Fig. 1

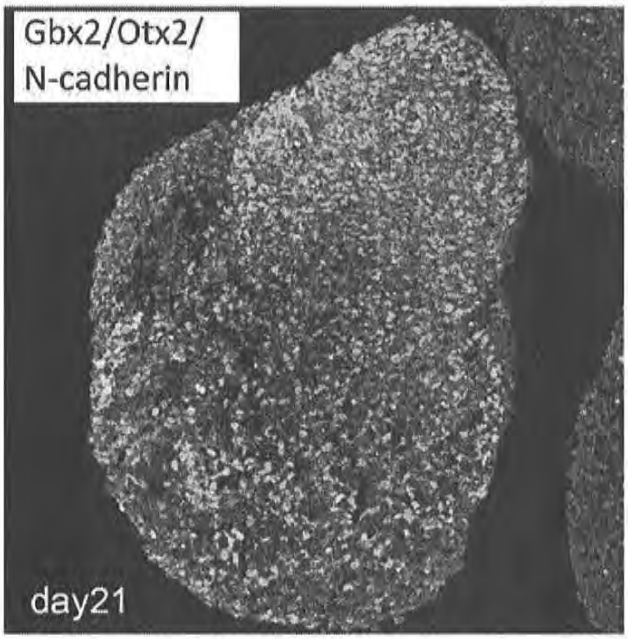

Gbx2/Otx2/
N-cadherin
day21

Fig. 2

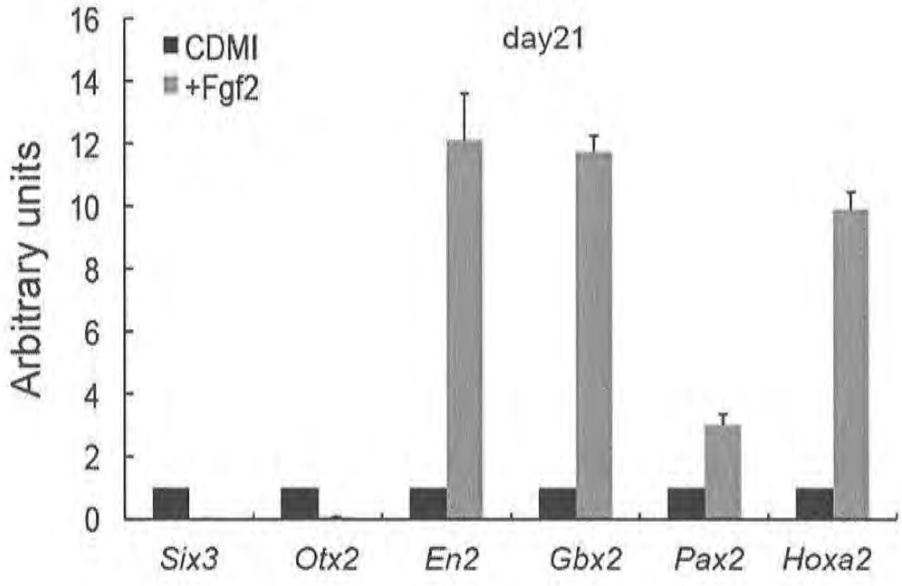

CDMI
+Fgf2
day21
Arbitrary units
16
14
12
10
8
6
4
2
0
Six3
Otx2
En2
Gbx2
Pax2
Hoxa2

Fig. 3

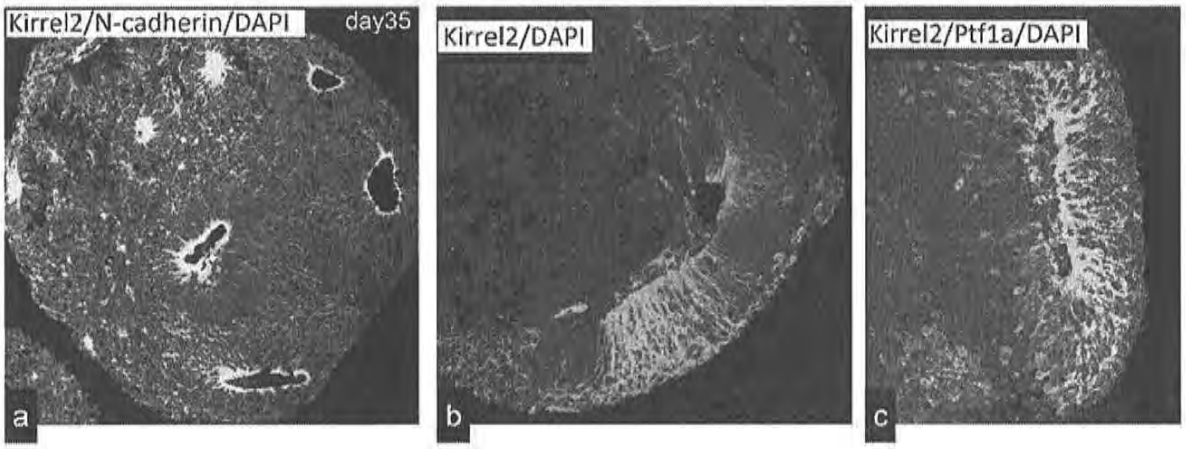

Kirrel2/N-cadherin/DAPI
day35
a
Kirrel2/DAPI
b
Kirrel2/Ptf1a/DAPI
c

Fig. 4

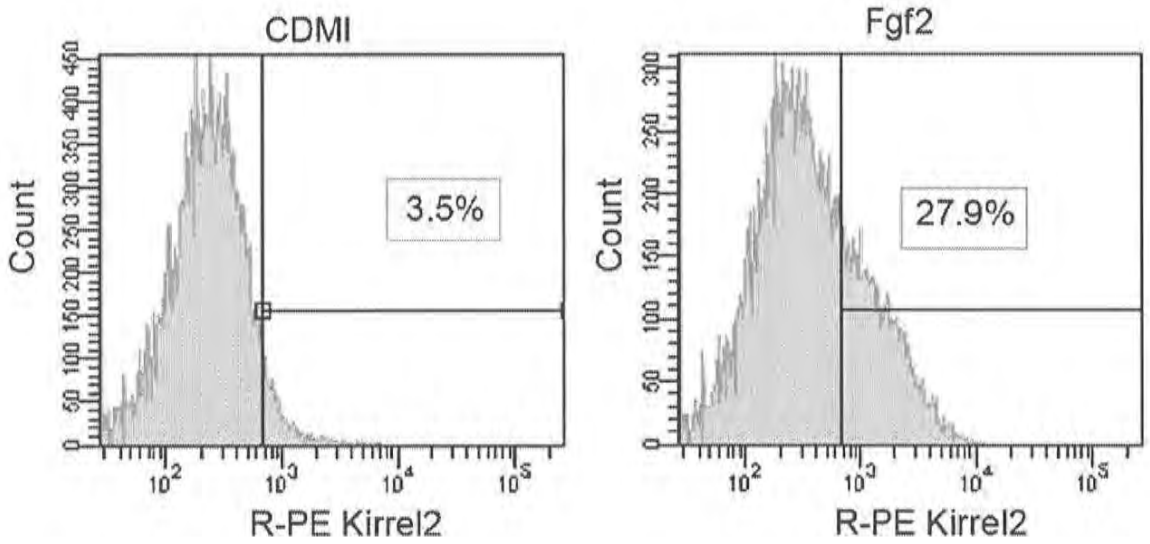

CDMI
Count
3.5%
R-PE Kirrel2
Fgf2
Count
27.9%
R-PE Kirrel2

Fig. 5

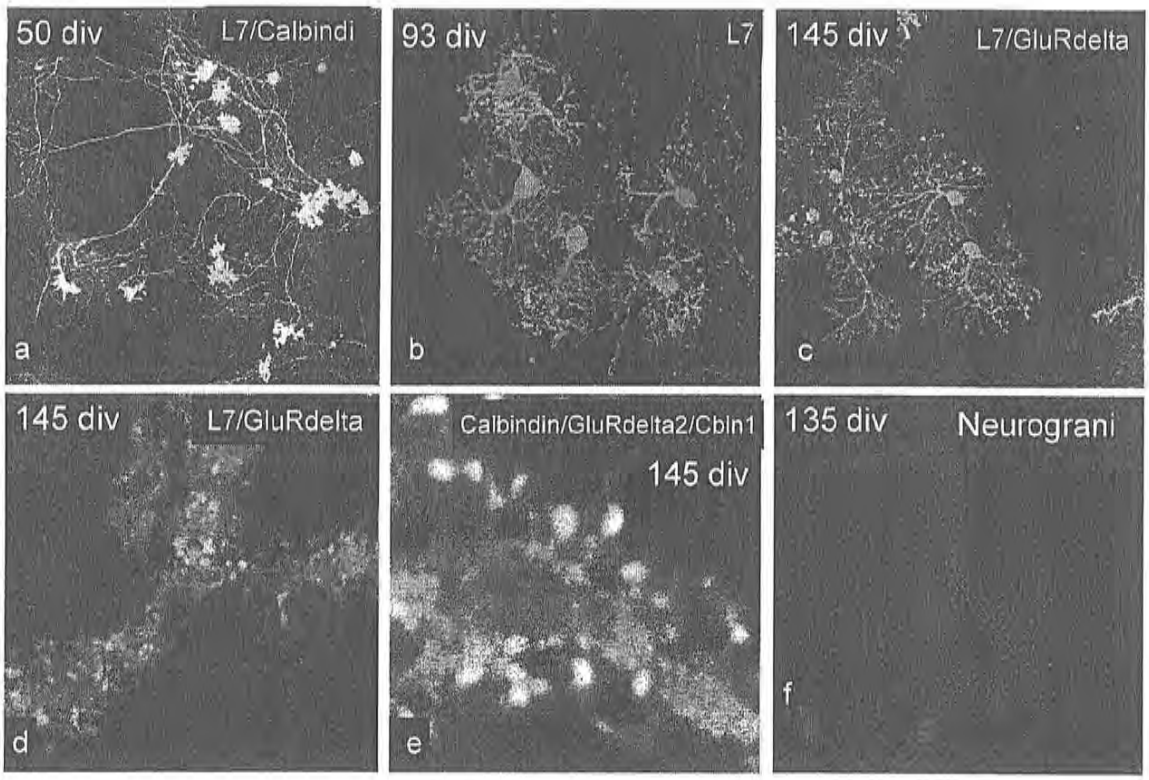

50 div
L7/Calbindi
a
93 div
L7
b
145 div
L7/GluRdelta
c
145 div
L7/GluRdelta
d
Calbindin/GluRdelta2/Cbln1
145 div
e
135 div
Neurograni
f

Fig. 6

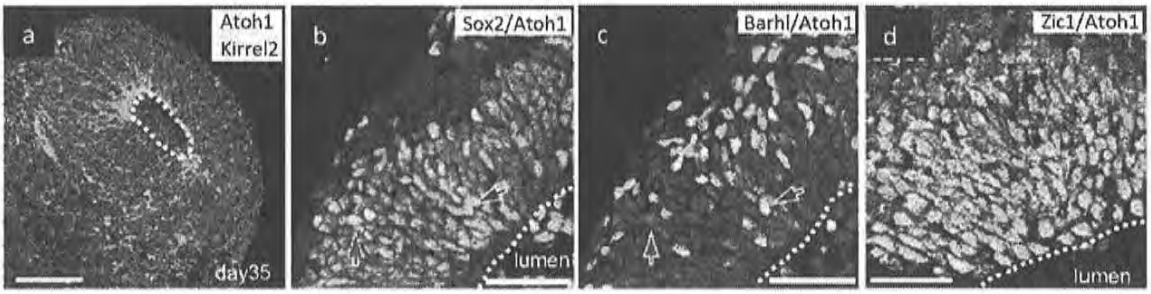

a
Atoh1
Kirrel2
day35
b
Sox2/Atoh1
lumen
c
Barhl/Atoh1
d
Zic1/Atoh1
lumen

Fig. 7

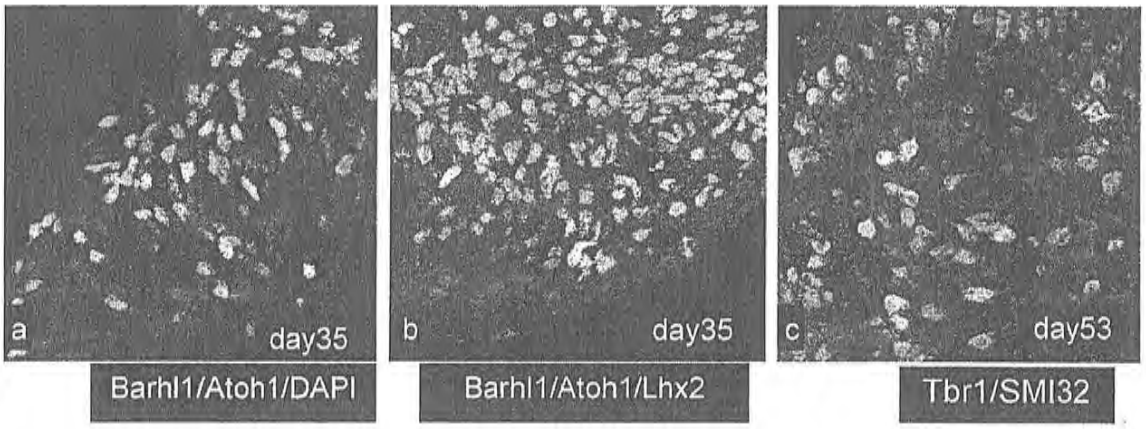

a
day35
Barhl1/Atoh1/DAPI
b
day35
Barhl1/Atoh1/Lhx2
c
day53
Tbr1/SMI32

Fig. 8

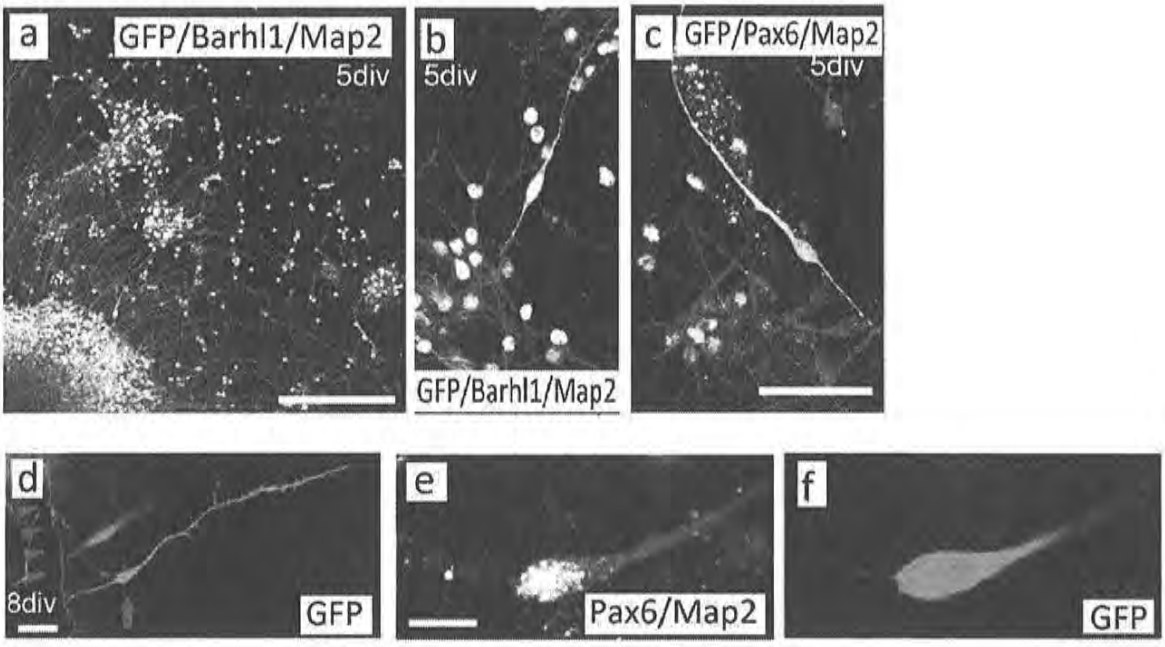

a
GFP/Barhl1/Map2
5div
b
5div
GFP/Barhl1/Map2
c
GFP/Pax6/Map2
5div
d
8div
GFP
e
Pax6/Map2
f
GFP

Fig. 9

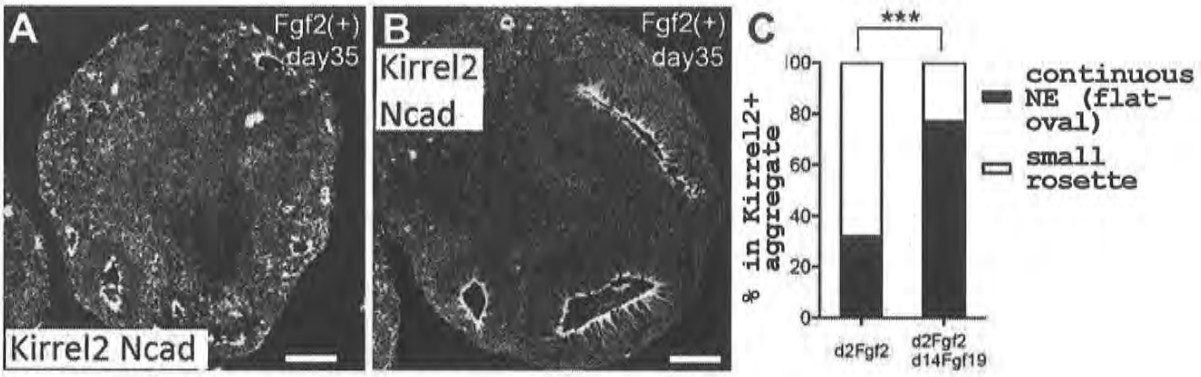

A
Fgf2(+)
day35
Kirrel2 Ncad
B
Fgf2(+)
day35
Kirrel2
Ncad
C
***
% in Kirrel2+ aggregate
100
80
60
40
20
0
d2Fgf2
d2Fgf2
d14Fgf19
continuous NE (flat-oval)
small rosette

Fig. 10

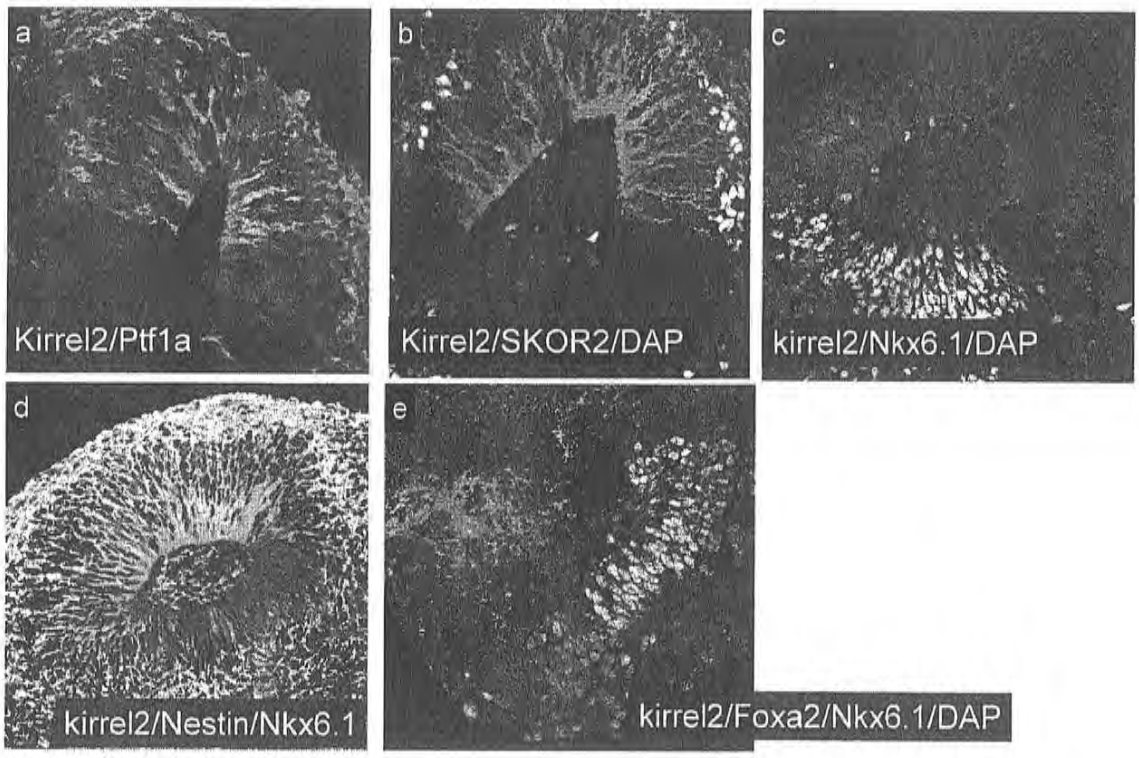

a
Kirrel2/Ptf1a
b
Kirrel2/SKOR2/DAP
c
kirrel2/Nkx6.1/DAP
d
kirrel2/Nestin/Nkx6.1
e
kirrel2/Foxa2/Nkx6.1/DAP

Fig. 11

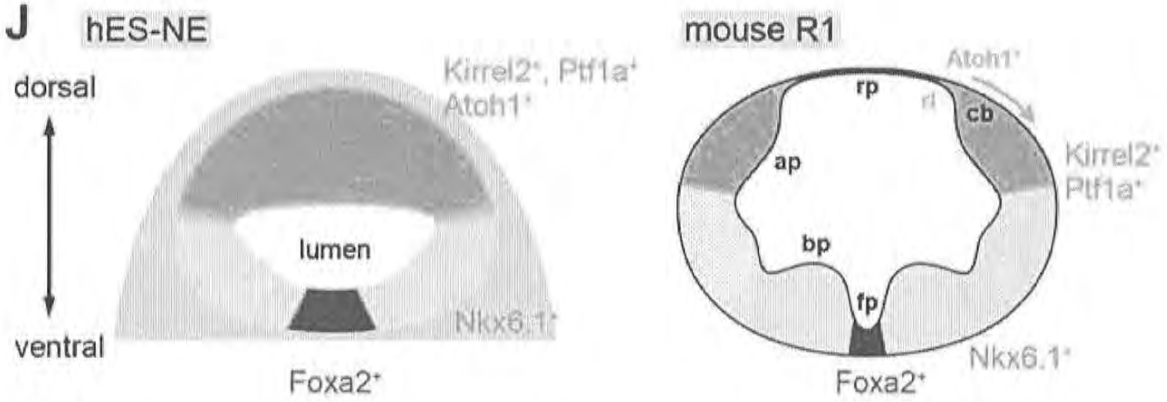


Fig. 12

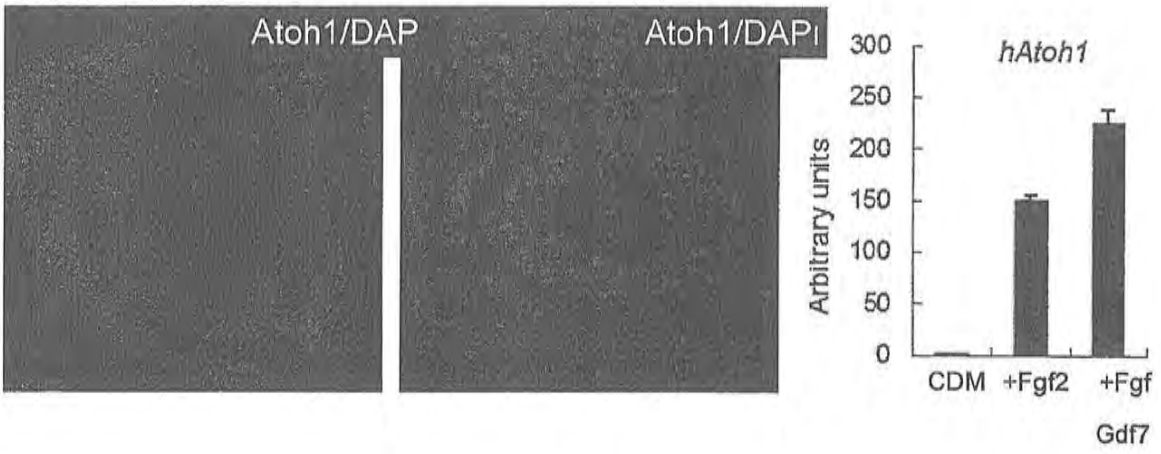


Fig. 13

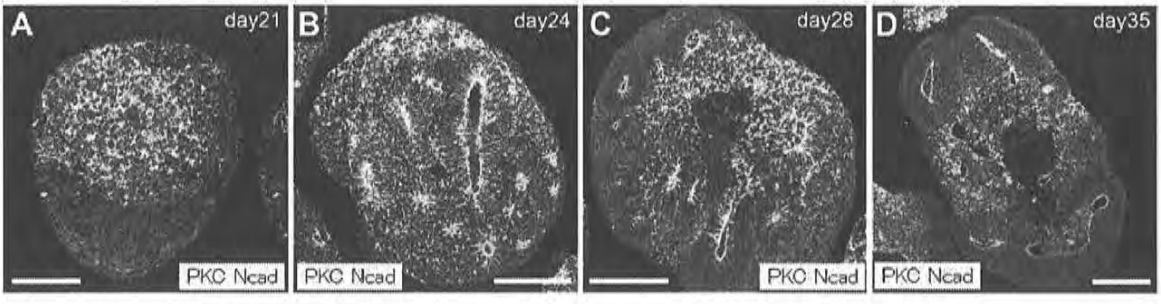


Fig. 14

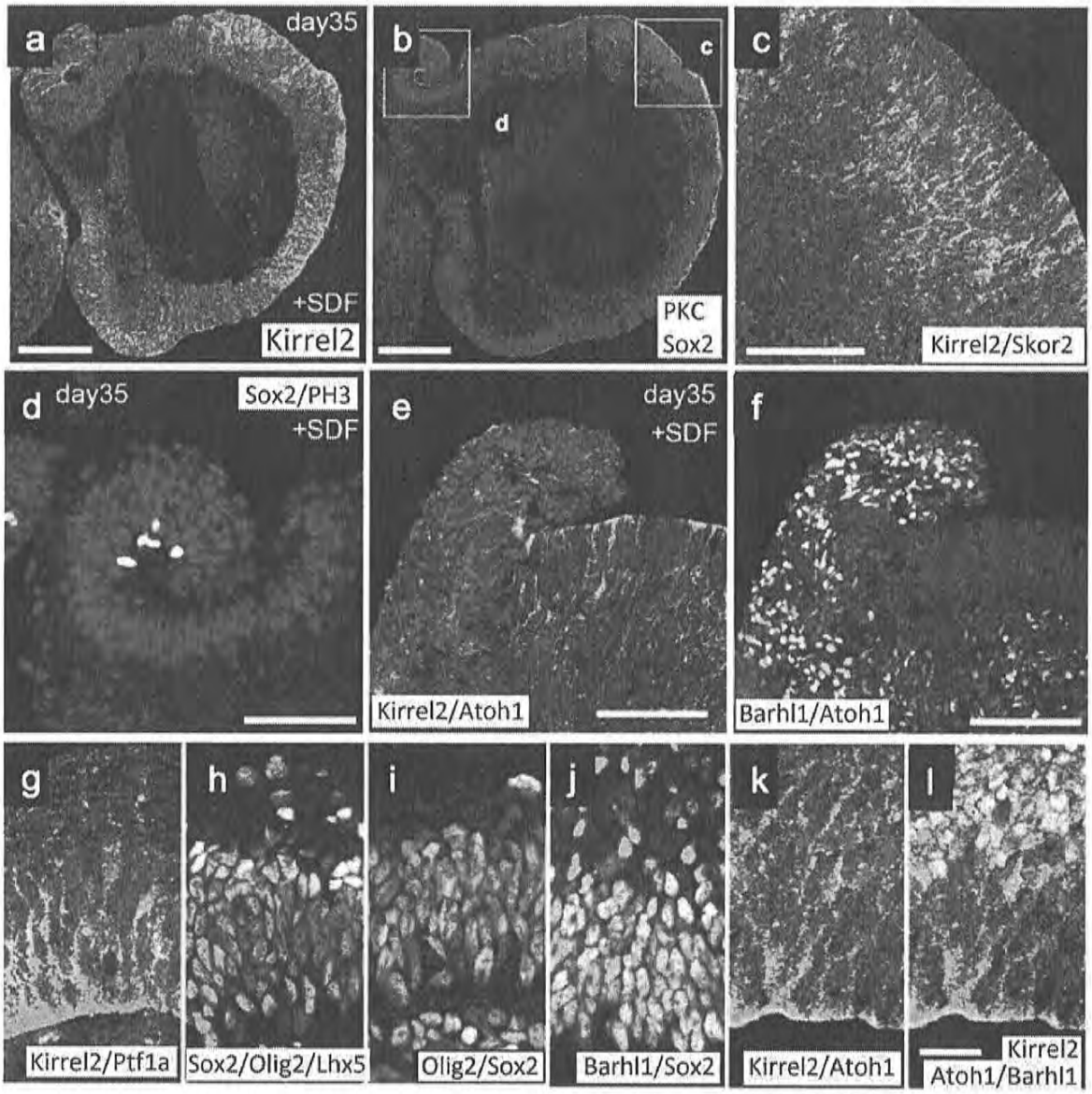

a
day35
+SDF
Kirrel2
b
c
d
PKC
Sox2
c
Kirrel2/Skor2
d
day35
Sox2/PH3
+SDF
e
day35
+SDF
Kirrel2/Atoh1
f
Barhl1/Atoh1
g
Kirrel2/Ptf1a
h
Sox2/Olig2/Lhx5
i
Olig2/Sox2
j
Barhl1/Sox2
k
Kirrel2/Atoh1
l
Kirrel2
Atoh1/Barhl1

Fig. 15

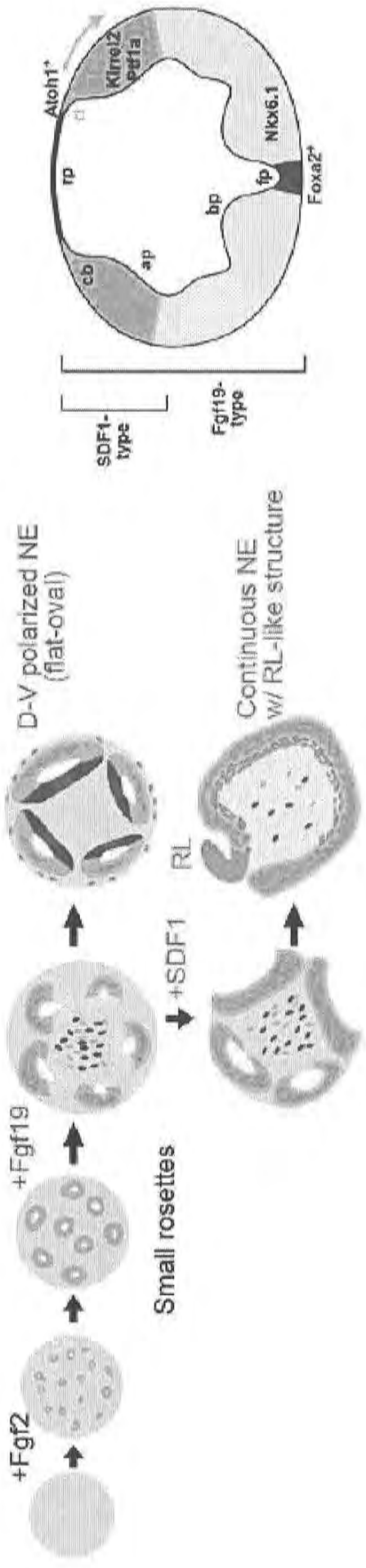
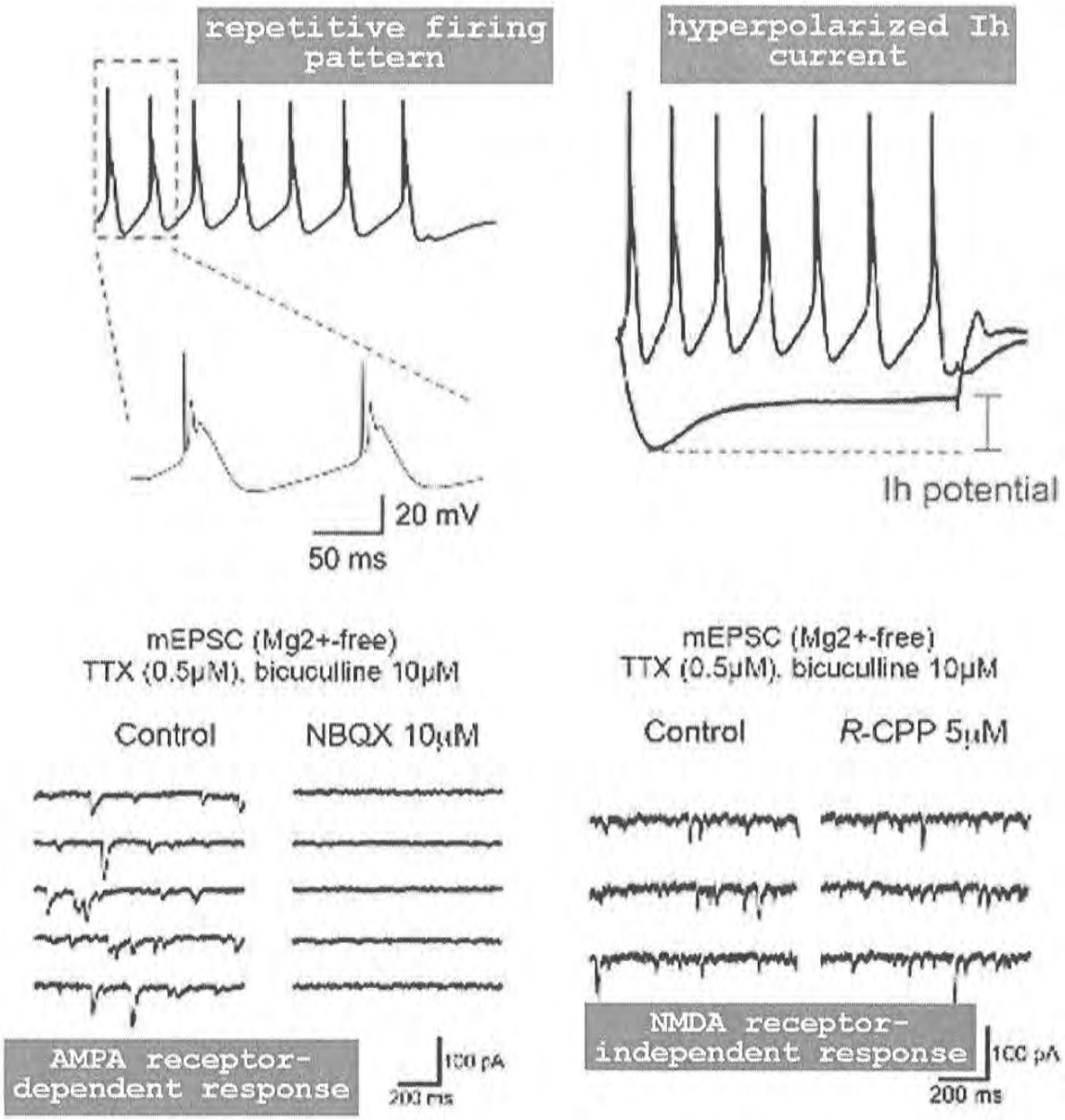

Atoh1+
Klhl12
Ptf1a
Nkx6.1
Foxa2+
rp
cb
ap
bp
fp
SDF1-type
Fgf19-type
D-V polarized NE
(flat-oval)
Continuous NE
w/ RL-like structure
RL
+SDF1
+Fgf19
Small rosettes
+Fgf2

Fig. 16


repetitive firing pattern
20 mV
50 ms
hyperpolarized Ih current
Ih potential
mEPSC (Mg2+-free)
TTX (0.5μM), bicuculline 10μM
Control
NBQX 10μM
AMPA receptor-dependent response
100 pA
200 ms
mEPSC (Mg2+-free)
TTX (0.5μM), bicuculline 10μM
Control
R-CPP 5μM
NMDA receptor-independent response
100 pA
200 ms