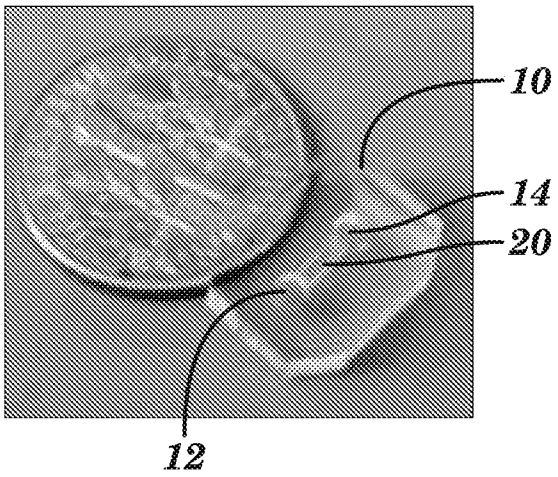


FIG. 1A

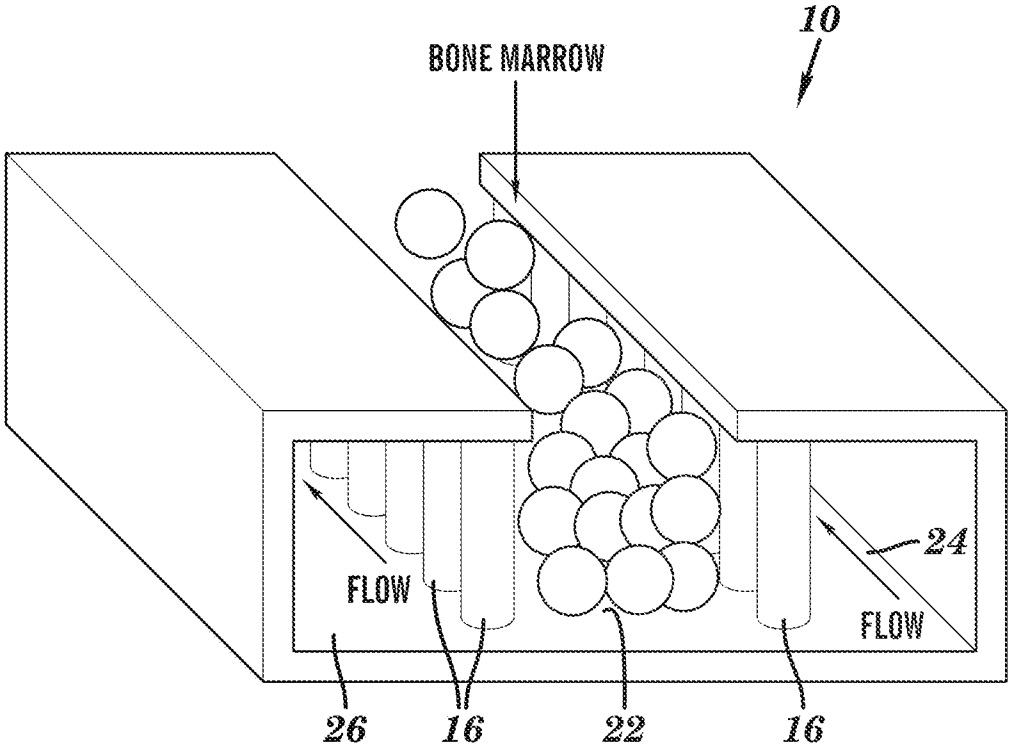


FIG. 1B

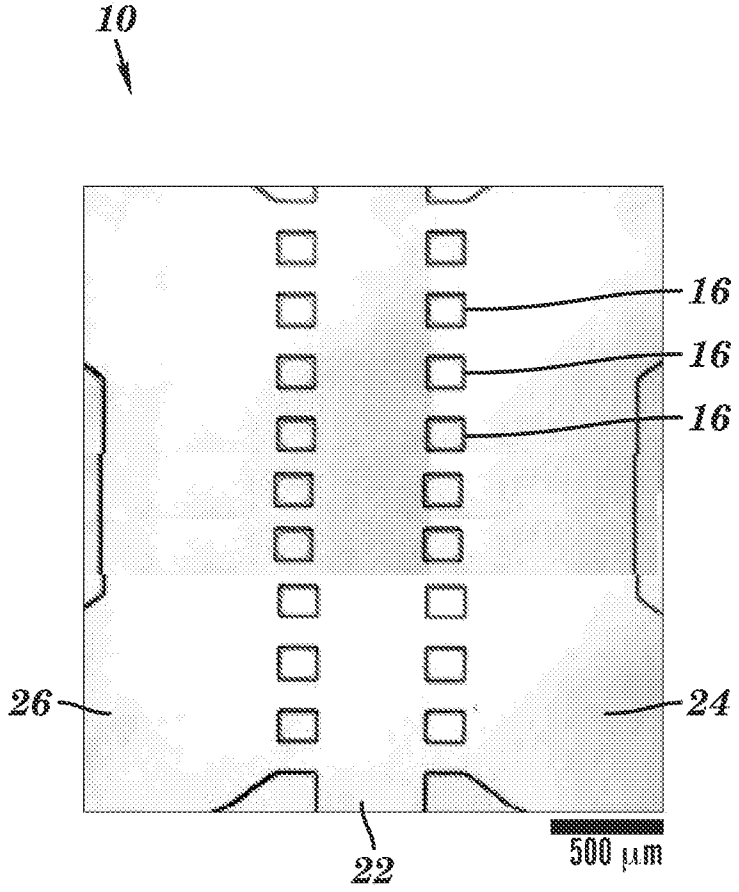


FIG. 1C

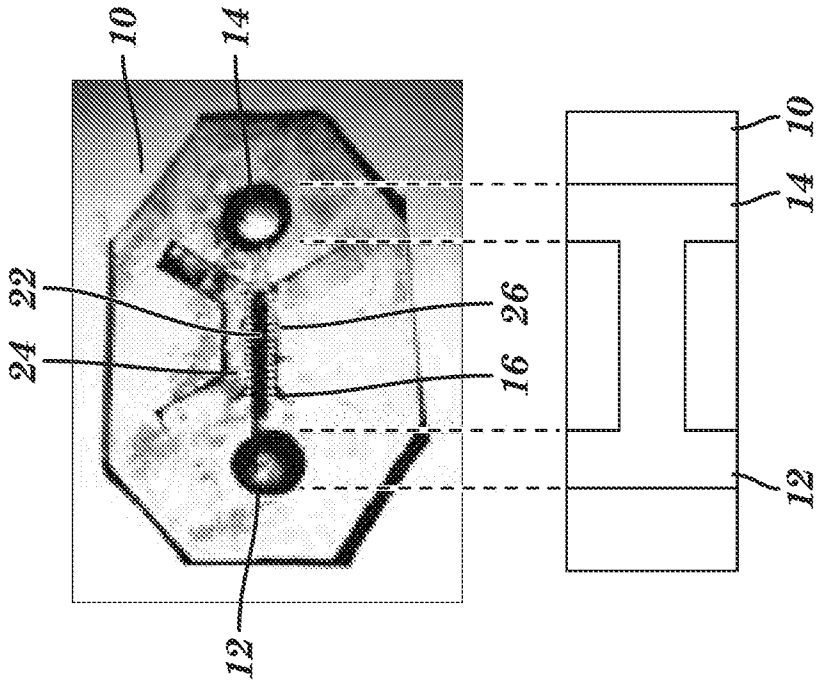

10
14
22
24
26
16
12
10
14
12

FIG. 2B

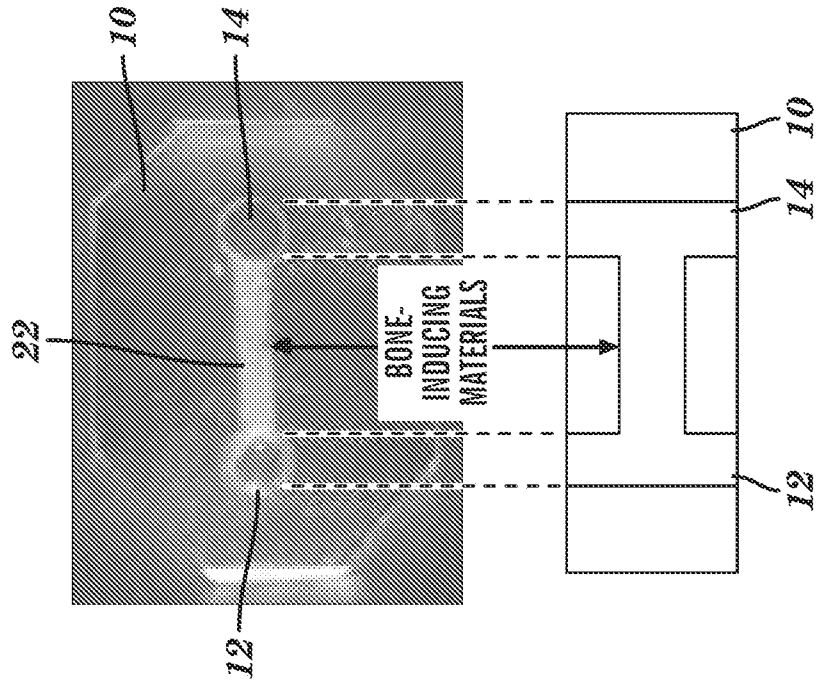

10
14
22
BONE-INDUCING MATERIALS
12
10
14
12

FIG. 2A

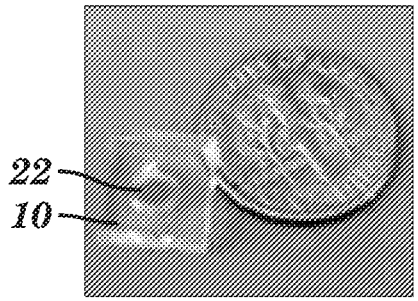


FIG. 3A

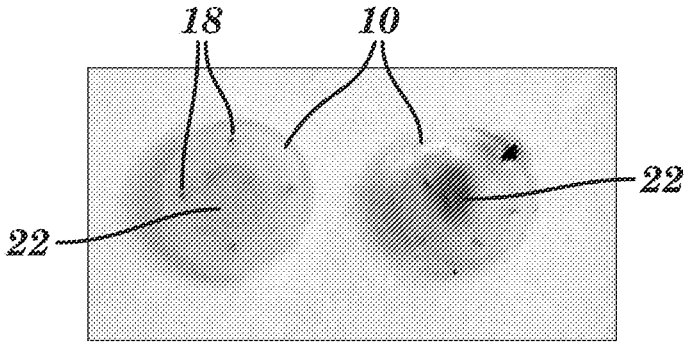


FIG. 3B

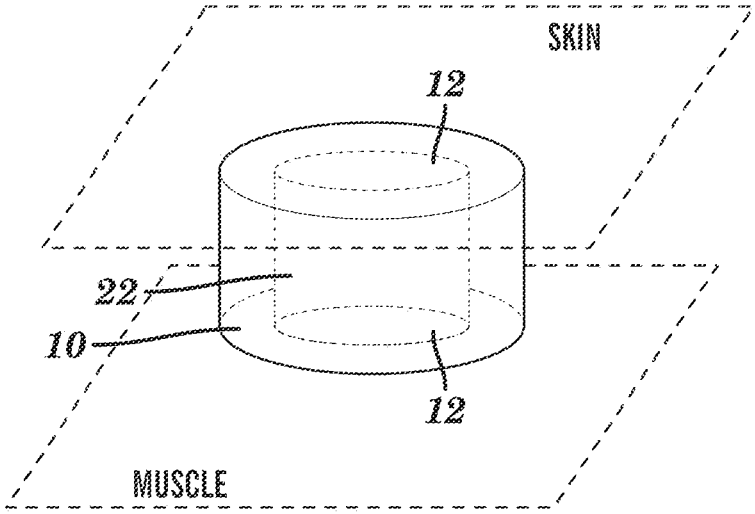


FIG. 3C

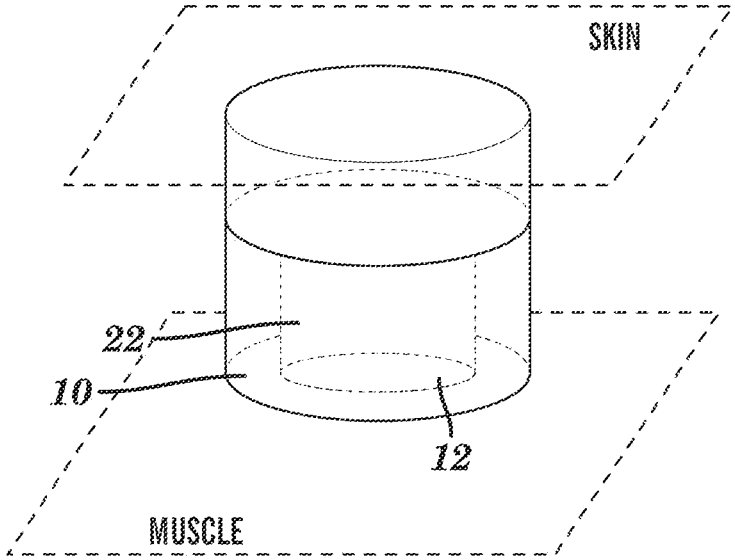


FIG. 3D

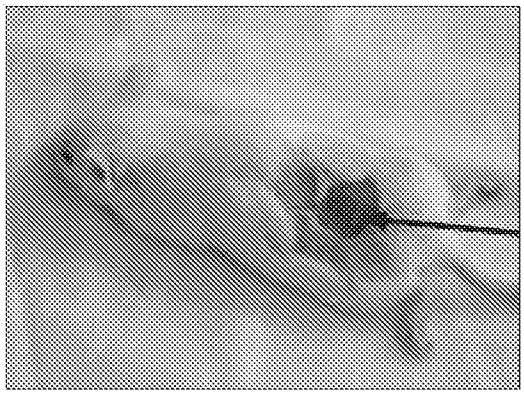


FIG. 4A

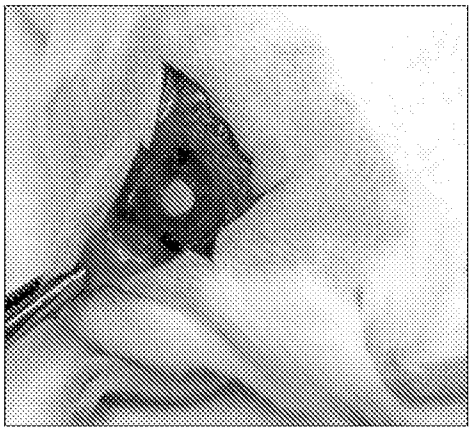


FIG. 4B

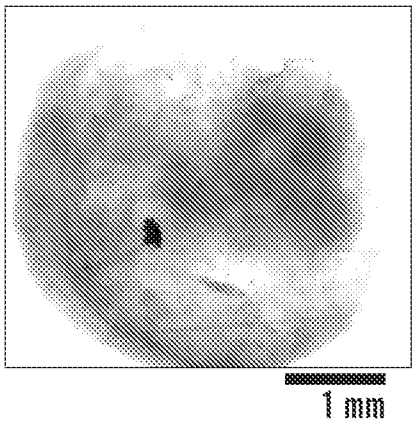


FIG. 4C

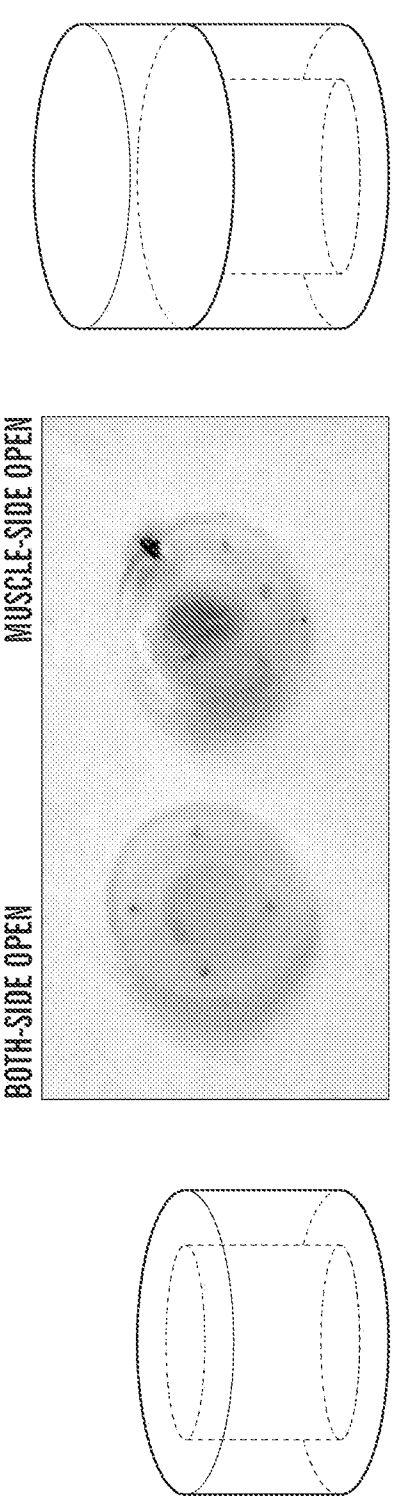


FIG. 5

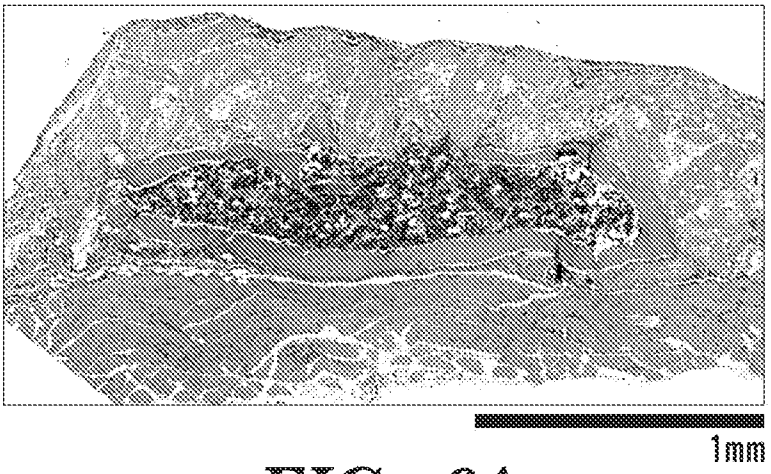


FIG. 6A

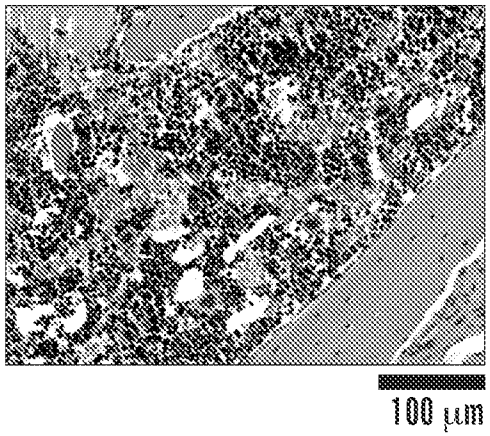


FIG. 6B

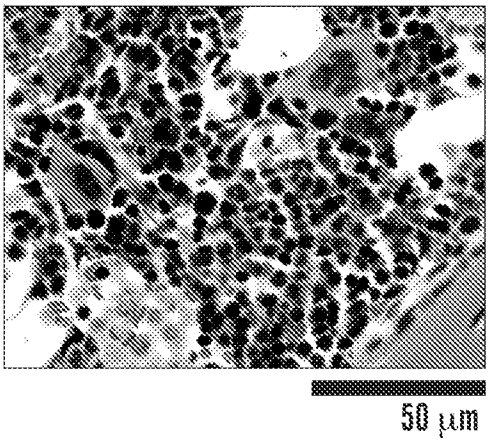


FIG. 6C



FIG. 7A

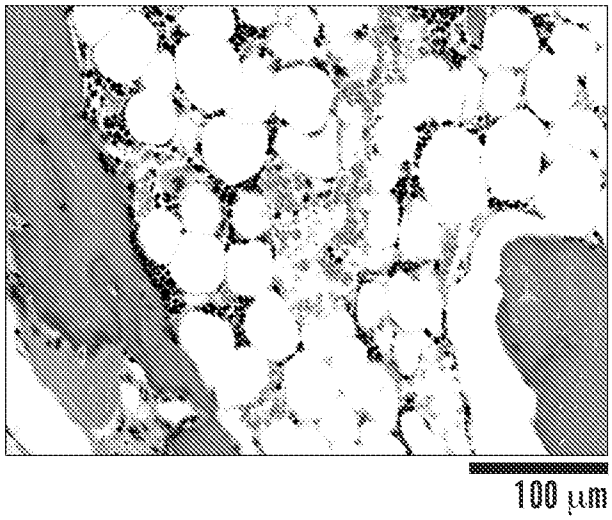


FIG. 7B

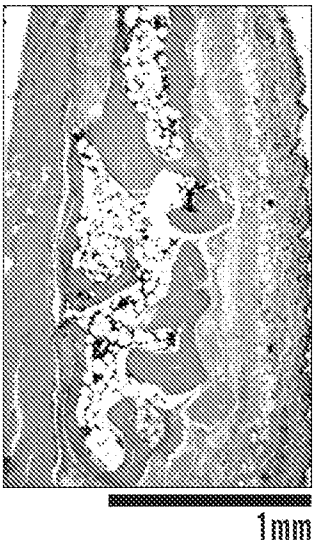


FIG. 7C

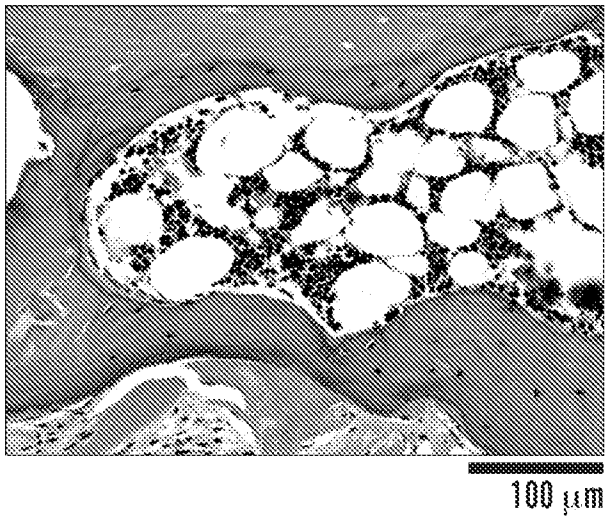


FIG. 7D

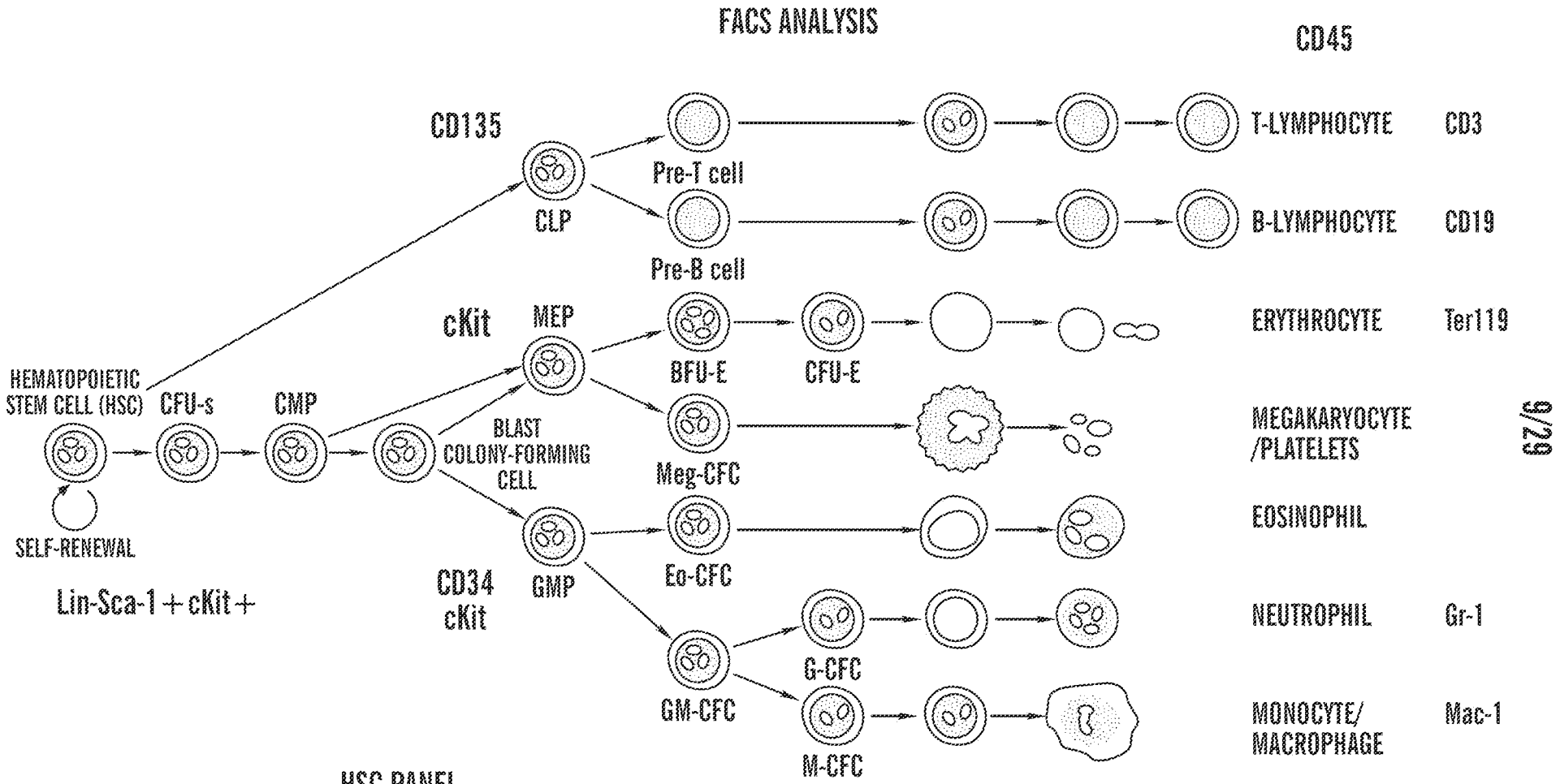

FACS ANALYSIS
CD45
CD135
Pre-T cell
CLP
Pre-B cell
T-LYMPHOCYTE
CD3
B-LYMPHOCYTE
CD19
cKit
MEP
BFU-E
CFU-E
ERYTHROCYTE
Ter119
HEMATOPOIETIC STEM CELL (HSC)
CFU-s
CMP
BLAST COLONY-FORMING CELL
Meg-CFC
MEGAKARYOCYTE /PLATELETS
SELF-RENEWAL
Eo-CFC
EOSINOPHIL
Lin-Sca-1+cKit+
CD34 cKit
GMP
G-CFC
NEUTROPHIL
Gr-1
GM-CFC
M-CFC
MONOCYTE/ MACROPHAGE
Mac-1
HSC PANEL
(Lin+: Ter119, CD45, Mac-1, Gr-1, CD3)
LINEAGE PANEL

FIG. 8

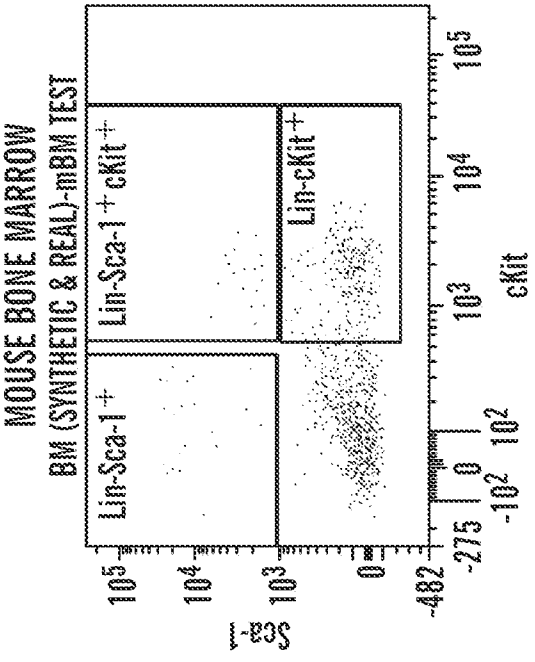


FIG. 9A

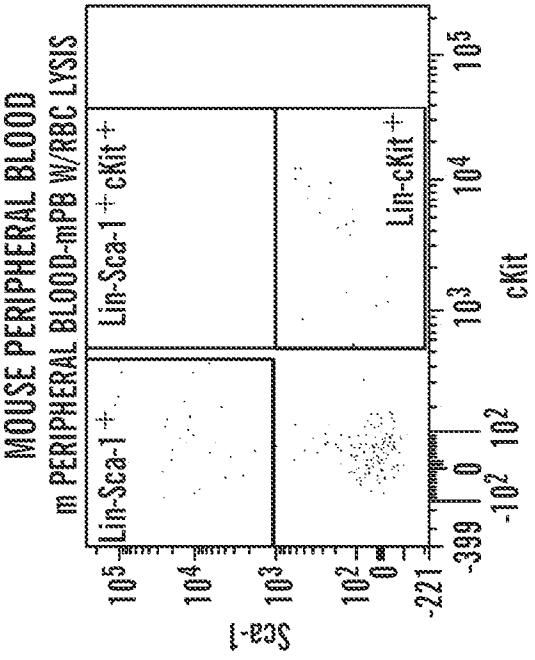


FIG. 9B

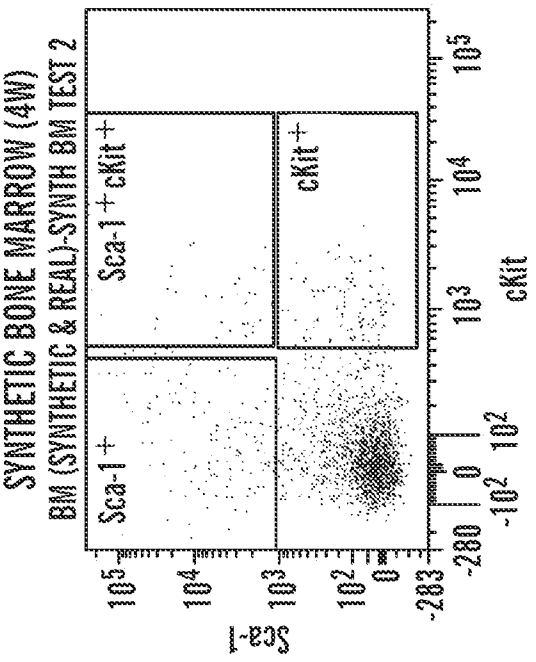


FIG. 9C

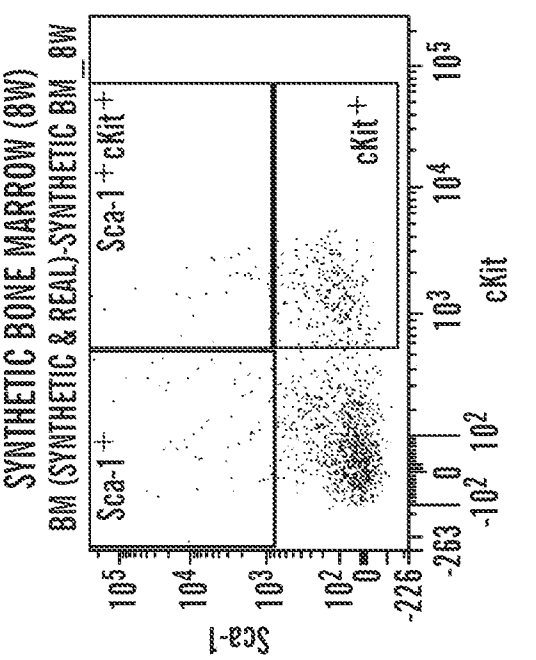


FIG. 9D

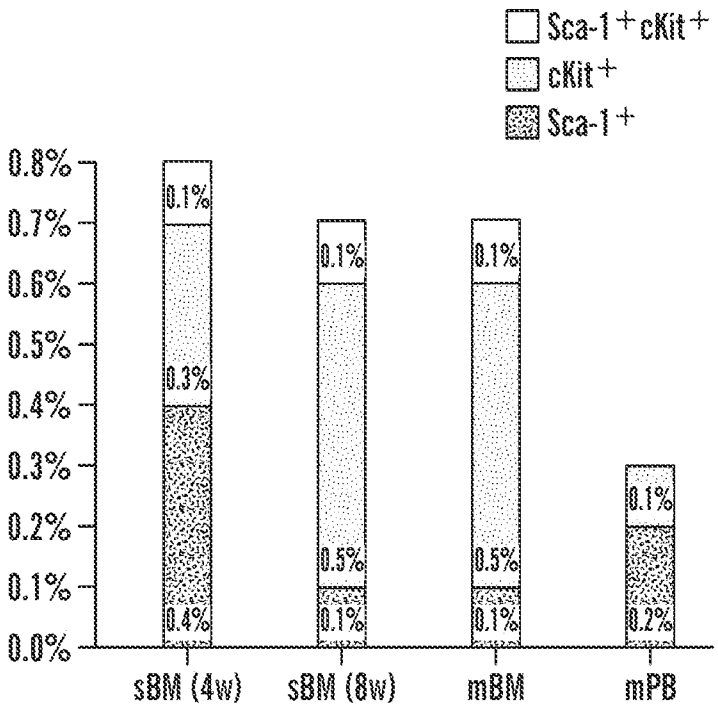

Sca-1+cKit+
cKit+
Sca-1+
0.8%
0.7%
0.6%
0.5%
0.4%
0.3%
0.2%
0.1%
0.0%
0.1%
0.3%
0.4%
0.1%
0.5%
0.1%
0.1%
0.5%
0.1%
0.1%
0.2%
sBM (4w)
sBM (8w)
mBM
mPB

FIG. 9E

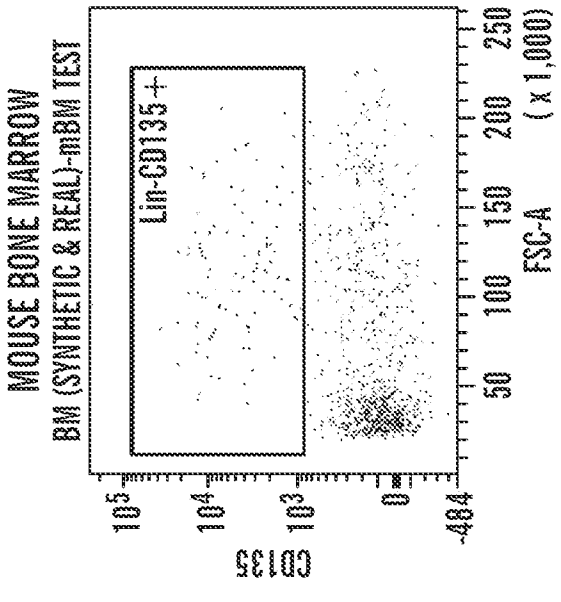


FIG. 10A

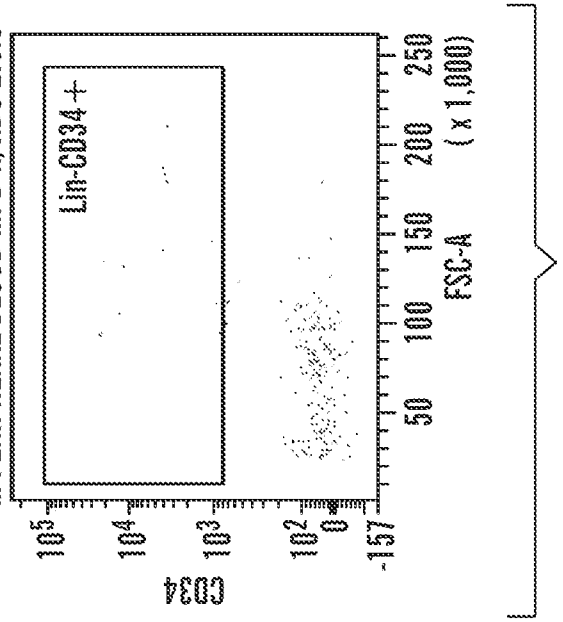


FIG. 10B

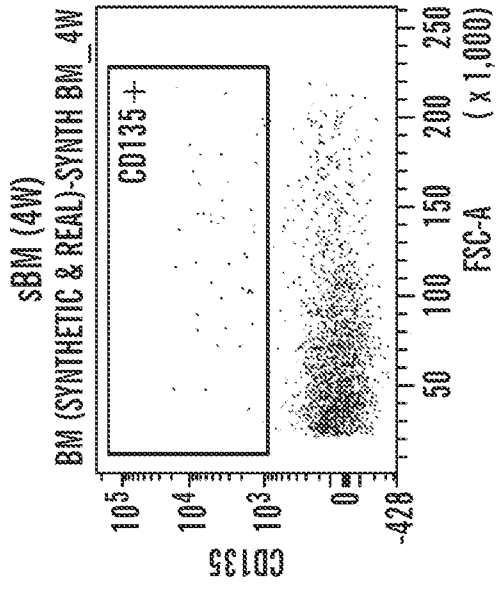


FIG. 10C

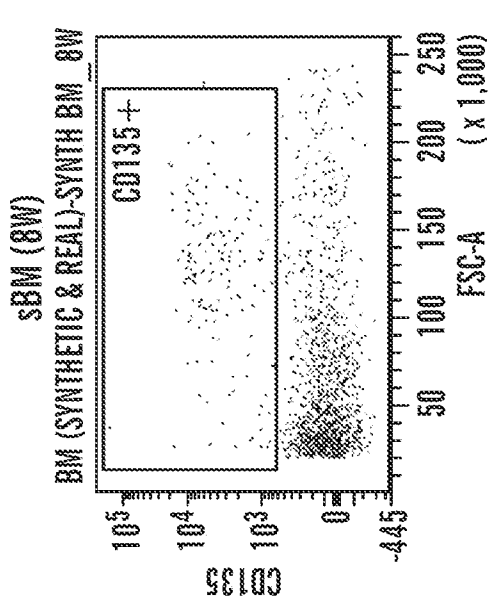


FIG. 10D

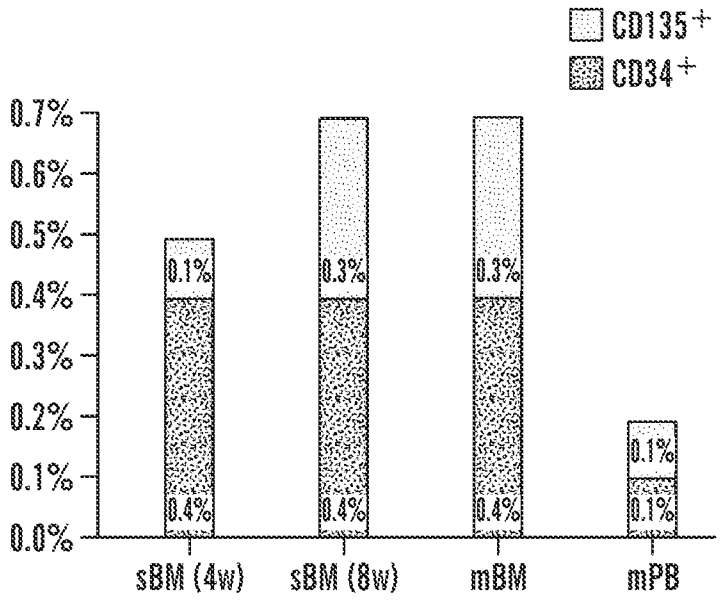

CD135+
CD34+
0.7%
0.6%
0.5%
0.4%
0.3%
0.2%
0.1%
0.0%
0.1%
0.4%
0.3%
0.4%
0.3%
0.4%
0.1%
0.1%
sBM (4w)
sBM (8w)
mBM
mPB

FIG. 10E

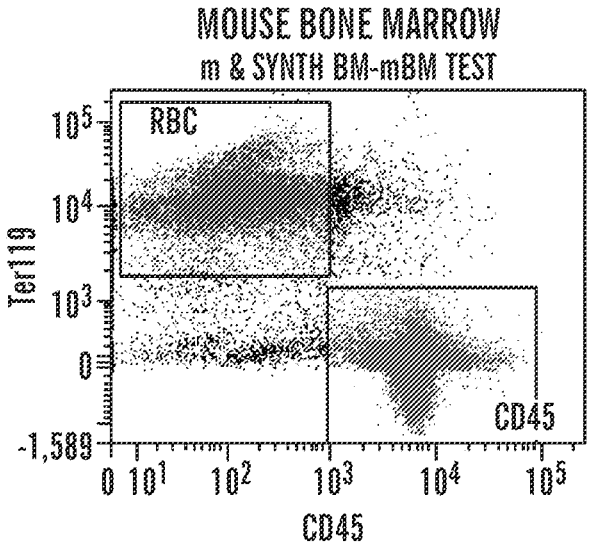


FIG. 11A

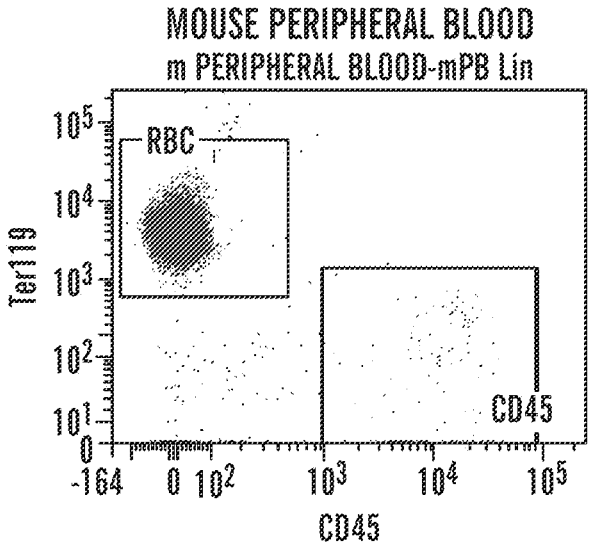


FIG. 11B

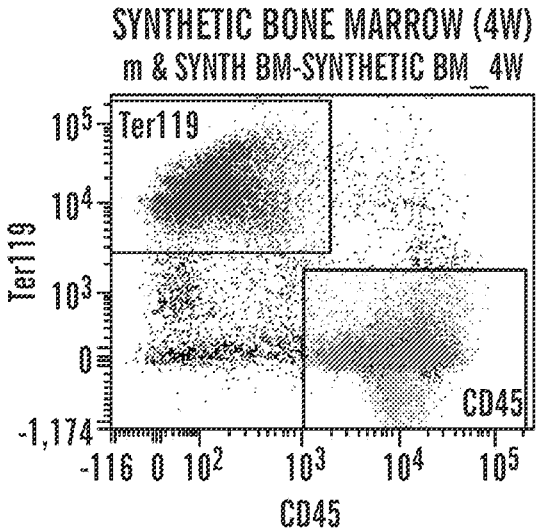


FIG. 11C

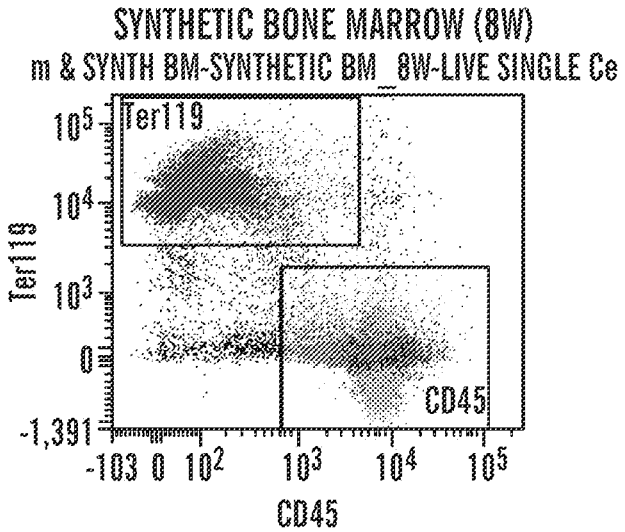


FIG. 11D

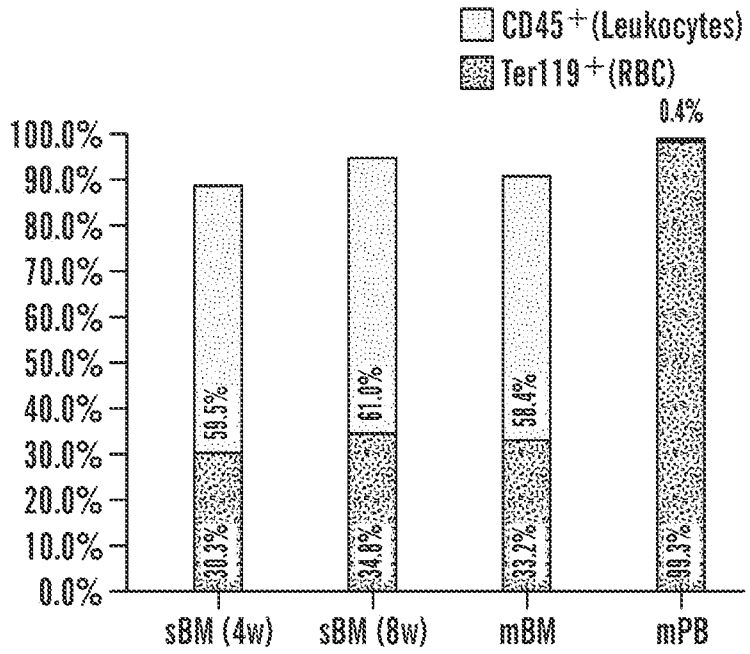

CD45+(Leukocytes)
Ter119+(RBC)
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
59.5%
30.3%
61.0%
34.8%
58.4%
33.2%
0.4%
99.3%
sBM (4w)
sBM (8w)
mBM
mPB

FIG. 11E

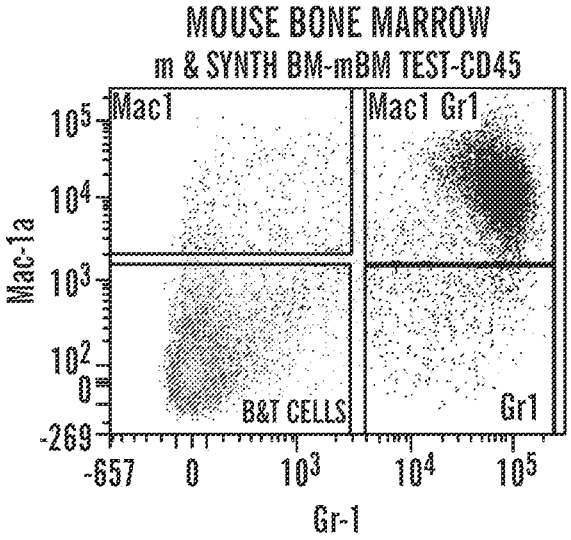


FIG. 12A

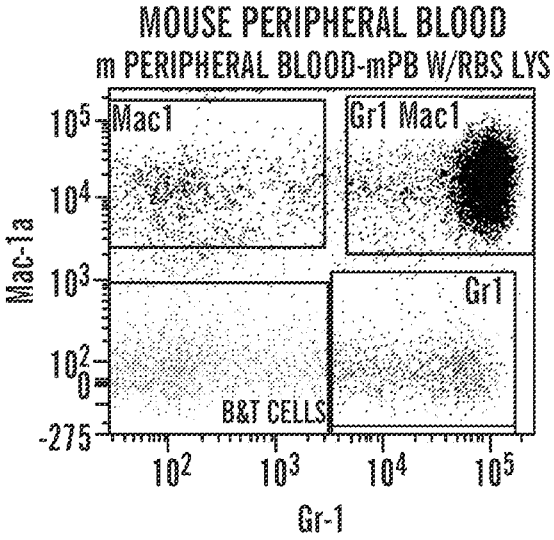


FIG. 12B

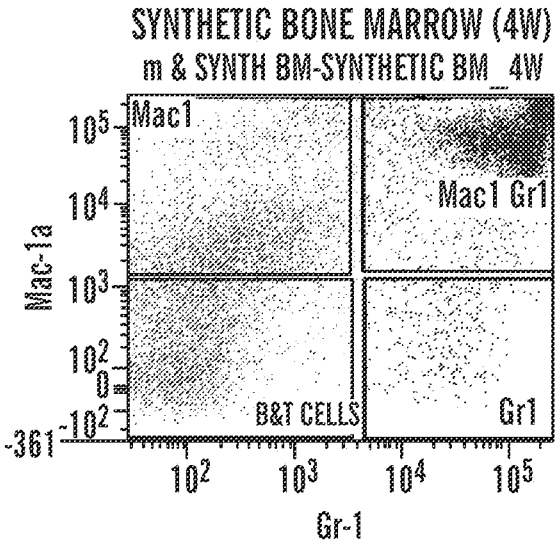


FIG. 12C

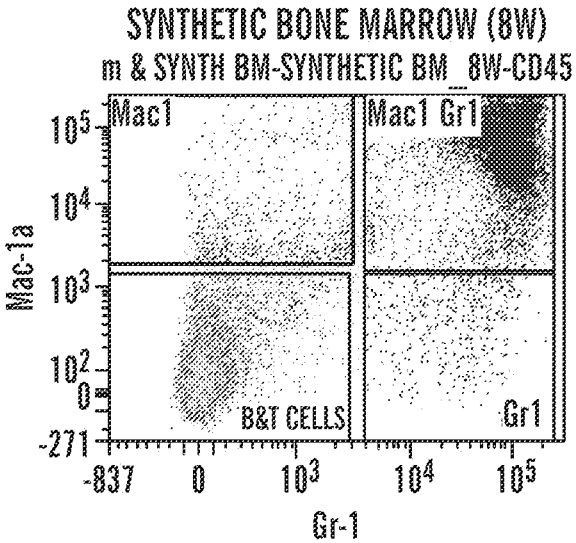


FIG. 12D

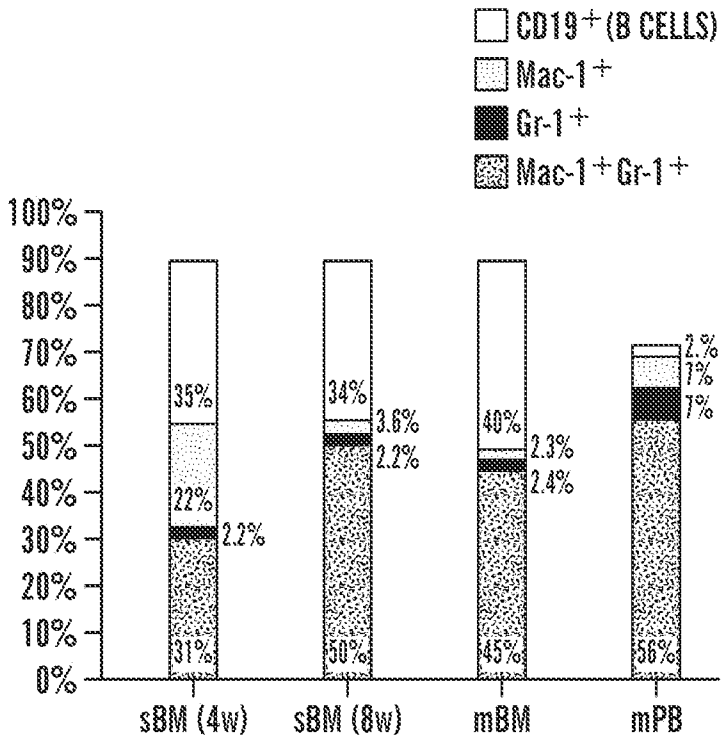

CD19+(B CELLS)
Mac-1+
Gr-1+
Mac-1+Gr-1+
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
35%
22%
2.2%
31%
34%
3.6%
2.2%
50%
40%
2.3%
2.4%
45%
2.%
7%
7%
56%
sBM (4w)
sBM (8w)
mBM
mPB

FIG. 12E

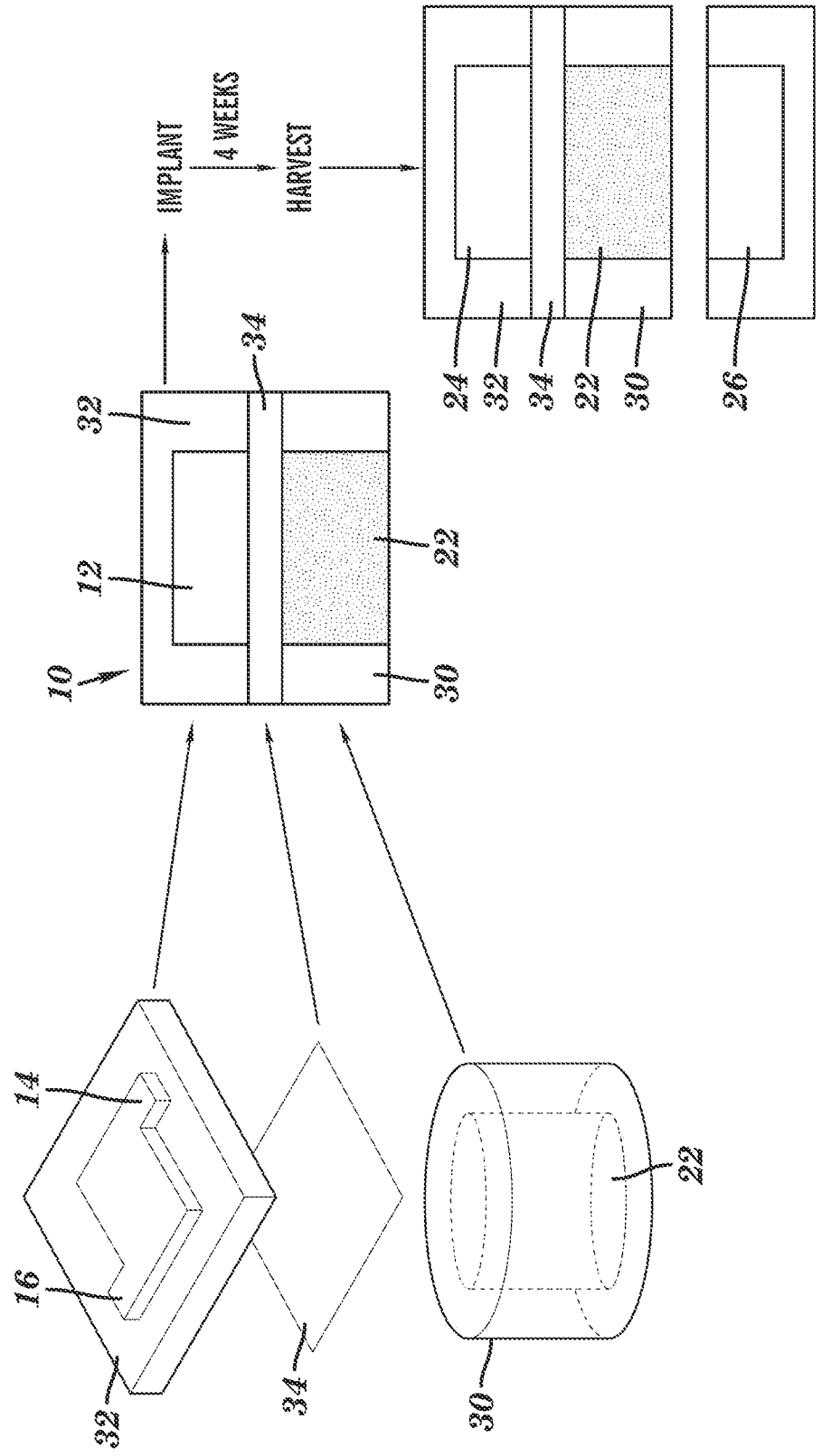


FIG. 13

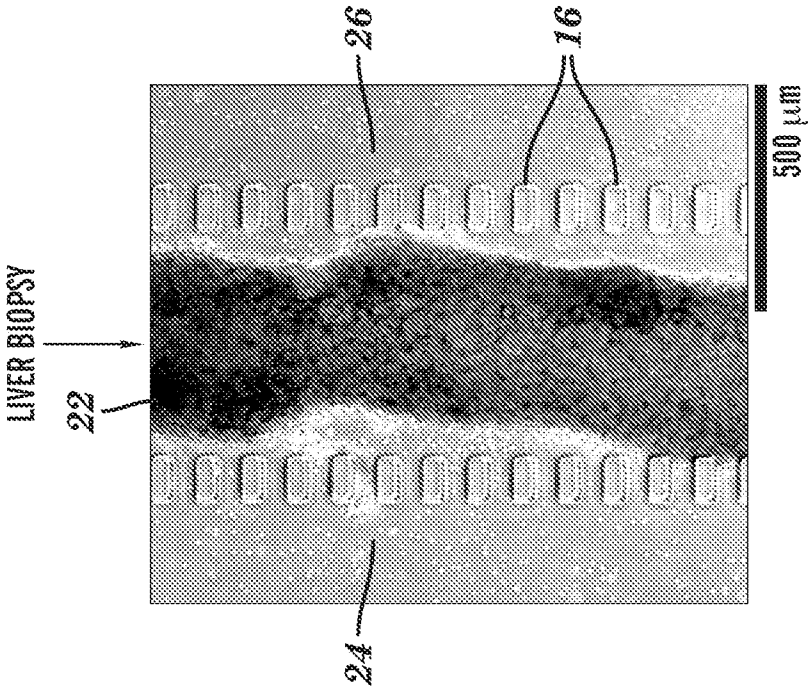


FIG. 14B

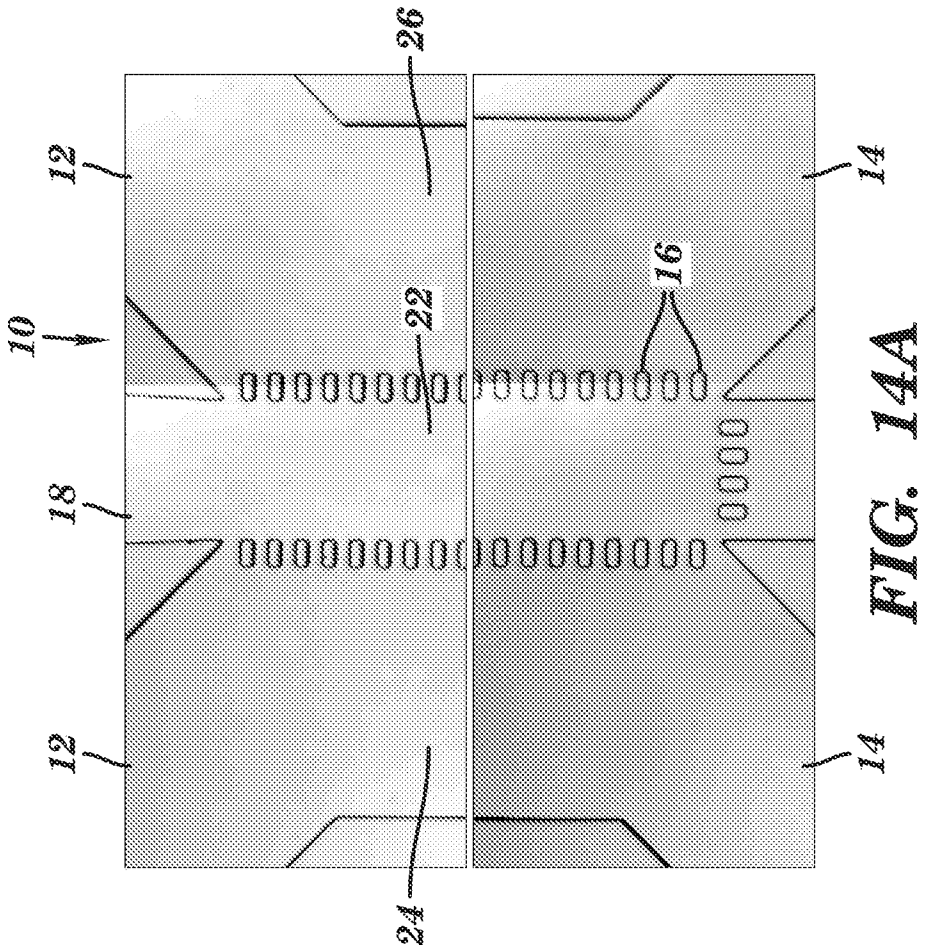


FIG. 14A

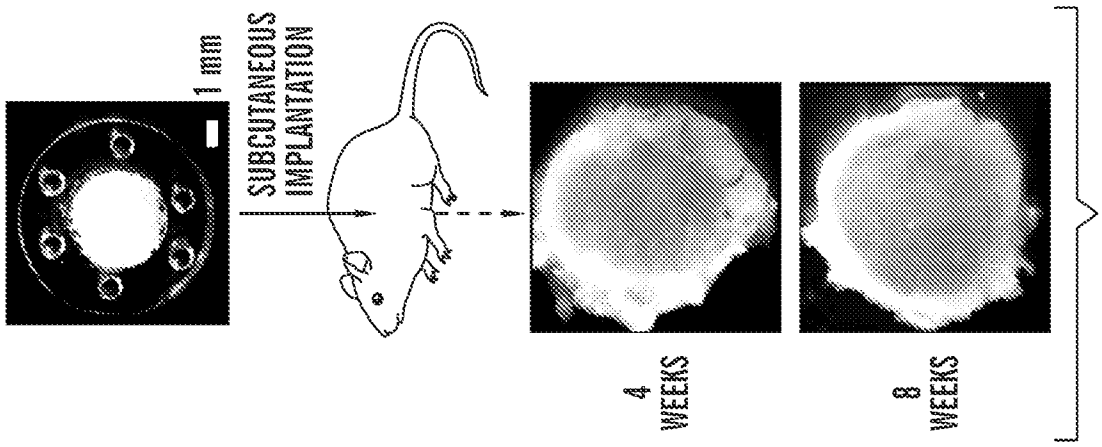


FIG. 16A

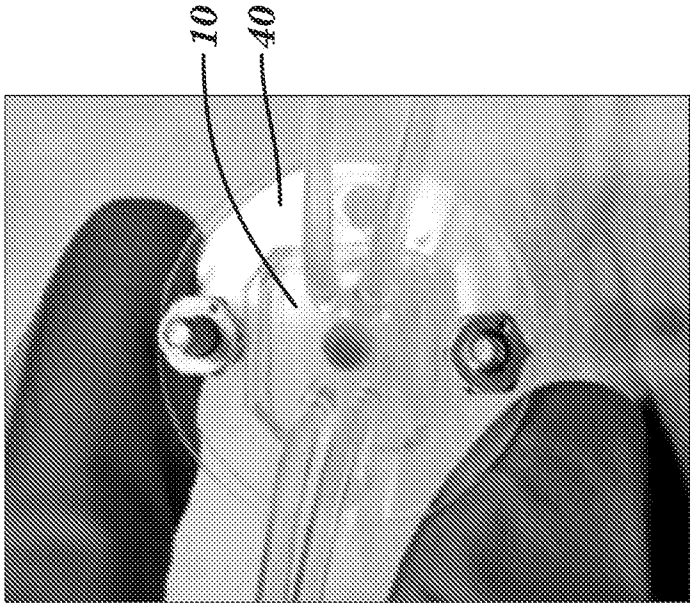


FIG. 15

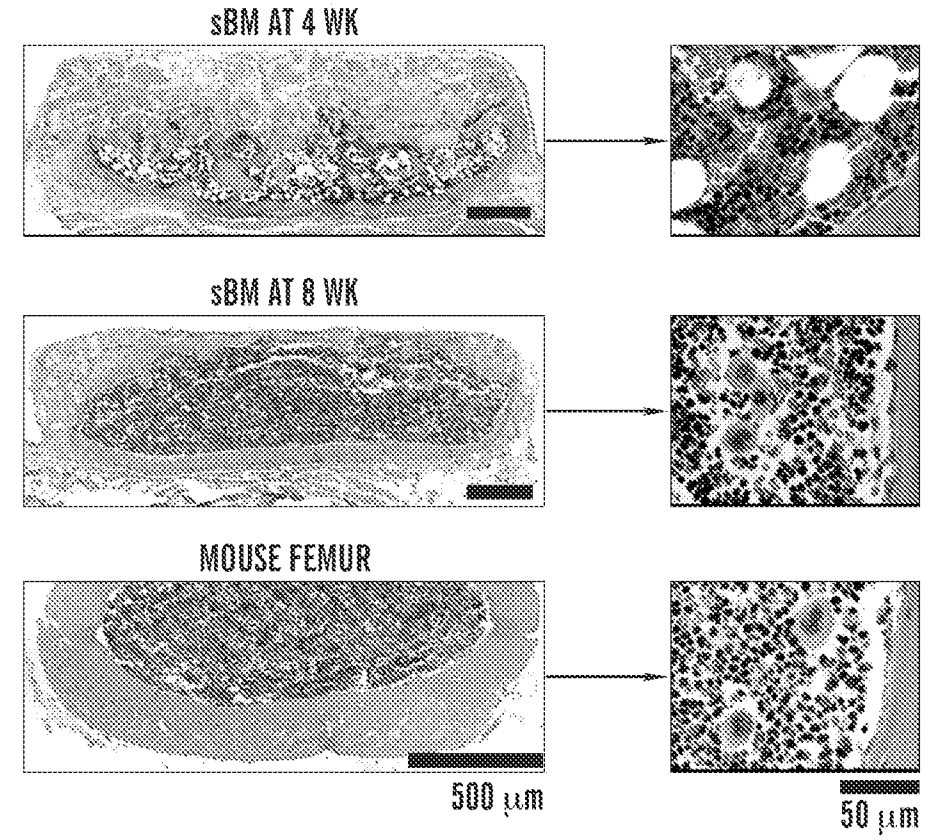


FIG. 16B

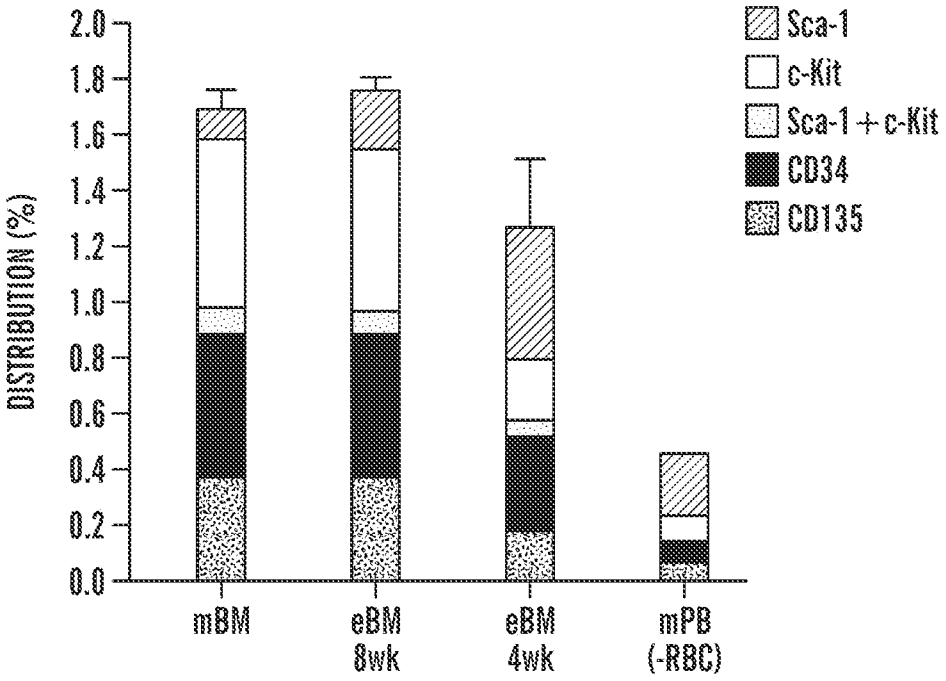


FIG. 16C

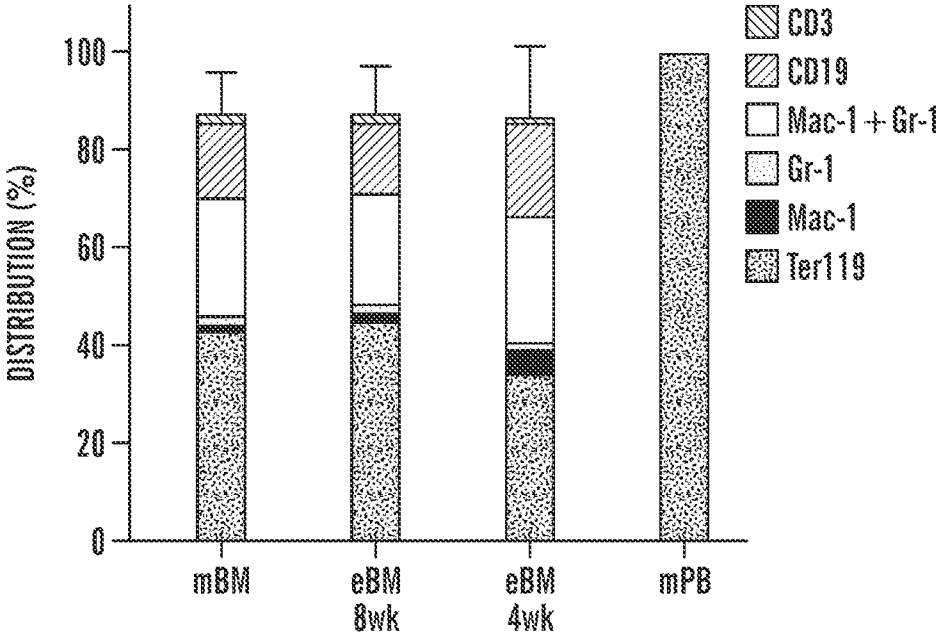


FIG. 16D

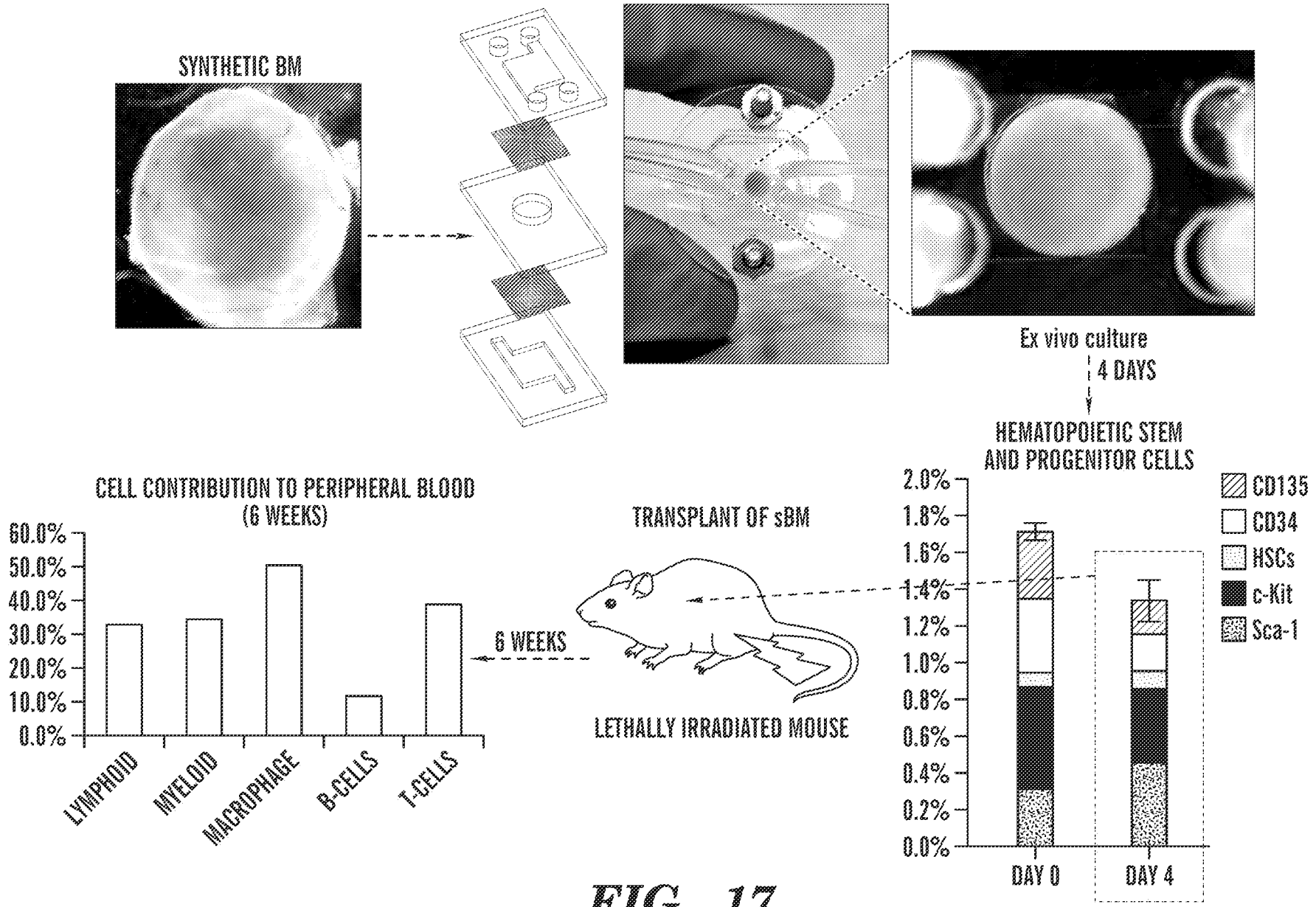

SYNTHETIC BM
Ex vivo culture
4 DAYS
HEMATOPOIETIC STEM
AND PROGENITOR CELLS
CD135
CD34
HSCs
c-Kit
Sca-1
2.0%
1.8%
1.6%
1.4%
1.2%
1.0%
0.8%
0.6%
0.4%
0.2%
0.0%
DAY 0
DAY 4
TRANSPLANT OF sBM
6 WEEKS
LETHALLY IRRADIATED MOUSE
CELL CONTRIBUTION TO PERIPHERAL BLOOD
(6 WEEKS)
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
LYMPHOID
MYELOID
MACROPHAGE
B-CELLS
T-CELLS

FIG. 17

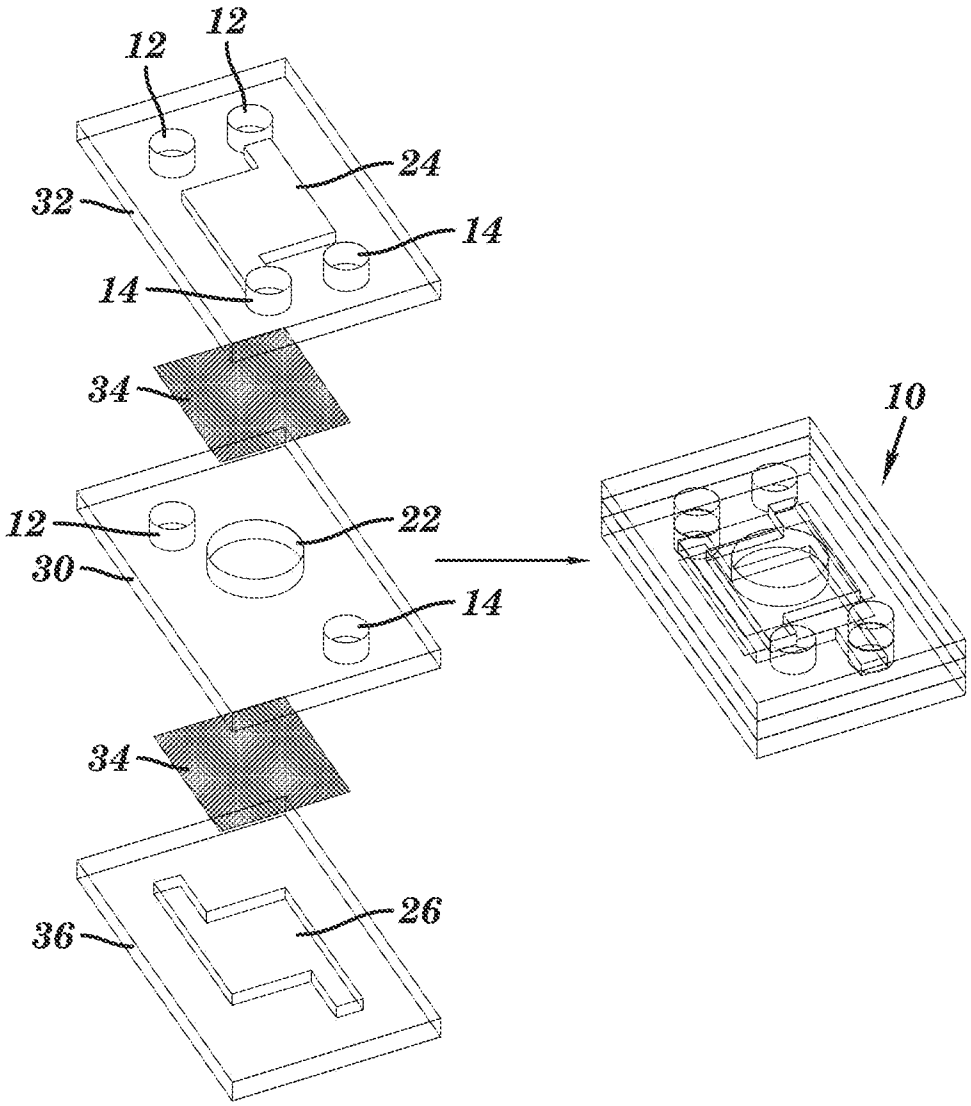


FIG. 18

4 WEEKS

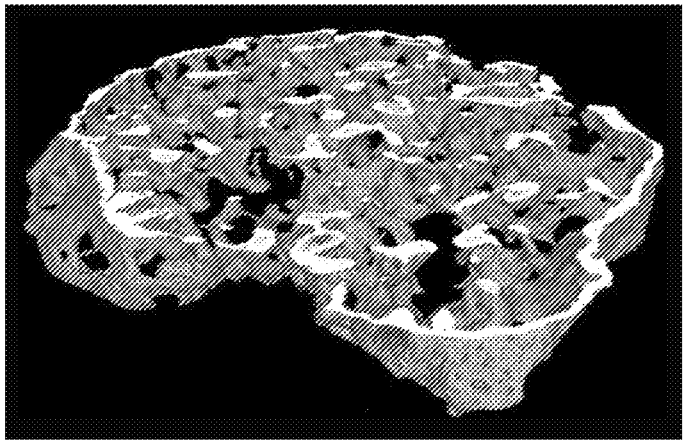


FIG. 19A

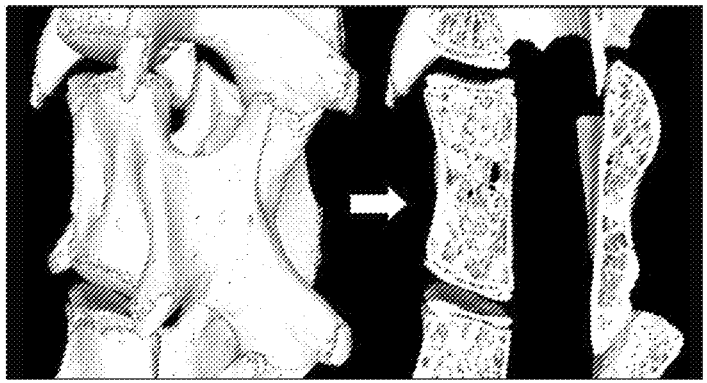


FIG. 19B

8 WEEKS

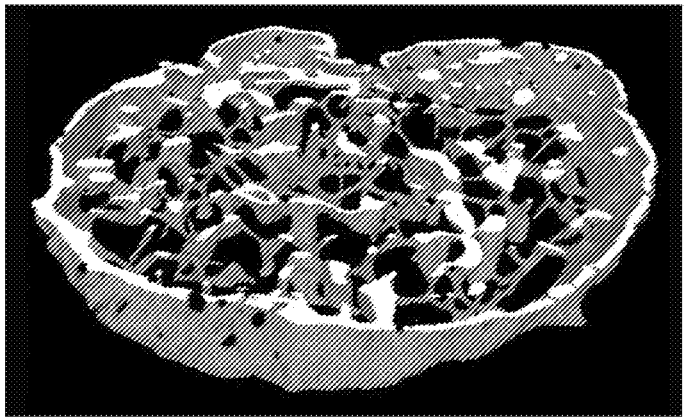


FIG. 19C

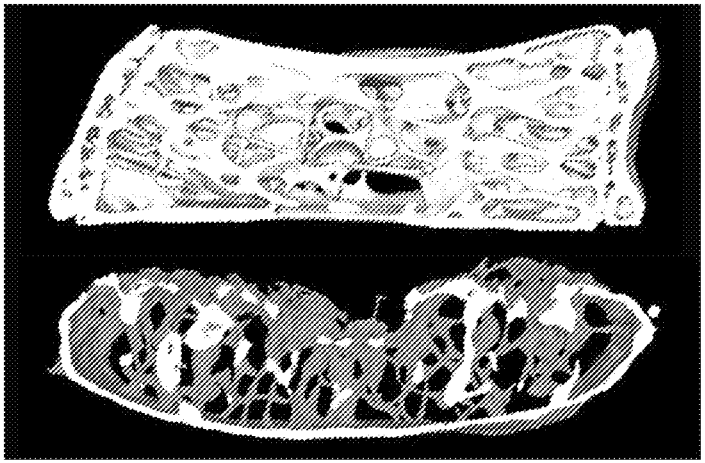


FIG. 19D

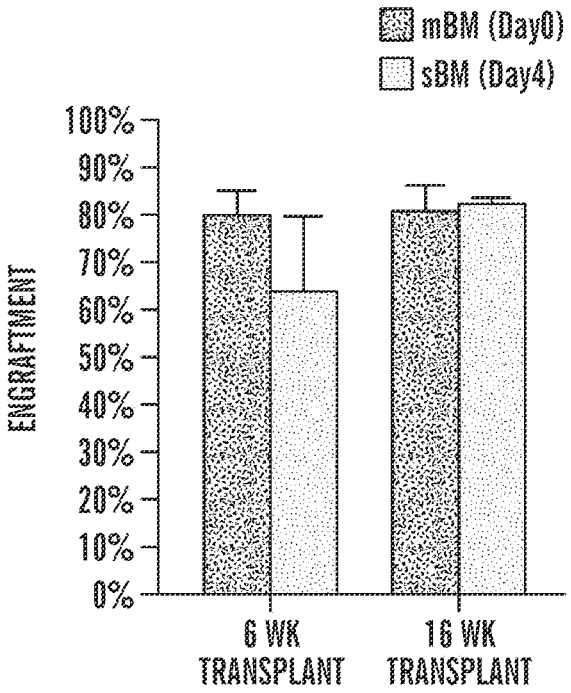


FIG. 20A

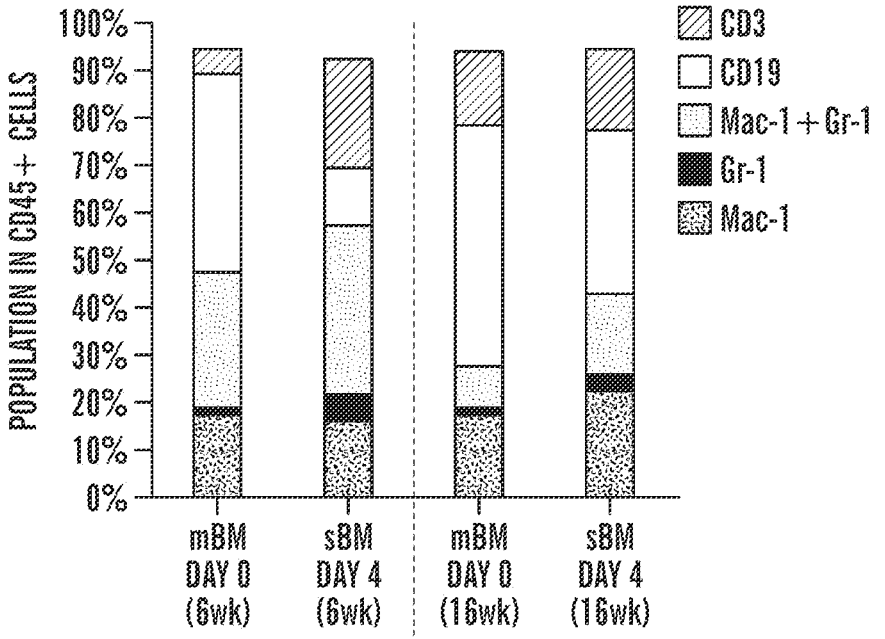


FIG. 20B

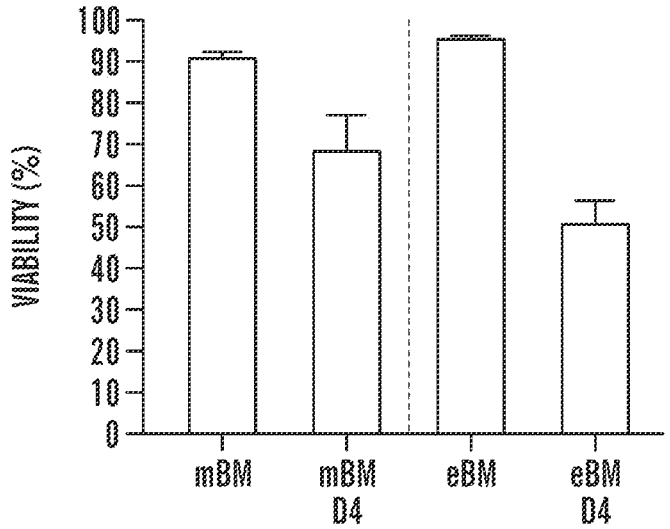


FIG. 20C

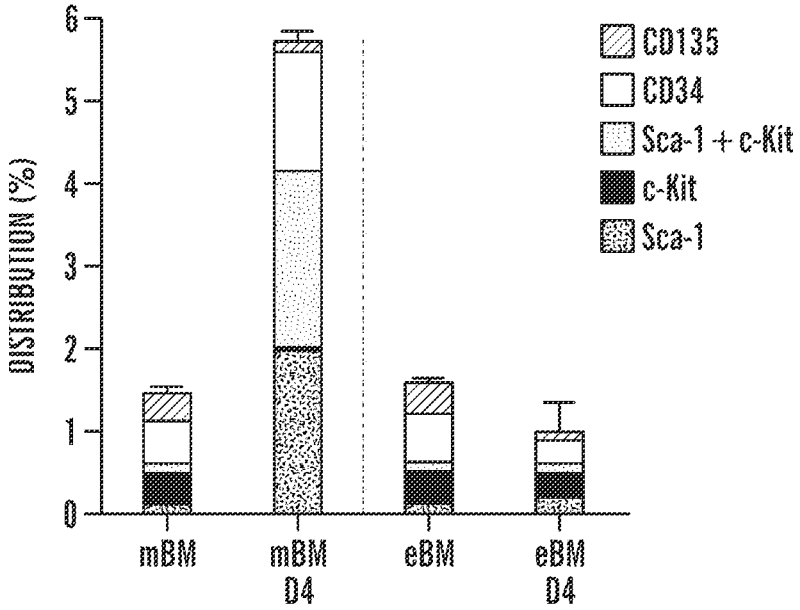


FIG. 20D

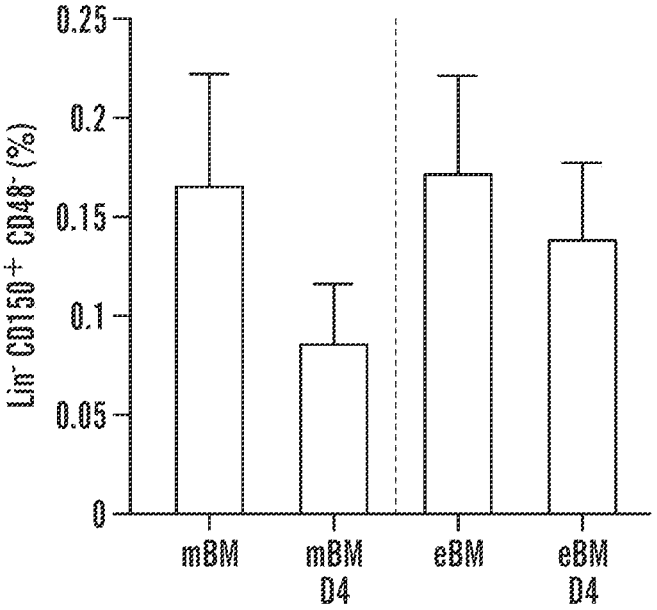


FIG. 20E

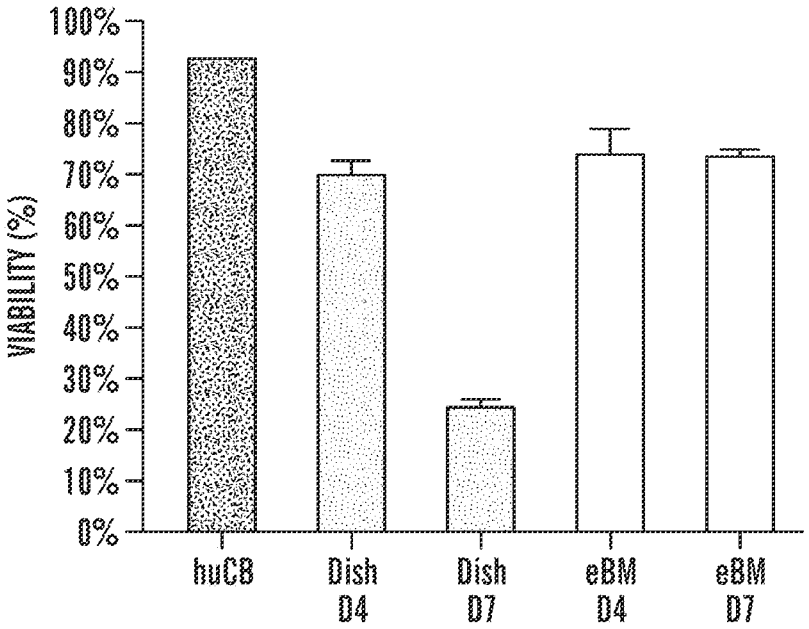


FIG. 21A

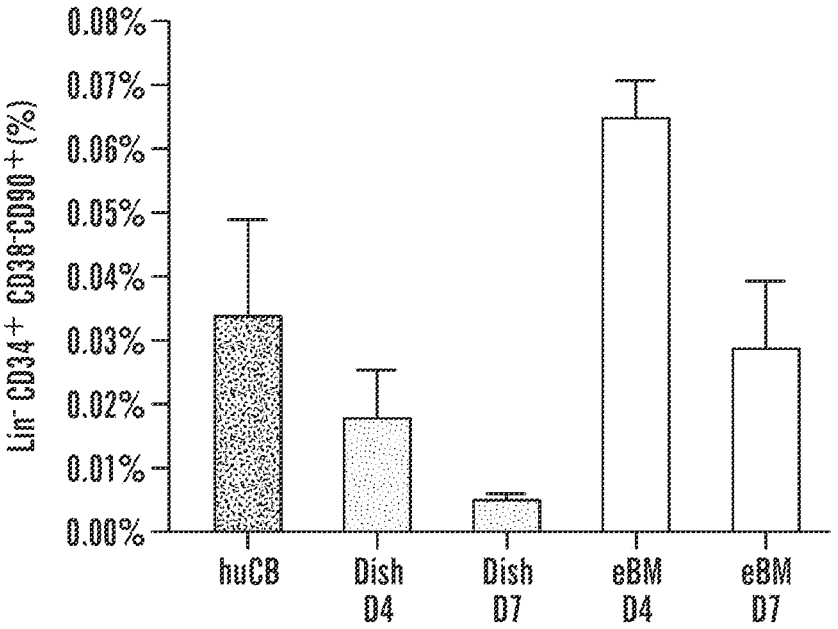


FIG. 21B