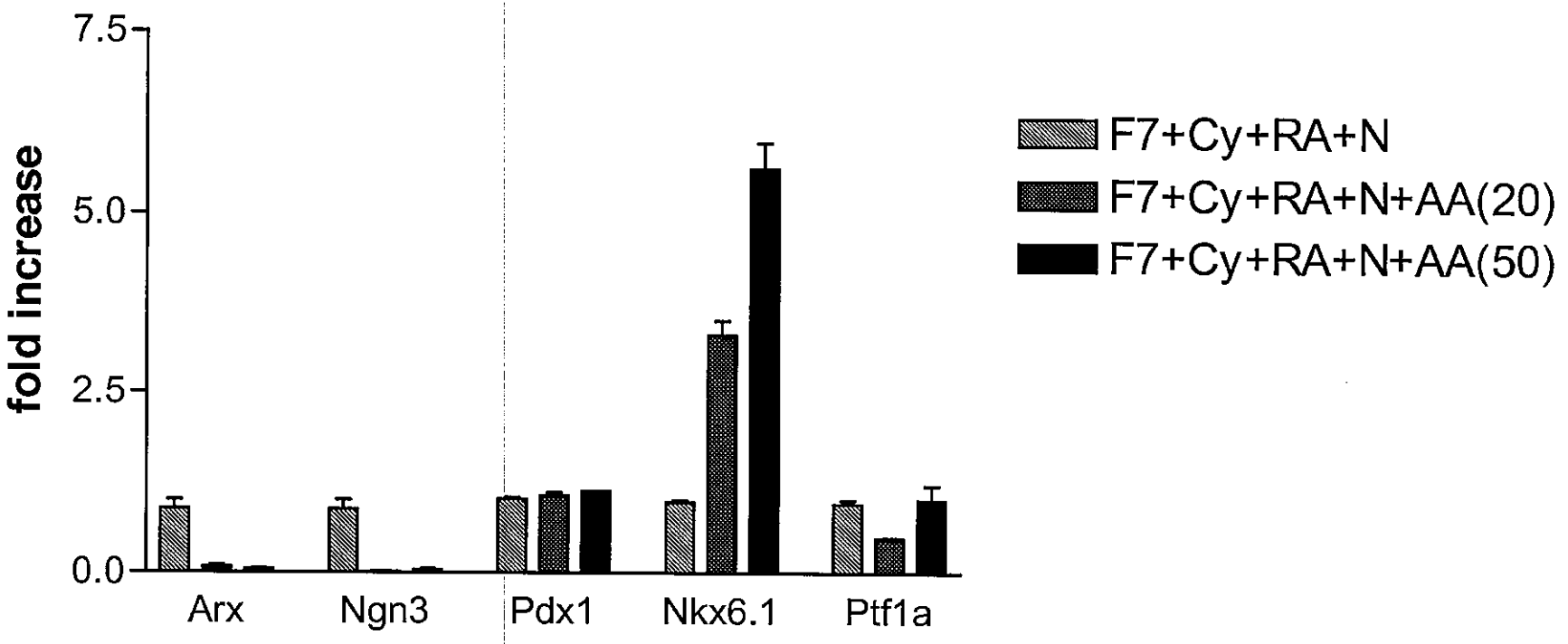
Figure 1



WO 2011/011302
PCT/US2010/042393

CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS

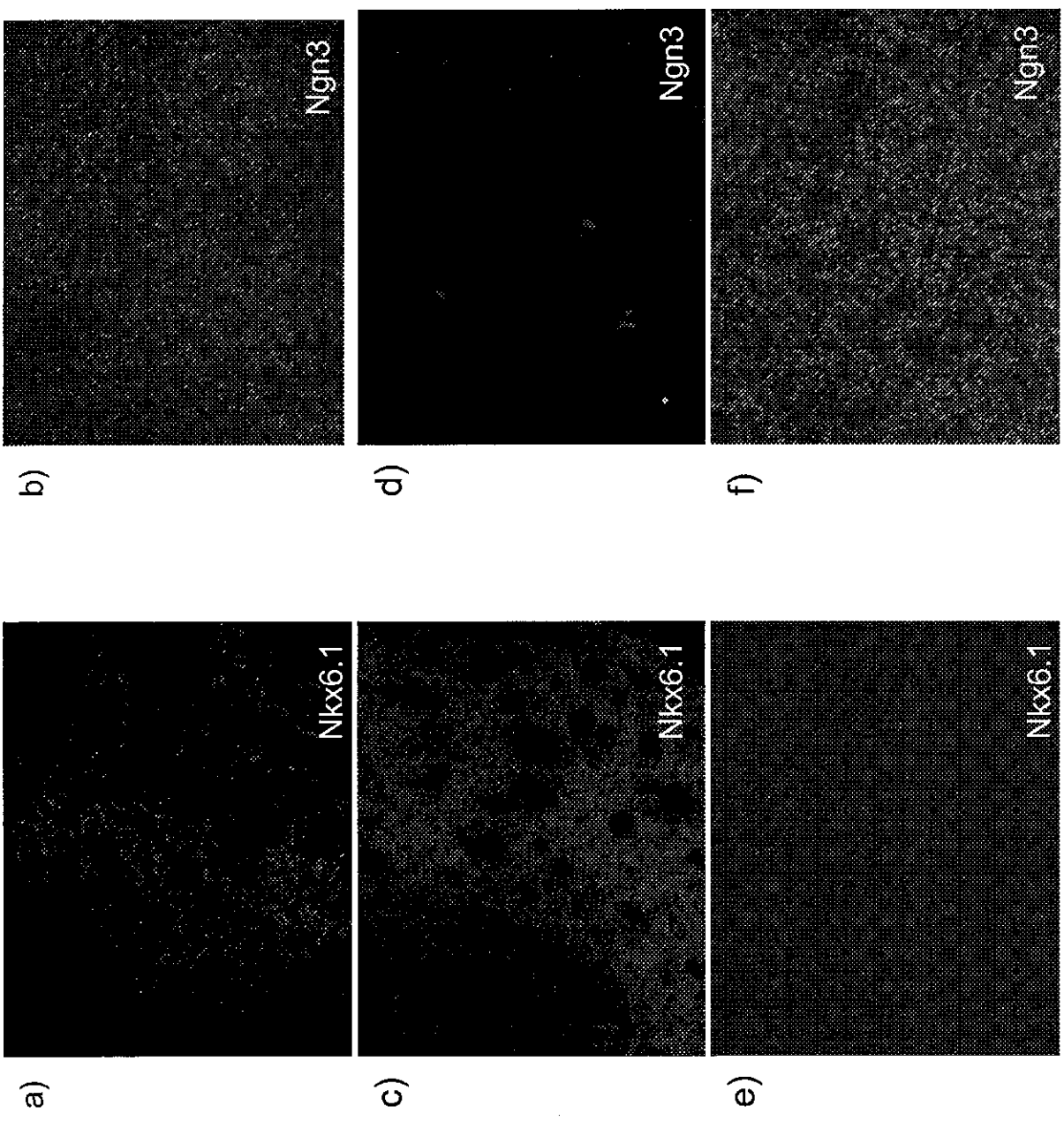


Figure 2

Figure 3

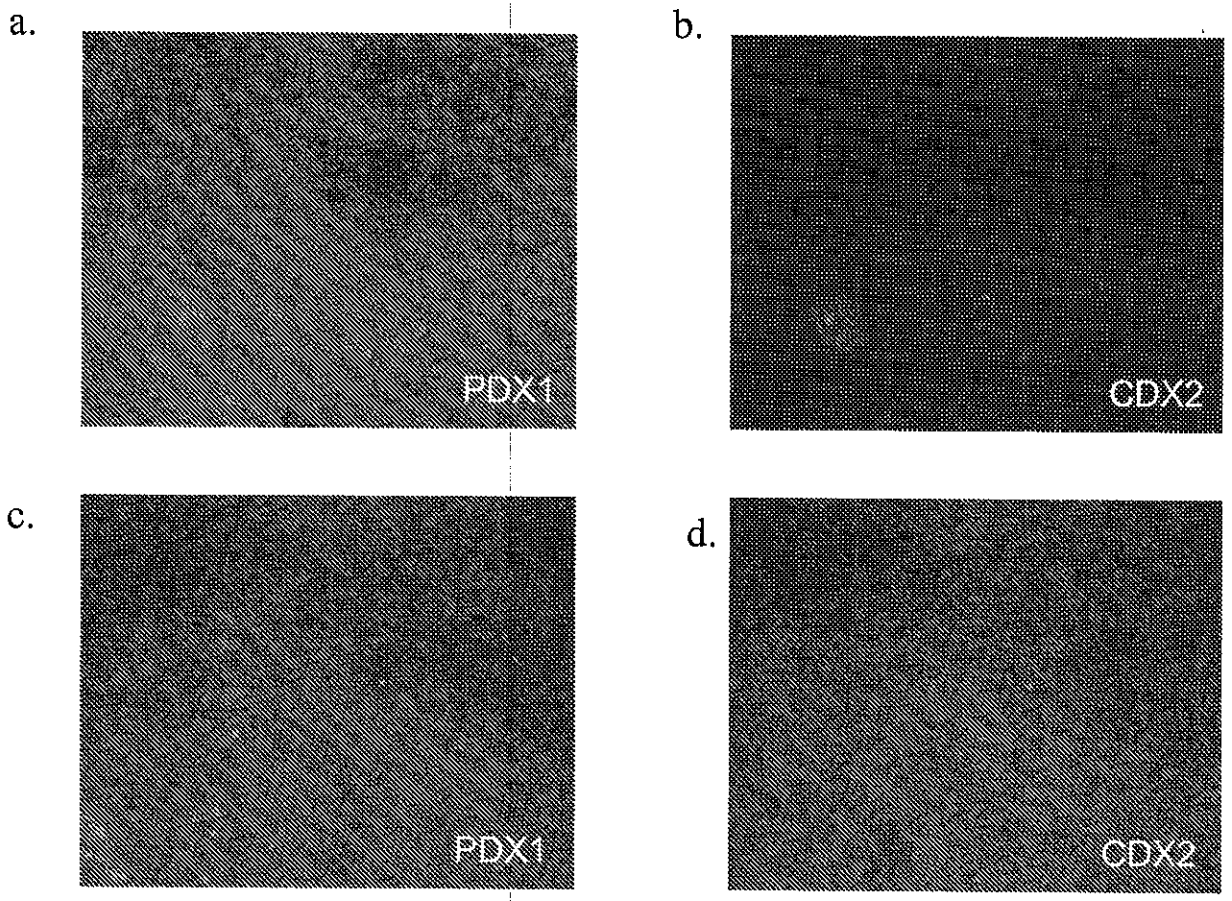
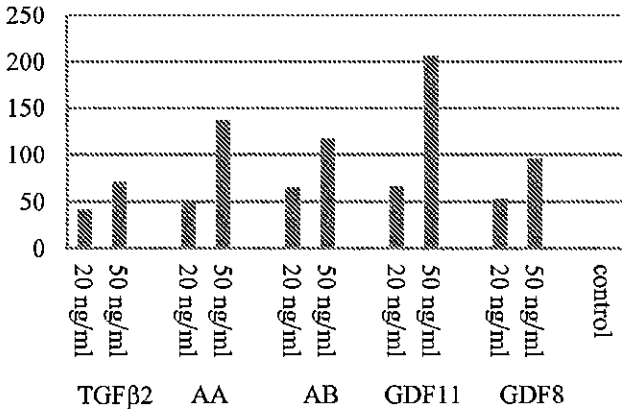
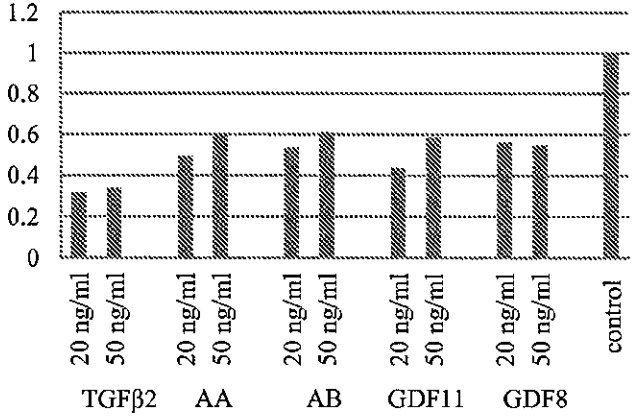


Figure 4

a)


Nkx6.1 Expression
250
200
150
100
50
0
20 ng/ml
50 ng/ml
control
TGFβ2
AA
AB
GDF11
GDF8

b)


Pdx1 Expression
1.2
1
0.8
0.6
0.4
0.2
0
20 ng/ml
50 ng/ml
control
TGFβ2
AA
AB
GDF11
GDF8

c)

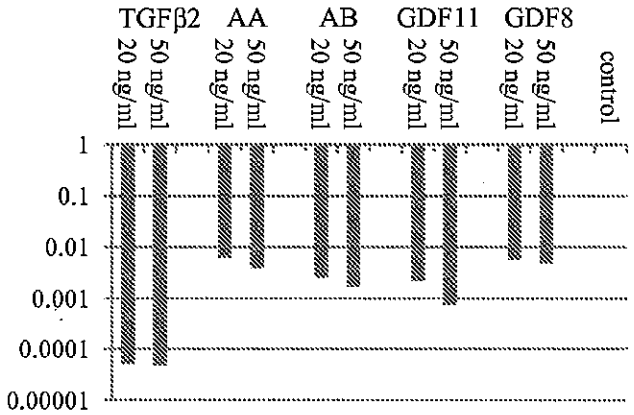
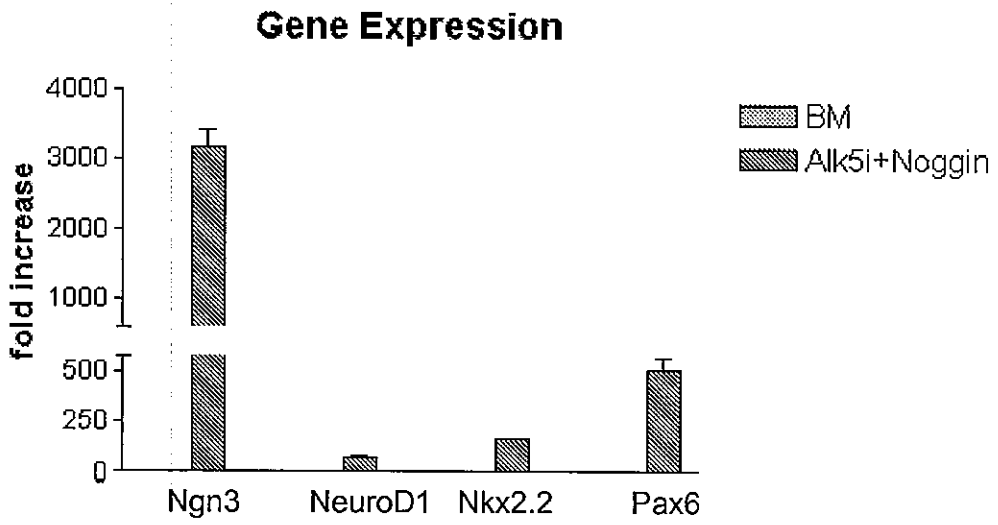

NGN3 Expression
TGFβ2
AA
AB
GDF11
GDF8
20 ng/ml
50 ng/ml
control
1
0.1
0.01
0.001
0.0001
0.00001

Figure 5.

~~5/10~~

a)



b)

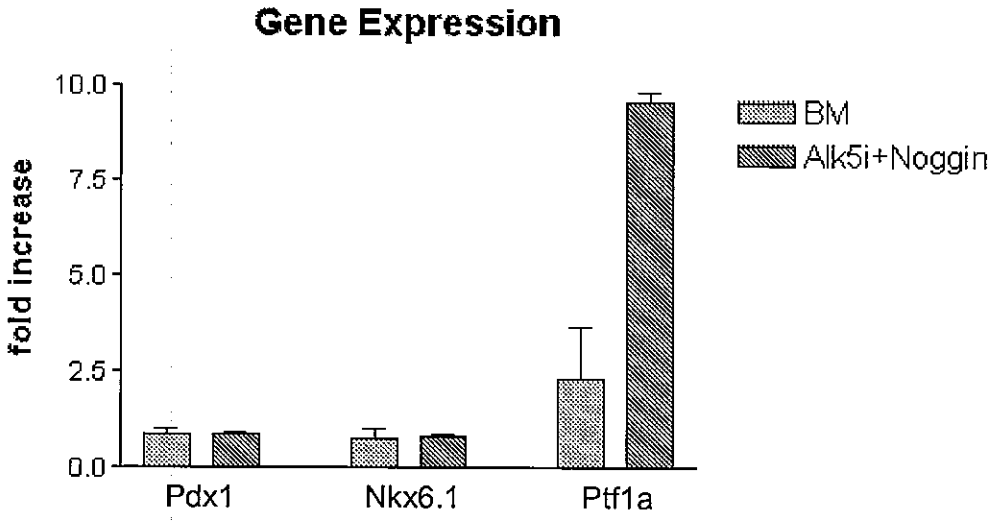
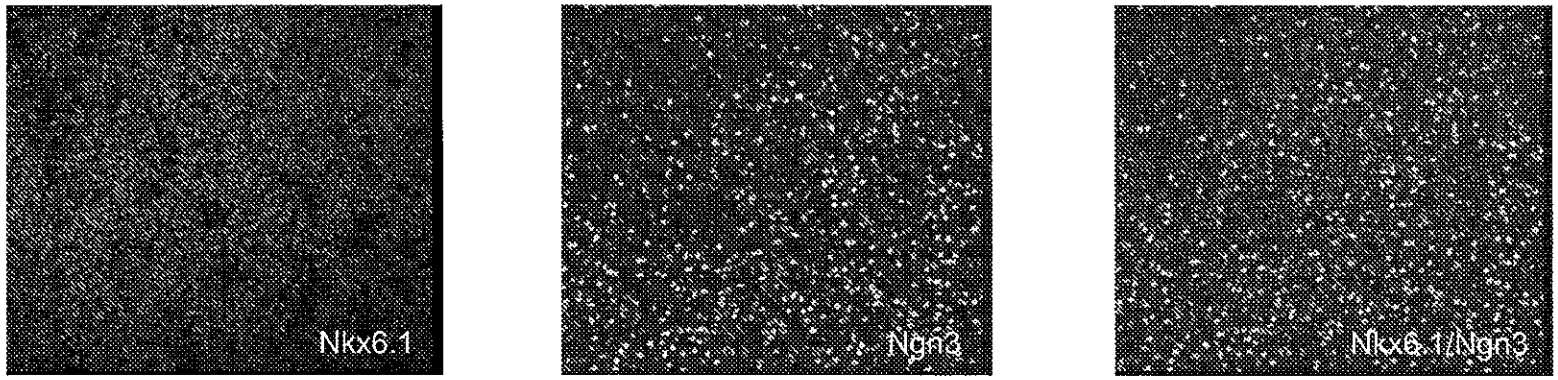


Figure 6.

a)



b)

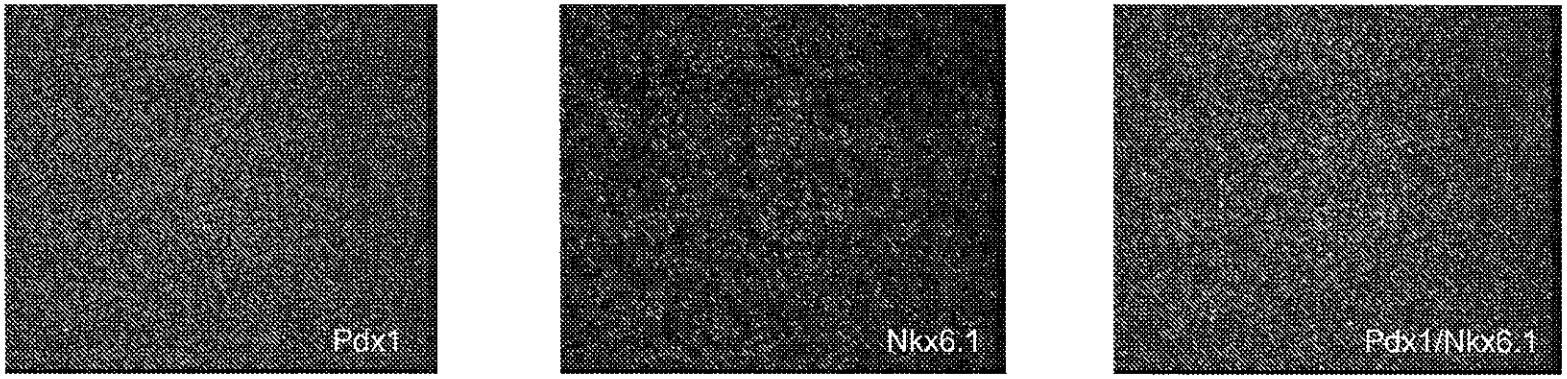


Figure 7

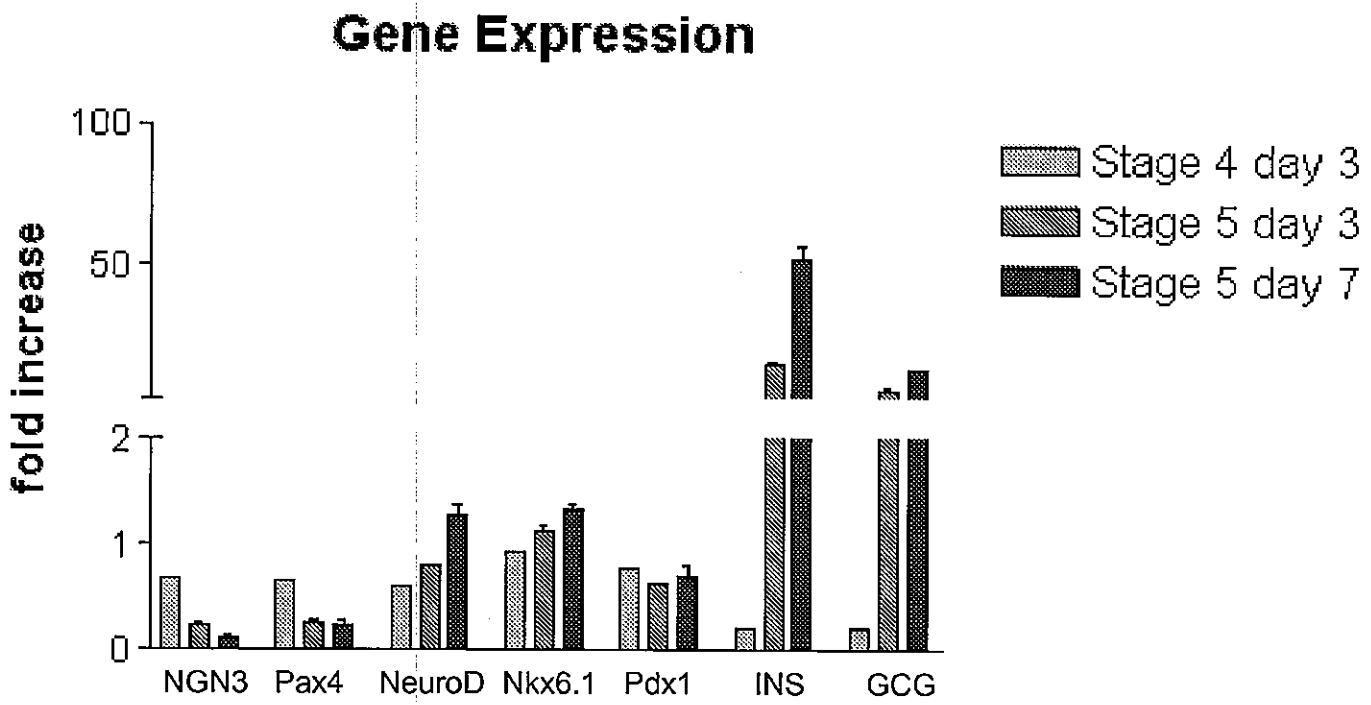
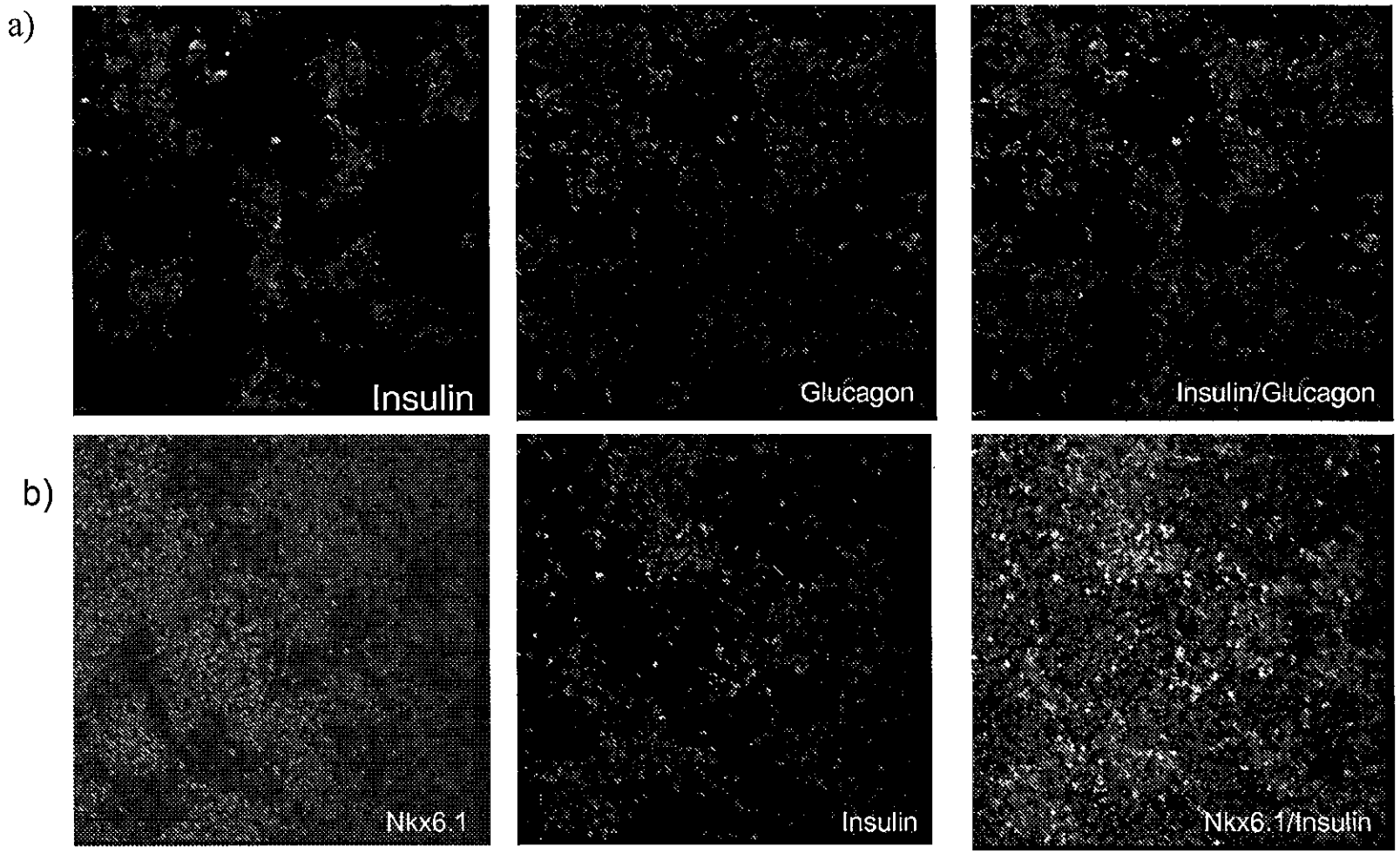
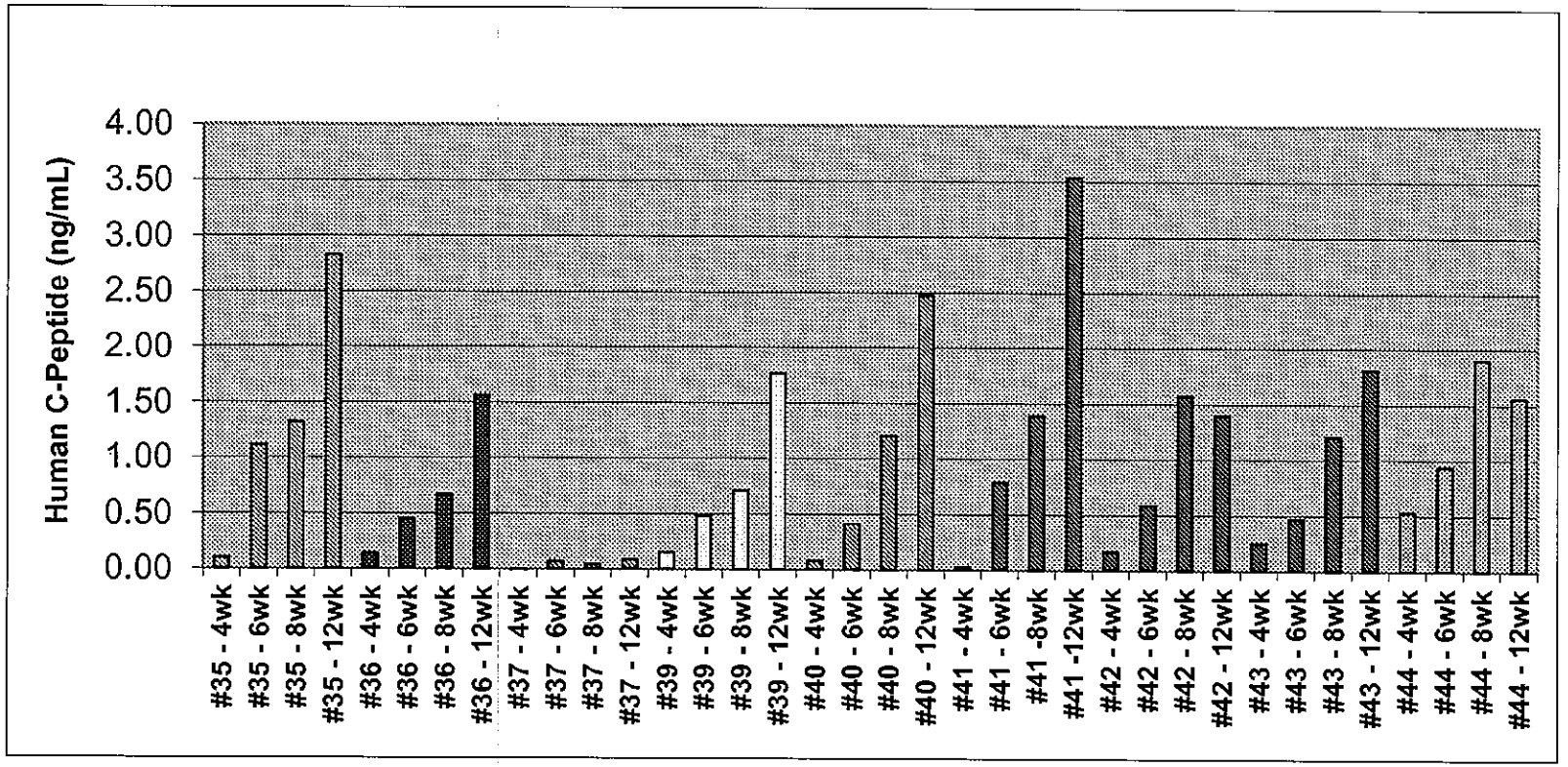

Gene Expression
fold increase
100
50
2
1
0
NGN3
Pax4
NeuroD
Nkx6.1
Pdx1
INS
GCG
Stage 4 day 3
Stage 5 day 3
Stage 5 day 7

Figure 8.



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Figure 9a.



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Figure 9b.

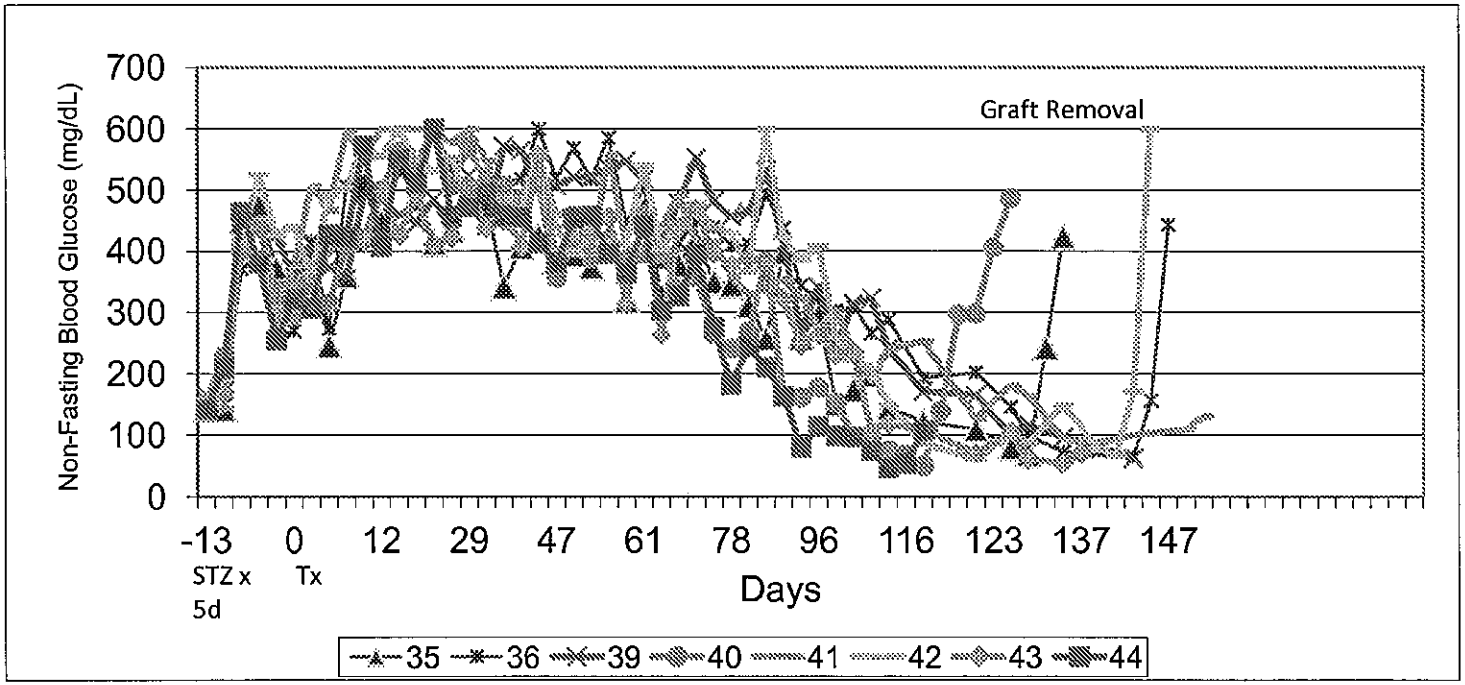
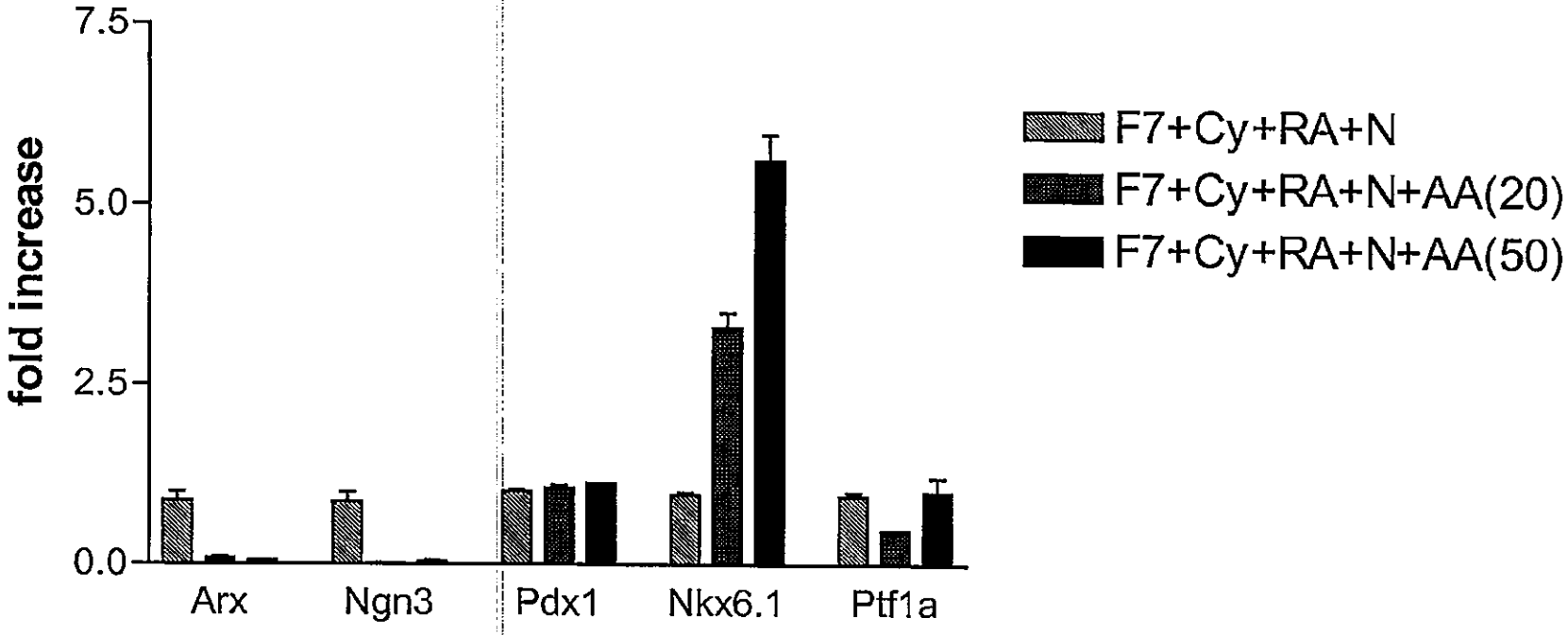

Non-Fasting Blood Glucose (mg/dL)
700
600
500
400
300
200
100
0
Graft Removal
-13
STZ x 5d
0
Tx
12
29
47
61
78
96
116
123
137
147
Days
35
36
39
40
41
42
43
44

Figure 1


7.5
5.0
2.5
0.0
fold increase
Arx
Ngn3
Pdx1
Nkx6.1
Ptf1a
F7+Cy+RA+N
F7+Cy+RA+N+AA(20)
F7+Cy+RA+N+AA(50)

CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS

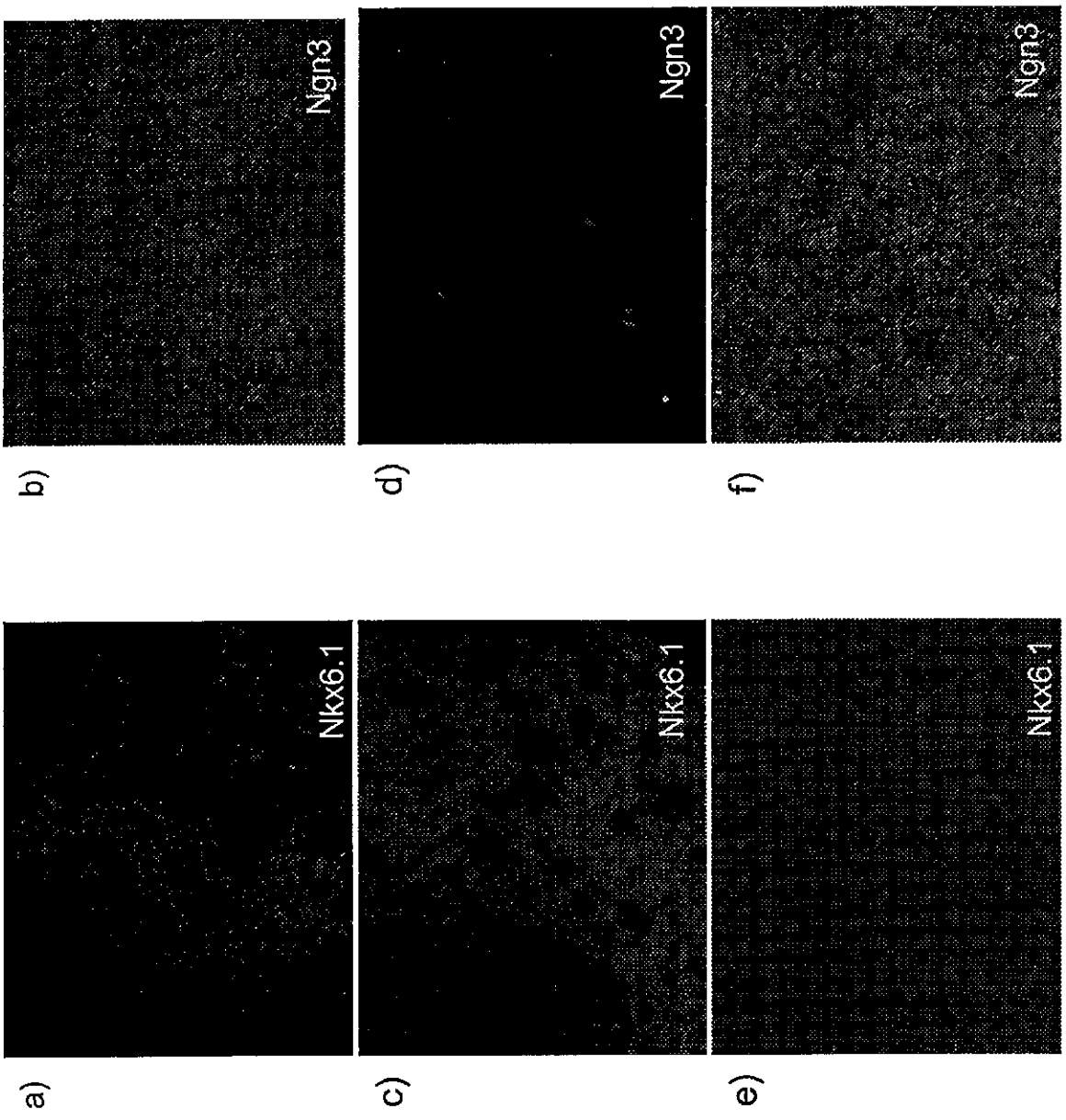


Figure 2

Figure 3

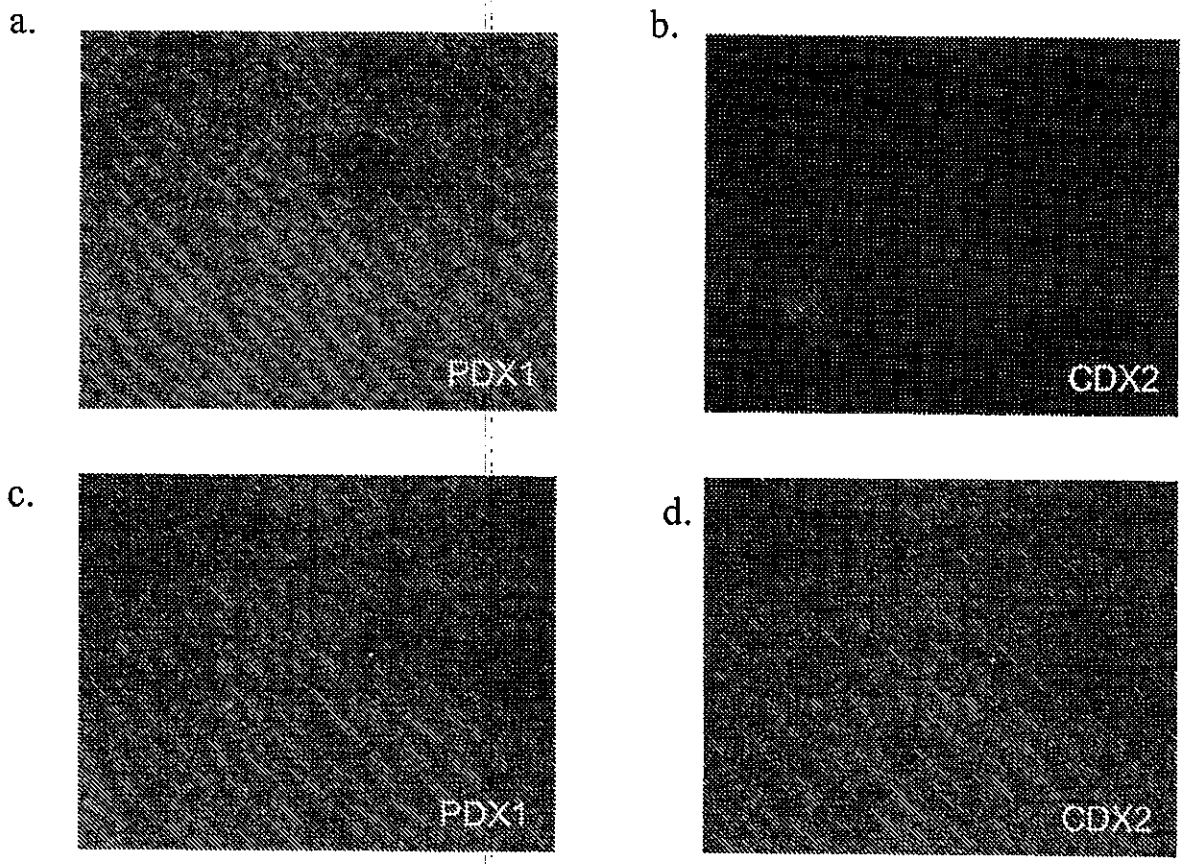
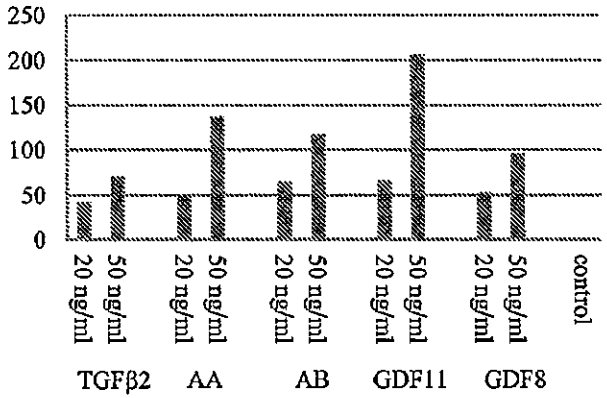
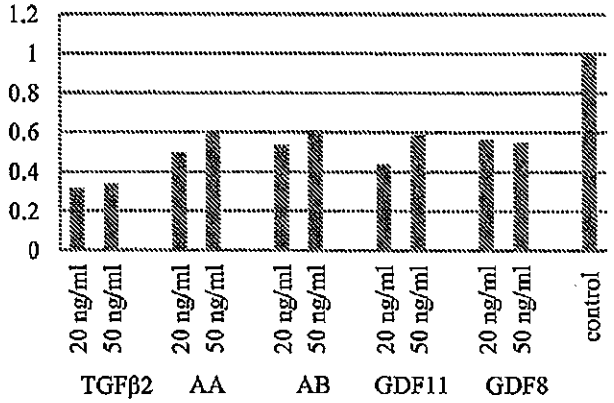


Figure 4

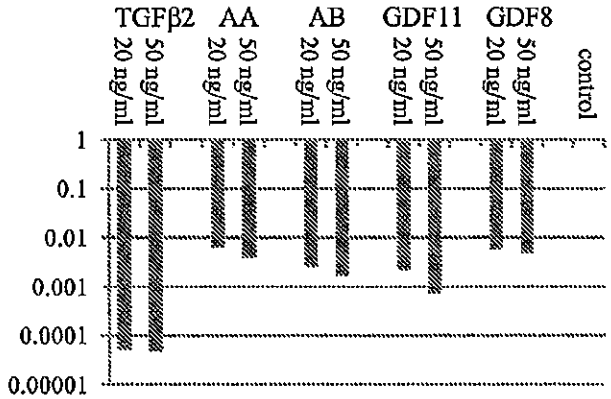
a)



b)

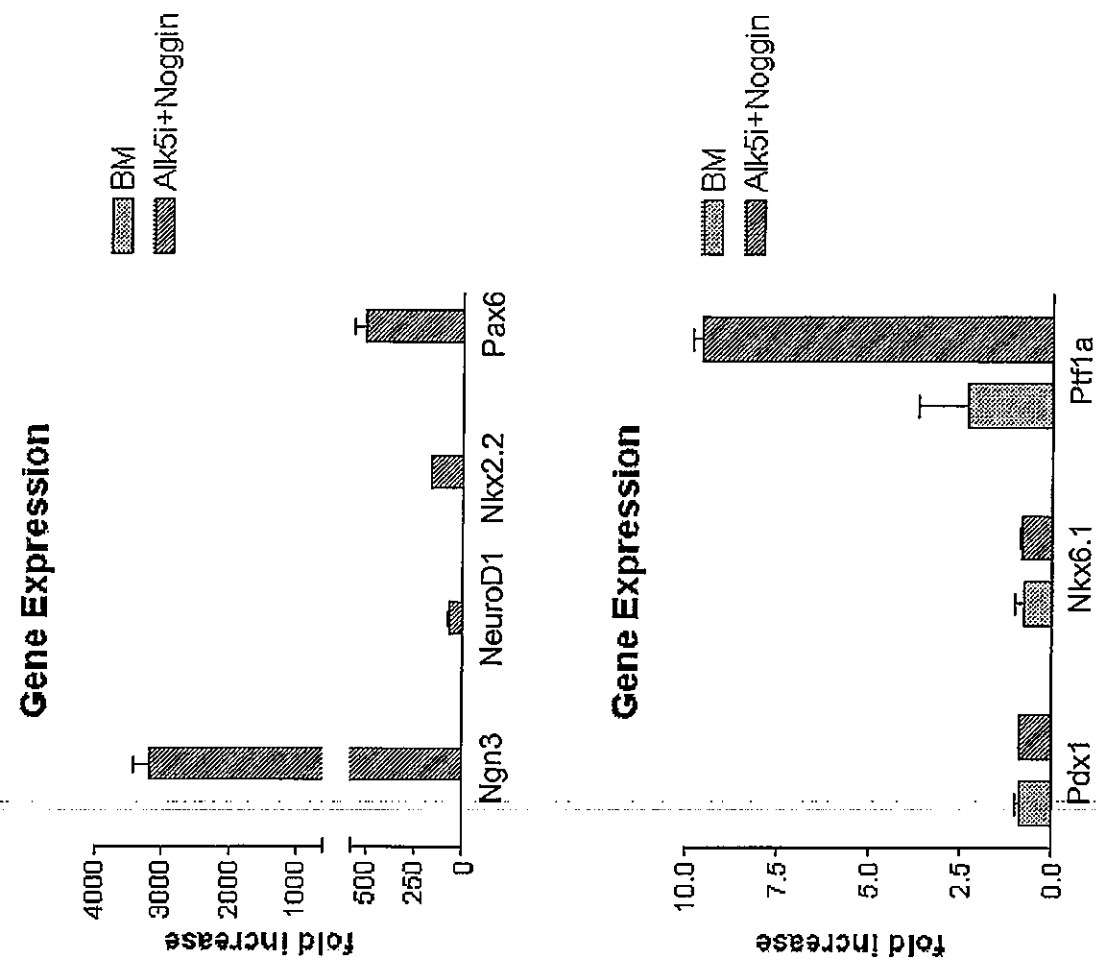


c)



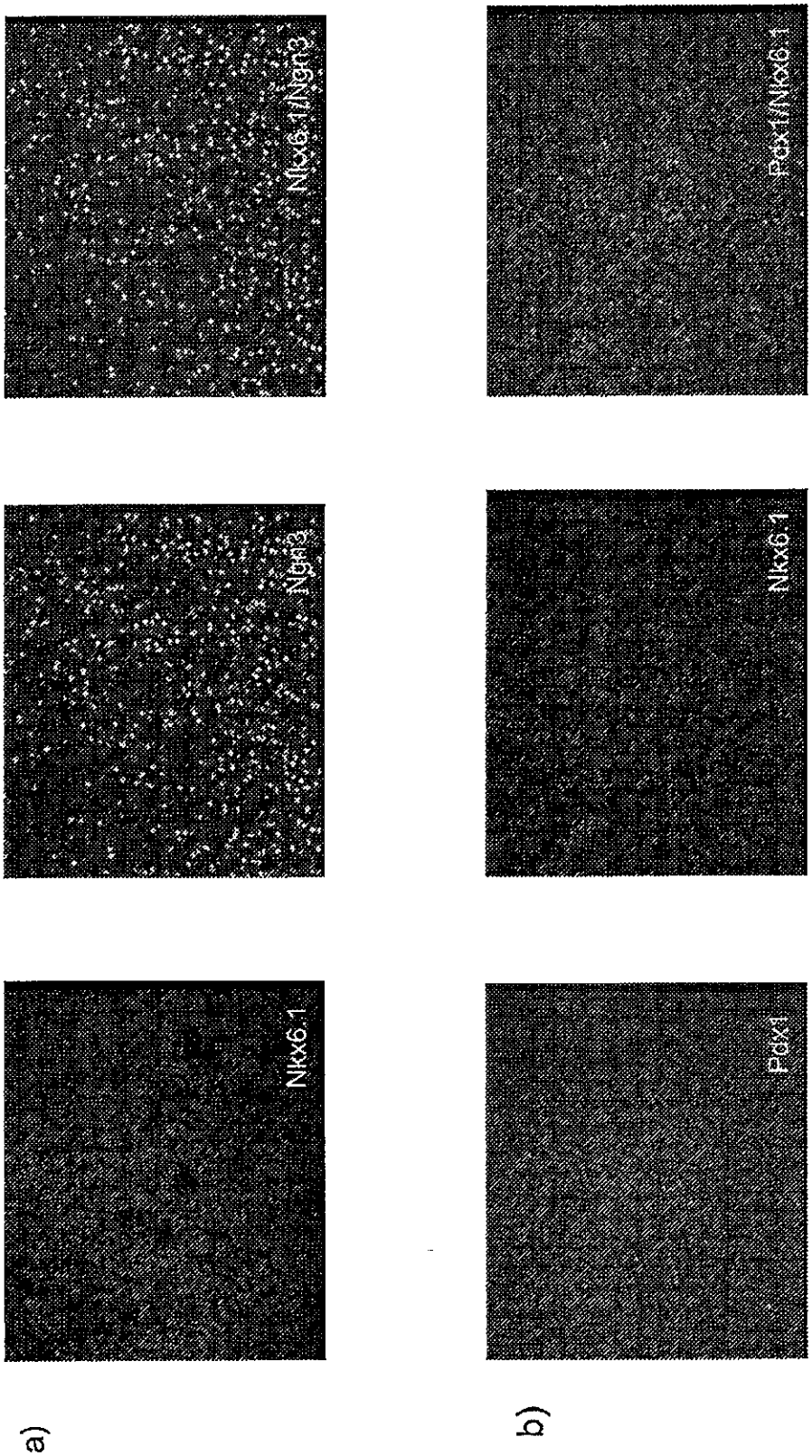
CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS

Figure 5.



CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS

Figure 6.



CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS

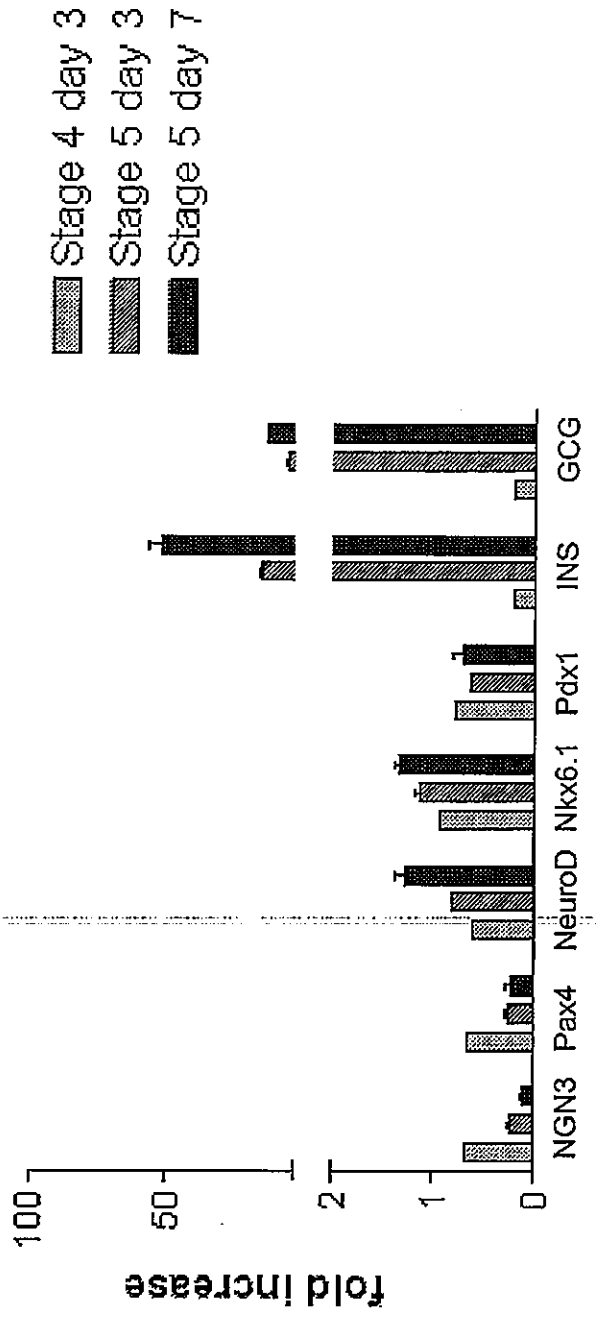
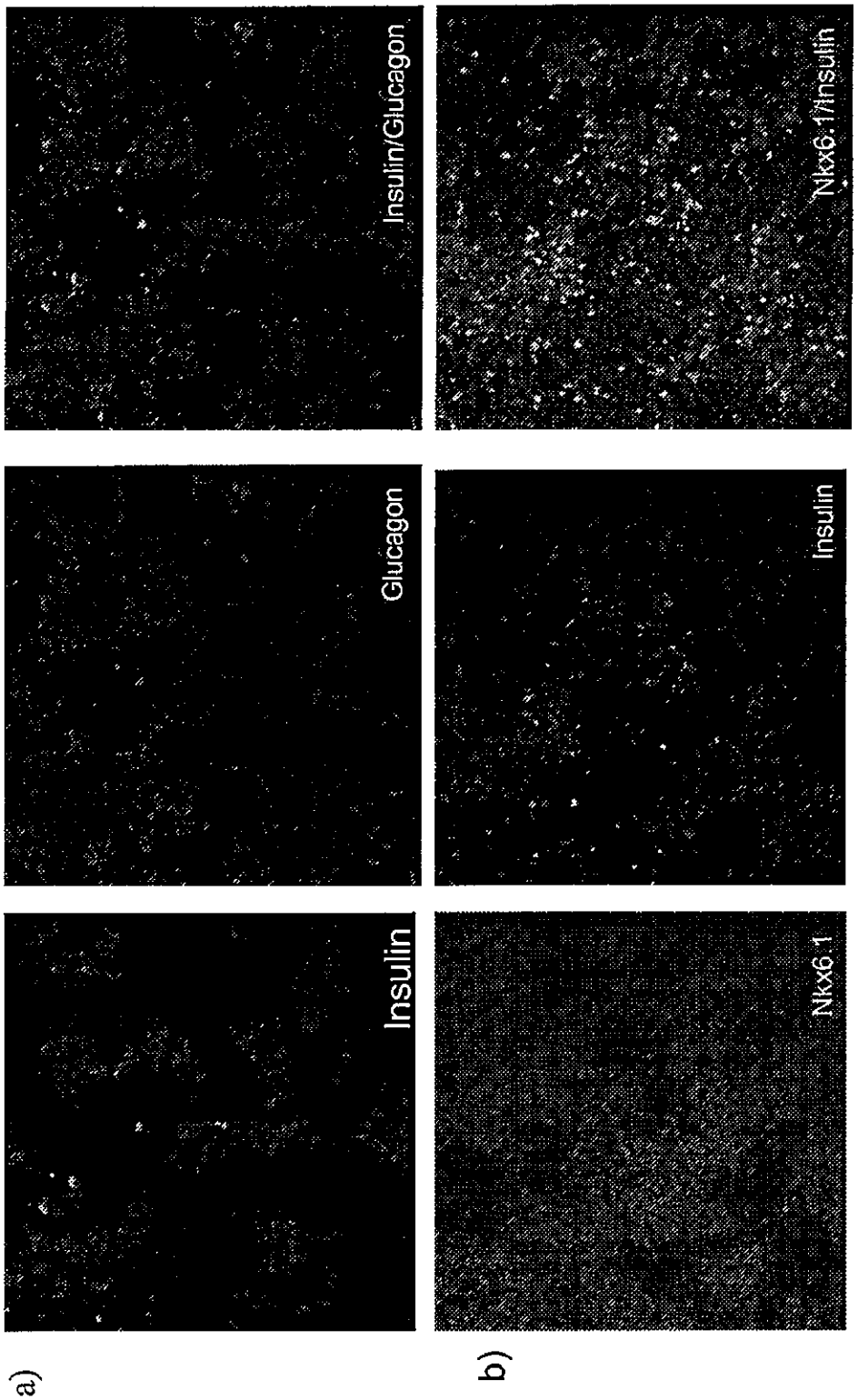


Figure 7

CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS

Figure 8.



CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS

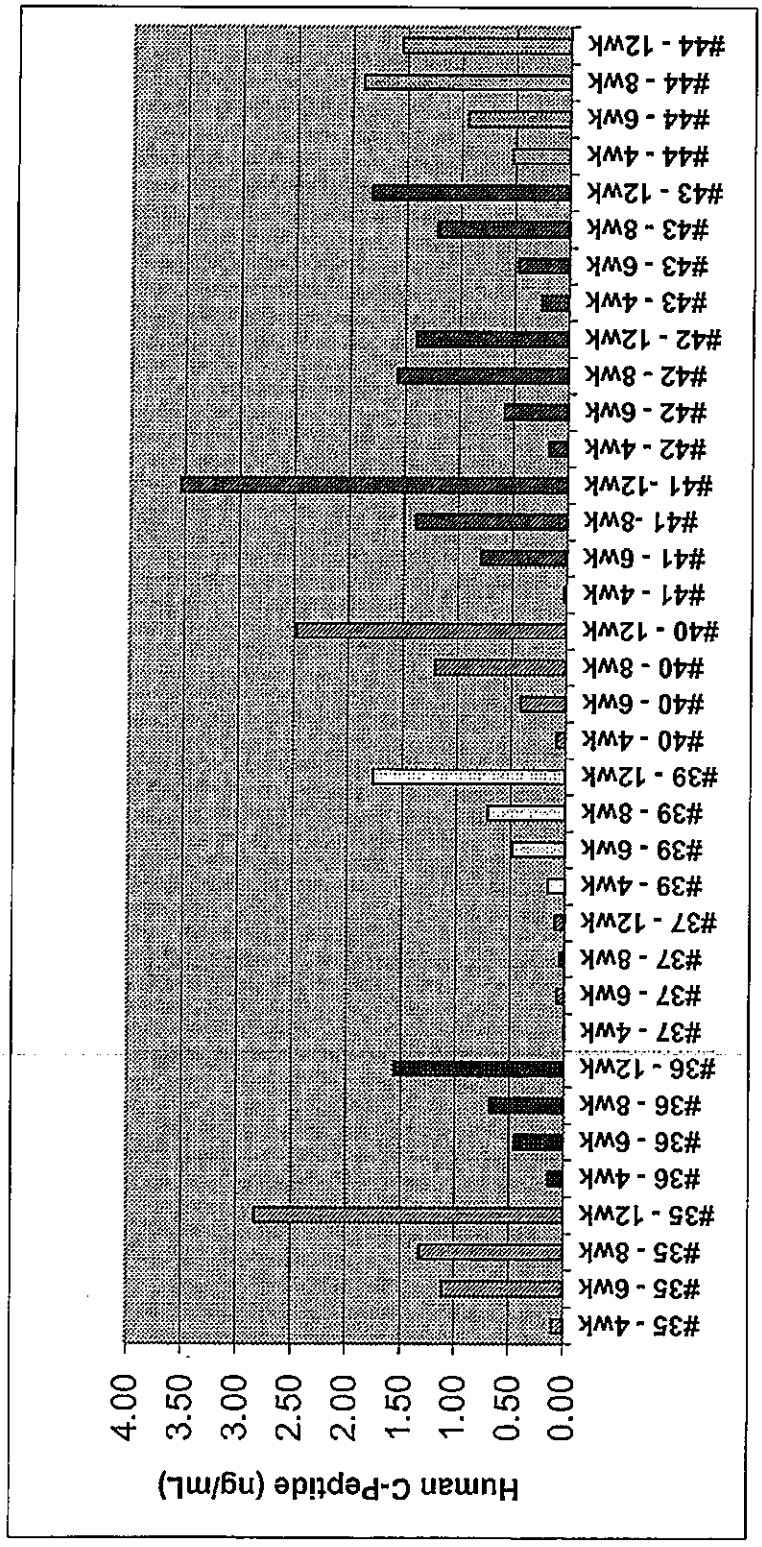
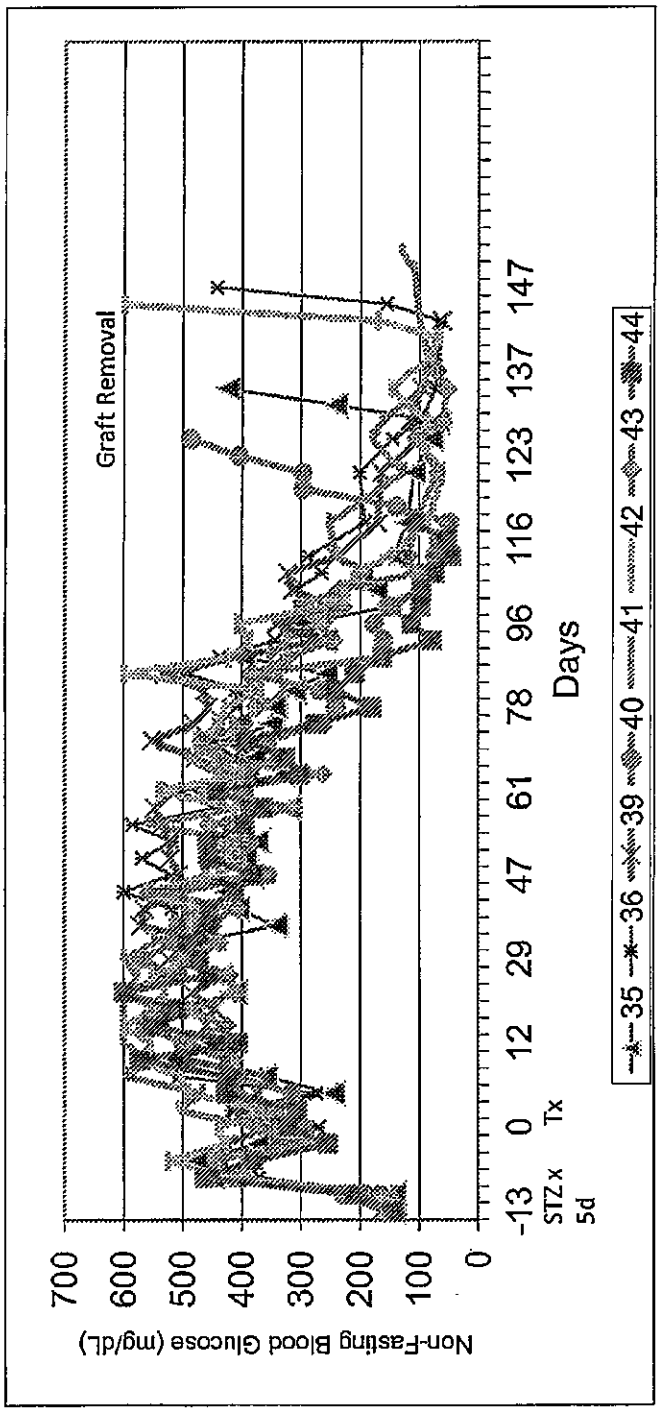


Figure 9a.

CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS

Figure 9b.



CEN5260WOPCT: Jean Xu -DIFFERENTIATION OF HUMAN EMBRYONIC STEM CELLS