Figure 1:

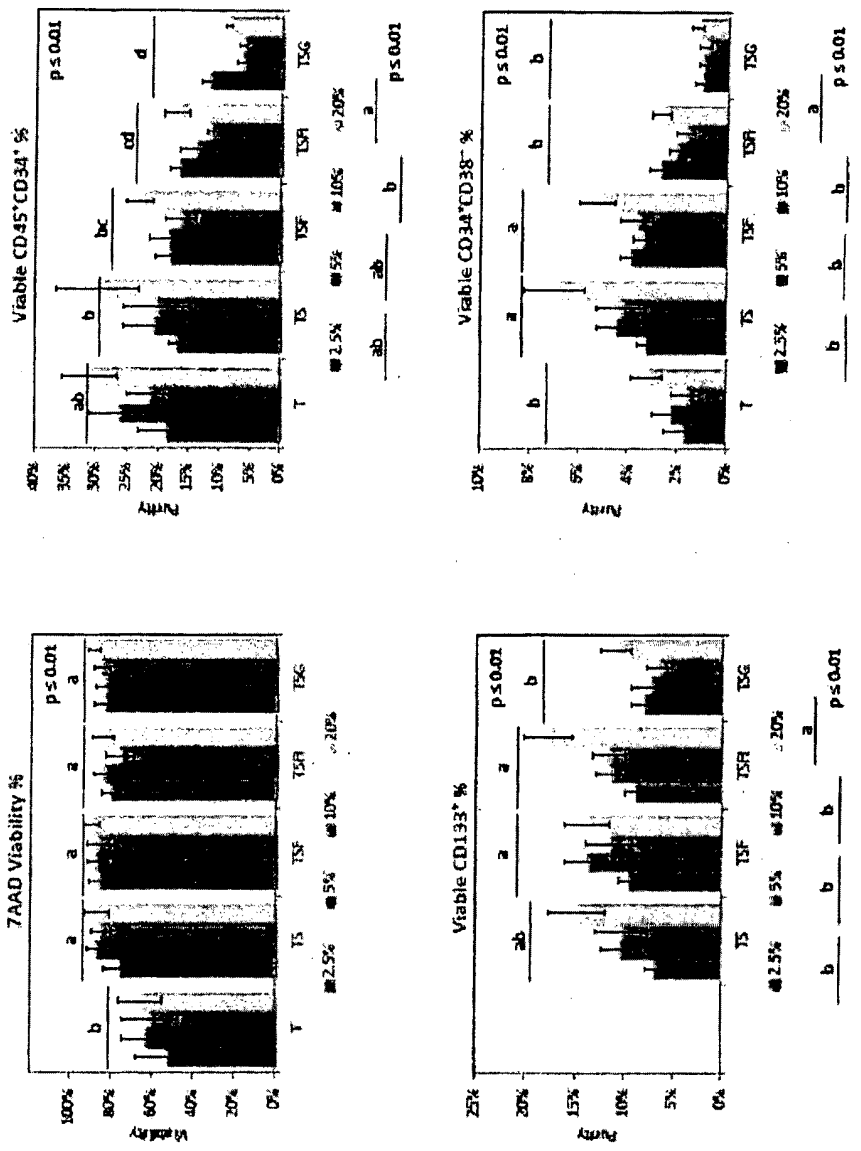

7AAD Viability %
Viable CD45+CD34+ %
Viable CD34+CD38- %
Viable CD133+ %
Viability
Purity
T
TS
TSF
TSFI
TSG
2.5%
5%
10%
20%
p ≤ 0.01

Figure 1 (continued):

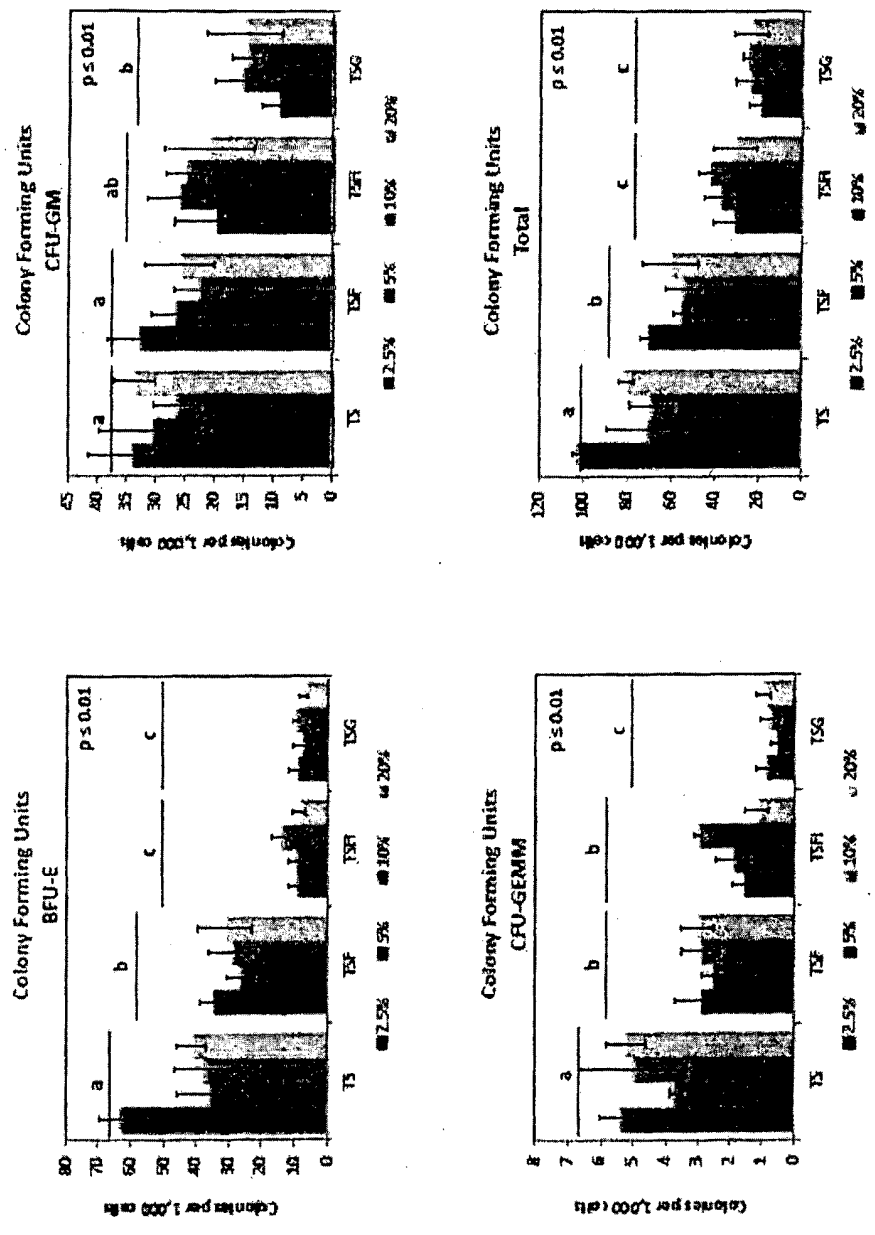


Figure 2:

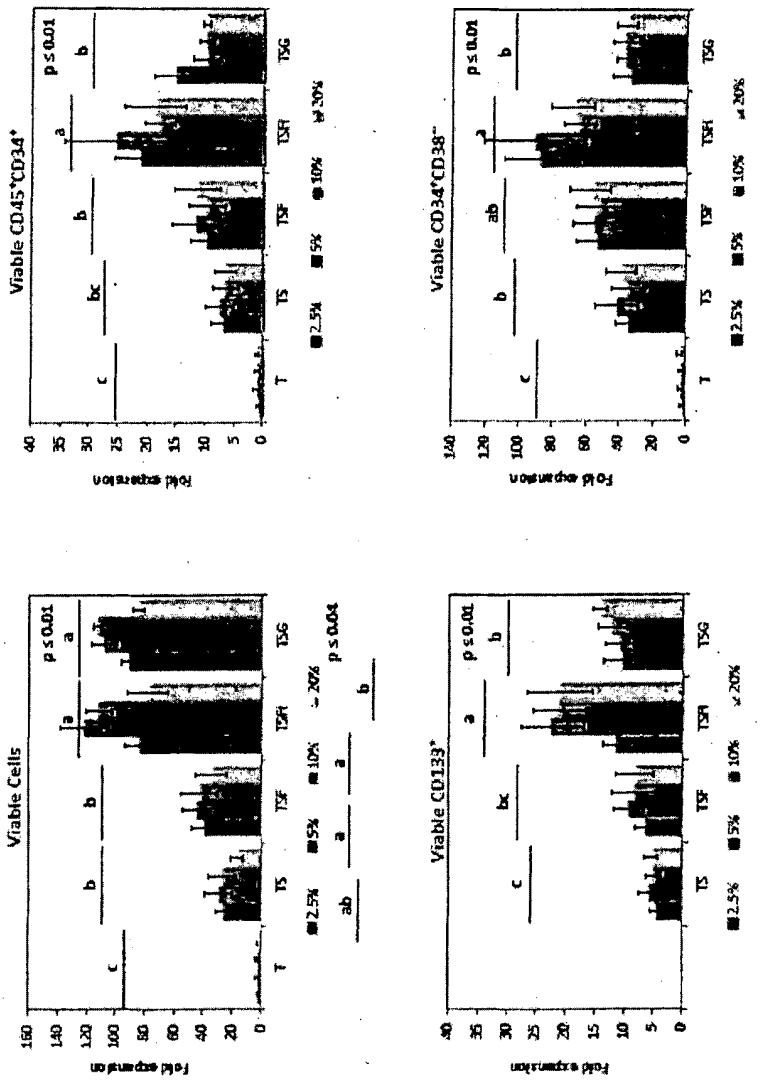

Viable Cells
Viable CD45+CD34+
Viable CD34+CD38-
Viable CD133+
Fold expansion
T
TS
TSF
TSFH
TSG
2.5%
5%
10%
20%
p ≤ 0.01
p ≤ 0.04

Figure 2 (continued):

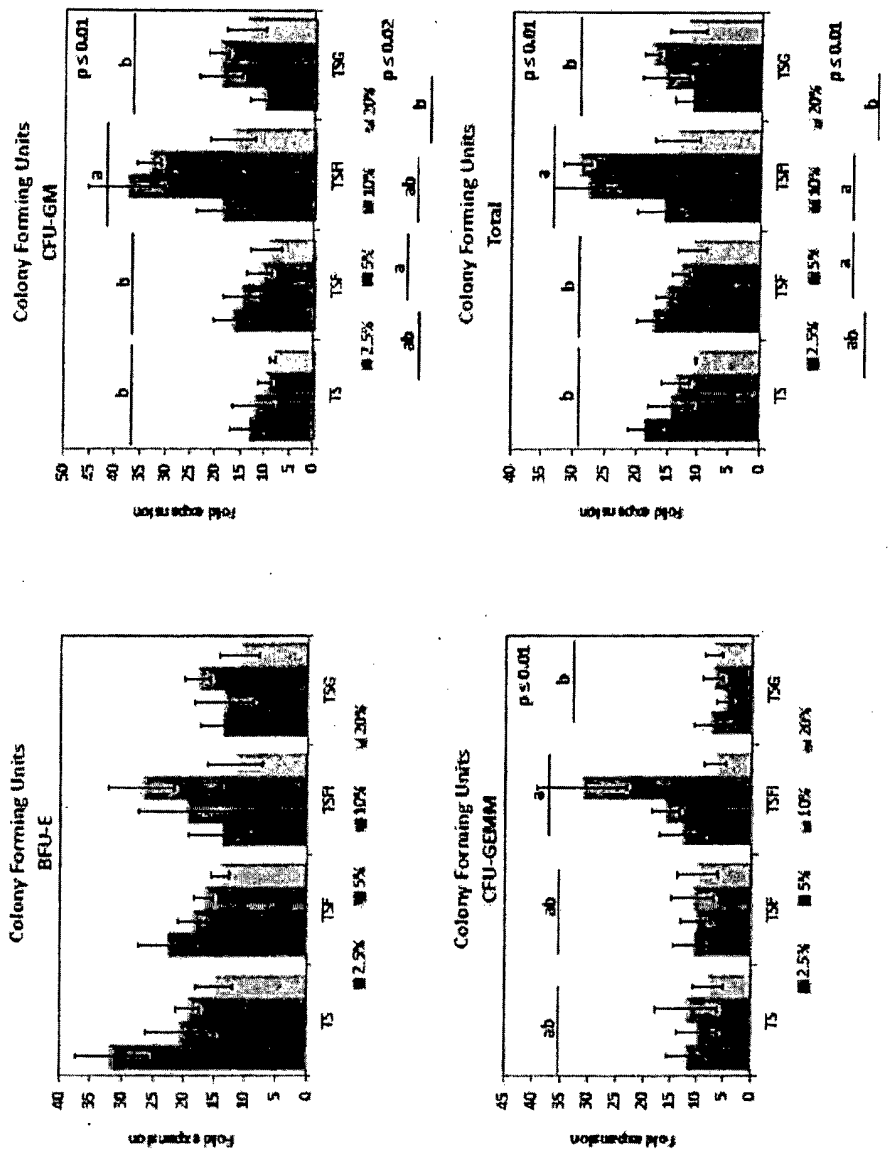


Figure 3:

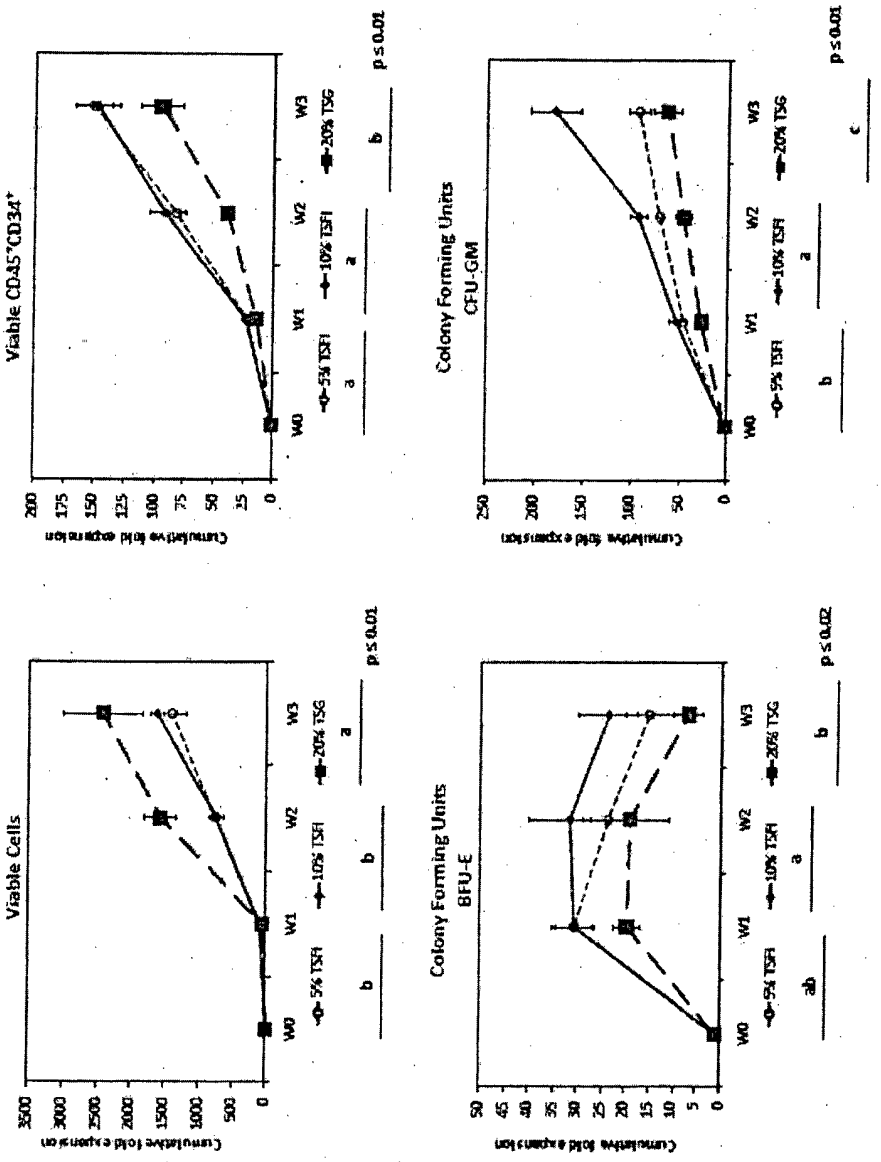

Viable CD45+CD34+
Cumulative fold expansion
W0
W1
W2
W3
5% TSH
10% TSH
20% TSG
a
a
b
p ≤ 0.01
Viable Cells
Cumulative fold expansion
b
b
a
p ≤ 0.01
Colony Forming Units
CFU-GM
Cumulative fold expansion
b
a
c
p ≤ 0.01
Colony Forming Units
BFU-E
Cumulative fold expansion
ab
a
b
p ≤ 0.02

Figure 3 (continued):

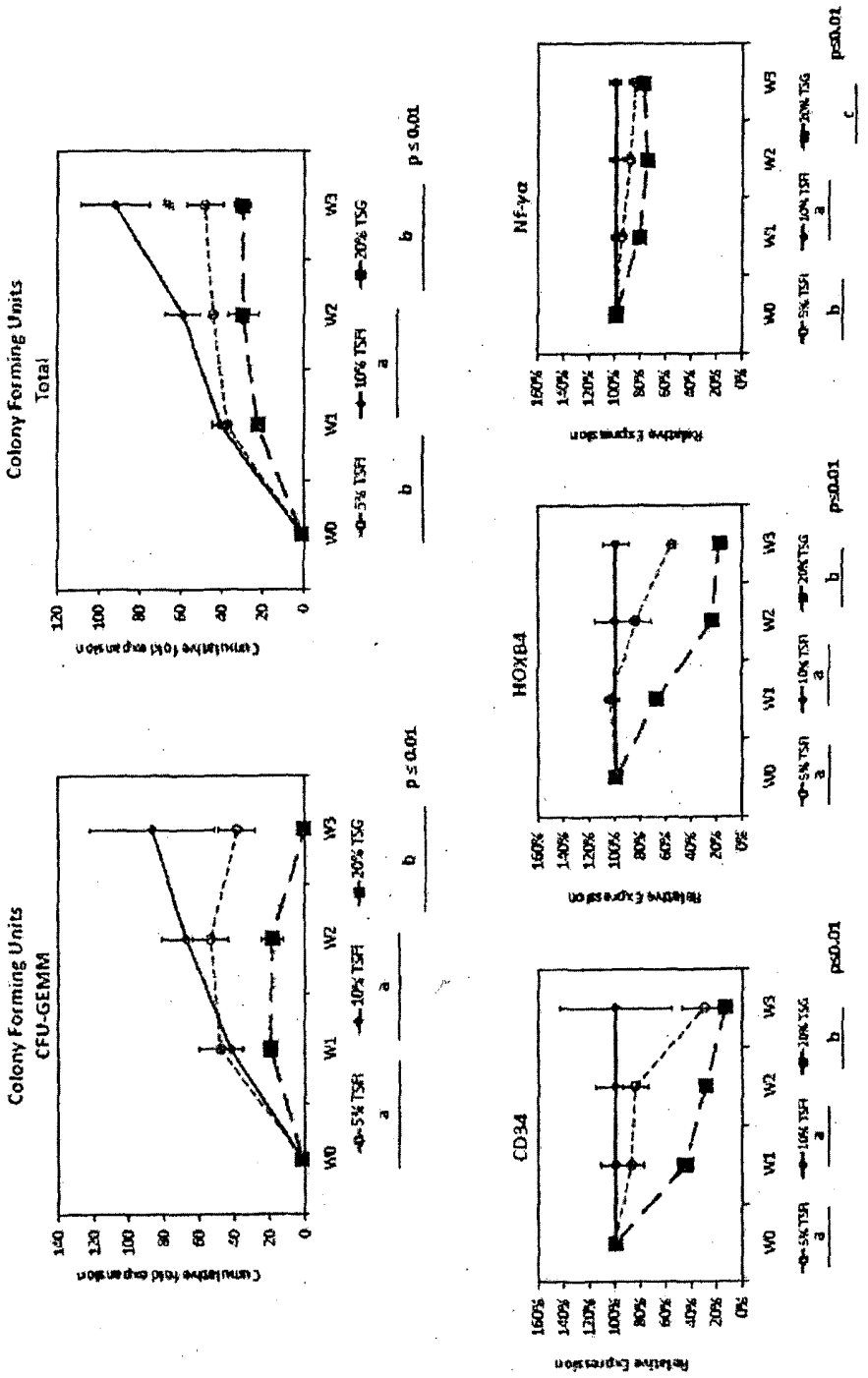


Figure 4:

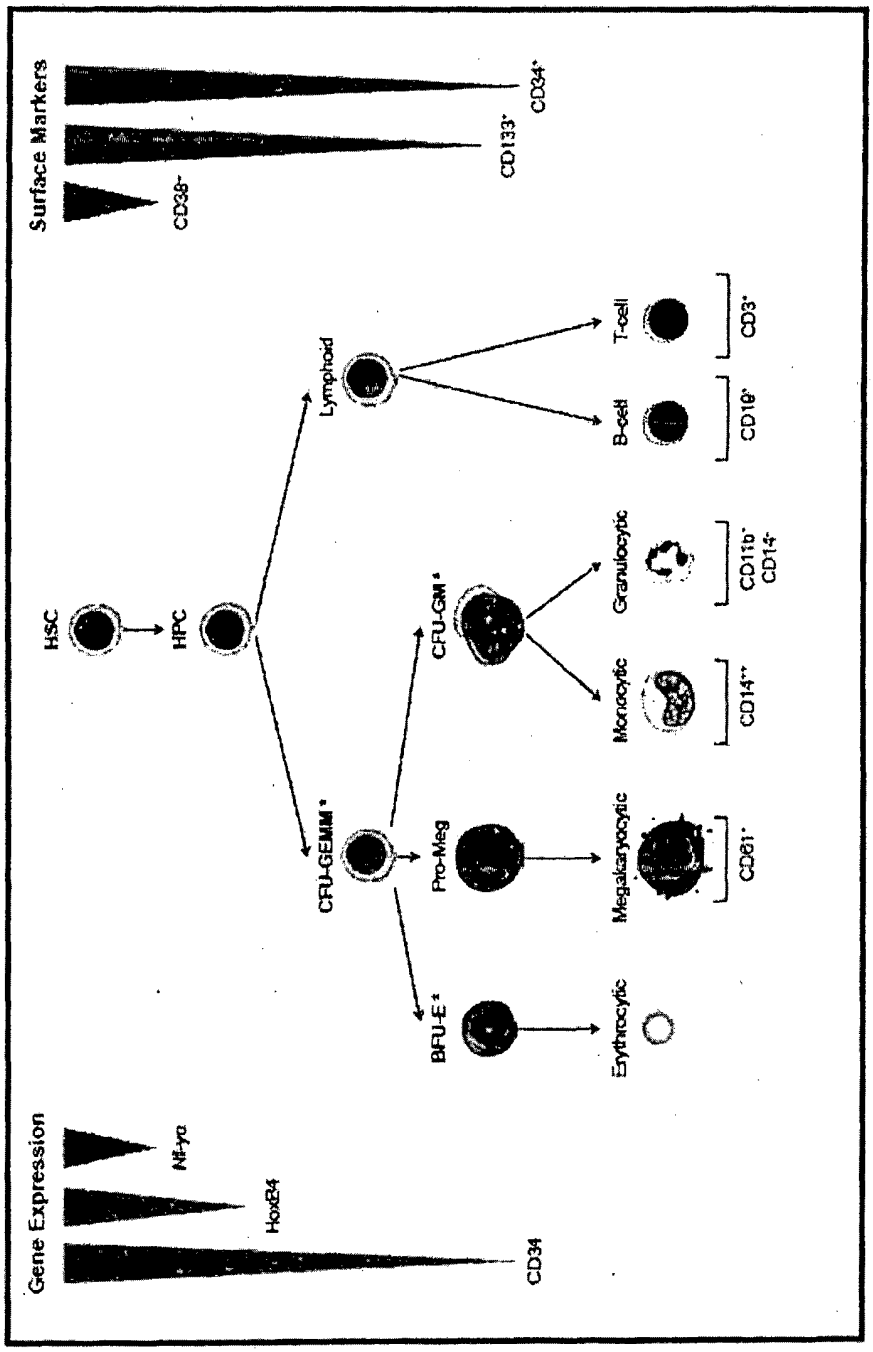

Gene Expression
CD34
HoxB4
Nf-ya
Surface Markers
CD38-
CD133+
CD34+
HSC
HPC
Lymphoid
CFU-GEMM+
BFU-E+
Pro-Meg
CFU-GM+
Erythrocytic
Megakaryocytic
Monocytic
Granulocytic
B-cell
T-cell
CD61+
CD14++
CD11b+
CD14-
CD19+
CD3+

Figure 5:

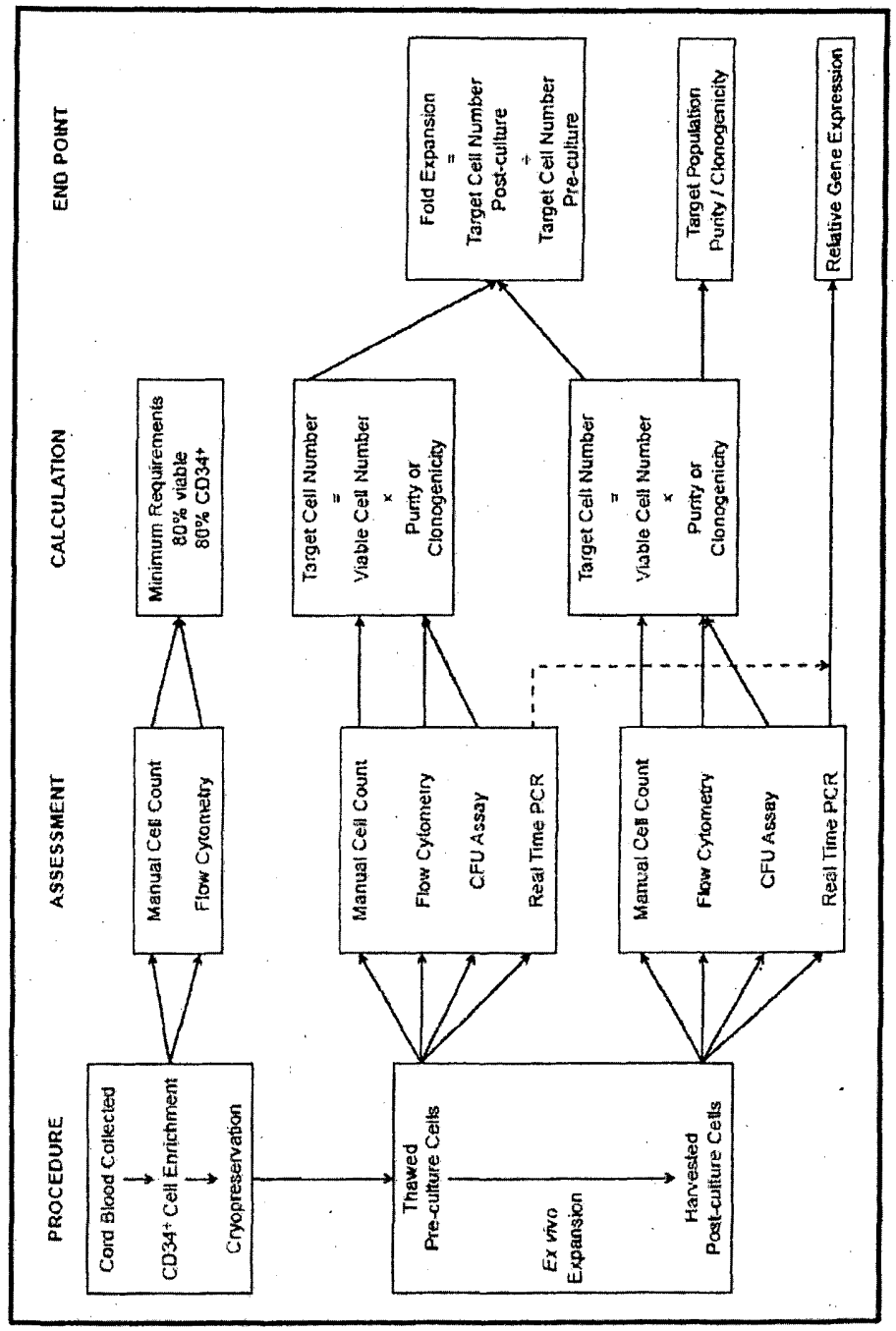

PROCEDURE
ASSESSMENT
CALCULATION
END POINT
Cord Blood Collected
CD34+ Cell Enrichment
Cryopreservation
Manual Cell Count
Flow Cytometry
Minimum Requirements
80% viable
80% CD34+
Thawed
Pre-culture Cells
Ex vivo
Expansion
Harvested
Post-culture Cells
Manual Cell Count
Flow Cytometry
CFU Assay
Real Time 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 6:

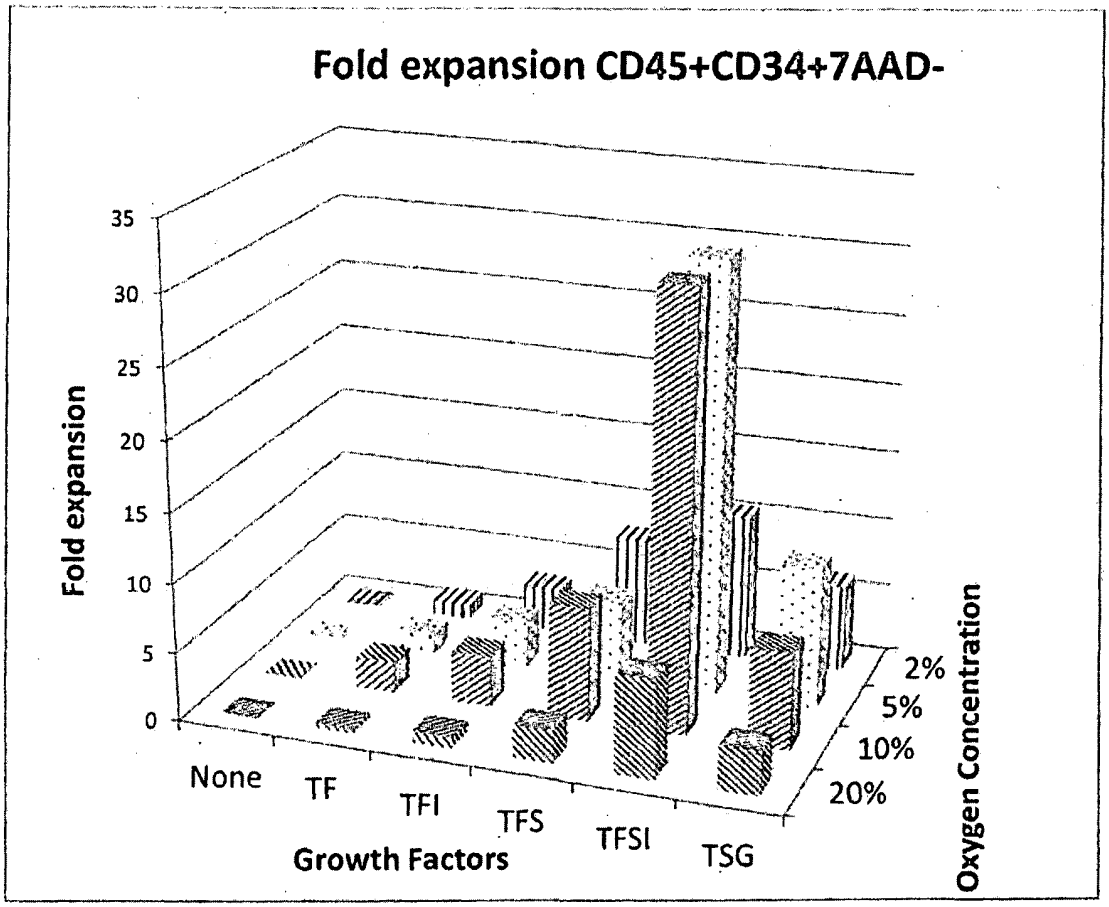

Fold expansion CD45+CD34+7AAD-
Fold expansion
35
30
25
20
15
10
5
0
None
TF
TFI
TFS
TFSI
TSG
Growth Factors
2%
5%
10%
20%
Oxygen Concentration

Figure 7:

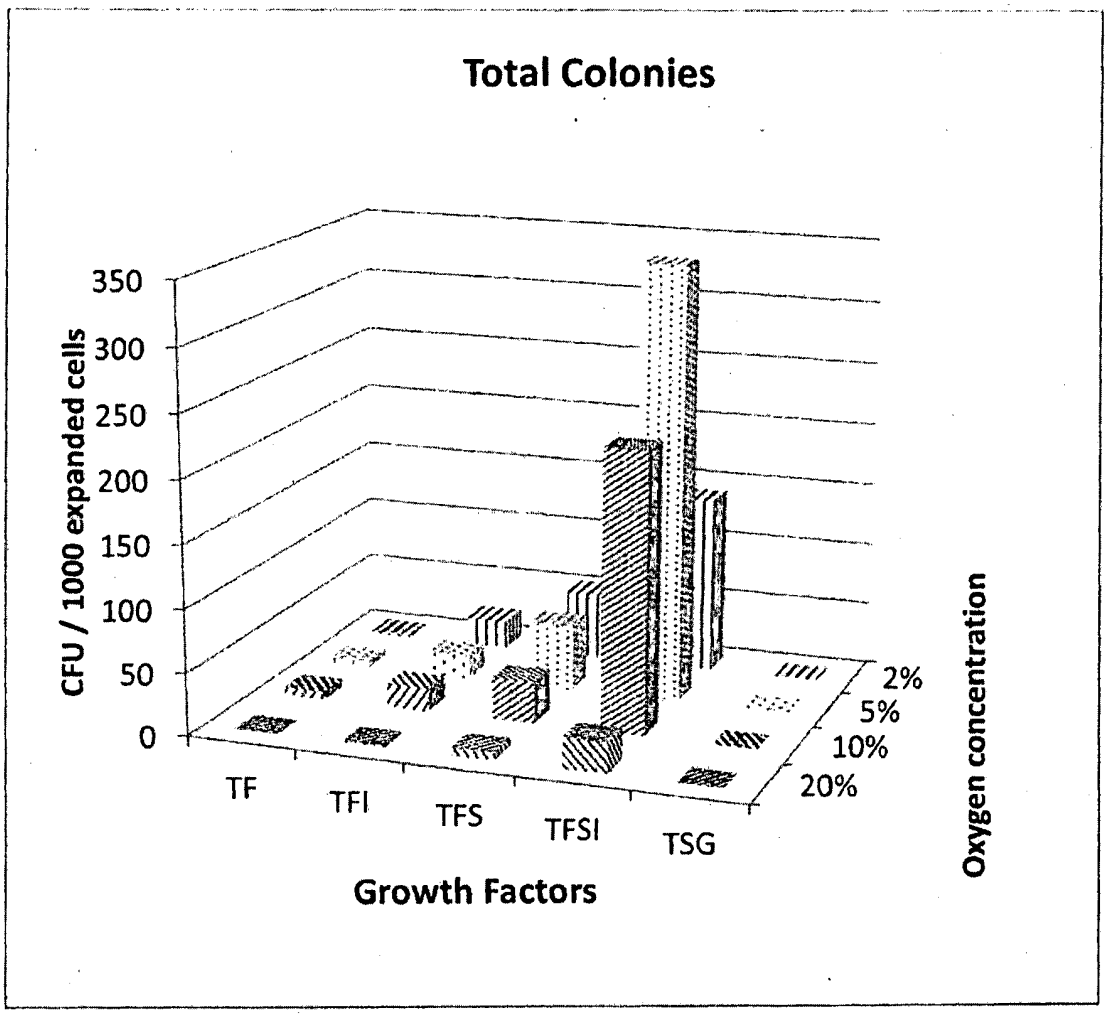

Total Colonies
CFU / 1000 expanded cells
350
300
250
200
150
100
50
0
TF
TFI
TFS
TFSI
TSG
Growth Factors
2%
5%
10%
20%
Oxygen concentration

Figure 8:

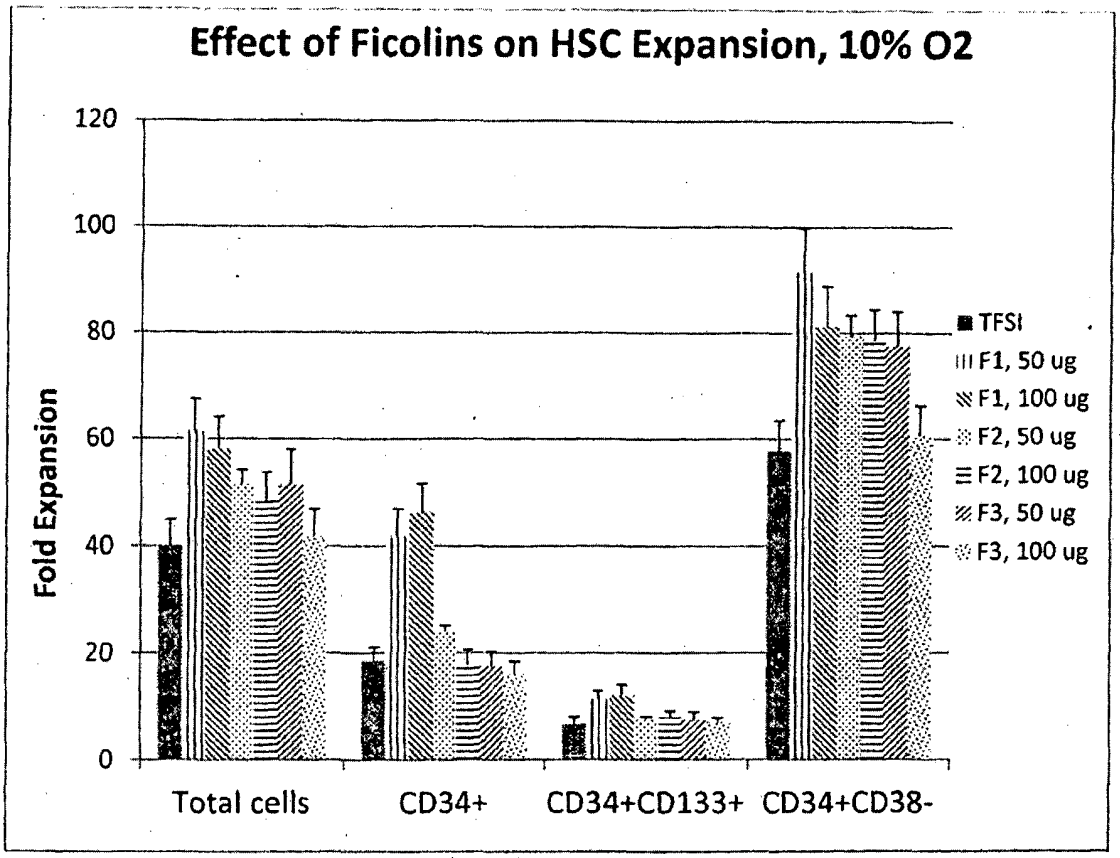

Effect of Ficolins on HSC Expansion, 10% O2
Fold Expansion
120
100
80
60
40
20
0
Total cells
CD34+
CD34+CD133+
CD34+CD38-
TFSI
F1, 50 ug
F1, 100 ug
F2, 50 ug
F2, 100 ug
F3, 50 ug
F3, 100 ug

Figure 9:

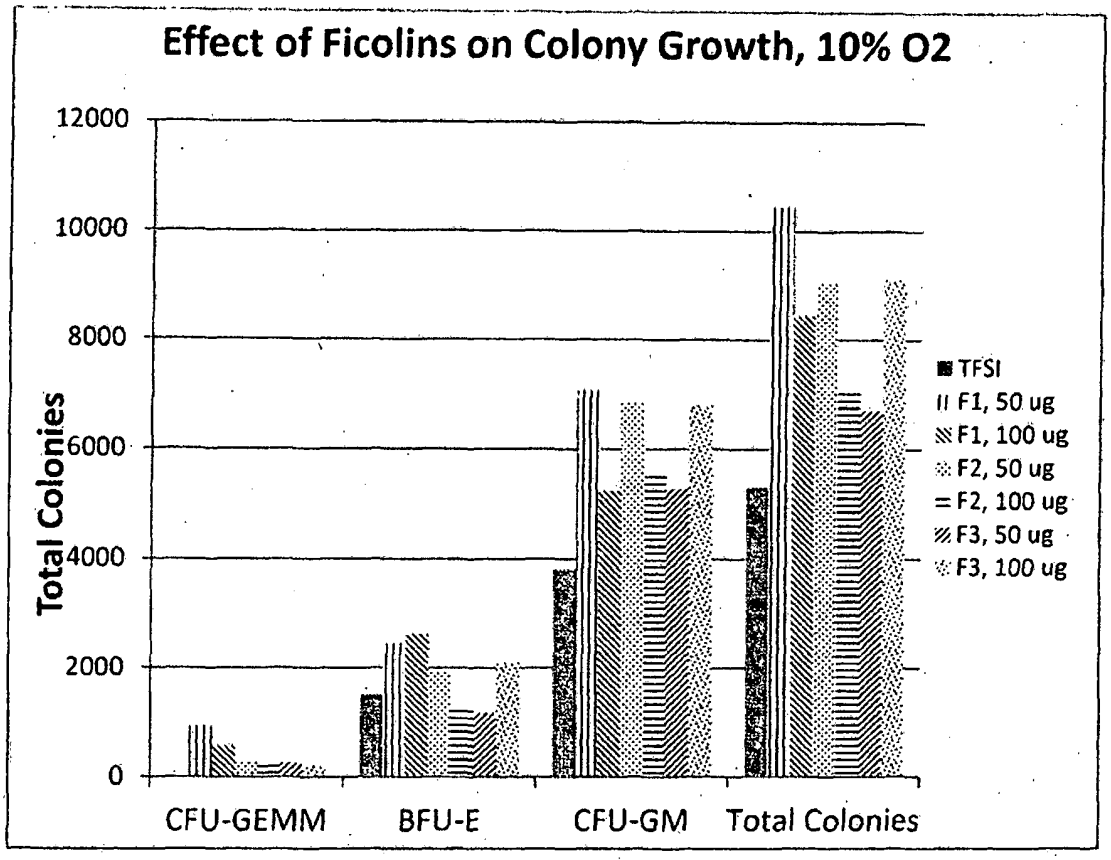

Effect of Ficolins on Colony Growth, 10% O2
Total Colonies
12000
10000
8000
6000
4000
2000
0
CFU-GEMM
BFU-E
CFU-GM
Total Colonies
TFSI
F1, 50 ug
F1, 100 ug
F2, 50 ug
F2, 100 ug
F3, 50 ug
F3, 100 ug

Figure 10:

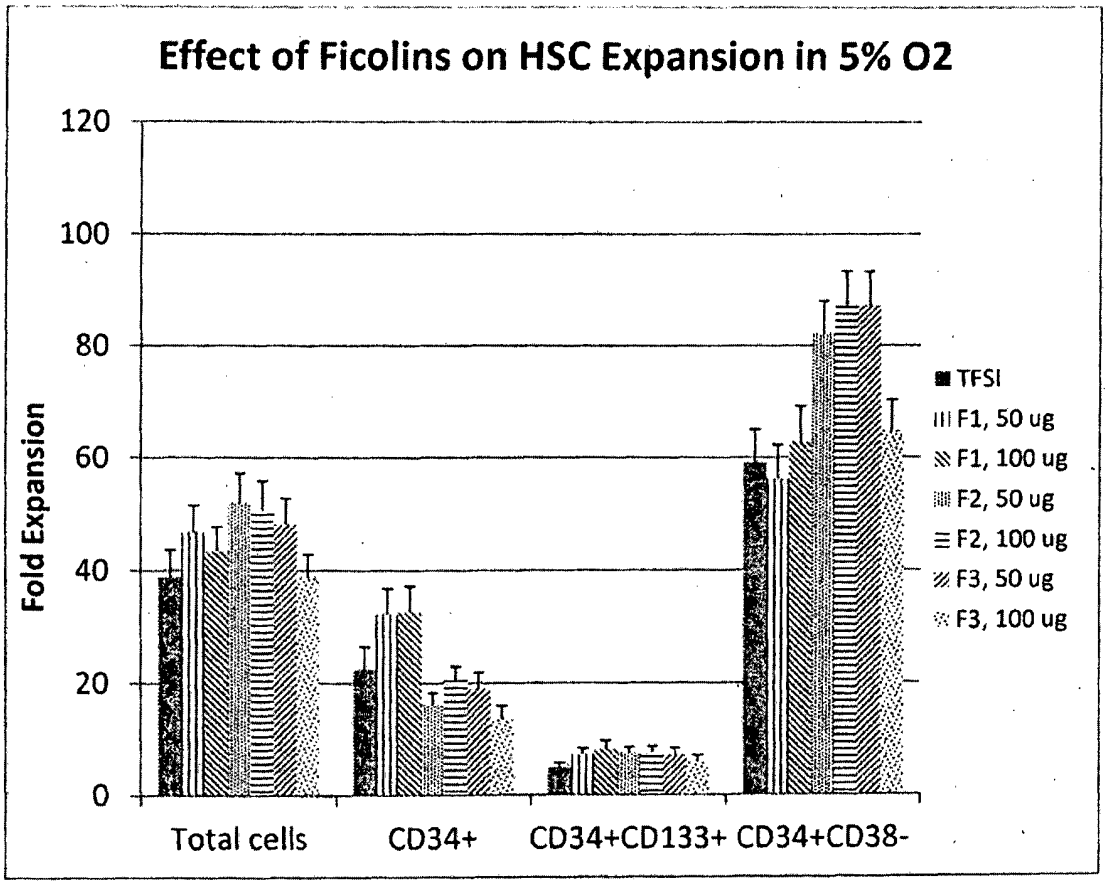
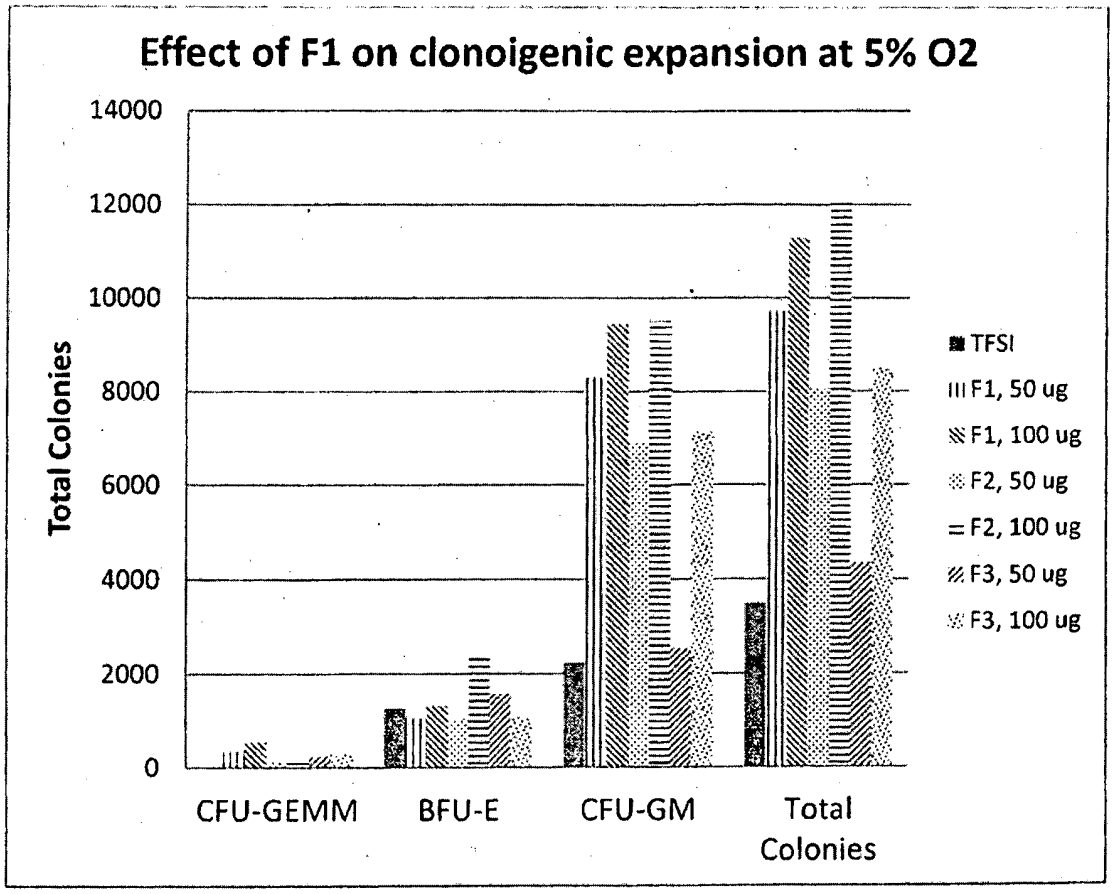

Effect of Ficolins on HSC Expansion in 5% O2
Fold Expansion
120
100
80
60
40
20
0
Total cells
CD34+
CD34+CD133+
CD34+CD38-
TFSI
F1, 50 ug
F1, 100 ug
F2, 50 ug
F2, 100 ug
F3, 50 ug
F3, 100 ug

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