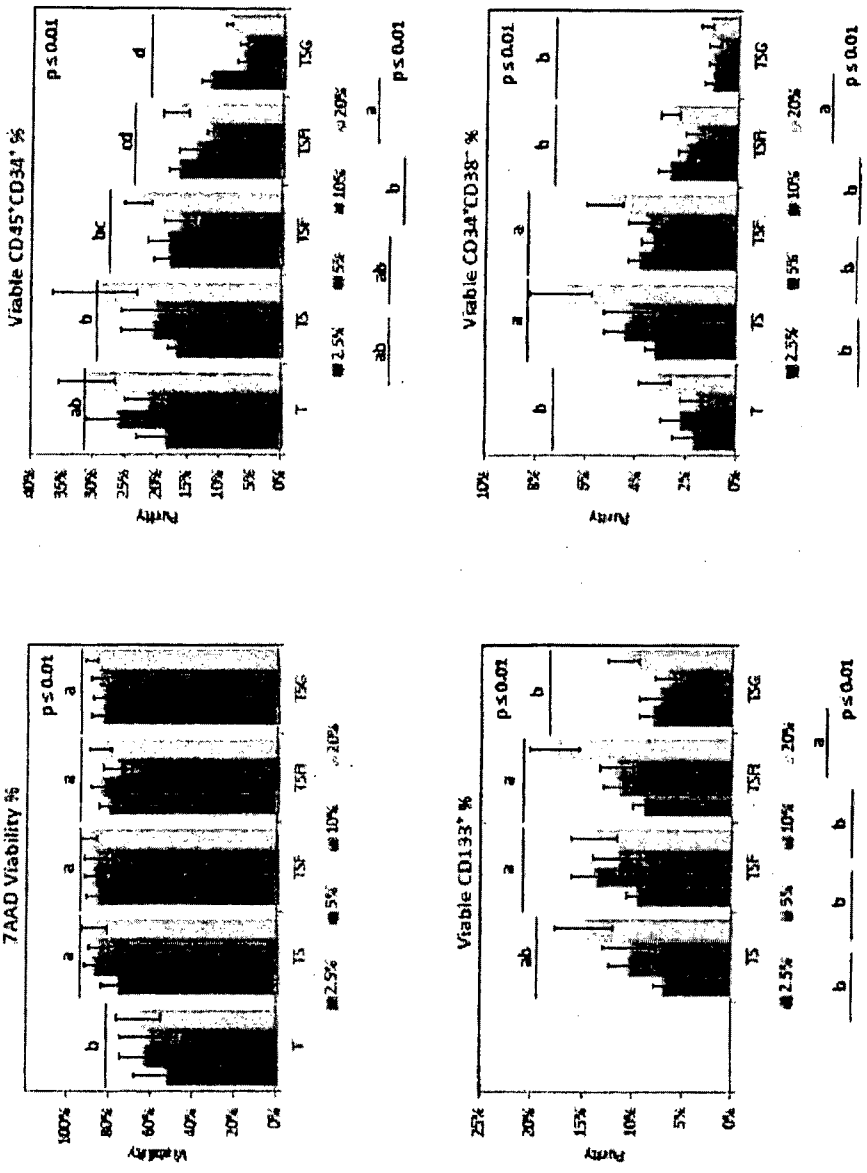
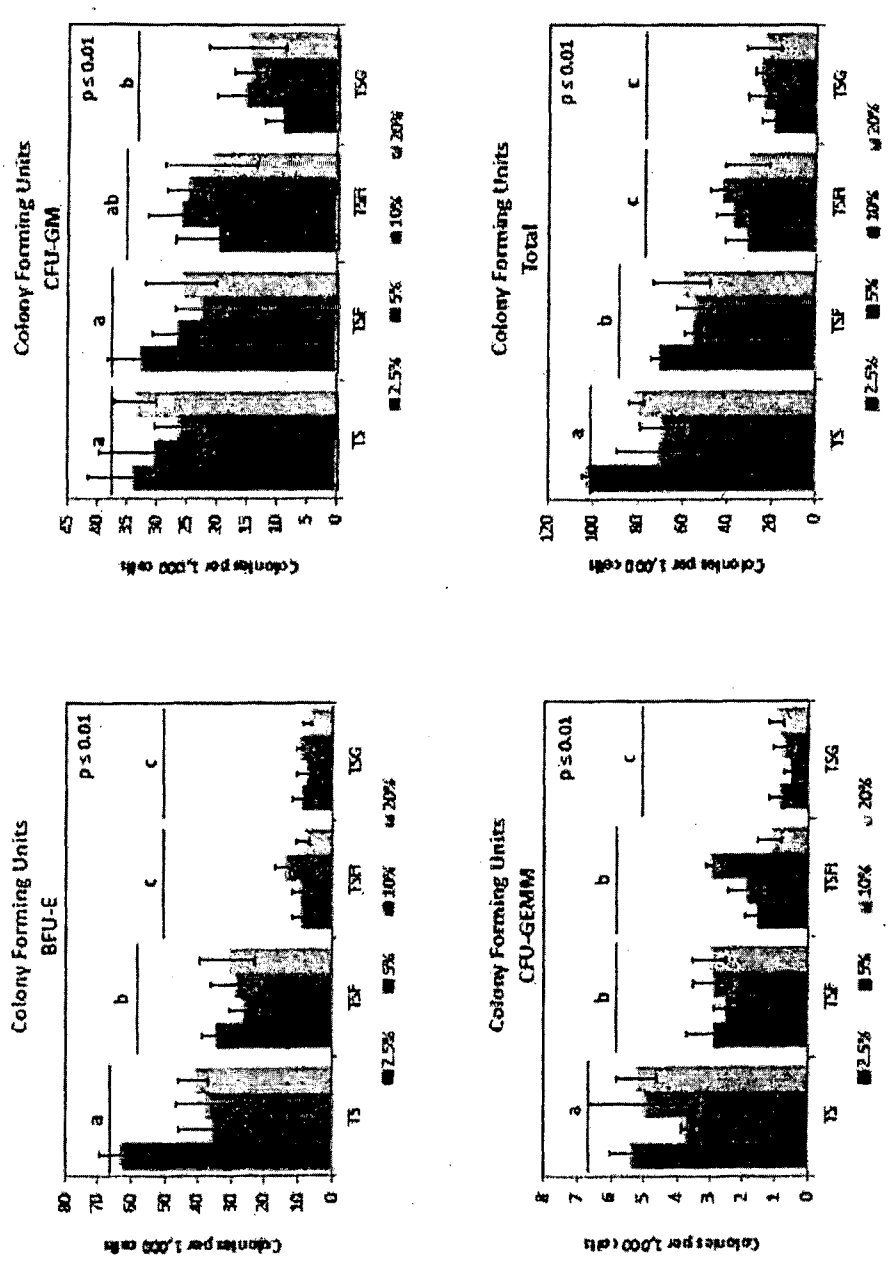

Viable CD45⁺CD34⁺ %
p ≤ 0.01
Purity
T
TS
TSF
TSR
TSG
2.5%
5%
10%
20%
7AAD Viability %
Viable CD34⁺CD38⁻ %
Viable CD133⁺ %

Figure 1:

Figure 1 (continued):



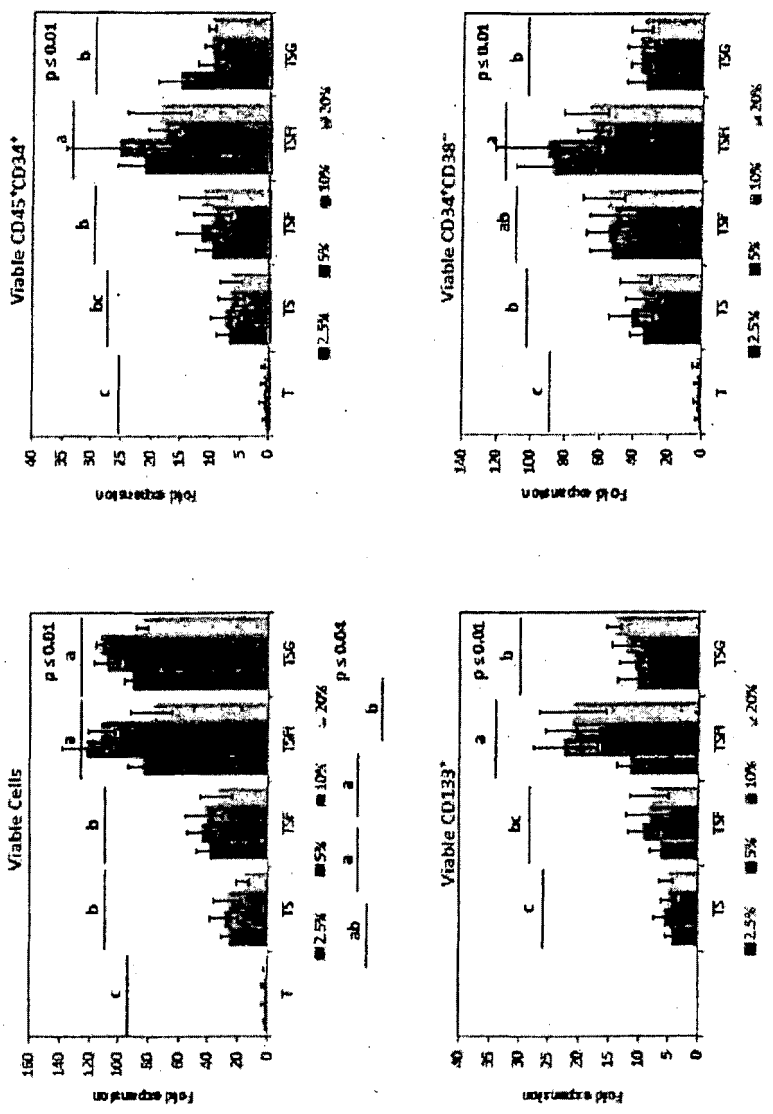
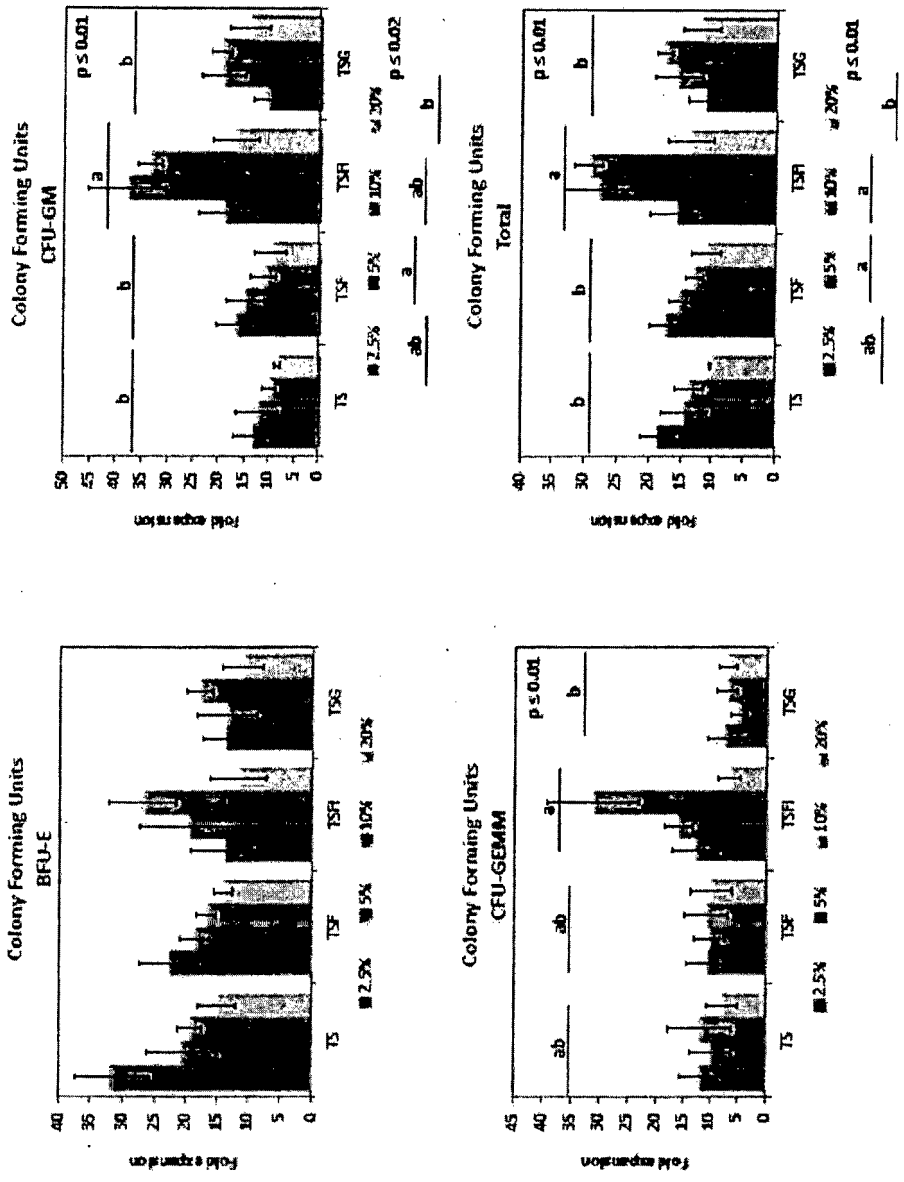

Viable CD45⁺CD34⁺
Viable CD34⁺CD38⁻
Viable Cells
Viable CD133⁺
Fold expansion
T
TS
TSF
TSFH
TSG
2.5%
5%
10%
≥ 20%
p ≤ 0.01
p ≤ 0.04

Figure 2:

Figure 2 (continued):



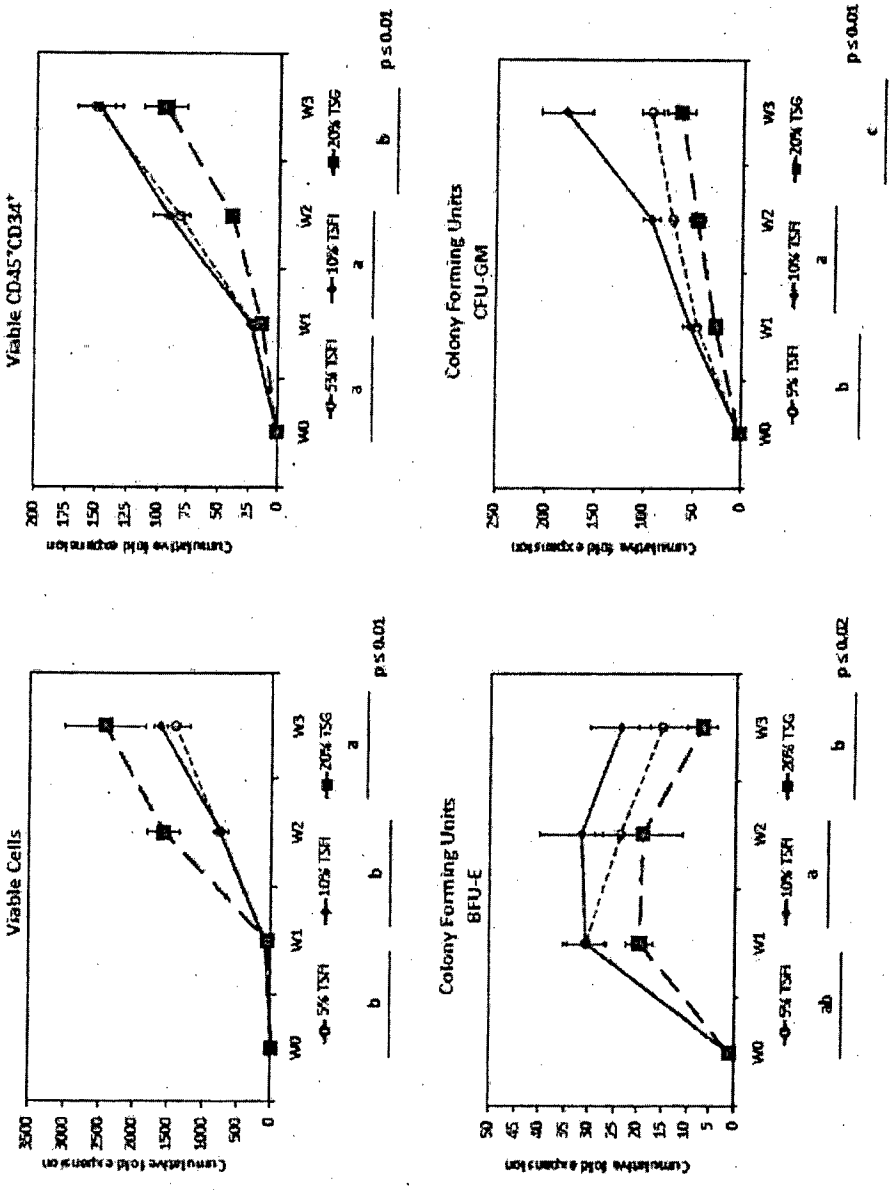
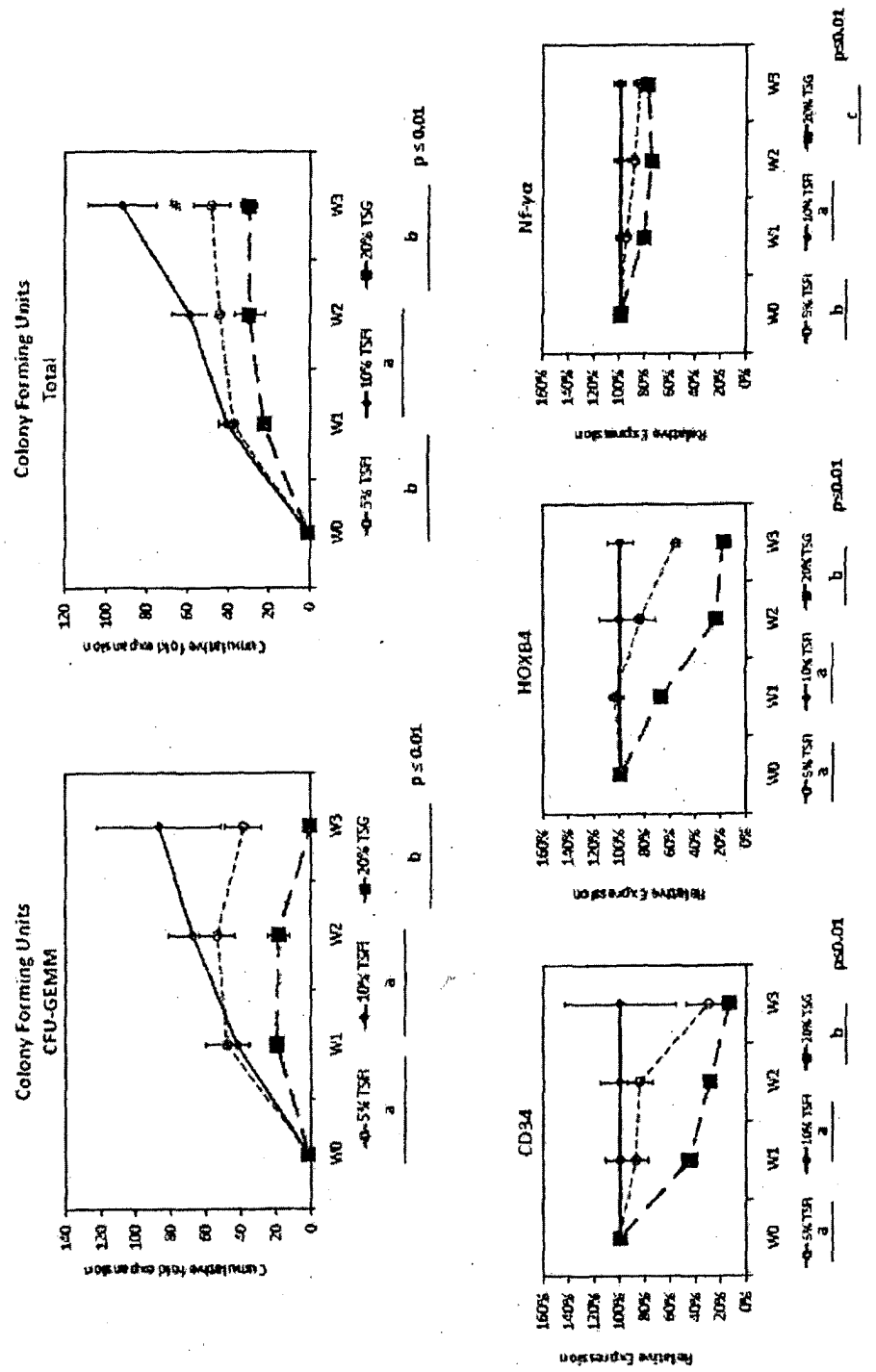

Viable CD45+CD34+
Cumulative fold expansion
W0
W1
W2
W3
5% TSFI
10% TSFI
20% TSG
a
a
b
p ≤ 0.01
Colony Forming Units
CFU-GM
Cumulative fold expansion
W0
W1
W2
W3
5% TSFI
10% TSFI
20% TSG
b
a
c
p ≤ 0.01
Viable Cells
Cumulative fold expansion
W0
W1
W2
W3
5% TSFI
10% TSFI
20% TSG
b
b
a
p ≤ 0.01
Colony Forming Units
BFU-E
Cumulative fold expansion
W0
W1
W2
W3
5% TSFI
10% TSFI
20% TSG
ab
a
b
p ≤ 0.02

Figure 3:

Figure 3 (continued):



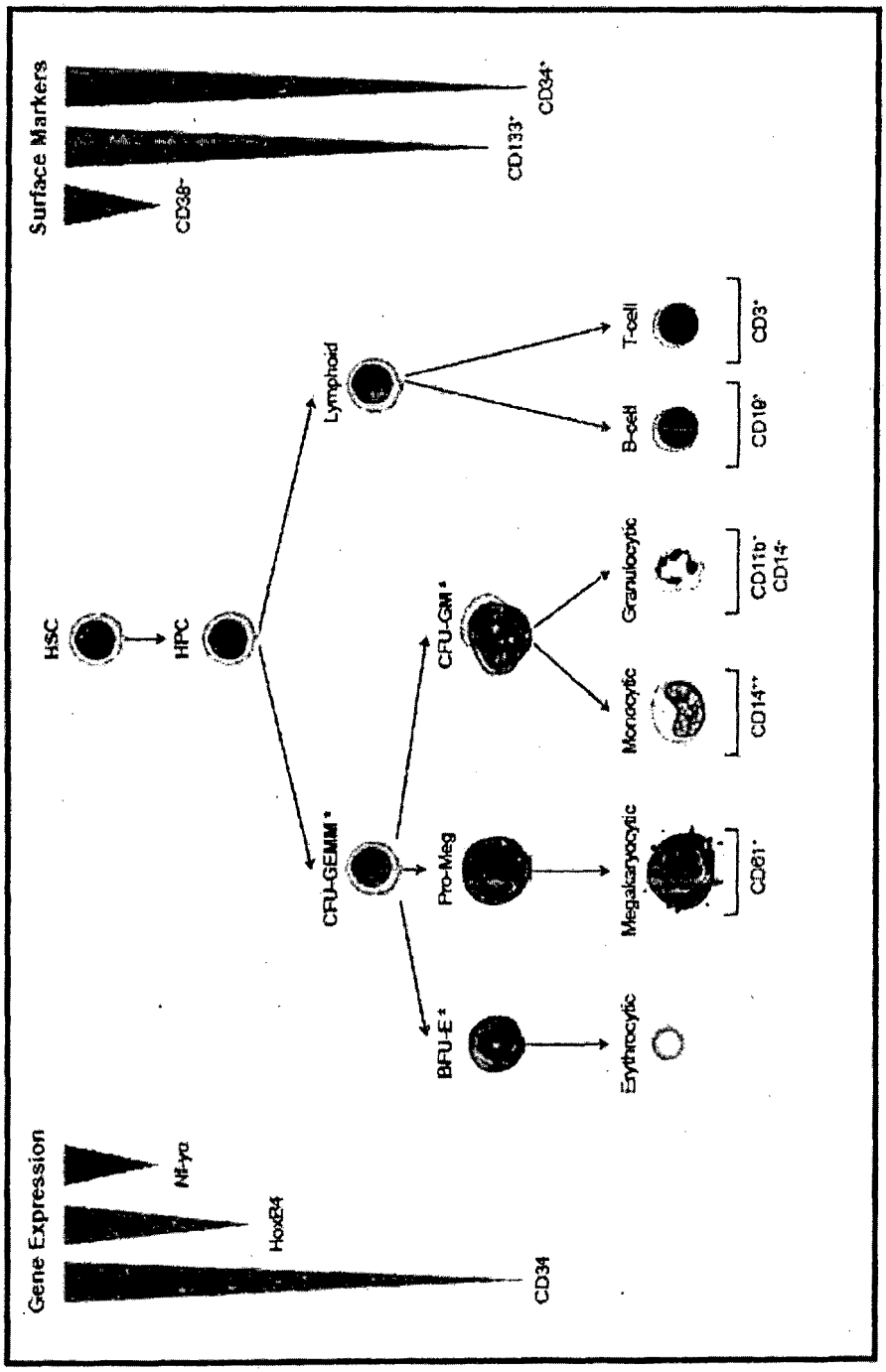

Surface Markers
CD38-
CD133+
CD34+
HSC
HPC
Lymphoid
T-cell
B-cell
CD3+
CD19+
CFU-GEMM+
Pro-Meg
CFU-GM+
Granulocytic
Monocytic
CD11b+
CD14-
CD14++
BFU-E+
Megakaryocytic
Erythrocytic
CD61+
Gene Expression
NF-ya
Hoxb4
CD34

Figure 4:

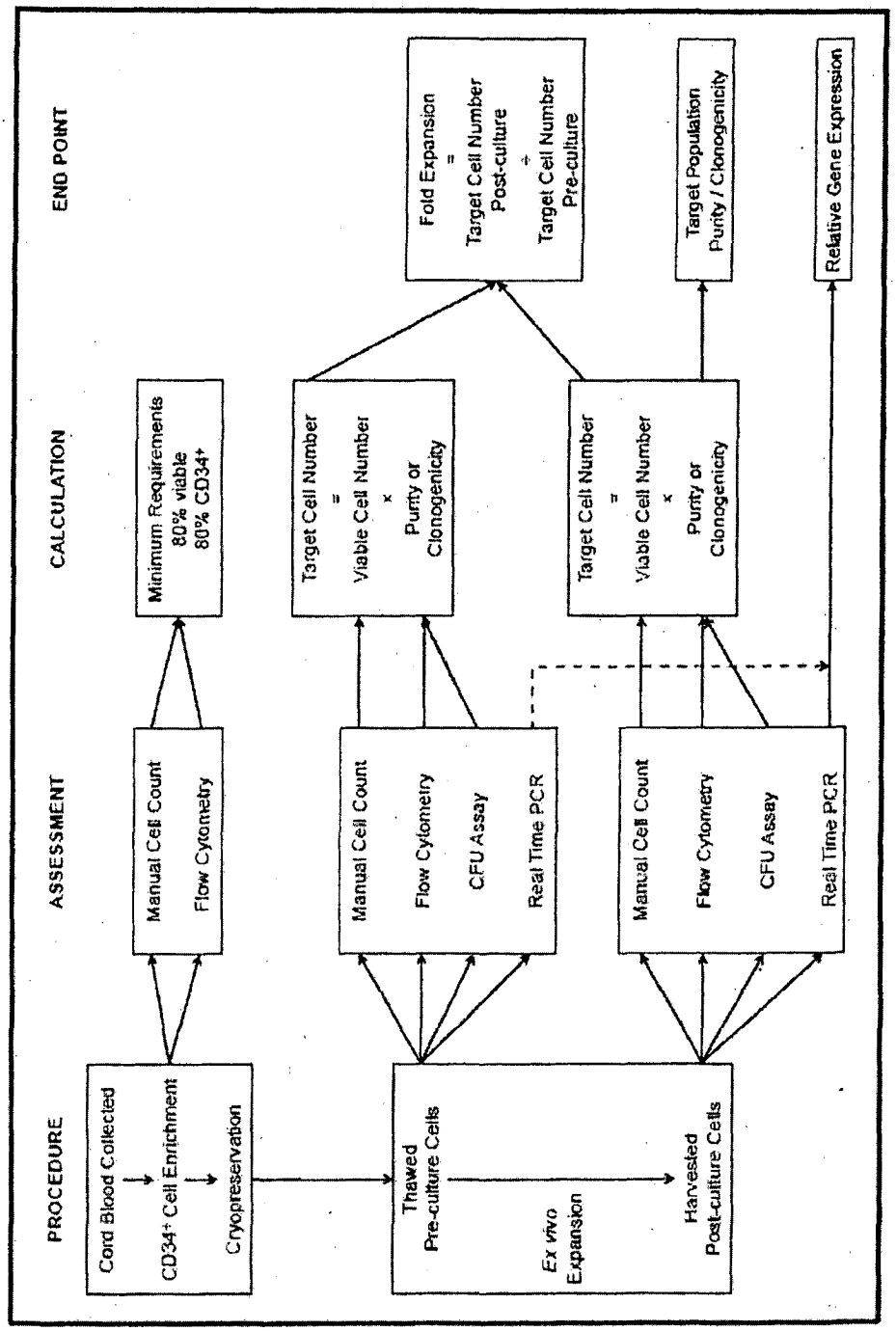

PROCEDURE
ASSESSMENT
CALCULATION
END POINT
Cord Blood Collected
CD34+ Cell Enrichment
Cryopreservation
Thawed Pre-culture Cells
Ex vivo Expansion
Harvested Post-culture Cells
Manual Cell Count
Flow Cytometry
Minimum Requirements 80% viable 80% CD34+
Manual Cell Count
Flow Cytometry
CFU Assay
Real Time PCR
Target Cell Number = Viable Cell Number x Purity or Clonogenicity
Manual Cell Count
Flow Cytometry
CFU Assay
Real Time PCR
Target Cell Number = Viable Cell Number x Purity or Clonogenicity
Fold Expansion = Target Cell Number Post-culture ÷ Target Cell Number Pre-culture
Target Population Purity / Clonogenicity
Relative Gene Expression

Figure 5:

Figure 6:

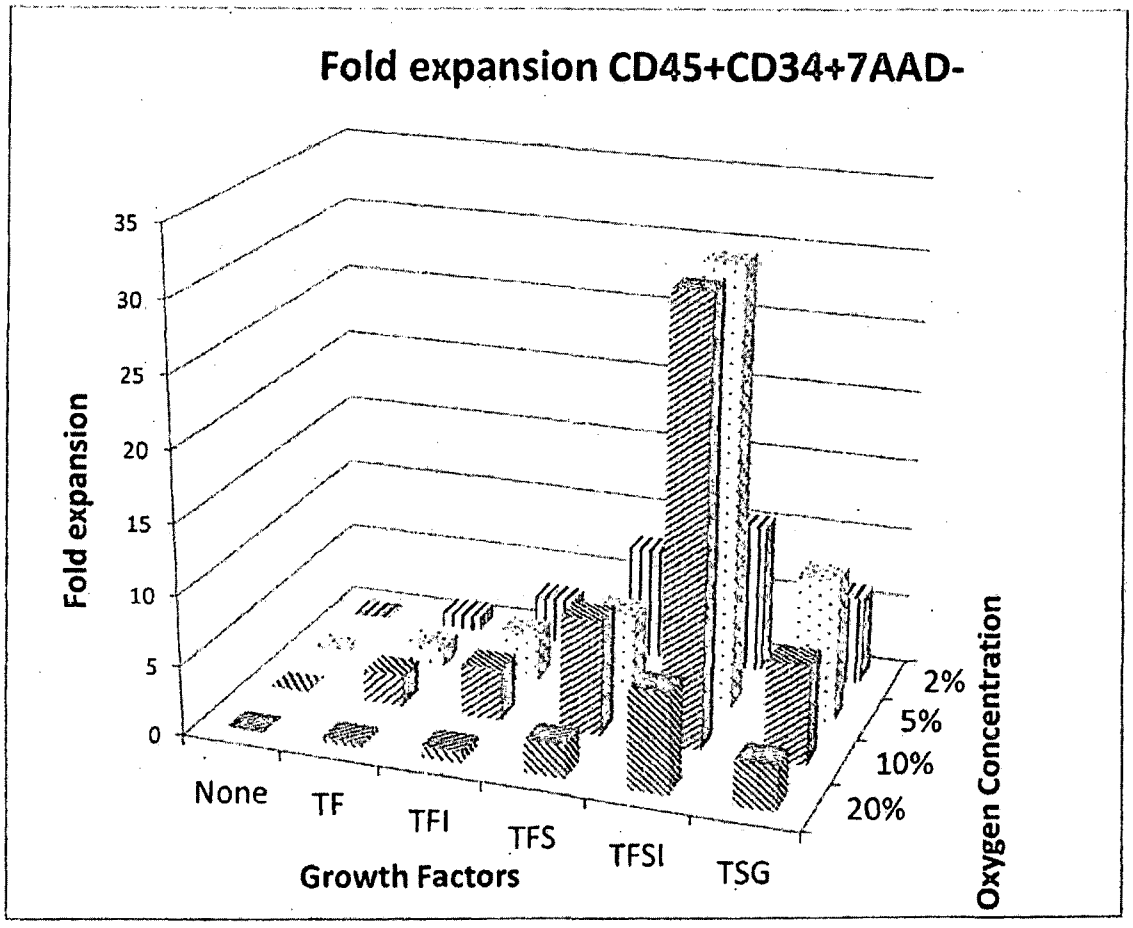

Fold expansion CD45+CD34+7AAD-
Fold expansion
35
30
25
20
15
10
5
0
None
TF
TFI
TFS
TFSI
TSG
Growth Factors
2%
5%
10%
20%
Oxygen Concentration

Figure 7:

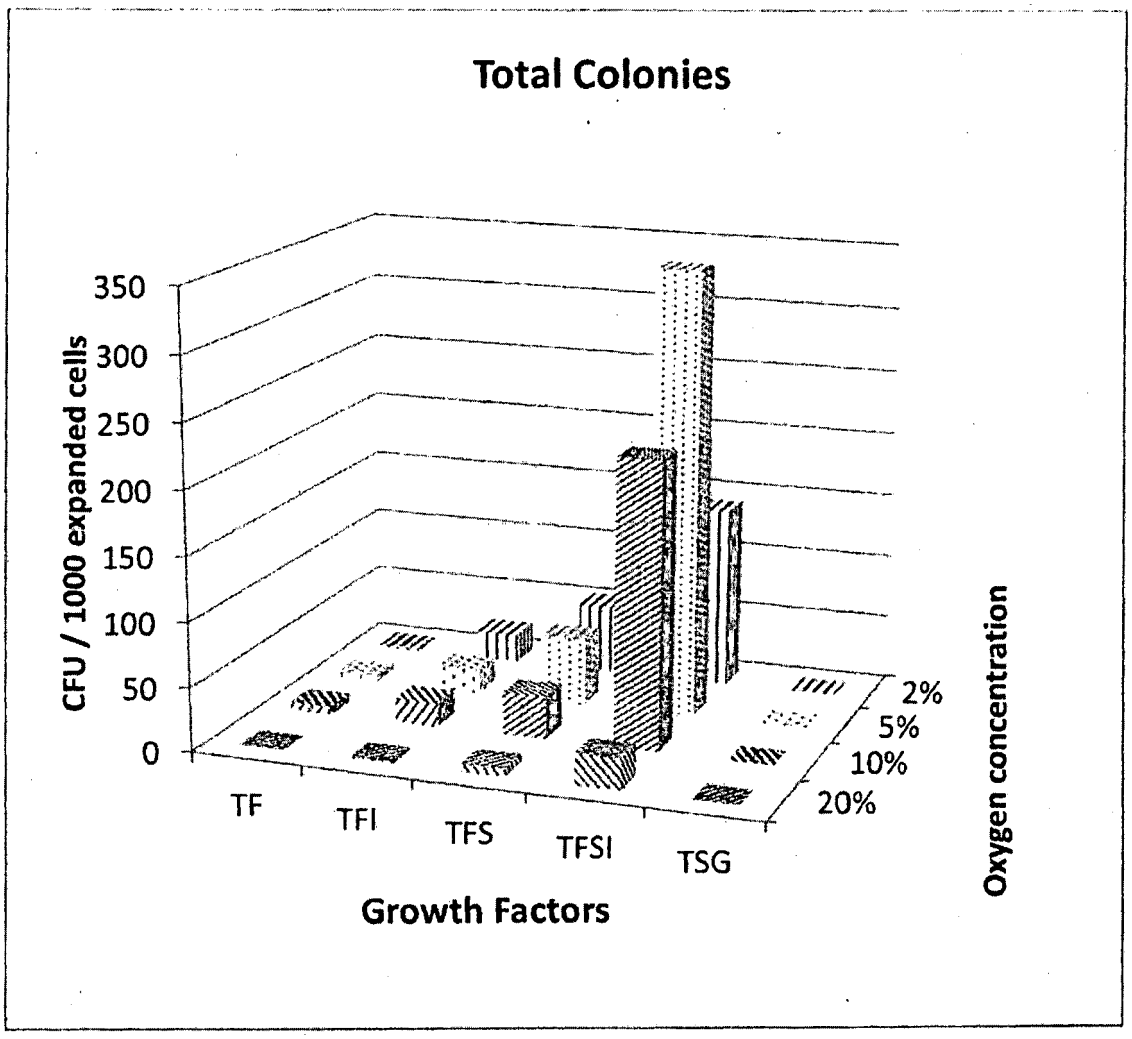

Total Colonies
CFU / 1000 expanded cells
350
300
250
200
150
100
50
0
TF
TFI
TFS
TFSI
TSG
Growth Factors
2%
5%
10%
20%
Oxygen concentration

Figure 8:

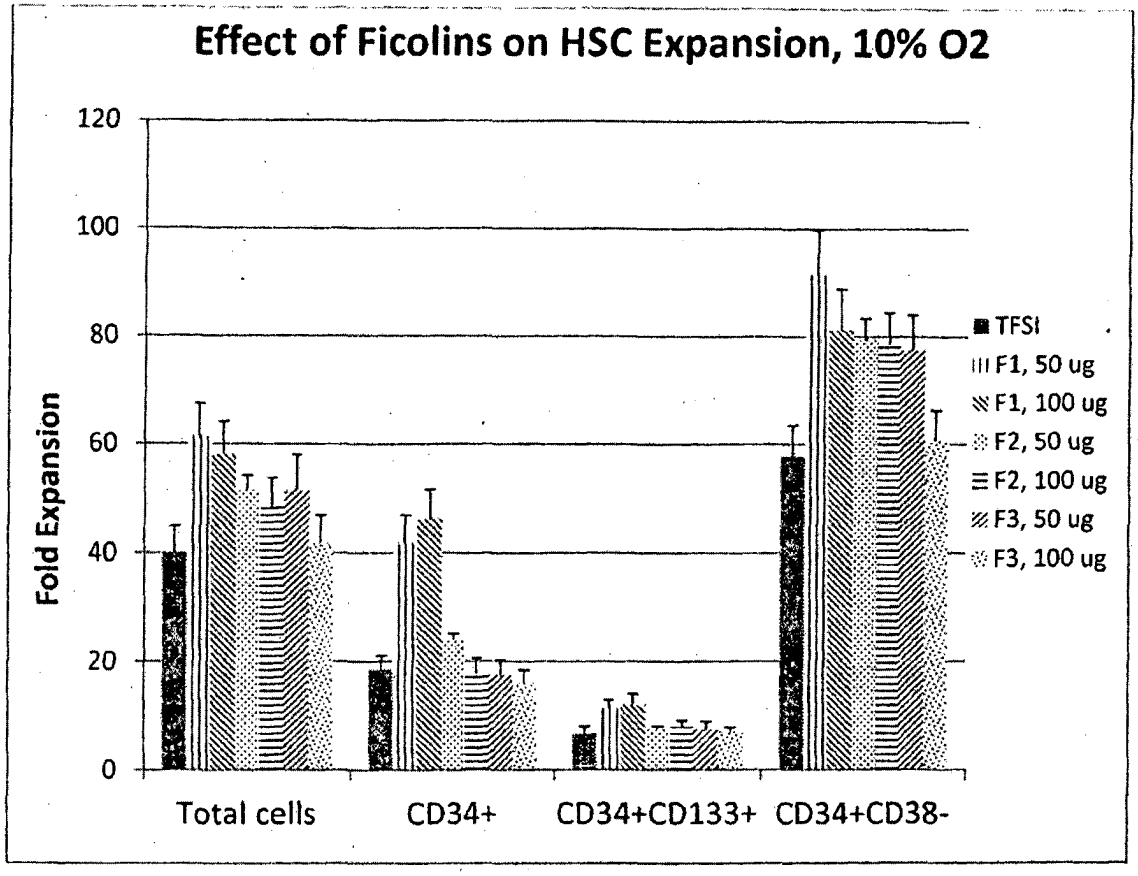

Effect of Ficolins on HSC Expansion, 10% O2
Fold Expansion
120
100
80
60
40
20
0
Total cells
CD34+
CD34+CD133+
CD34+CD38-
TFSI
F1, 50 ug
F1, 100 ug
F2, 50 ug
F2, 100 ug
F3, 50 ug
F3, 100 ug

Figure 9:

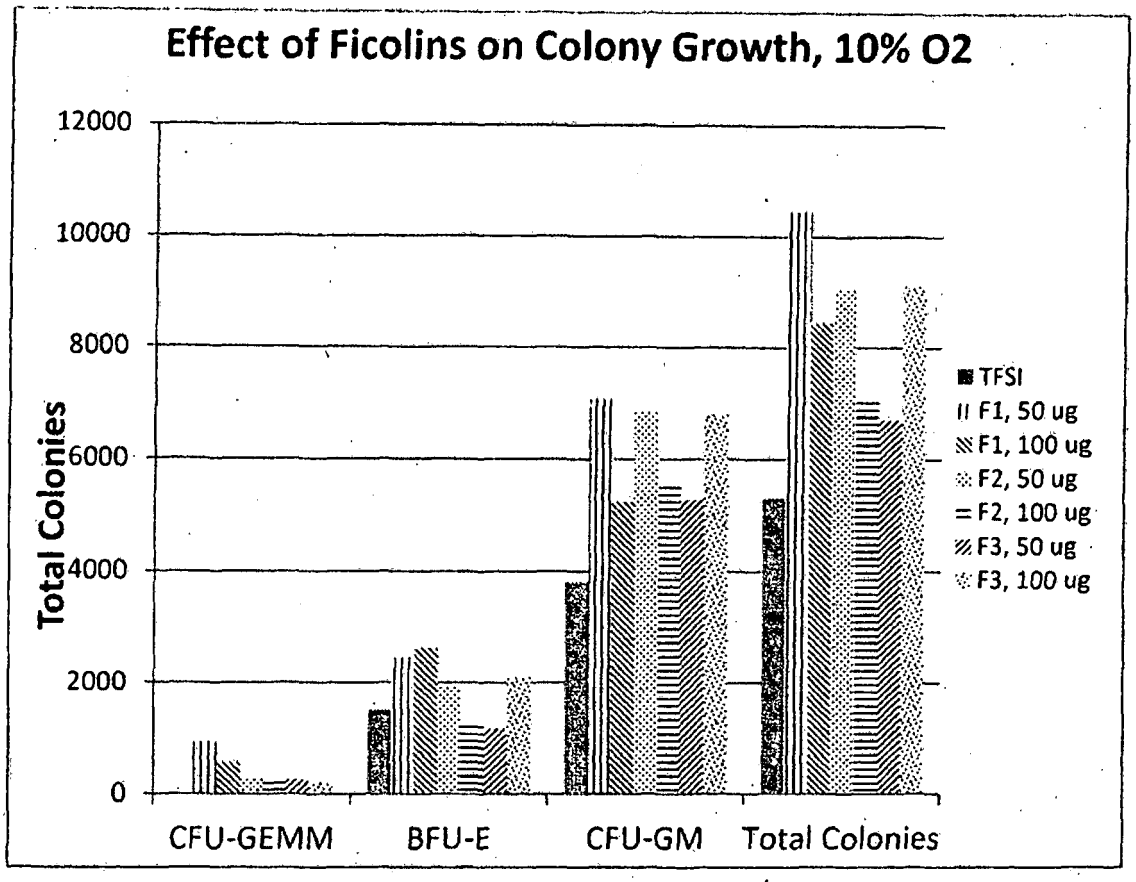

Effect of Ficolins on Colony Growth, 10% O2
12000
10000
8000
6000
4000
2000
0
Total Colonies
CFU-GEMM
BFU-E
CFU-GM
Total Colonies
TFSI
F1, 50 ug
F1, 100 ug
F2, 50 ug
F2, 100 ug
F3, 50 ug
F3, 100 ug

Figure 10:

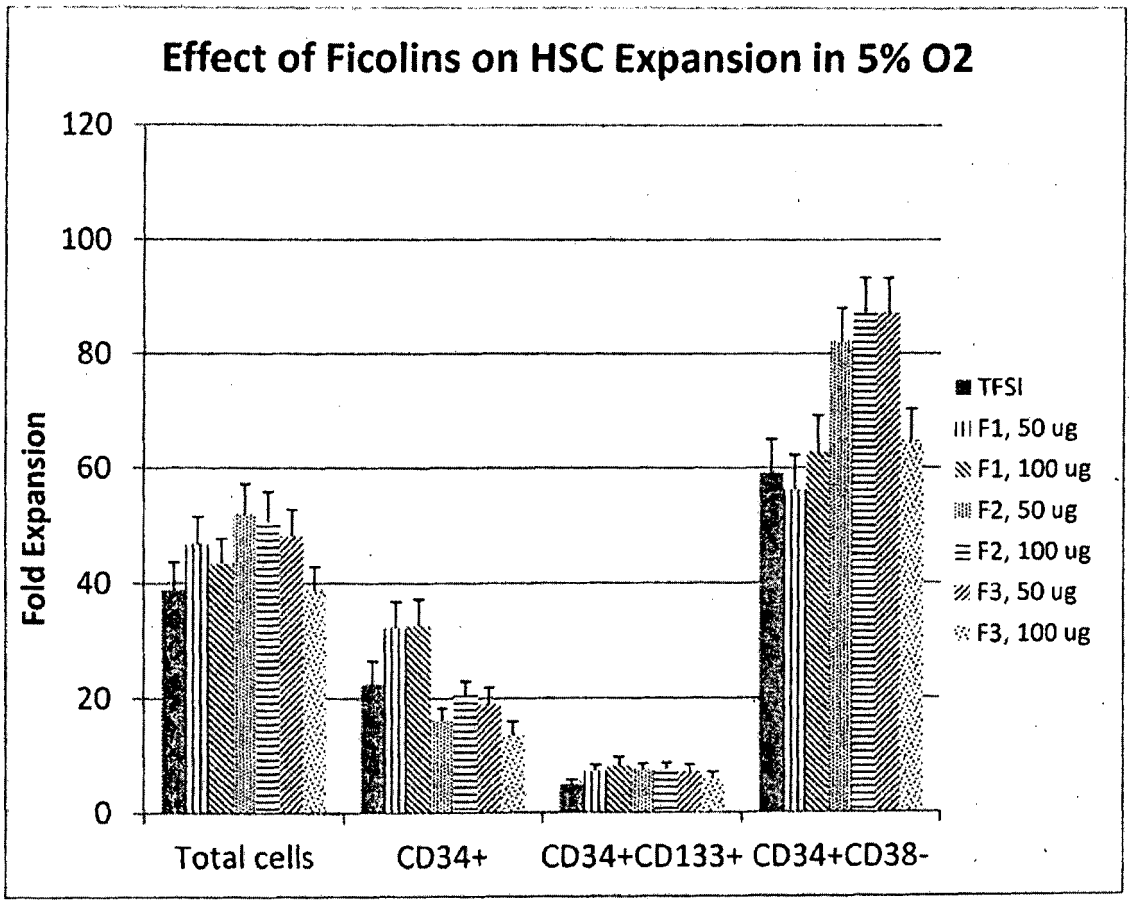
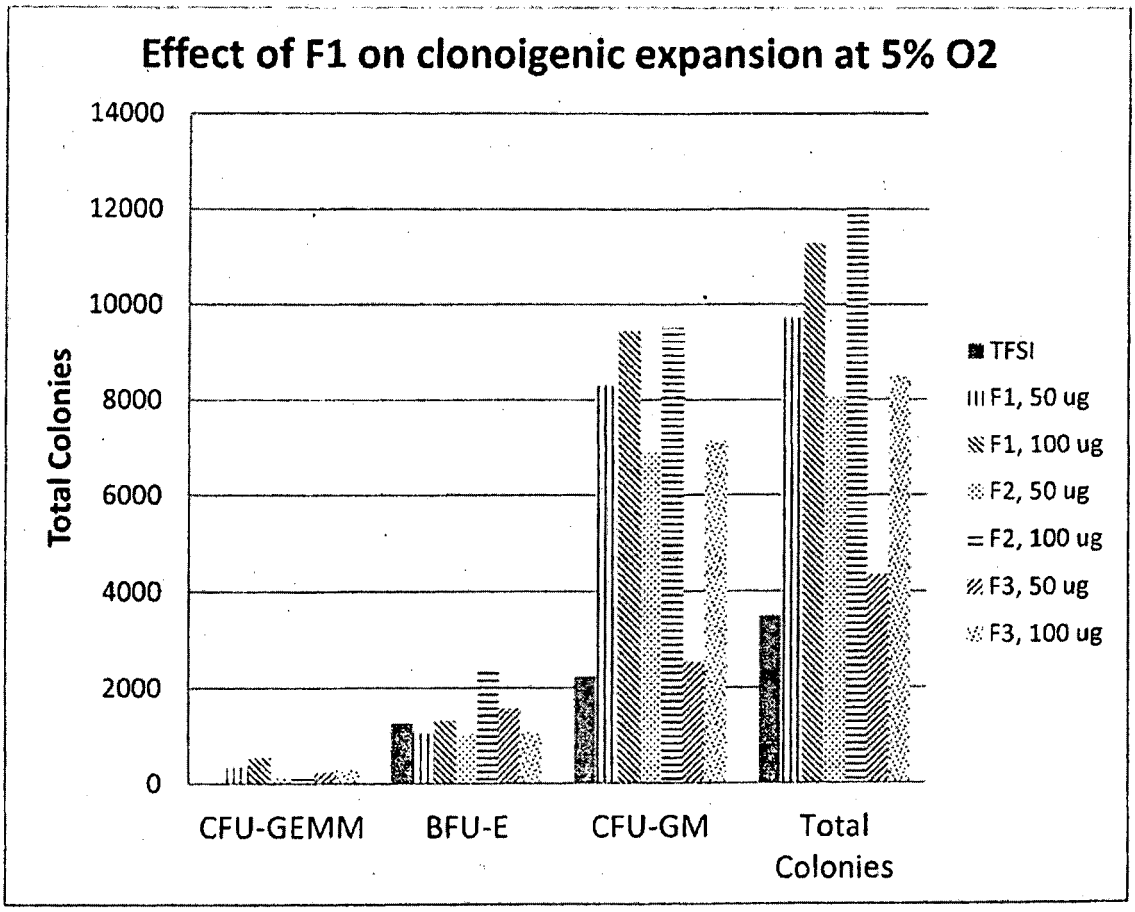

Effect of Ficolins on HSC Expansion in 5% O2
Fold Expansion
120
100
80
60
40
20
0
Total cells
CD34+
CD34+CD133+
CD34+CD38-
TFSI
F1, 50 ug
F1, 100 ug
F2, 50 ug
F2, 100 ug
F3, 50 ug
F3, 100 ug

Figure 11:


Effect of F1 on clonoigenic expansion at 5% O2
Total Colonies
14000
12000
10000
8000
6000
4000
2000
0
CFU-GEMM
BFU-E
CFU-GM
Total Colonies
TFSI
F1, 50 ug
F1, 100 ug
F2, 50 ug
F2, 100 ug
F3, 50 ug
F3, 100 ug