Figure 1

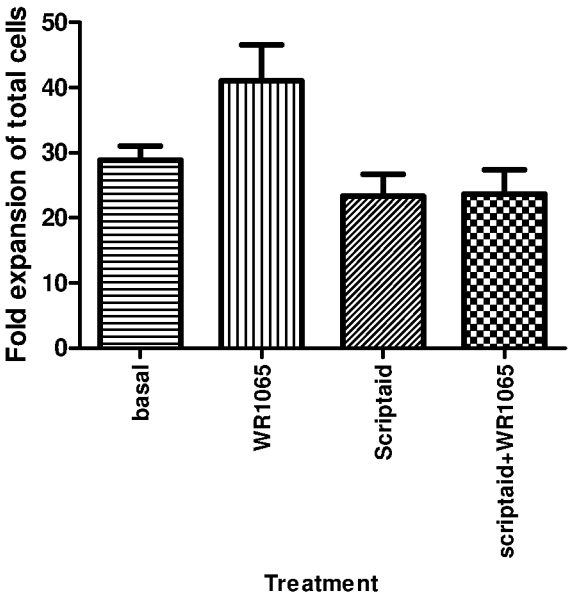

Fold expansion of total cells
50
40
30
20
10
0
basal
WR1065
Scriptaid
scriptaid+WR1065
Treatment

Figure 2

Figure 2. Percentage of CD34+/CD133+ cells

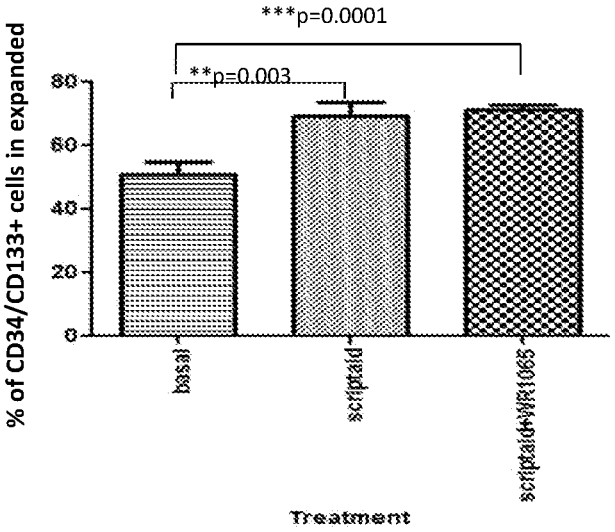


Figure 3

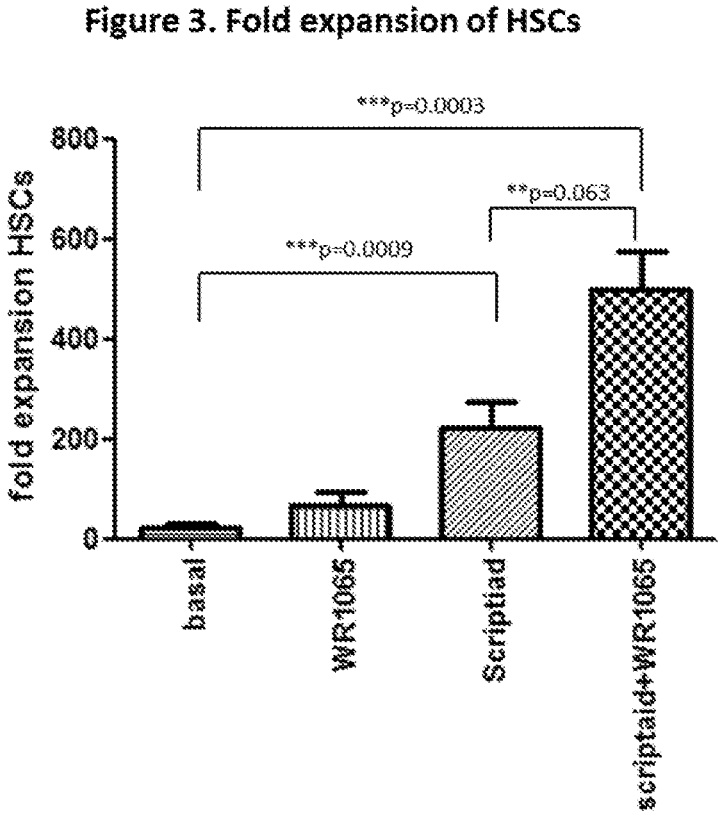
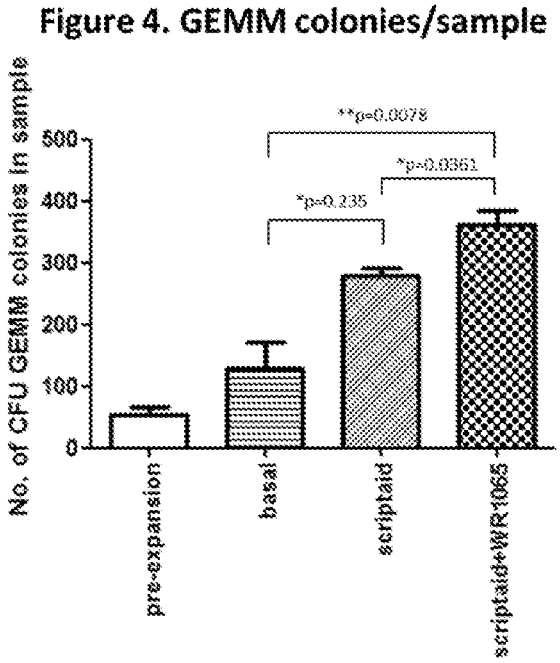

Figure 3. Fold expansion of HSCs
***p=0.0003
**p=0.063
***p=0.0009
fold expansion HSCs
800
600
400
200
0
basal
WR1065
Scriptiad
scriptaid+WR1065

Figure 4


Figure 4. GEMM colonies/sample
No. of CFU GEMM colonies in sample
500
400
300
200
100
0
**p=0.0078
*p=0.0361
*p=0.235
pre-expansion
basal
scriptaid
scriptaid+WR1065

5

Figure 5

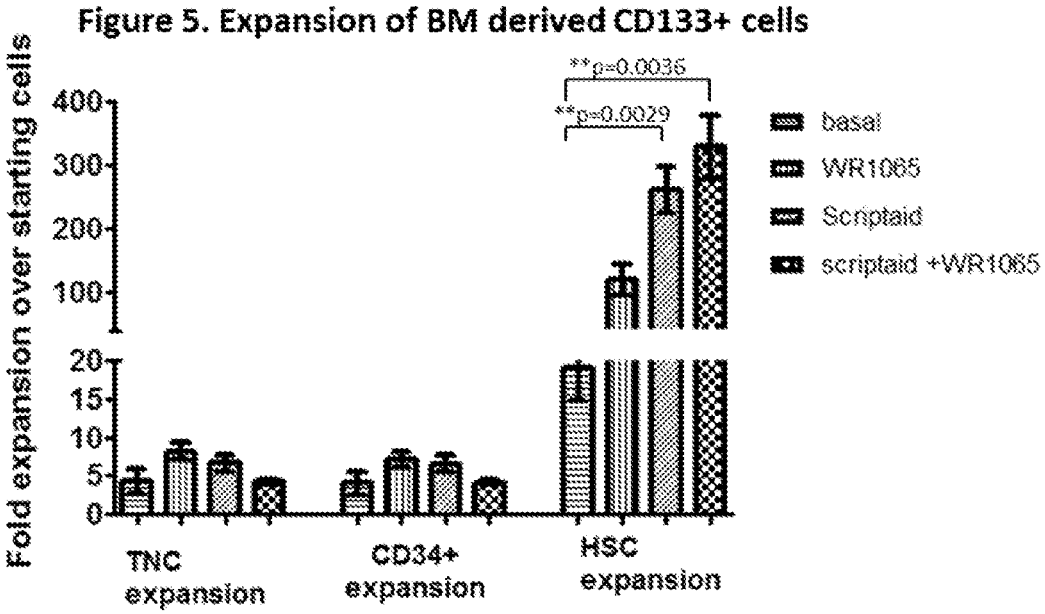

Figure 5. Expansion of BM derived CD133+ cells
Fold expansion over starting cells
400
300
200
100
20
15
10
5
0
**p=0.0036
**p=0.0029
basal
WR1065
Scriptaid
scriptaid +WR1065
TNC expansion
CD34+ expansion
HSC expansion

Figure 6

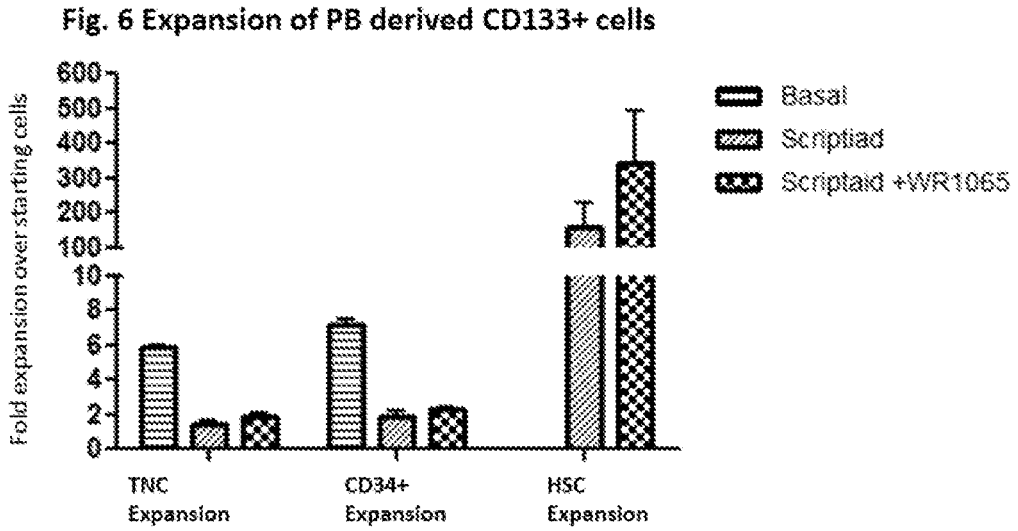
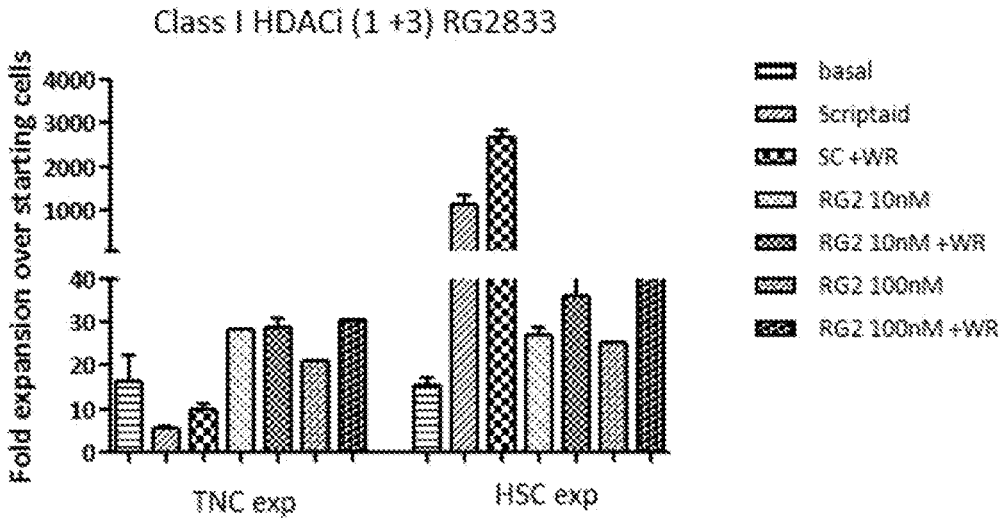

Fig. 6 Expansion of PB derived CD133+ cells
Fold expansion over starting cells
600
500
400
300
200
100
10
8
6
4
2
0
TNC Expansion
CD34+ Expansion
HSC Expansion
Basal
Scriptiad
Scriptaid +WR1065

Figure 7


Class I HDACi (1 +3) RG2833
Fold expansion over starting cells
4000
3000
2000
1000
40
30
20
10
0
TNC exp
HSC exp
basal
Scriptaid
SC +WR
RG2 10nM
RG2 10nM +WR
RG2 100nM
RG2 100nM +WR

5

Figure 8

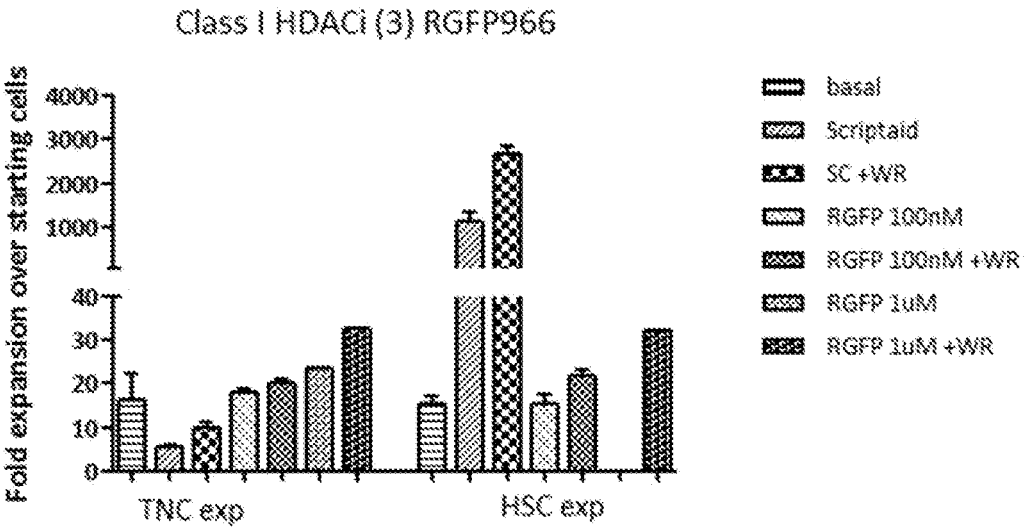

Class I HDACi (3) RGFP966
Fold expansion over starting cells
4000
3000
2000
1000
40
30
20
10
0
TNC exp
HSC exp
basal
Scriptaid
SC +WR
RGFP 100nM
RGFP 100nM +WR
RGFP 1uM
RGFP 1uM +WR

Figure 9

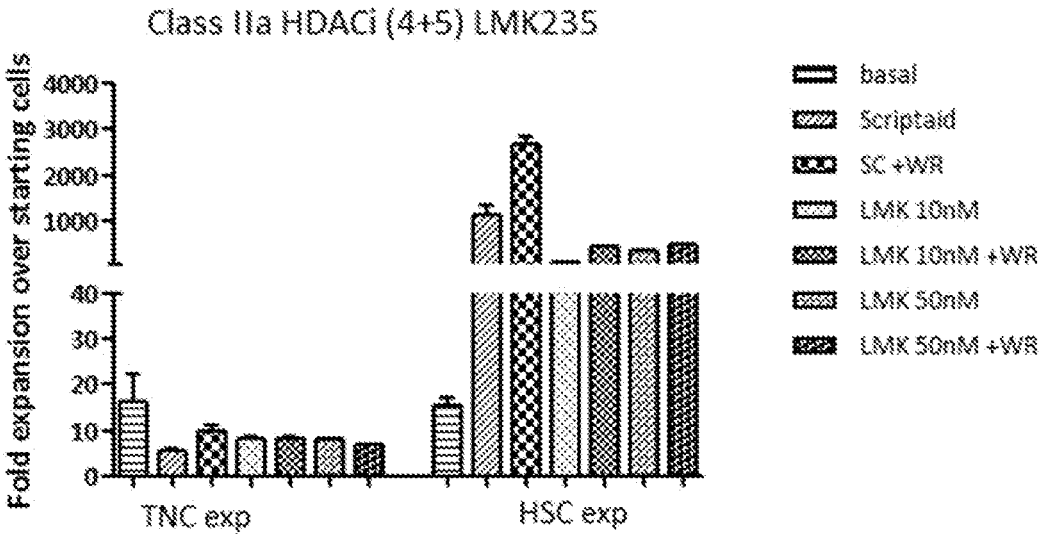

Class IIa HDACi (4+5) LMK235
Fold expansion over starting cells
4000
3000
2000
1000
40
30
20
10
0
TNC exp
HSC exp
basal
Scriptaid
SC +WR
LMK 10nM
LMK 10nM +WR
LMK 50nM
LMK 50nM +WR

Figure 10

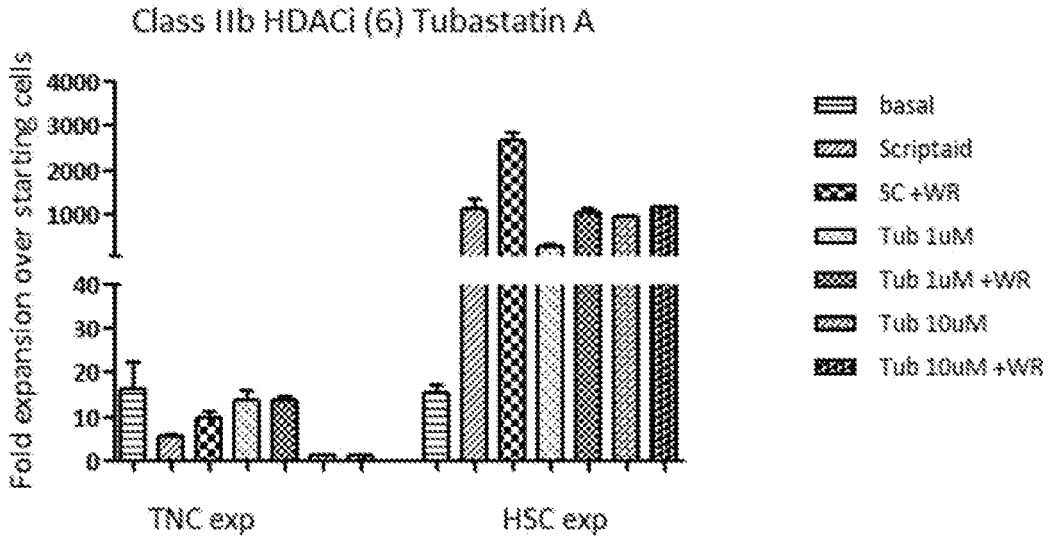

Class IIb HDACi (6) Tubastatin A
Fold expansion over starting cells
4000
3000
2000
1000
40
30
20
10
0
TNC exp
HSC exp
basal
Scriptaid
SC +WR
Tub 1uM
Tub 1uM +WR
Tub 10uM
Tub 10uM +WR

Figure 11

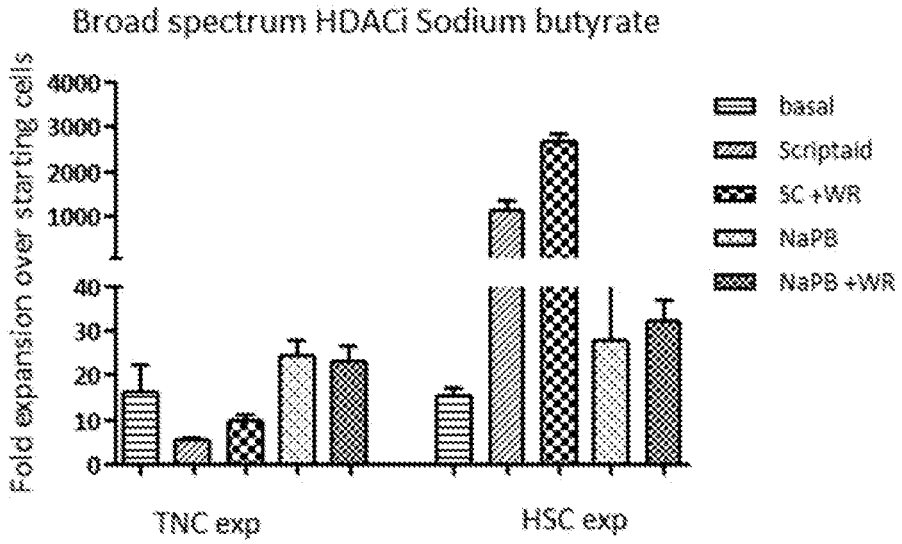
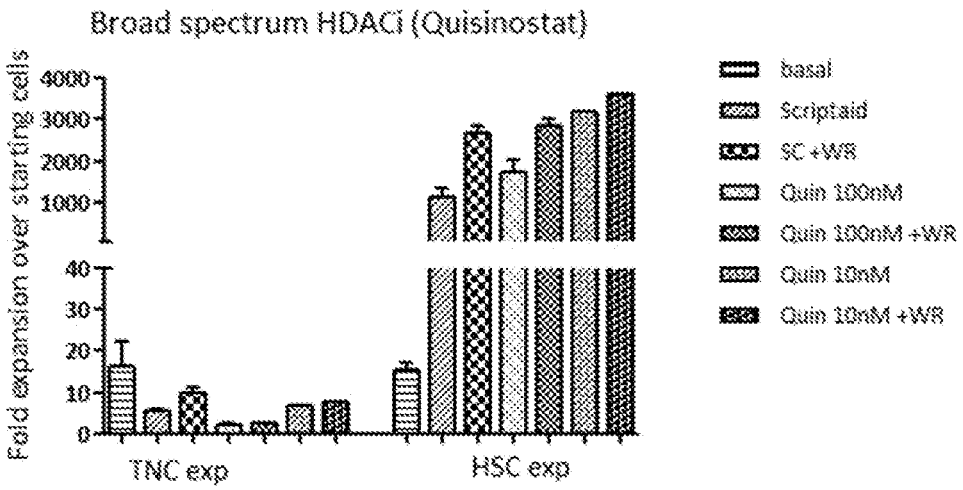
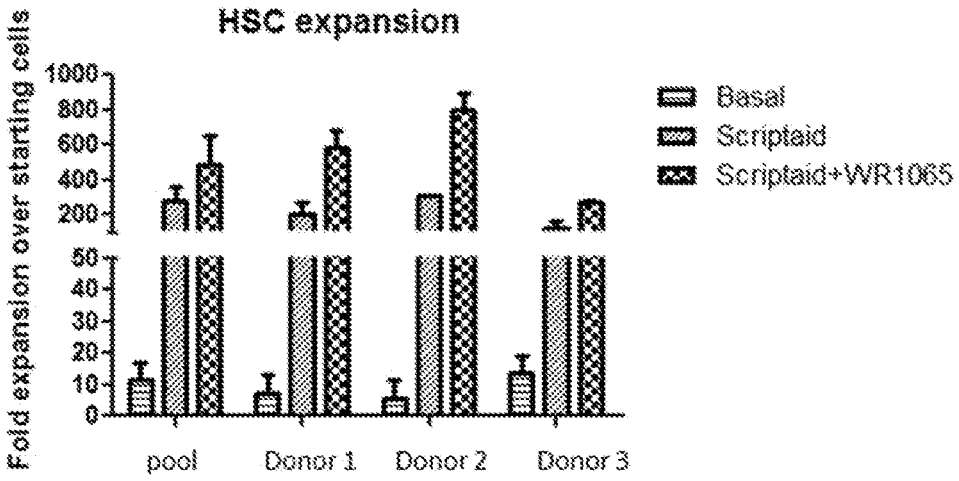

Broad spectrum HDACi Sodium butyrate
Fold expansion over starting cells
4000
3000
2000
1000
40
30
20
10
0
basal
Scriptaid
SC +WR
NaPB
NaPB +WR
TNC exp
HSC exp

Figure 12


Broad spectrum HDACi (Quisinostat)
Fold expansion over starting cells
4000
3000
2000
1000
40
30
20
10
0
TNC exp
HSC exp
basal
Scriptaid
SC +WR
Quin 100nM
Quin 100nM +WR
Quin 10nM
Quin 10nM +WR

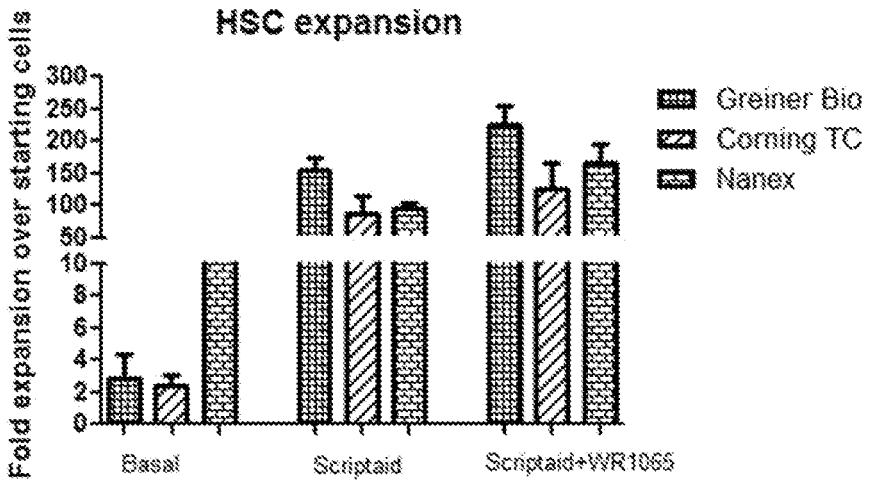
5

Figure 13


HSC expansion
Fold expansion over starting cells
1000
800
600
400
200
50
40
30
20
10
0
pool
Donor 1
Donor 2
Donor 3
Basal
Scriptaid
Scriptaid+WR1065

5

Figure 14


HSC expansion
Fold expansion over starting cells
300
250
200
150
100
50
10
8
6
4
2
0
Basal
Scriptaid
Scriptaid+VR1065
Greiner Bio
Corning TC
Nanex