Fig.

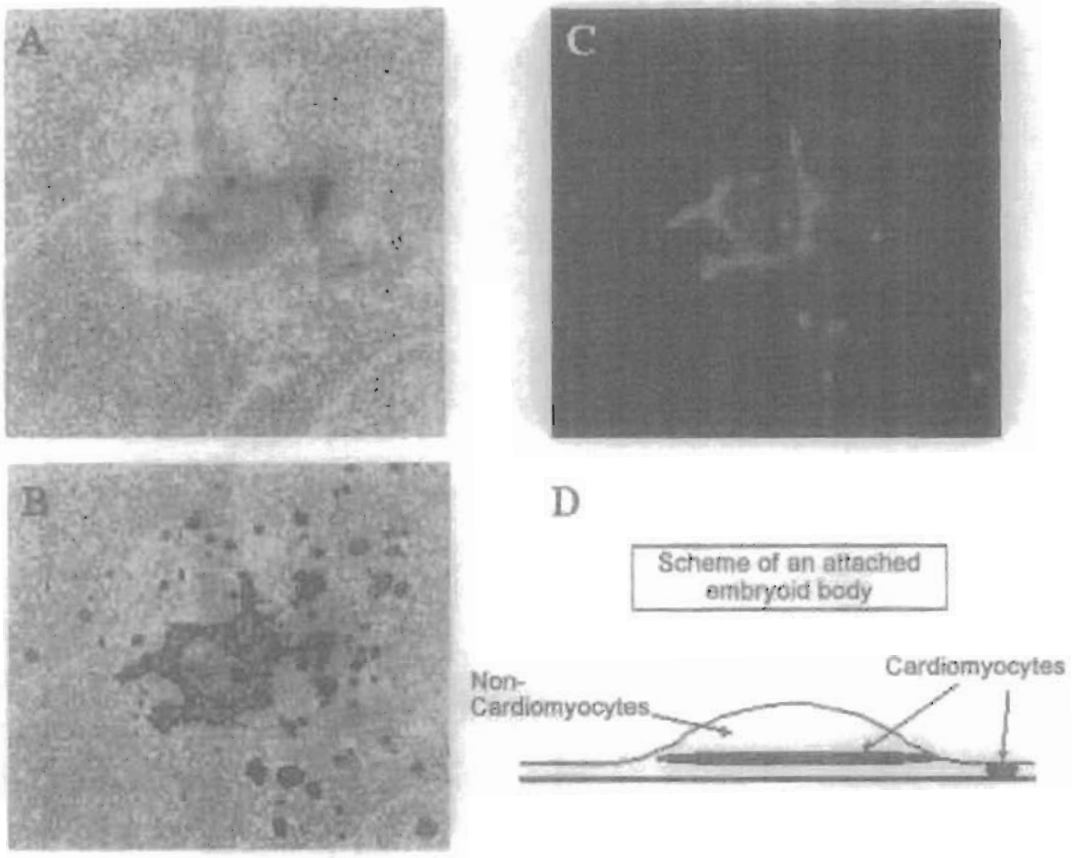

A
C
B
D
Scheme of an attached embryoid body
Non-Cardiomyocytes
Cardiomyocytes

Fig 2

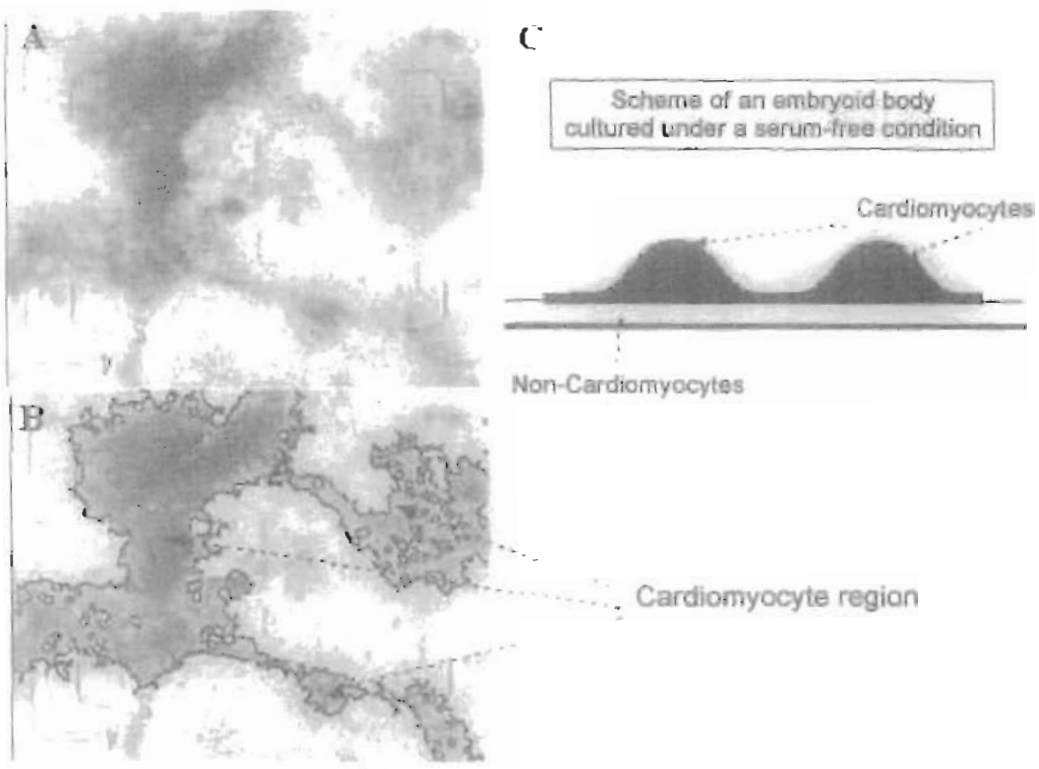
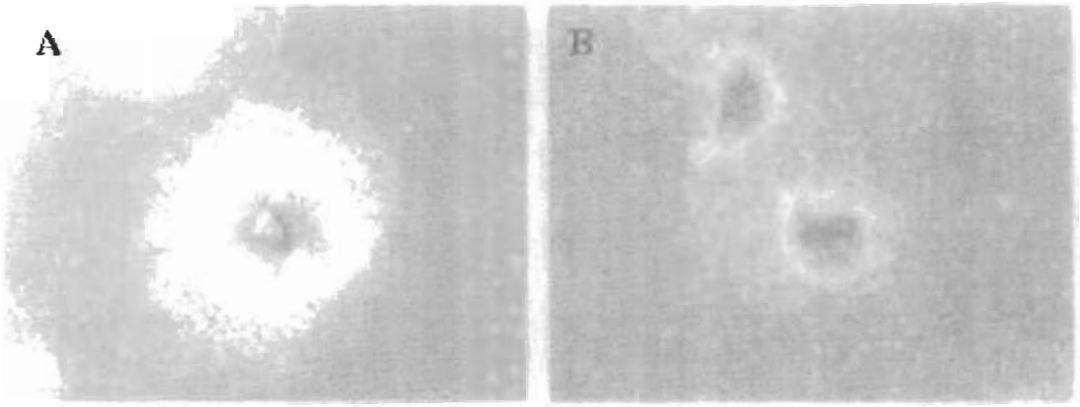

A
B
C
Scheme of an embryoid body cultured under a serum-free condition
Cardiomyocytes
Non-Cardiomyocytes
Cardiomyocyte region

Fig. 3


A
B

Fig

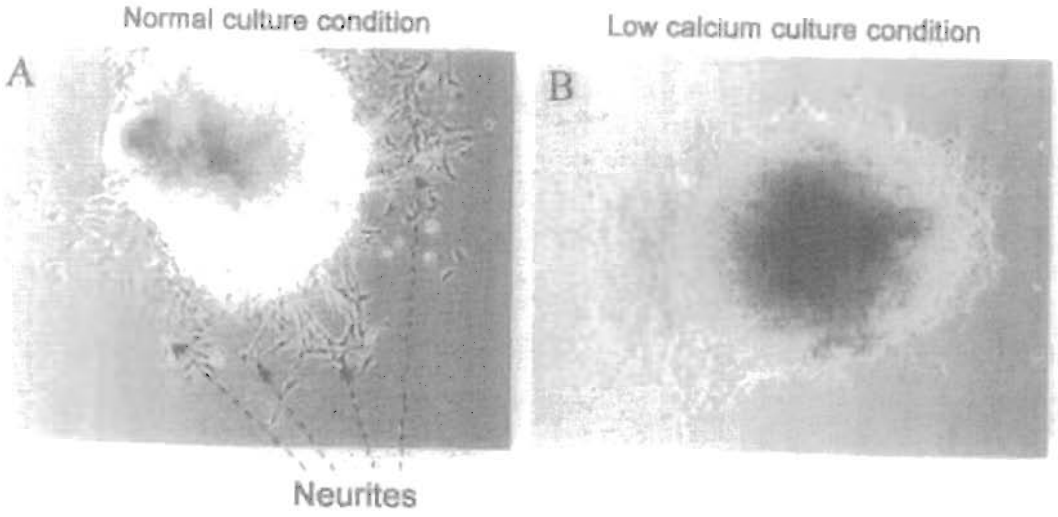
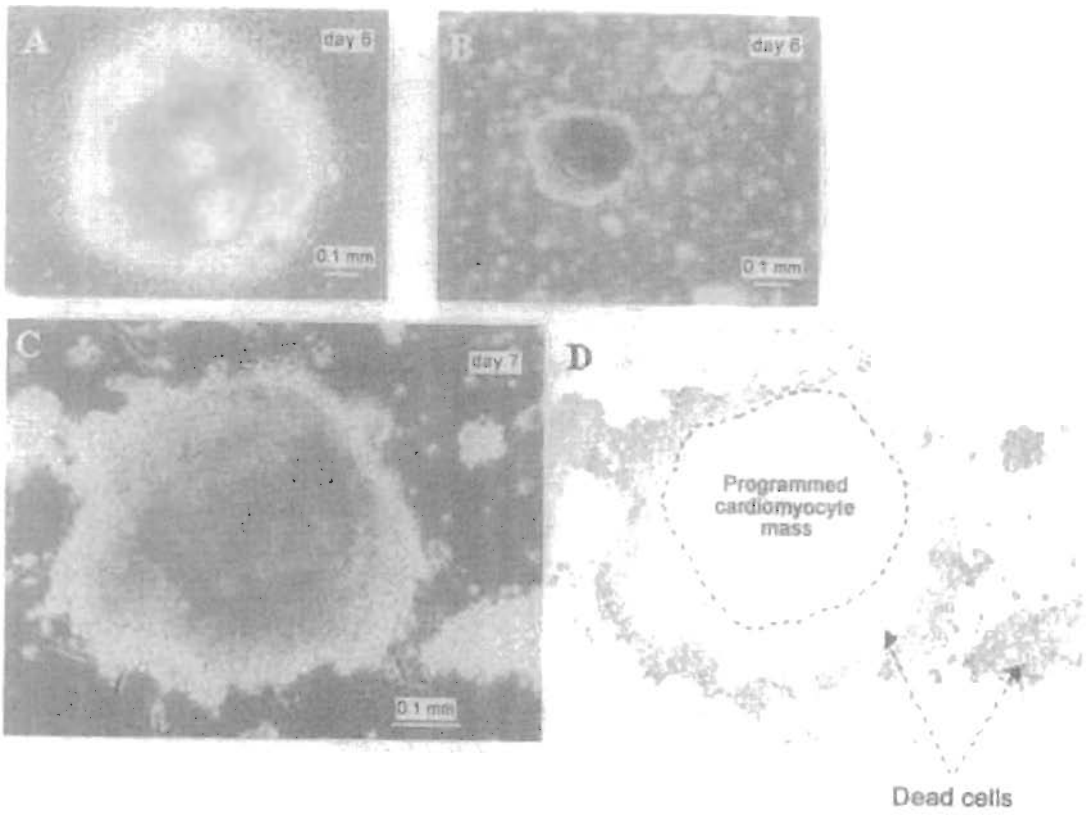

Normal culture condition
Low calcium culture condition
A
B
Neurites

Fig.


A
day 6
0.1 mm
B
day 6
0.1 mm
C
day 7
0.1 mm
D
Programmed cardiomyocyte mass
Dead cells

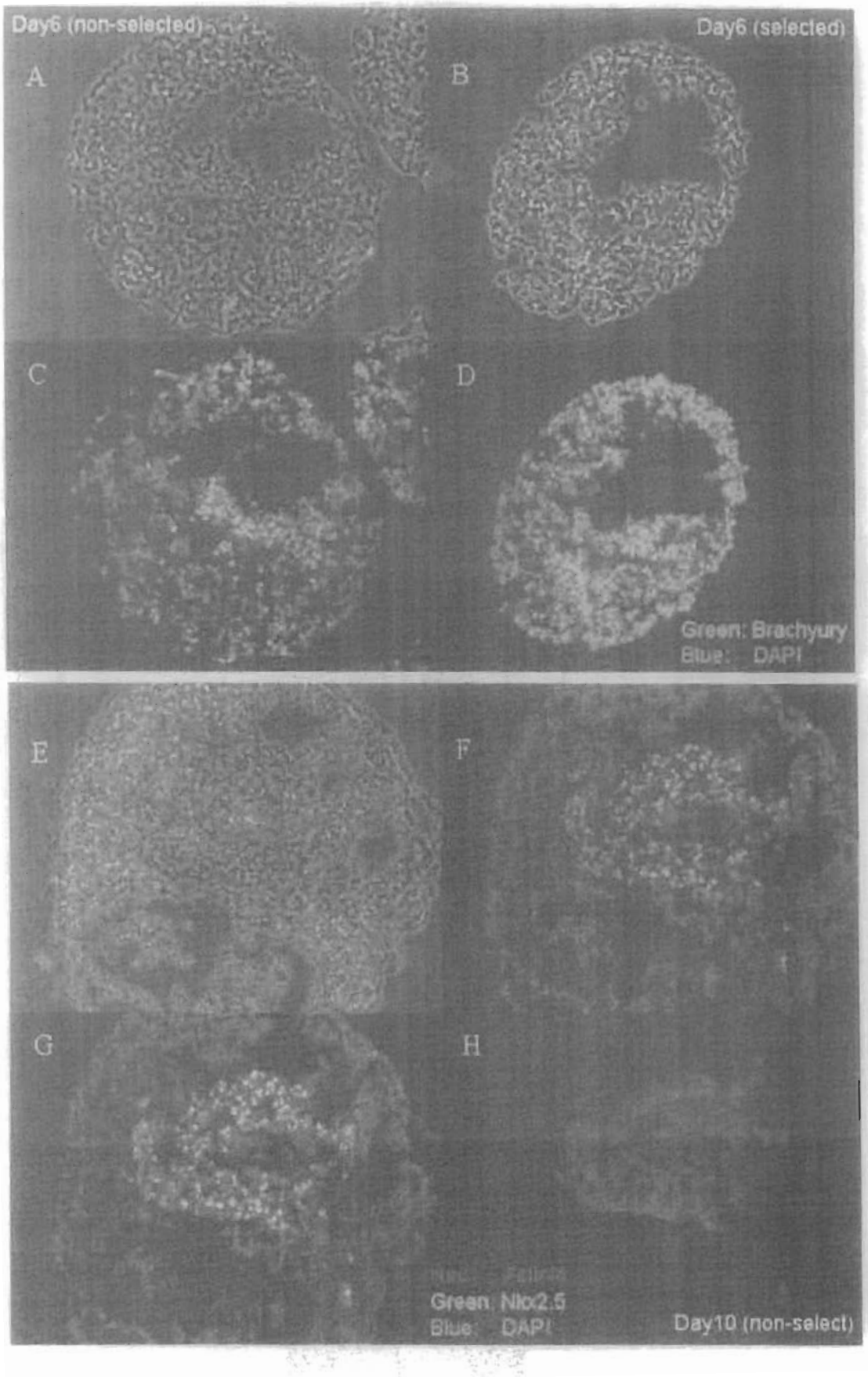

Day6 (non-selected)
Day6 (selected)
A
B
C
D
Green: Brachyury
Blue: DAPI
E
F
G
H
Green: Nkx2.5
Blue: DAPI
Day10 (non-select)

Fig. 6 2

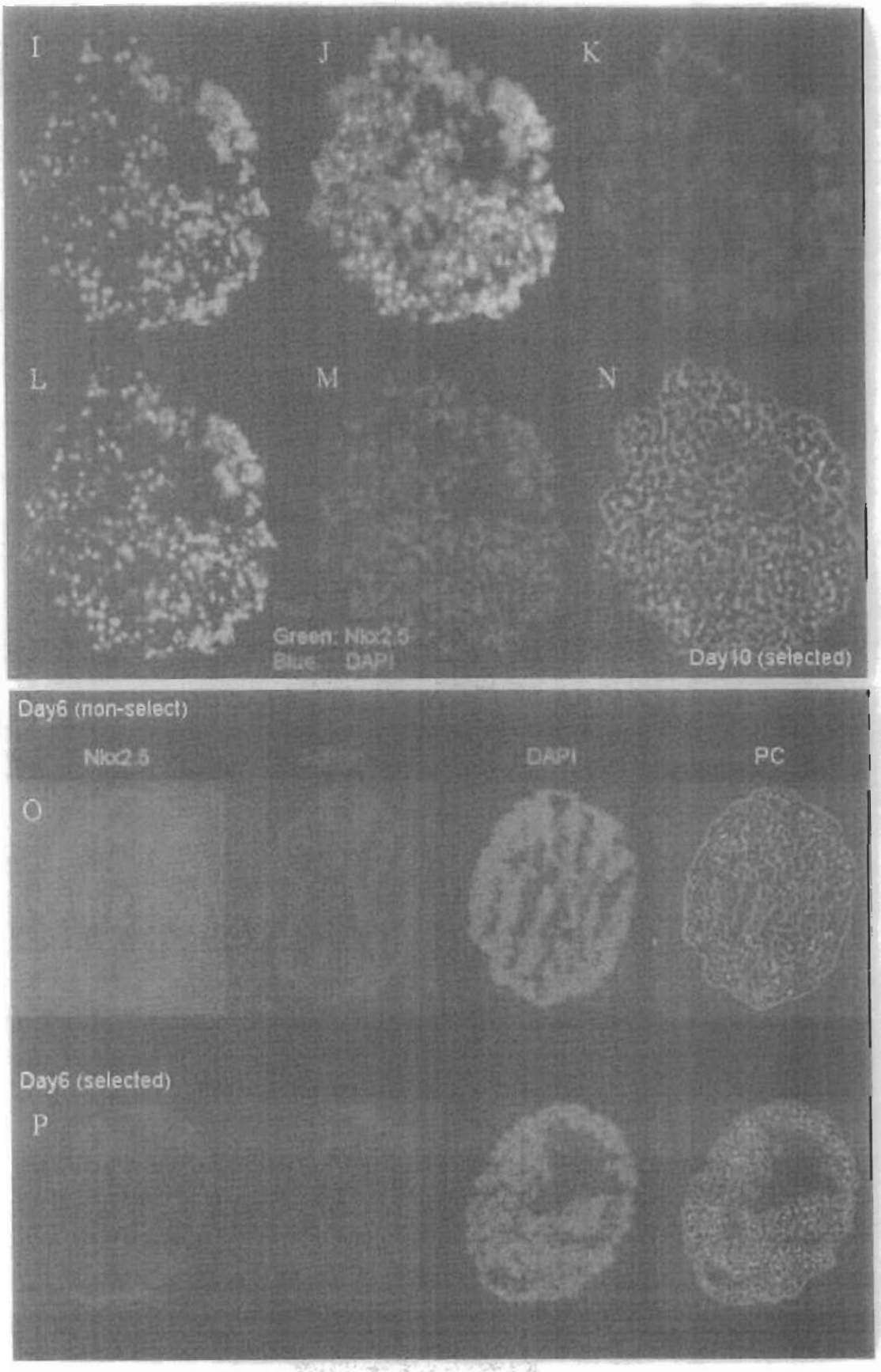

I
J
K
L
M
N
Green: Nkx2.5
Blue: DAPI
Day10 (selected)
Day6 (non-select)
Nkx2.5
DAPI
PC
O
Day6 (selected)
P

Fig.

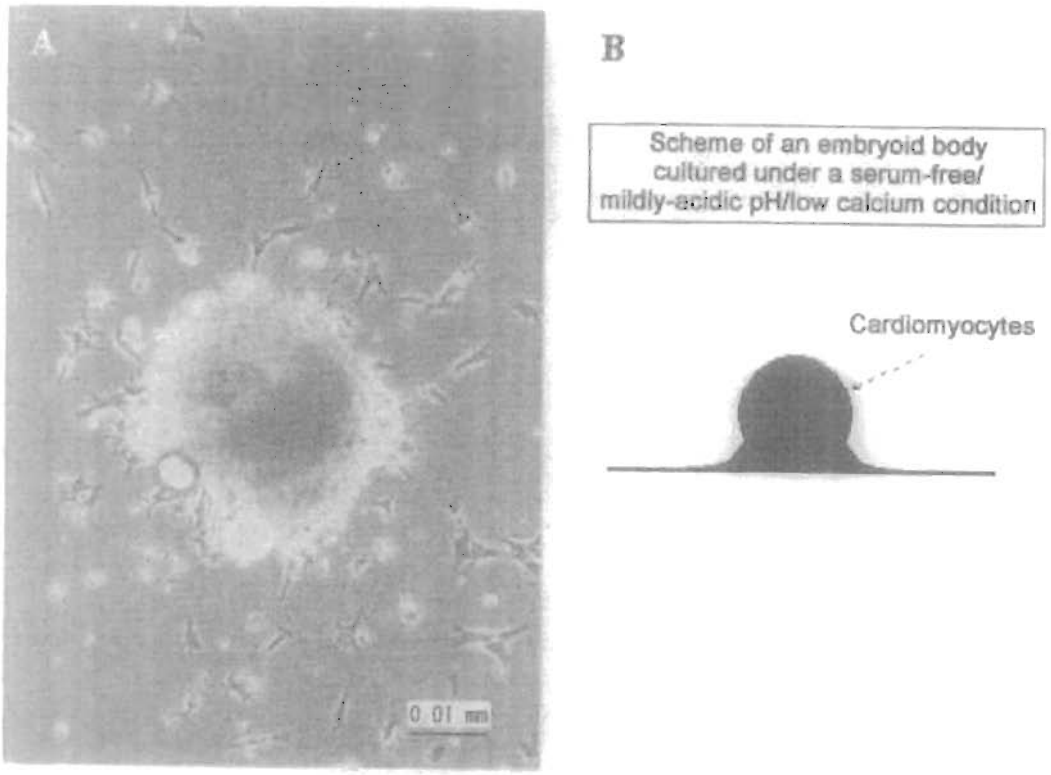

A
0.01 mm
B
Scheme of an embryoid body cultured under a serum-free/ mildly-acidic pH/low calcium condition
Cardiomyocytes

Fig. 8

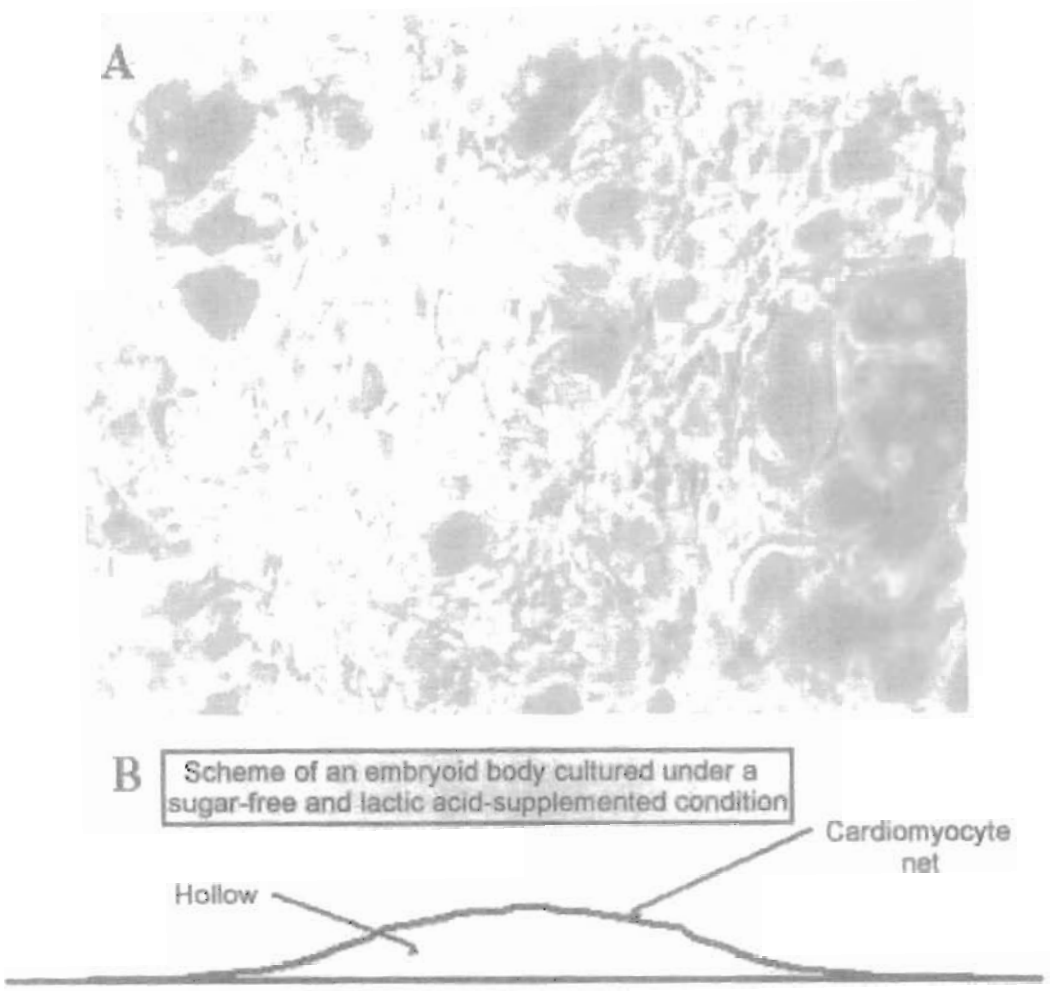

A
B
Scheme of an embryoid body cultured under a sugar-free and lactic acid-supplemented condition
Cardiomyocyte net
Hollow

Fig. 9

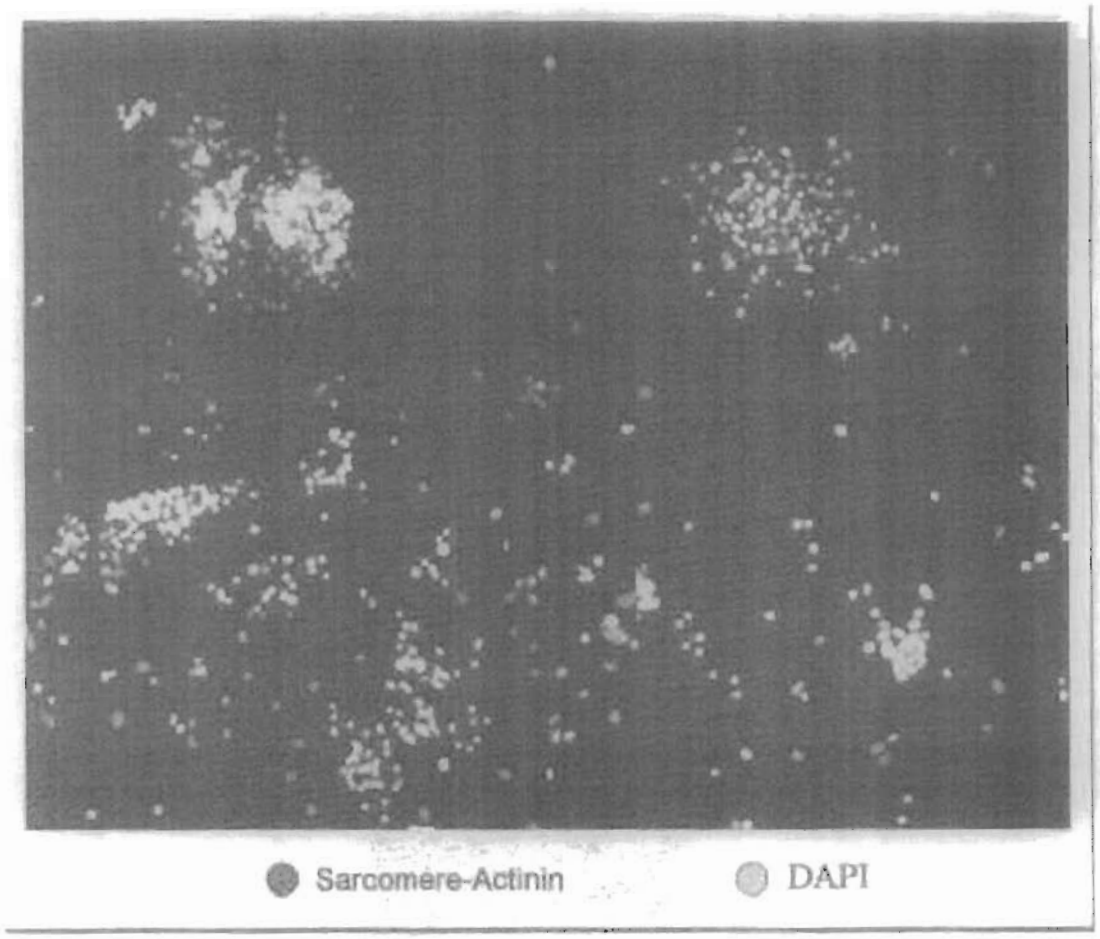
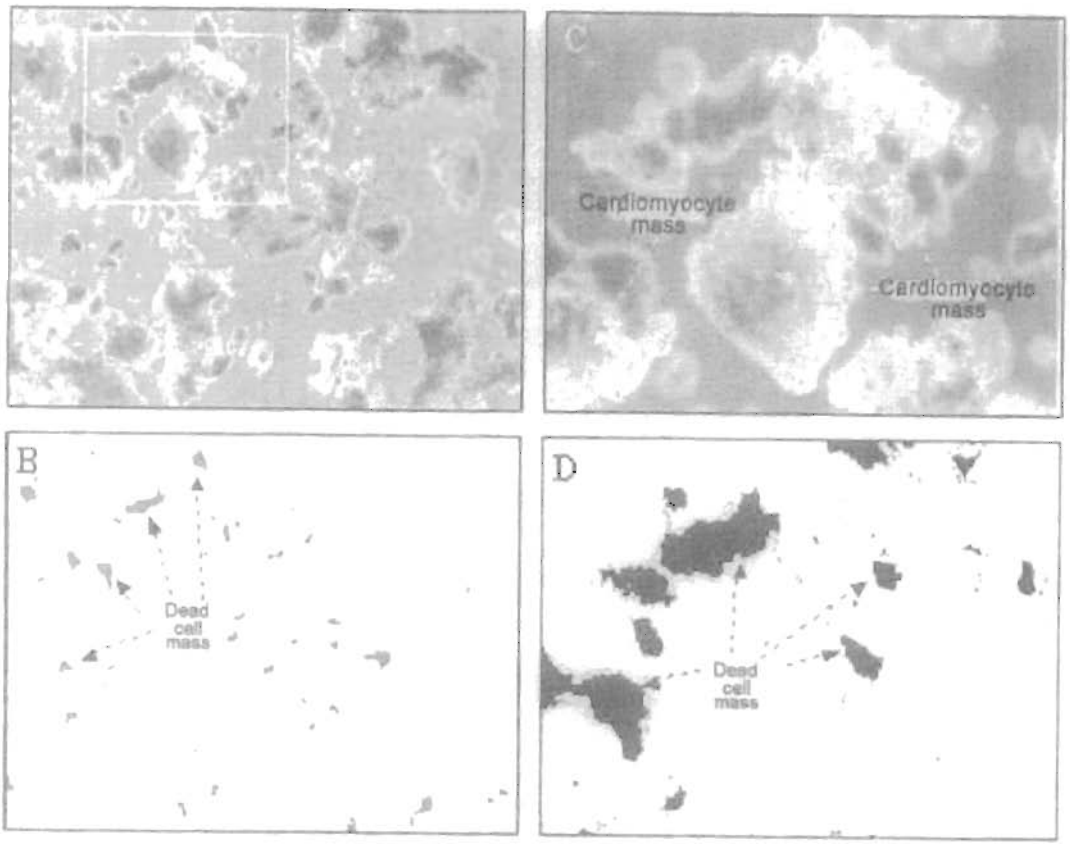
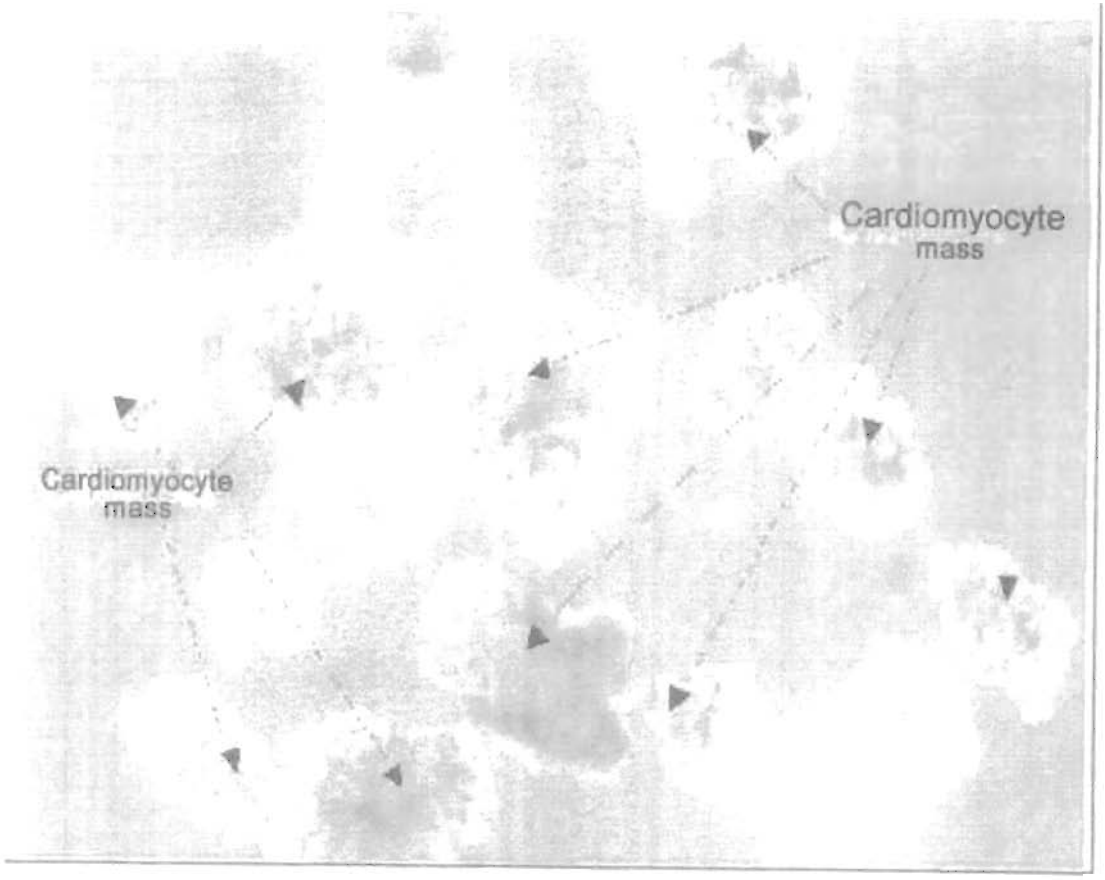
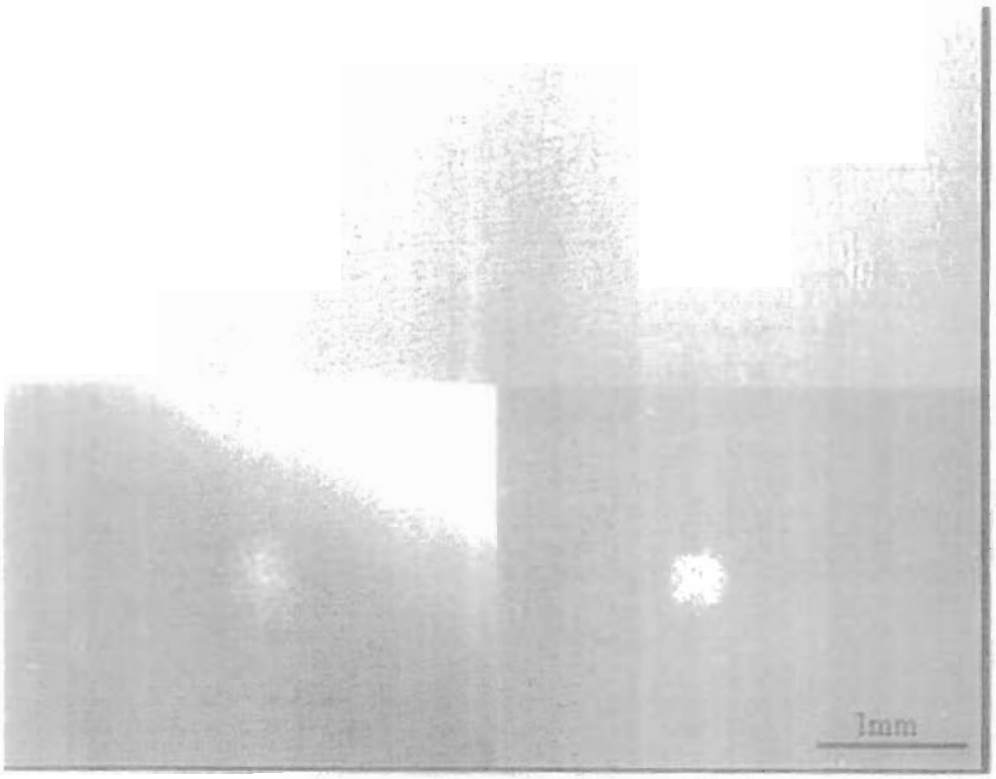


Fig. 10


C
Cardiomyocyte mass
Cardiomyocyte mass
B
Dead cell mass
D
Dead cell mass

Fig




1mm

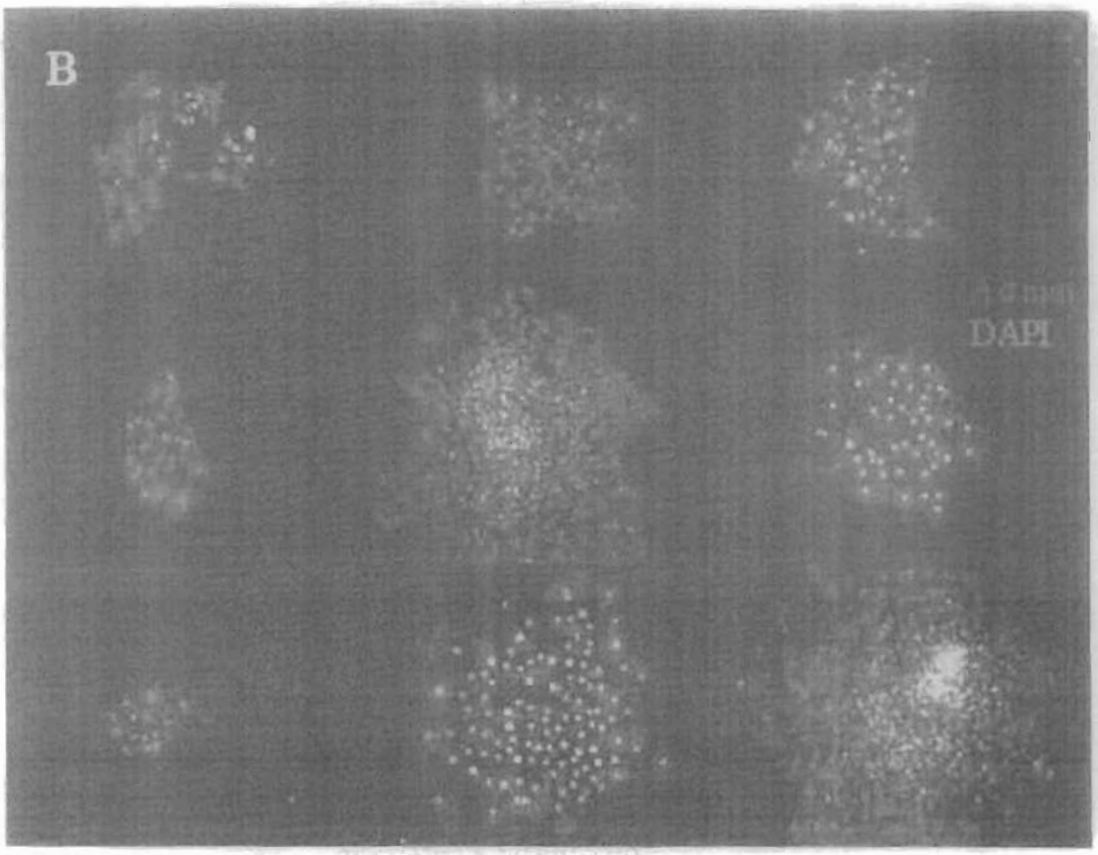
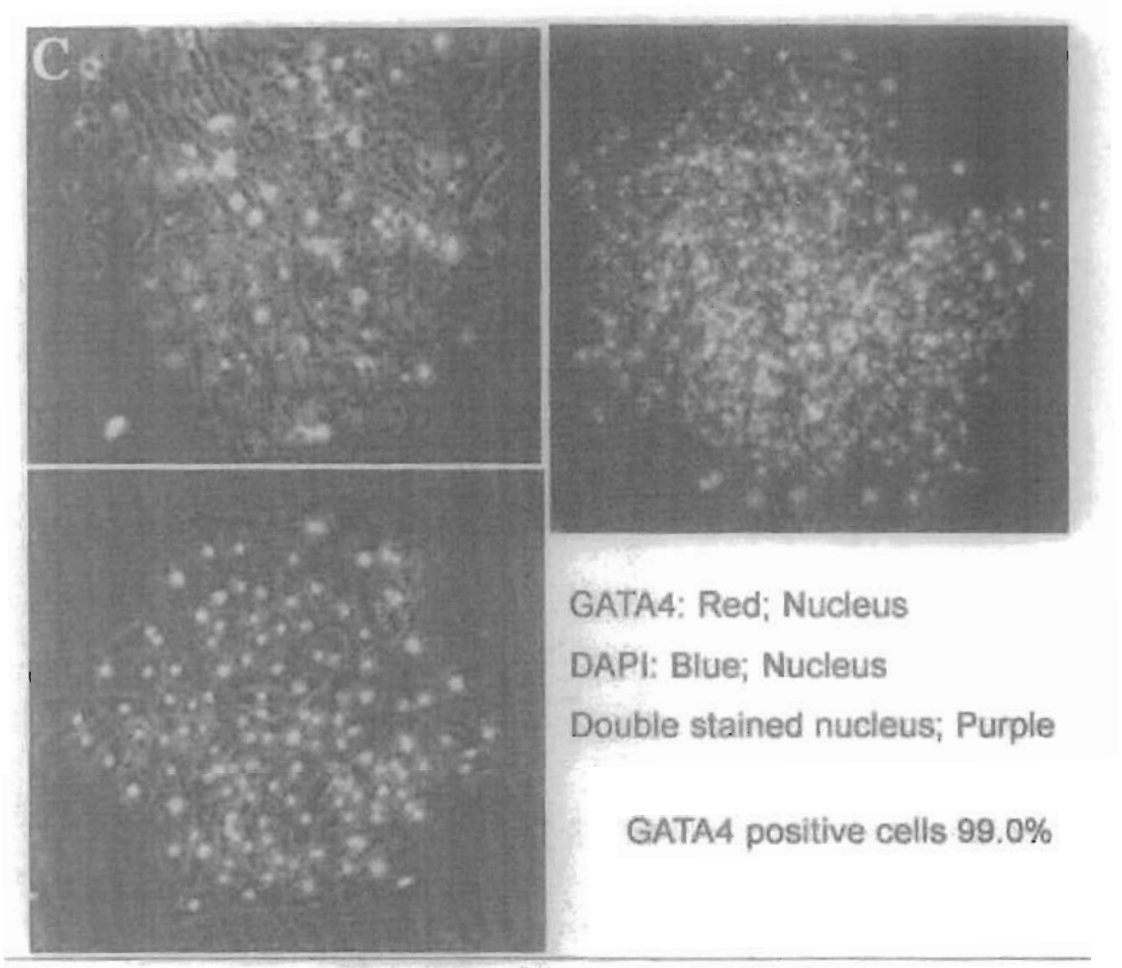

B
DAPI

Fig. 12-


C
GATA4: Red; Nucleus
DAPI: Blue; Nucleus
Double stained nucleus; Purple
GATA4 positive cells 99.0%

Fig

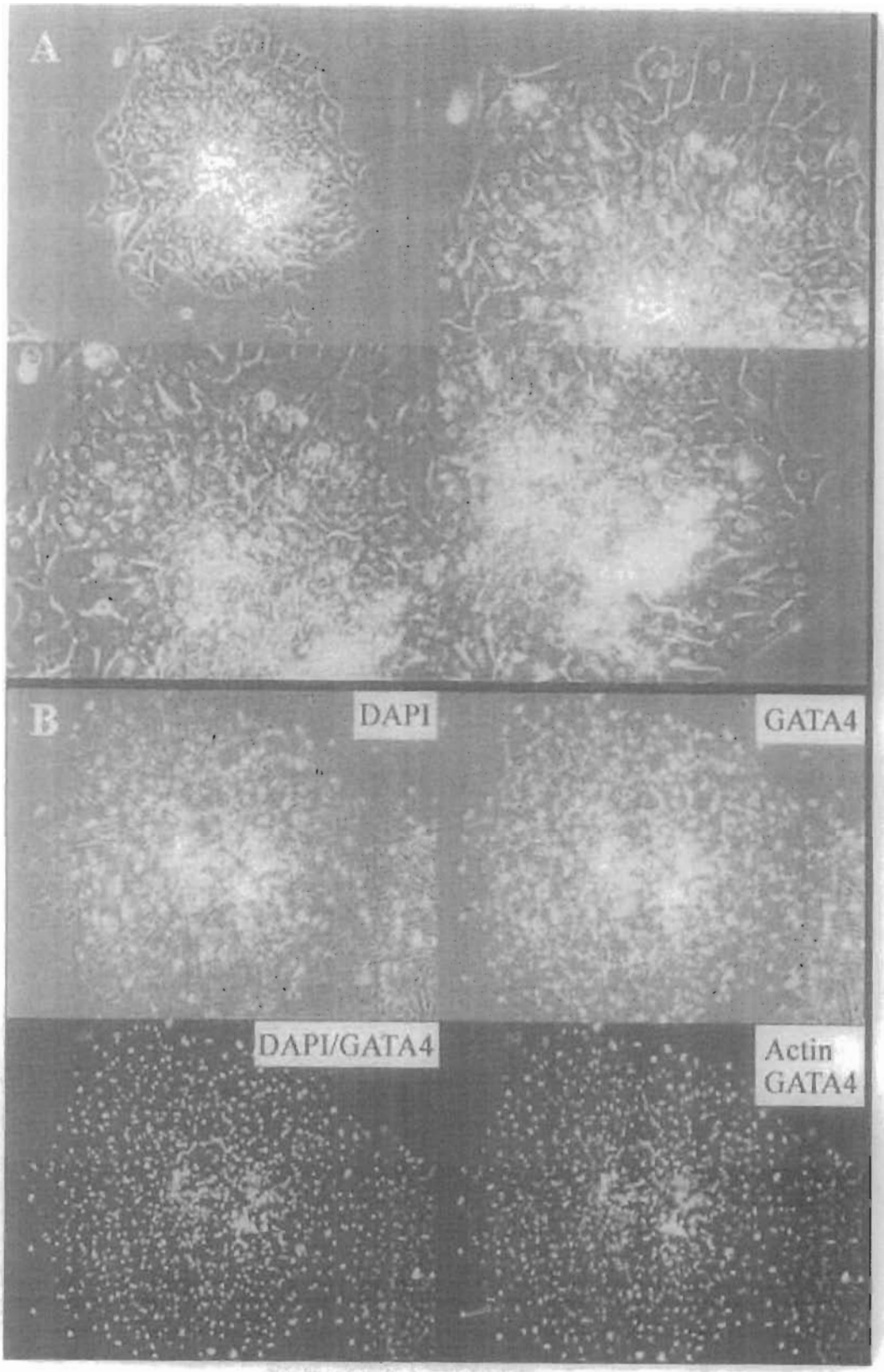


Fig. 14

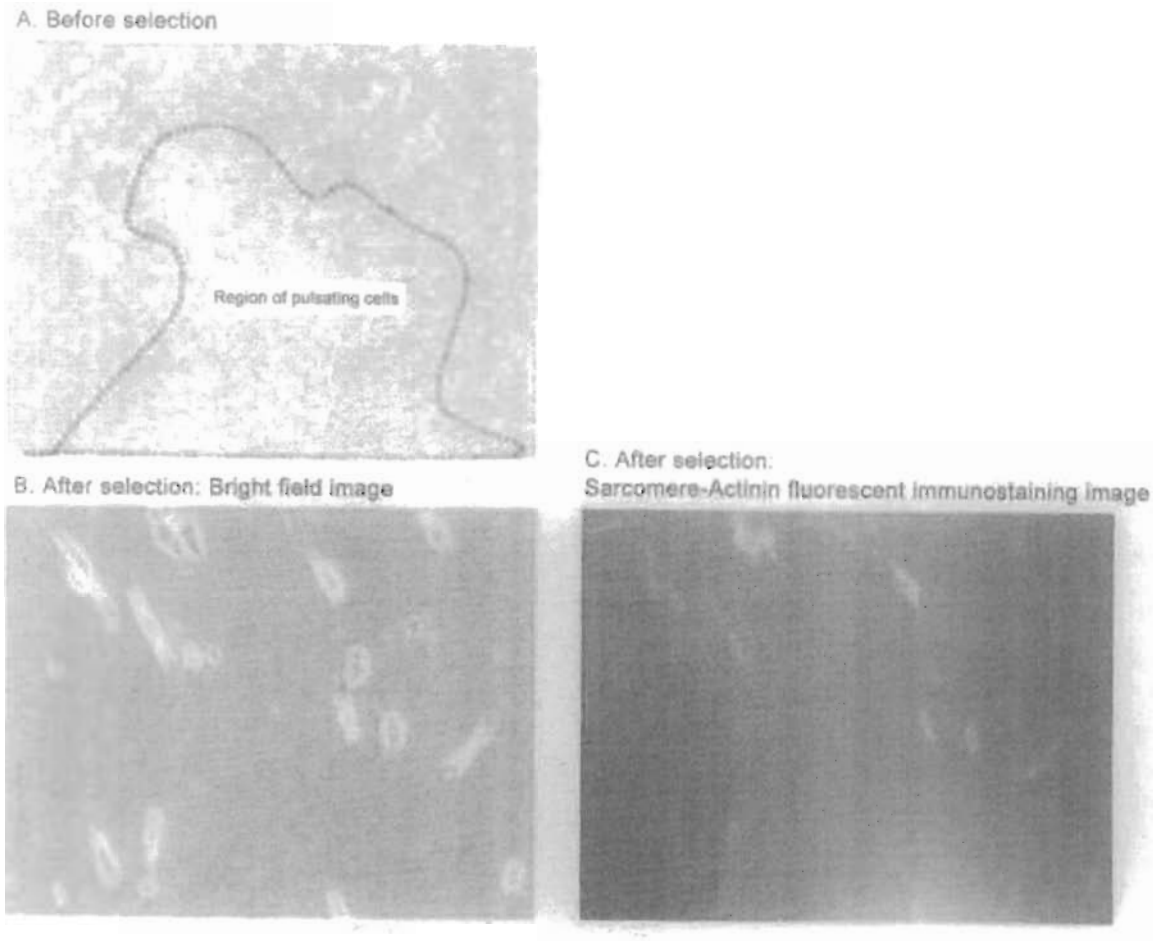

A. Before selection
Region of pulsating cells
B. After selection: Bright field image
C. After selection:
Sarcomere-Actinin fluorescent immunostaining image

Fig. 15

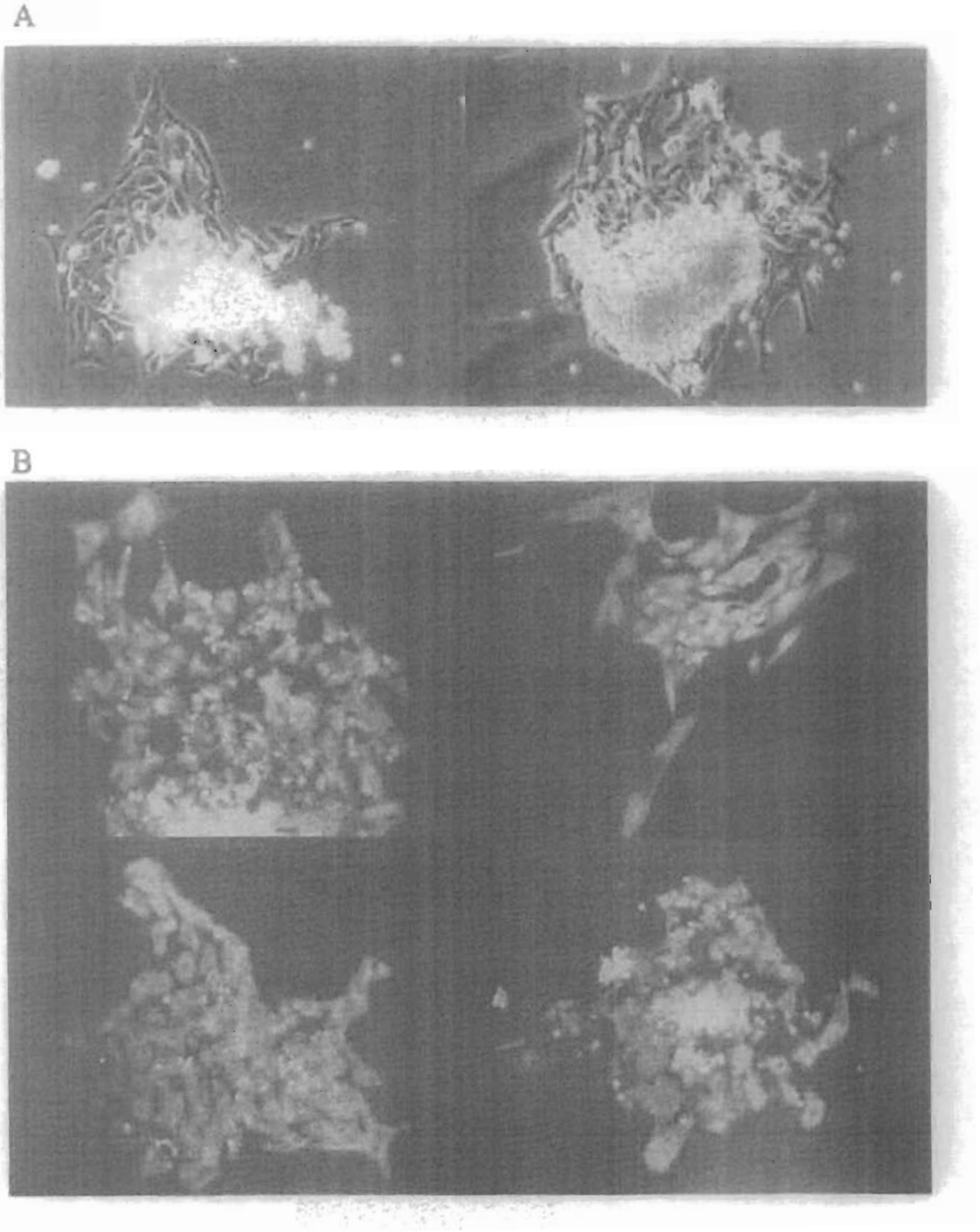


Fig. 16

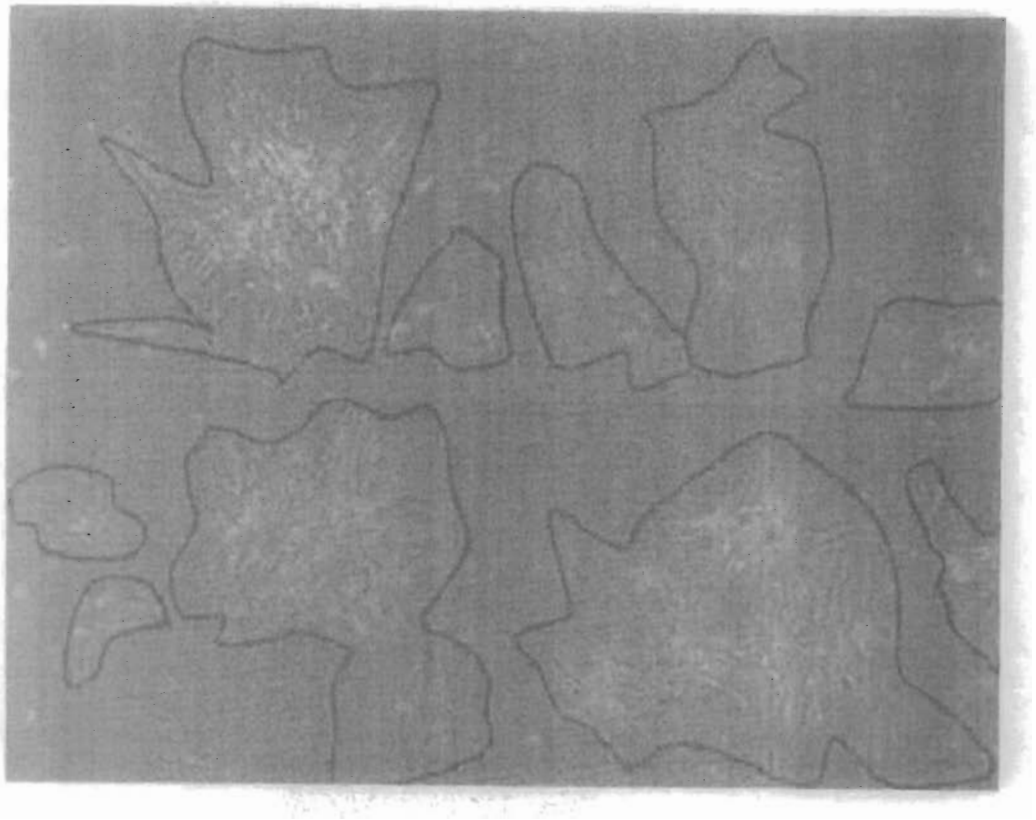


Fig. 17

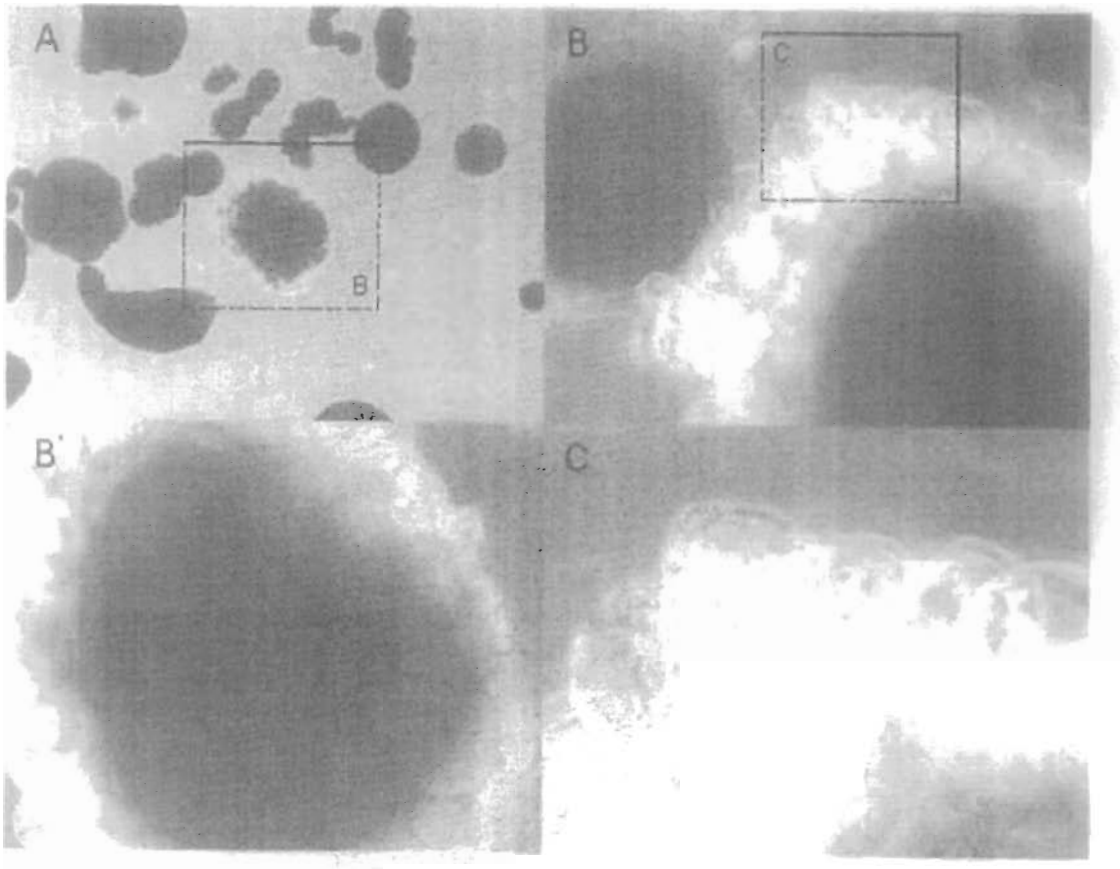


Fig. 18

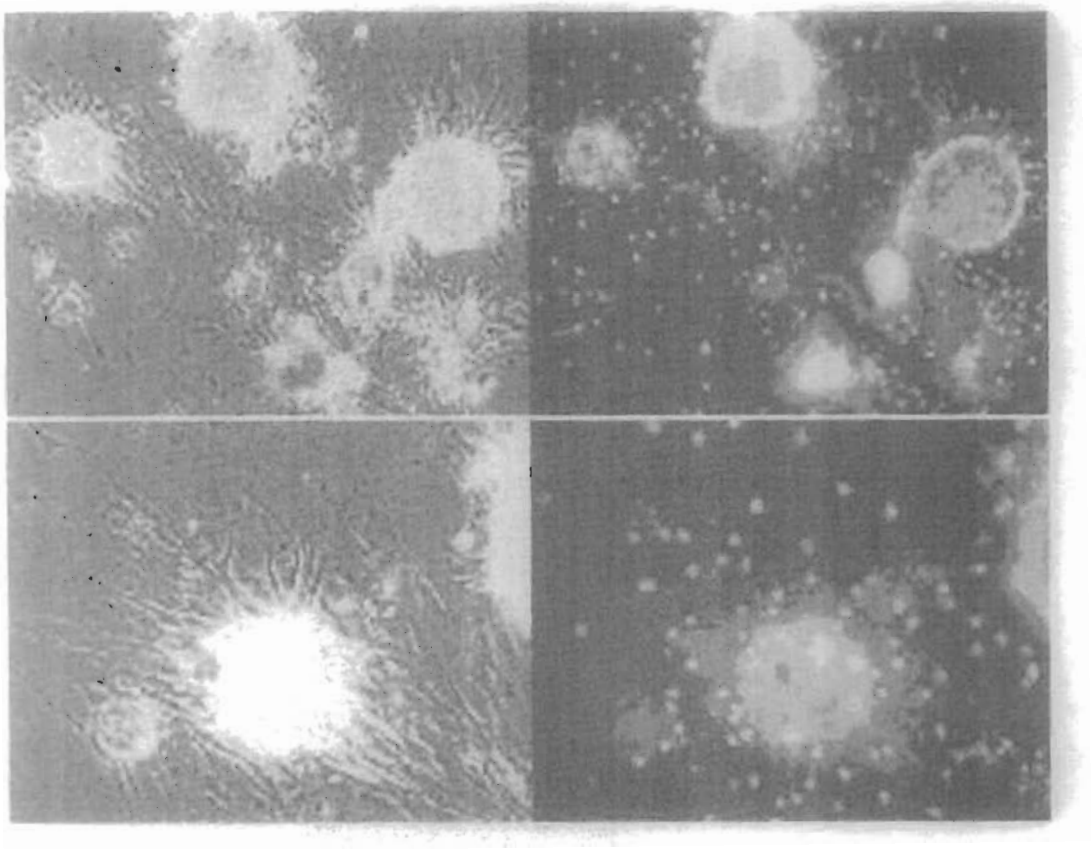


Fig. 19

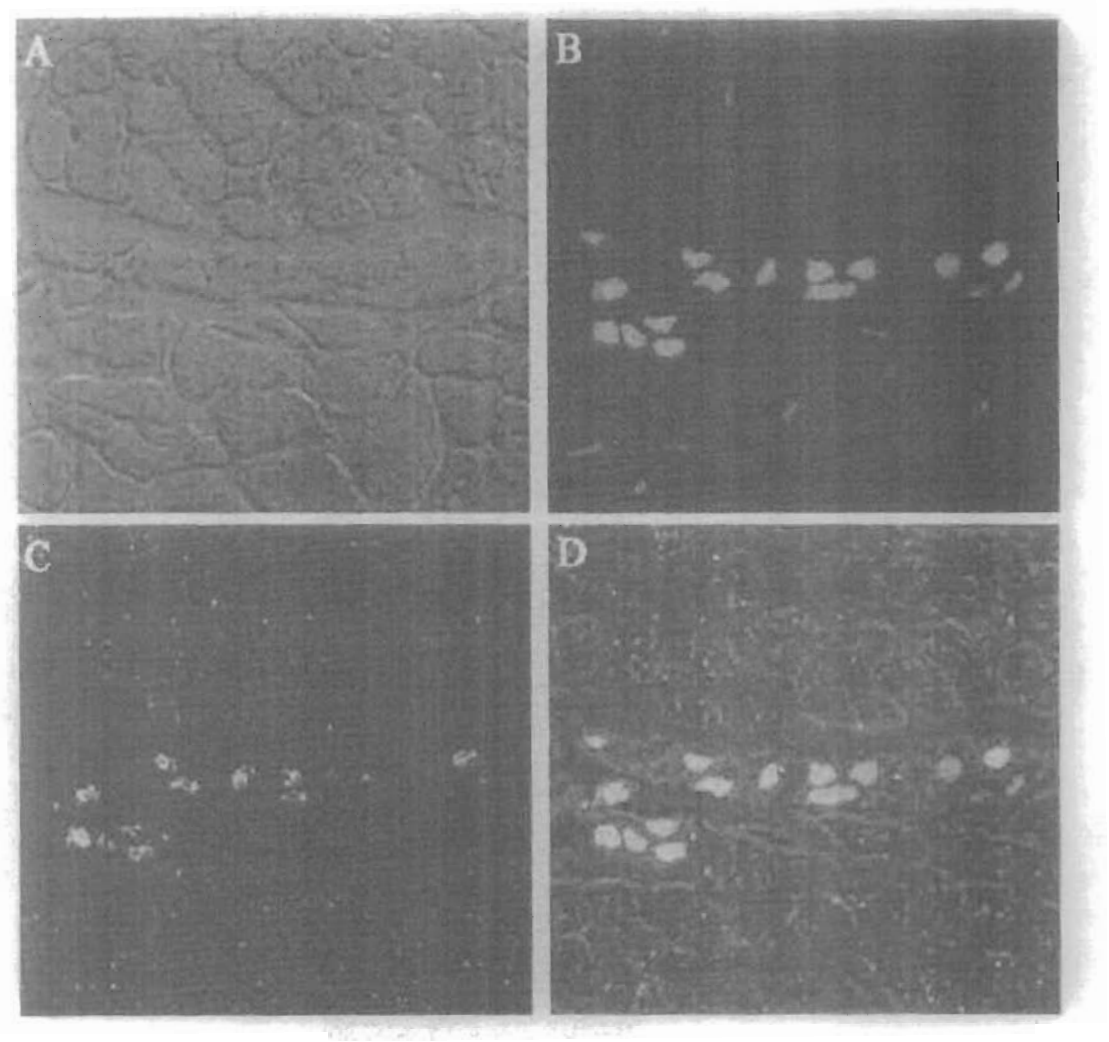
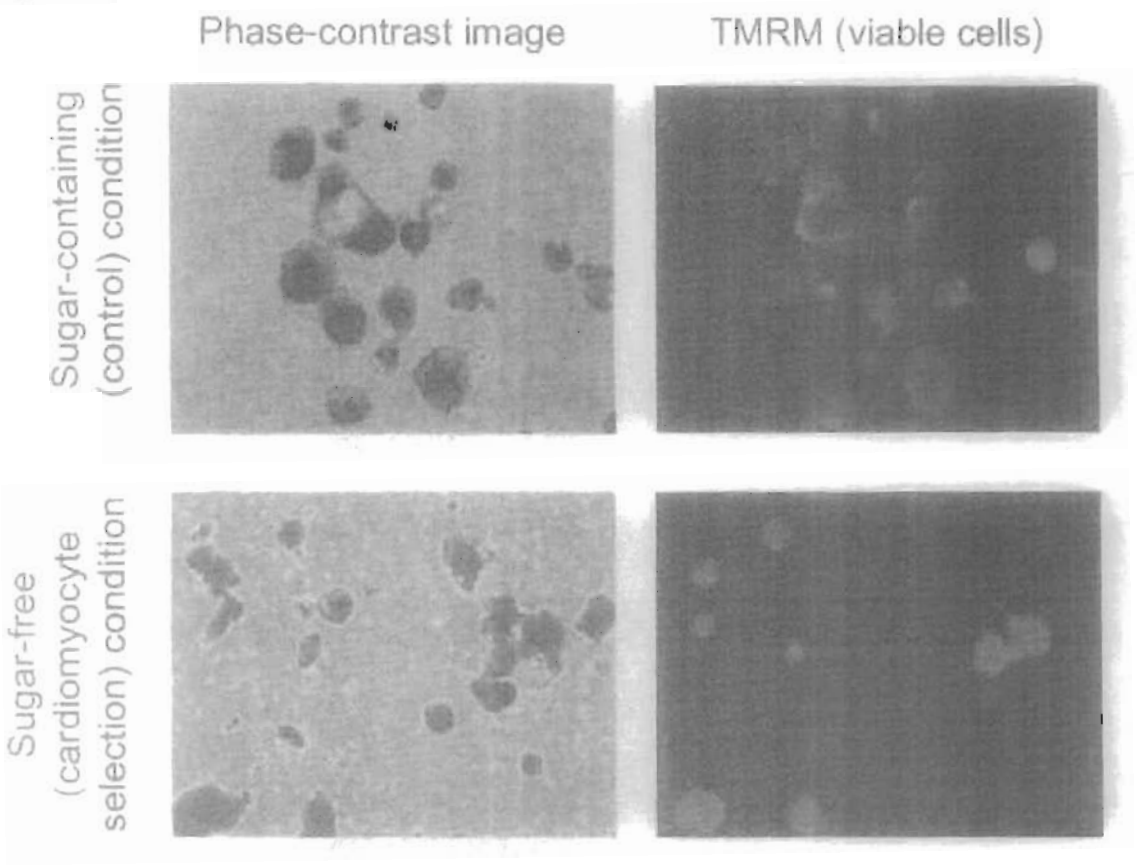
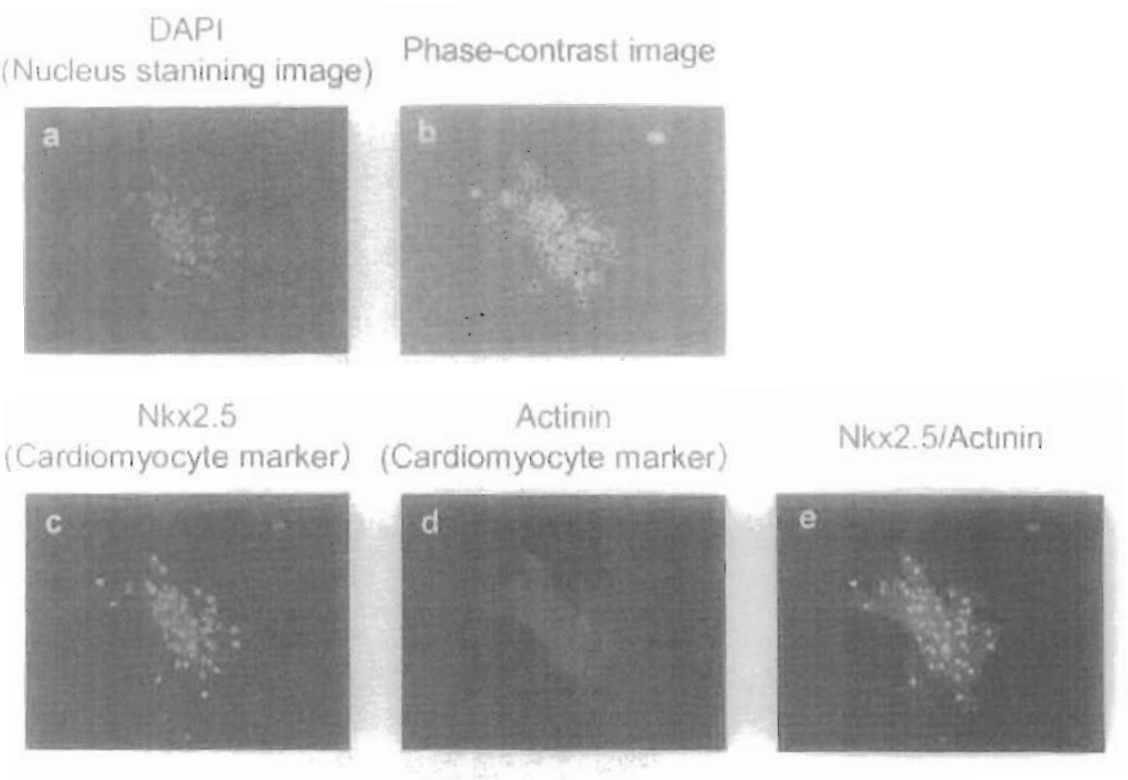


Fig. 20


Phase-contrast image
TMRM (viable cells)
Sugar-containing (control) condition
Sugar-free (cardiomyocyte selection) condition

Fi


DAPI
(Nucleus stanining image)
Phase-contrast image
a
b
Nkx2.5
(Cardiomyocyte marker)
Actinin
(Cardiomyocyte marker)
Nkx2.5/Actinin
c
d
e