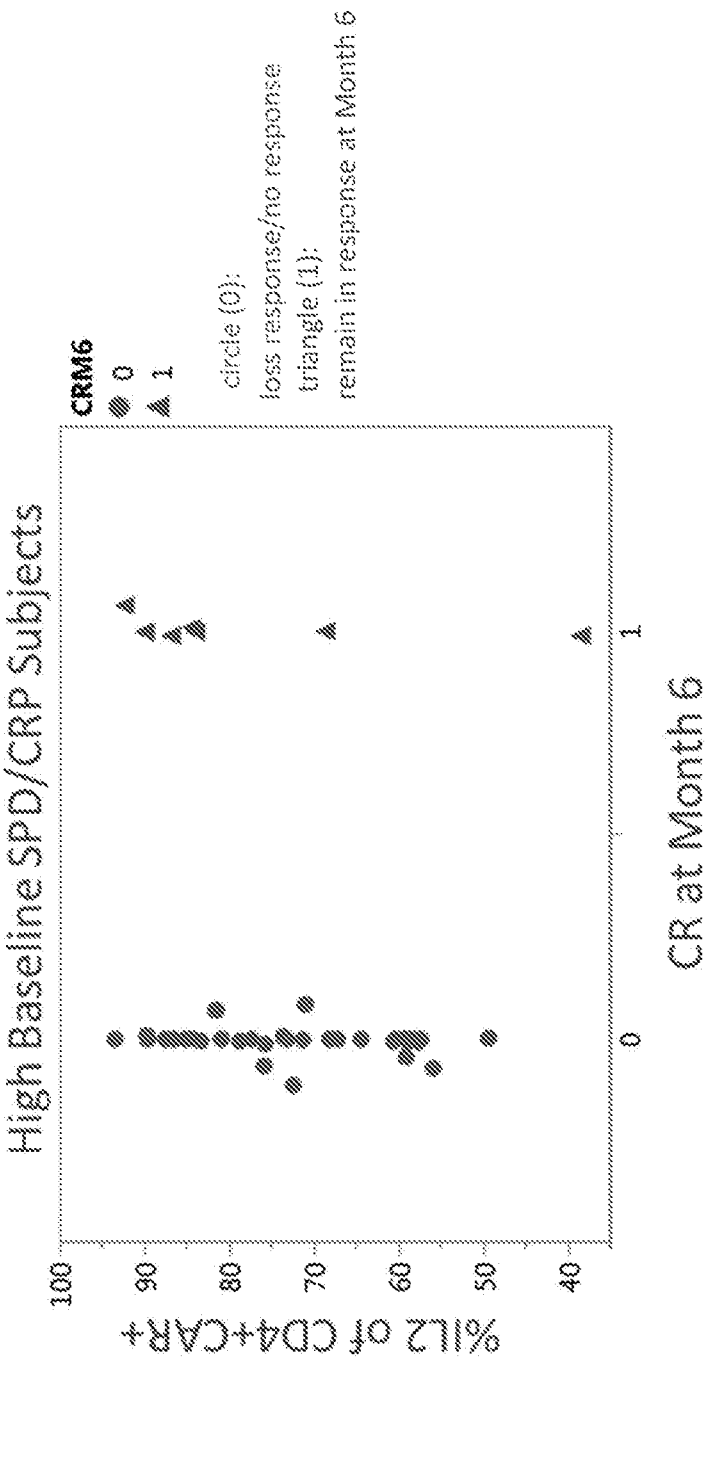
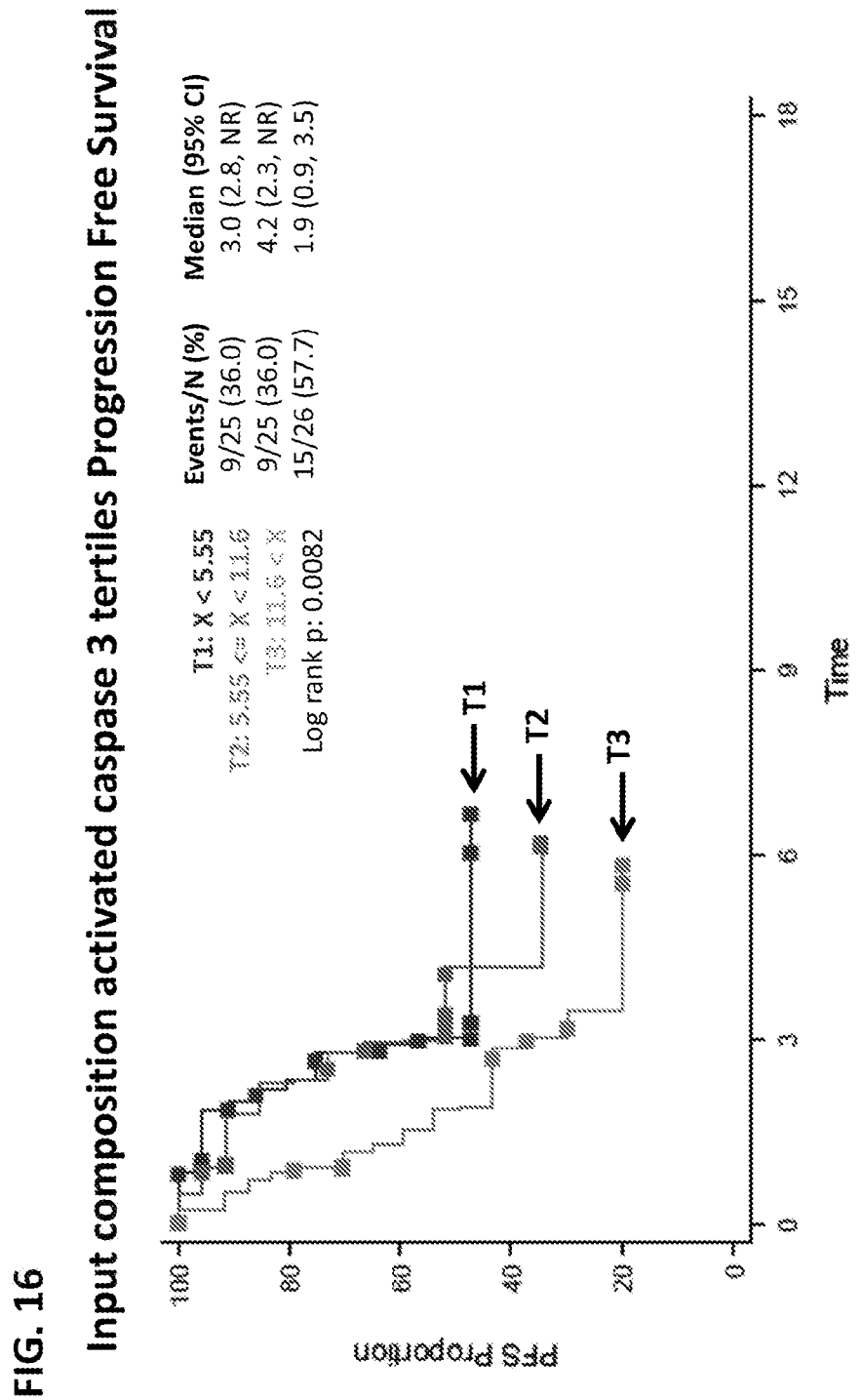

High Baseline SPD/CRP Subjects
%IL2 of CD4+CAR+
100
90
80
70
60
50
40
0
1
CR at Month 6
CRM6
0
1
circle (0):
loss response/no response
triangle (1):
remain in response at Month 6

FIG. 15

FIG. 16


Input composition activated caspase 3 tertiles Progression Free Survival
T1: X < 5.55
T2: 5.55 <= X < 11.6
T3: 11.6 < X
Log rank p: 0.0082
Events/N (%)
9/25 (36.0)
9/25 (36.0)
15/26 (57.7)
Median (95% CI)
3.0 (2.8, NR)
4.2 (2.3, NR)
1.9 (0.9, 3.5)
T1
T2
T3
PFS Proportion
100
80
60
40
20
0
0
3
6
9
12
15
18
Time

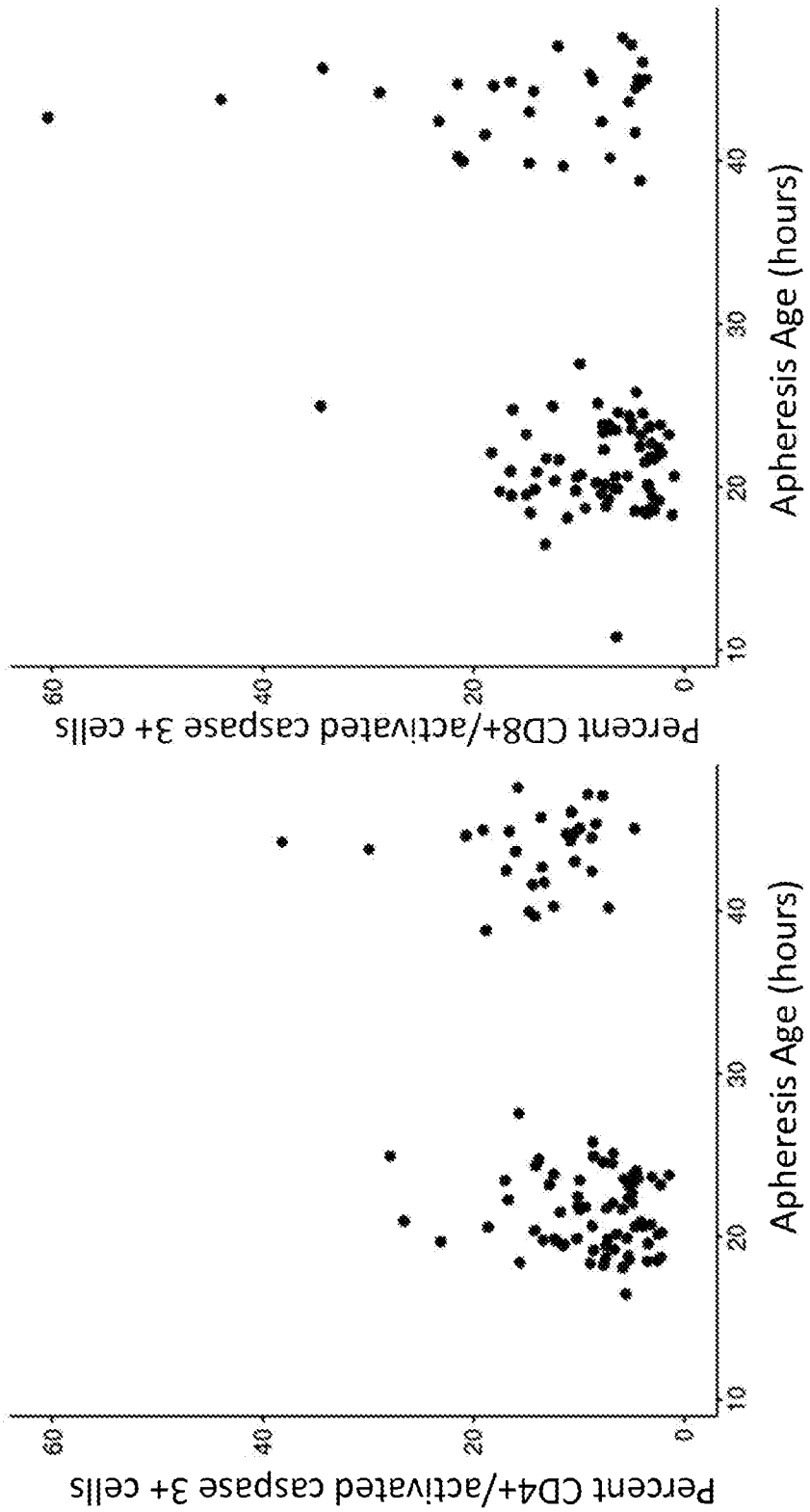

Percent CD4+/activated caspase 3+ cells
0
20
40
60
10
20
30
40
Apheresis Age (hours)
Percent CD8+/activated caspase 3+ cells
0
20
40
60
10
20
30
40
Apheresis Age (hours)

FIG. 17