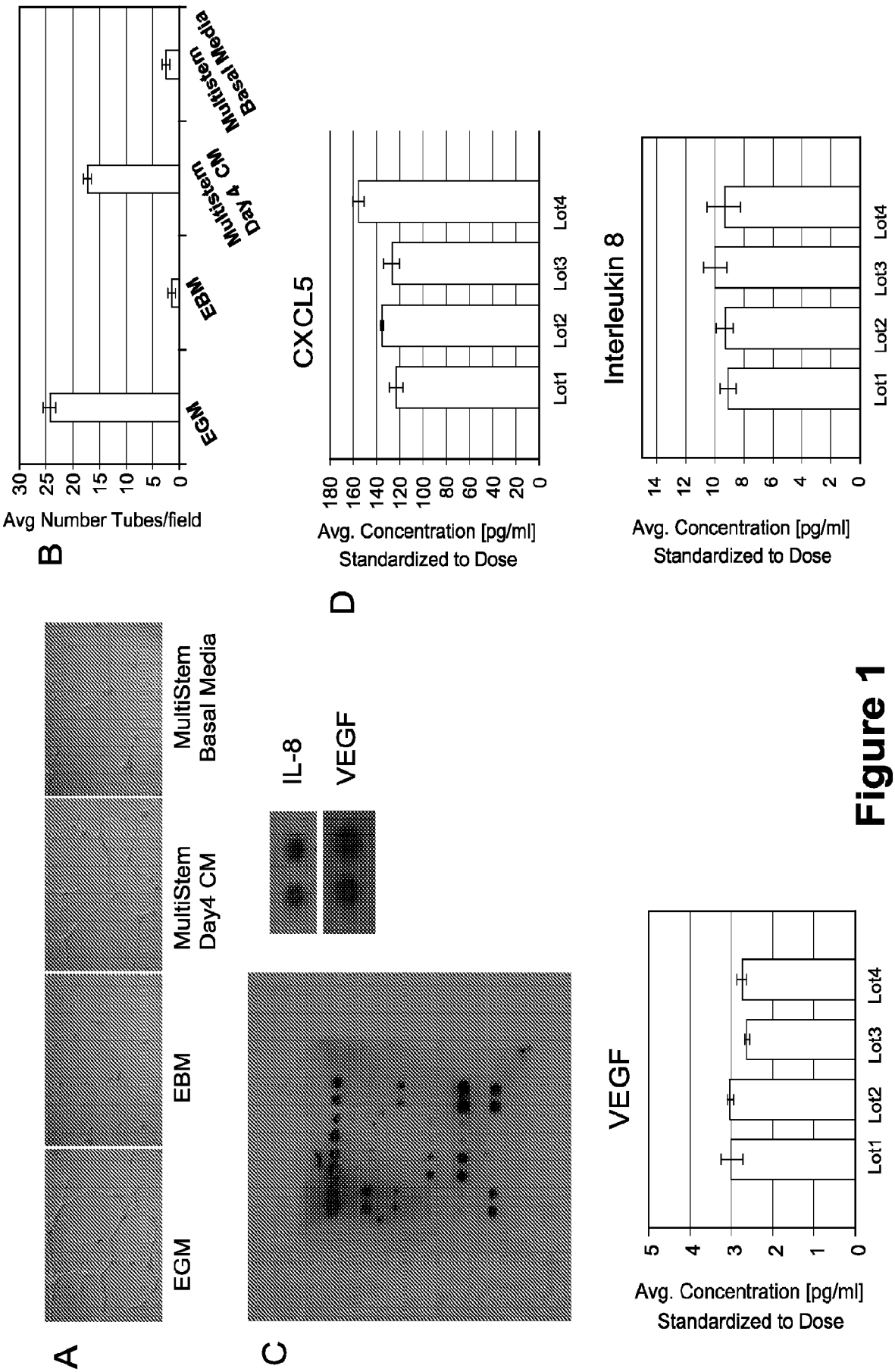

A
EGM
EBM
MultiStem Day4 CM
MultiStem Basal Media
B
Avg Number Tubes/field
EGM
EBM
MultiStem Day 4 CM
MultiStem Basal Media
C
IL-8
VEGF
D
CXCL5
Avg. Concentration [pg/ml] Standardized to Dose
Lot1 Lot2 Lot3 Lot4
Interleukin 8
Avg. Concentration [pg/ml] Standardized to Dose
Lot1 Lot2 Lot3 Lot4
VEGF
Avg. Concentration [pg/ml] Standardized to Dose
Lot1 Lot2 Lot3 Lot4

Figure 1

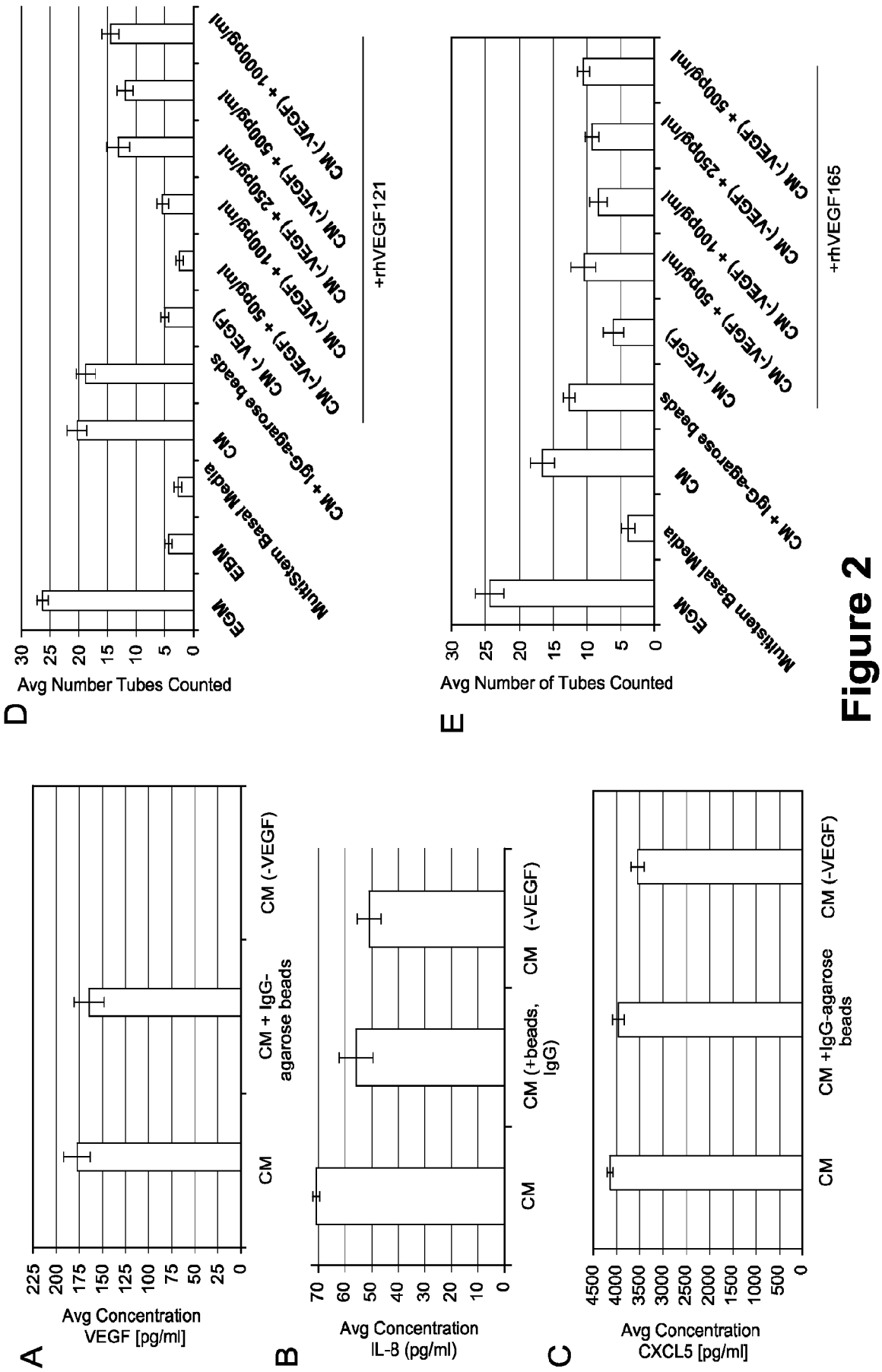

A
Avg Concentration VEGF [pg/ml]
225
200
175
150
125
100
75
50
25
0
CM
CM + IgG-agarose beads
CM (-VEGF)
B
Avg Concentration IL-8 (pg/ml)
70
60
50
40
30
20
10
0
CM
CM (+beads, IgG)
CM (-VEGF)
C
Avg Concentration CXCL5 [pg/ml]
4500
4000
3500
3000
2500
2000
1500
1000
500
0
CM
CM +IgG-agarose beads
CM (-VEGF)
D
Avg Number Tubes Counted
30
25
20
15
10
5
0
EGM
EBM
Multiskem Basal Media
CM
CM + IgG-agarose beads
CM (- VEGF)
CM (-VEGF) + 50pg/ml
CM (-VEGF) + 100pg/ml
CM (-VEGF) + 250pg/ml
CM (-VEGF) + 500pg/ml
CM (-VEGF) + 1000pg/ml
+rhVEGF121
E
Avg Number of Tubes Counted
30
25
20
15
10
5
0
EGM
Multiskem Basal Media
CM
CM + IgG-agarose beads
CM (-VEGF)
CM (-VEGF) + 50pg/ml
CM (-VEGF) + 100pg/ml
CM (-VEGF) + 250pg/ml
CM (-VEGF) + 500pg/ml
+rhVEGF165

Figure 2

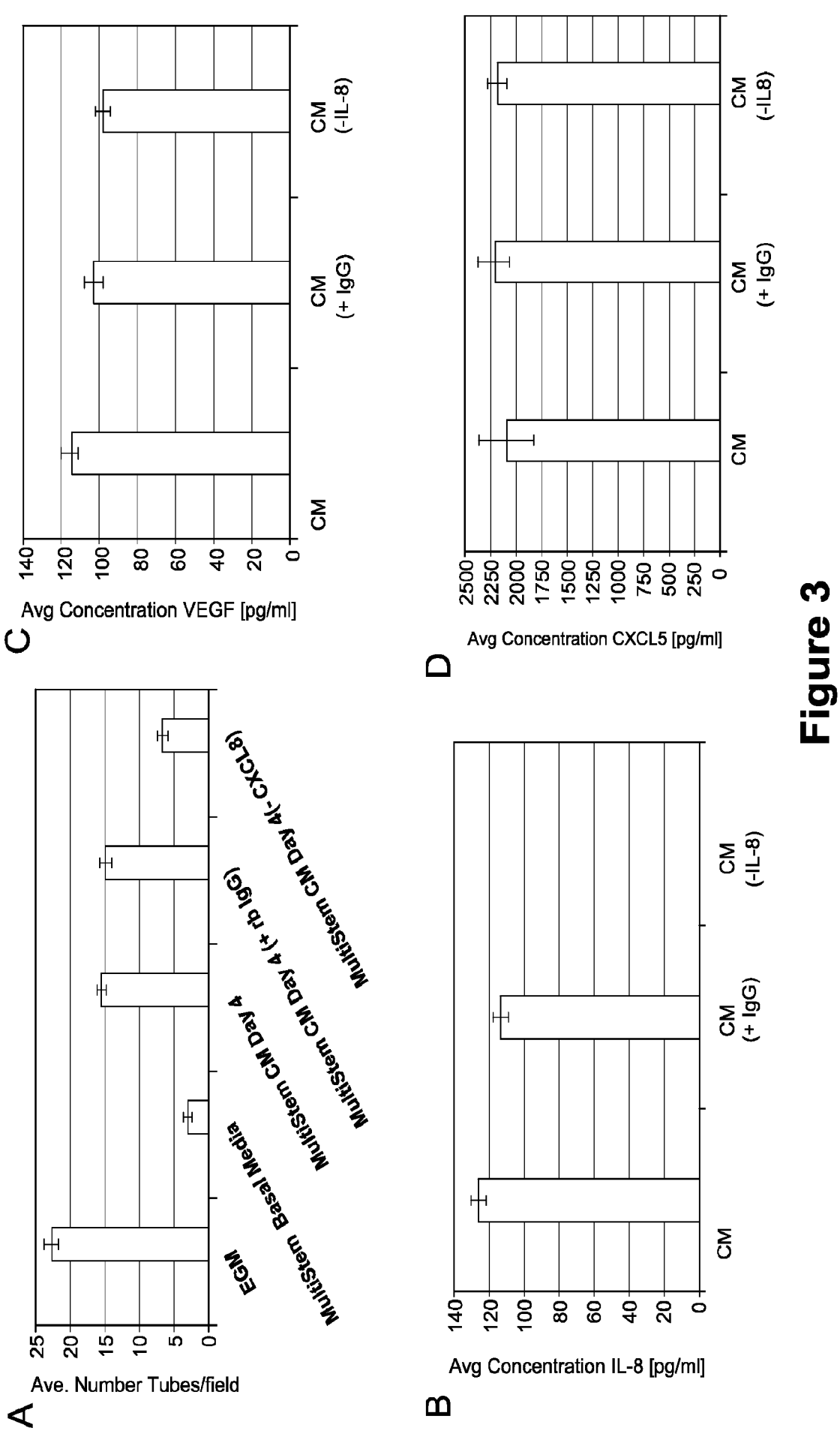
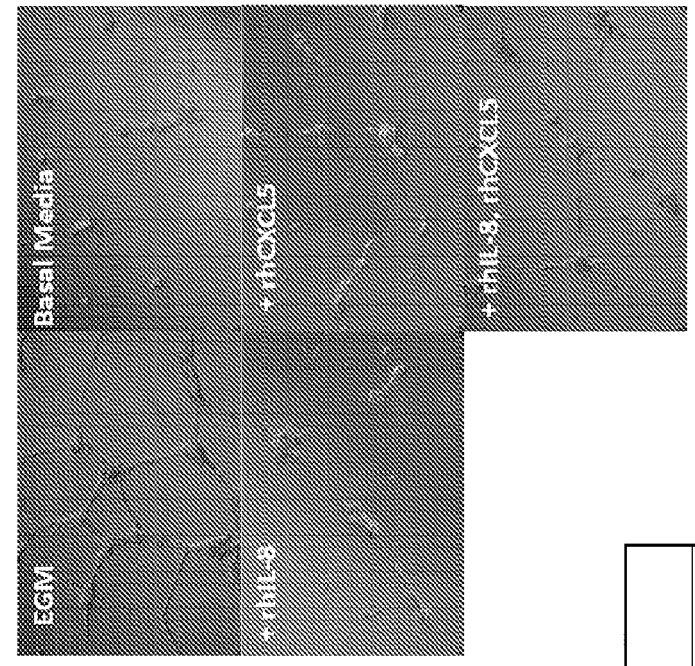
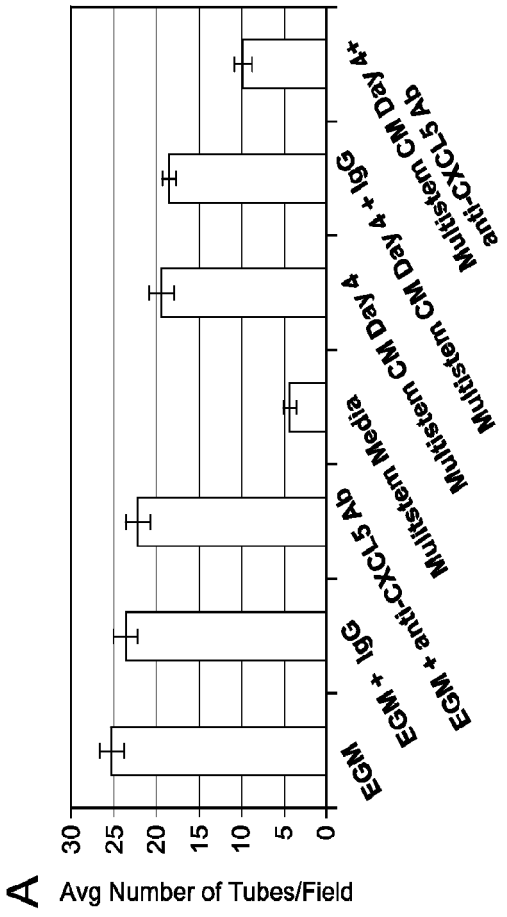

A
Ave. Number Tubes/field
0
5
10
15
20
25
EGM
Multistem Basal Media
Multistem CM Day 4
Multistem CM Day 4 (+ rb IgG)
Multistem CM Day 4(- CXCL8)
B
Avg Concentration IL-8 [pg/ml]
0
20
40
60
80
100
120
140
CM
CM (+ IgG)
CM (-IL-8)
C
Avg Concentration VEGF [pg/ml]
0
20
40
60
80
100
120
140
CM
CM (+ IgG)
CM (-IL-8)
D
Avg Concentration CXCL5 [pg/ml]
0
250
500
750
1000
1250
1500
1750
2000
2250
2500
CM
CM (+ IgG)
CM (-IL8)

Figure 3


B
EGM
Basal Media
+rhIL-8
+rhCXCL5
+rhIL-8 +rhCXCL5


A
Avg Number of Tubes/Field
0
5
10
15
20
25
30
EGM
EGM + IgG
EGM + anti-CXCL5 Ab
Multistem Media
Multistem CM Day 4
Multistem CM Day 4 + IgG
Multistem CM Day 4 + anti-CXCL5 Ab

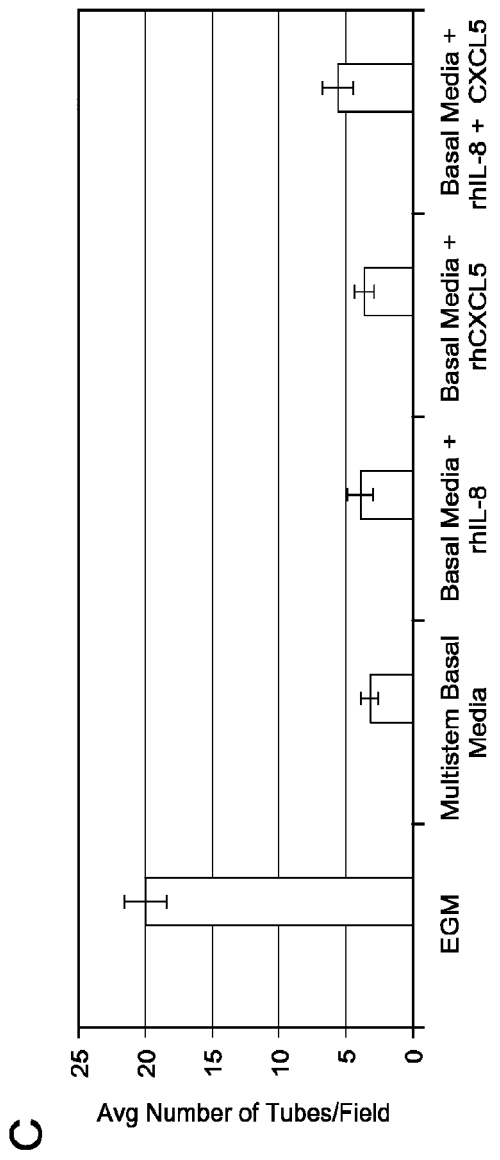

C
Avg Number of Tubes/Field
0
5
10
15
20
25
EGM
Multistem Basal Media
Basal Media + rhIL-8
Basal Media + rhCXCL5
Basal Media + rhIL-8 + CXCL5

Figure 4

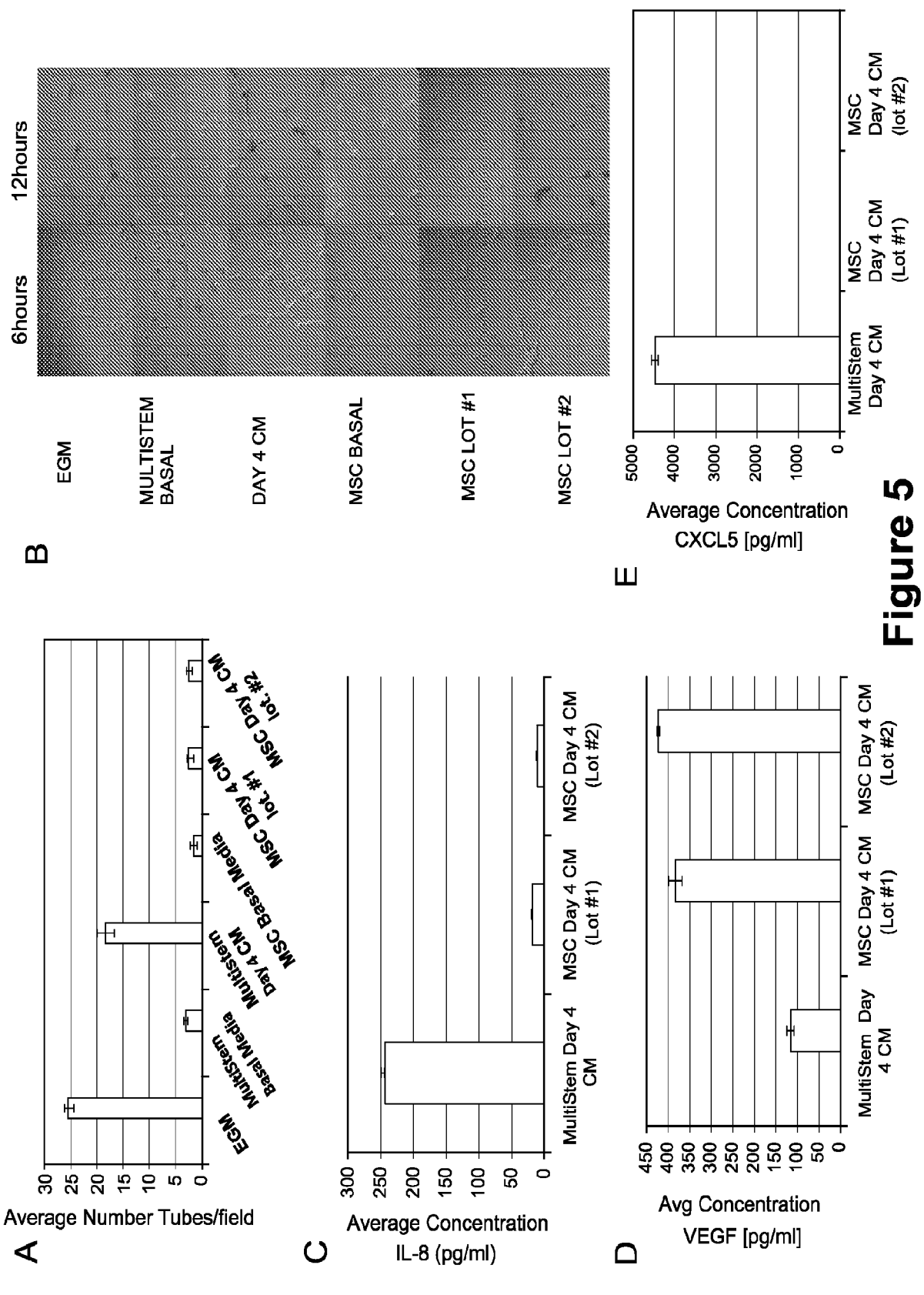
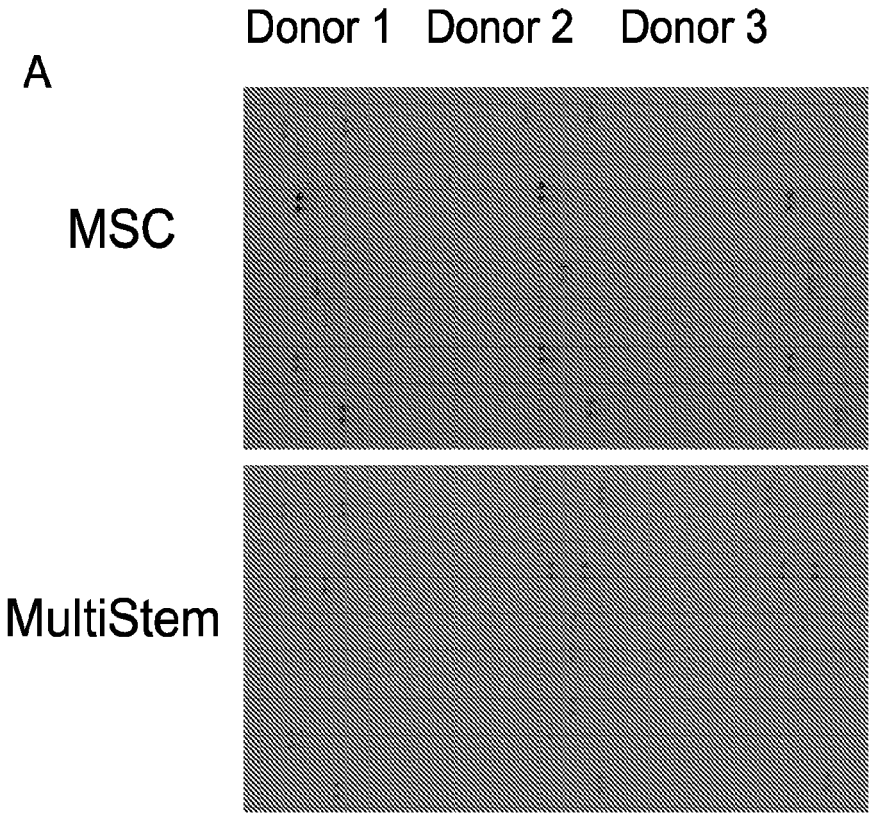

A
Average Number Tubes/field
0
5
10
15
20
25
30
EGM
Multistem
Basal Media
Multistem
Day 4 CM
MSC Basal Media
MSC Day 4 CM
lot. #1
MSC Day 4 CM
lot. #2
B
6hours
12hours
EGM
MULTISTEM BASAL
DAY 4 CM
MSC BASAL
MSC LOT #1
MSC LOT #2
C
Average Concentration
IL-8 (pg/ml)
0
50
100
150
200
250
300
MultiStem Day 4 CM
MSC Day 4 CM (Lot #1)
MSC Day 4 CM (Lot #2)
D
Avg Concentration
VEGF [pg/ml]
0
50
100
150
200
250
300
350
400
450
MultiStem Day 4 CM
MSC Day 4 CM (Lot #1)
MSC Day 4 CM (Lot #2)
E
Average Concentration
CXCL5 [pg/ml]
0
1000
2000
3000
4000
5000
MultiStem Day 4 CM
MSC Day 4 CM (lot #1)
MSC Day 4 CM (lot #2)

Figure 5


Donor 1 Donor 2 Donor 3
A
MSC
MultiStem

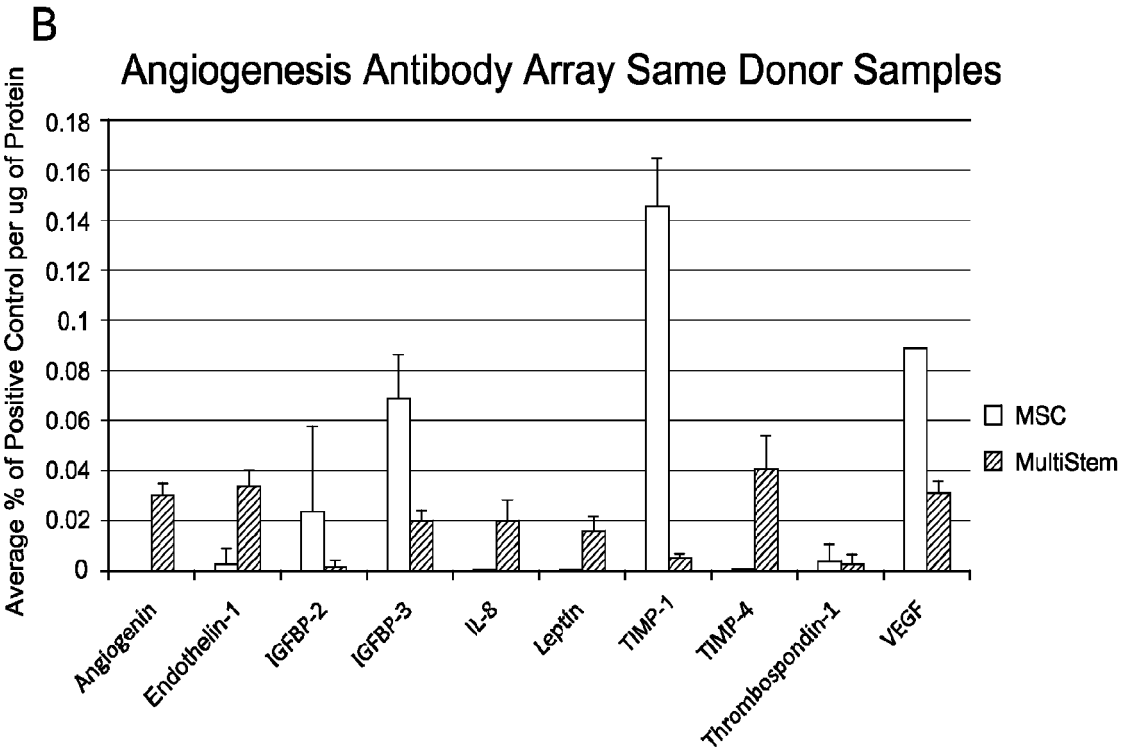

B
Angiogenesis Antibody Array Same Donor Samples
Average % of Positive Control per ug of Protein
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
MSC
MultiStem
Angiogenin
Endothelin-1
IGFBP-2
IGFBP-3
IL-8
Leptin
TIMP-1
TIMP-4
Thrombospondin-1
VEGF

Figure 6

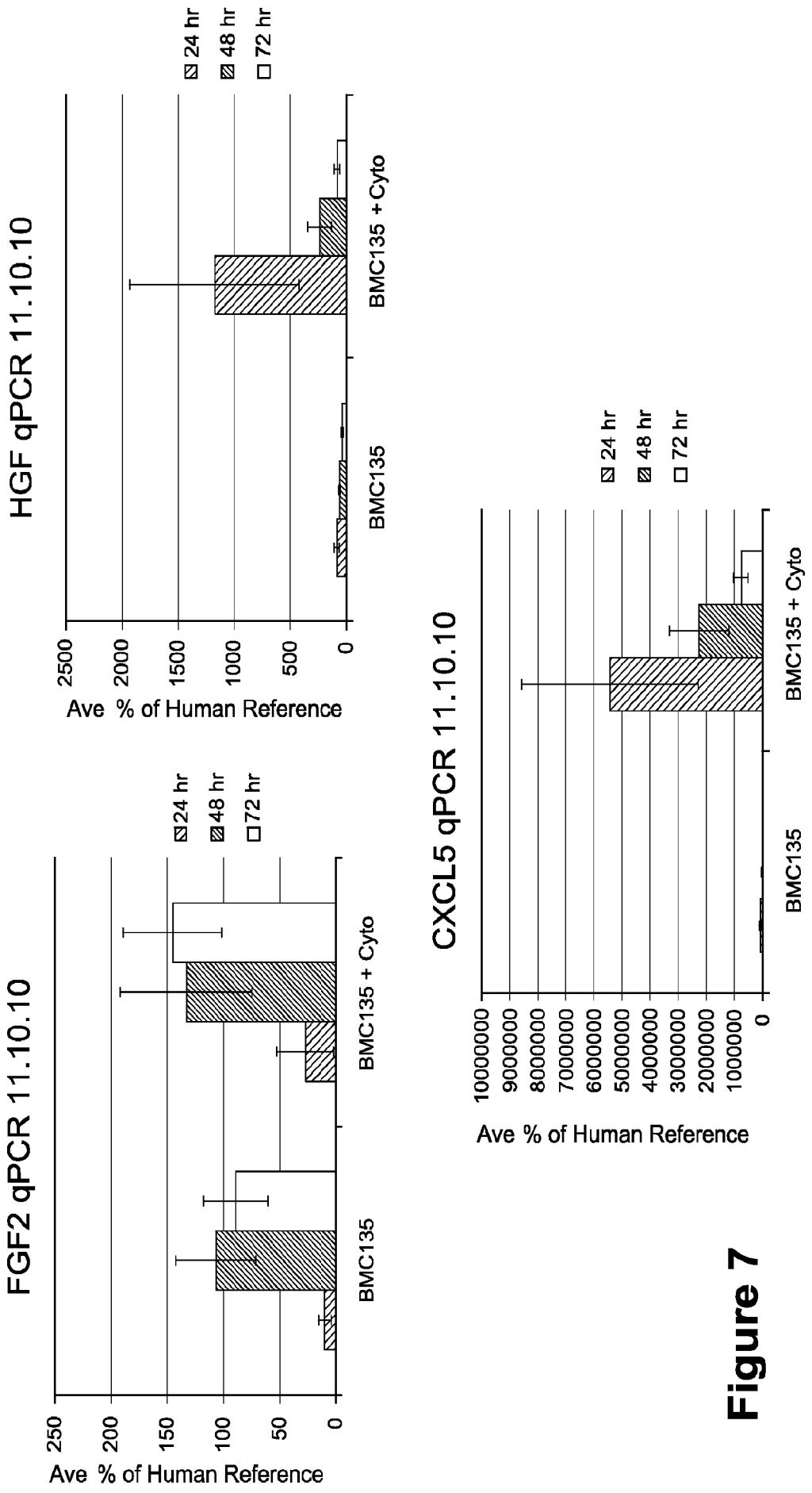

HGF qPCR 11.10.10
24 hr
48 hr
72 hr
2500
2000
1500
1000
500
0
Ave % of Human Reference
BMC135
BMC135 + Cyto
FGF2 qPCR 11.10.10
250
200
150
100
50
0
CXCL5 qPCR 11.10.10
10000000
9000000
8000000
7000000
6000000
5000000
4000000
3000000
2000000
1000000

Figure 7

SUBSTITUTE SHEET (RULE 26)

Sample of Angiogenic factors upregulated

6 hours

SYMBOL	MultiStem Basal expression	MultiStem+ cytomix	Fold Change
IL8	7762.2	21887	2.81
CXCL5	5176.2	12990.2	2.51
VEGFC	3513.2	6143.6	1.75
TGFB3	42.5	173.3	4.08
IL6	312.5	13073.5	41.84
FGF2	146.2	444.1	3.04
PTGS2 (cox-2)	458.3	4918.6	10.73

48 hours

SYMBOL	MultiStem Basal expression	MultiStem + cytomix	Fold Change
IL8	184.6	26604.4	144.12
CXCL5	779.6	19267.2	24.71
VEGFC	1101	2777	2.523
VEGFA	264.1	485.9	1.84
TGFB3	41.4	215.1	5.120
IL6	25.7	960.3	37.37
ACVRL1	60.9	235.6	3.87
ANGPTL 4	1667.5	5296.5	3.18
CYR61	6609.5	10185.1	1.540
TNFRSF 12A	341.4	894.6	2.62

Figure 8

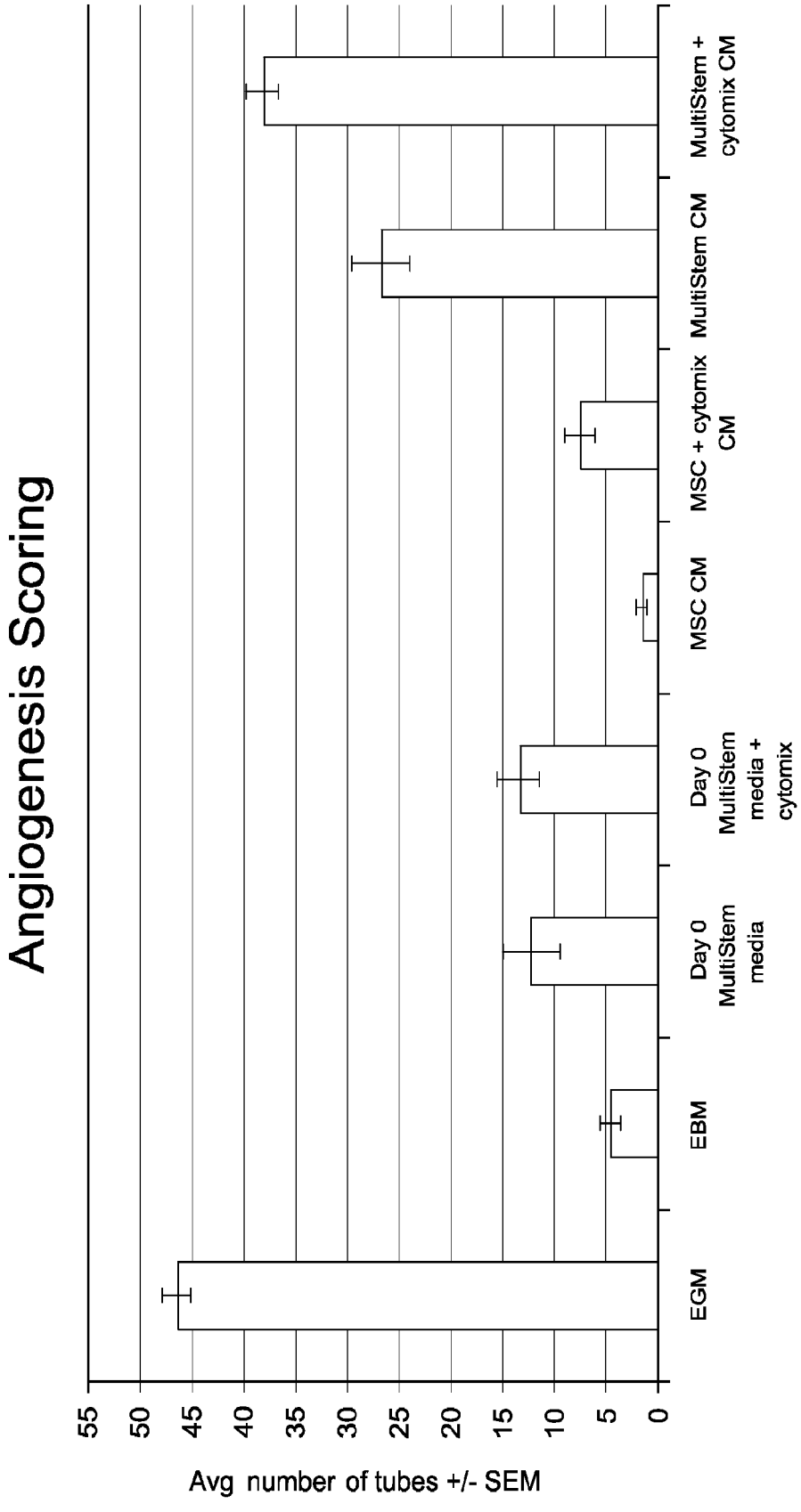

Angiogenesis Scoring
Avg number of tubes +/- SEM
0
5
10
15
20
25
30
35
40
45
50
55
EGM
EBM
Day 0 MultiStem media
Day 0 MultiStem media + cytomix
MSC CM
MSC + cytomix CM
MultiStem CM
MultiStem + cytomix CM

Figure 9

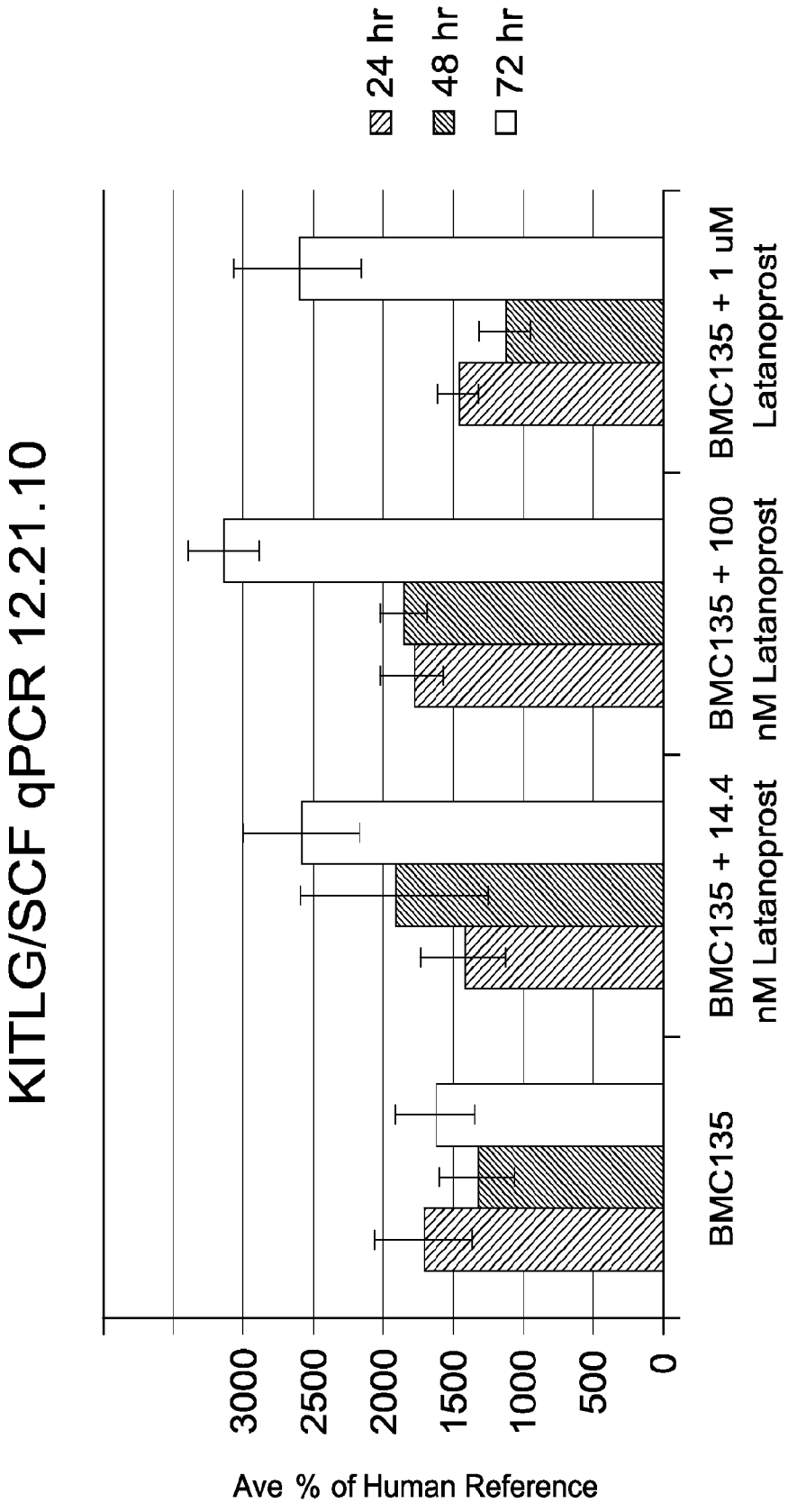

KITLG/SCF qPCR 12.21.10
24 hr
48 hr
72 hr
3000
2500
2000
1500
1000
500
0
Ave % of Human Reference
BMC135
BMC135 + 14.4 nM Latanoprost
BMC135 + 100 nM Latanoprost
BMC135 + 1 uM Latanoprost

Figure 10A

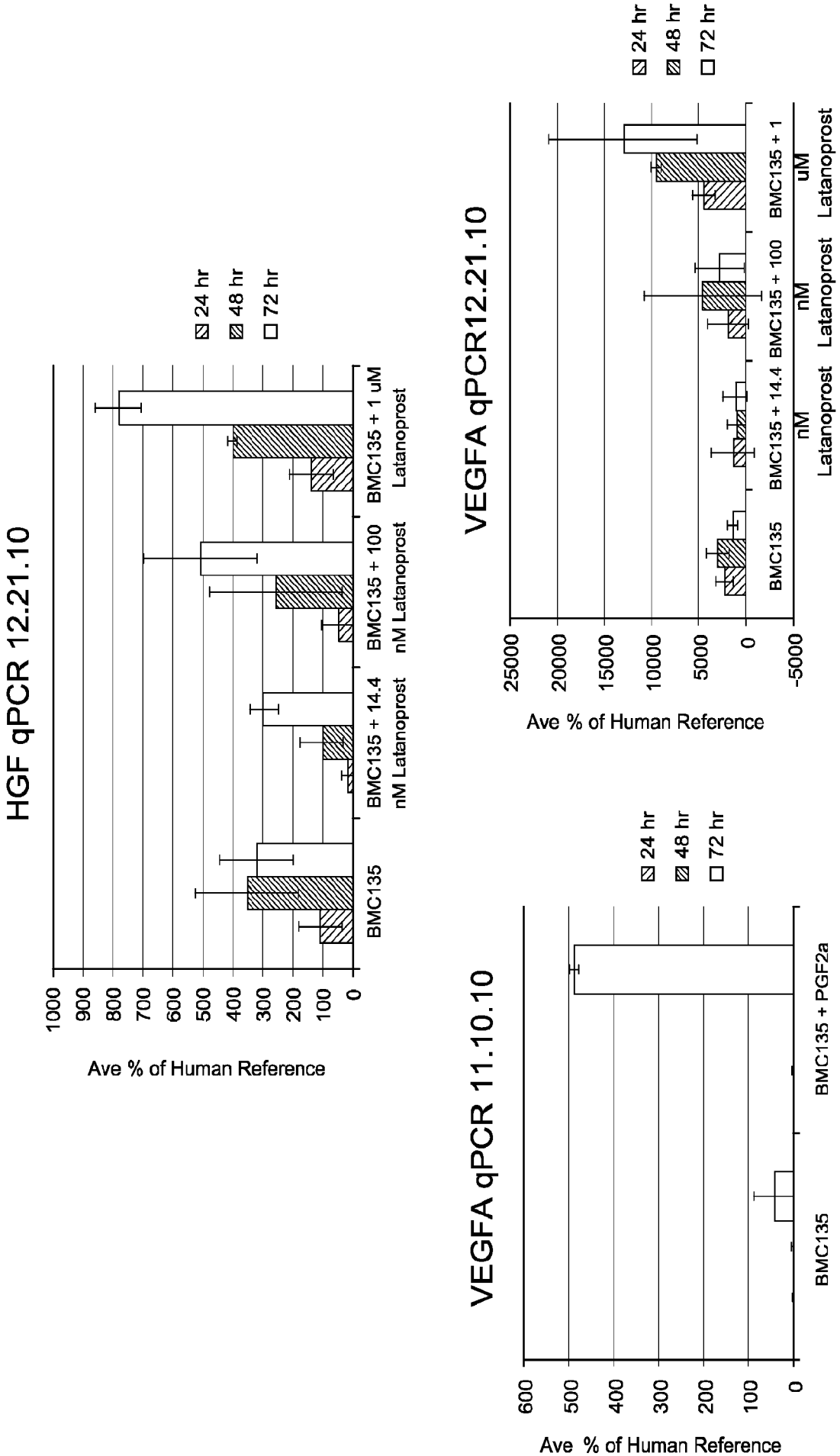

HGF qPCR 12.21.10
24 hr
48 hr
72 hr
1000
900
800
700
600
500
400
300
200
100
0
Ave % of Human Reference
BMC135
BMC135 + 14.4 nM Latanoprost
BMC135 + 100 nM Latanoprost
BMC135 + 1 uM Latanoprost
VEGFA qPCR12.21.10
24 hr
48 hr
72 hr
25000
20000
15000
10000
5000
0
-5000
Ave % of Human Reference
BMC135
BMC135 + 14.4 nM Latanoprost
BMC135 + 100 nM Latanoprost
BMC135 + 1 uM Latanoprost
VEGFA qPCR 11.10.10
24 hr
48 hr
72 hr
600
500
400
300
200
100
0
Ave % of Human Reference
BMC135
BMC135 + PGF2a

Figure 10B

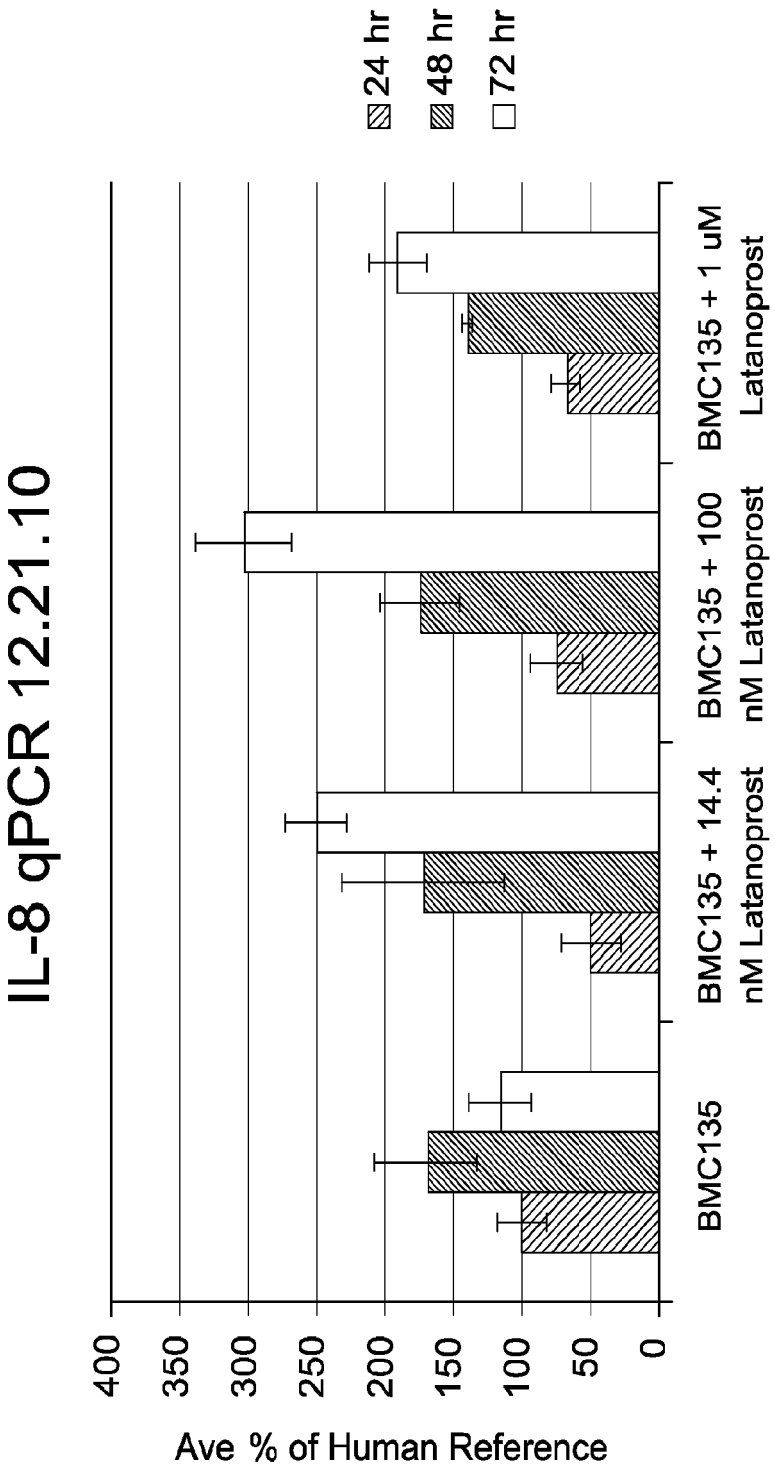

IL-8 qPCR 12.21.10
24 hr
48 hr
72 hr
Ave % of Human Reference
400
350
300
250
200
150
100
50
0
BMC135
BMC135 + 14.4 nM Latanoprost
BMC135 + 100 nM Latanoprost
BMC135 + 1 uM Latanoprost

Figure 10C

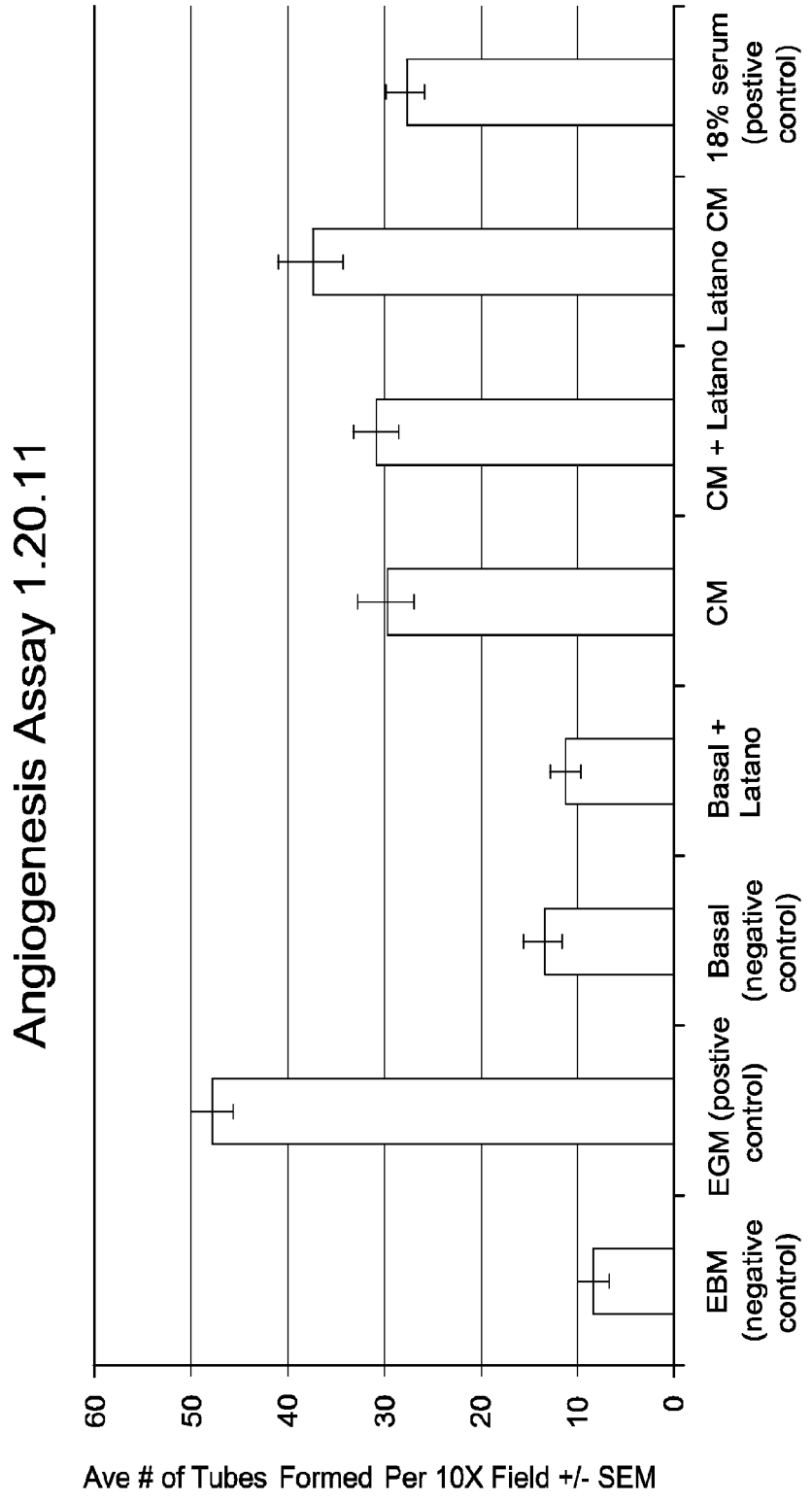

Angiogenesis Assay 1.20.11
Ave # of Tubes Formed Per 10X Field +/- SEM
0
10
20
30
40
50
60
EBM (negative control)
EGM (postive control)
Basal (negative control)
Basal + Latano
CM
CM + Latano
Latano CM
18% serum (postive control)

Figure 11

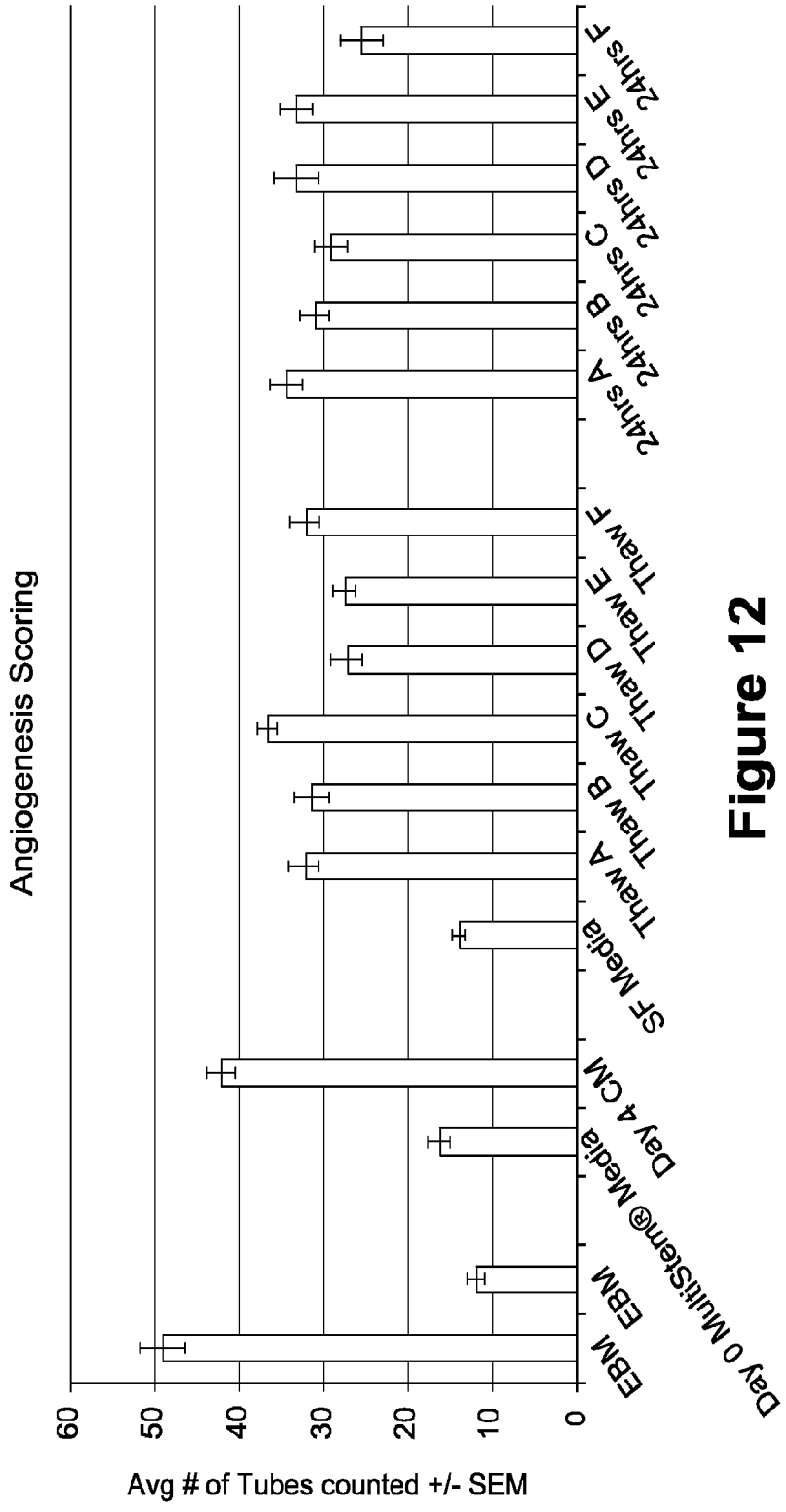

Angiogenesis Scoring
Avg # of Tubes counted +/- SEM
0
10
20
30
40
50
60
EBM
EBM
Day 0 MultiStem® Media
Day 4 CM
SF Media
Thaw A
Thaw B
Thaw C
Thaw D
Thaw E
Thaw F
24hrs A
24hrs B
24hrs C
24hrs D
24hrs E
24hrs F

Figure 12