FIG. 1

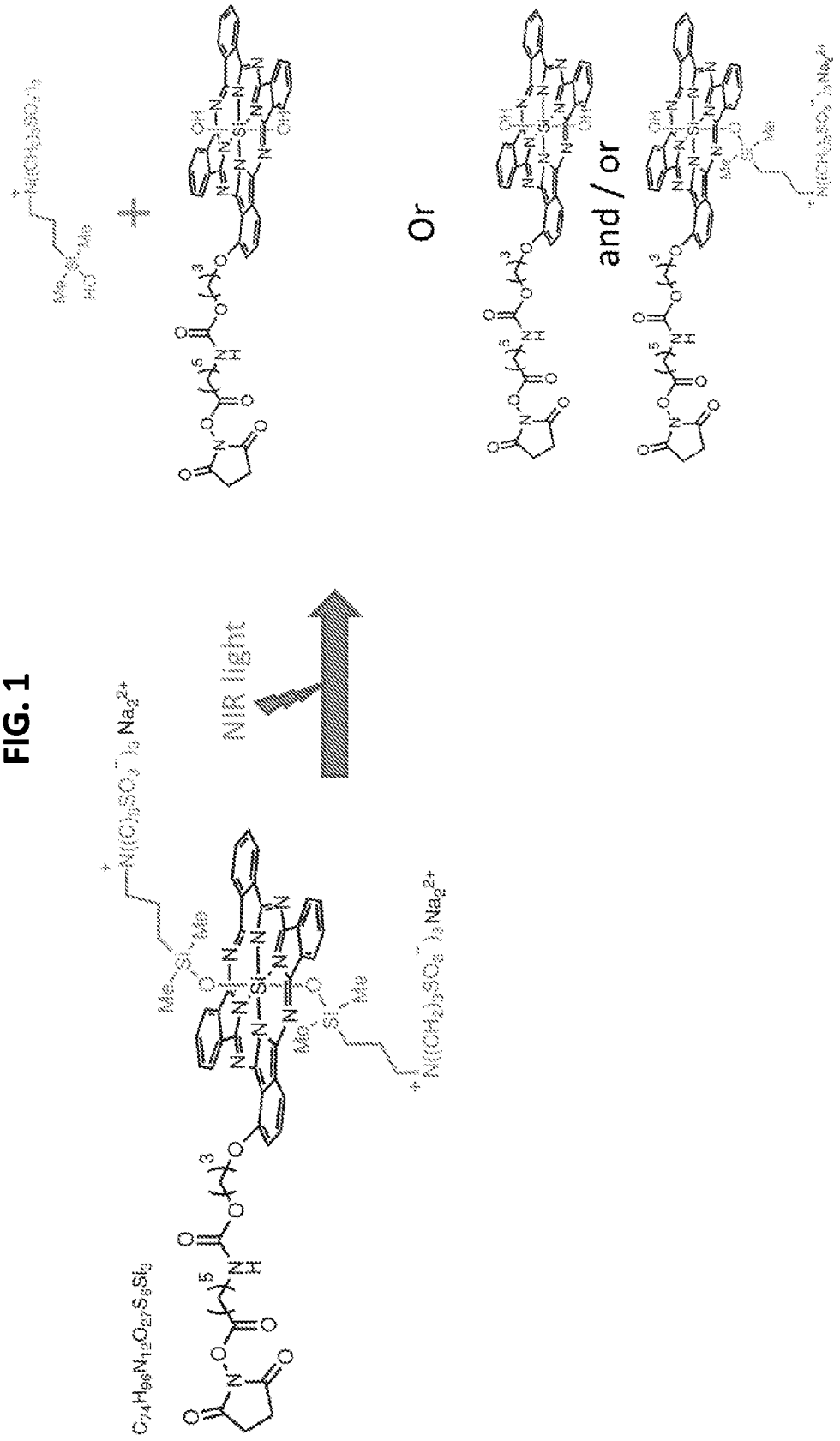


FIG. 2

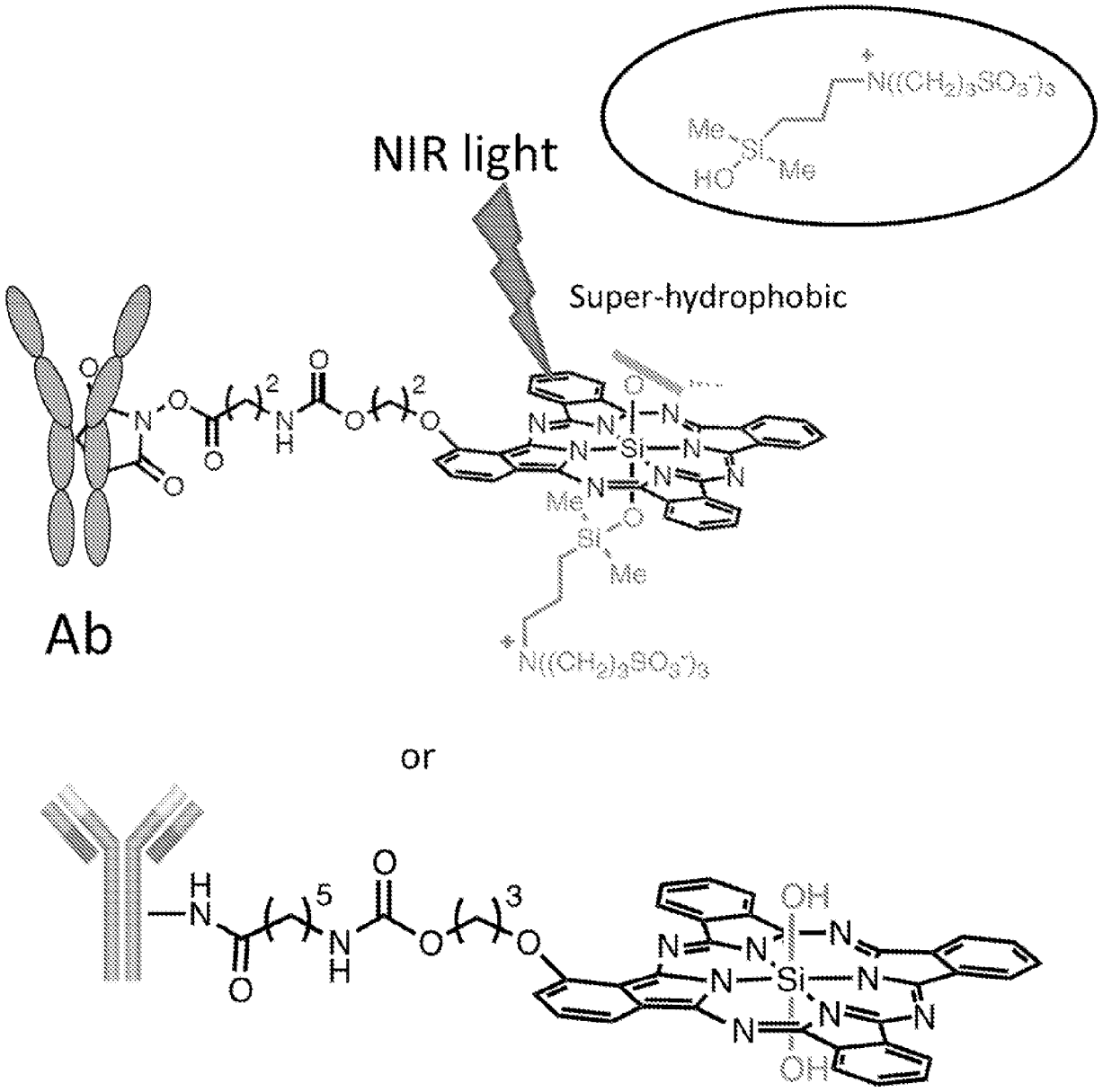


FIG. 3

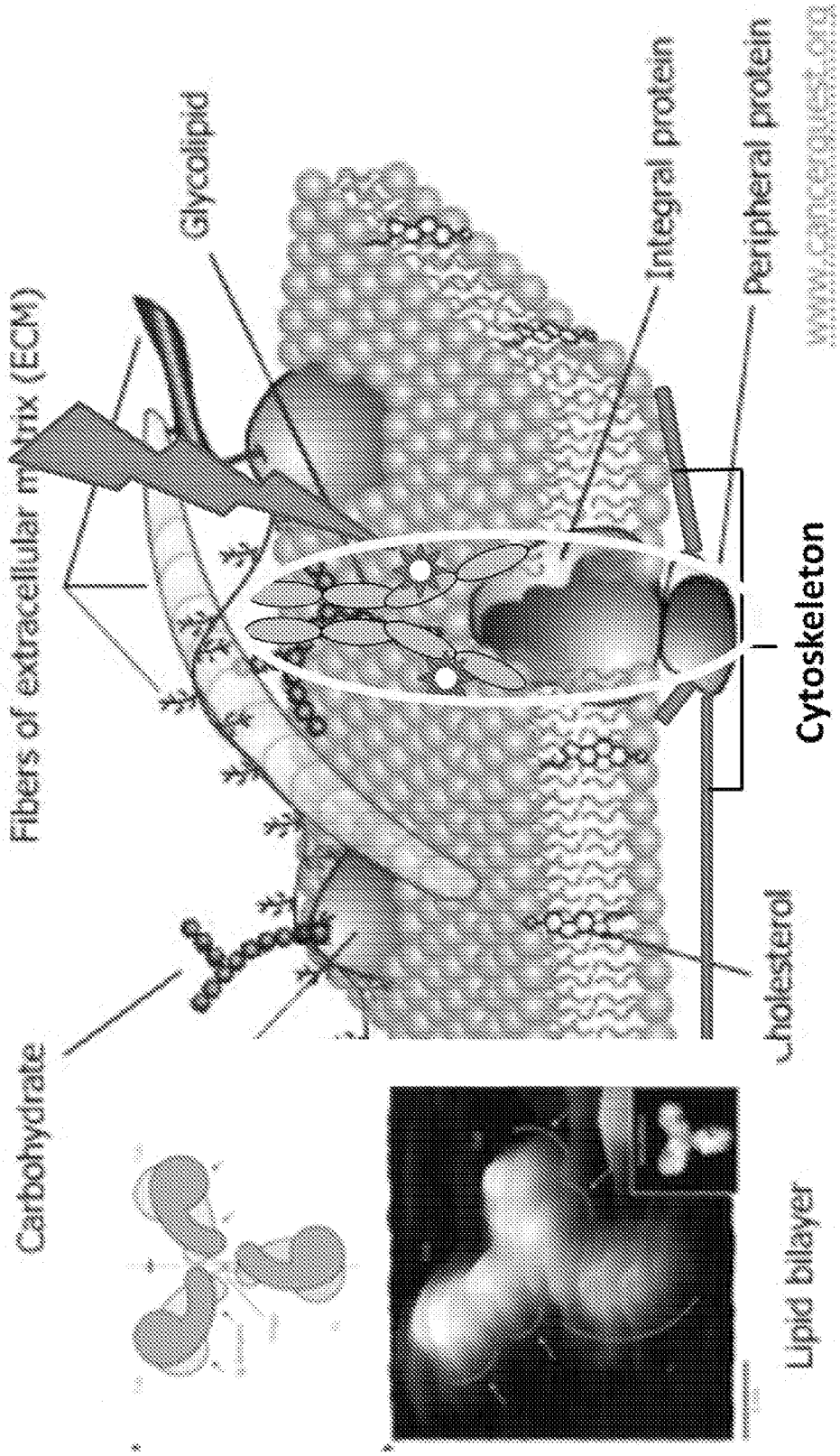

Fibers of extracellular matrix (ECM)
Glycolipid
Integral protein
Peripheral protein
www.cancerquest.org
Carbohydrate
Cholesterol
Cytoskeleton
Lipid bilayer

FIG. 4

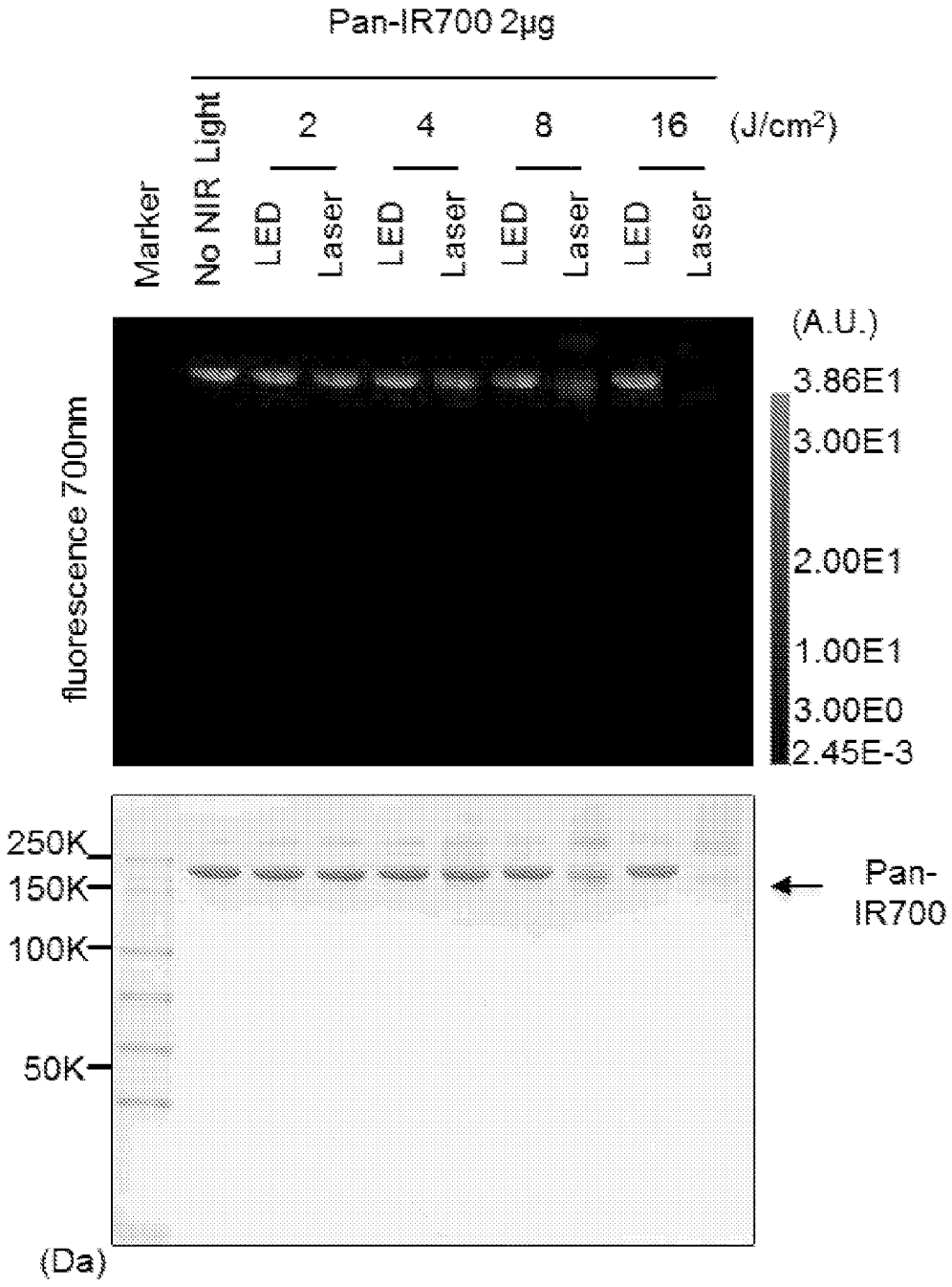

Pan-IR700 2μg
Marker
No NIR Light
LED
Laser
LED
Laser
LED
Laser
LED
Laser
2
4
8
16
(J/cm2)
fluorescence 700nm
(A.U.)
3.86E1
3.00E1
2.00E1
1.00E1
3.00E0
2.45E-3
250K
150K
100K
50K
(Da)
Pan-IR700

FIG. 5

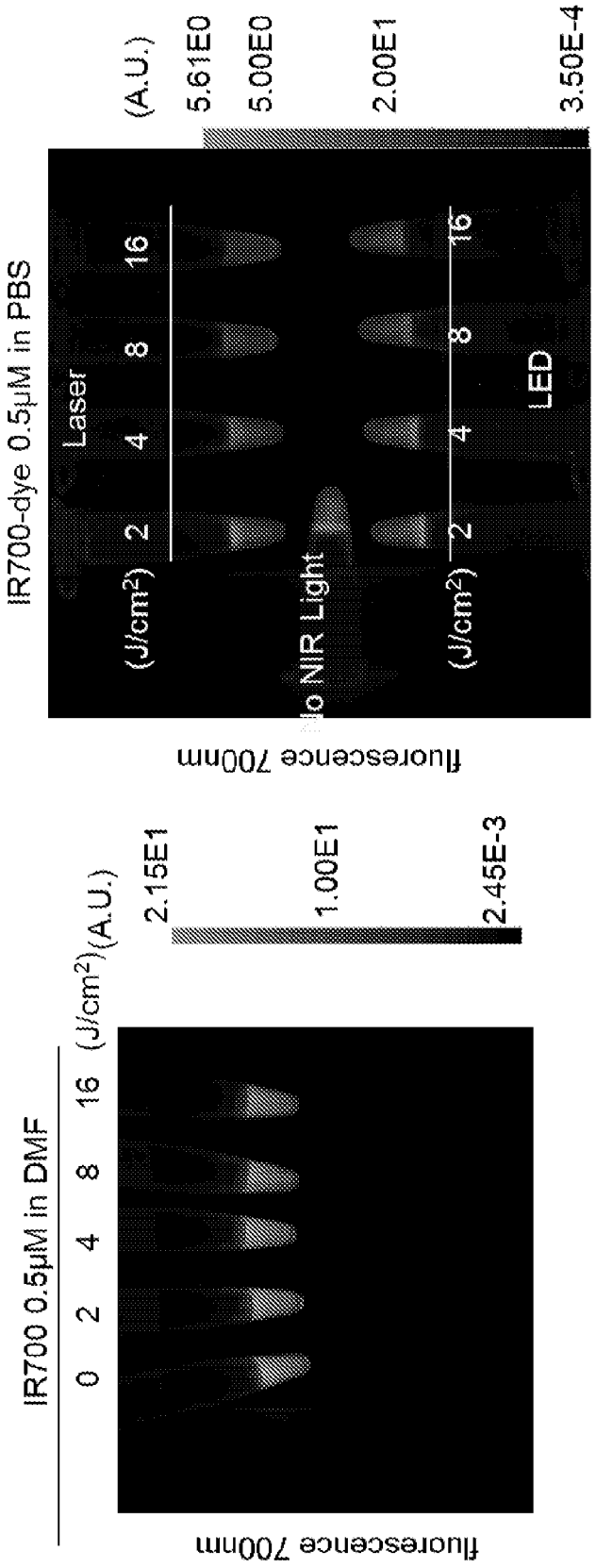
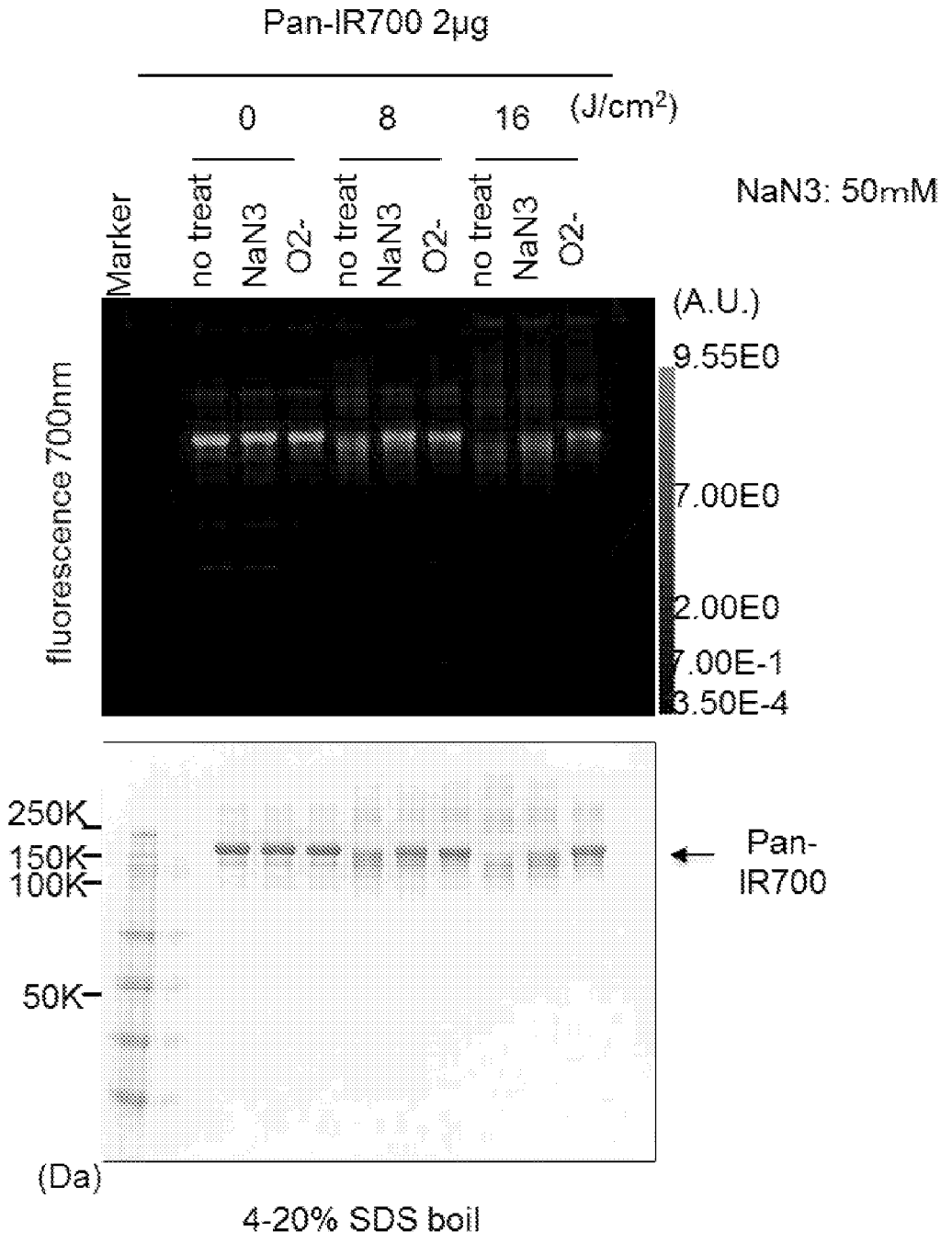

IR700-dye 0.5μM in PBS
(A.U.)
5.61E0
5.00E0
2.00E1
3.50E-4
Laser
(J/cm²) 2 4 8 16
No NIR Light
(J/cm²) 2 4 8 16
LED
fluorescence 700nm
IR700 0.5μM in DMF
(J/cm²)(A.U.)
2.15E1
1.00E1
2.45E-3
0 2 4 8 16 (J/cm²)
fluorescence 700nm

FIG. 6


Pan-IR700 2μg
0
8
16
(J/cm2)
NaN3: 50mM
Marker
no treat
NaN3
O2-
no treat
NaN3
O2-
no treat
NaN3
O2-
(A.U.)
9.55E0
7.00E0
2.00E0
7.00E-1
3.50E-4
fluorescence 700nm
250K
150K
100K
50K
Pan-IR700
(Da)
4-20% SDS boil

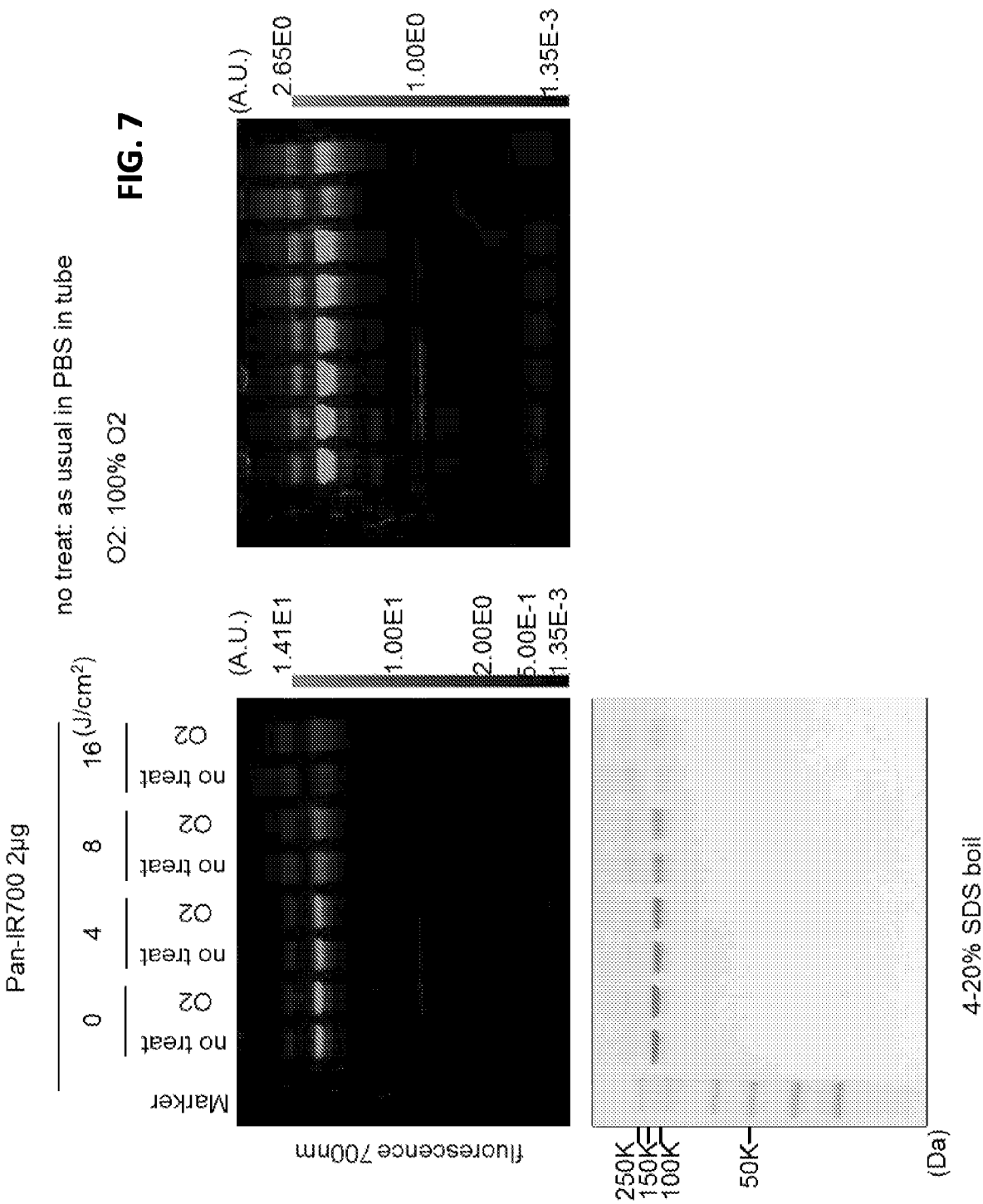

Pan-IR700 2µg
no treat: as usual in PBS in tube
O2: 100% O2
0
4
8
16 (J/cm²)
Marker
no treat
O2
fluorescence 700nm
(A.U.)
1.41E1
1.00E1
2.00E0
5.00E-1
1.35E-3
2.65E0
1.00E0
1.35E-3
250K
150K
100K
50K
(Da)
4-20% SDS boil

FIG. 7

FIG. 8

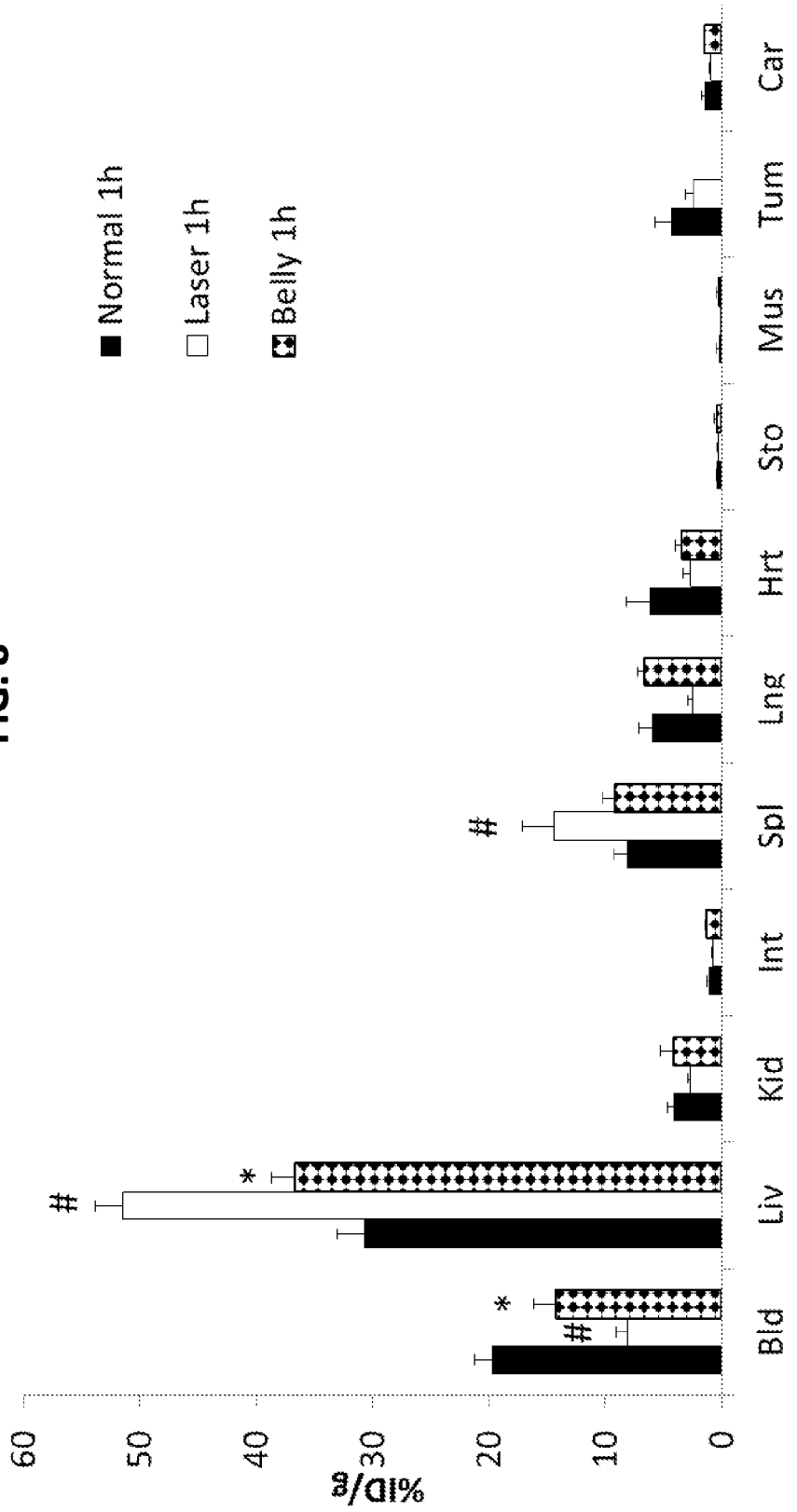

Normal 1h
Laser 1h
Belly 1h
%ID/g
60
50
40
30
20
10
0
Bld
Liv
Kid
Int
Spl
Lng
Hrt
Sto
Mus
Tum
Car
#
*
#
*
#

FIG. 9

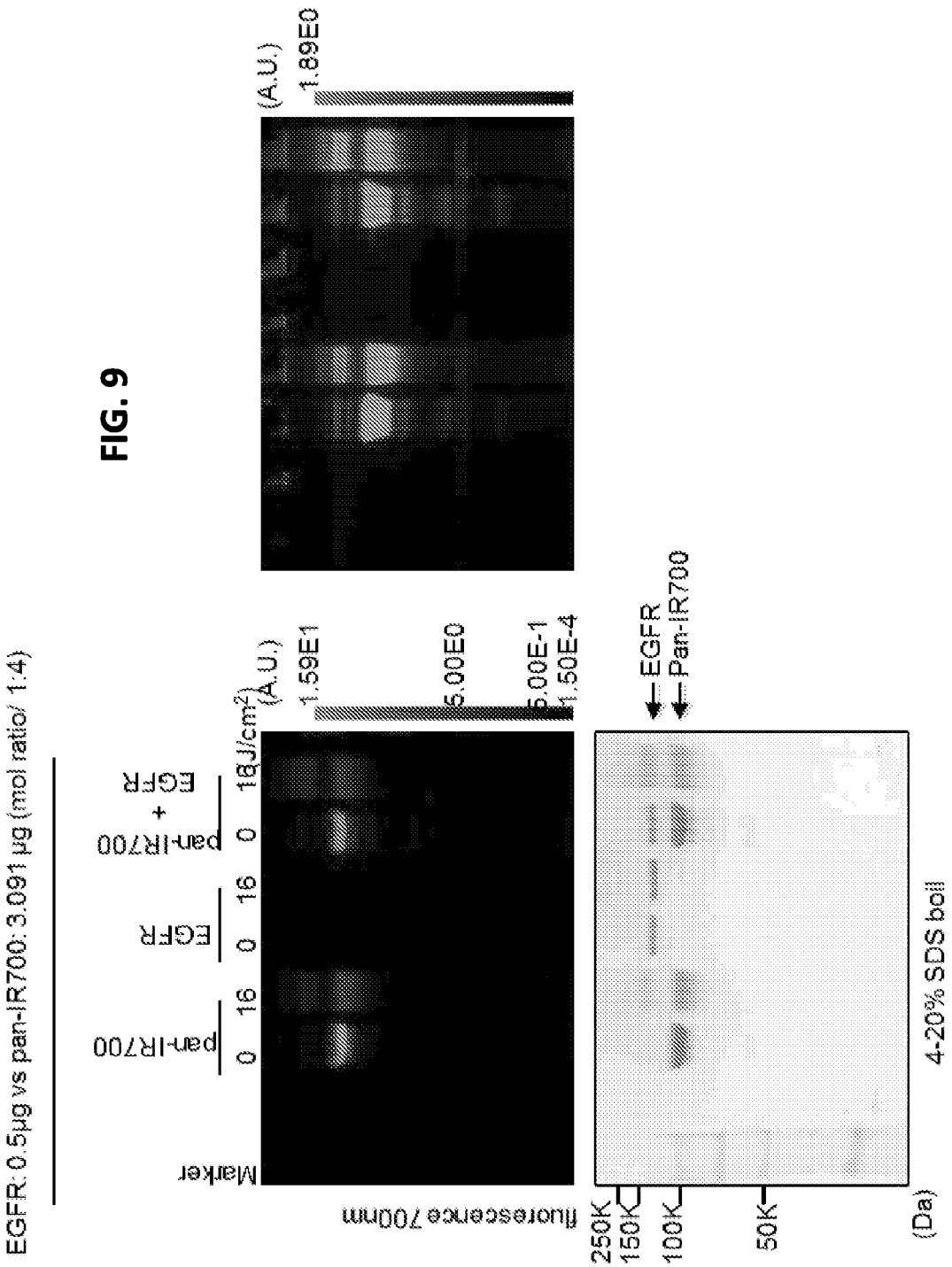

EGFR: 0.5μg vs pan-IR700: 3.091 μg (mol ratio/ 1:4)
Marker
pan-IR700
0
16
EGFR
0
16
pan-IR700 + EGFR
0
16
J/cm²
Fluorescence 700nm
(A.U.)
1.59E1
5.00E0
5.00E-1
1.50E-4
(A.U.)
1.89E0
EGFR
Pan-iR700
250K
150K
100K
50K
(Da)
4-20% SDS boil

FIG. 10B

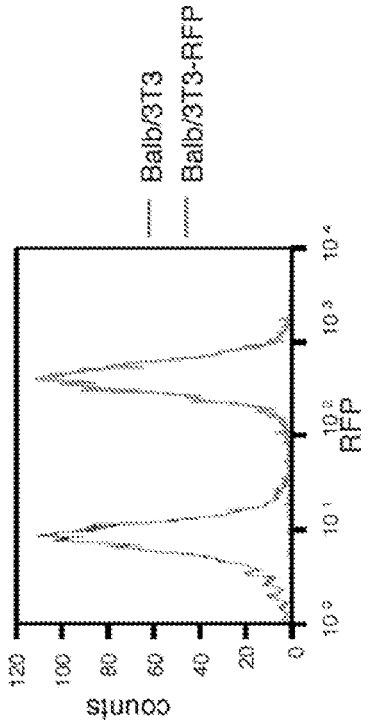


FIG. 10A

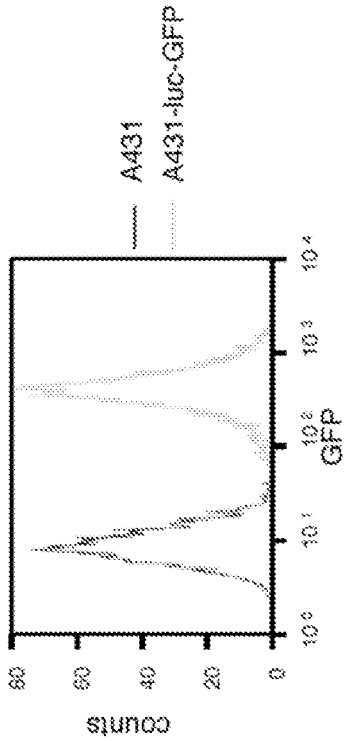


FIG. 10C

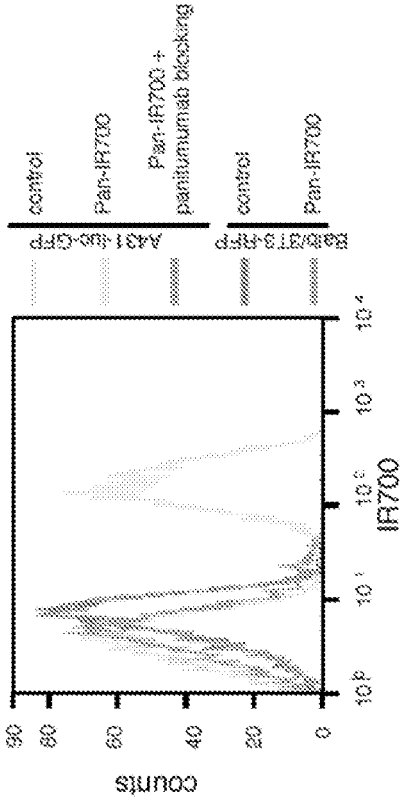


FIG. 11A

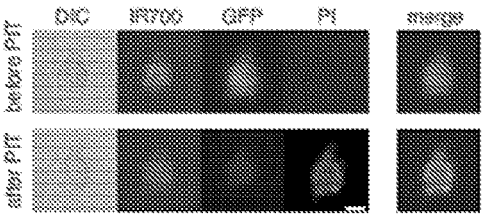


FIG. 11C

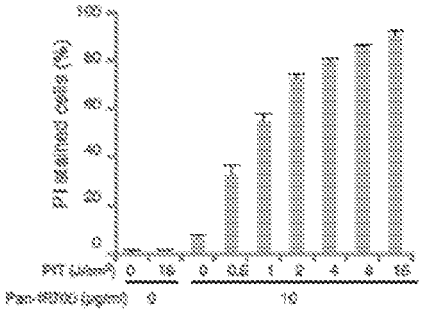


FIG. 11B

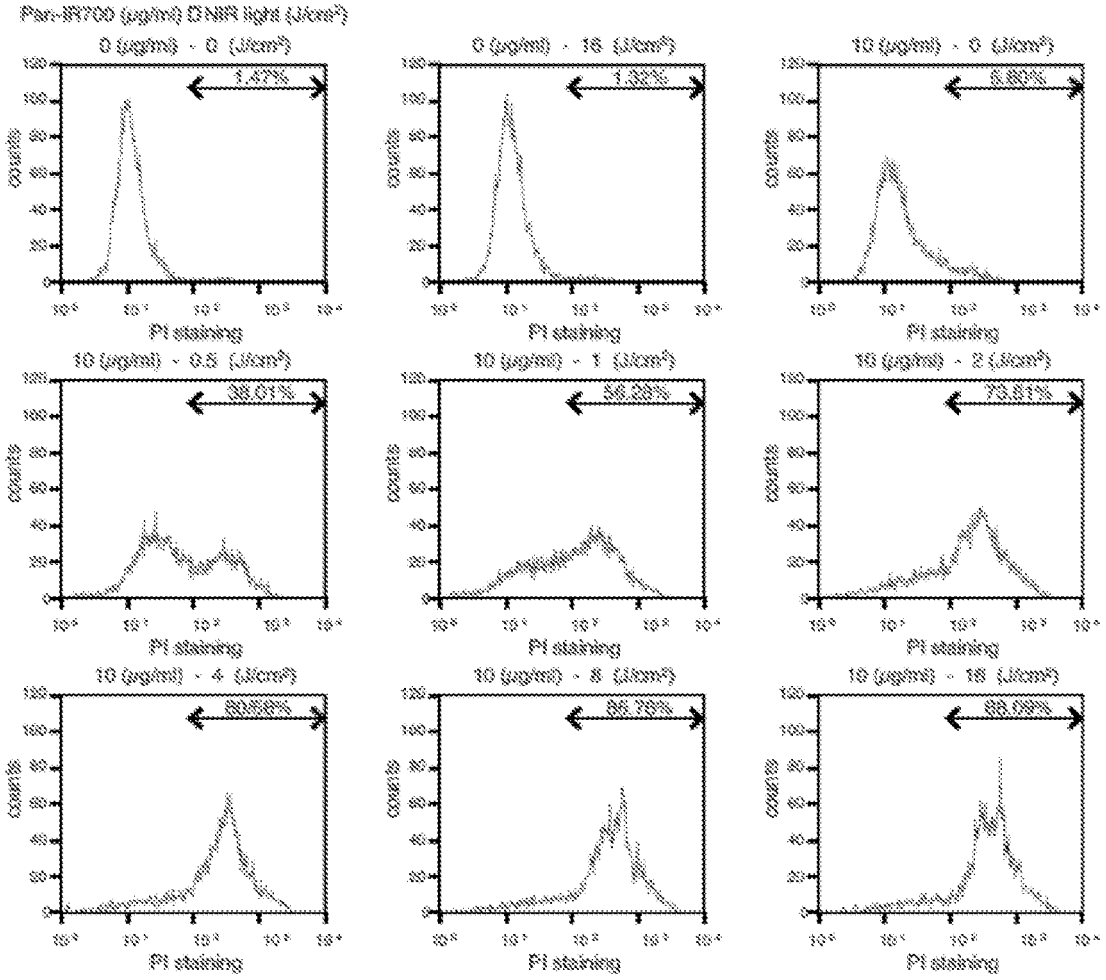
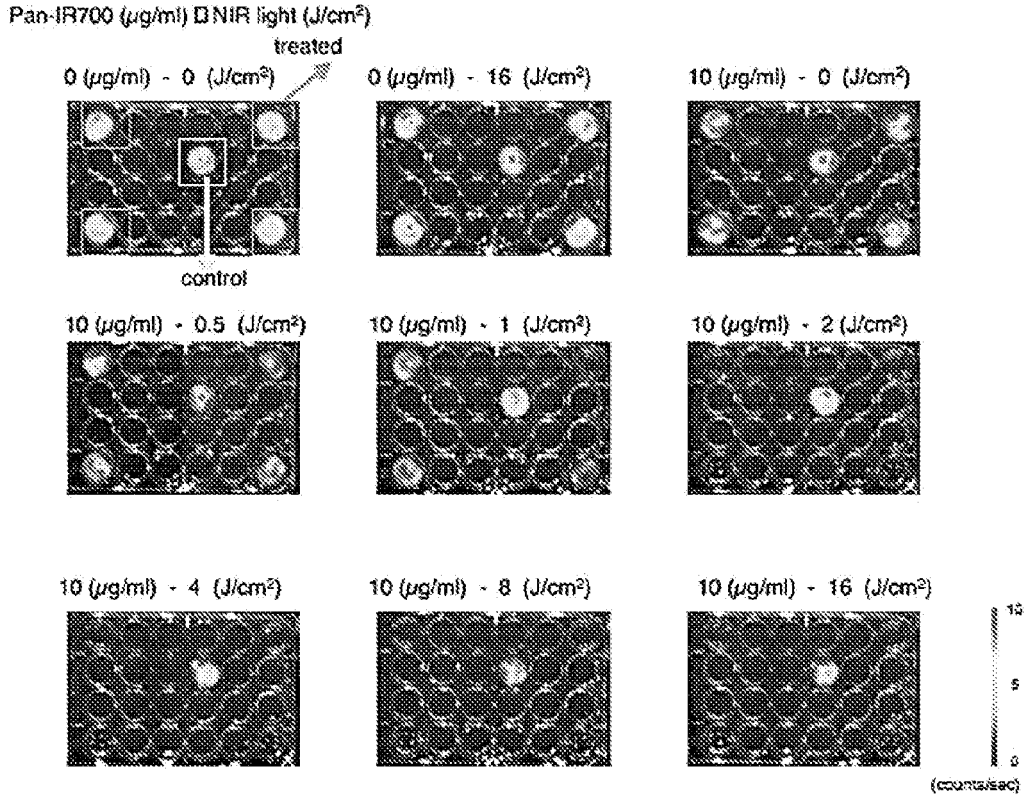


FIG. 12A



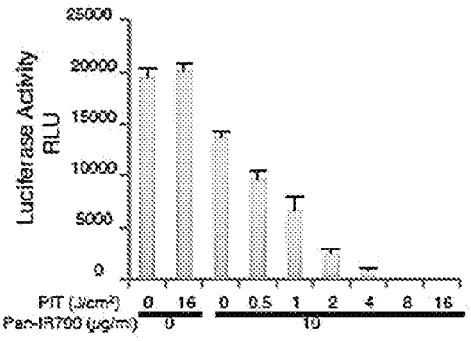


FIG. 12B

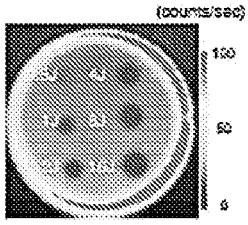


FIG. 12C

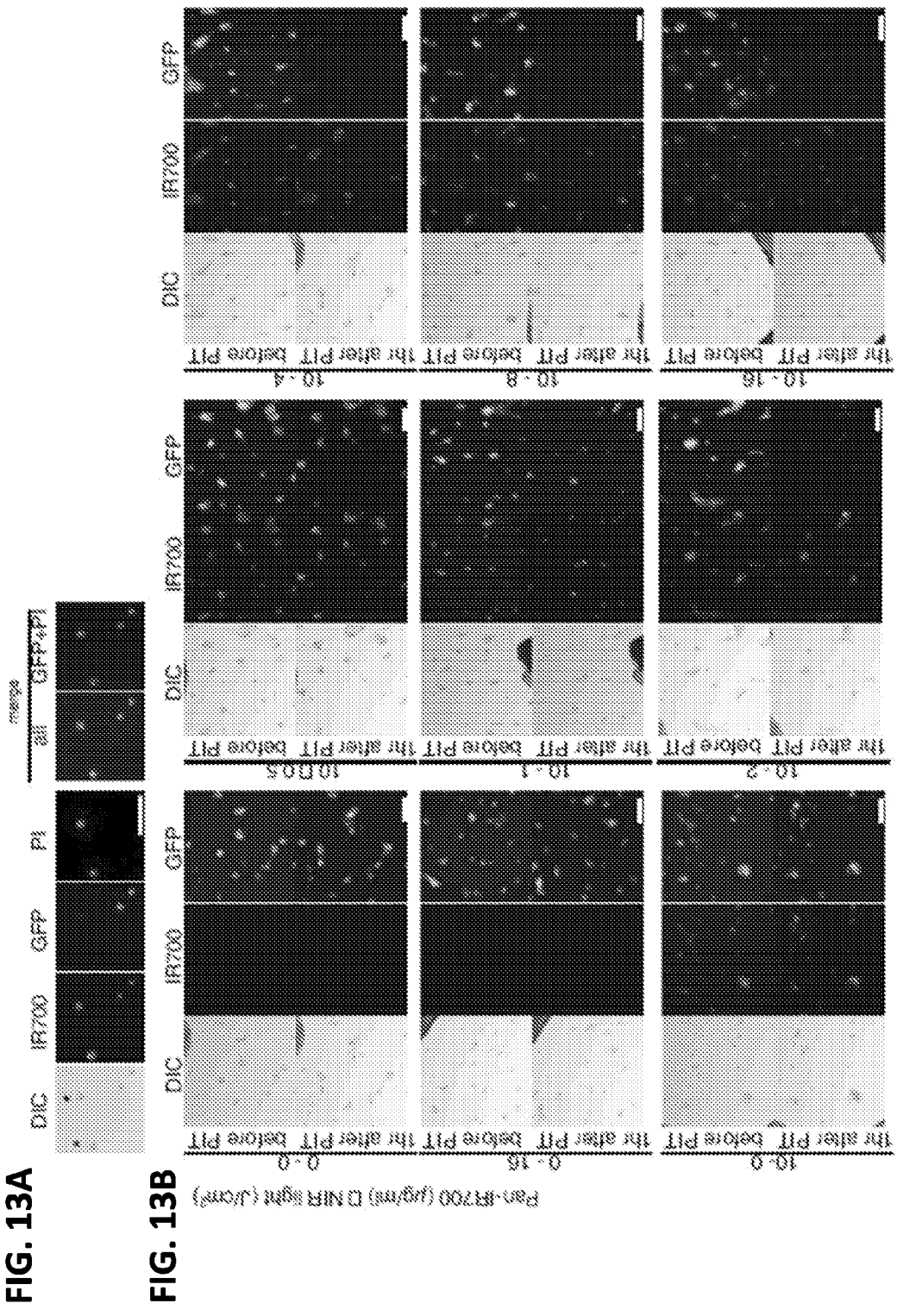


FIG. 13A

FIG. 13B

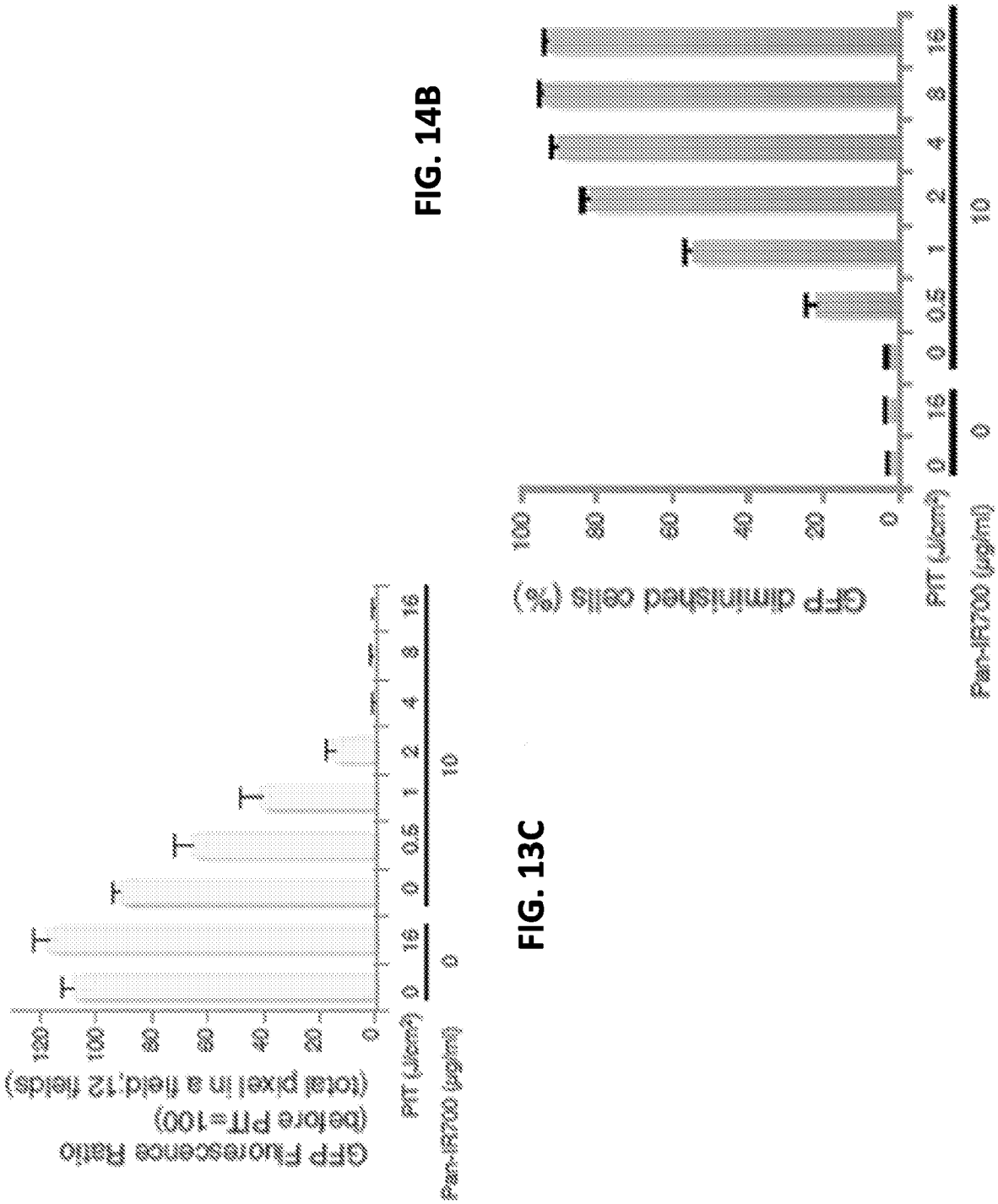


FIG. 14B

FIG. 13C

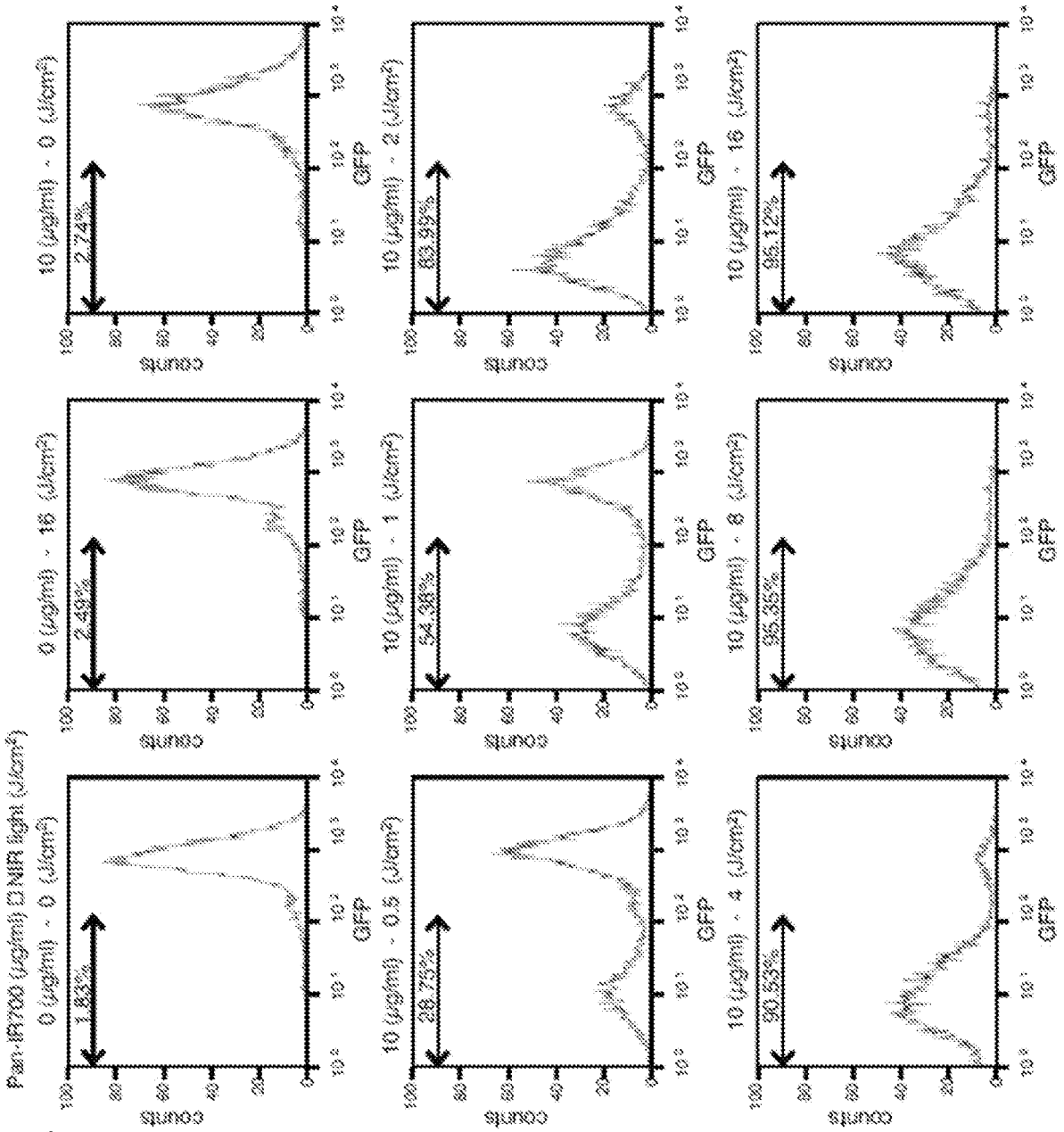

Pan-IR700 (μg/ml) □ NIR light (J/cm²)
0 (μg/ml) - 0 (J/cm²)
1.83%
0 (μg/ml) - 16 (J/cm²)
2.49%
10 (μg/ml) - 0 (J/cm²)
2.74%
10 (μg/ml) - 0.5 (J/cm²)
28.75%
10 (μg/ml) - 1 (J/cm²)
54.38%
10 (μg/ml) - 2 (J/cm²)
63.92%
10 (μg/ml) - 4 (J/cm²)
90.83%
10 (μg/ml) - 8 (J/cm²)
95.85%
10 (μg/ml) - 16 (J/cm²)
96.12%
counts
GFP

FIG. 14A

FIG. 15A

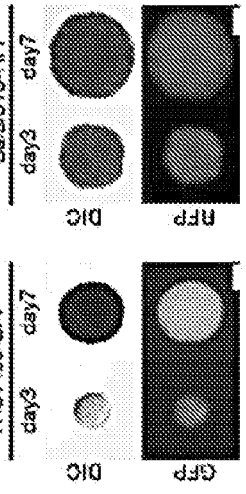


FIG. 15B

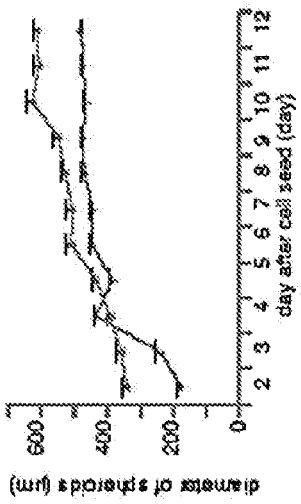


FIG. 15C

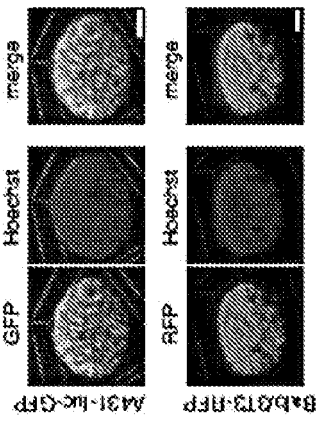


FIG. 15D

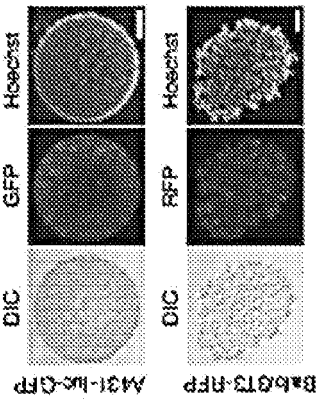


FIG. 15E

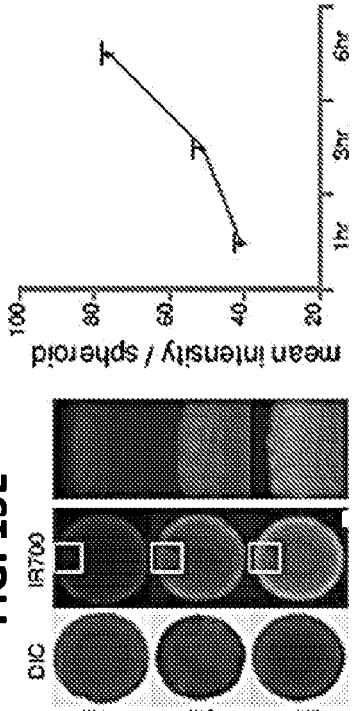


FIG. 16

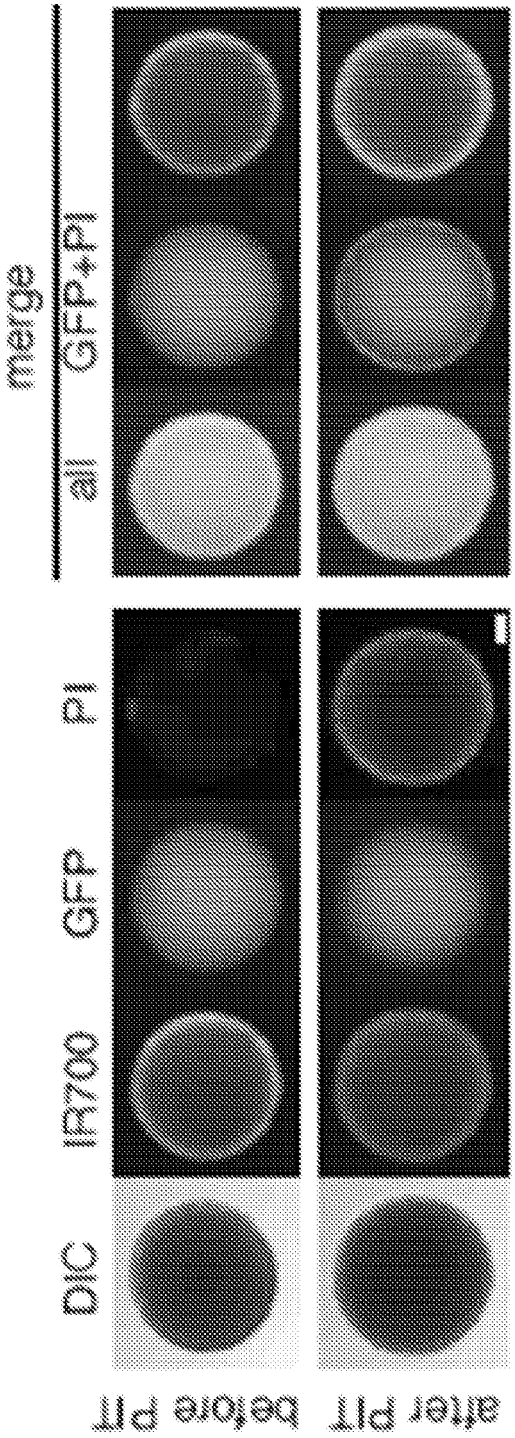


FIG. 17A

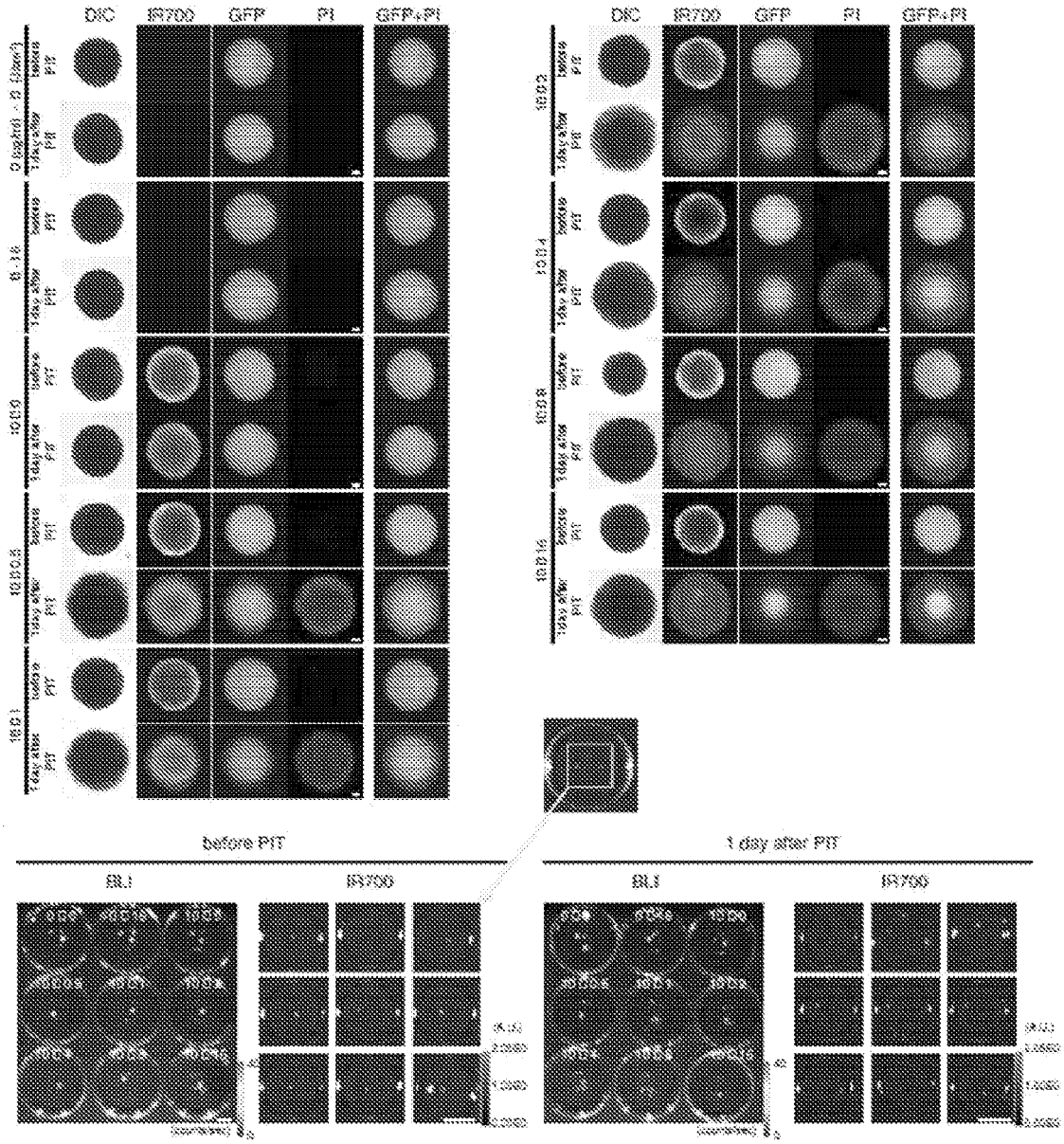


FIG. 17B

FIG. 17D

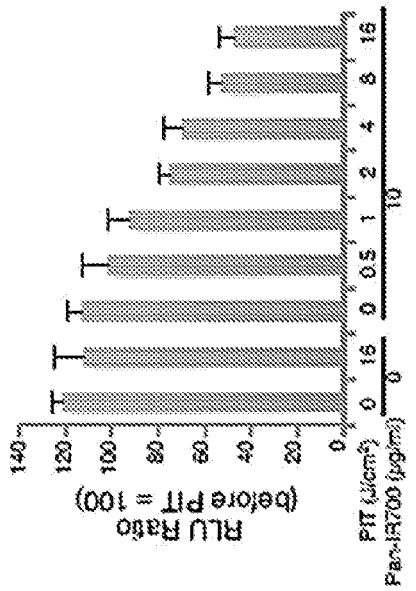


FIG. 17C

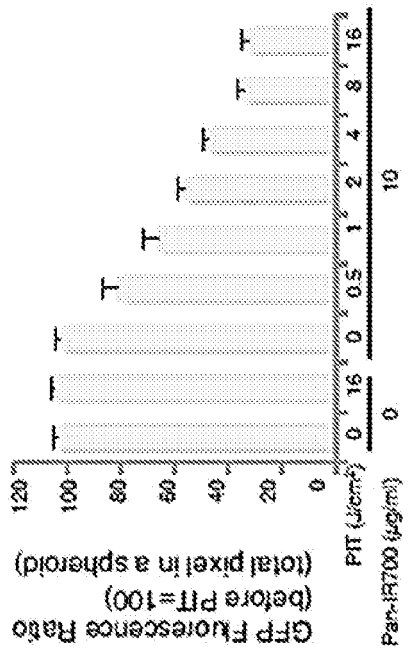


FIG. 17E

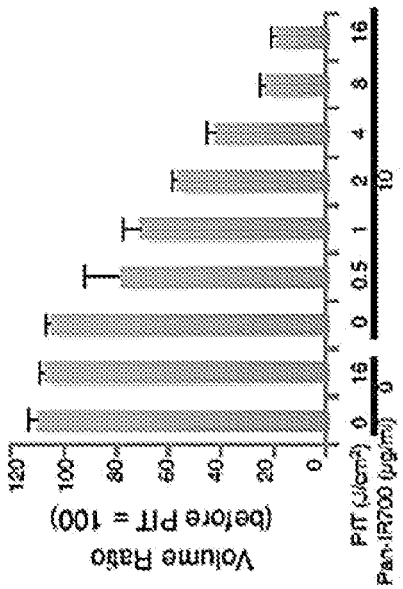
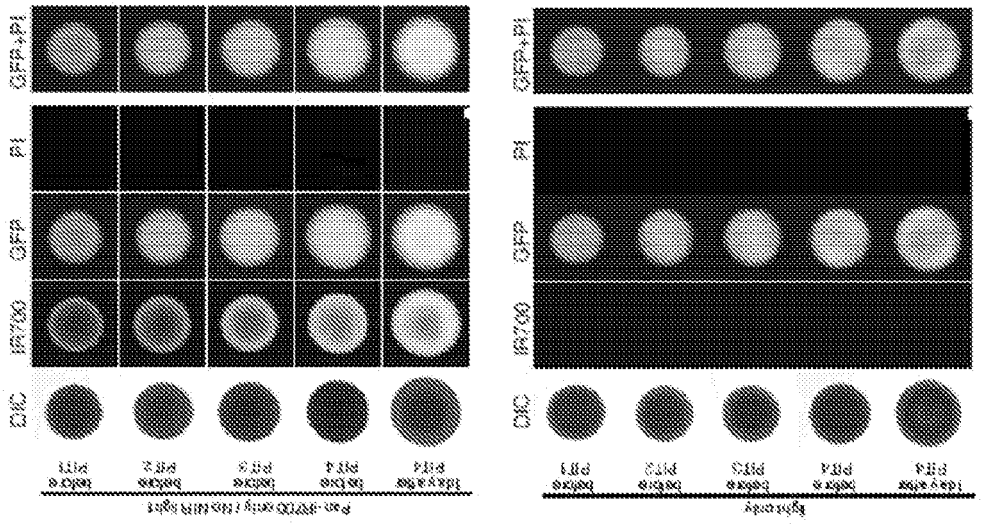




FIG. 18A



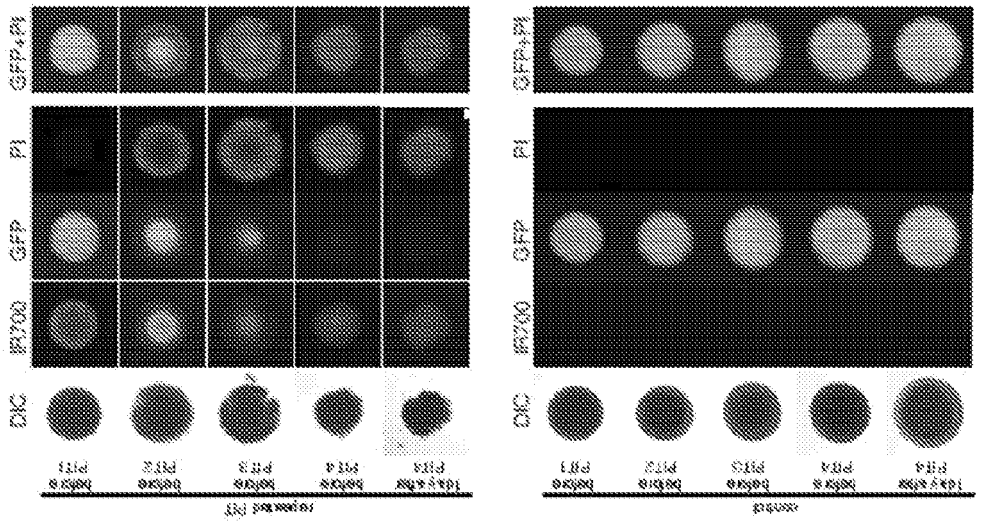


FIG. 18B

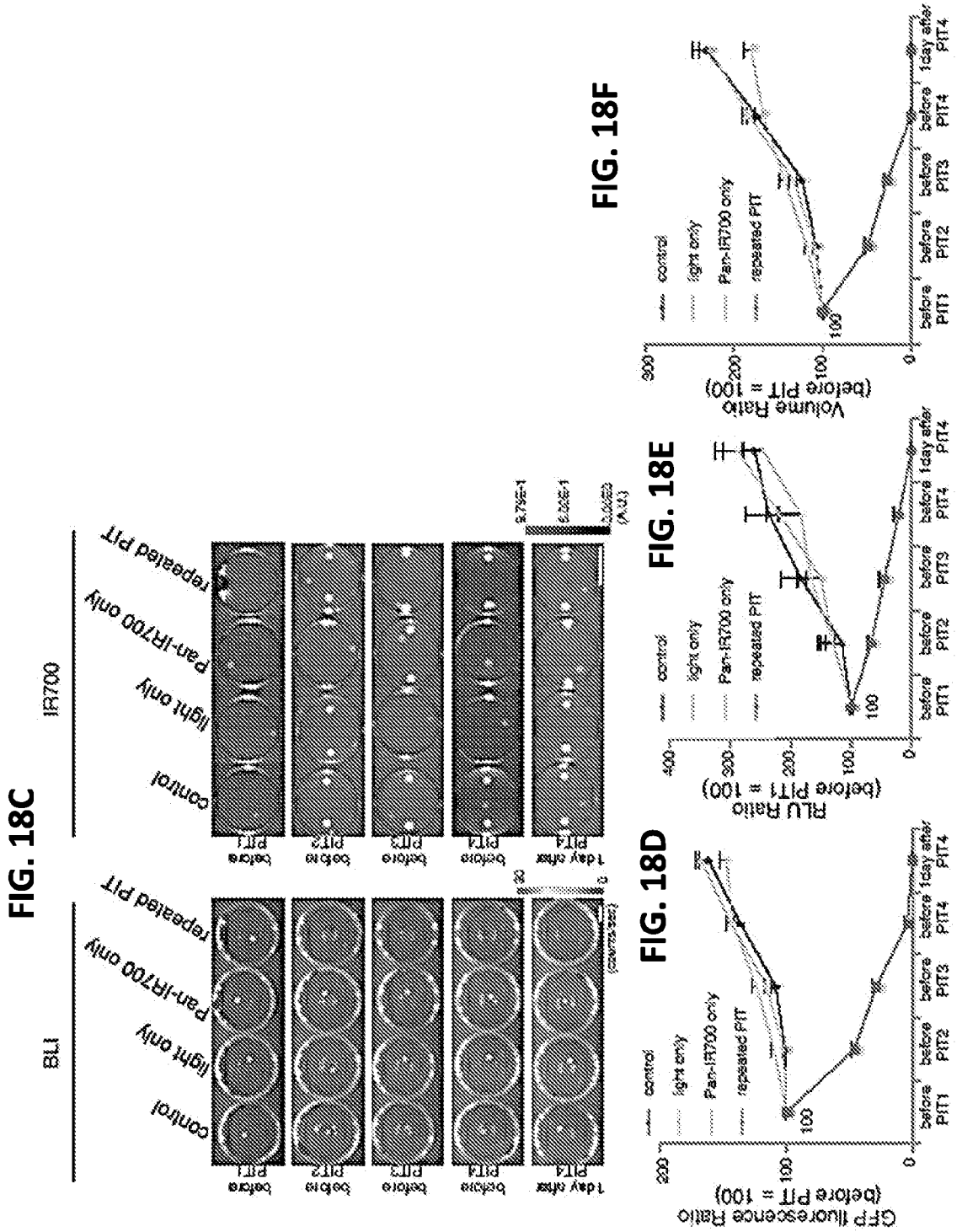

FIG. 18C
IR700
BLI
control
light only
Pan-IR700 only
repeated PIT
before PIT1
before PIT2
before PIT3
before PIT4
1day after PIT4
FIG. 18D
GFP fluorescence Ratio (before PIT = 100)
FIG. 18E
RLU Ratio (before PIT1 = 100)
FIG. 18F
Volume Ratio (before PIT = 100)

FIG. 19A

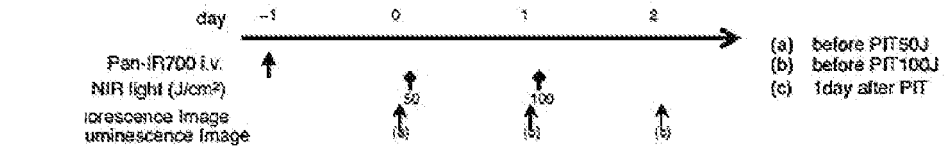


FIG. 19B

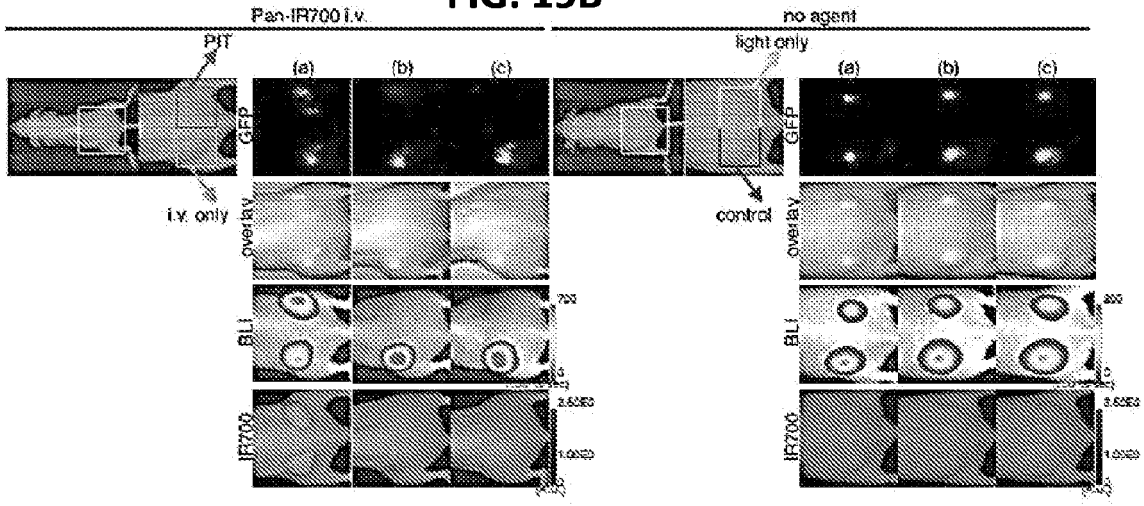


FIG. 19C

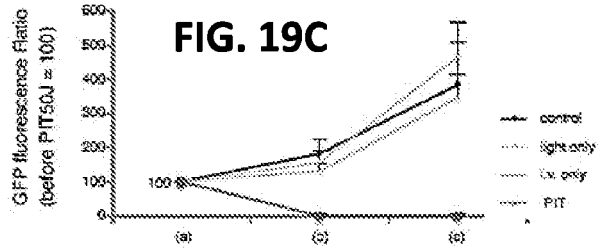


FIG. 19D

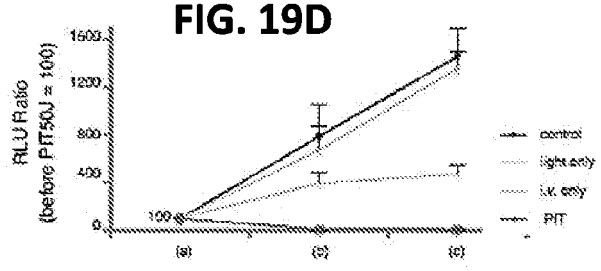


FIG. 20

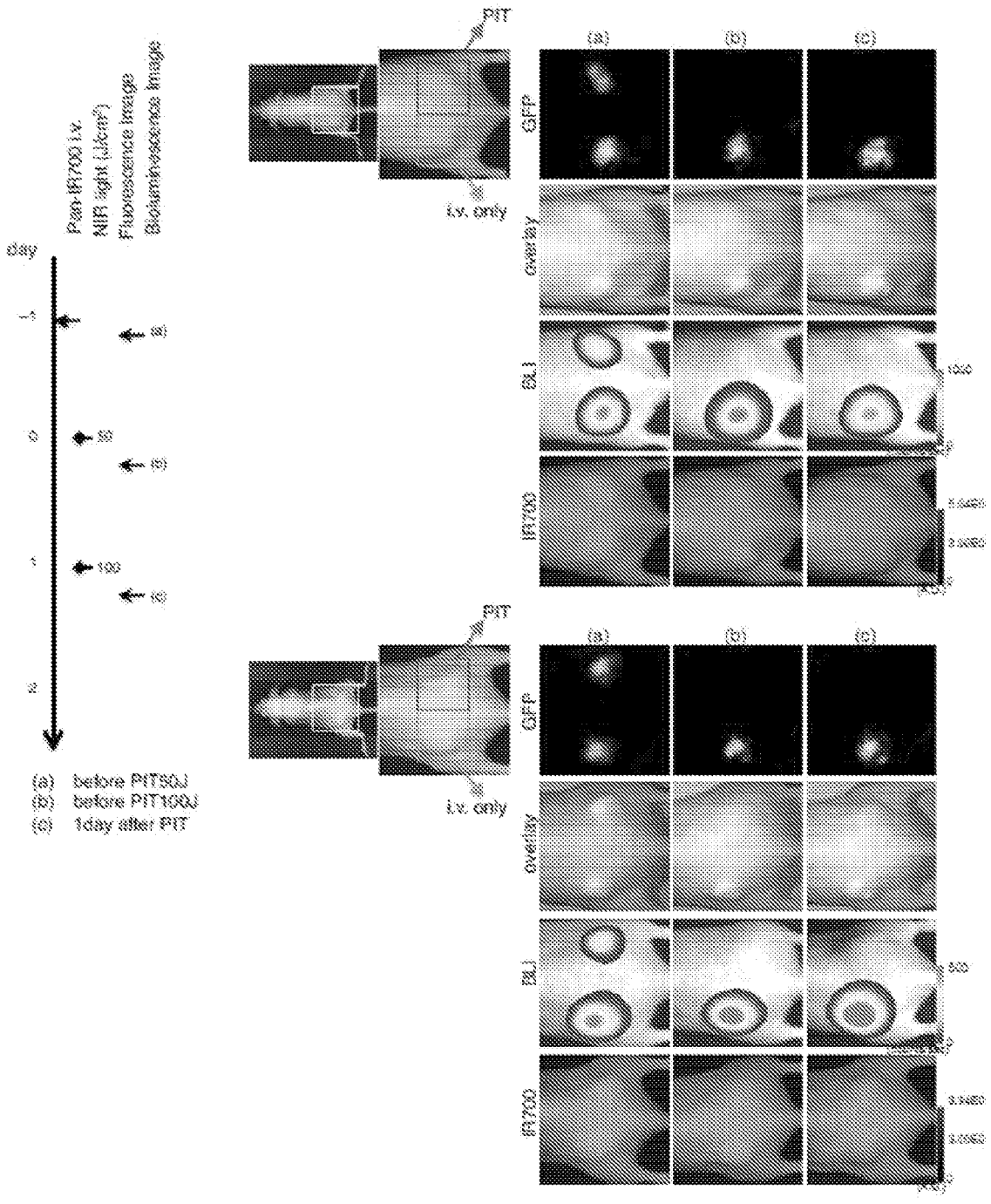

day
-1
0
1
2
Pan-IR700 i.v.
NIR light (J/cm²)
Fluorescence Image
Bioluminescence Image
(a) before PIT50J
(b) before PIT100J
(c) 1day after PIT
PIT
i.v. only
(a)
(b)
(c)
GFP
overlay
BLI
IR700
50
100
PIT
i.v. only
(a)
(b)
(c)
GFP
overlay
BLI
IR700
50
100

FIG. 21A

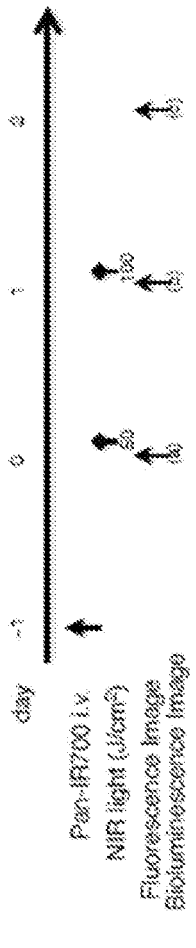
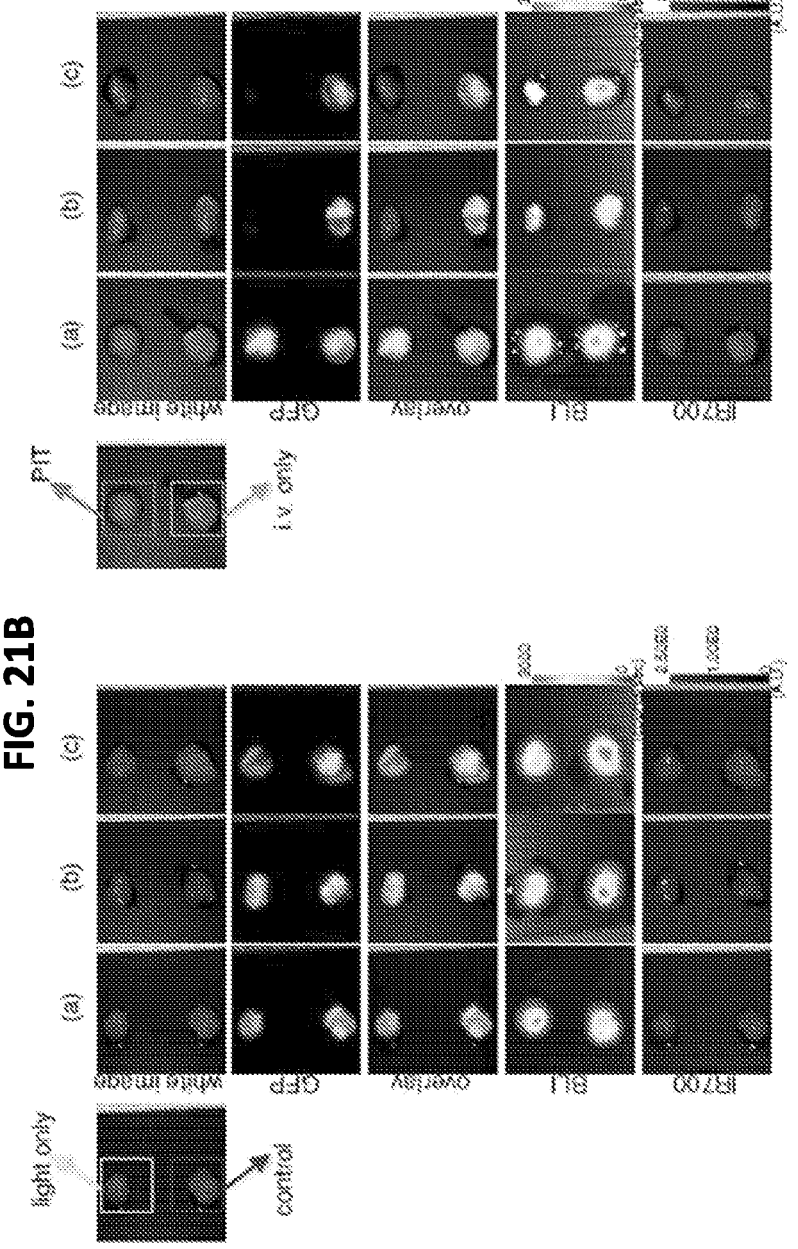


FIG. 21B



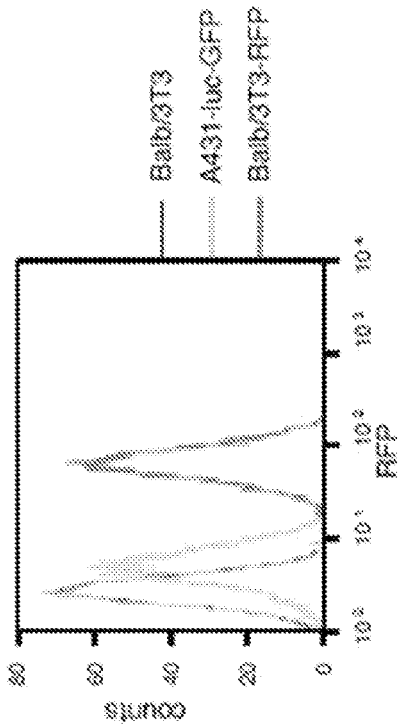
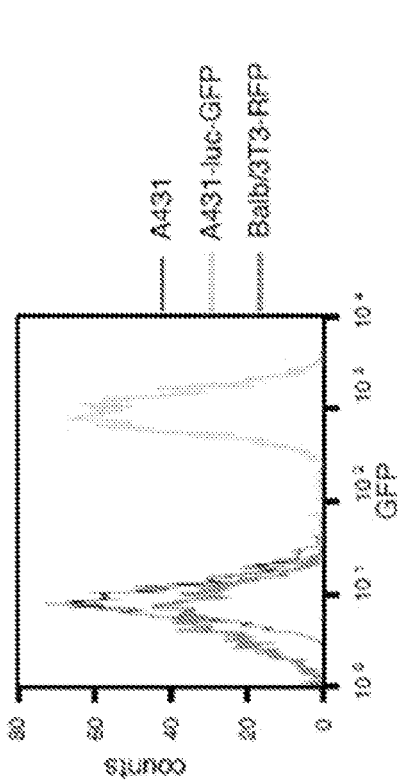


FIG. 22A



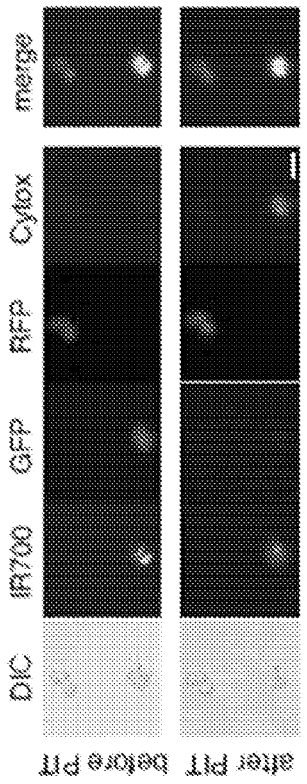


FIG. 22B

FIG. 23A

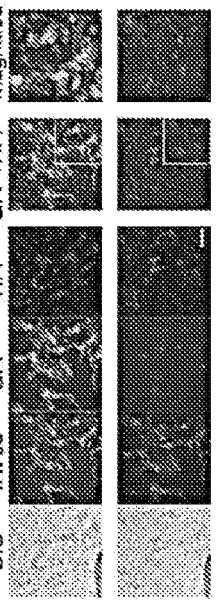


FIG. 23B

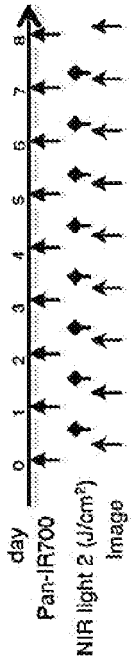


FIG. 23D

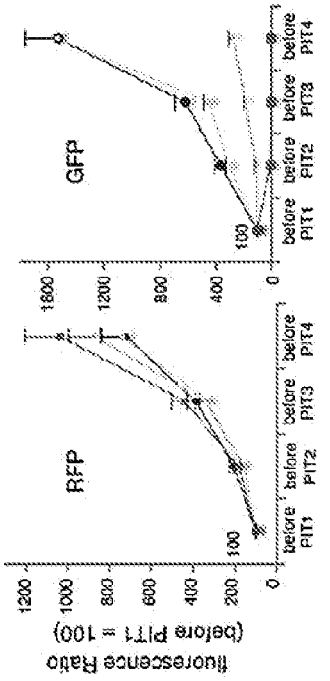


FIG. 23E

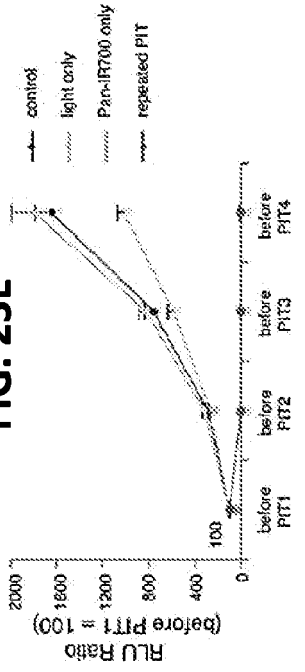


FIG. 23C

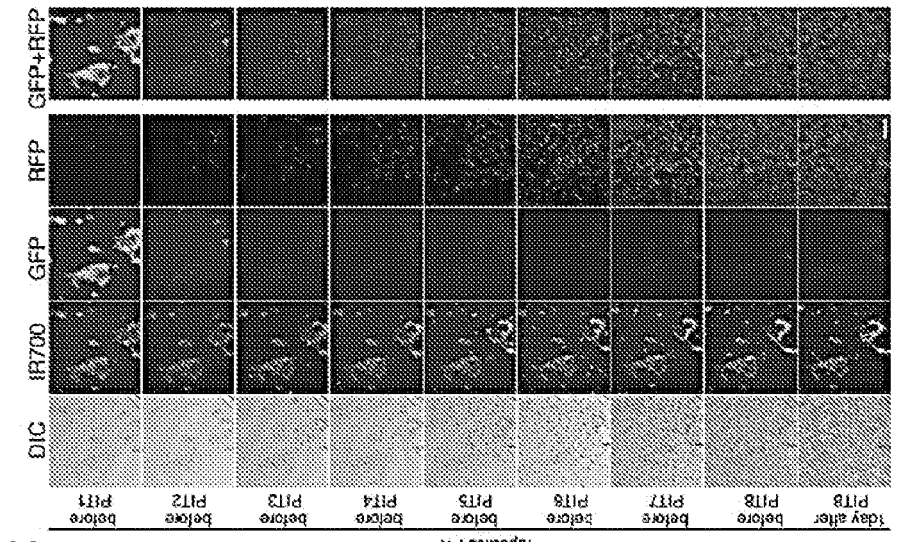
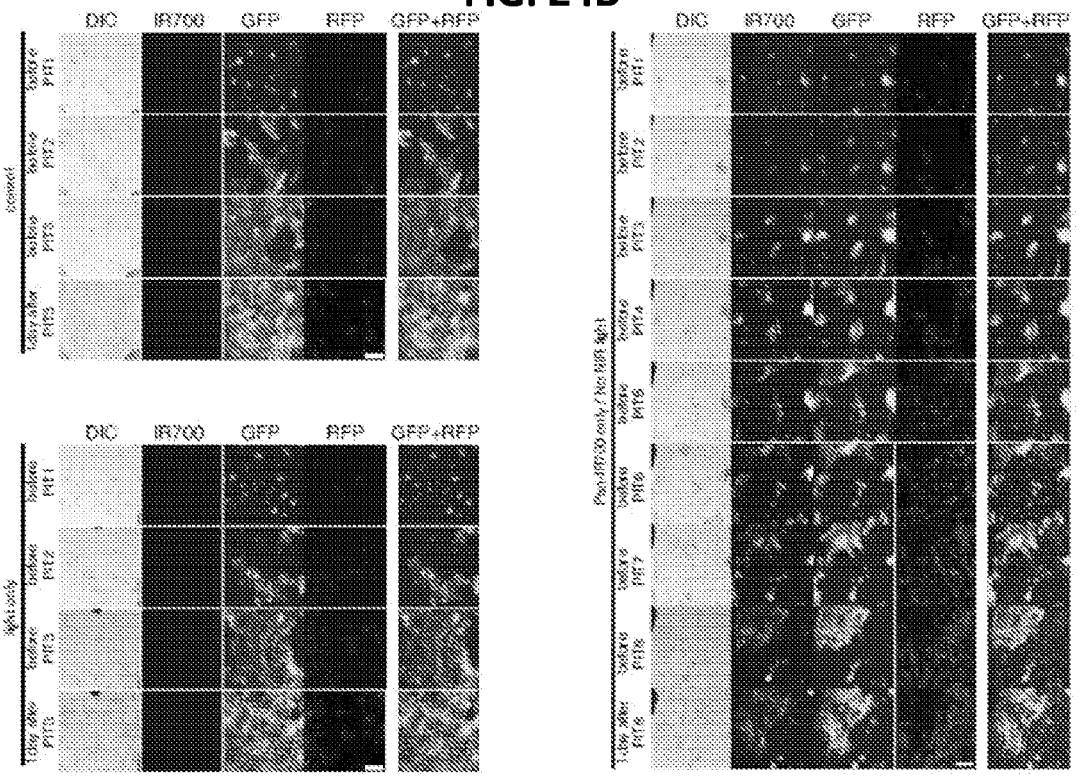


FIG. 24A



FIG. 24B



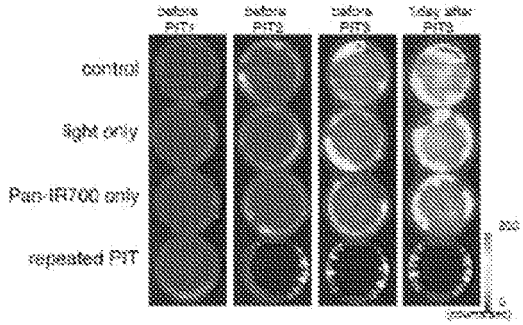


FIG. 24C

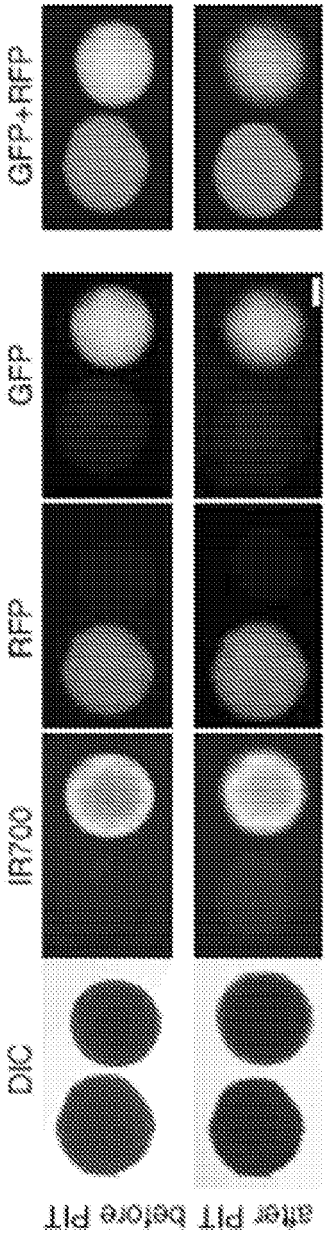


FIG. 25A

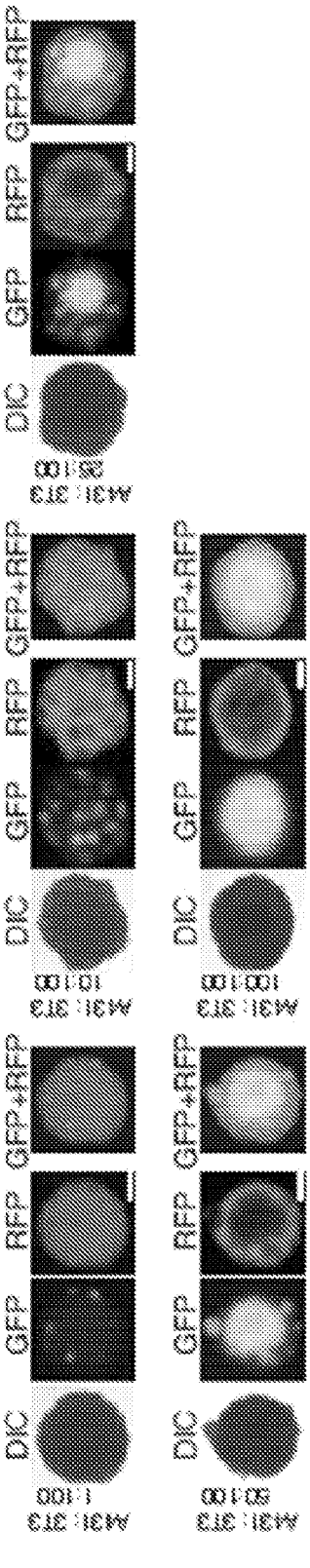


FIG. 25B

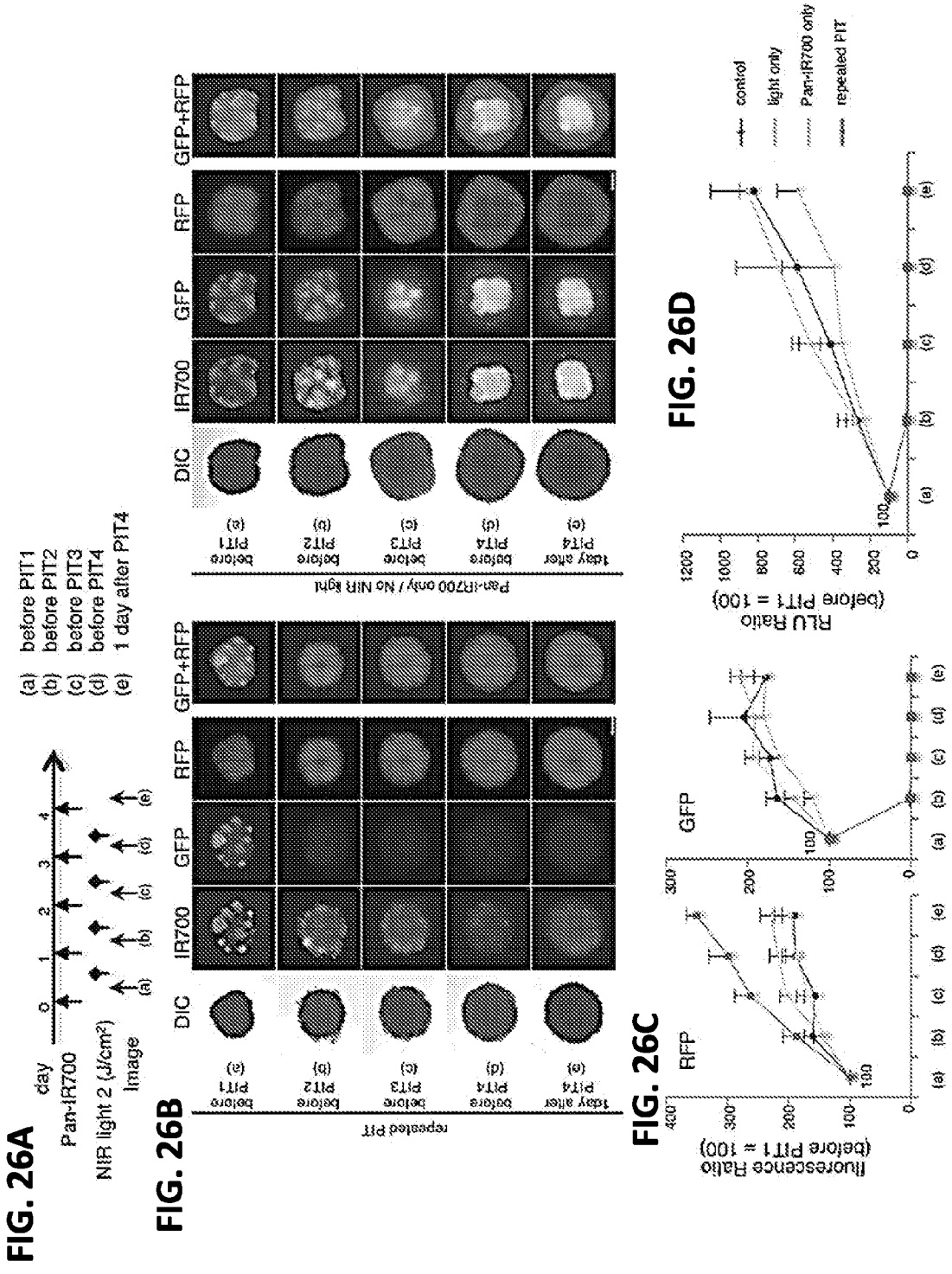
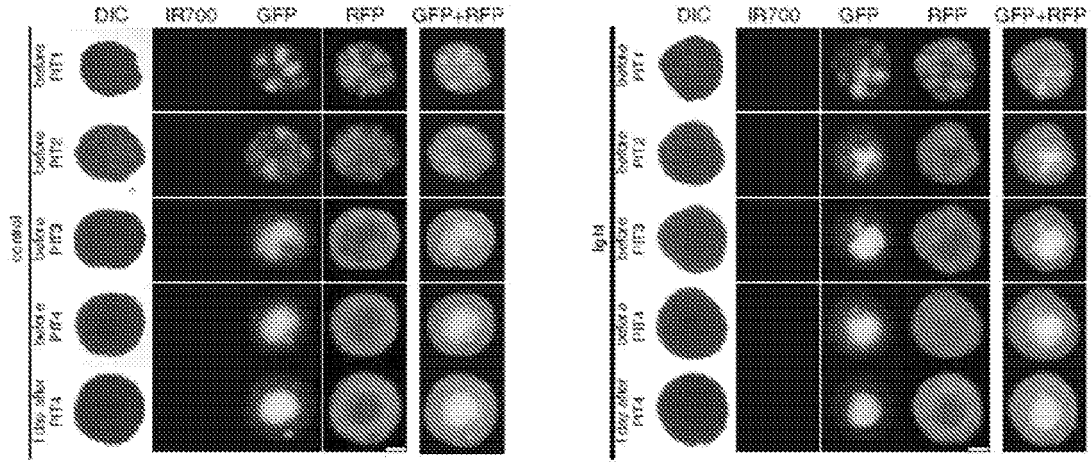

FIG. 26A
day
Pan-IR700
NIR light 2 (J/cm²)
Image
(a) before PIT1
(b) before PIT2
(c) before PIT3
(d) before PIT4
(e) 1 day after PIT4
FIG. 26B
DIC
IR700
GFP
RFP
GFP+RFP
repeated PIT
Pan-IR700 only / No NIR light
FIG. 26C
RFP
GFP
Fluorescence Ratio
(before PIT1 = 100)
FIG. 26D
RLU Ratio
(before PIT1 = 100)
control
light only
Pan-IR700 only
repeated PIT

FIG. 27A



FIG. 27B



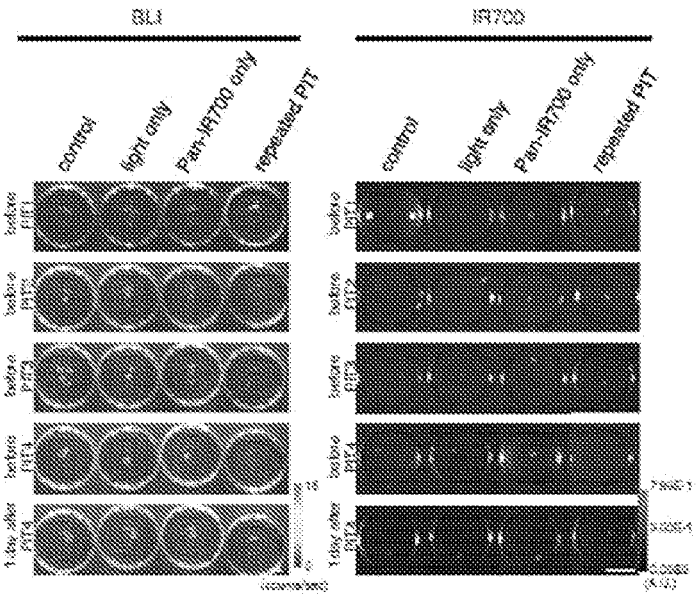


FIG. 27C

FIG. 28B

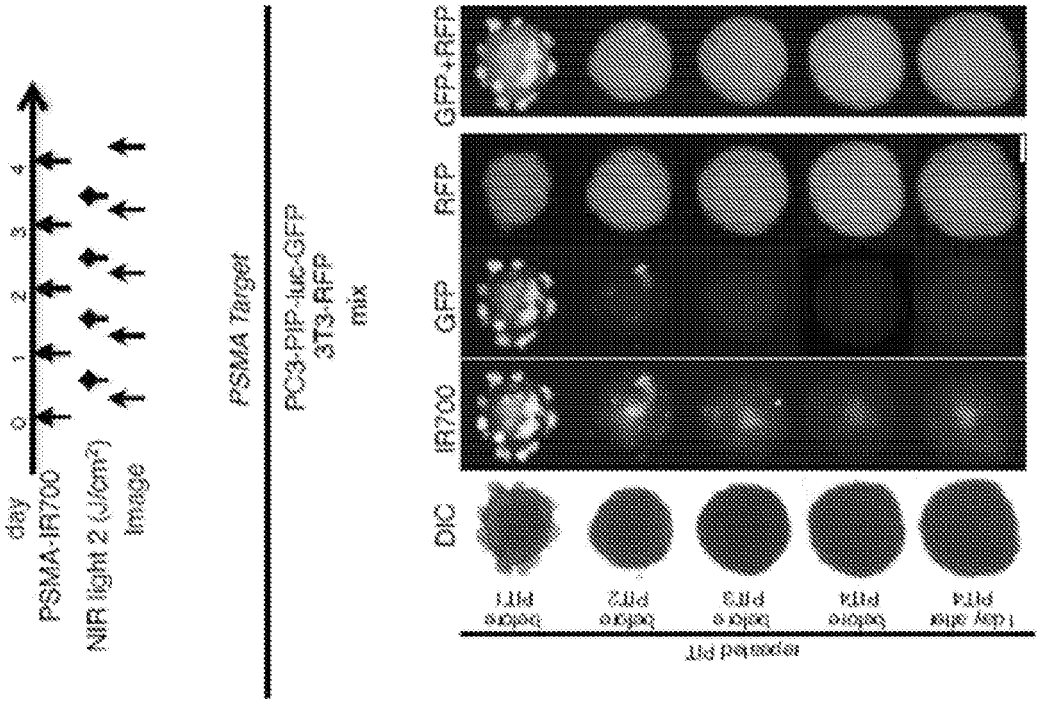


FIG. 28A

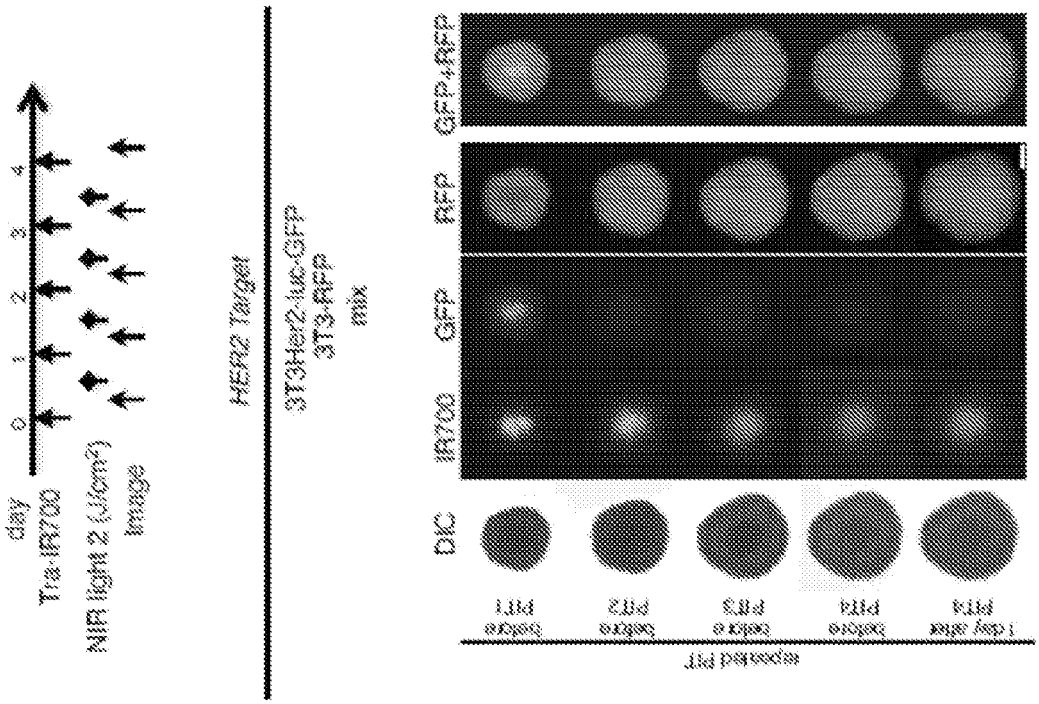


FIG. 29A

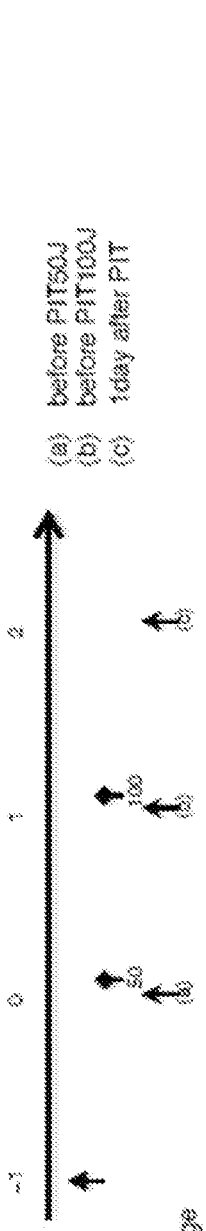


FIG. 29B

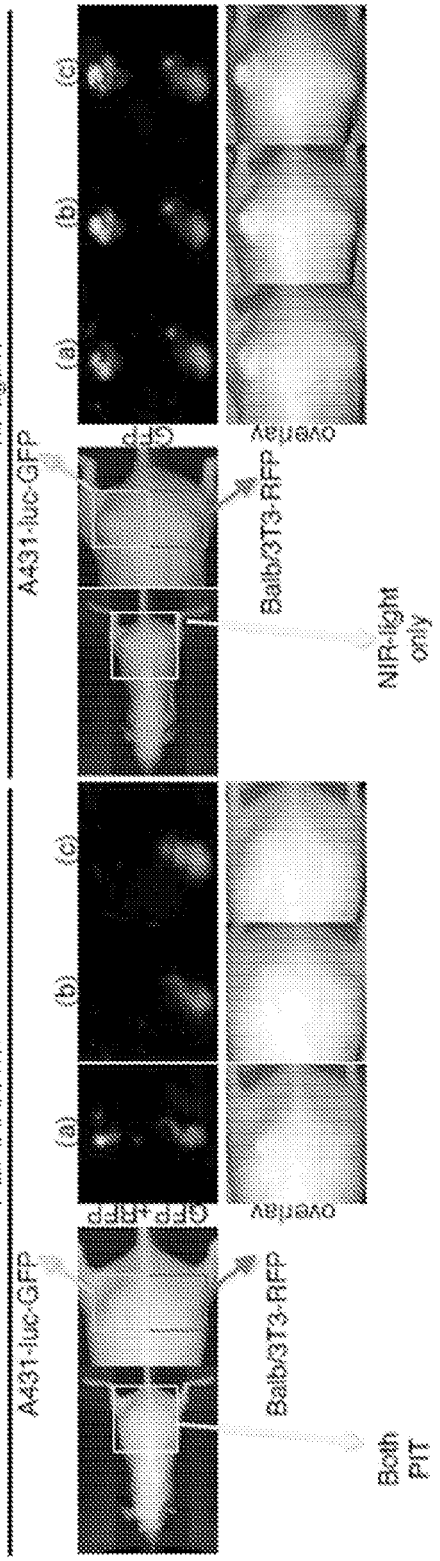


FIG. 30A

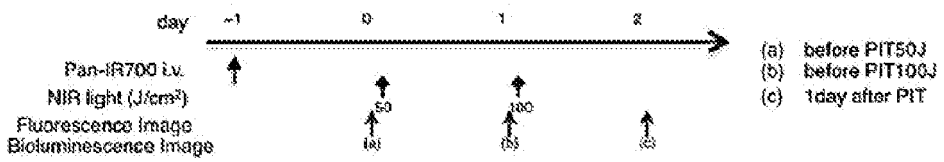


FIG. 30B

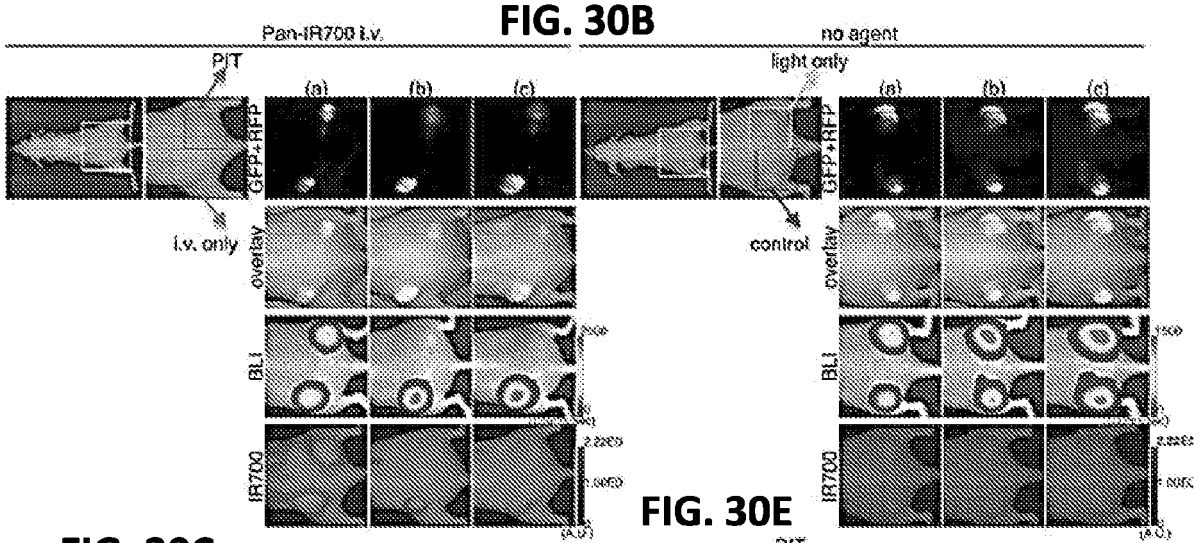


FIG. 30C

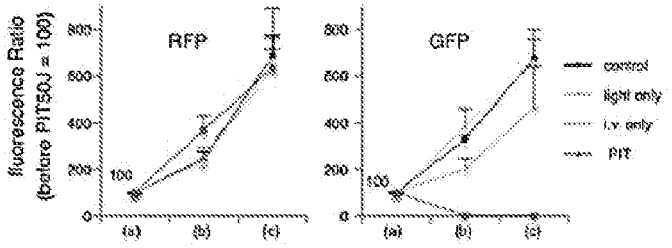


FIG. 30D

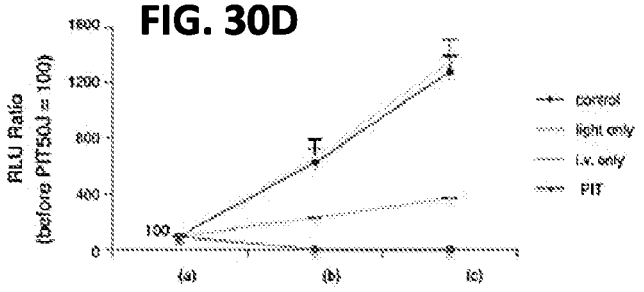


FIG. 30E

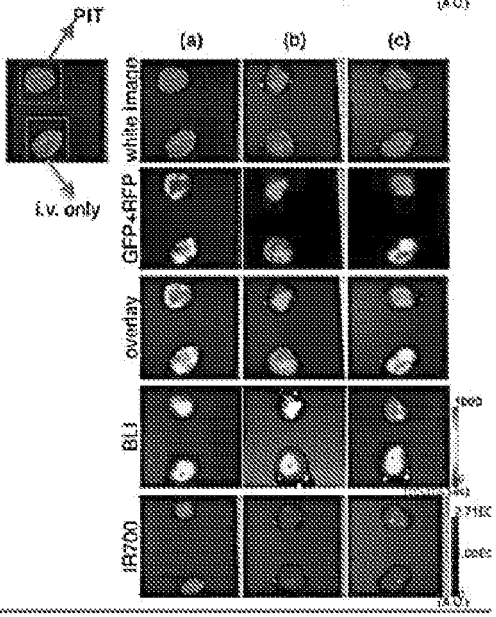


FIG. 31

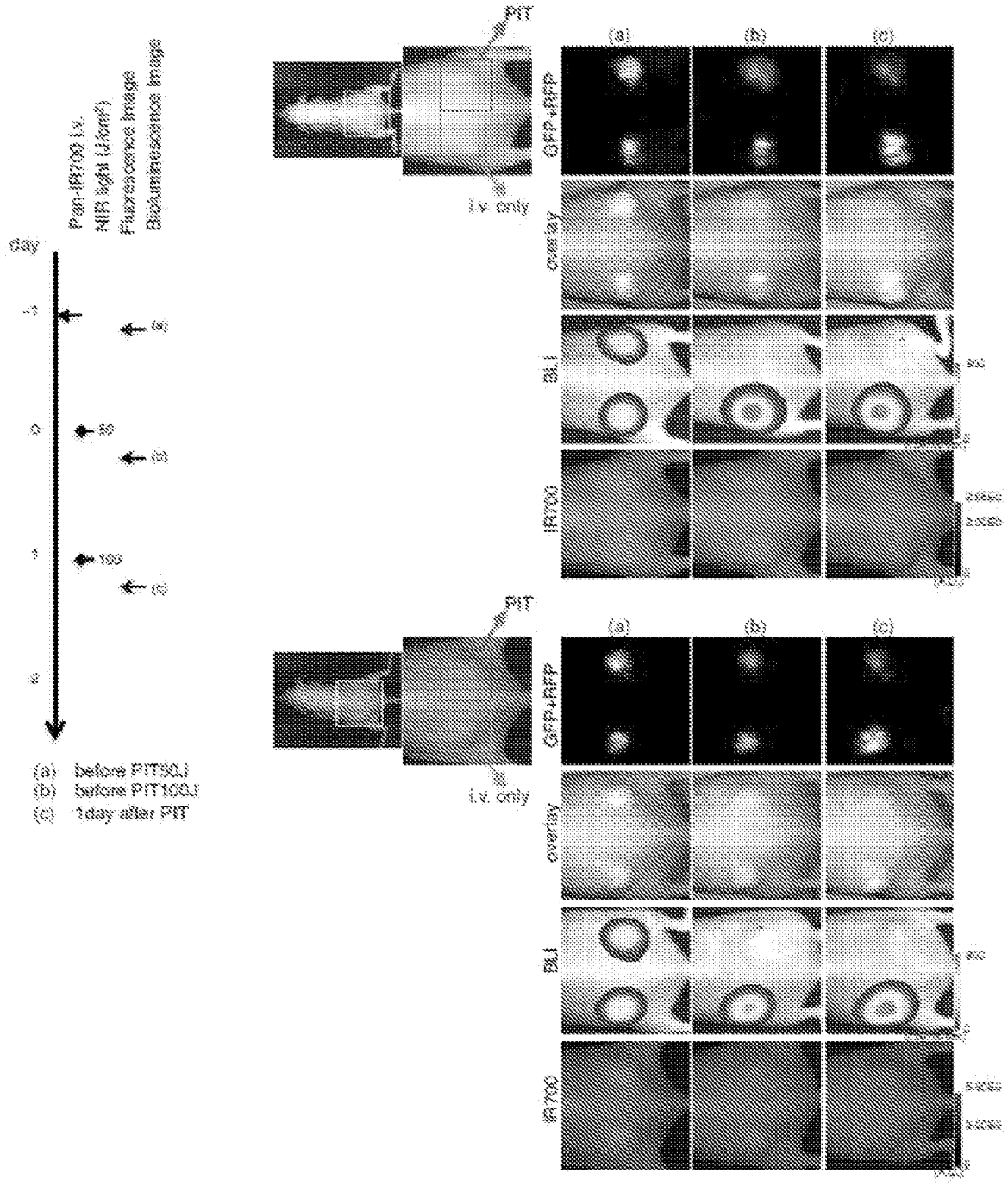

Day
Pan-IR700 i.v.
NIR light (J/cm²)
Fluorescence Image
Bioluminescence Image
PIT
i.v. only
(a)
(b)
(c)
GFP+RFP
overlay
BLI
IR700
(a) before PIT50J
(b) before PIT100J
(c) 1day after PIT

FIG. 32A

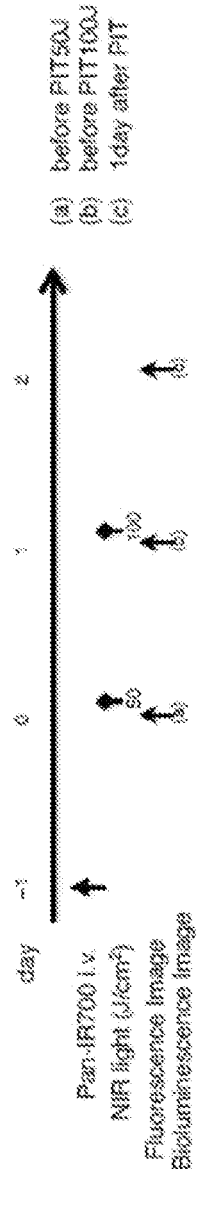


FIG. 32B

