

FIG. 1A

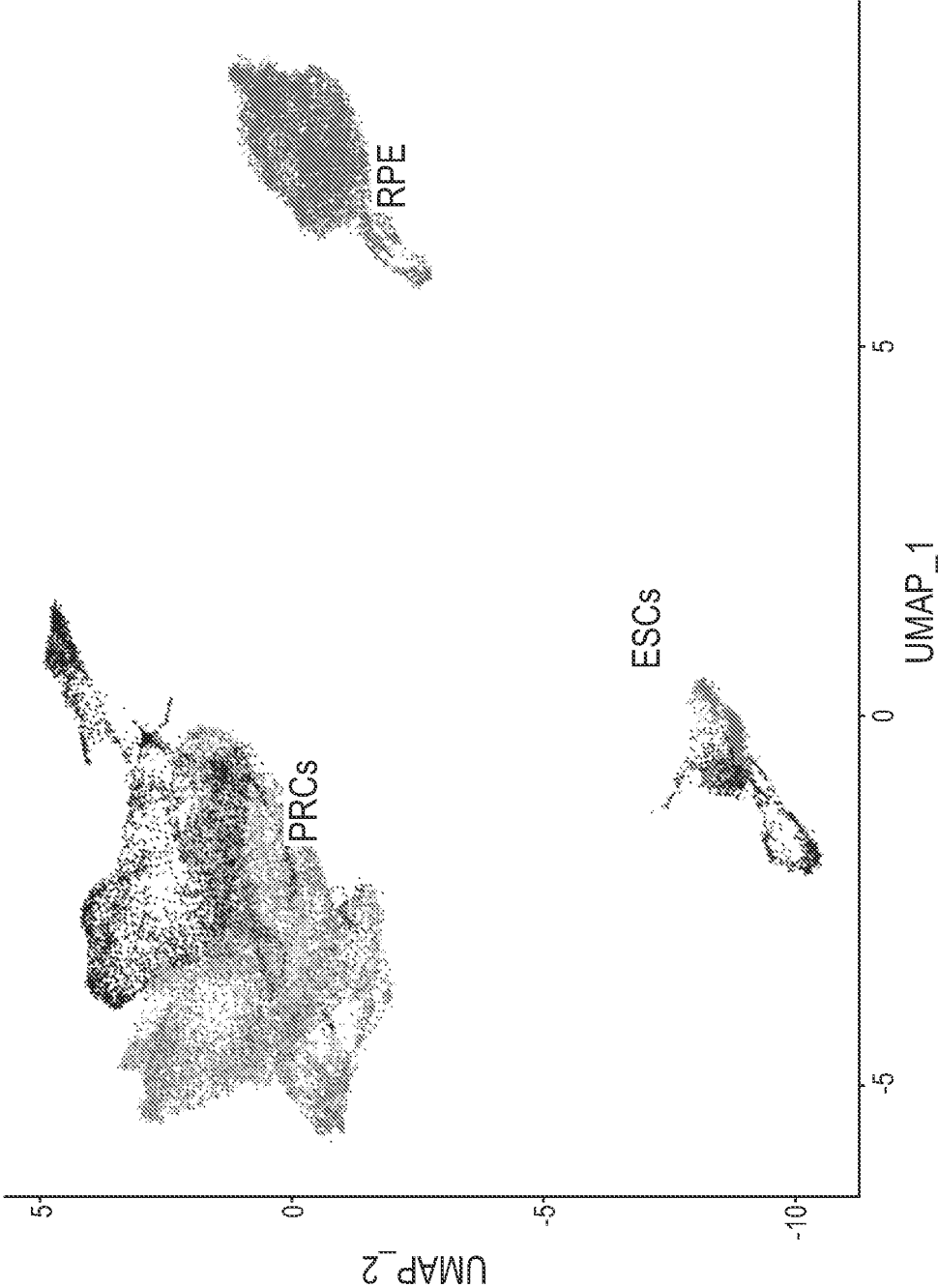
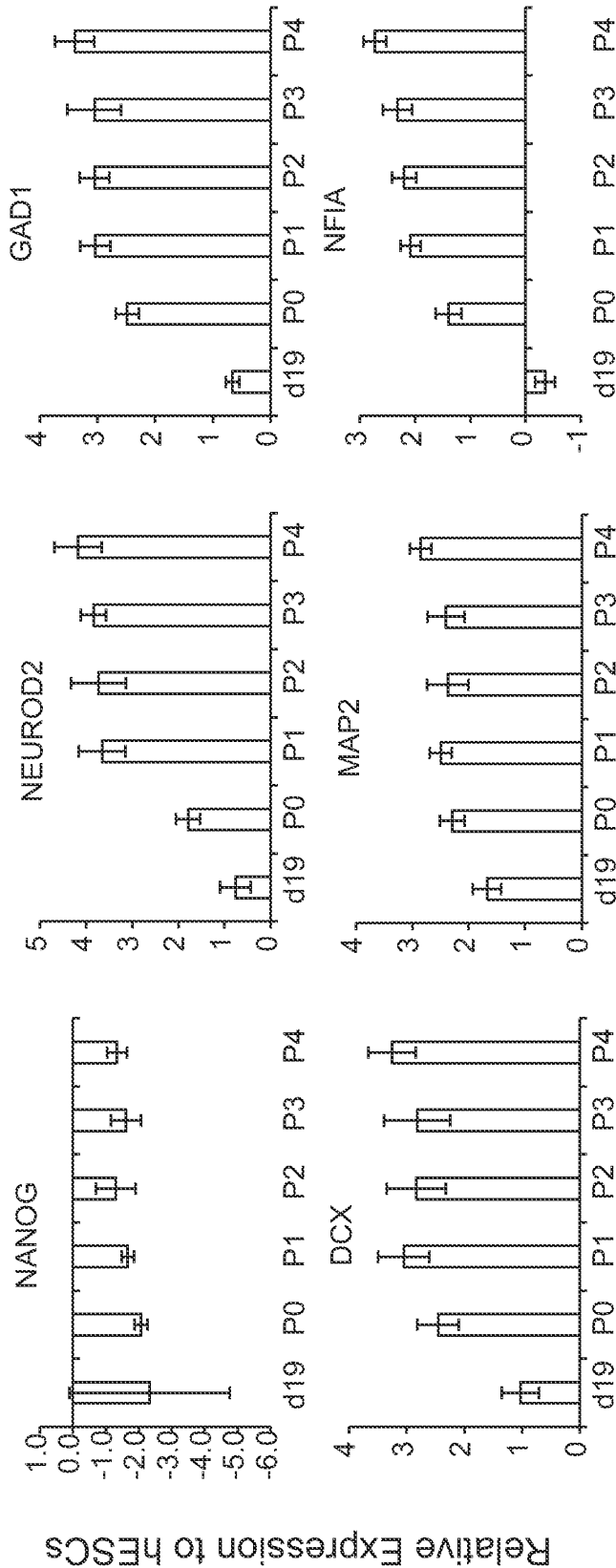


FIG. 1B



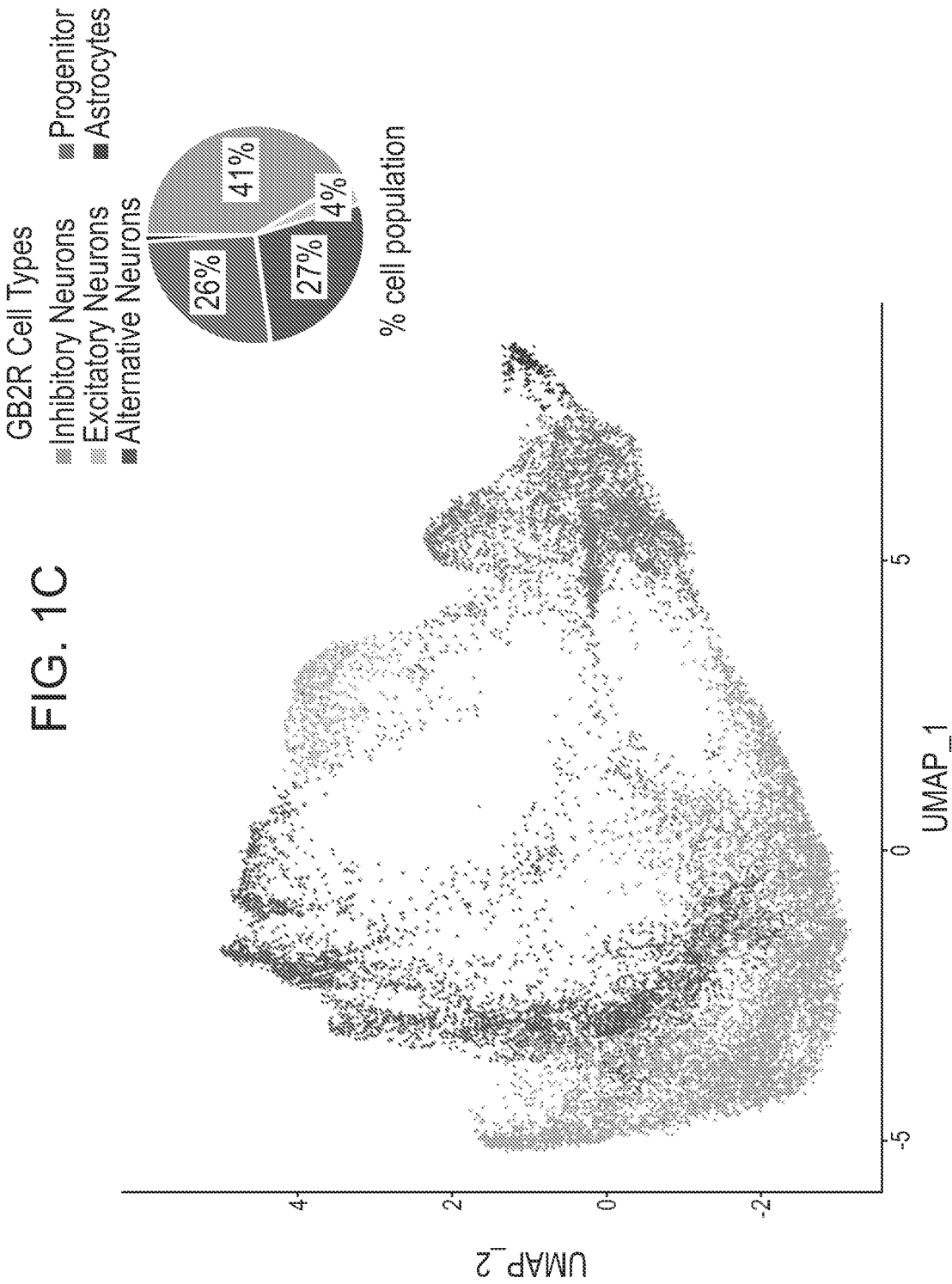
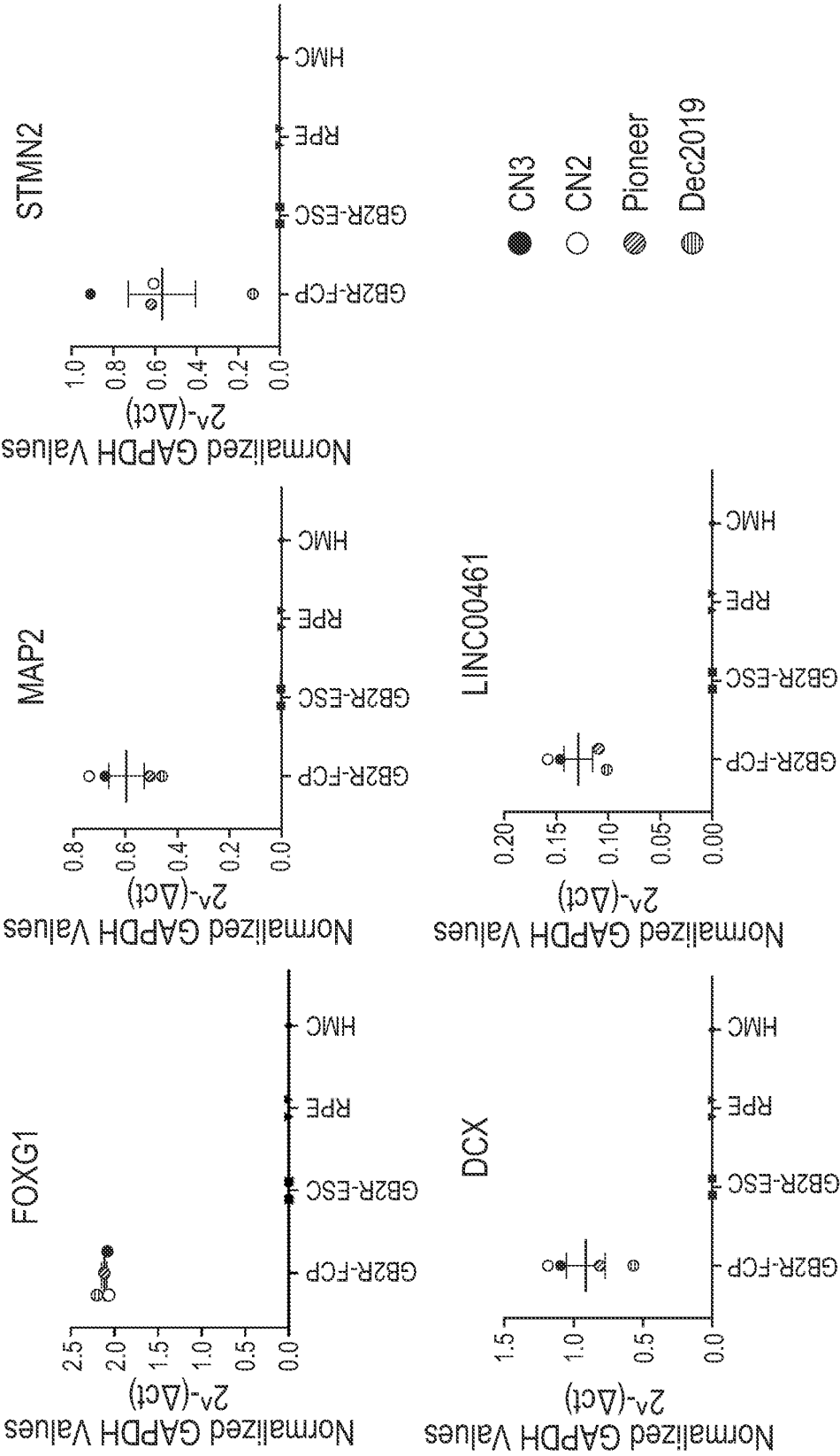
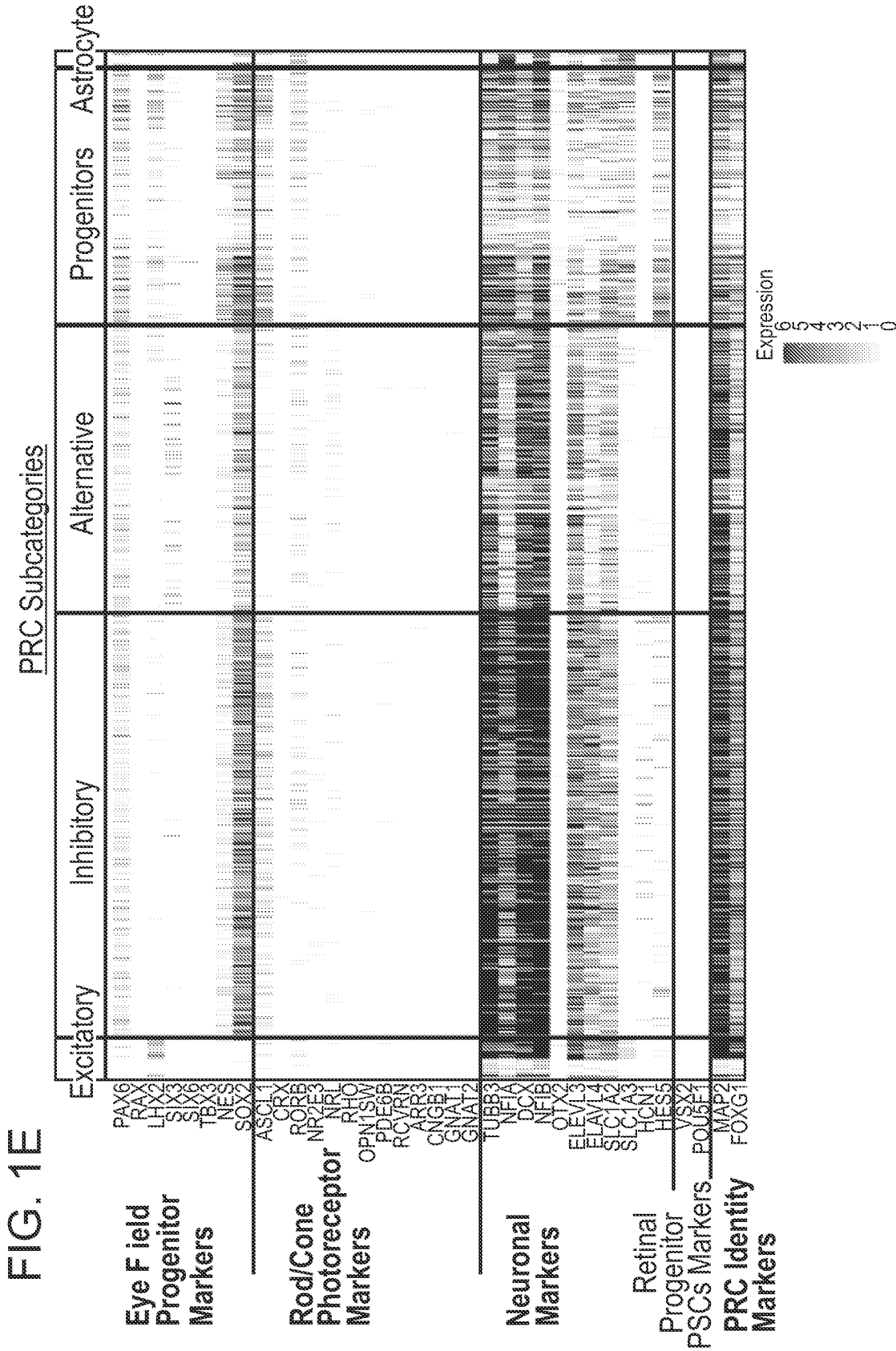


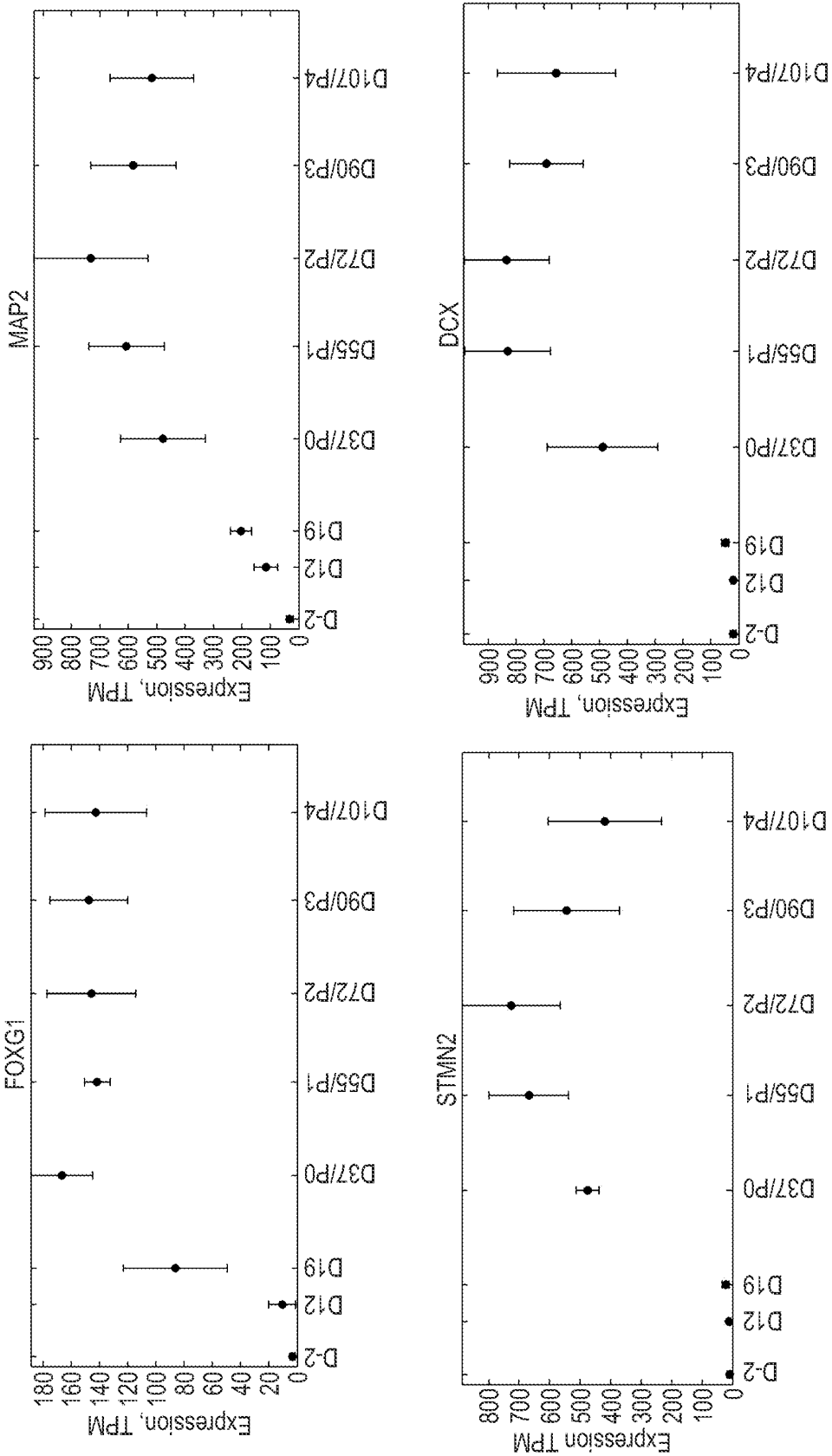
FIG. 1D





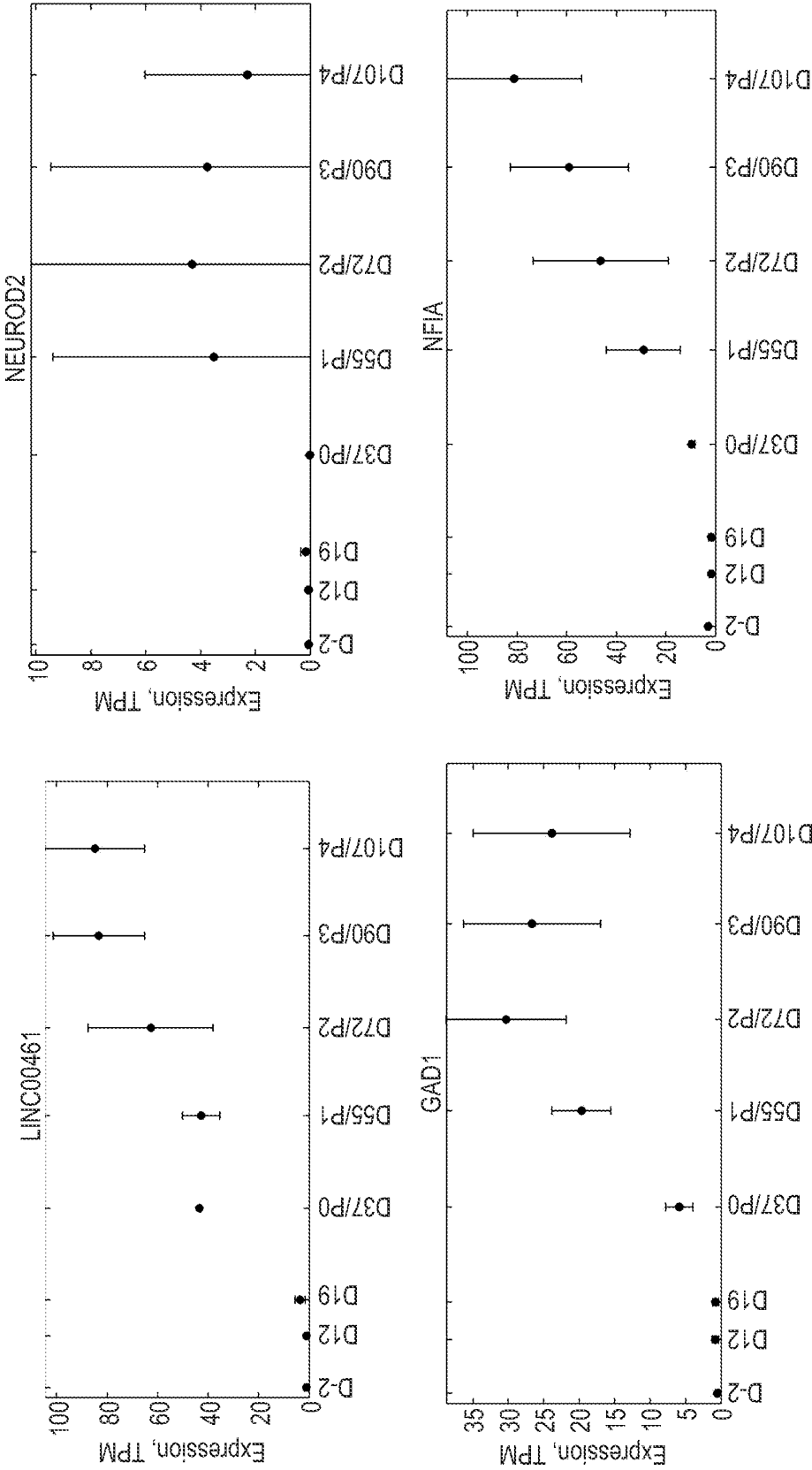
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FIG. 1F



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FIG. 1G



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FIG. 1H

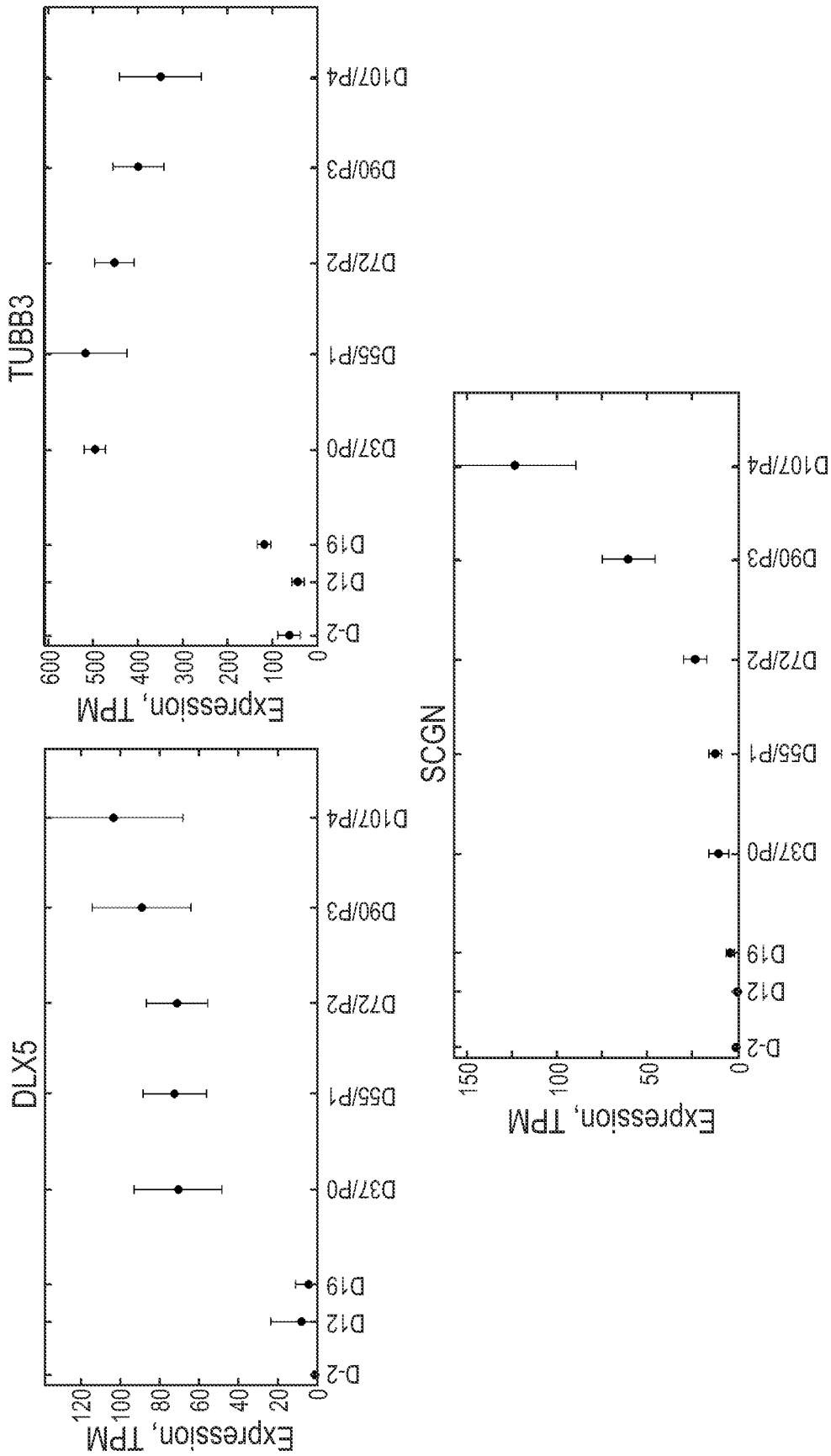
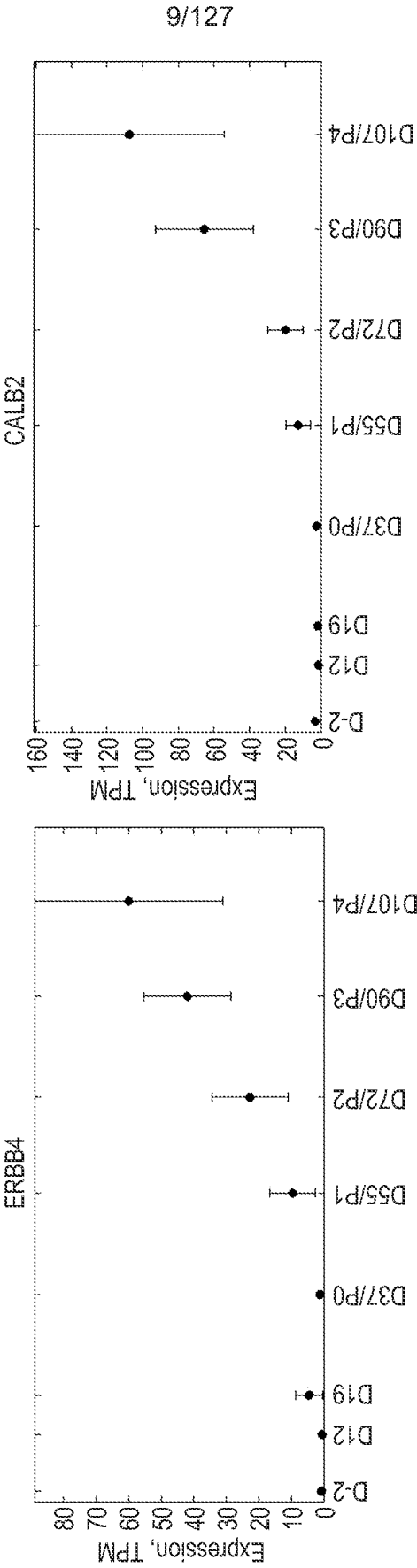
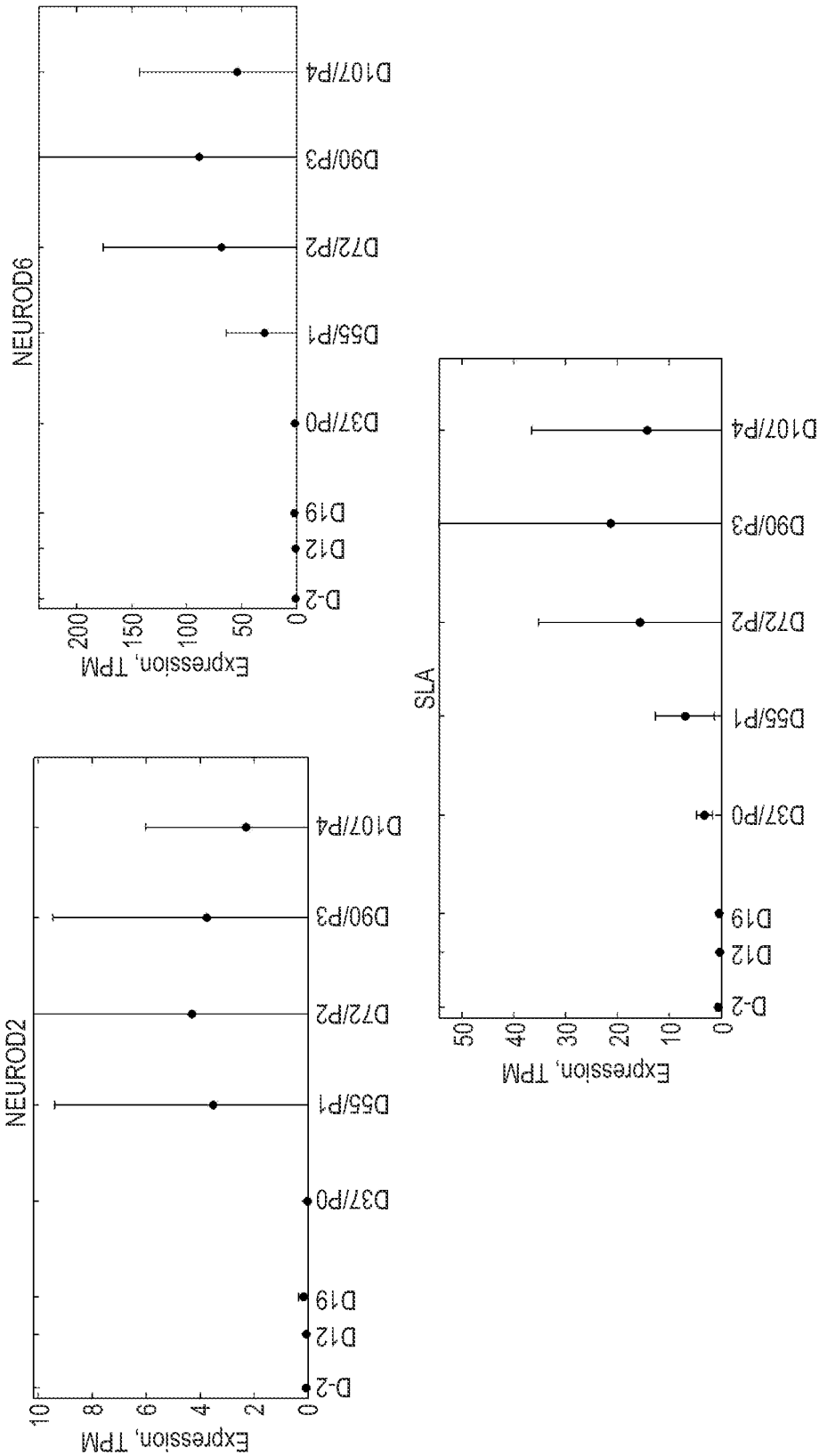


FIG. 11



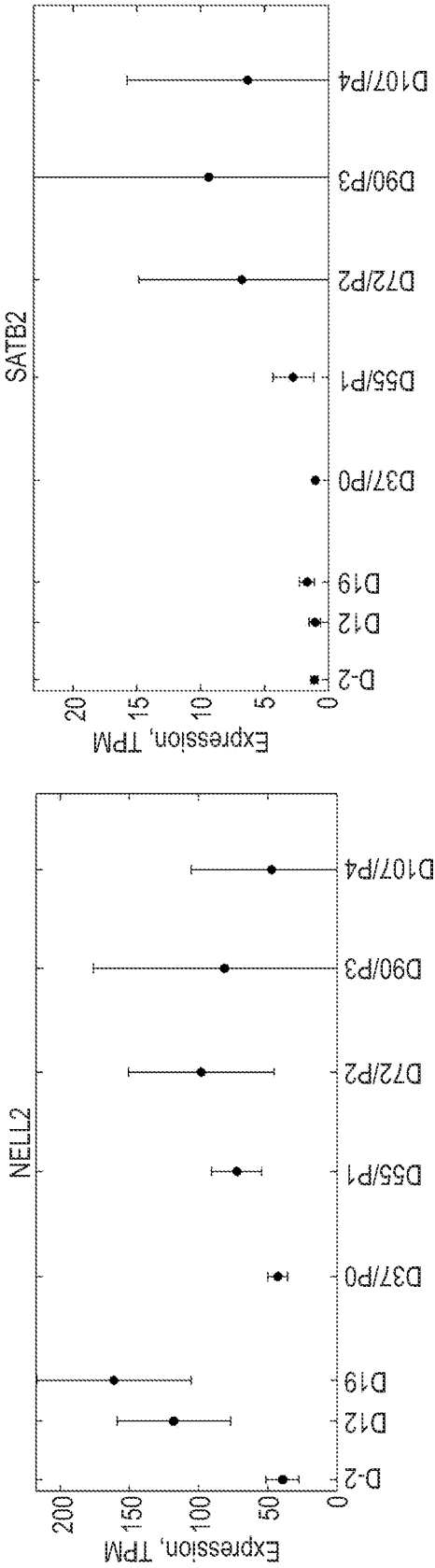
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FIG. 1J



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FIG. 1K



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FIG. 1L

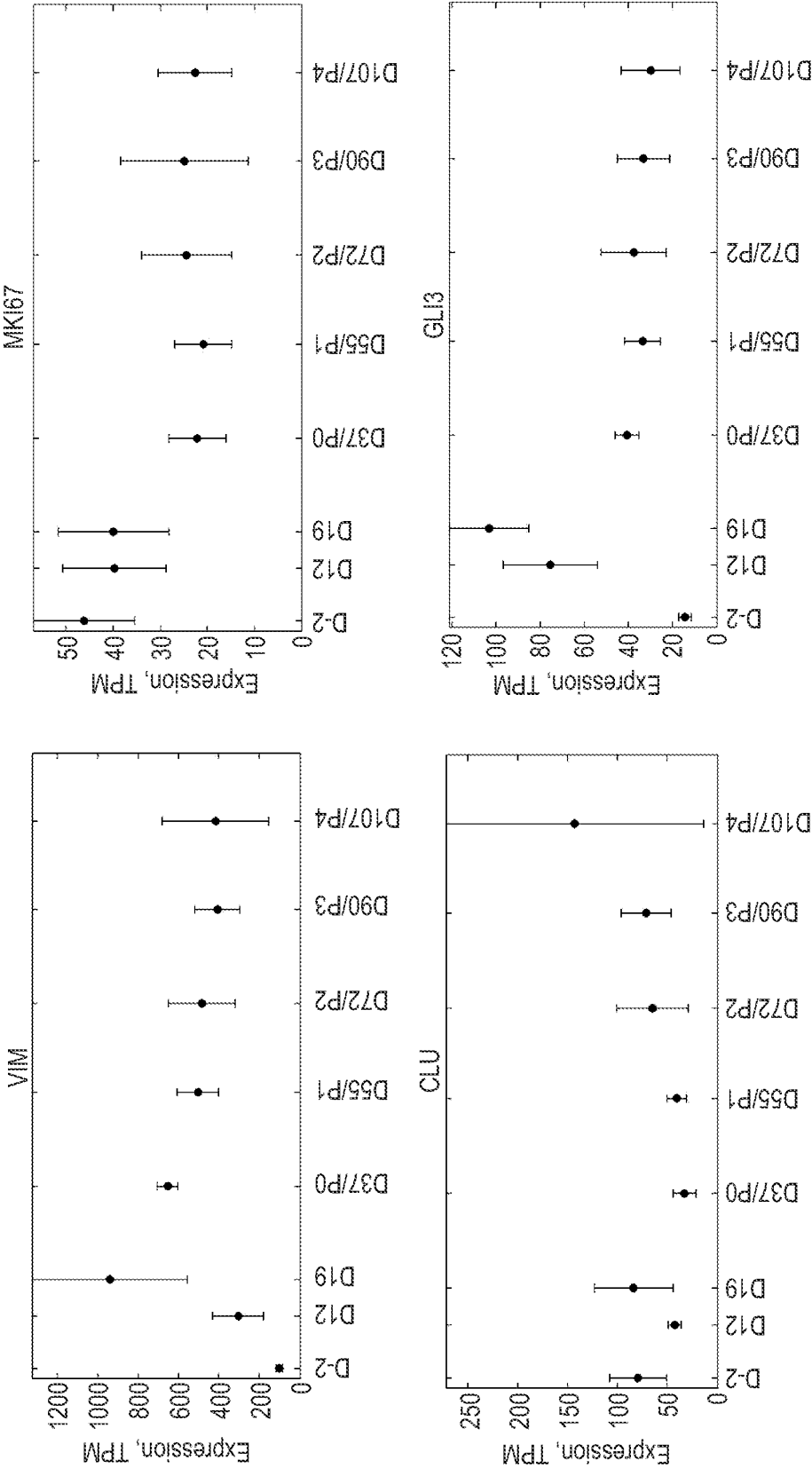


FIG. 1M

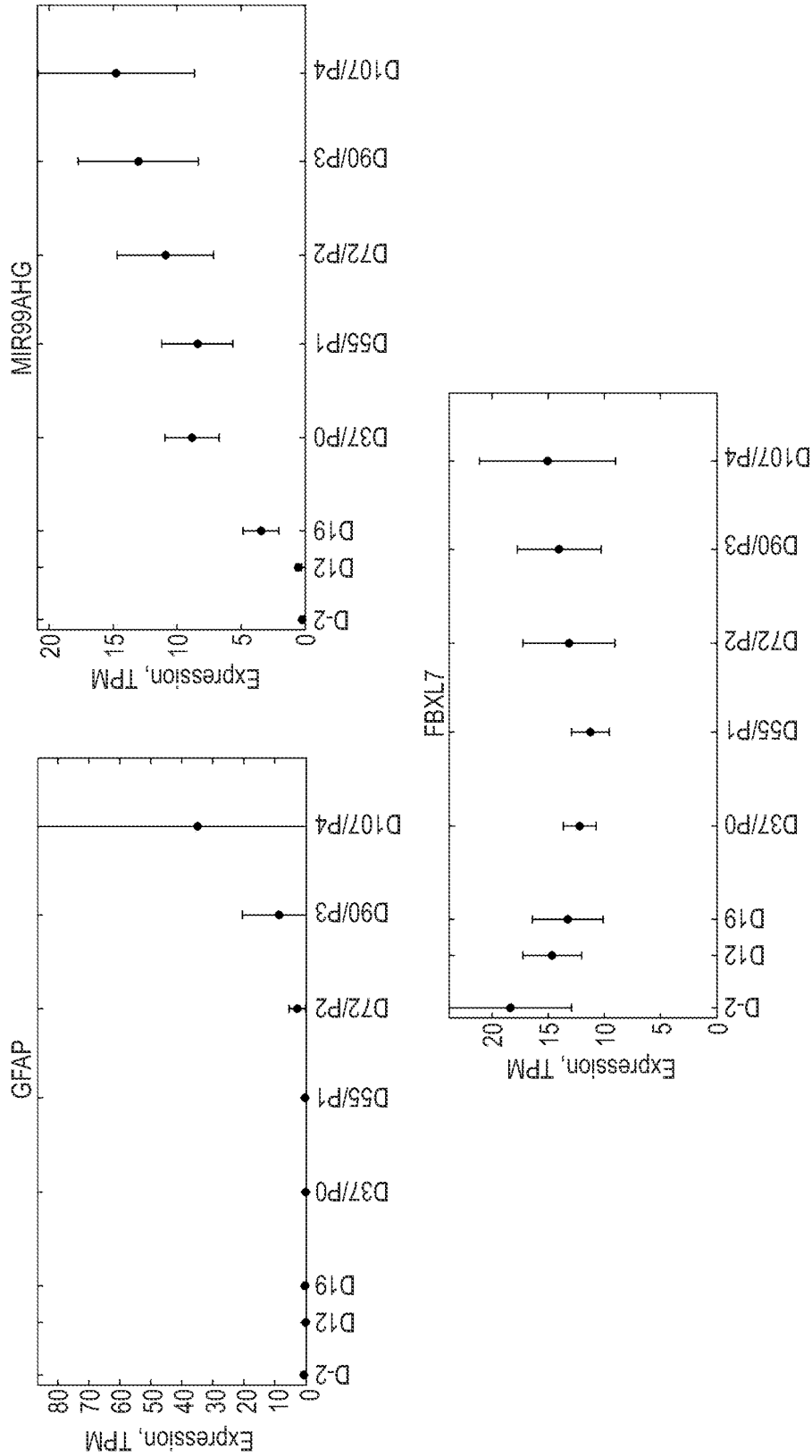
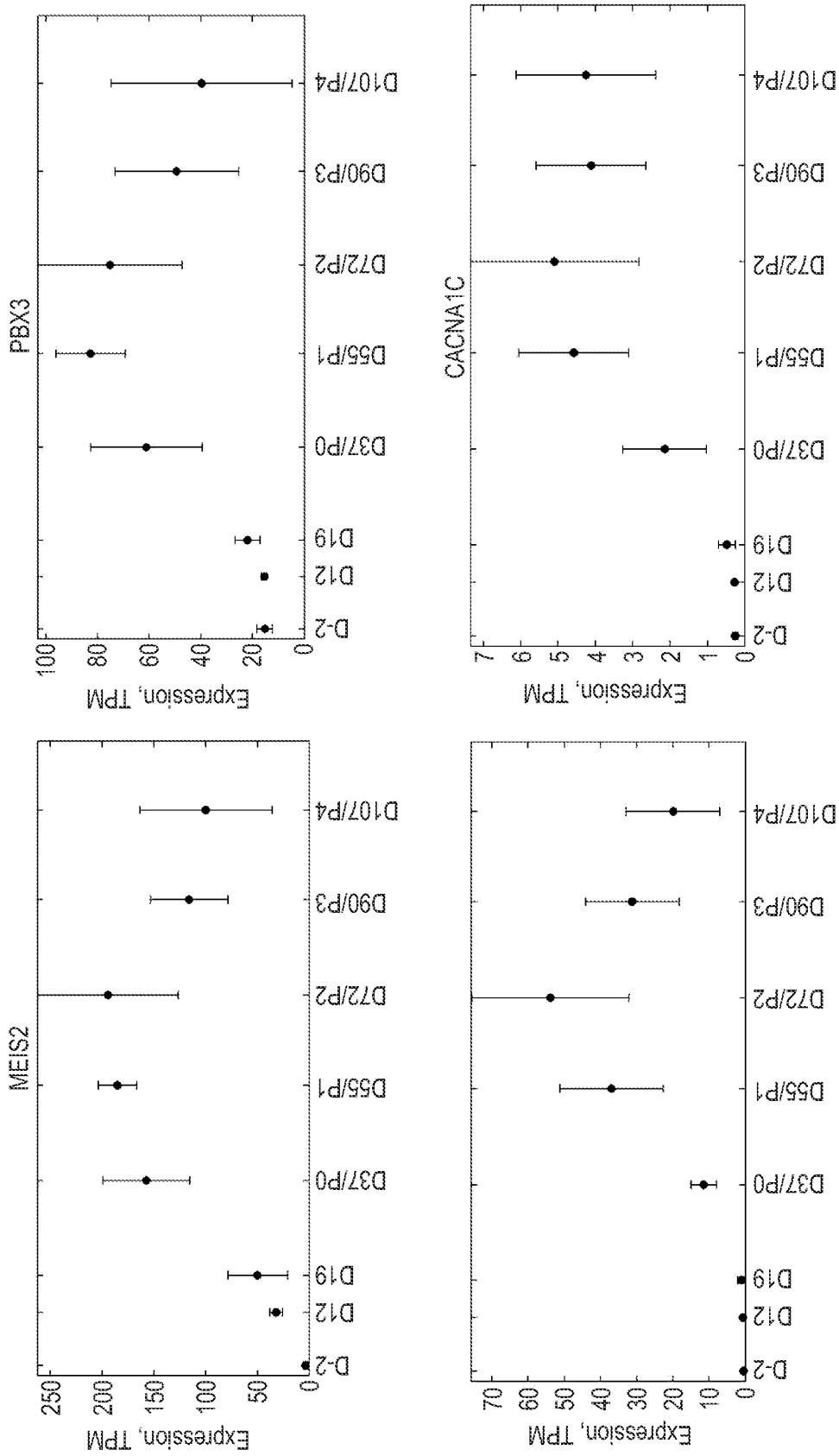


FIG. 1N



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FIG. 10

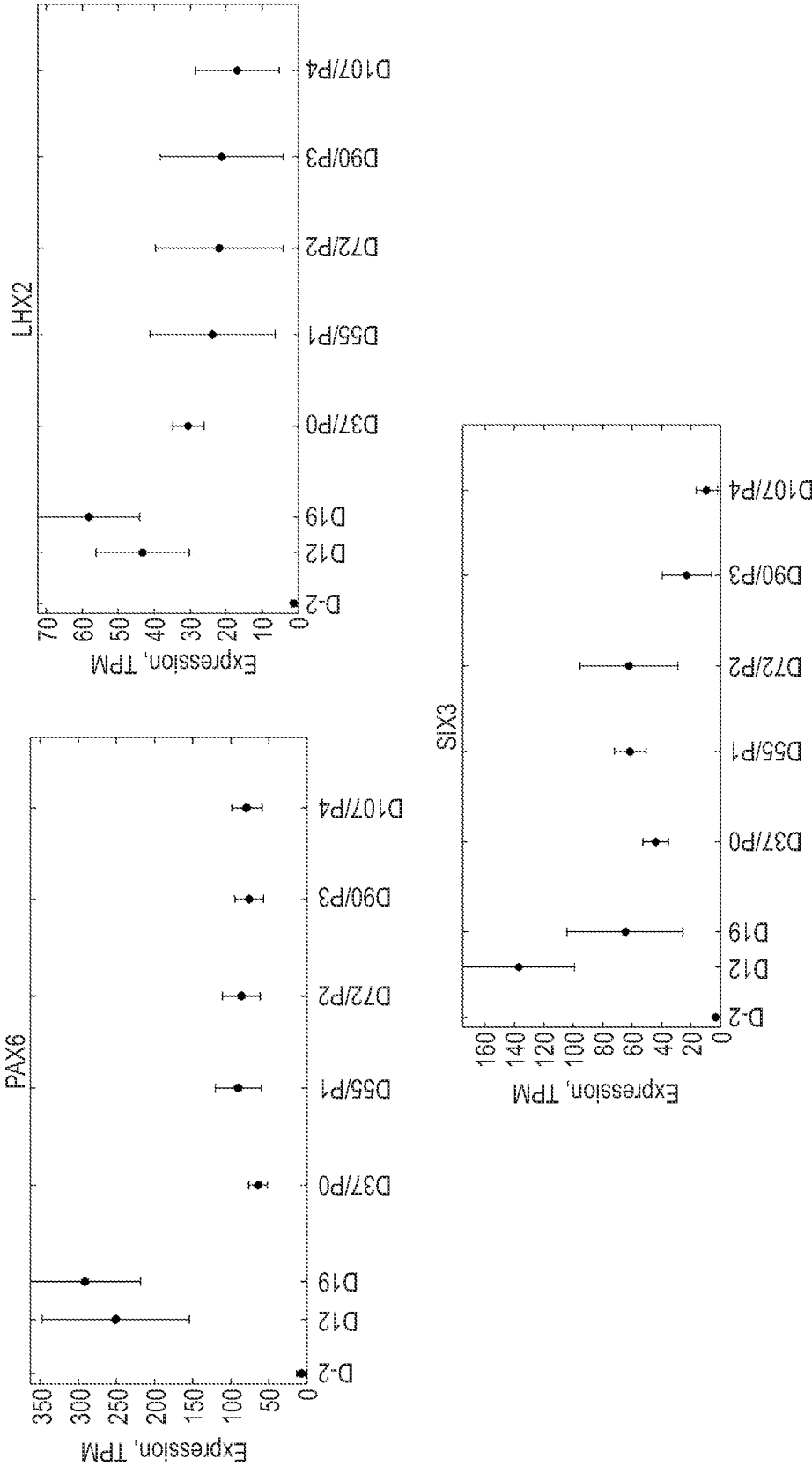


FIG. 1P

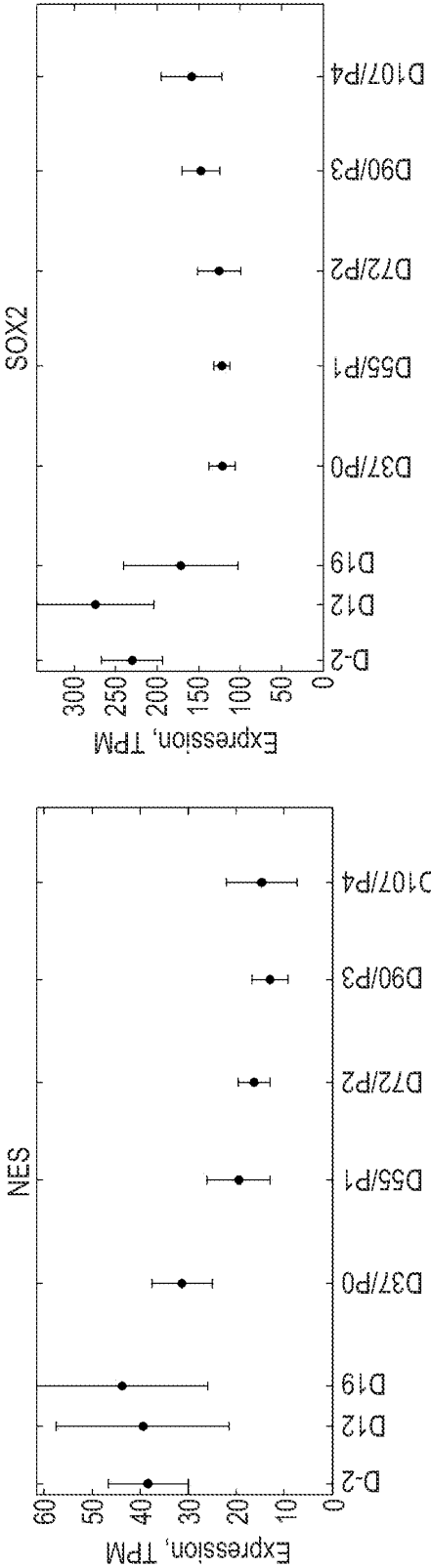


FIG. 1Q

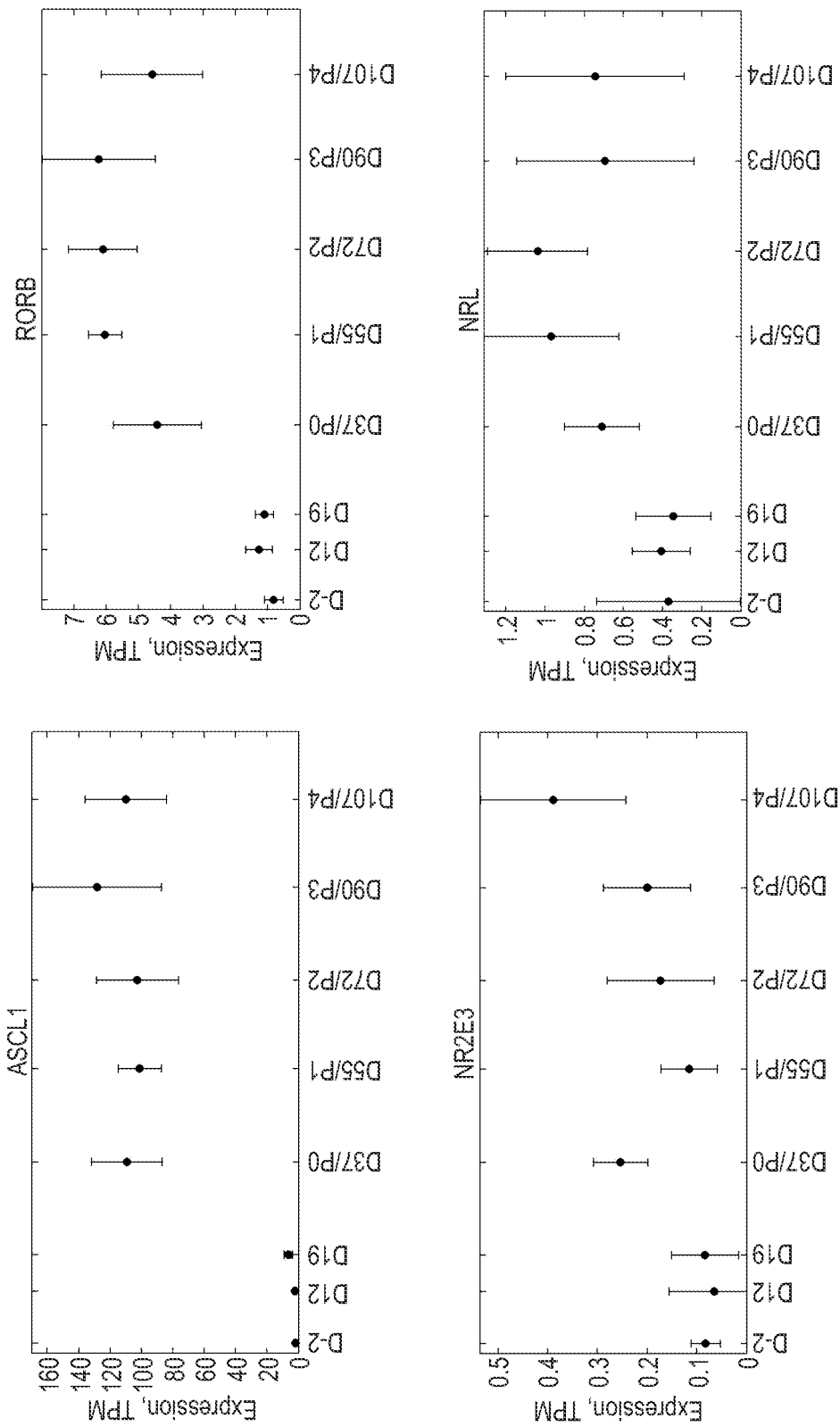


FIG. 1R

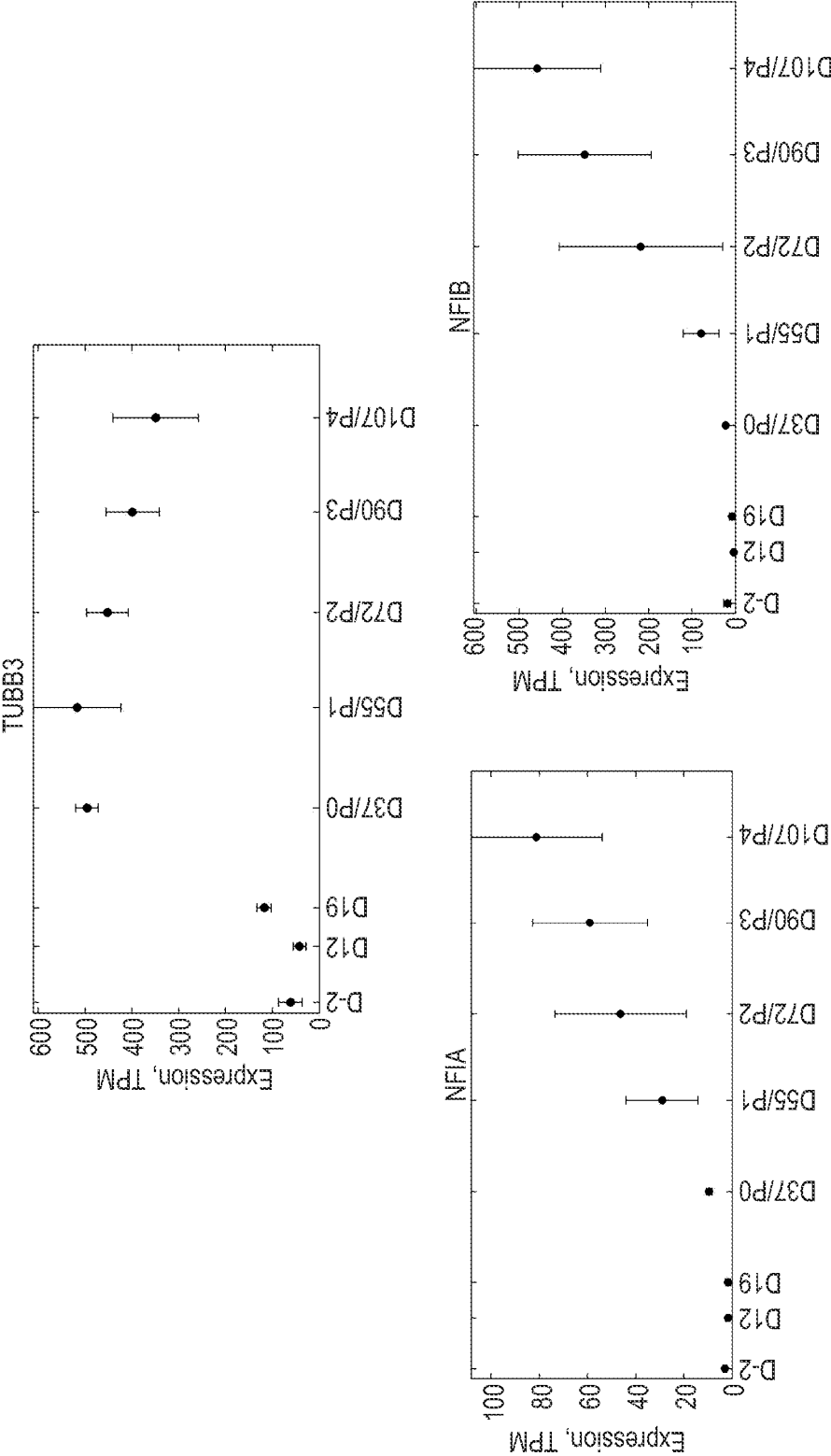


FIG. 1S

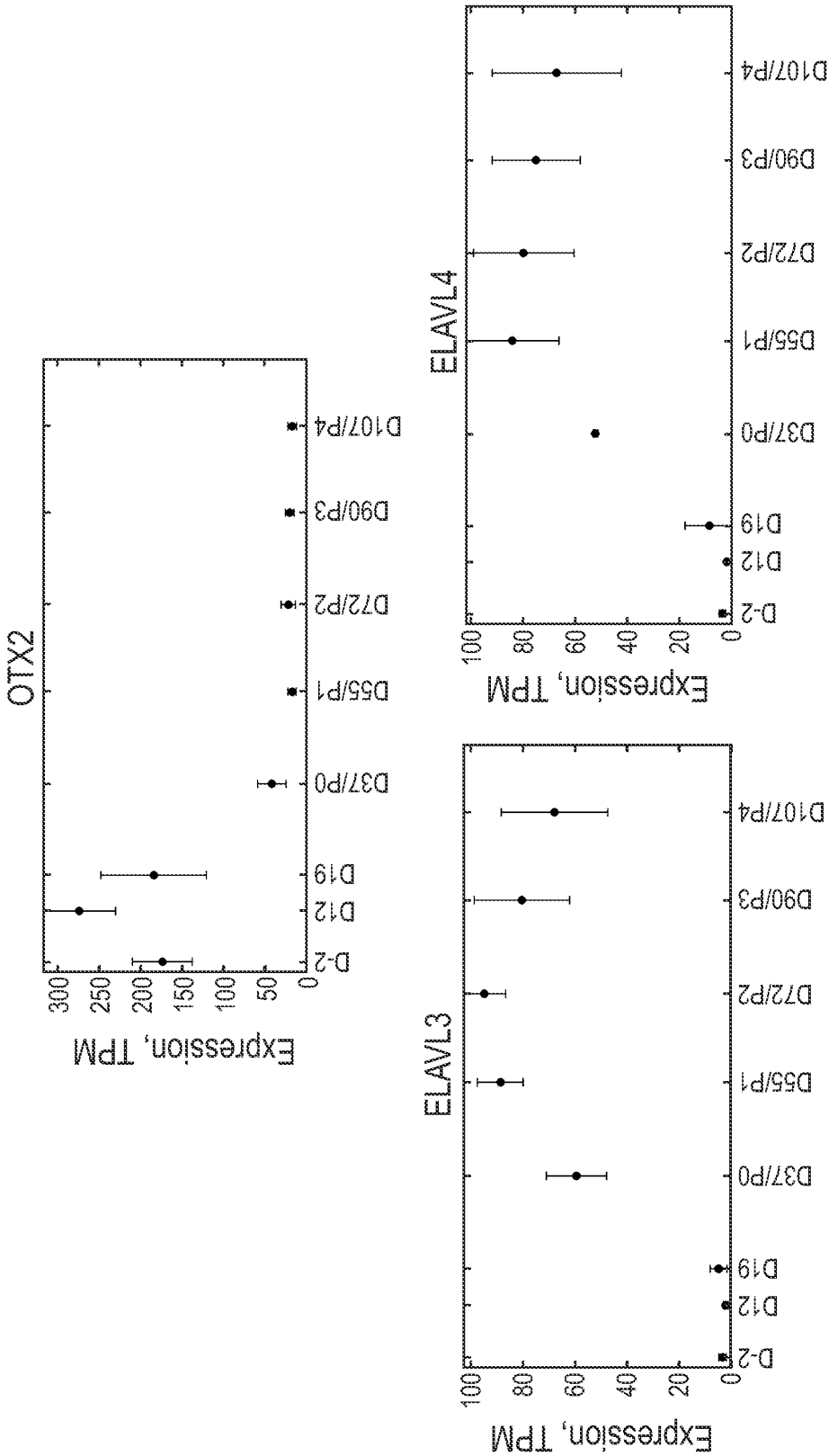
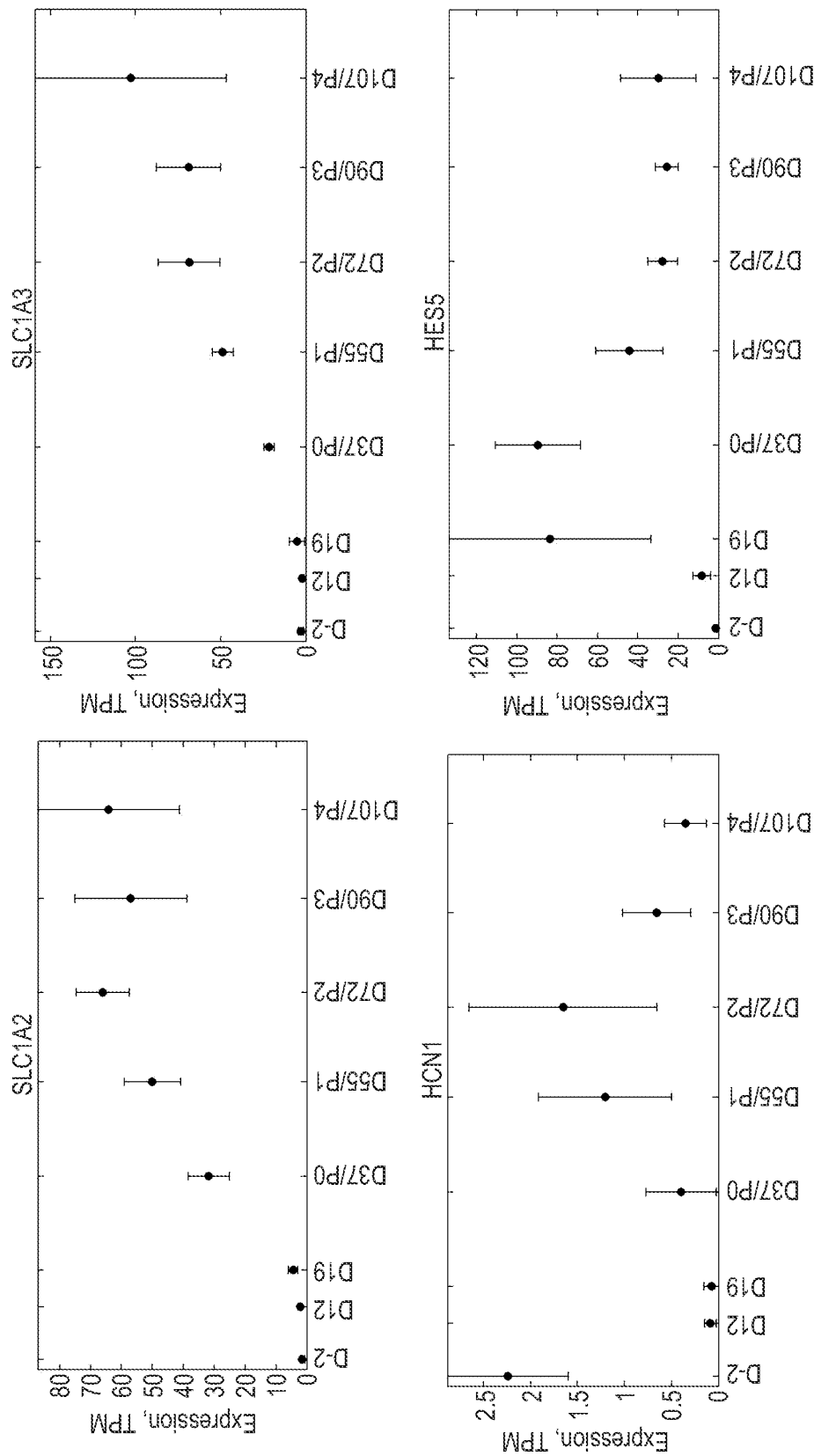


FIG. 1T



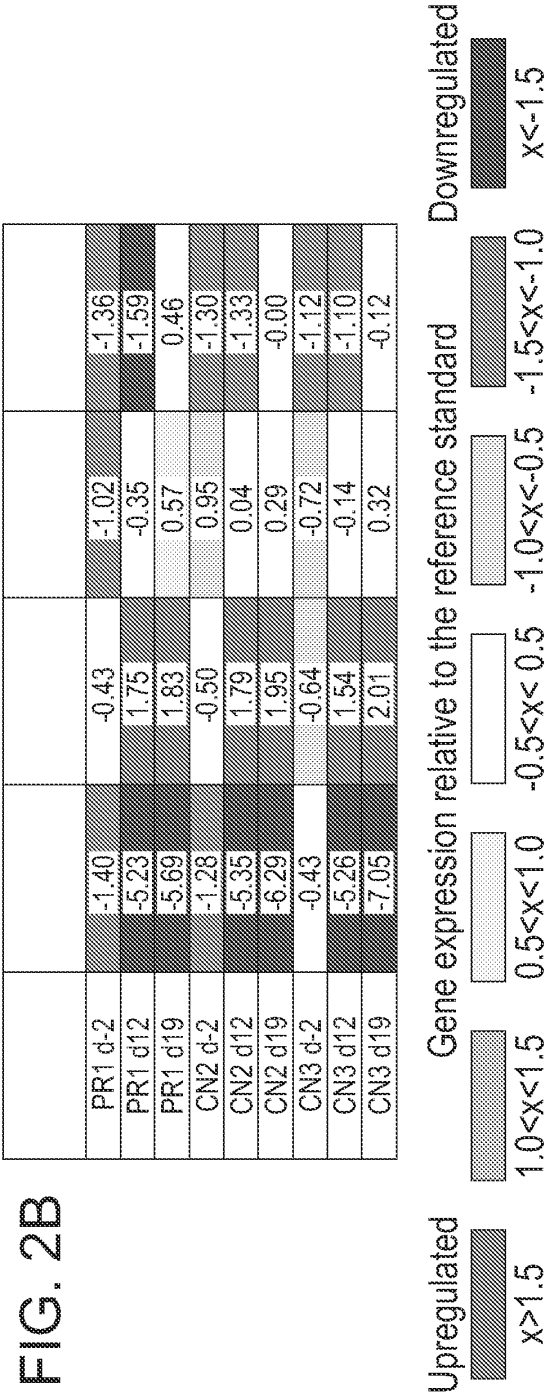
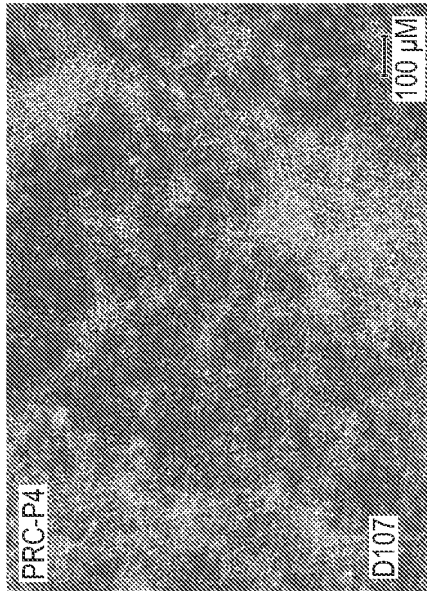


FIG. 2C

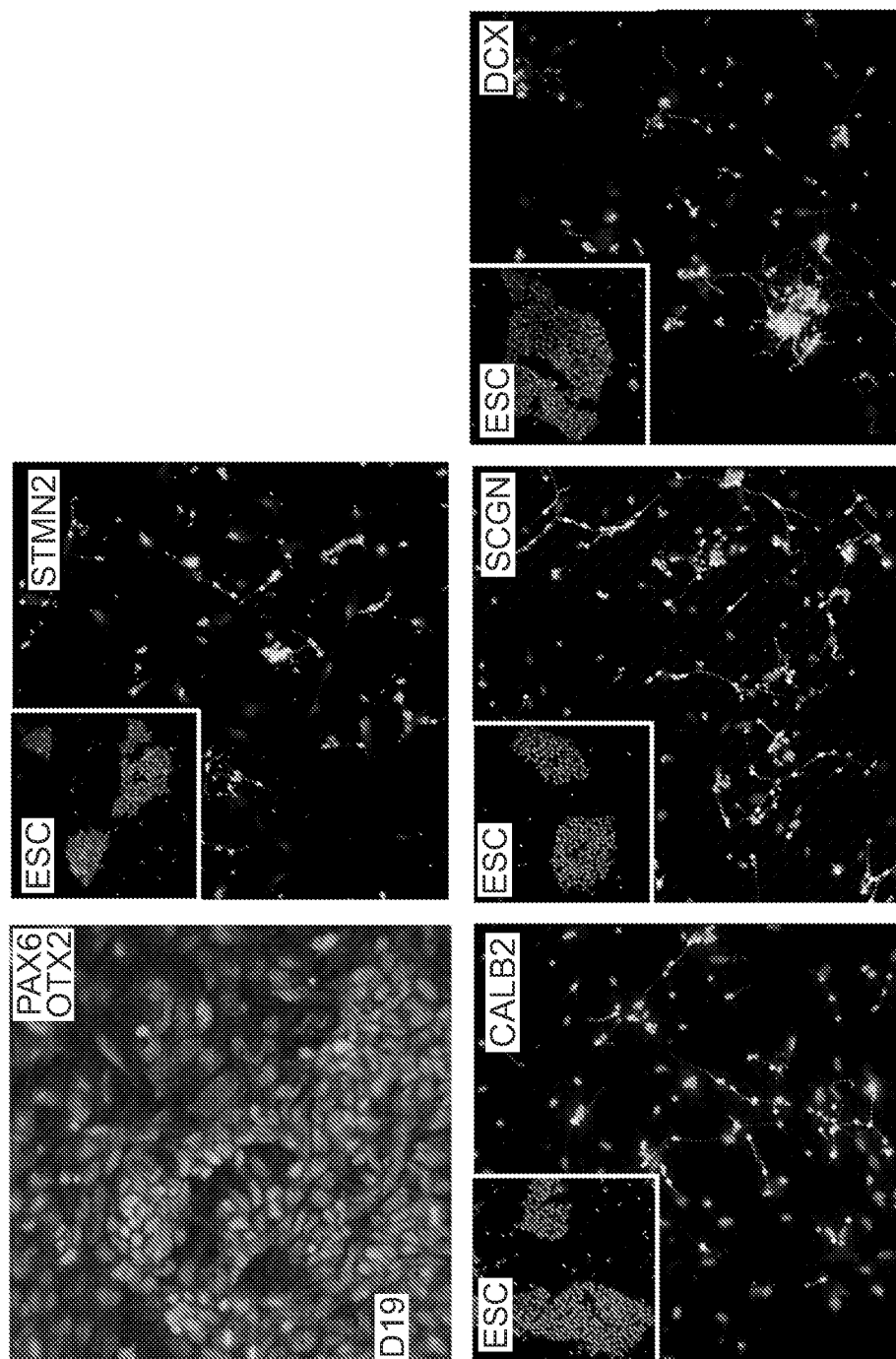


FIG. 2D

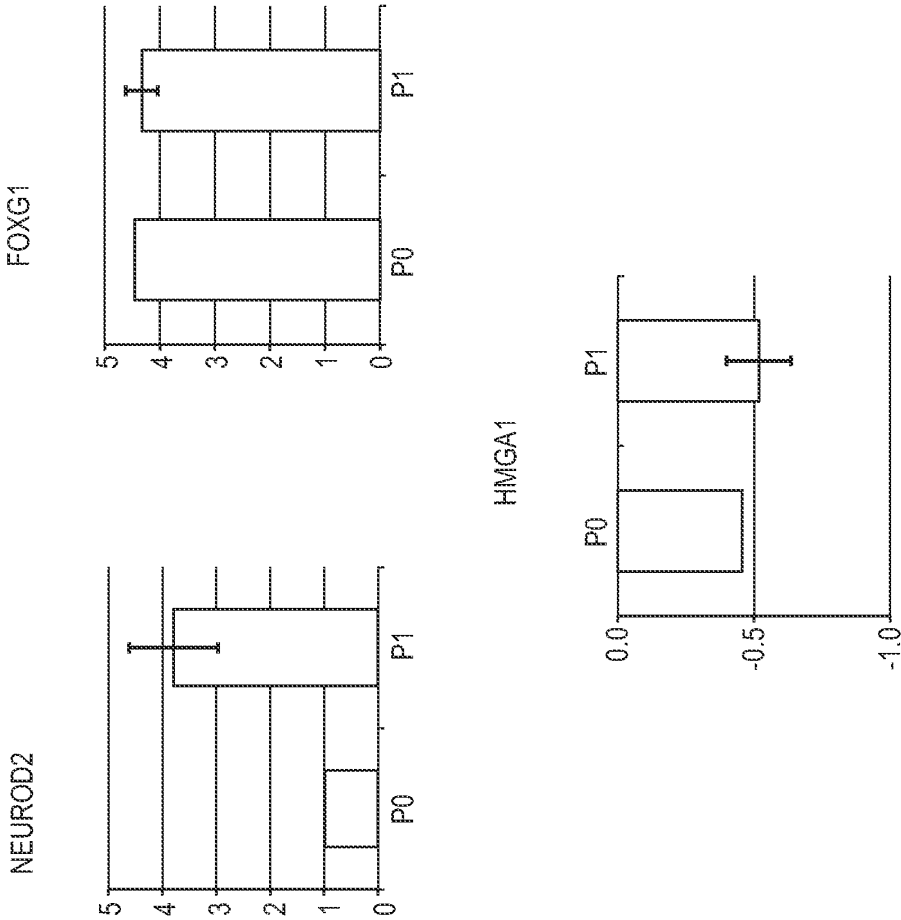


FIG. 2E

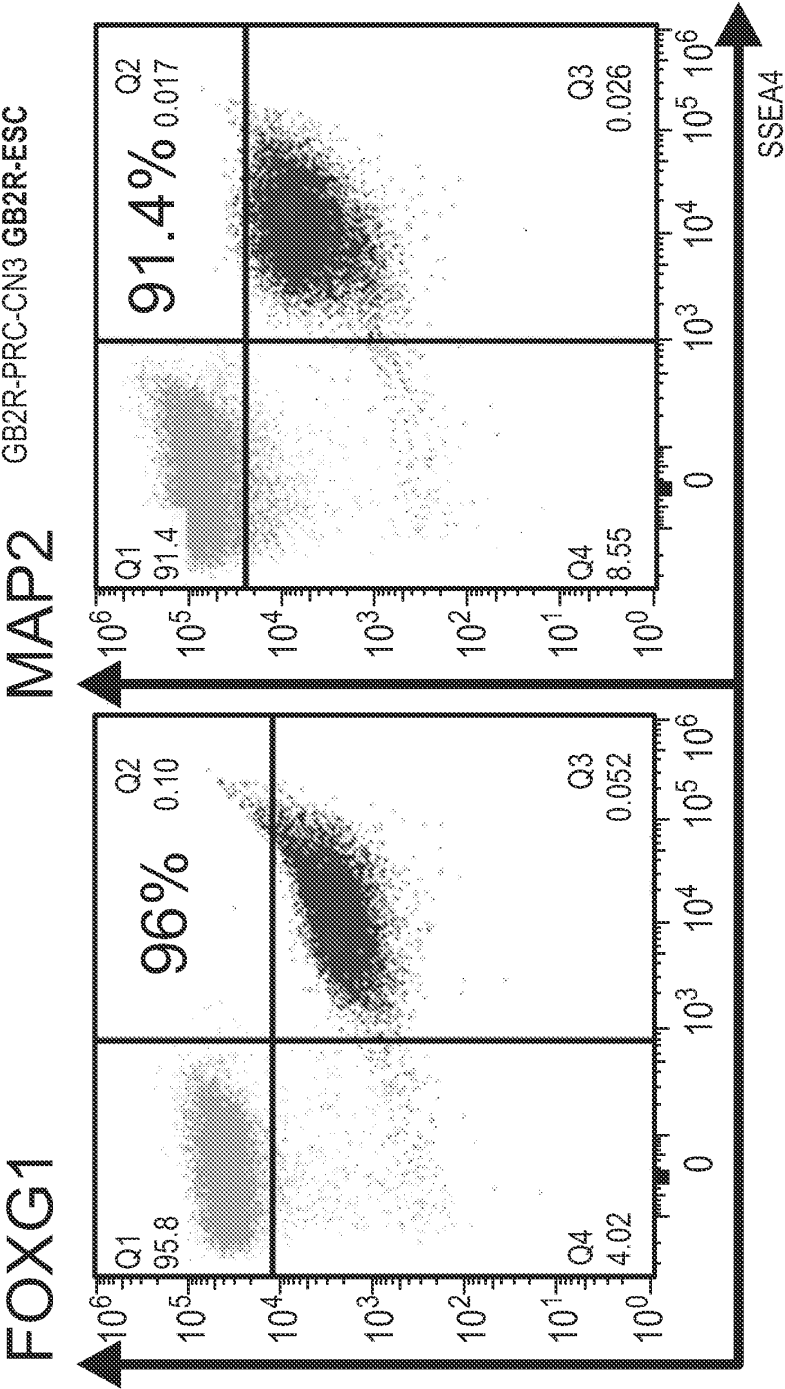


FIG. 2F

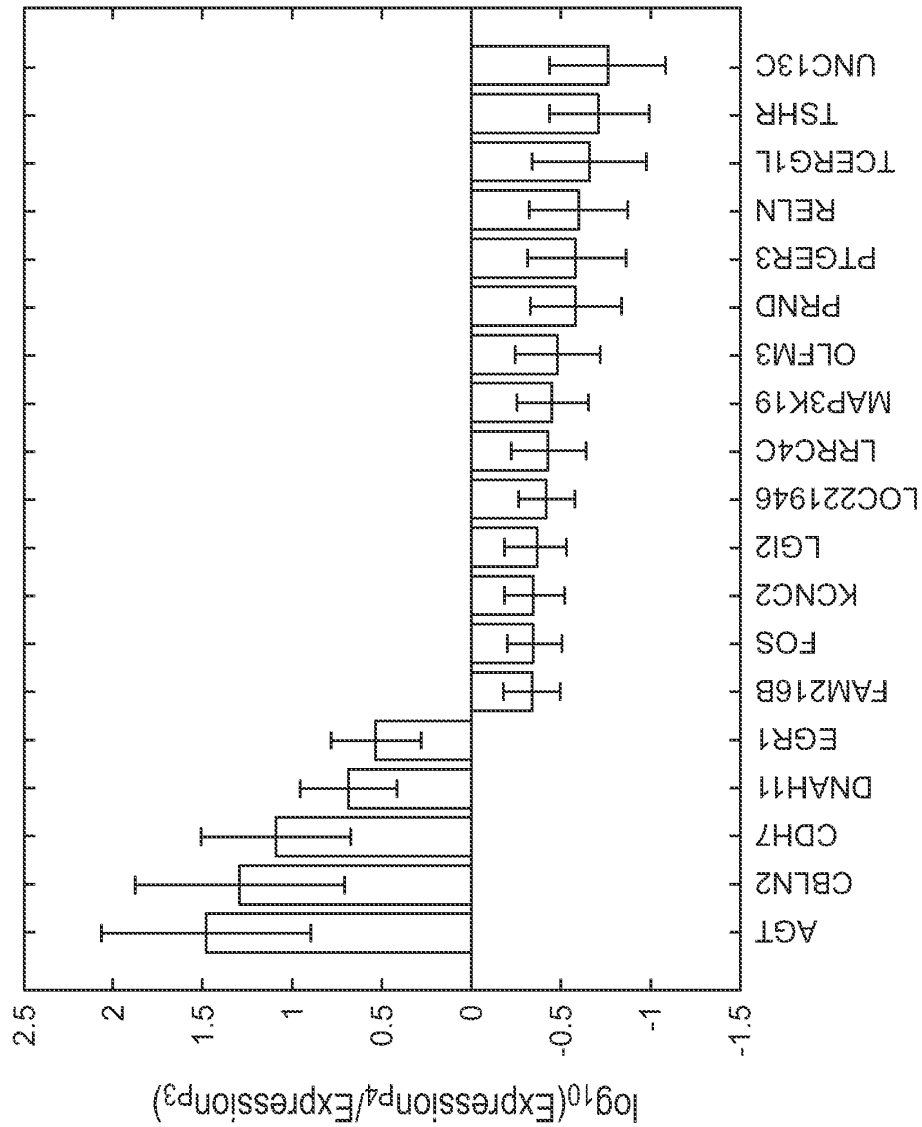
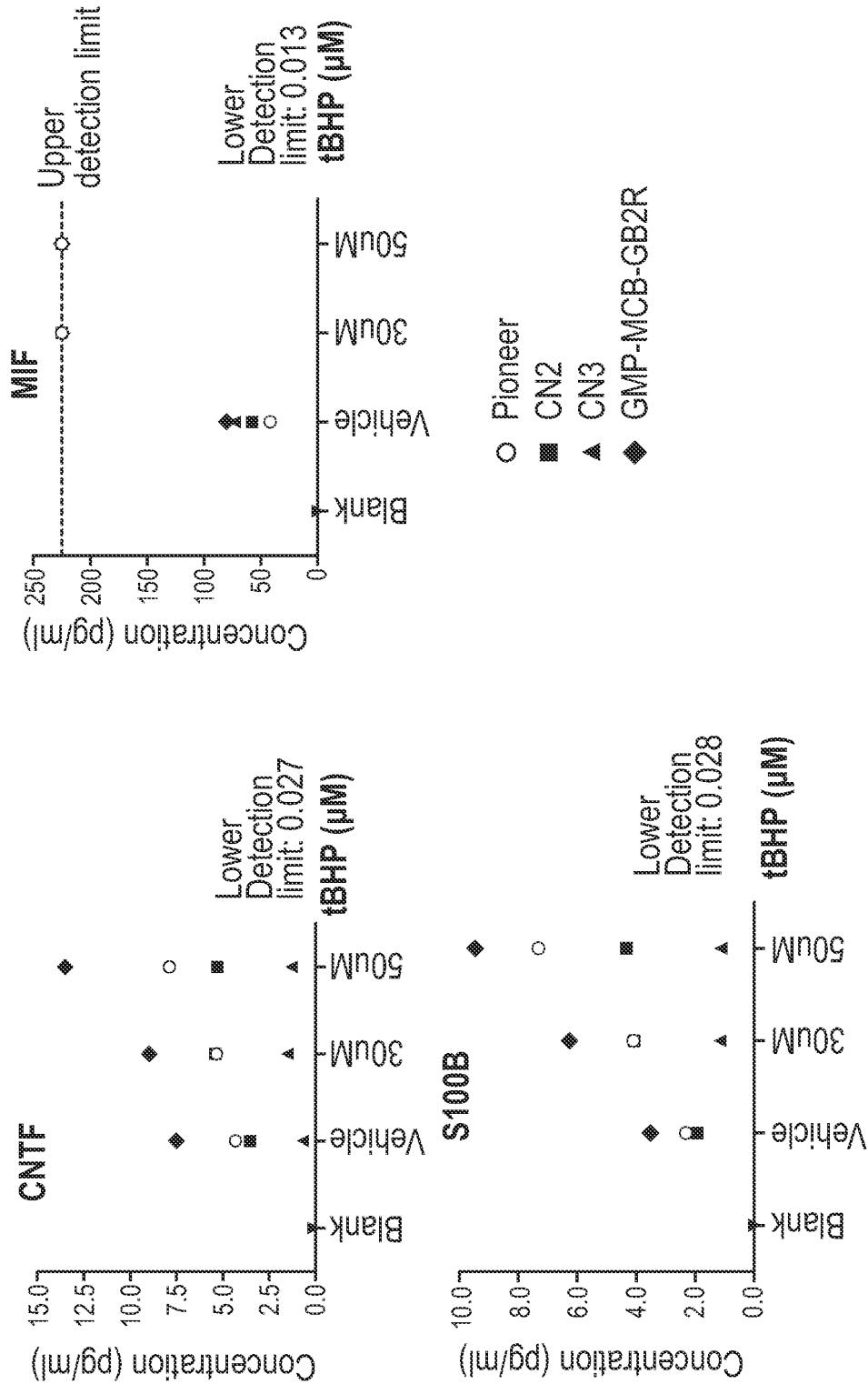


FIG. 3A



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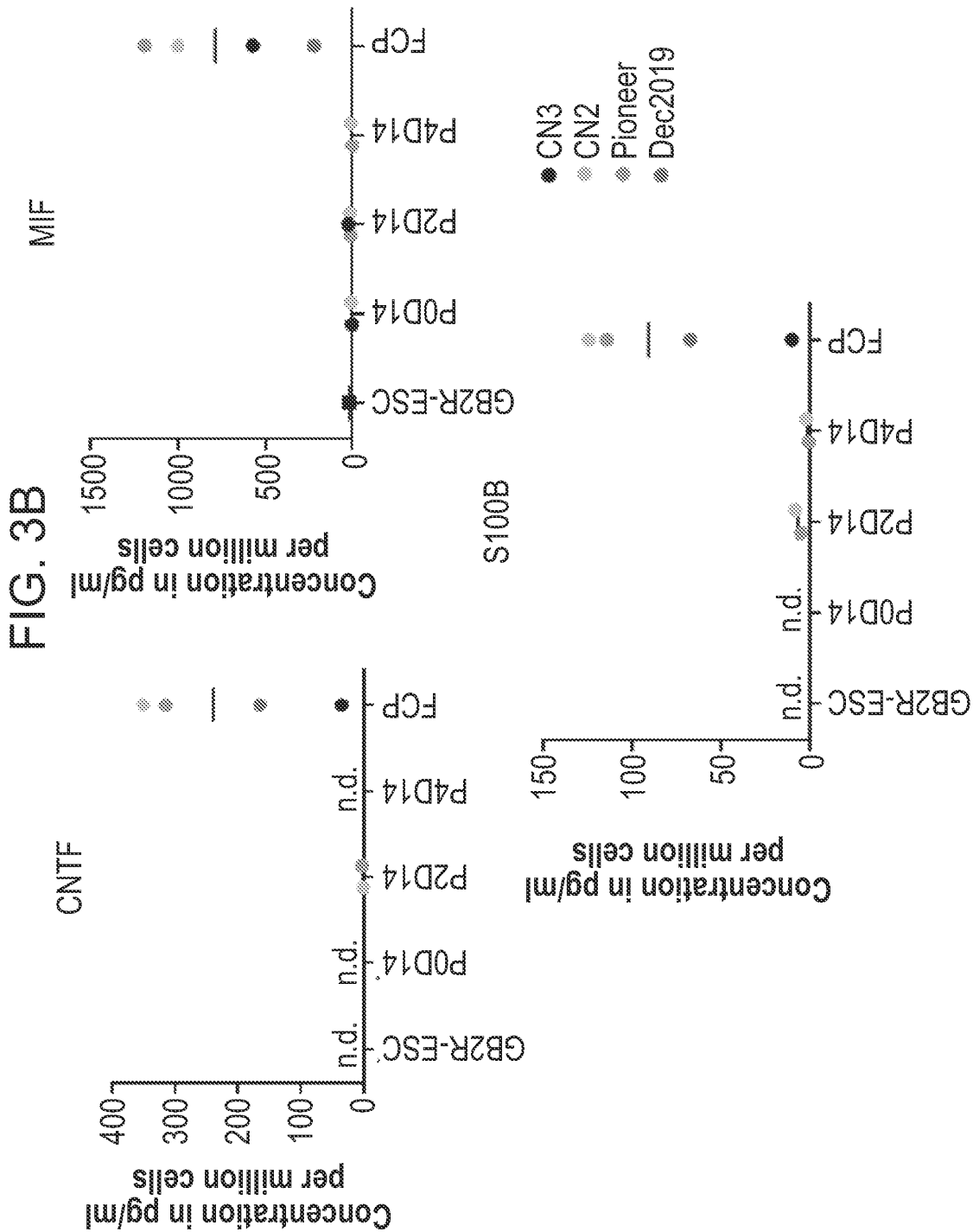


FIG. 3C

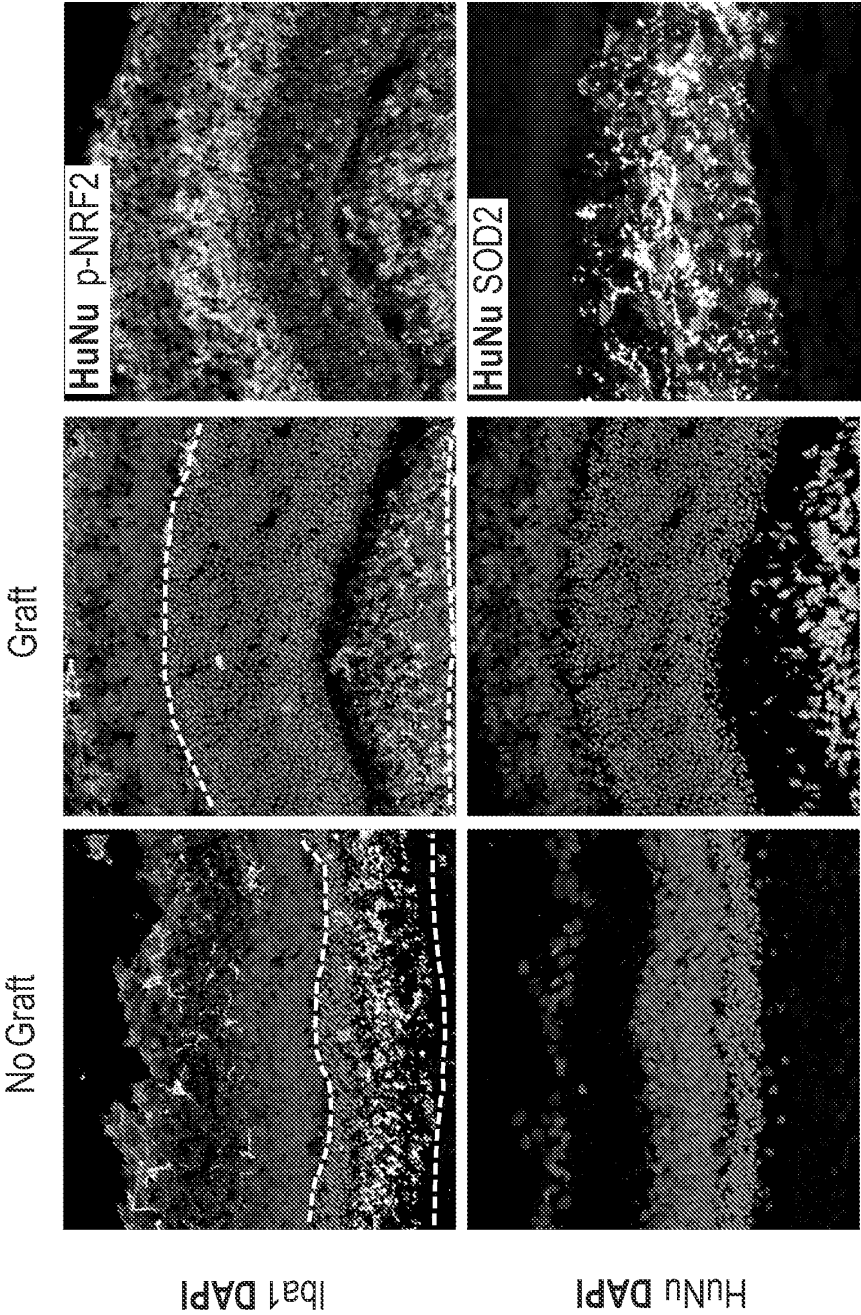


FIG. 3D

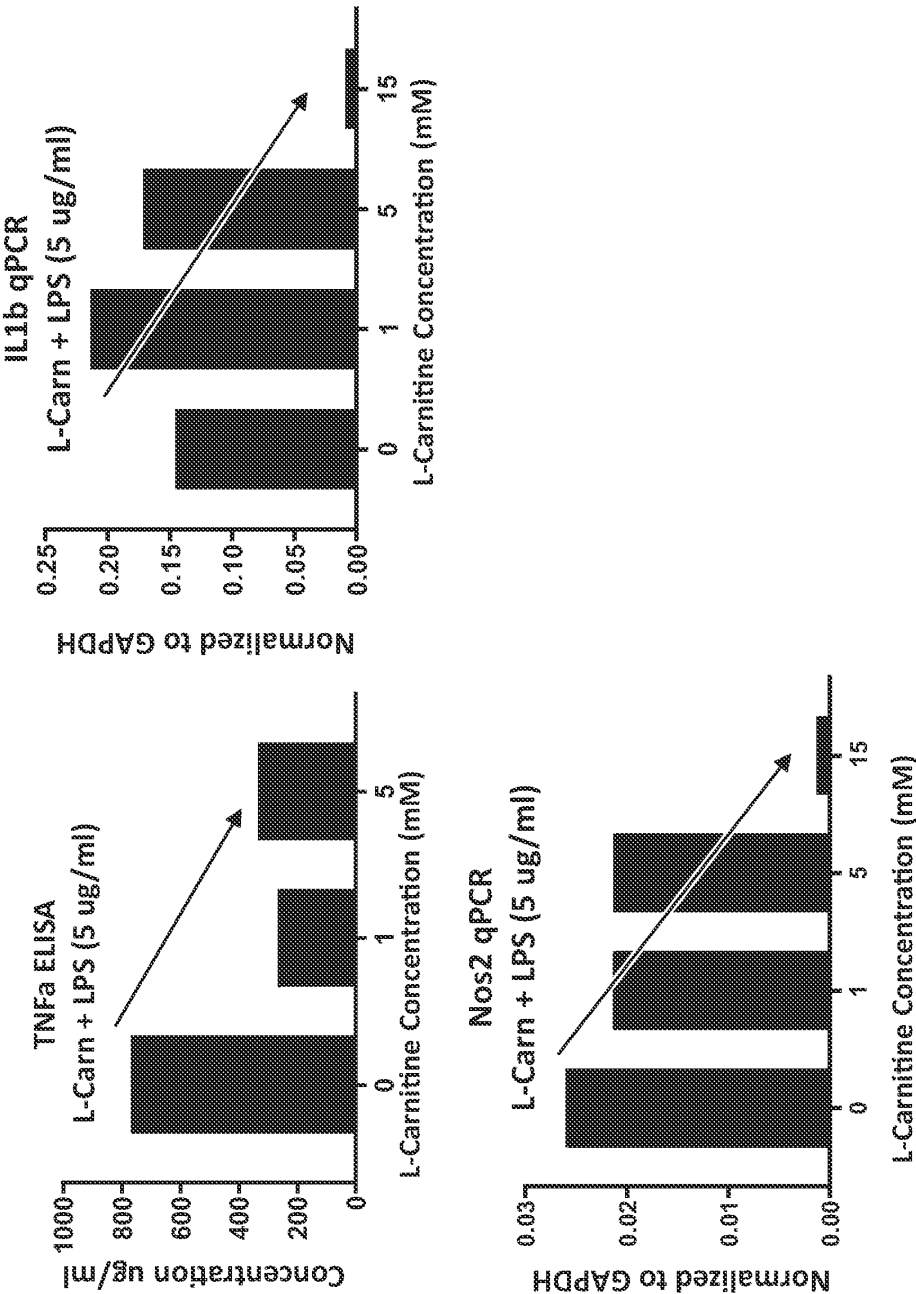


FIG. 3E

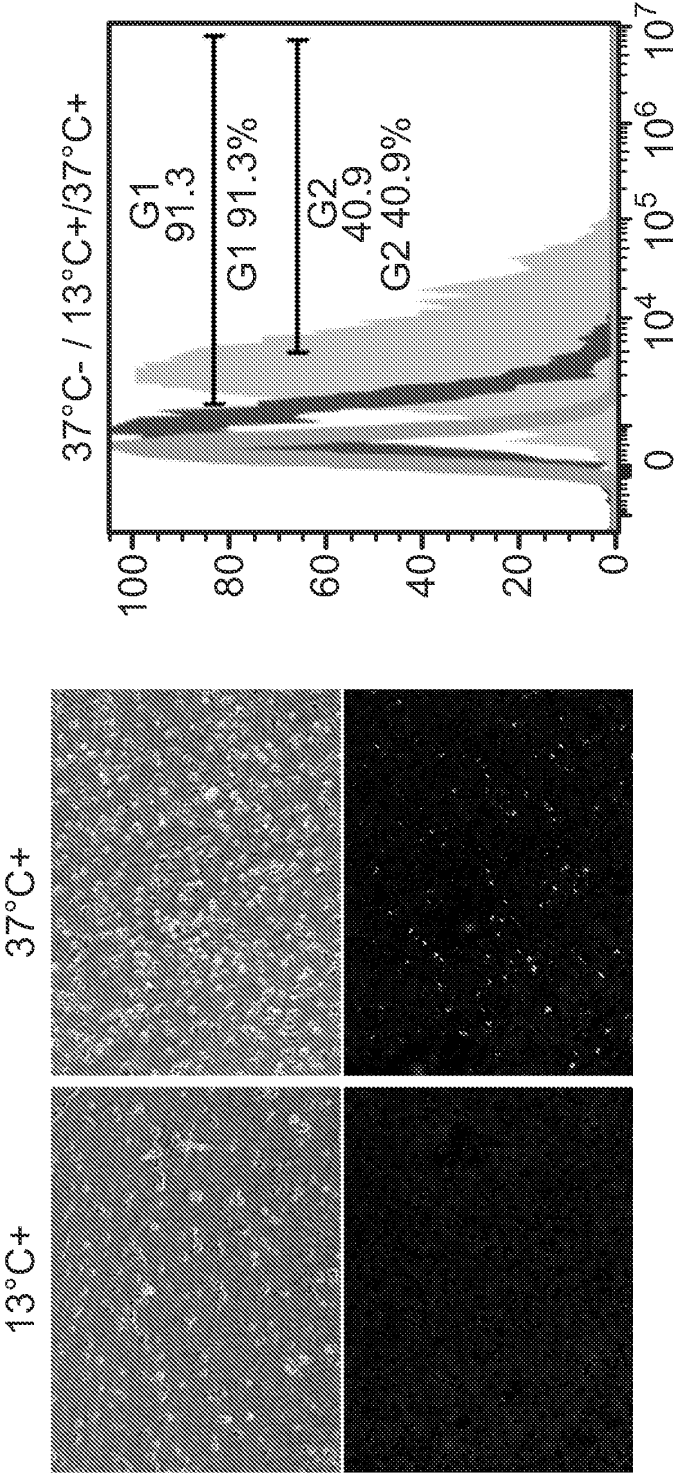


FIG. 3F

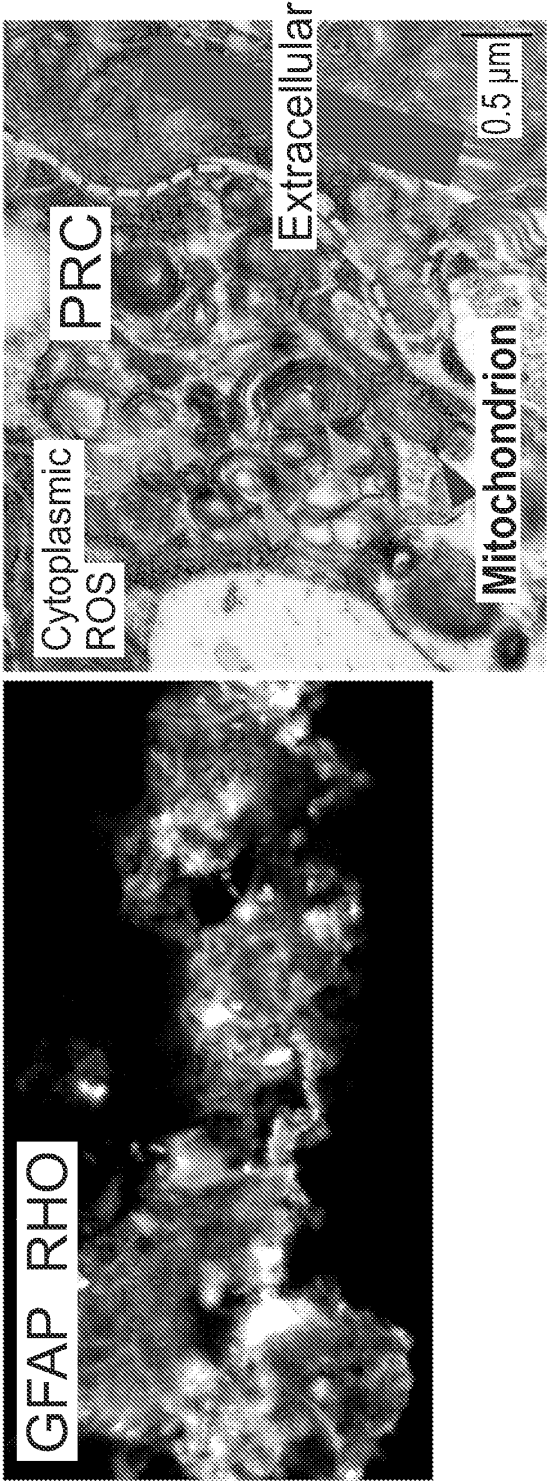
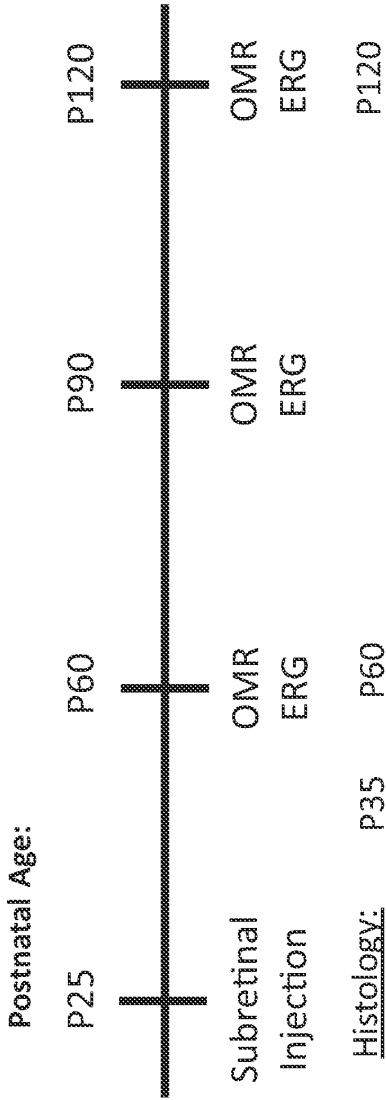
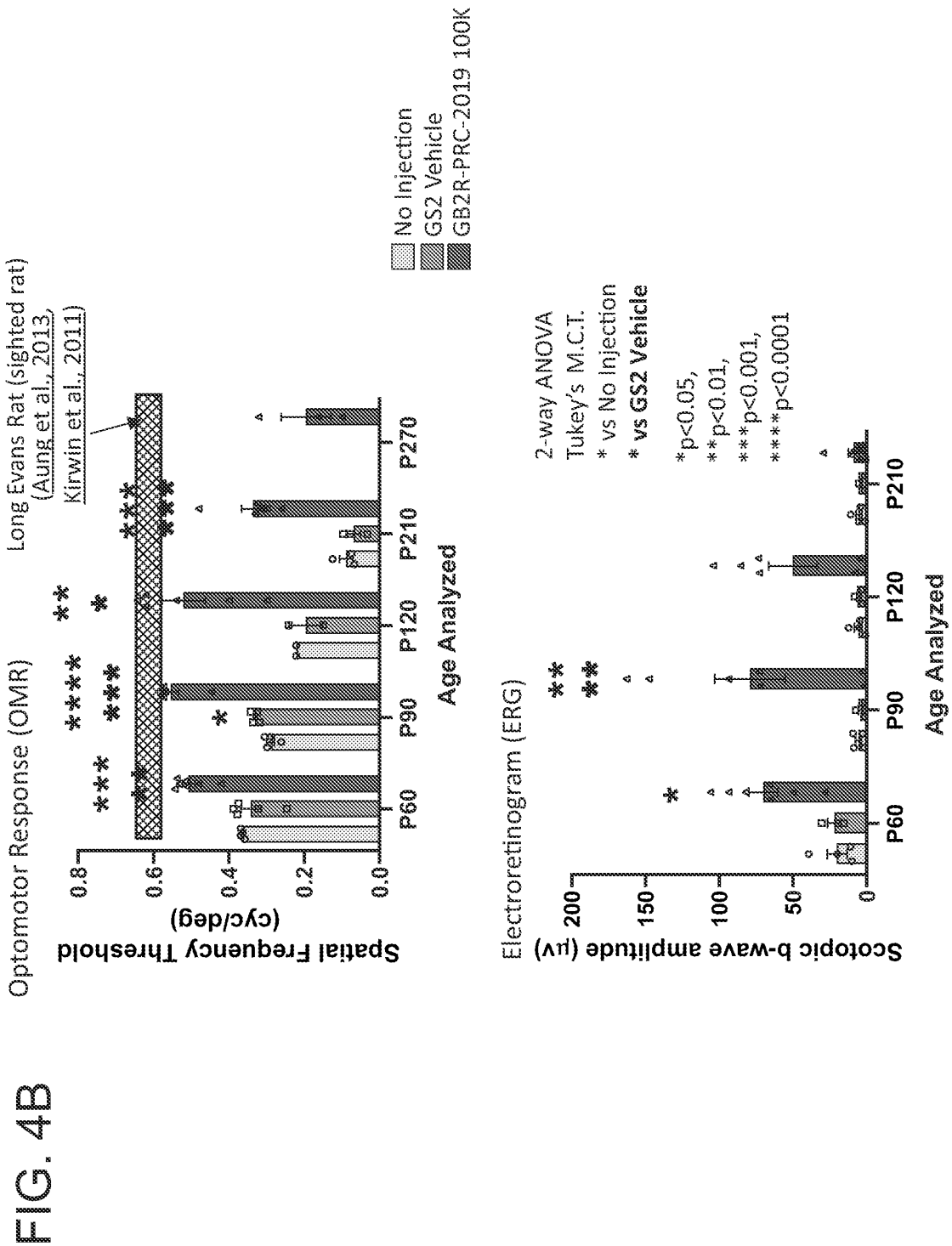


FIG. 4A

Model: RCS Rat (homozygous)

- Dose: 16.5-200k/subretinal injection
- Monocular injection
- Vehicle or Non-injected partner eye





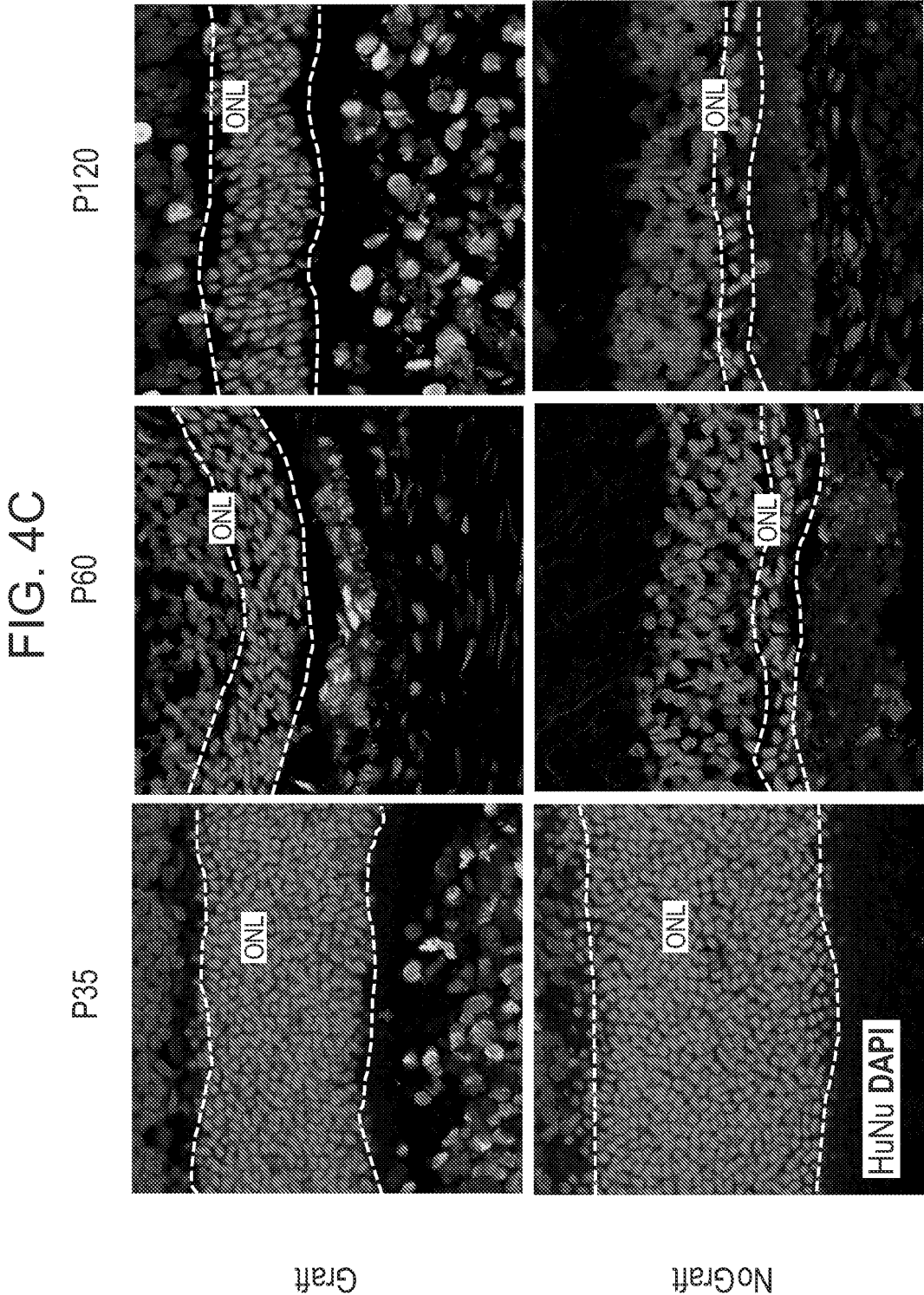


FIG. 4E

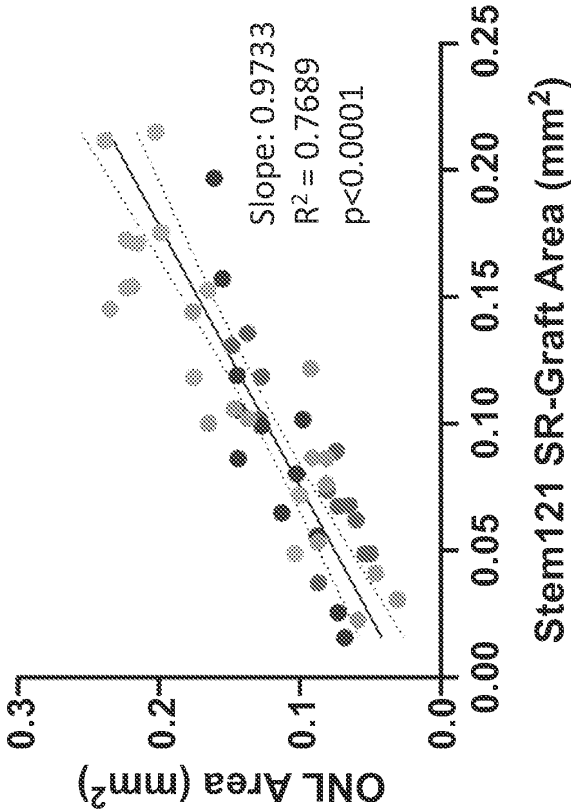


FIG. 4D

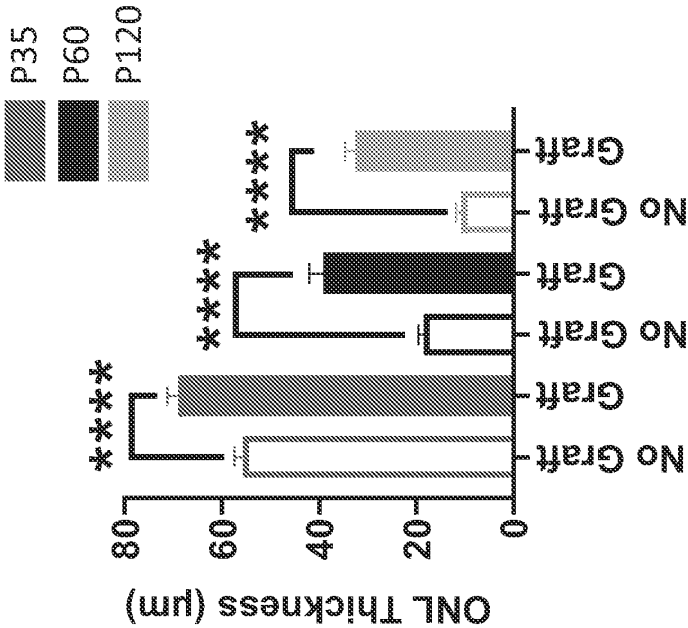
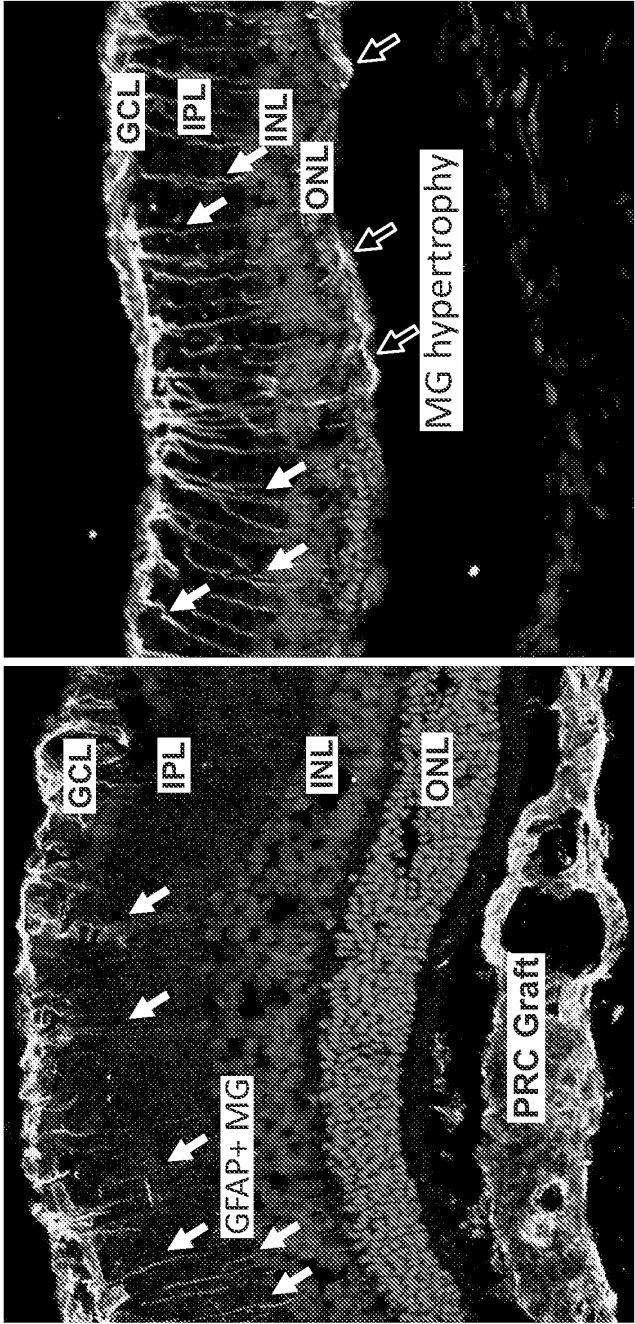


FIG. 5A

Graft Site Distal to Graft Site



GFAP STEM121 DAPI

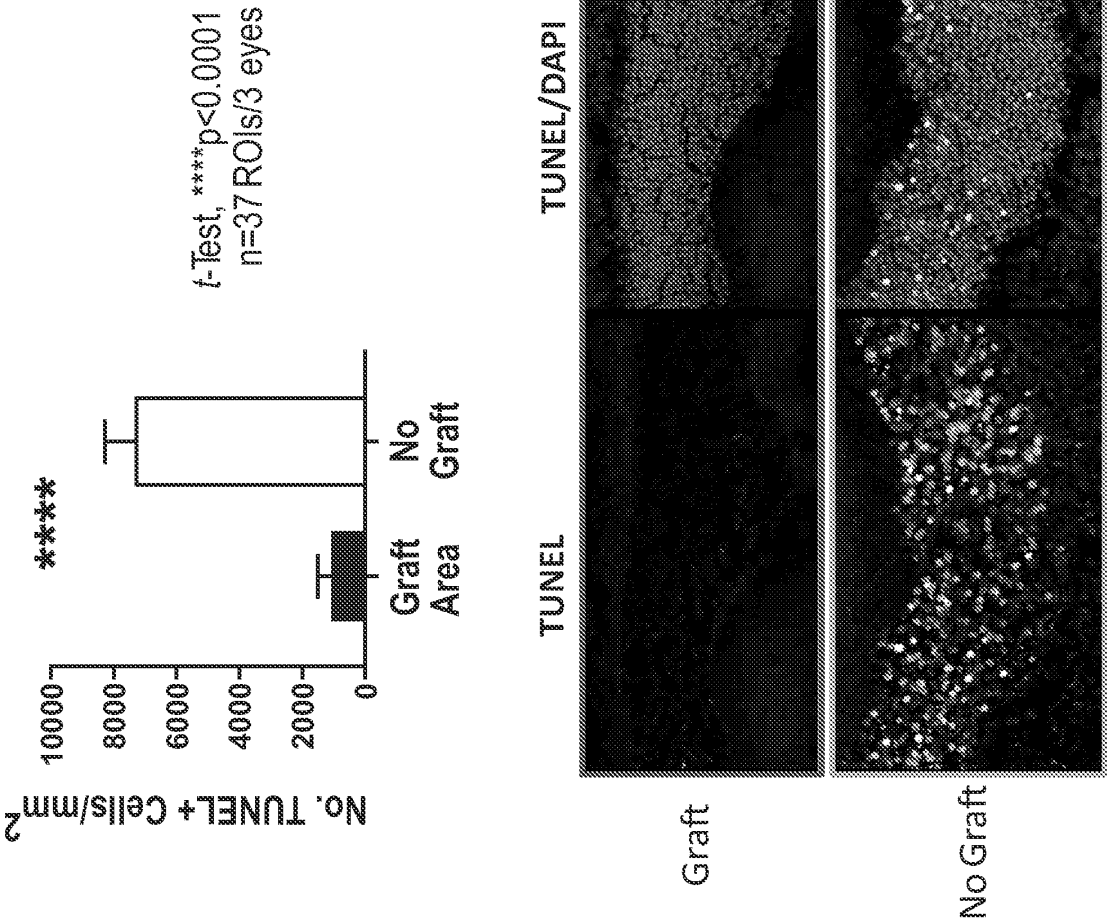
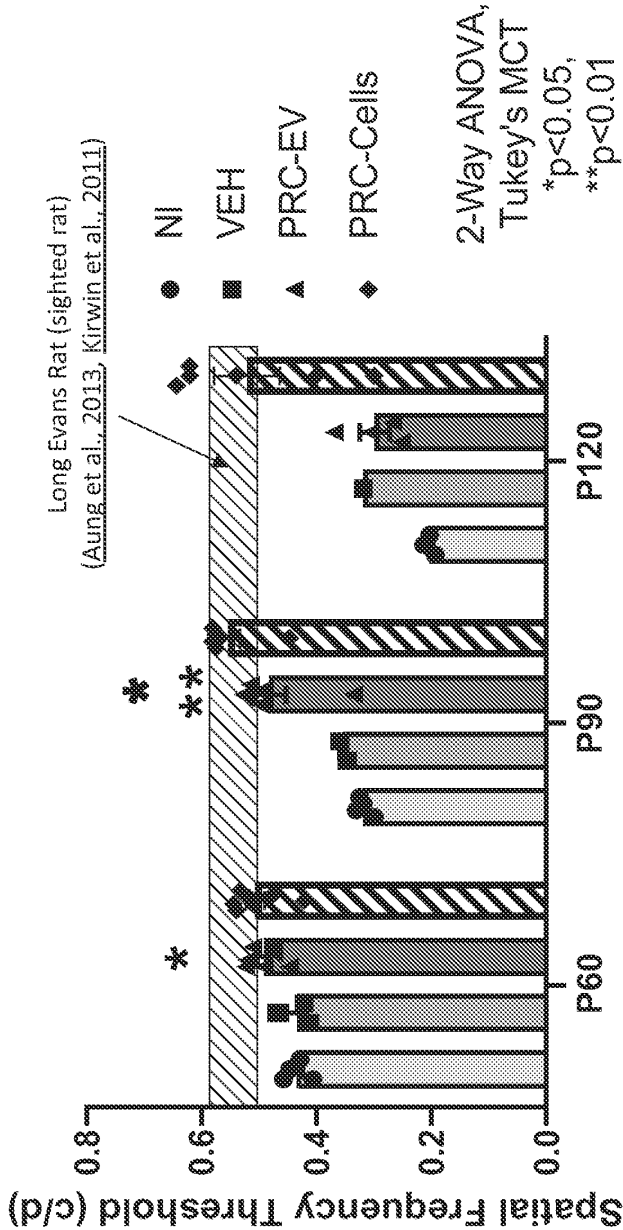


FIG. 5C



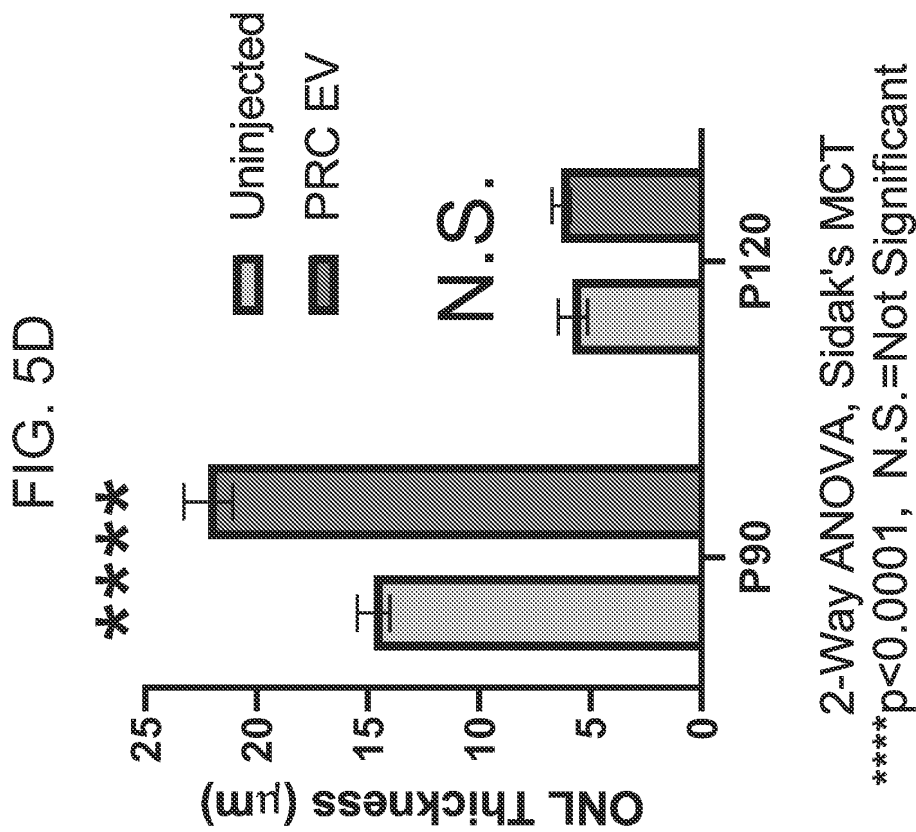


FIG. 5E

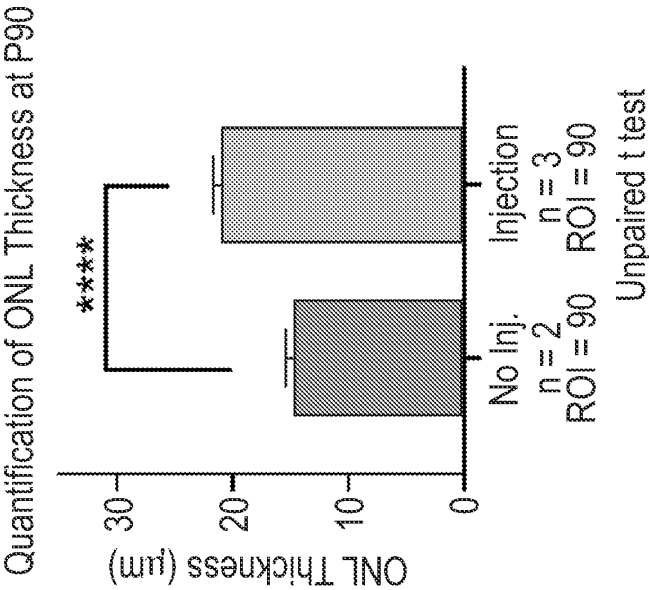
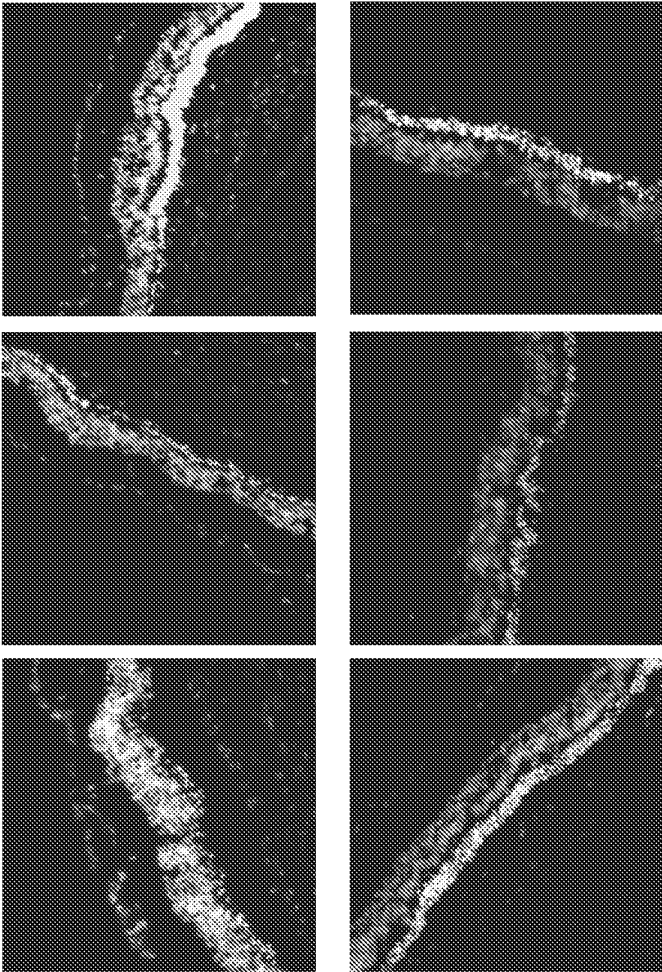
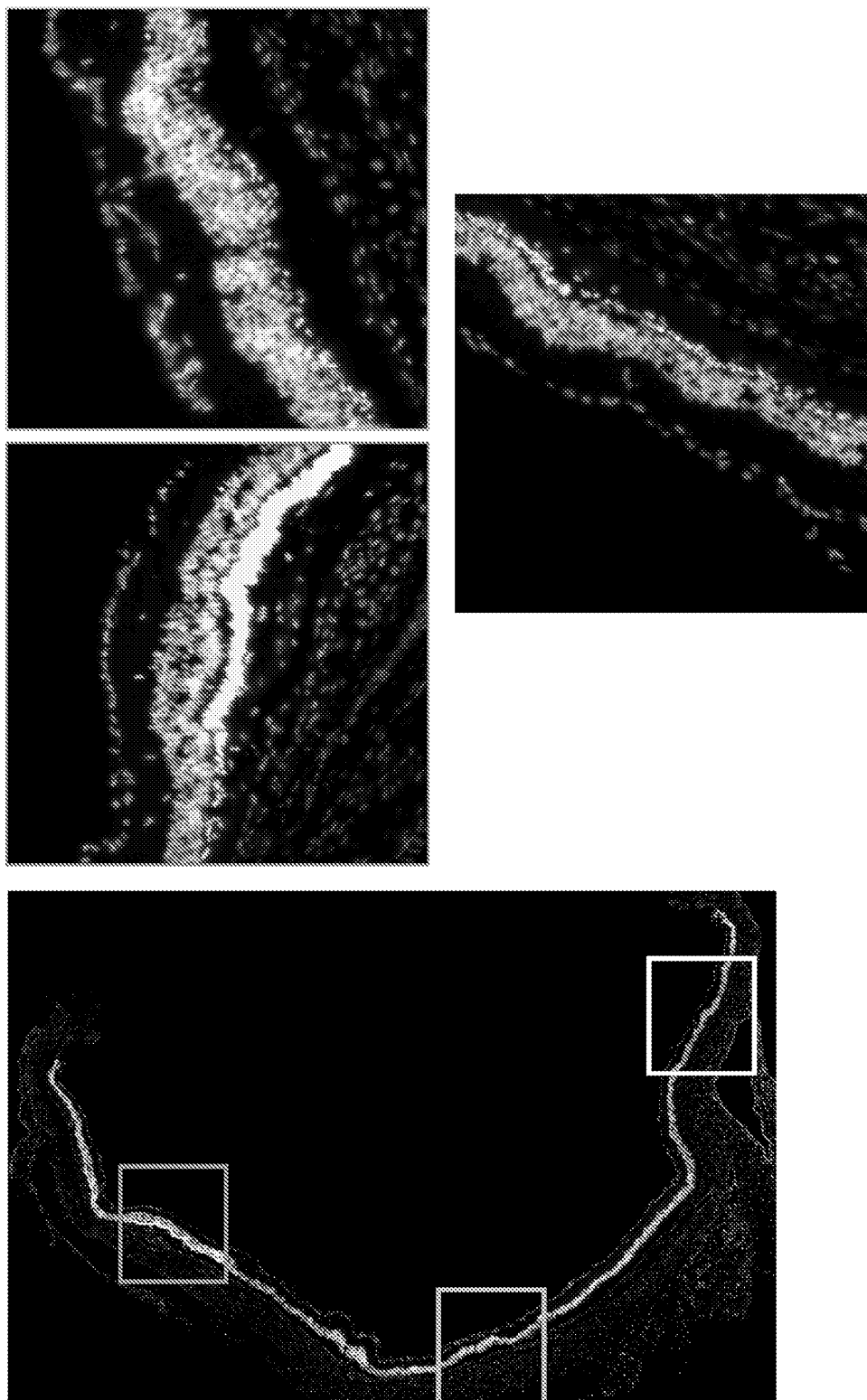


FIG. 5F



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FIG. 5G

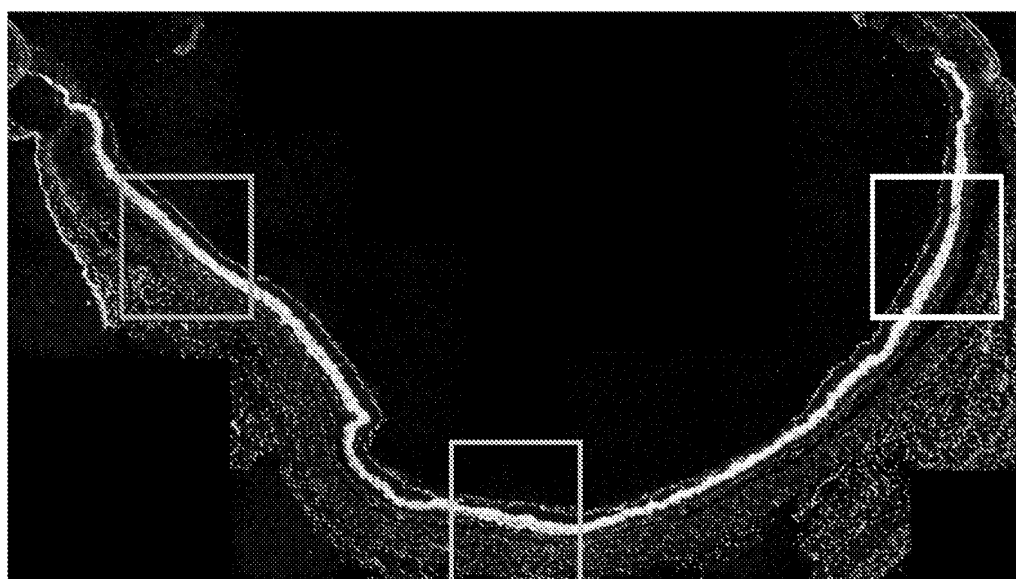
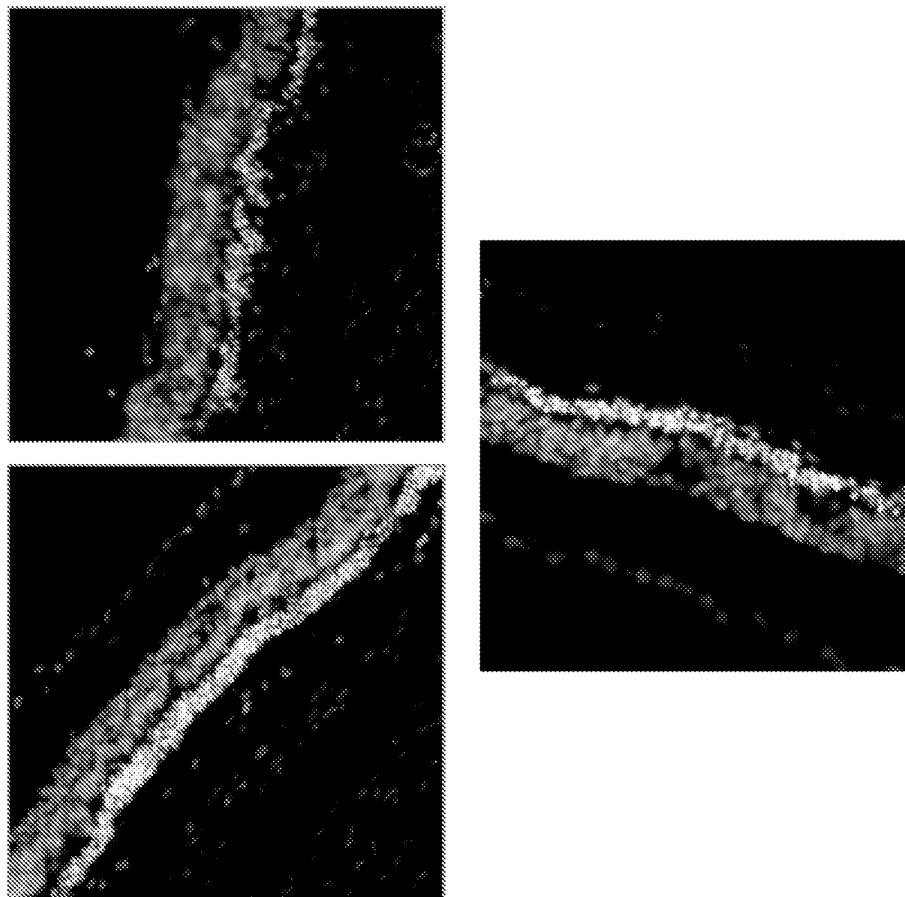
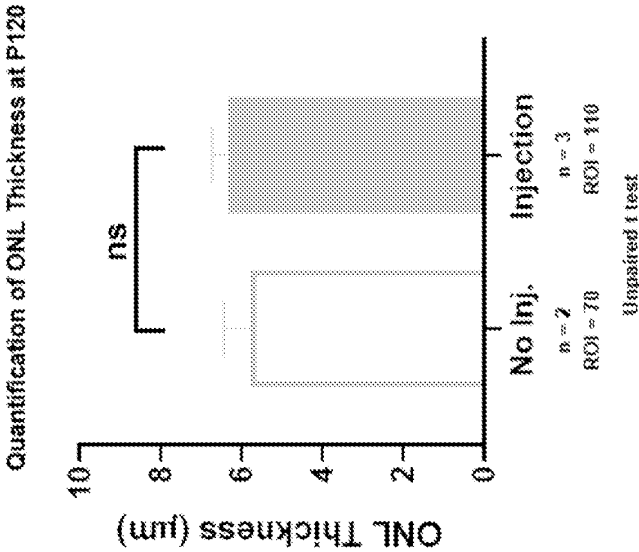
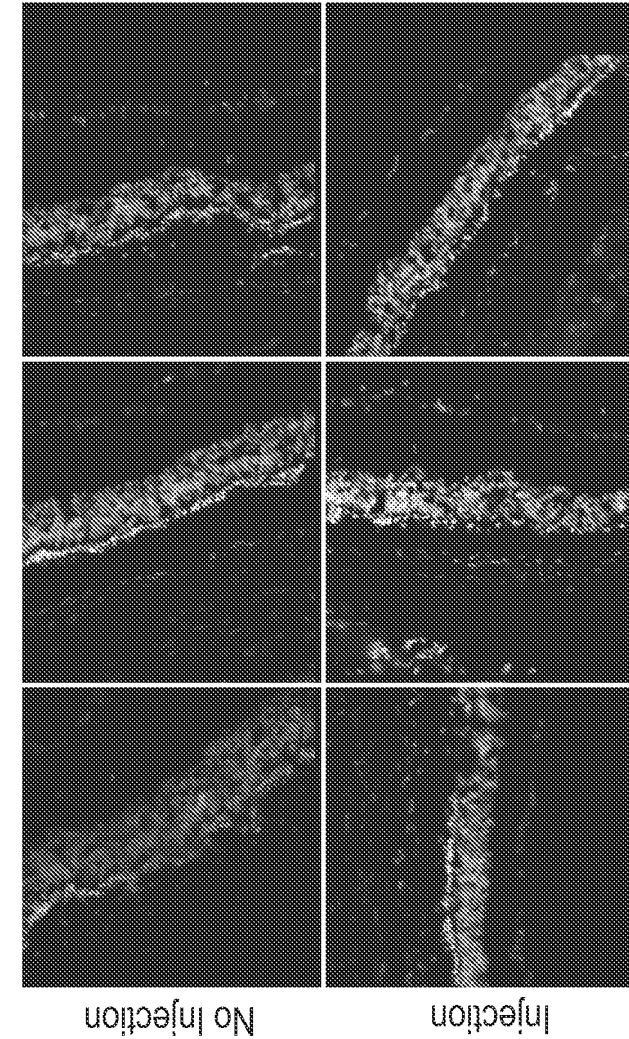
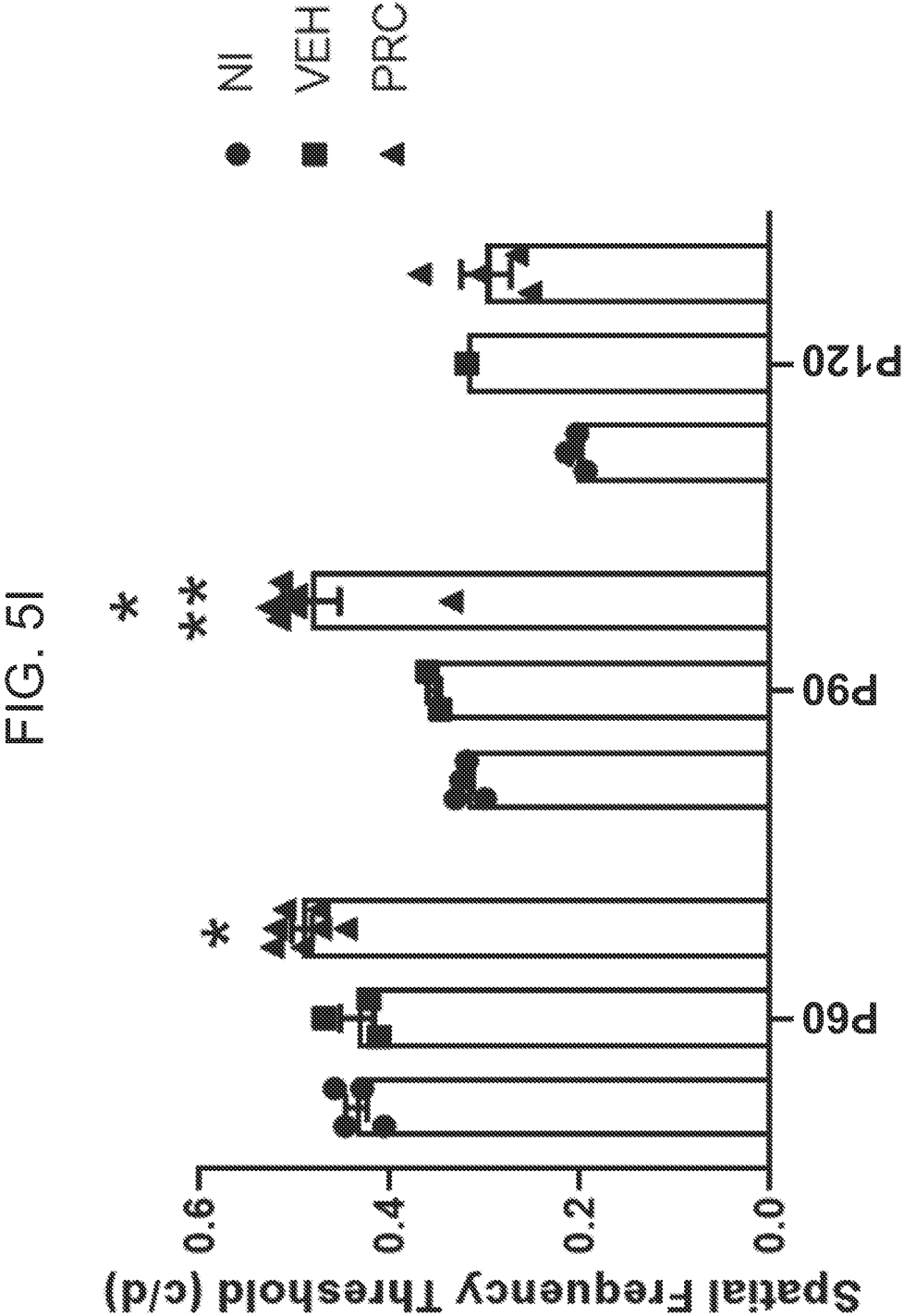
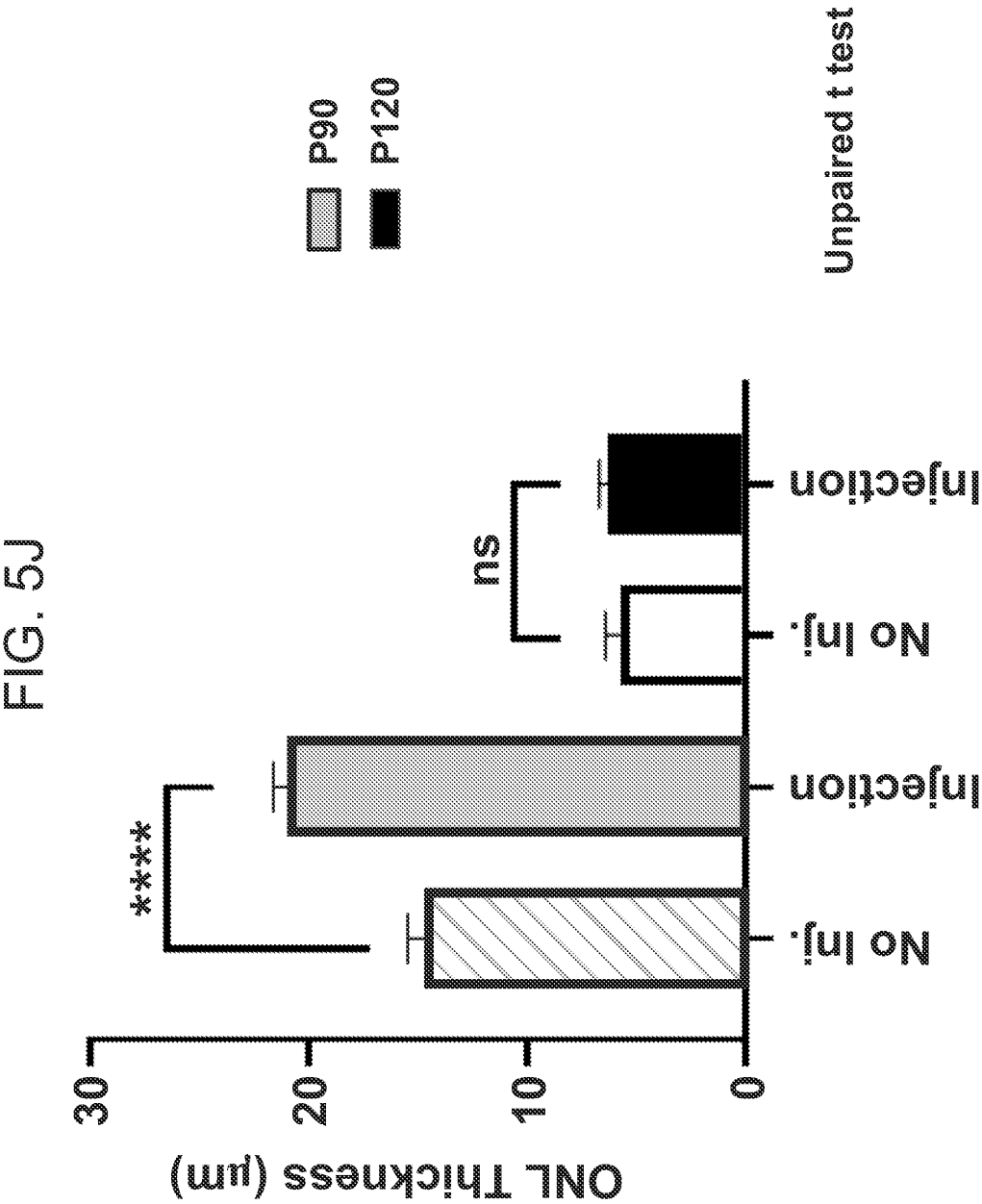
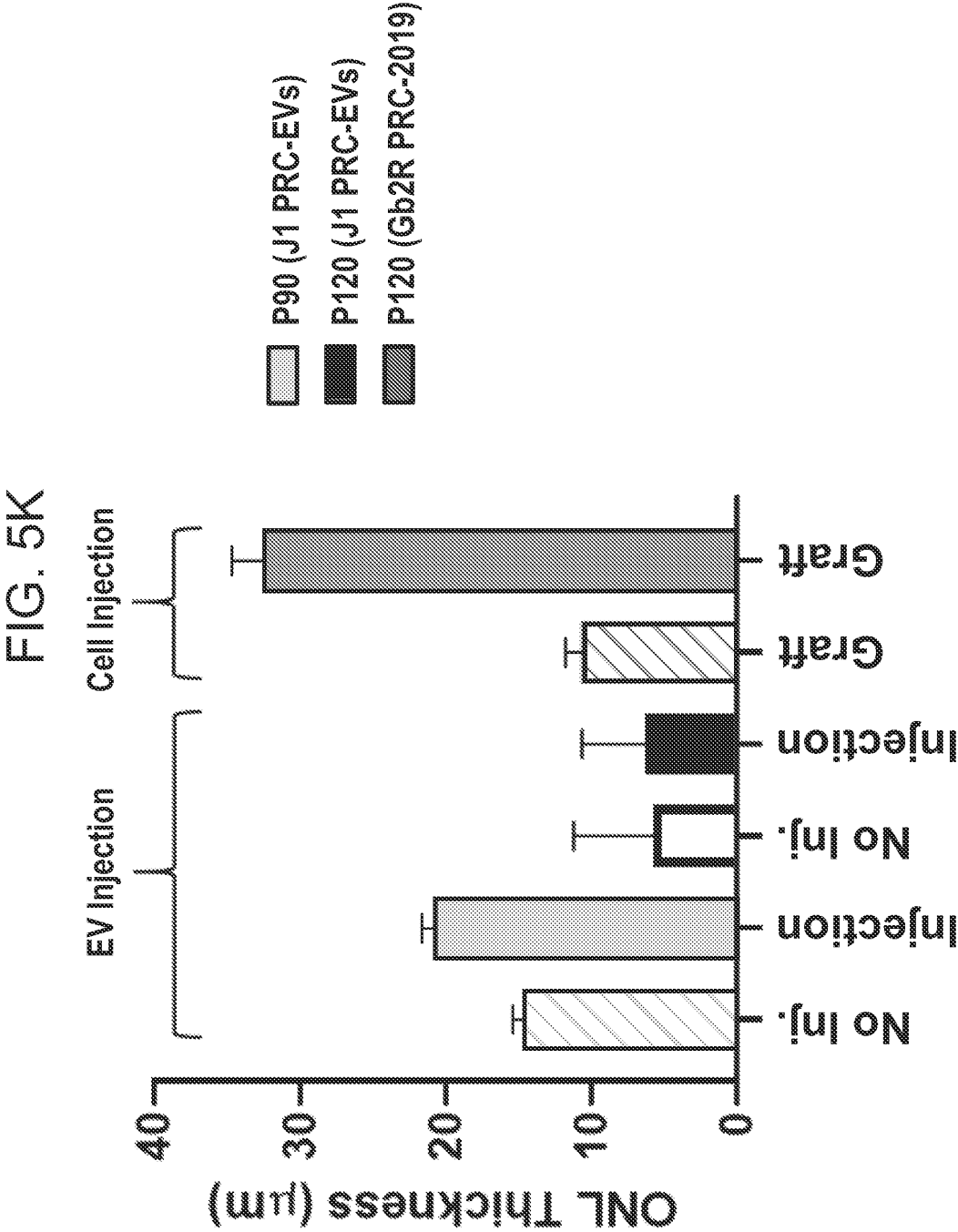


FIG. 5H









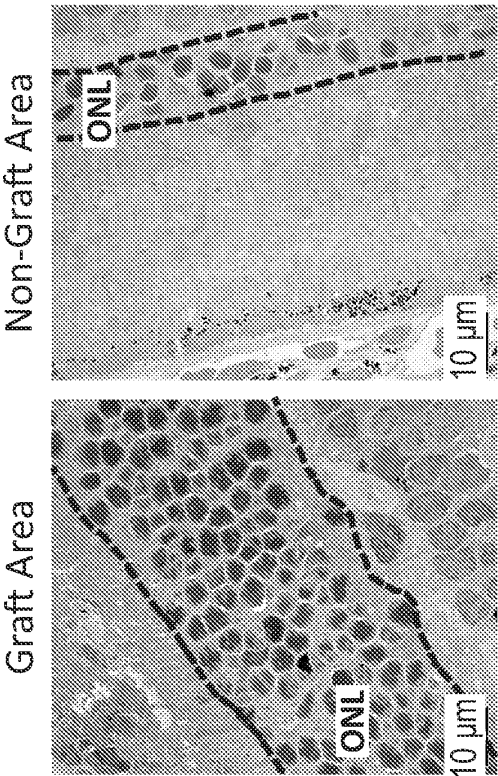
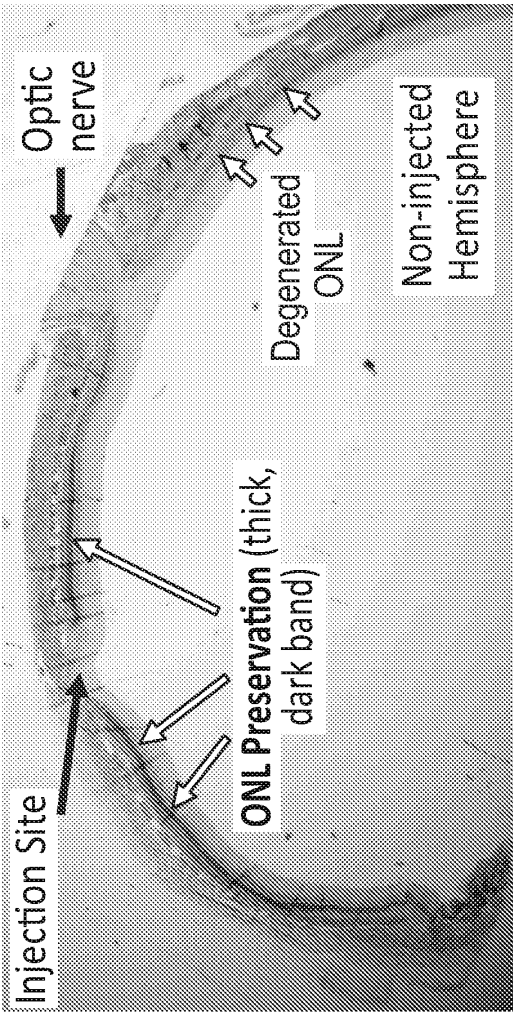
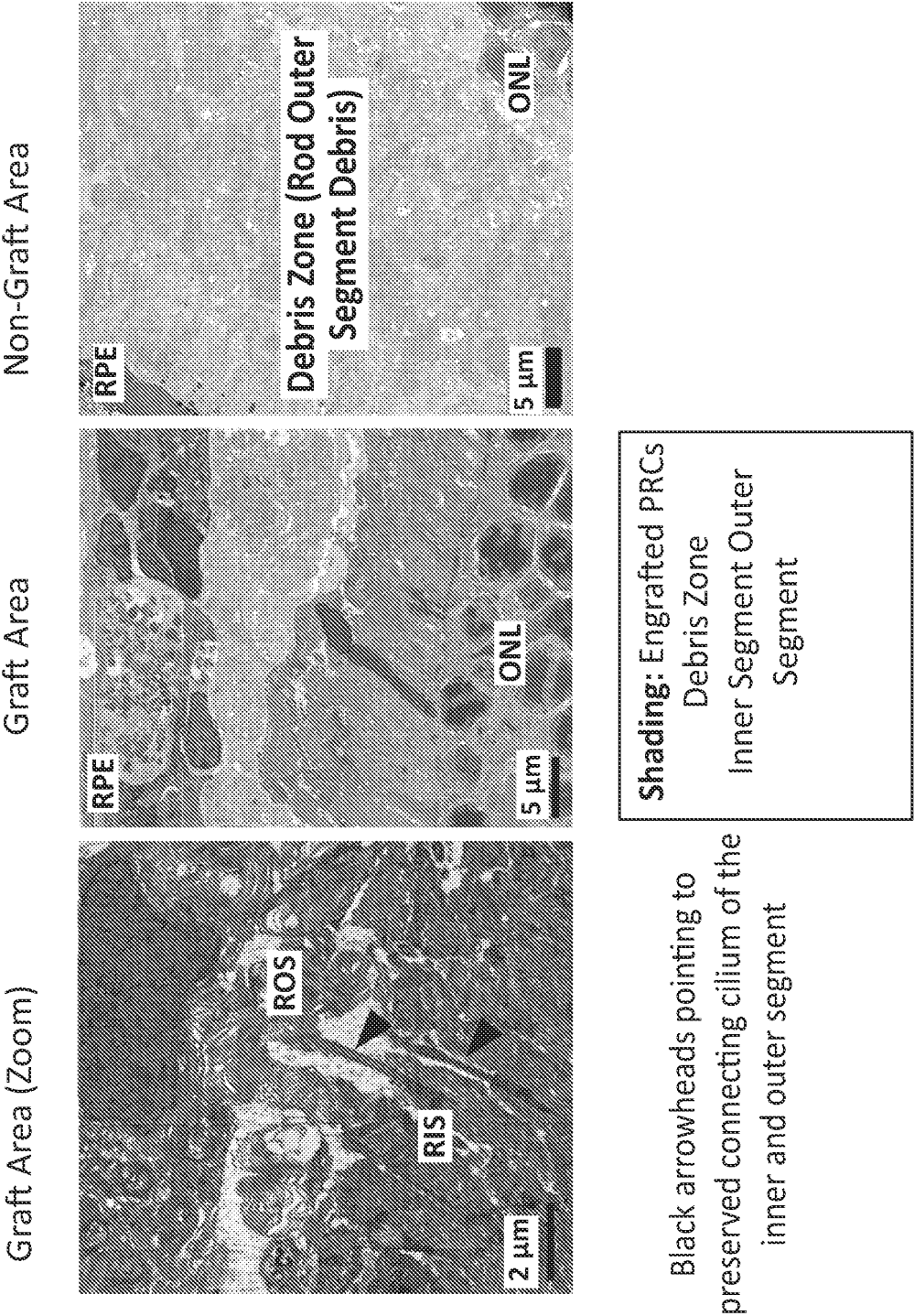


FIG. 6C



Model: rd10 Mouse (homozygous)

- Dose: 100k/subretinal injection
- Monocular injection
- Vehicle-injected partner eye

Postnatal Age:

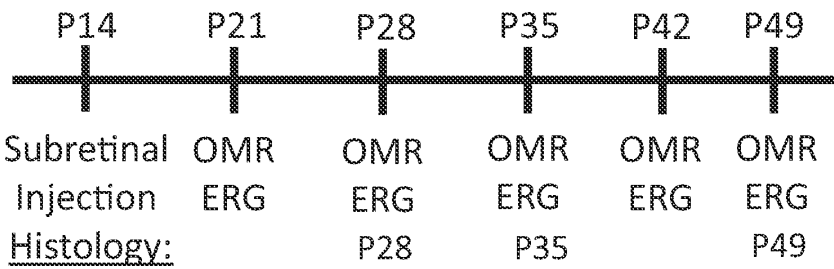


FIG. 7A

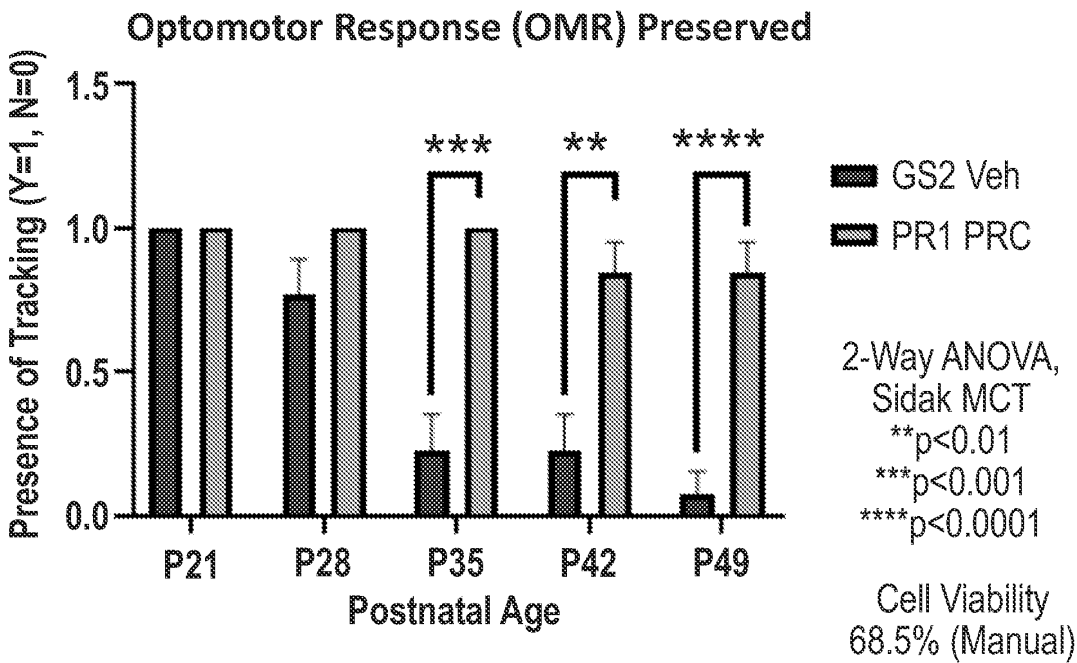


FIG. 7B

FIG. 7C

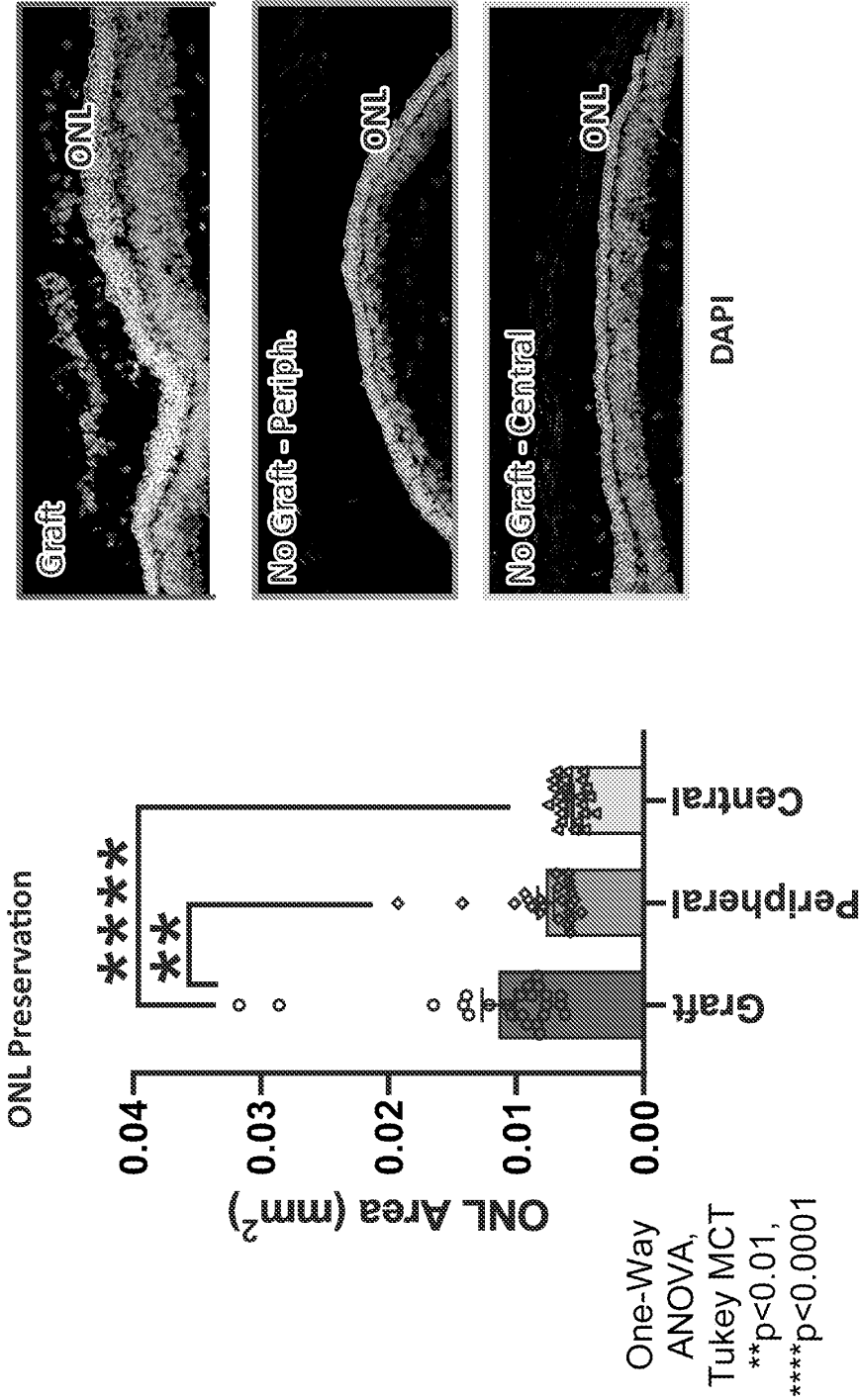


FIG. 7D

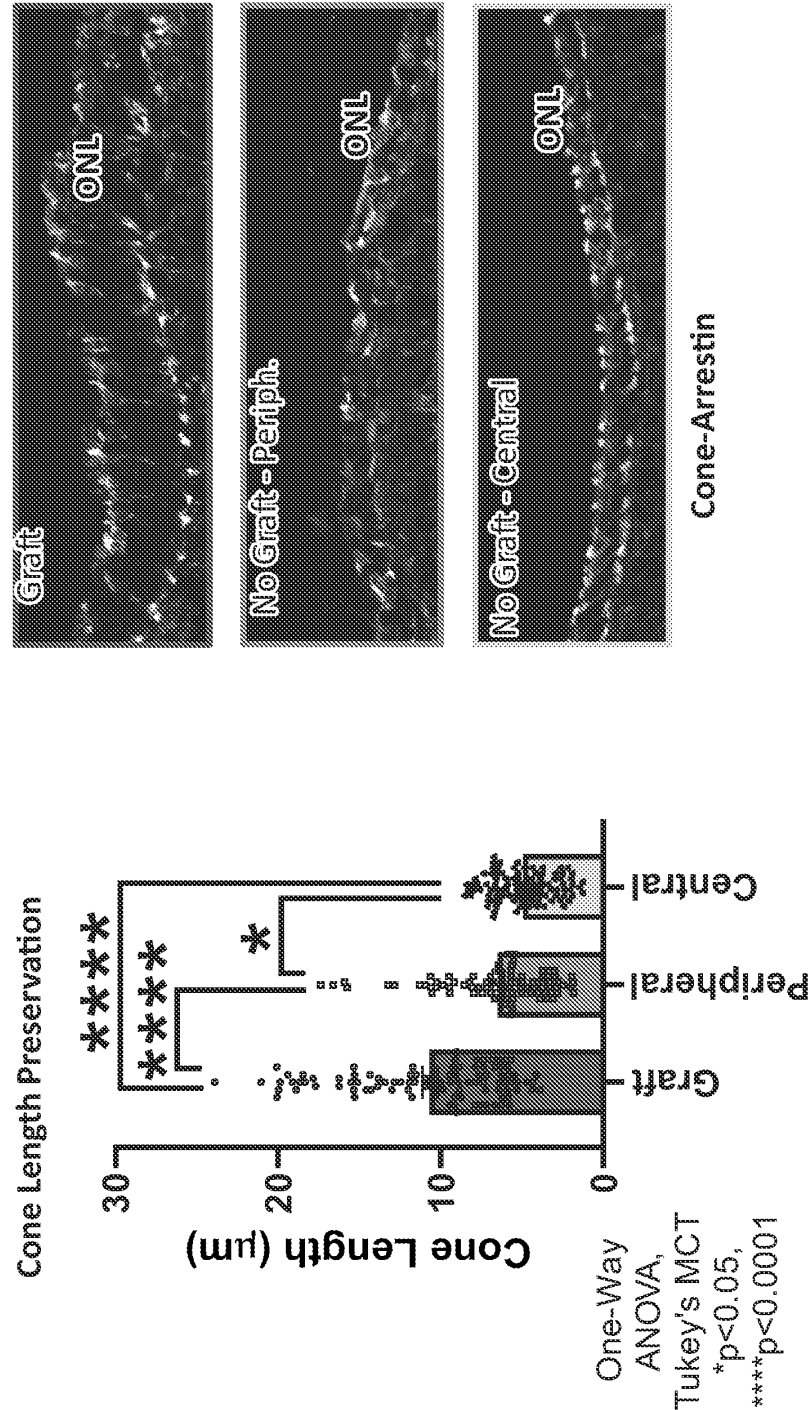


FIG. 7E

P28 Early Timepoint:
Rod synapses preserved

RIBEYE Cone-Arrestin DAPI

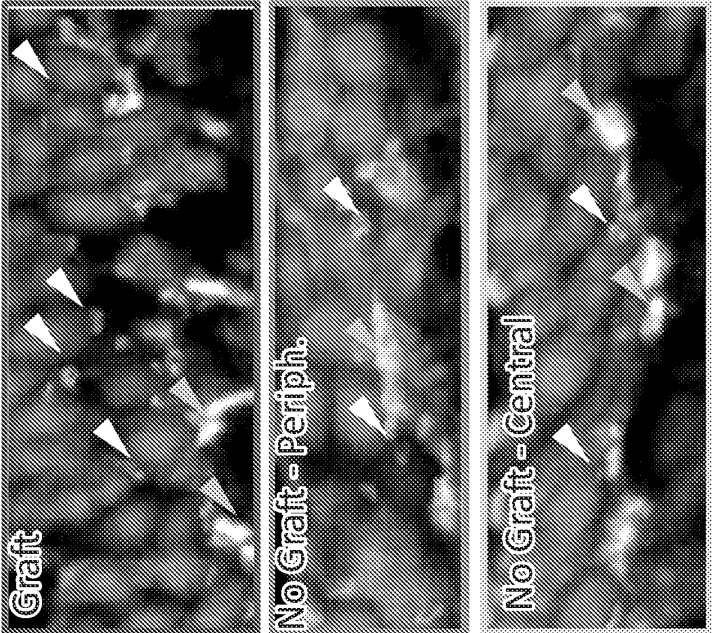


FIG. 7F

Rod Synapses preserved at graft
sites in P28 rd10

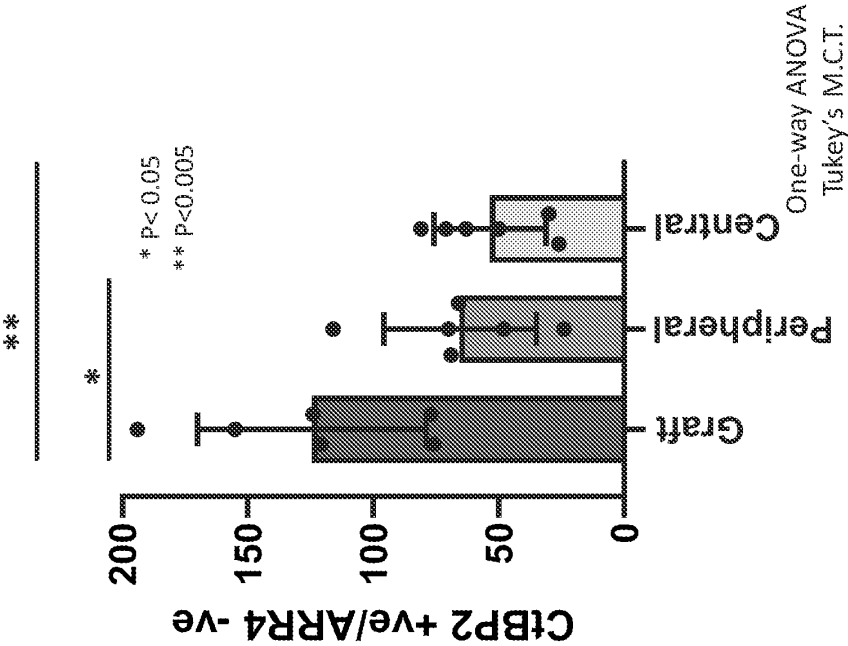
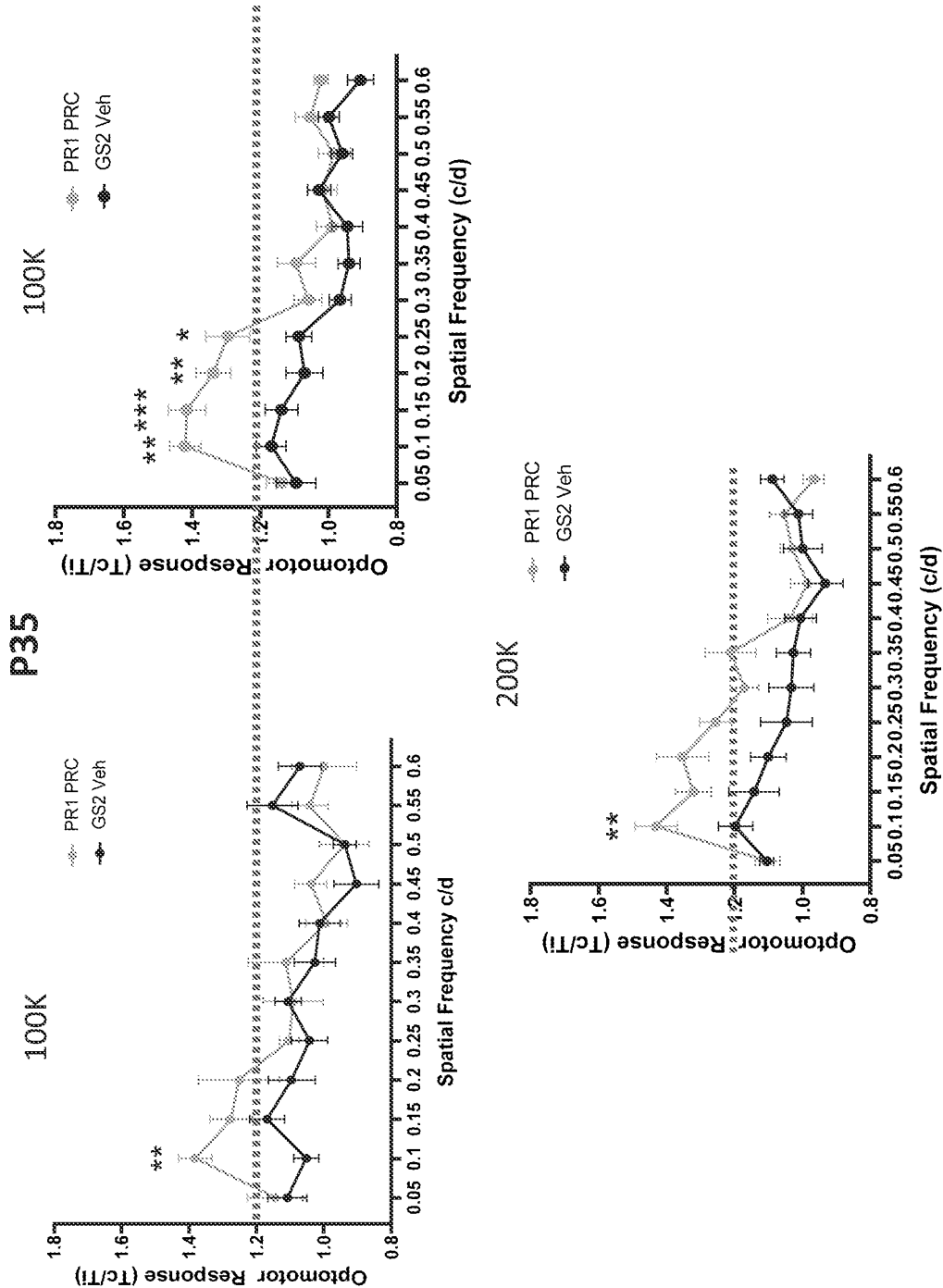


FIG. 8A



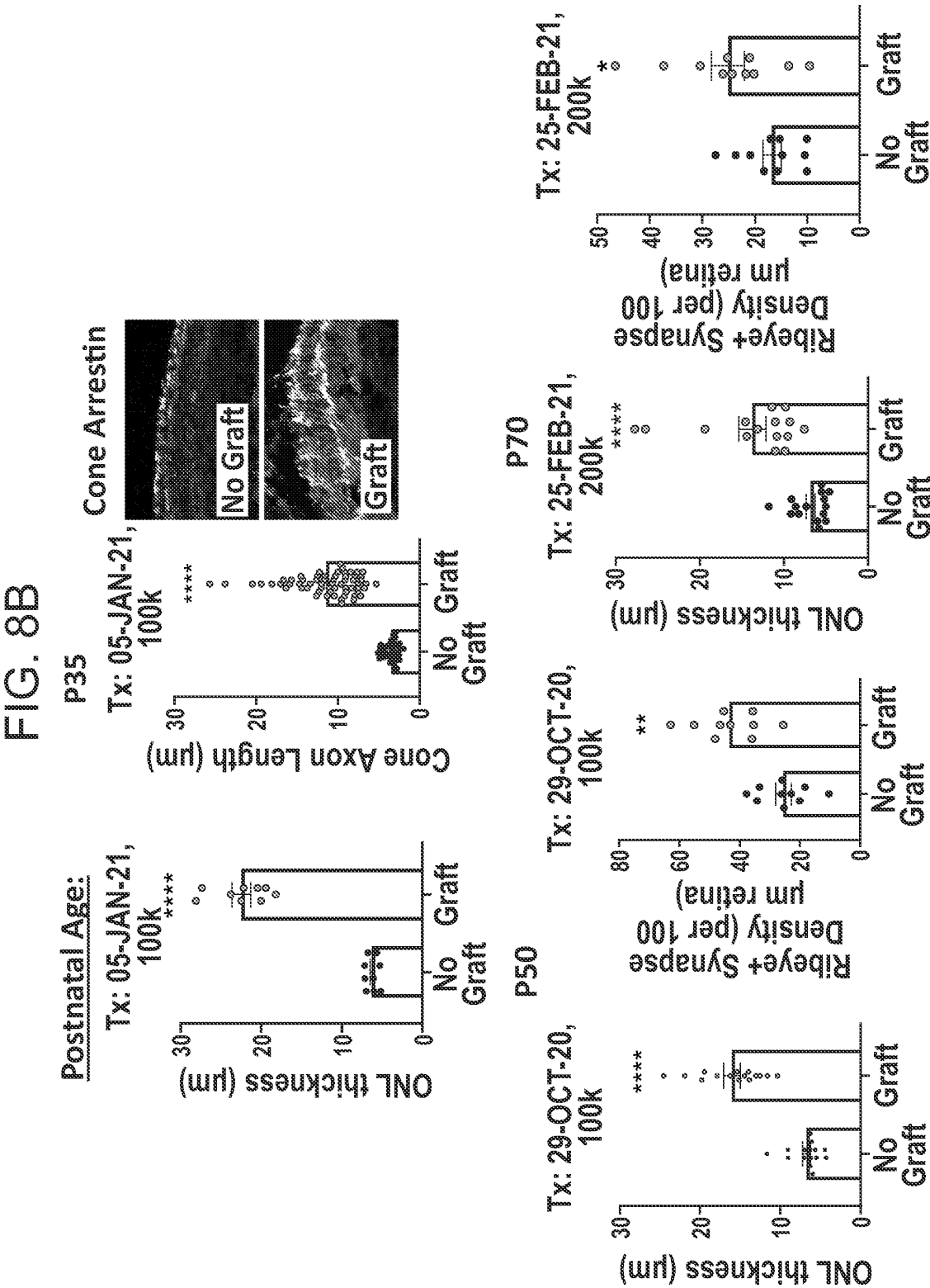
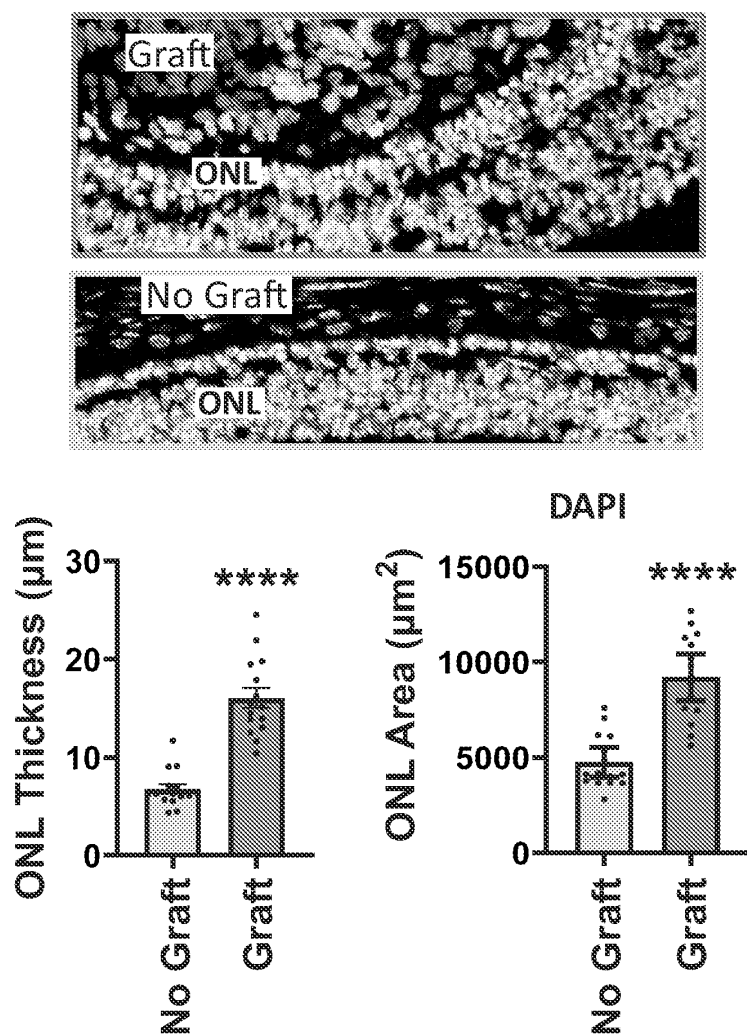


FIG. 9A

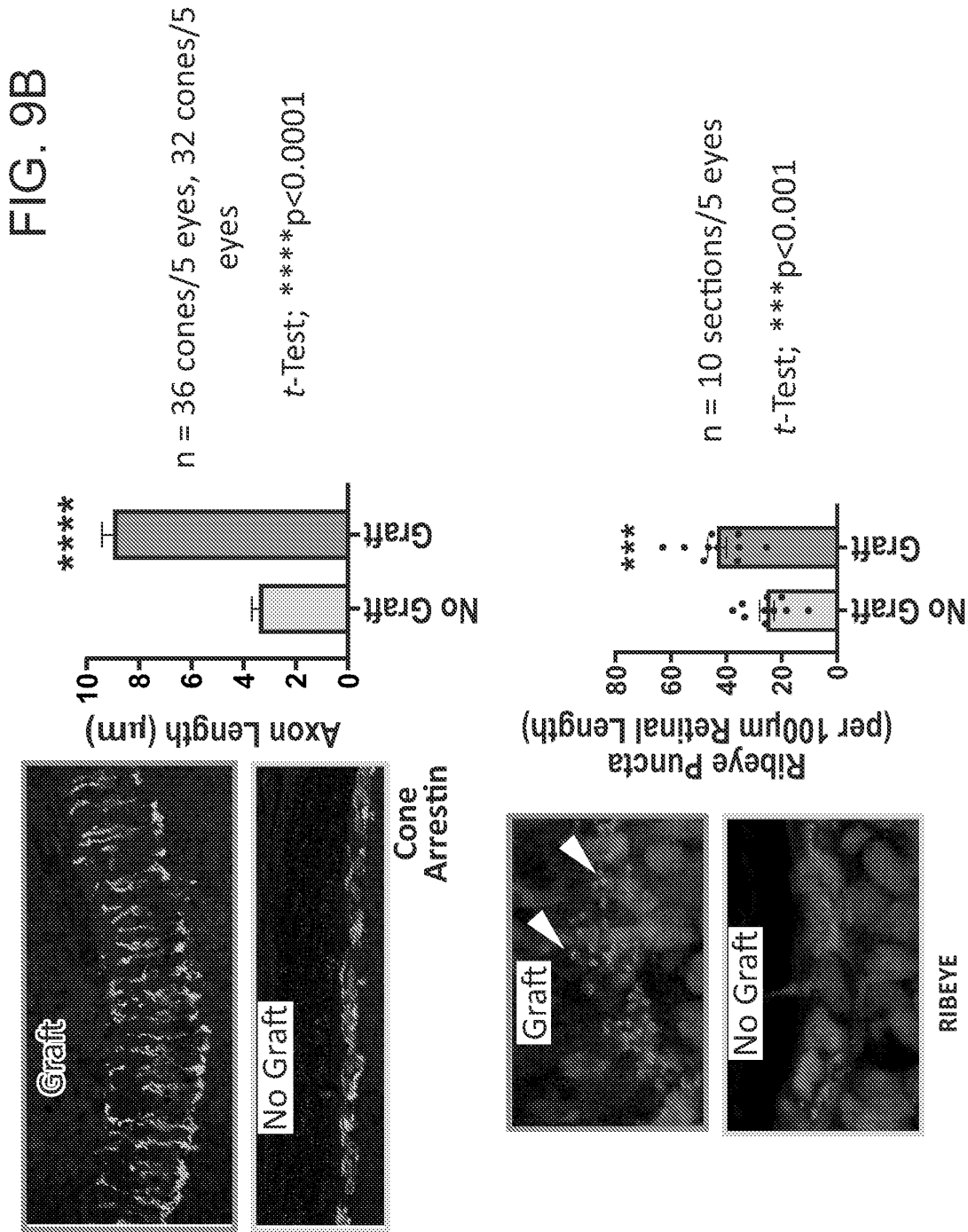


ONL thickness in C57: ~50-55 μm

(Jankowiak et al., 2016)

n = 15 sections/5 eyes

t-Test; ****p<0.0001



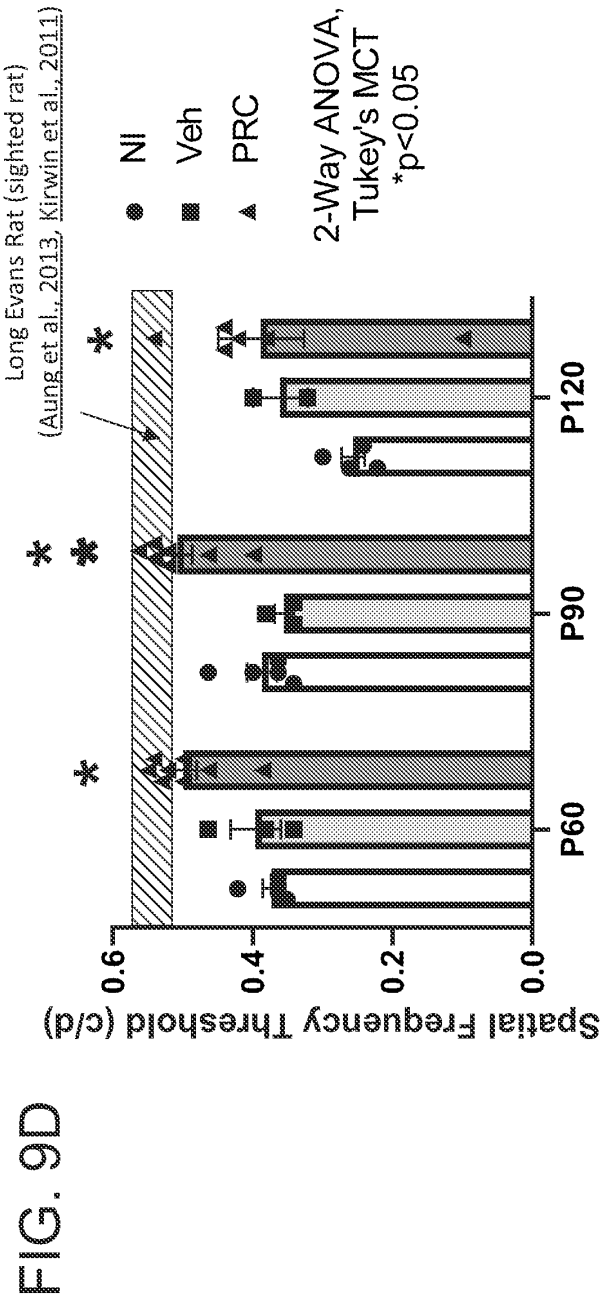
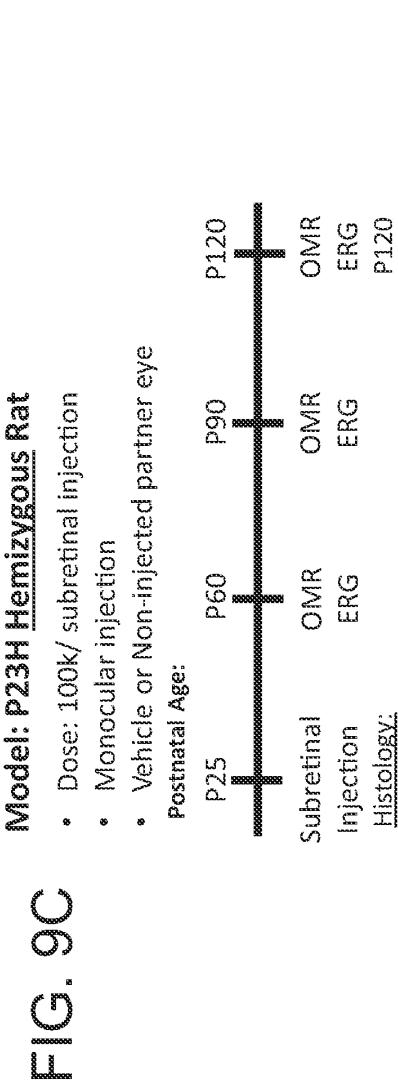


FIG. 10A

Cell Quantification in RCS Rats

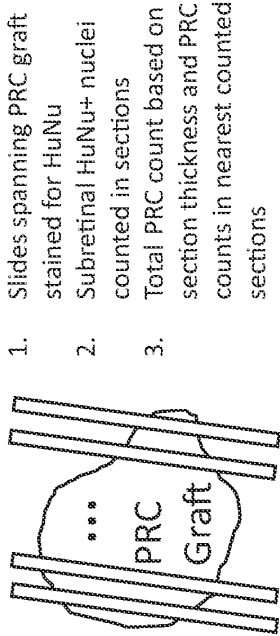


FIG. 10B

At P120 (~3 months post-Tx) in RCS, PRC grafts are similar in size to injected product

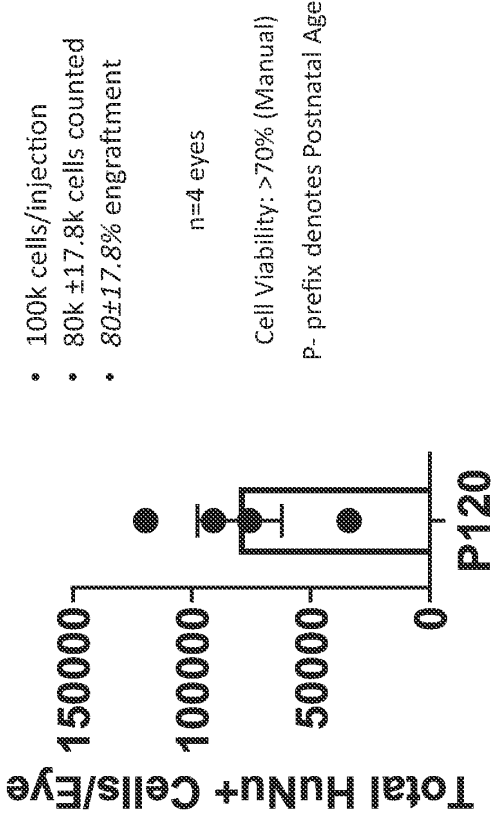
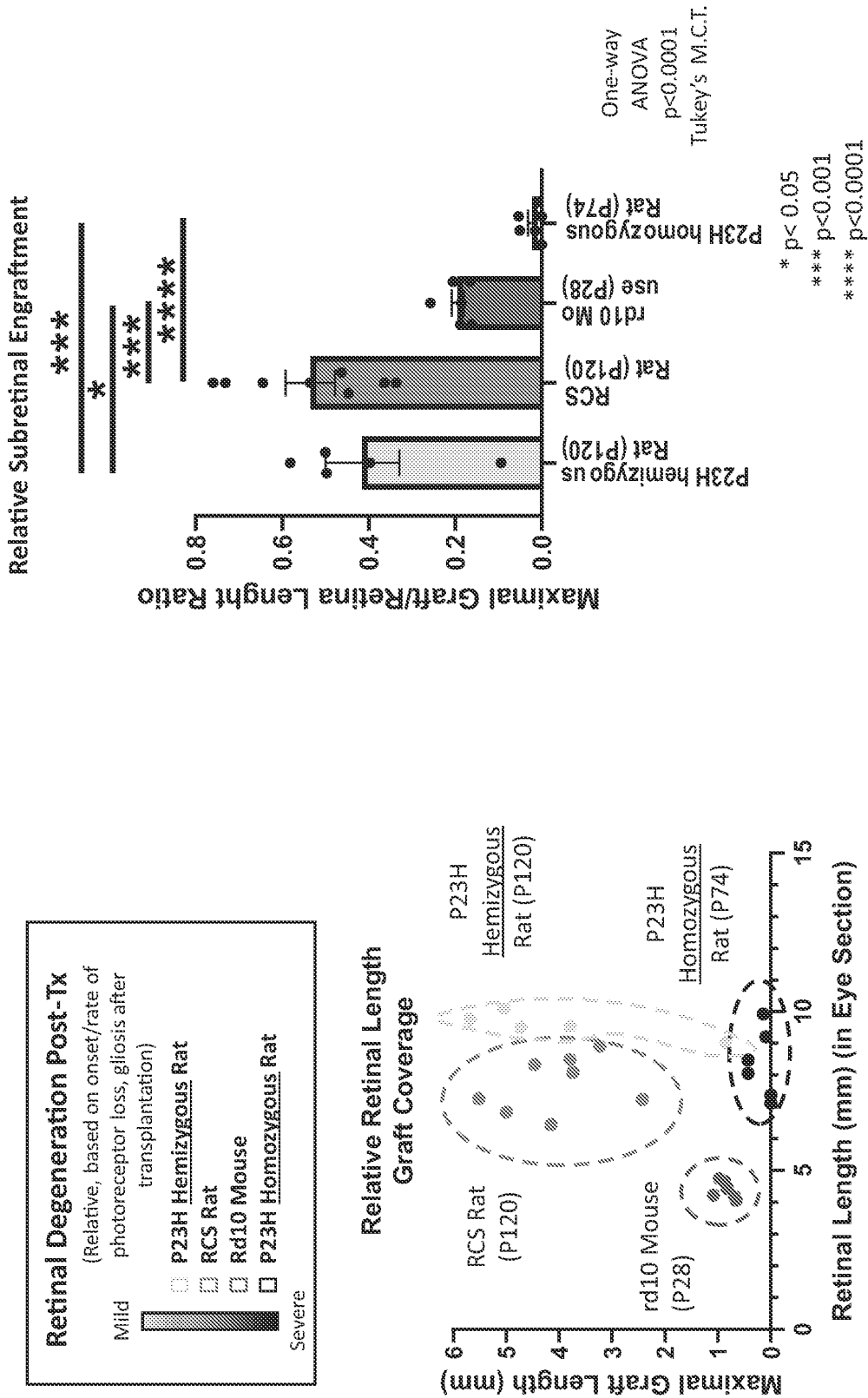


FIG. 10C

Differential PRC engraftment in retinal degeneration models with varying disease onset after treatment



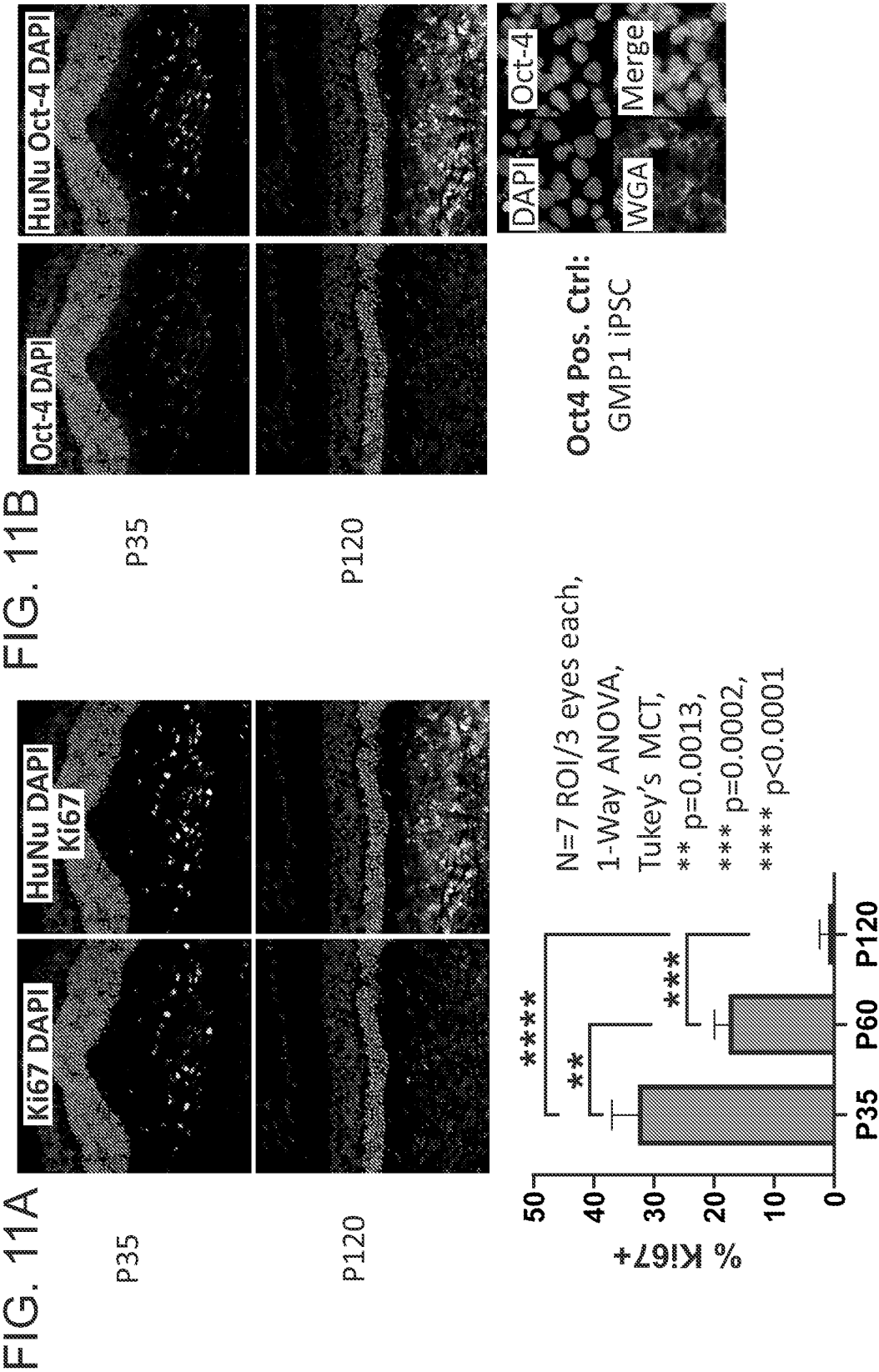
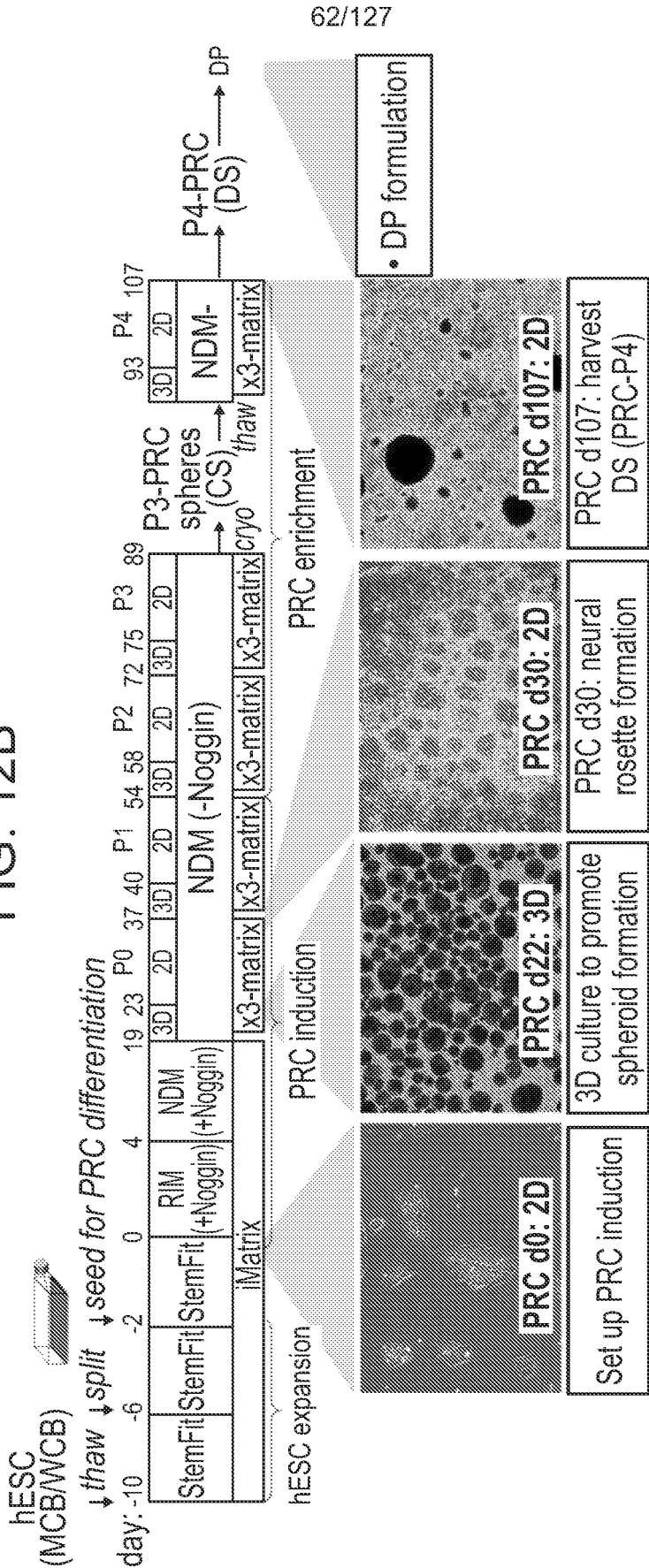


FIG. 12B



Human Photoreceptor Rescue Cells (hPRC) Summary of Manufacturing Process



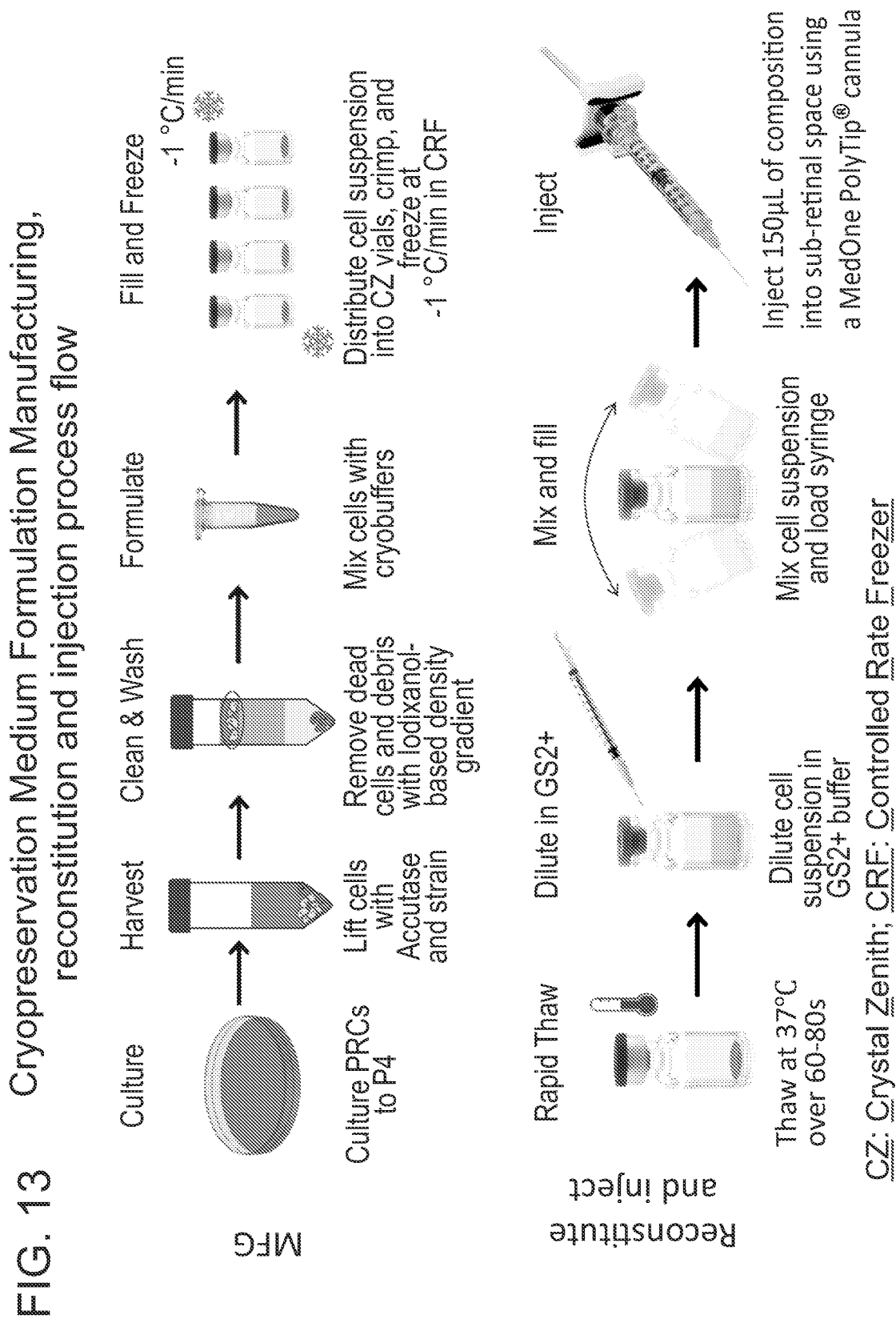
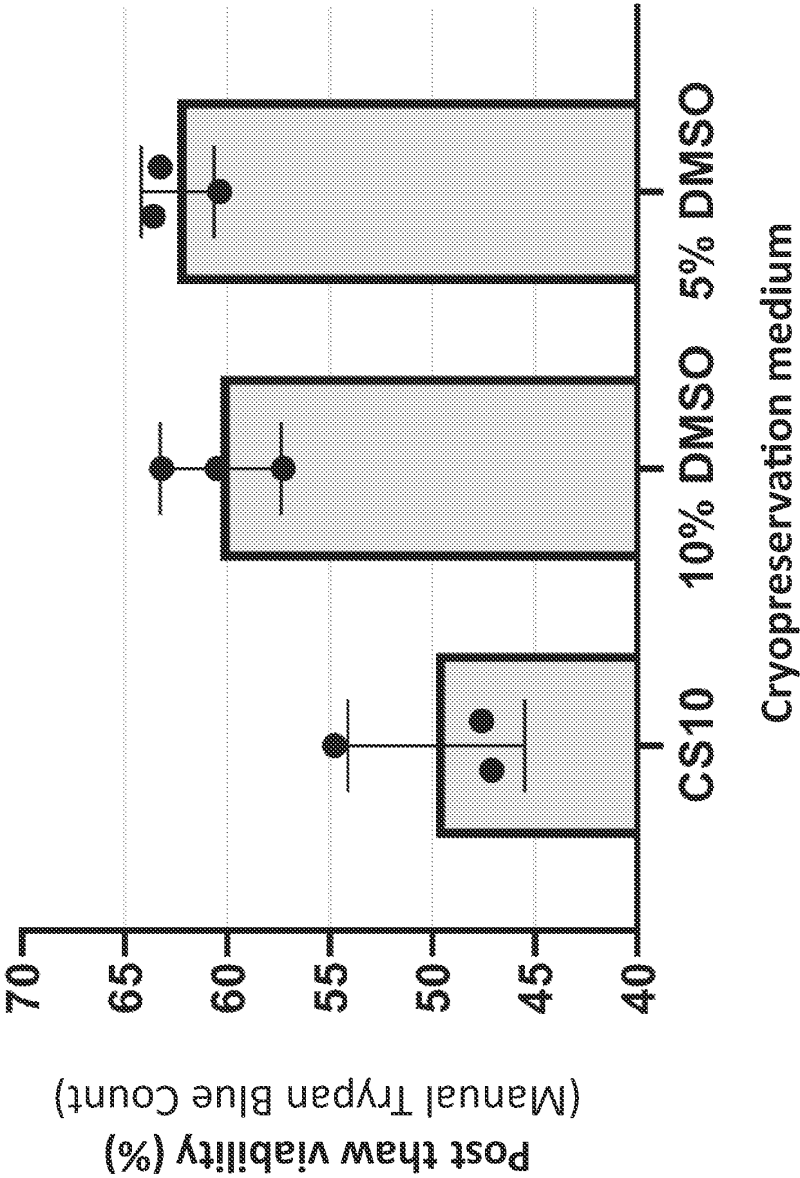


FIG. 14A
Viability of PRCs after freeze-thaw



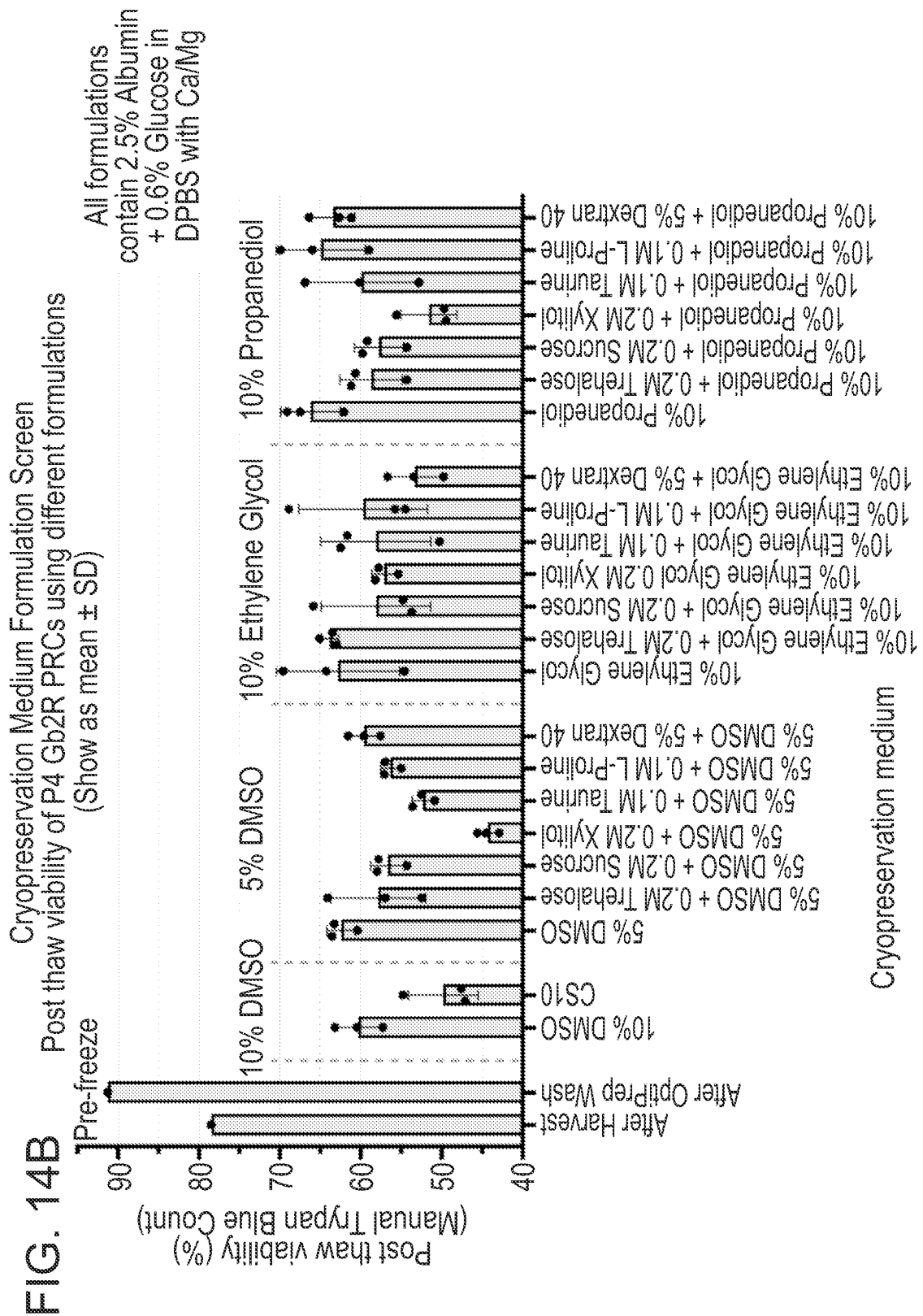


FIG. 14C **Cyropreservation Medium Formulation Screen**
Post thaw viability of P4 Gb2R PRCs using different formulations

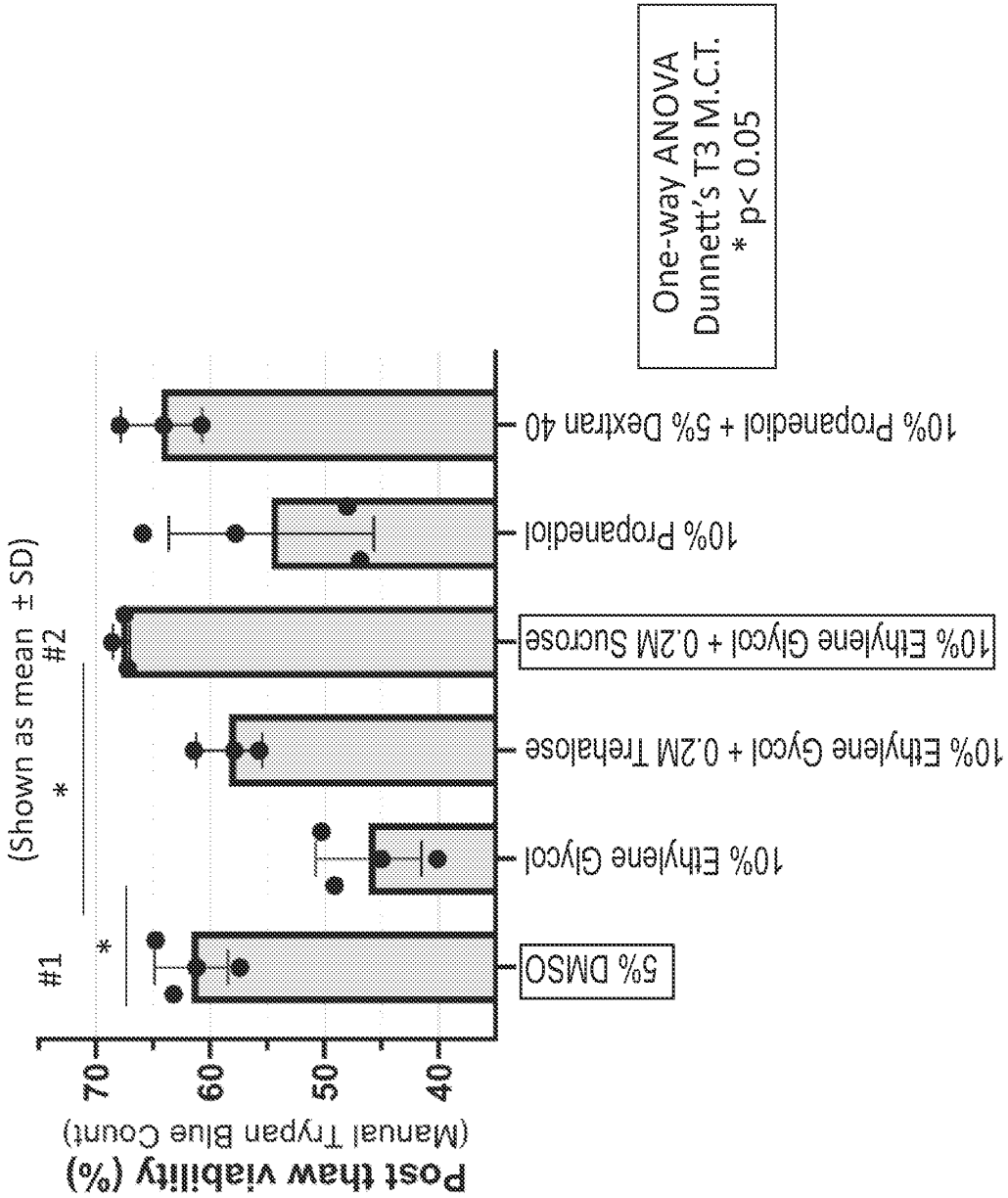
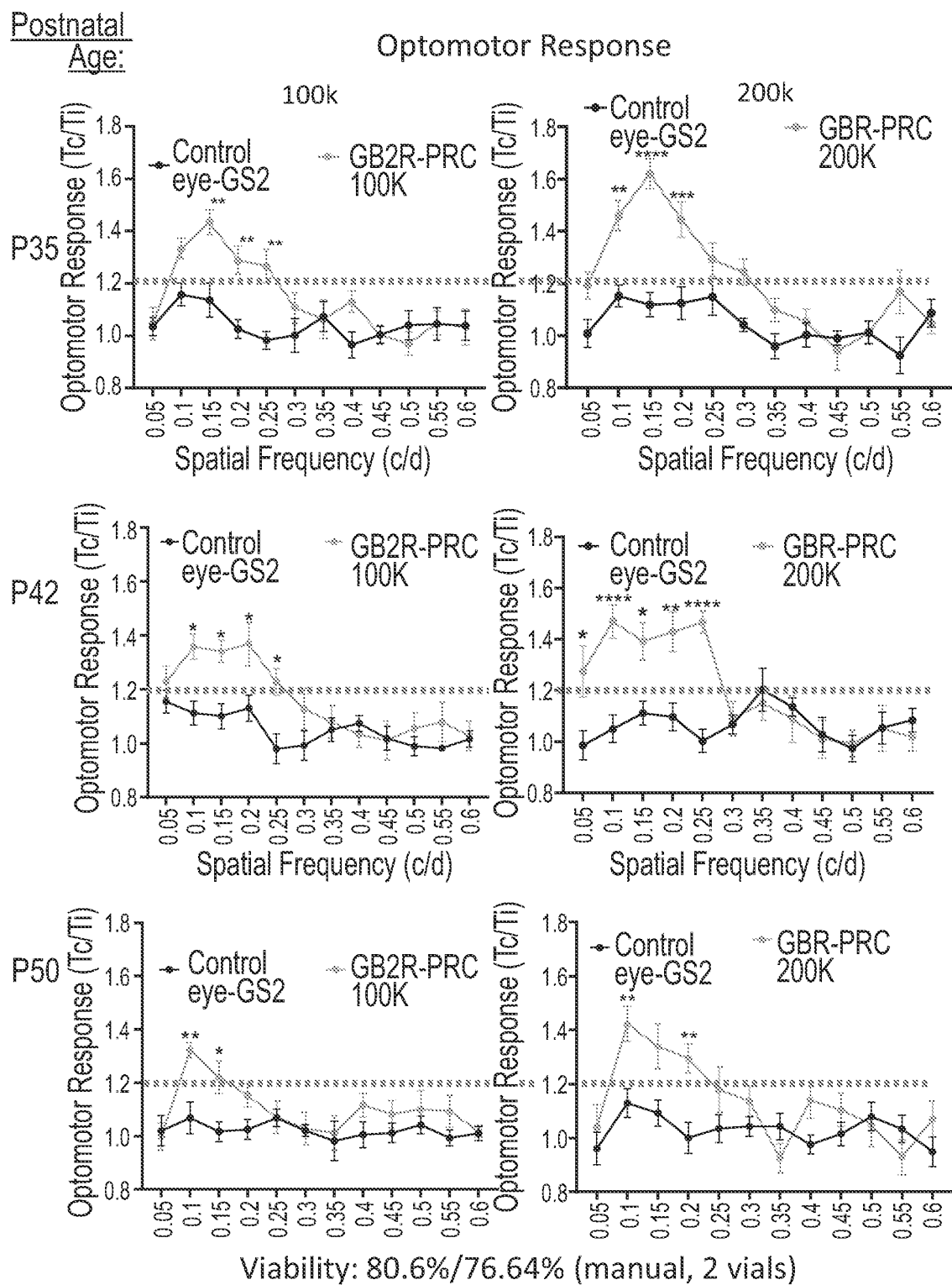


FIG. 15A



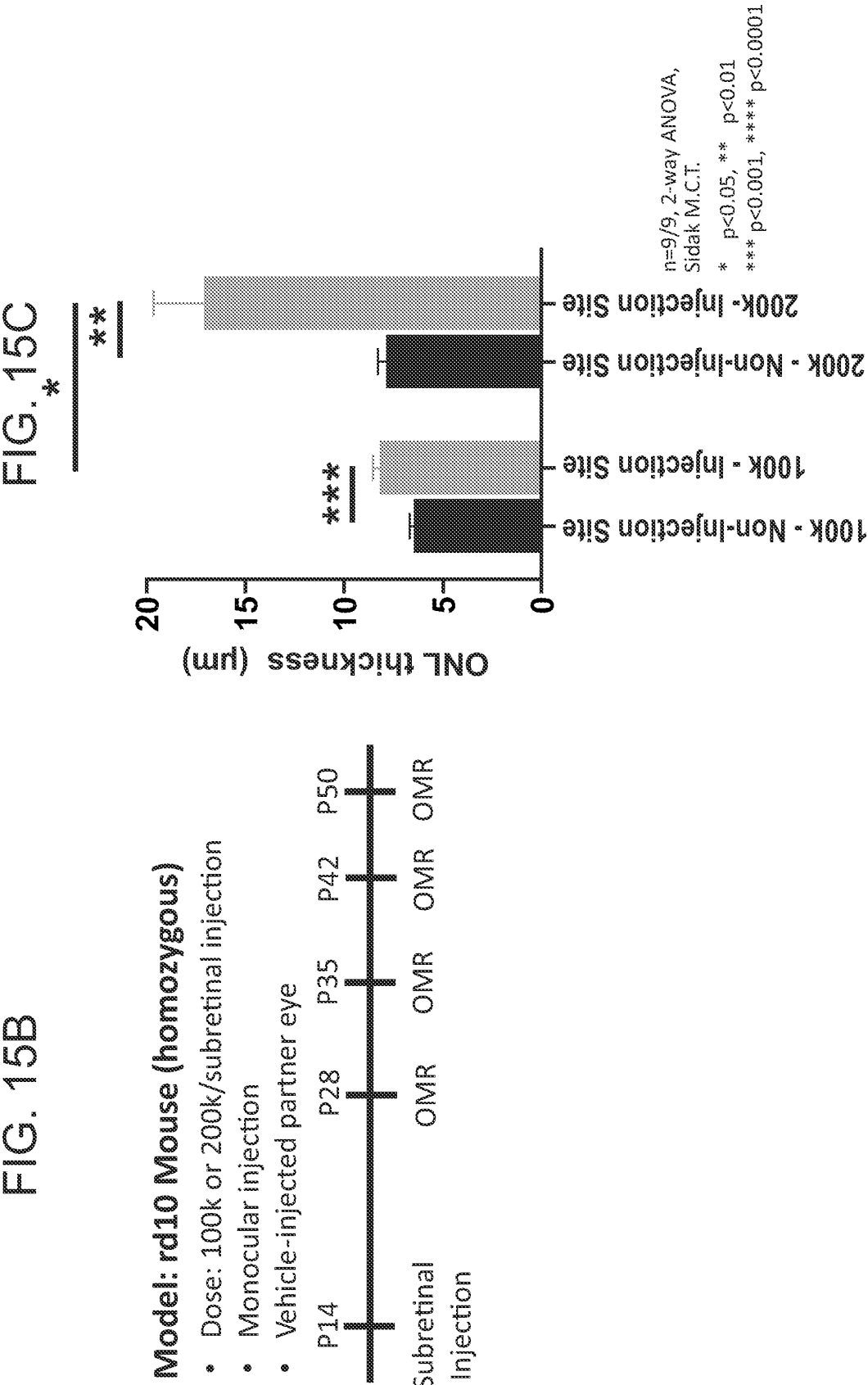


FIG. 16A

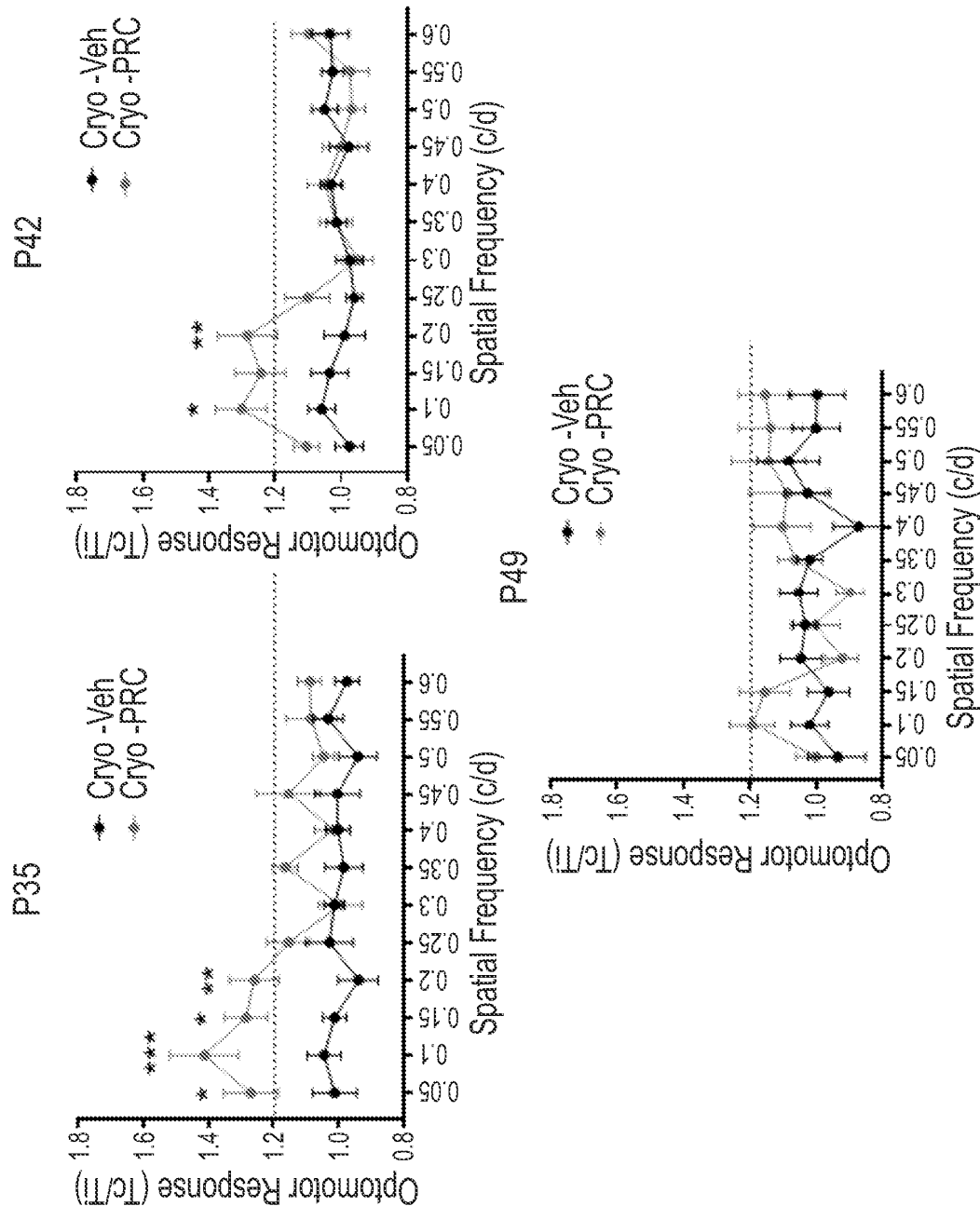
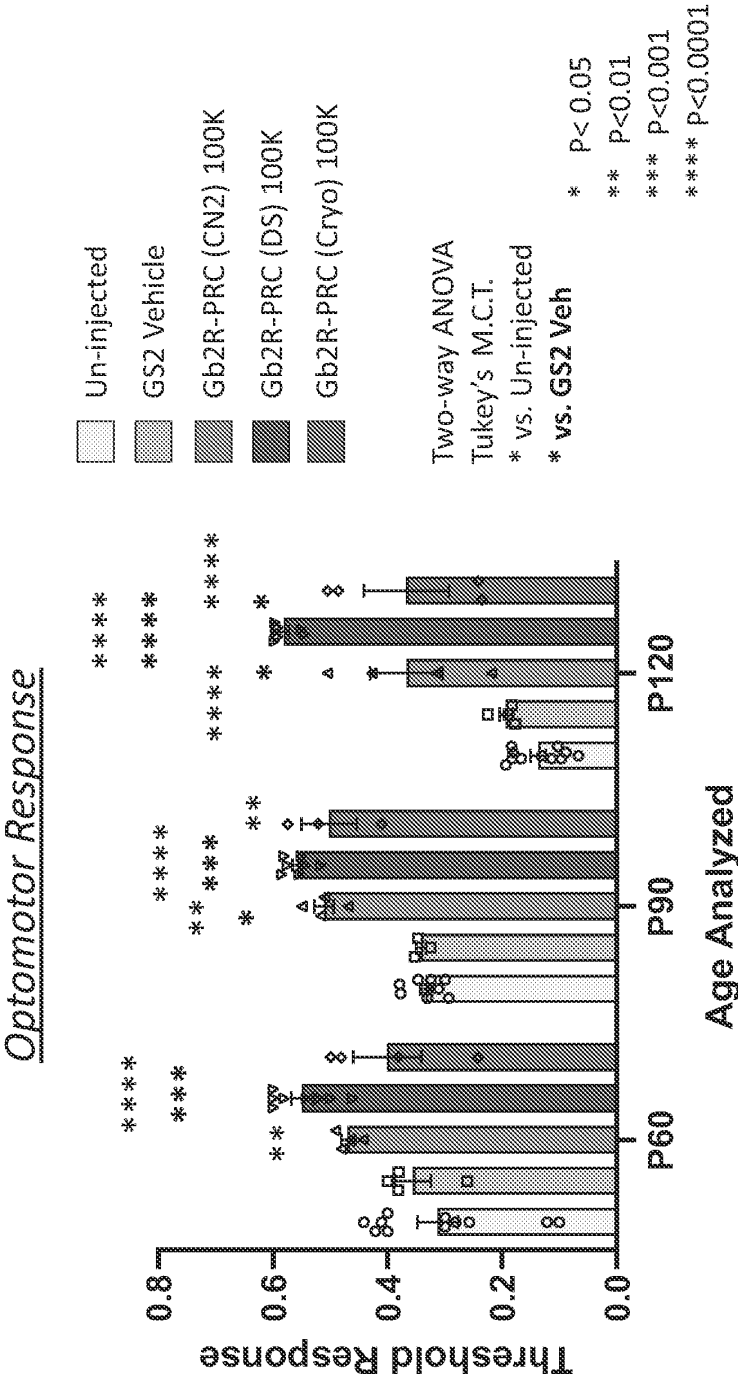
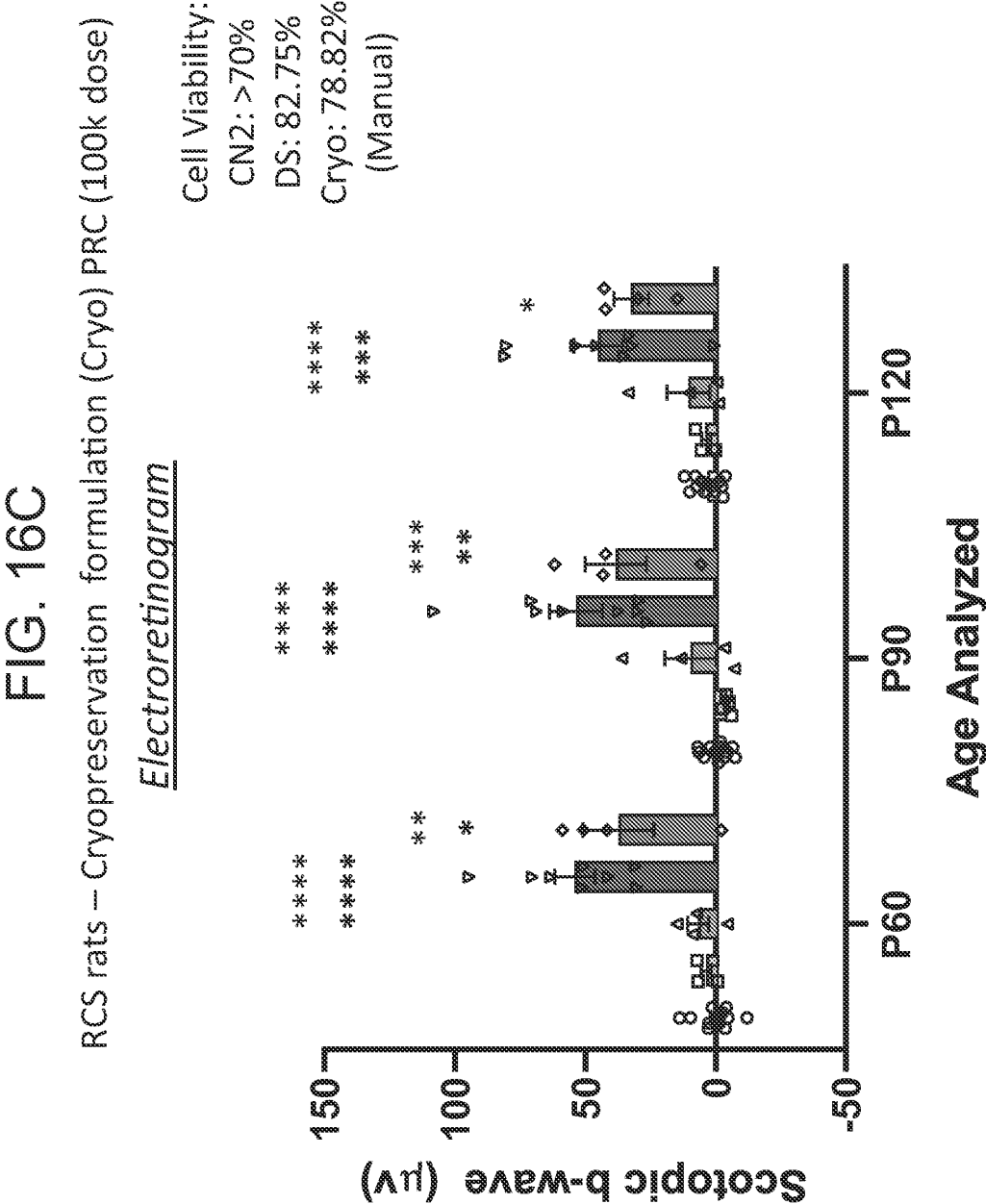


FIG. 16B

RCS rats – Cryopreservation formulation PRC (100k dose)





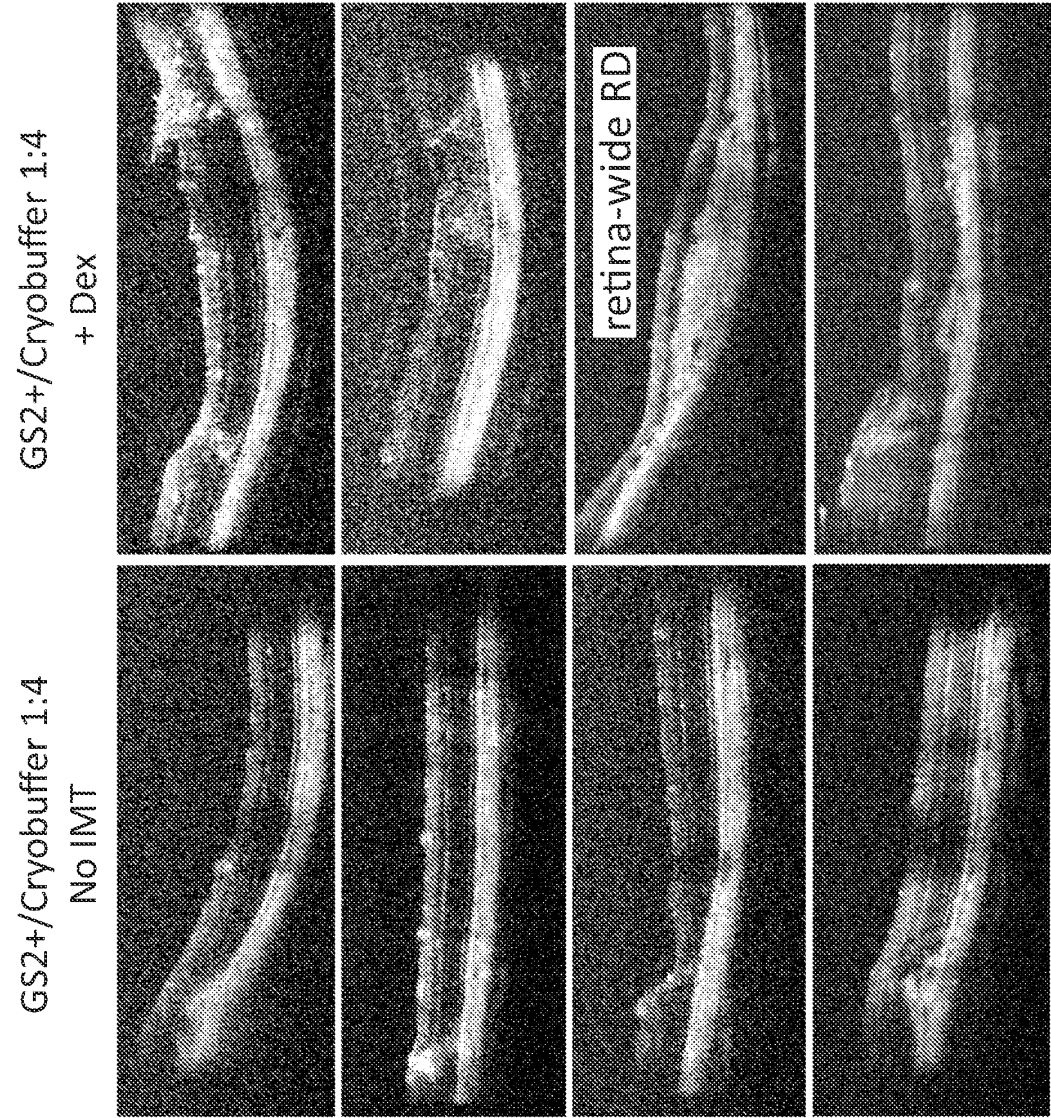


FIG. 17A

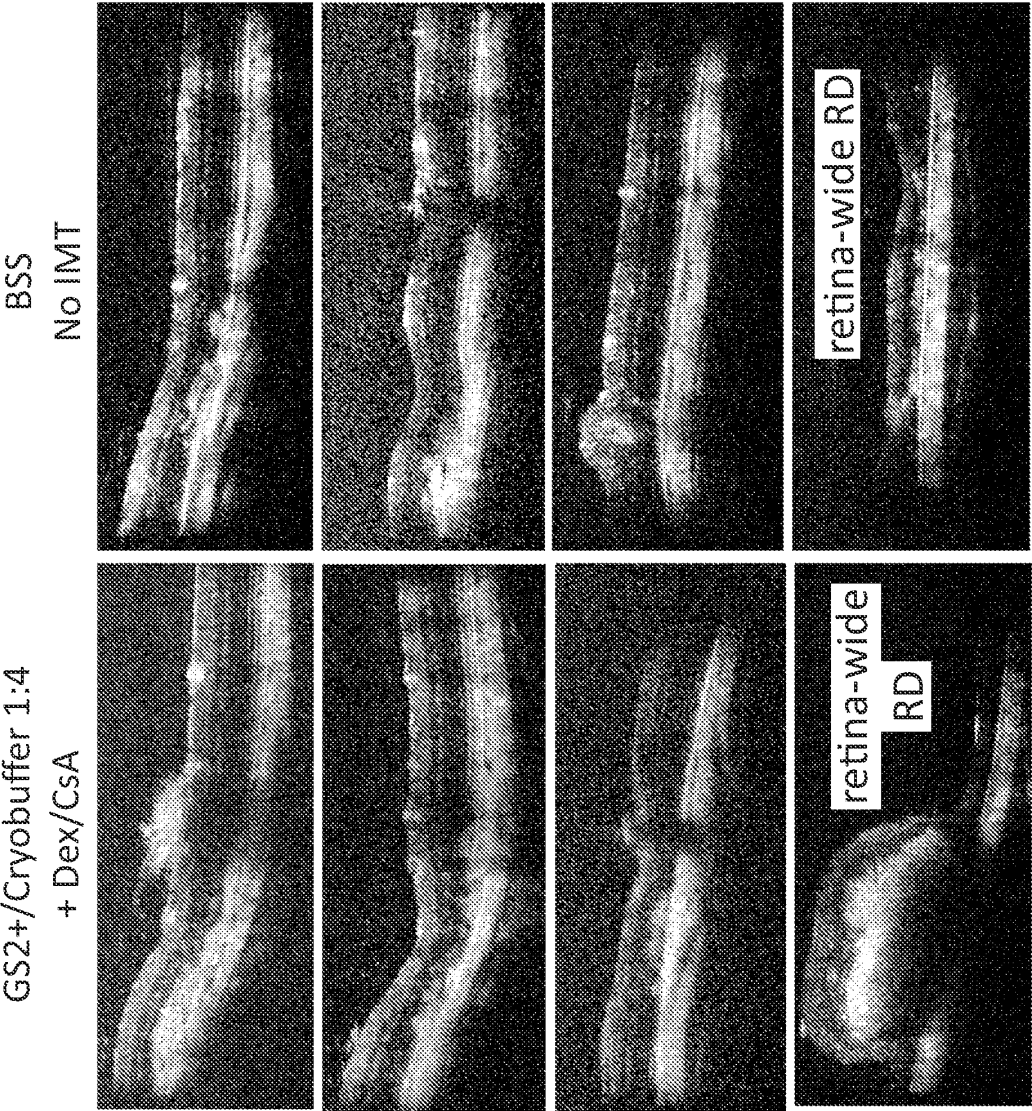


FIG. 17B

FIG. 18A

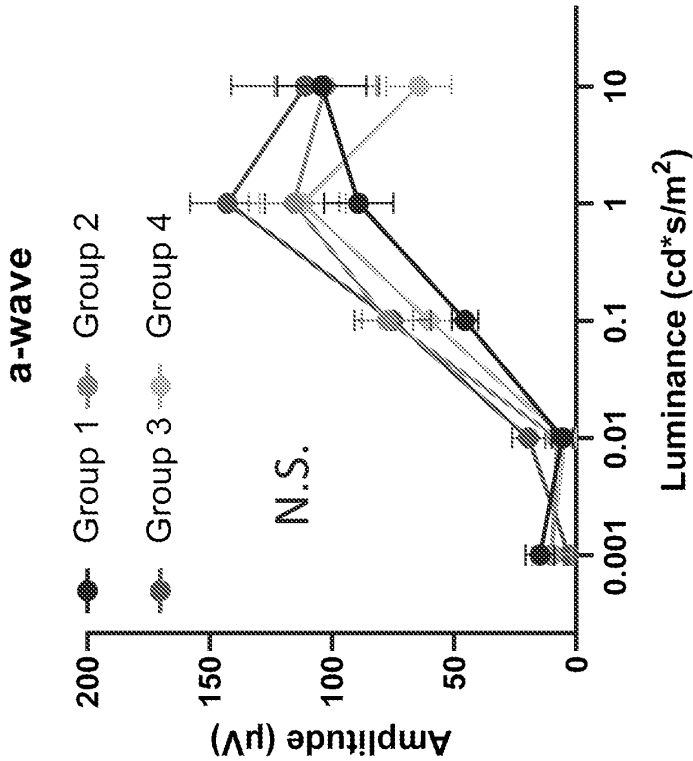
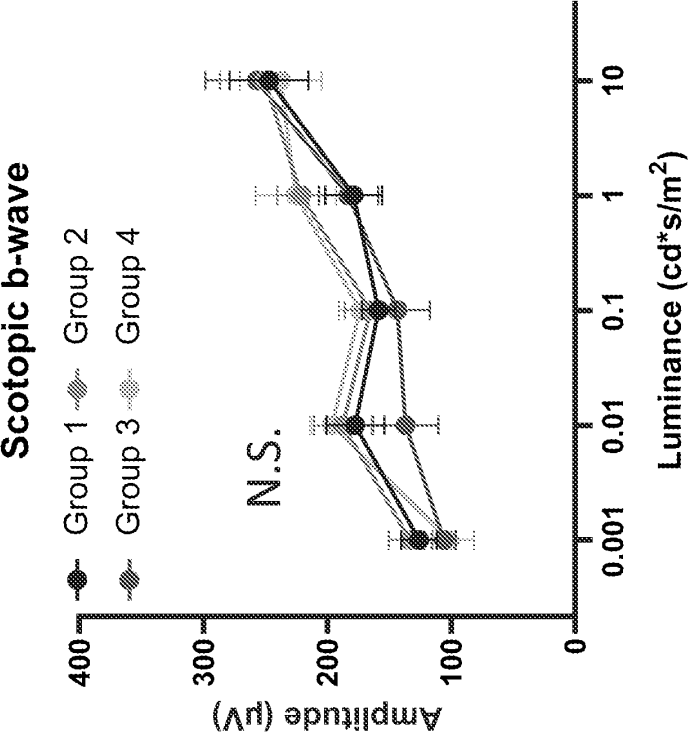
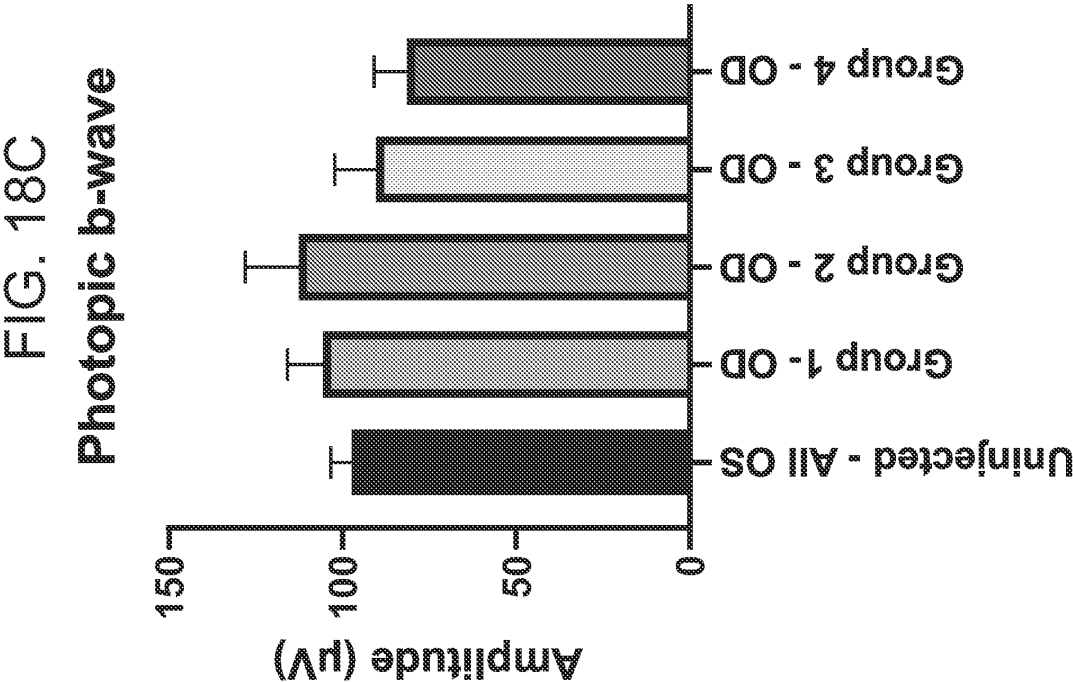


FIG. 18B





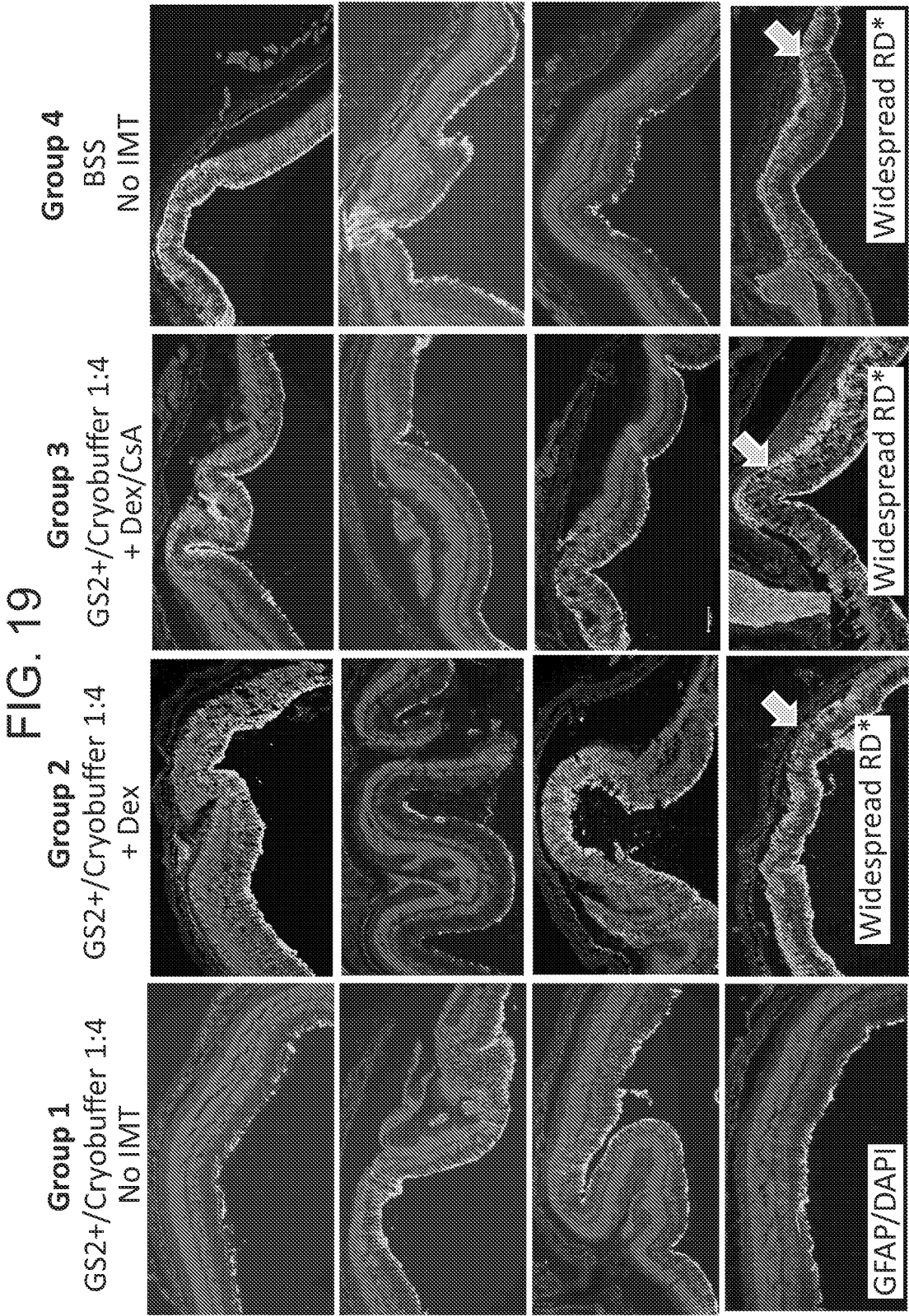


FIG. 20

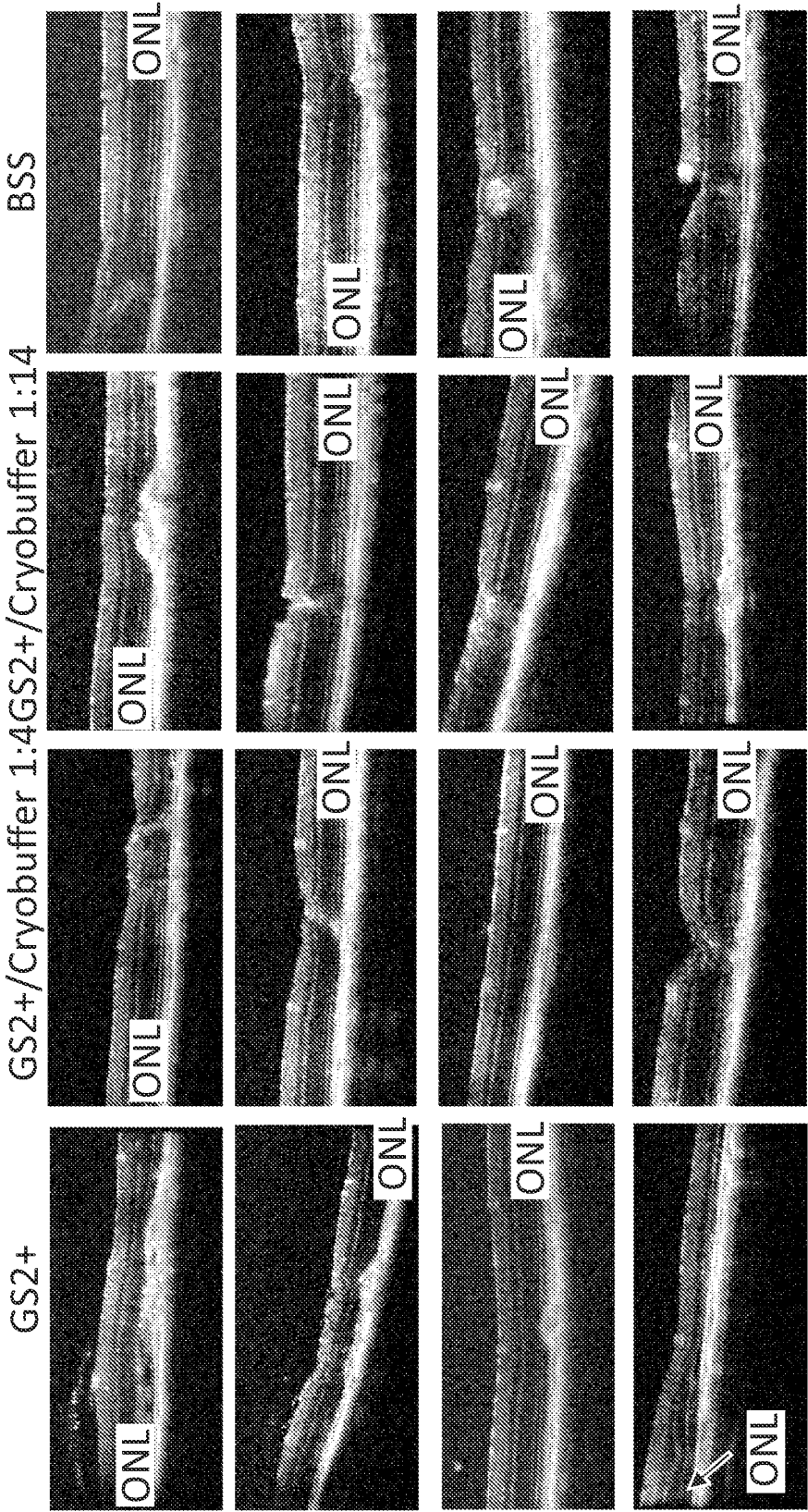


Figure 1 displays DAPI-stained retinal sections from four genotypes: GS2+, GS2+/-, and BSS. The sections are arranged in a grid with four rows and four columns. The columns are labeled: GS2+, GS2+/- Cryobuffer 1:4, GS2+/- Cryobuffer 1:14, and BSS. The rows are labeled: ONL, ONL, ONL, and ONL. The first row shows the ONL in the GS2+ genotype, with an arrow pointing to the ONL. The second row shows the ONL in the GS2+/- genotype with Cryobuffer 1:4. The third row shows the ONL in the GS2+/- genotype with Cryobuffer 1:14. The fourth row shows the ONL in the BSS genotype. The ONL is labeled in each row. The BSS genotype shows a more pronounced ONL compared to the other genotypes.

FIG. 22

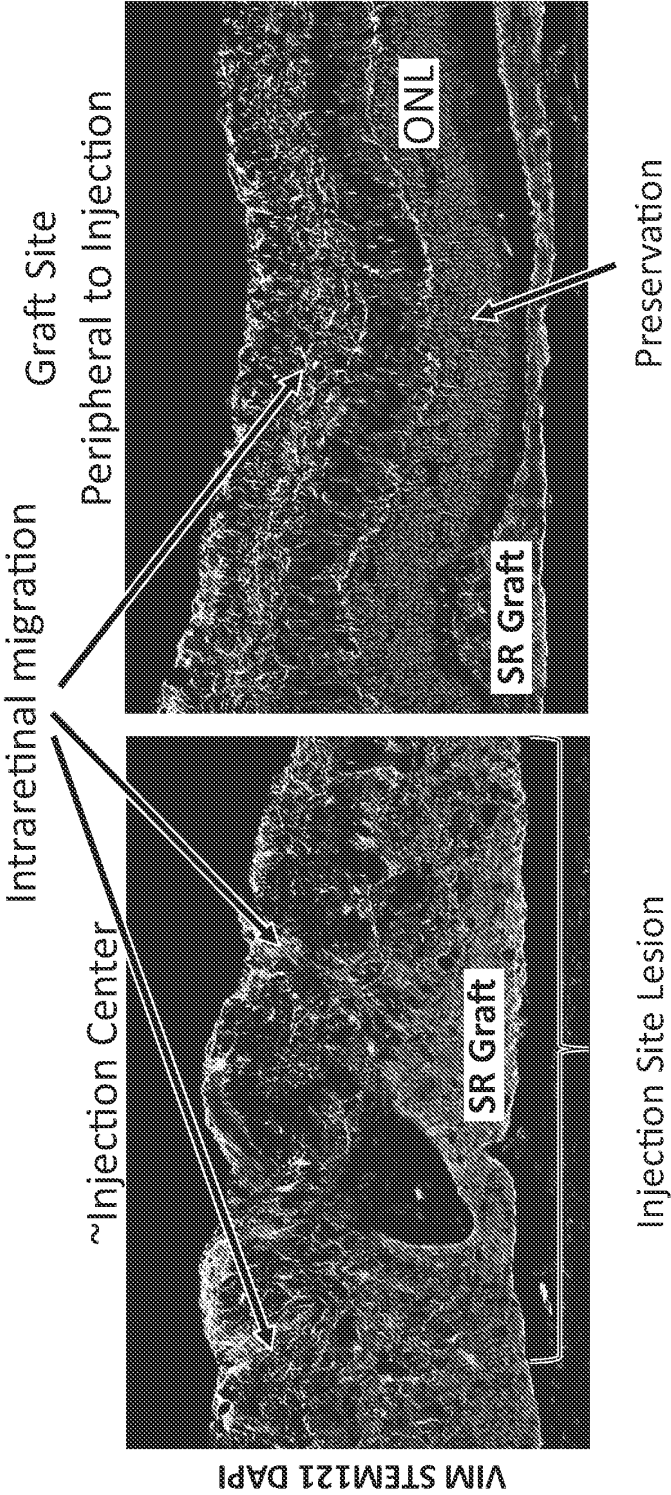


FIG. 23
Direct P4 tracking responses display more significant amplitude than P4 via cell stock

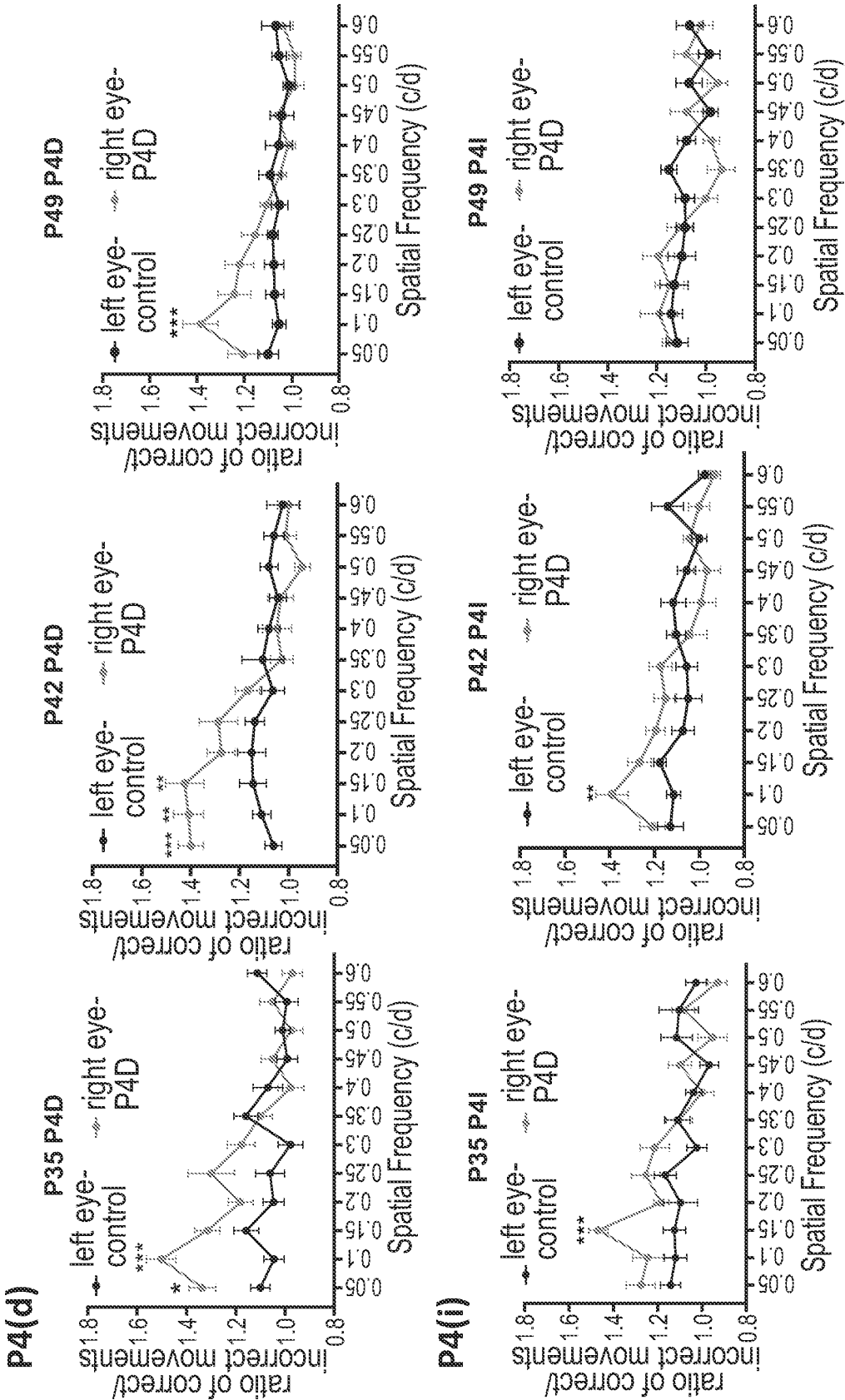
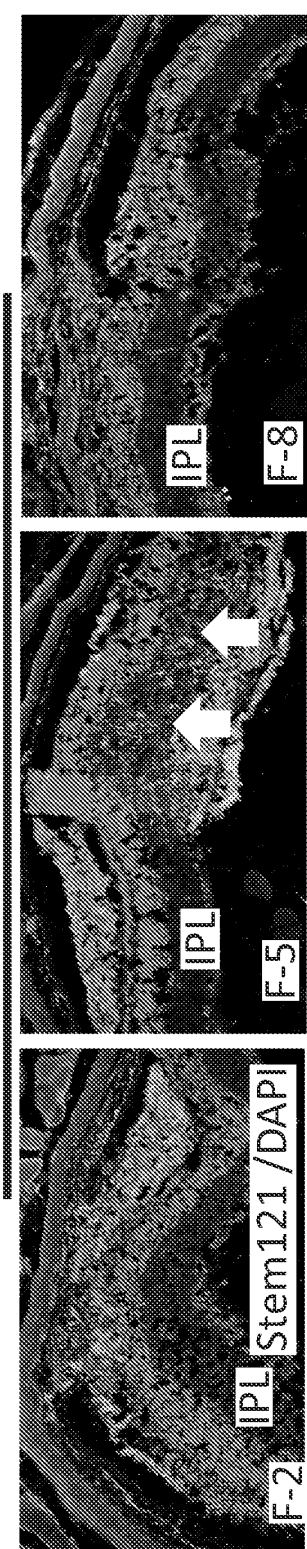


FIG. 24
P4(D)



P4(I)

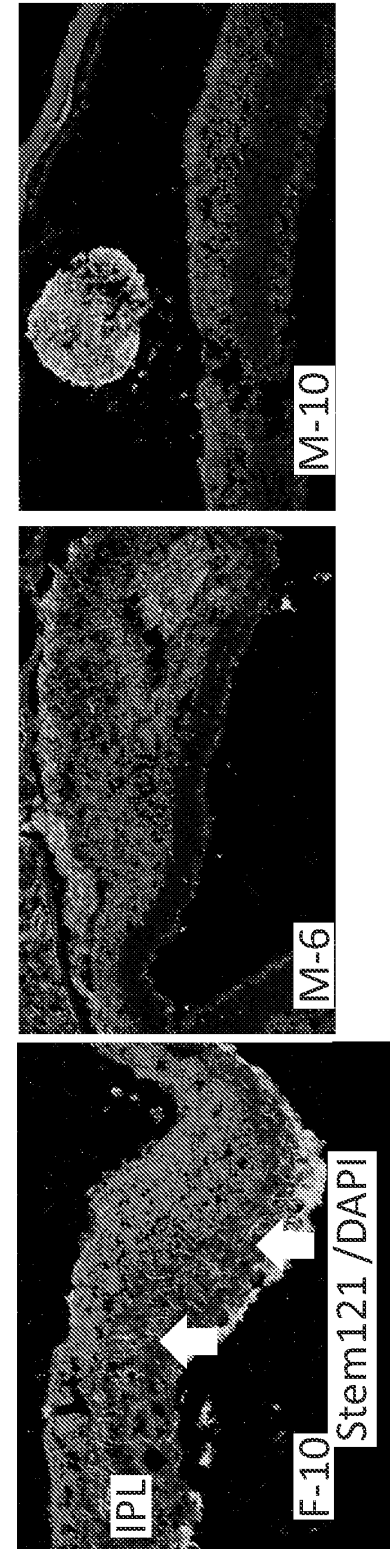


FIG. 25
P4(D)

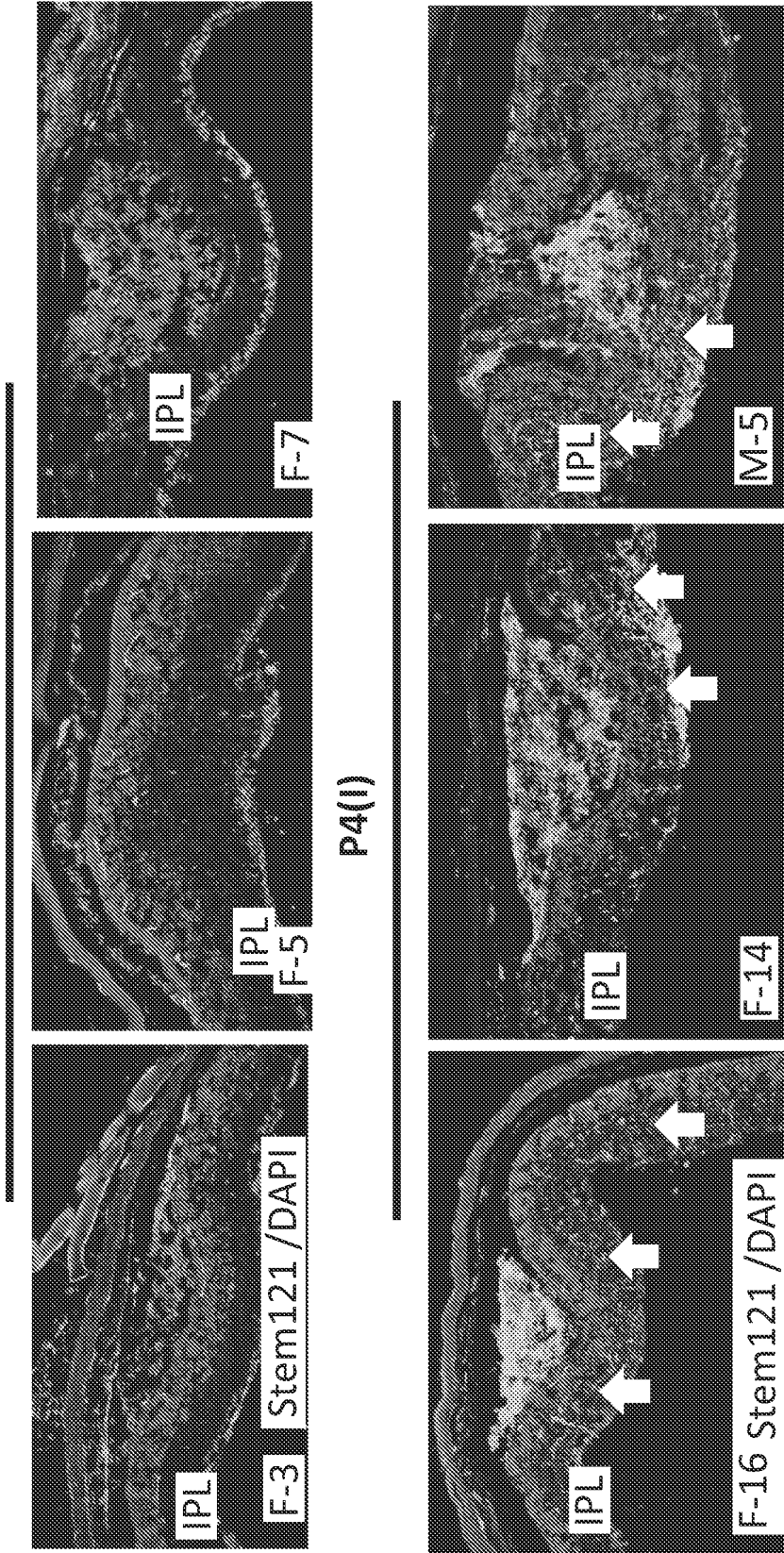


FIG. 26

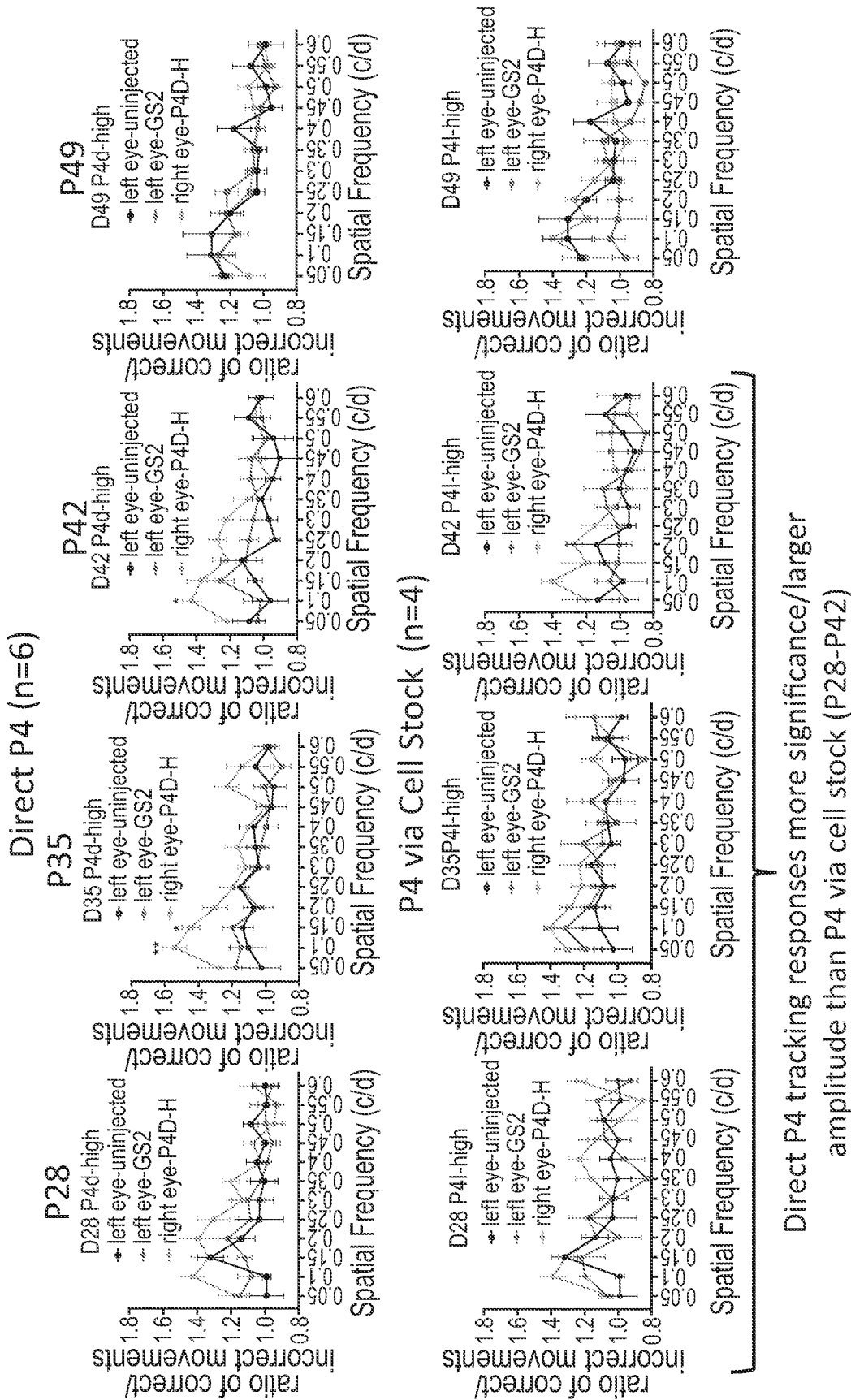
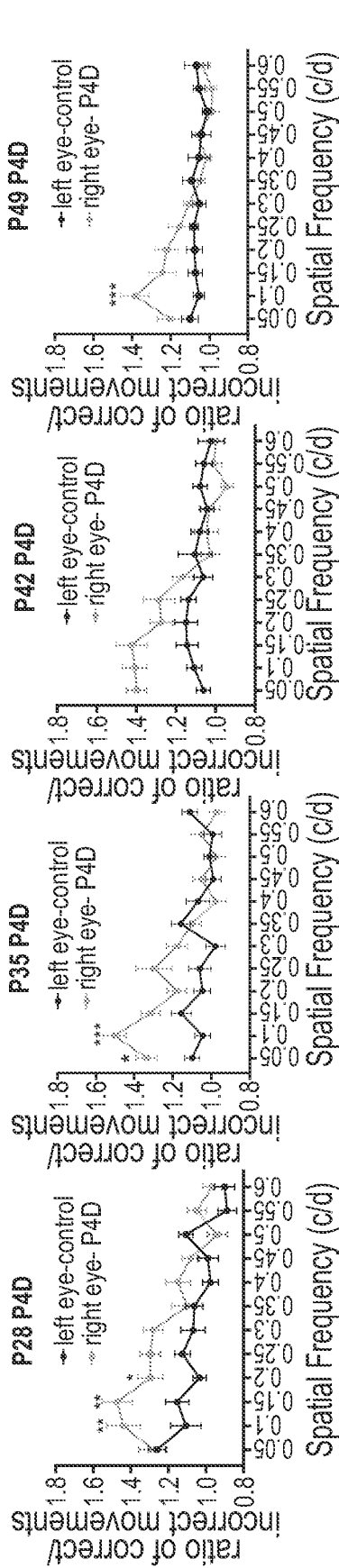
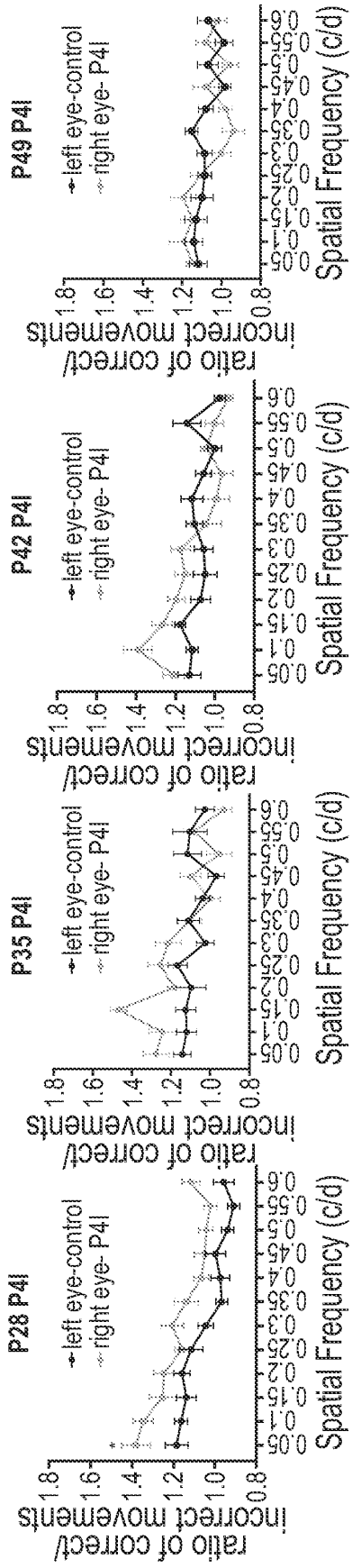


FIG. 27

Direct P4 (n=10)



P4 via Cell Stock (n=10)



Direct P4 tracking responses display more significance/larger amplitude than P4 via cell stock

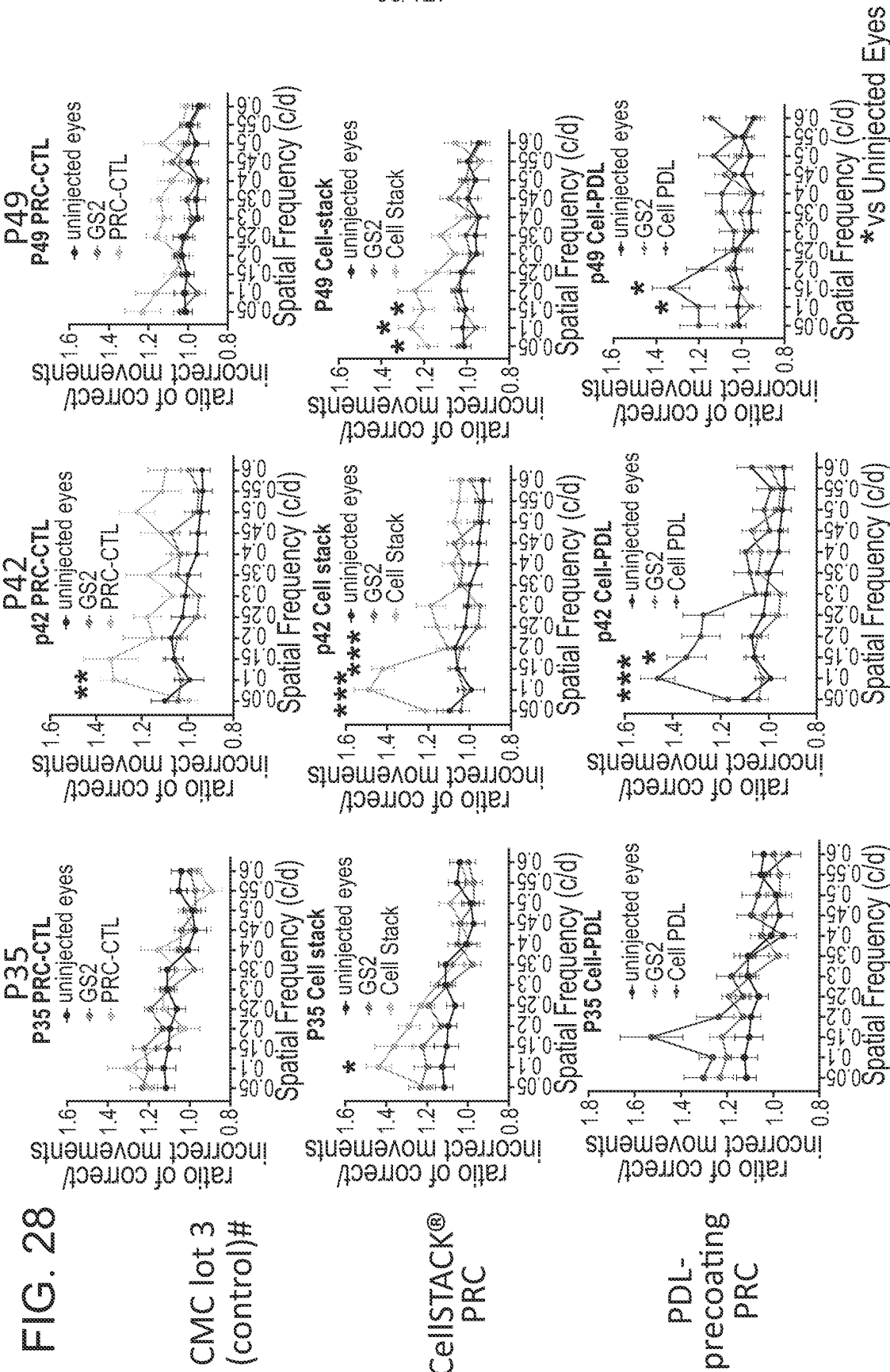
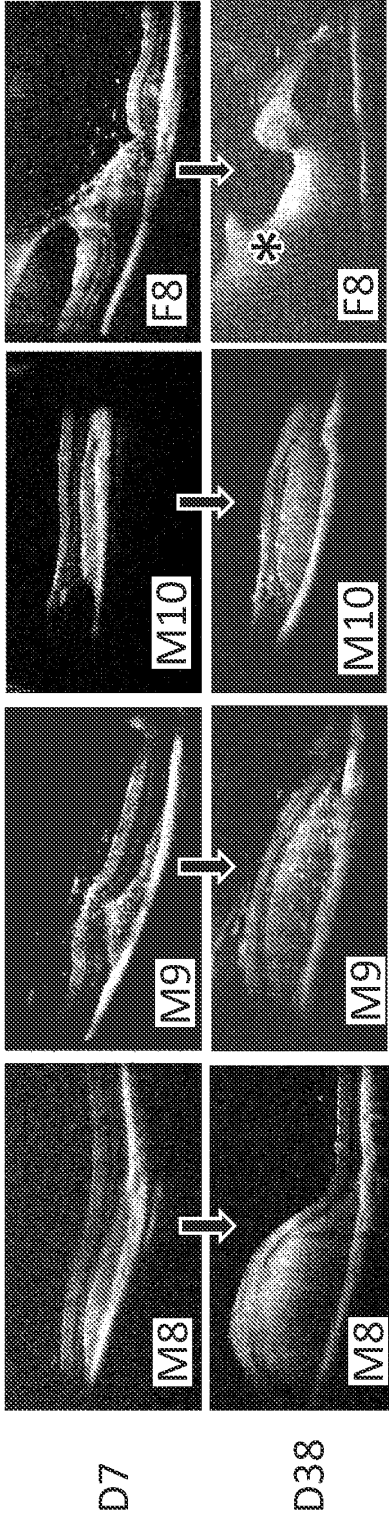


FIG. 29

CellSTACK®



PDL-precoating

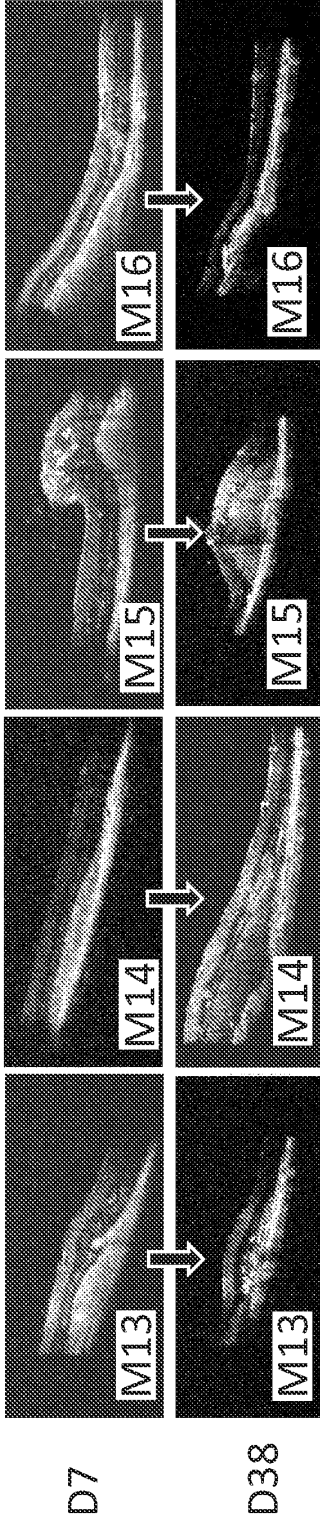
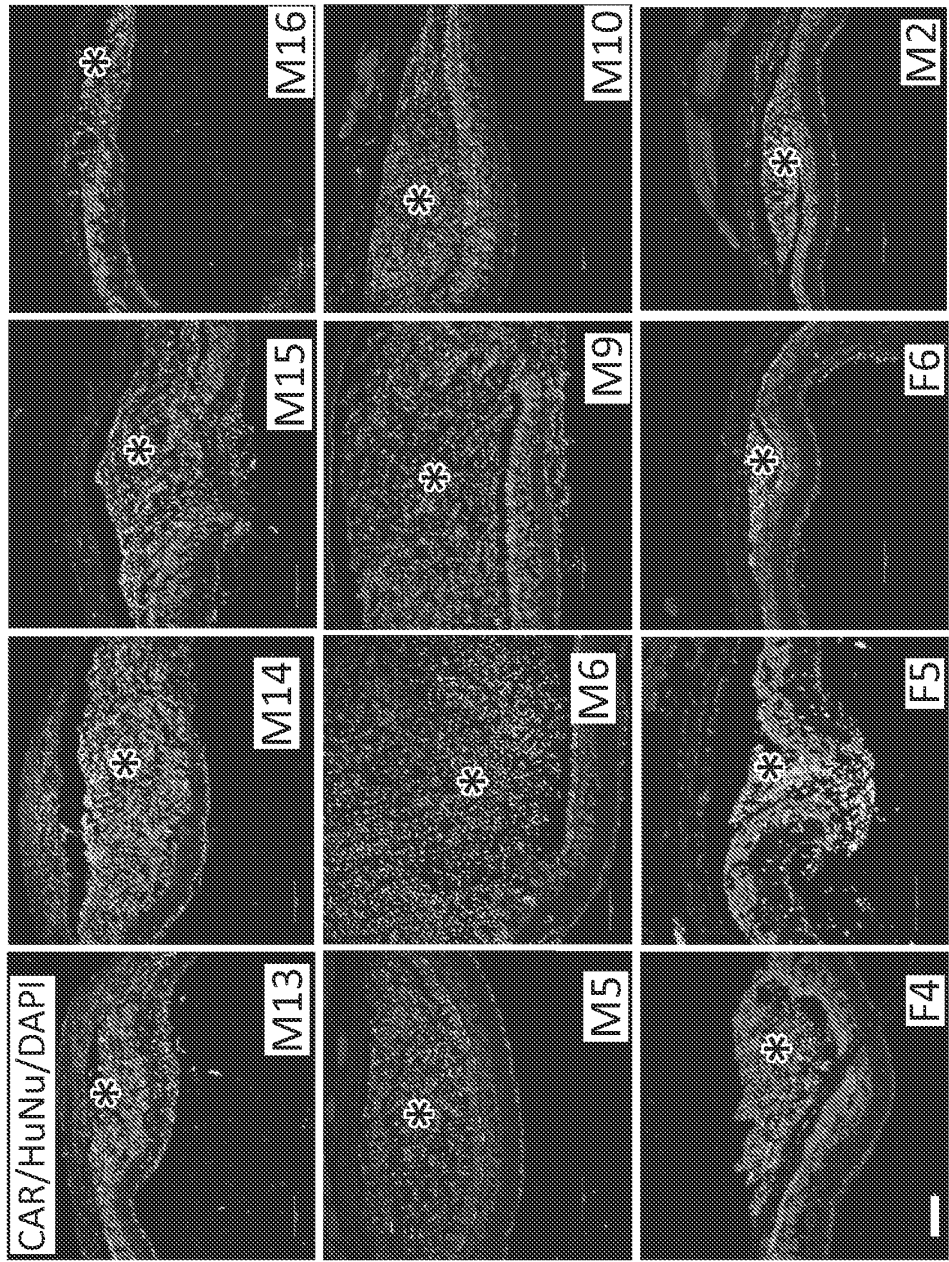


FIG. 30A



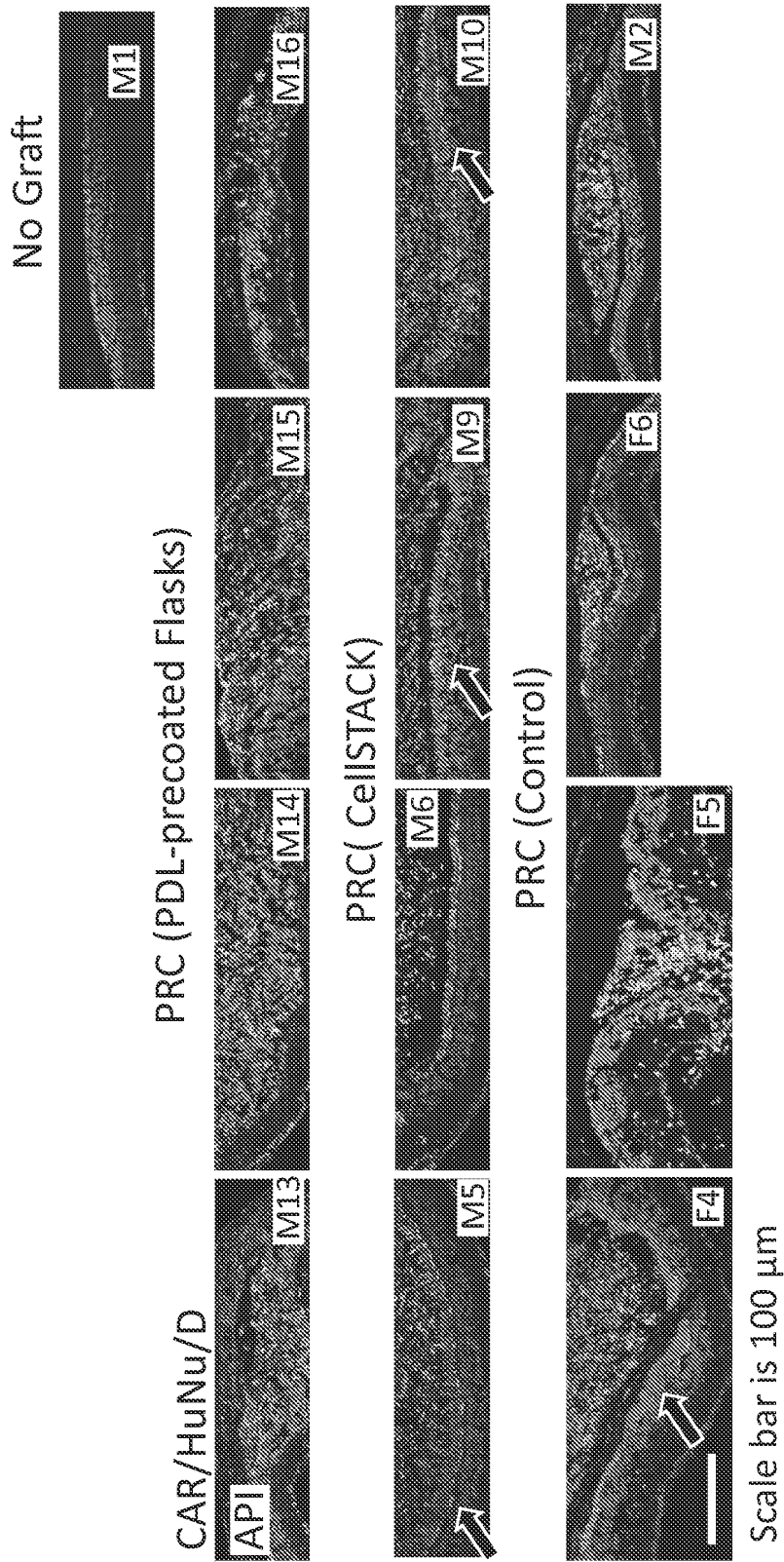
PRC
(PDL-
precoated
Flasks)
Engraftment in
6/6 eyes

PRC
(CellSTACK)
Engraftment in
9/10 eyes

PRC
(Control)
Engraftment in
4/5 eyes

Scale bar is 100 μm * Subretinal PRC Graft

FIG. 30B



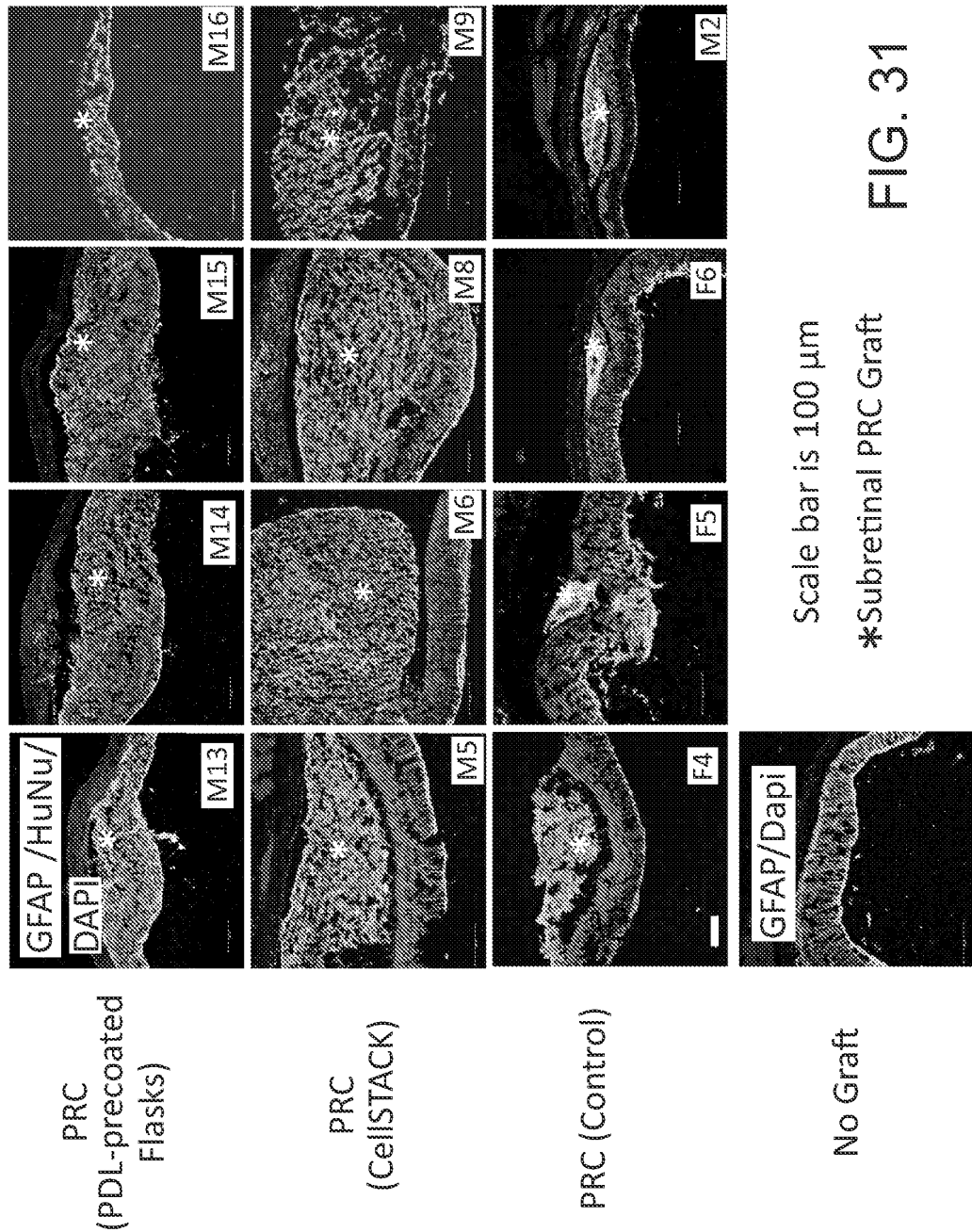


FIG. 31

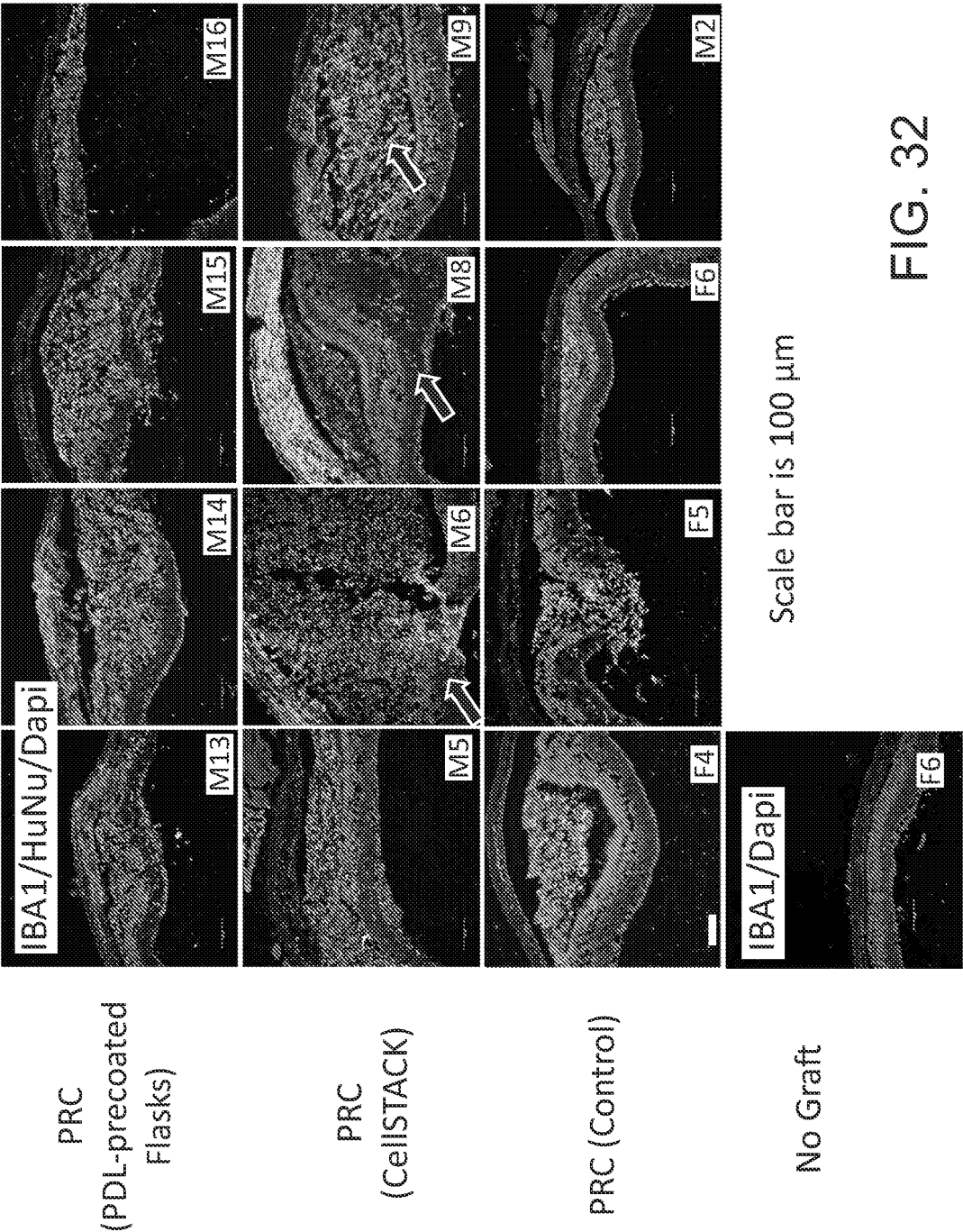
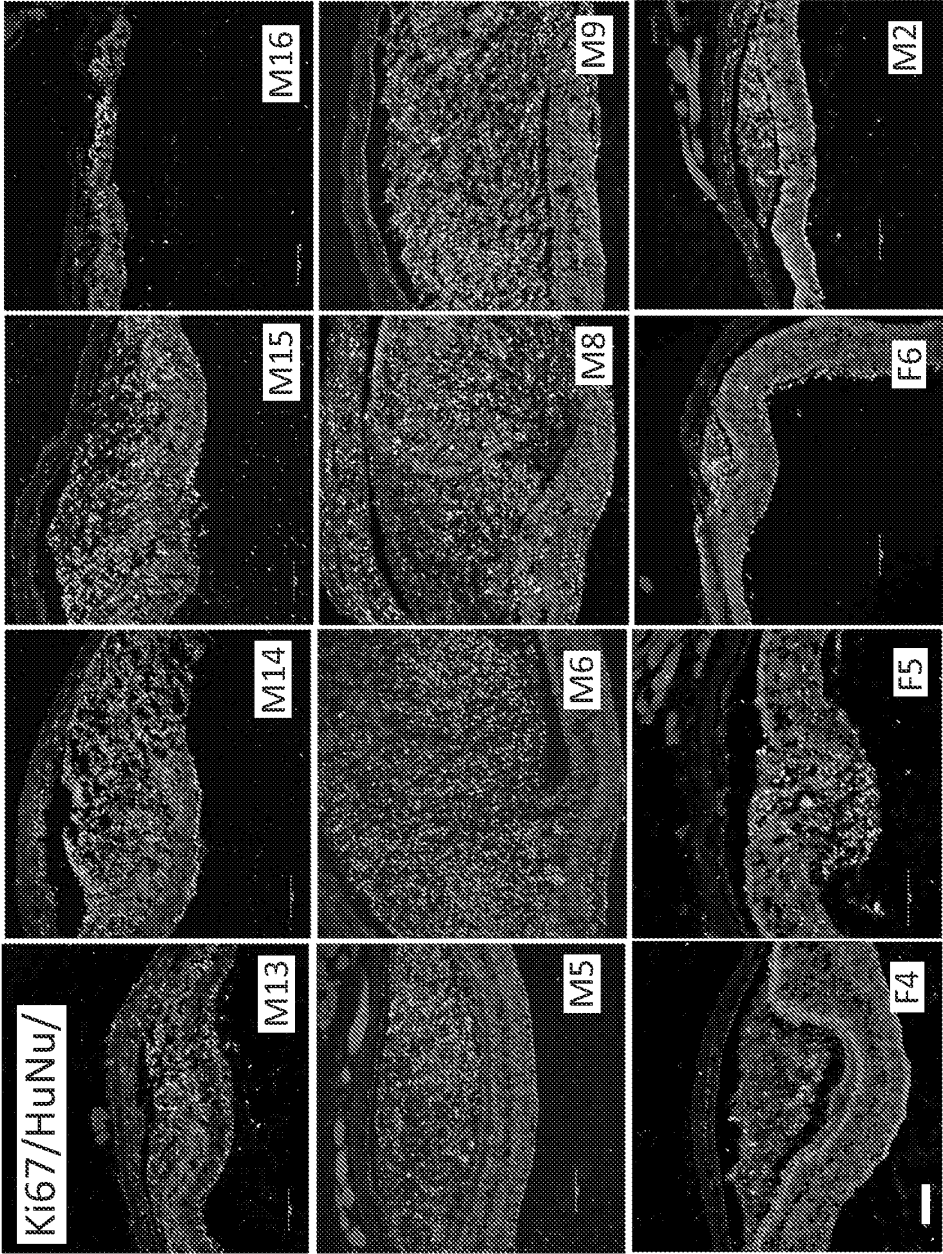


FIG. 33

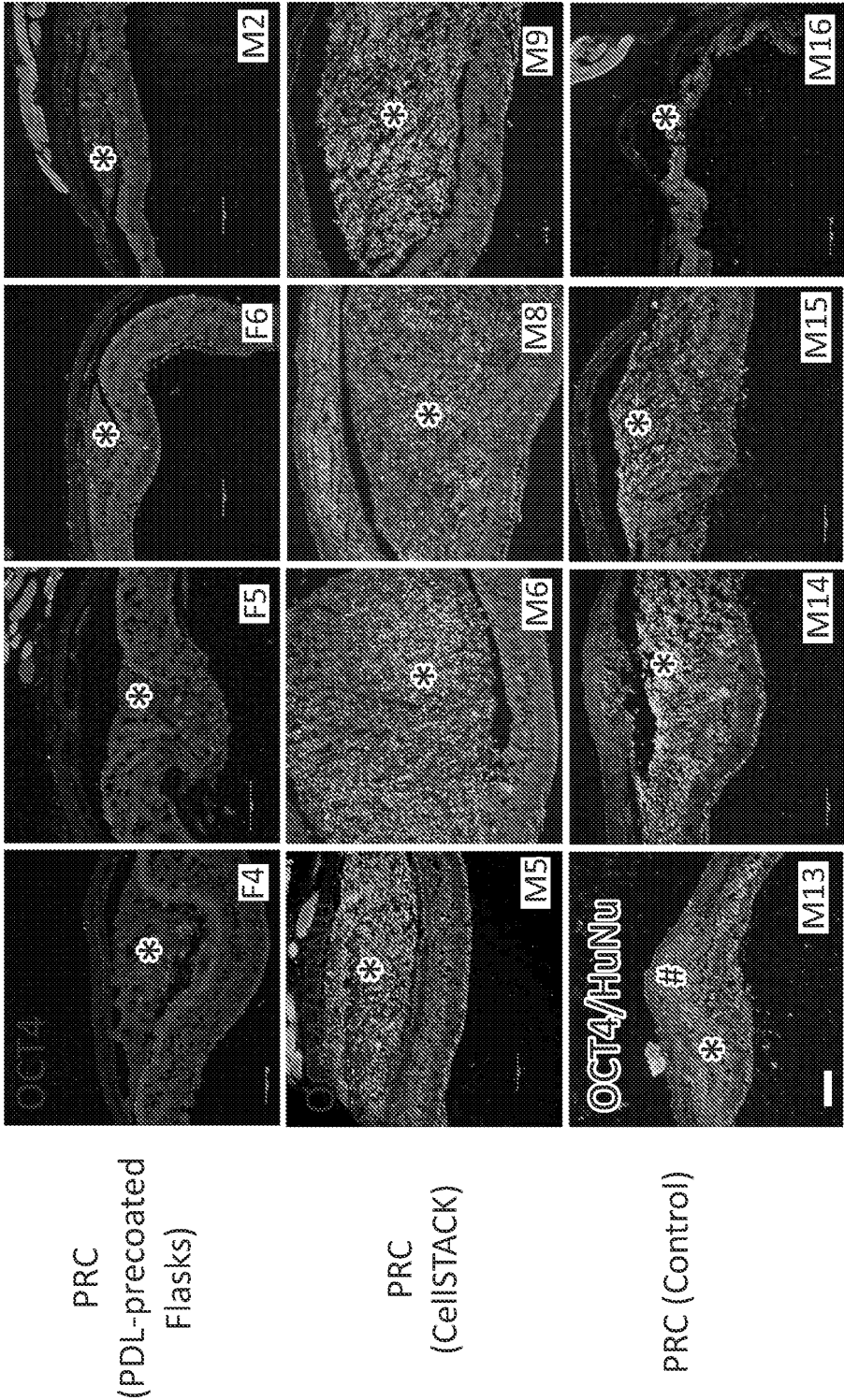


PRC
(PDL-precoated
Flasks)

PRC
(CellSTACK)

PRC (Control)

FIG. 34



Scale bar is 100 μm *Subretinal PRC Graft # Autofluorescence

FIG. 35

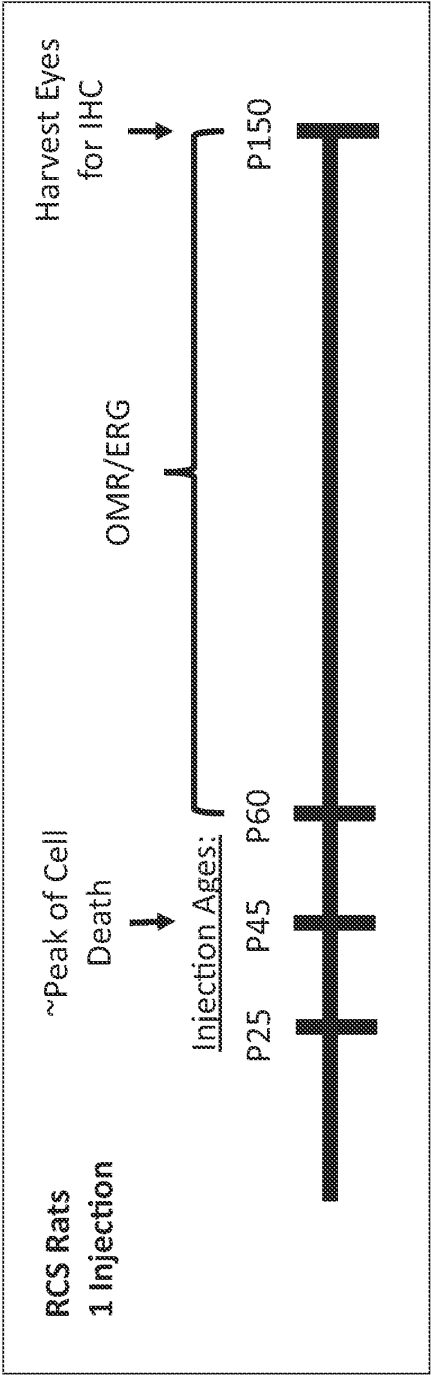


FIG. 36A

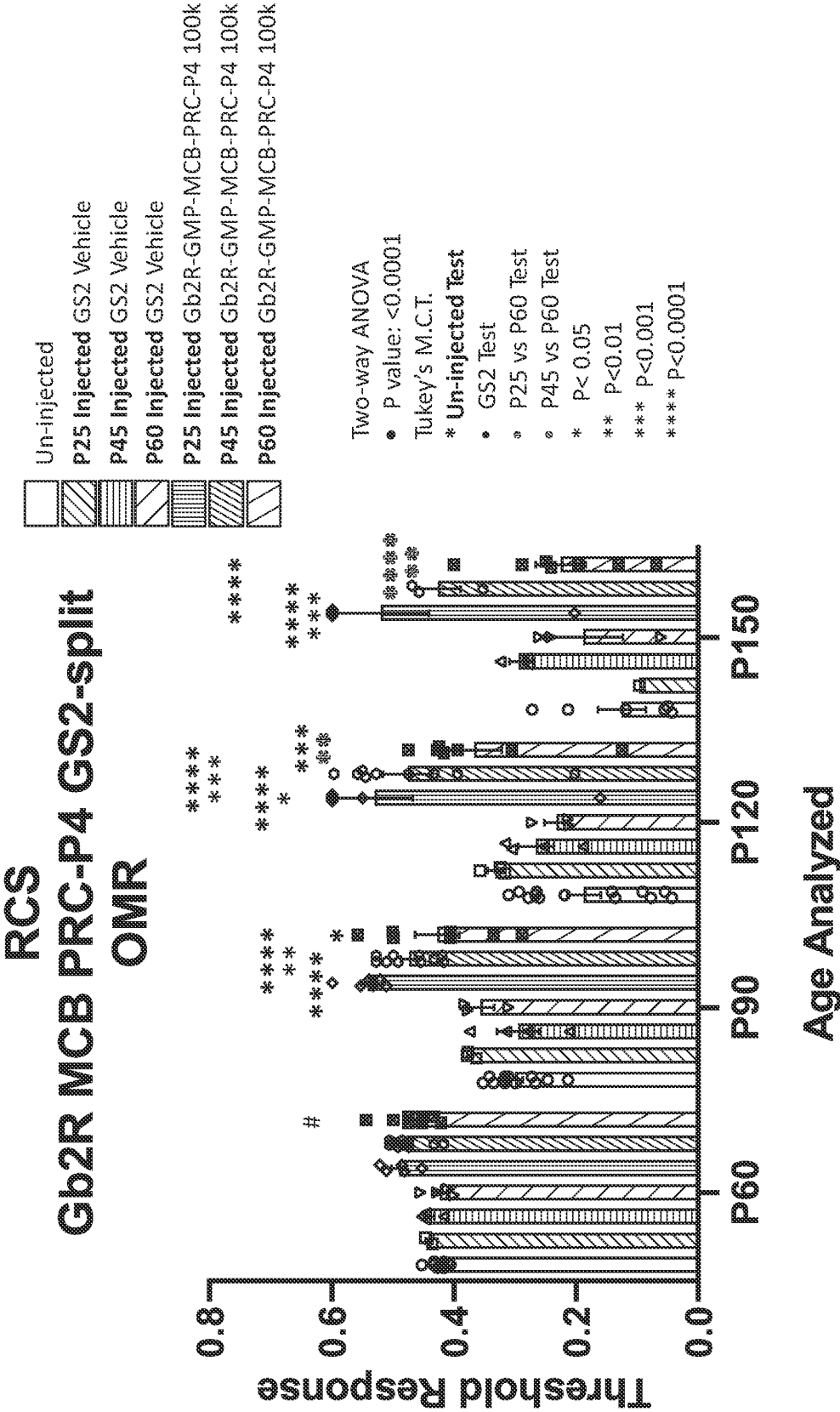


FIG. 36B

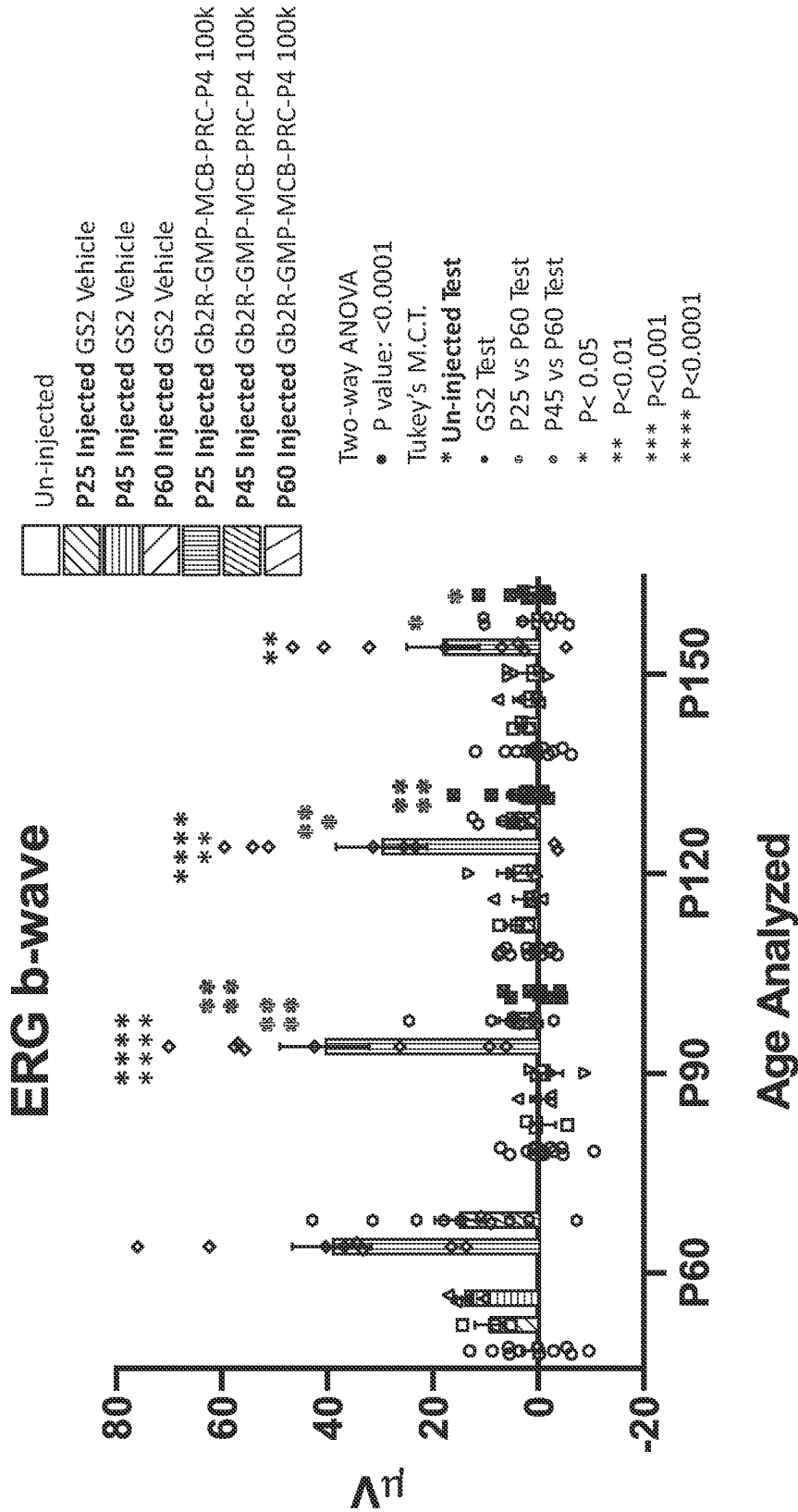


FIG. 37

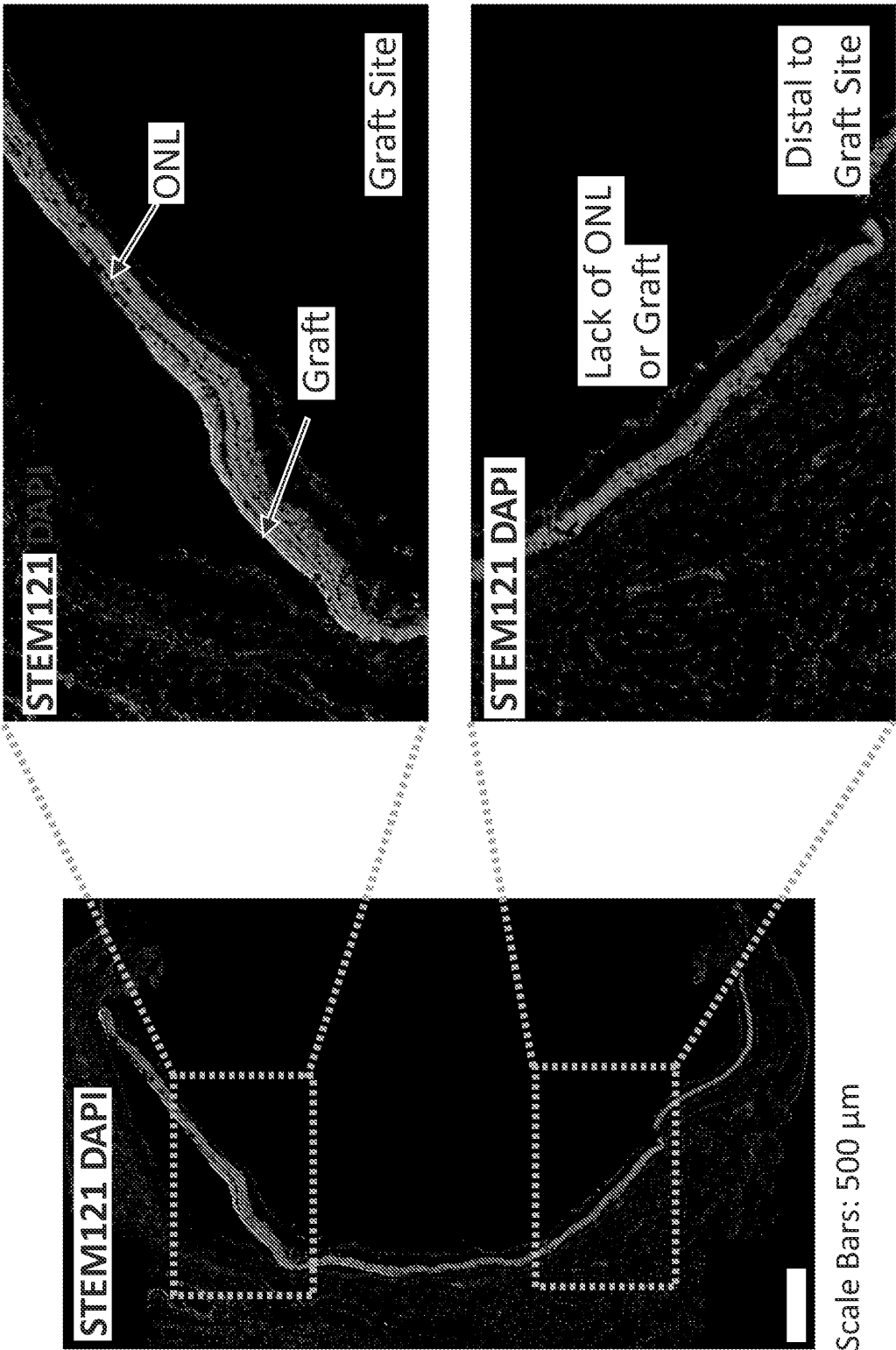


FIG. 38A

**Relative Subretinal PRC Engraftment
With Delayed Injection**

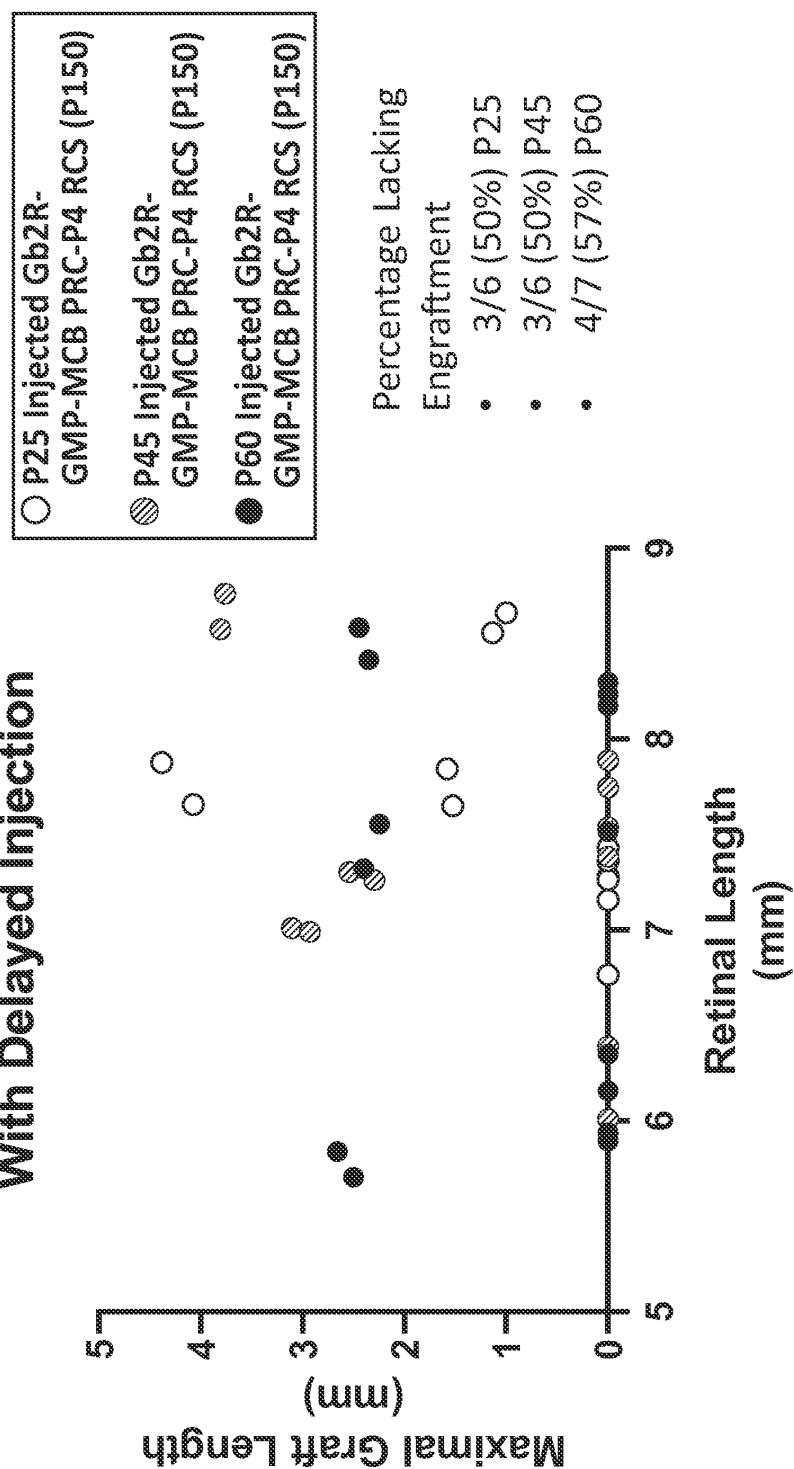


FIG. 38B

Relative Subretinal PRC Engraftment
With Delayed Injection

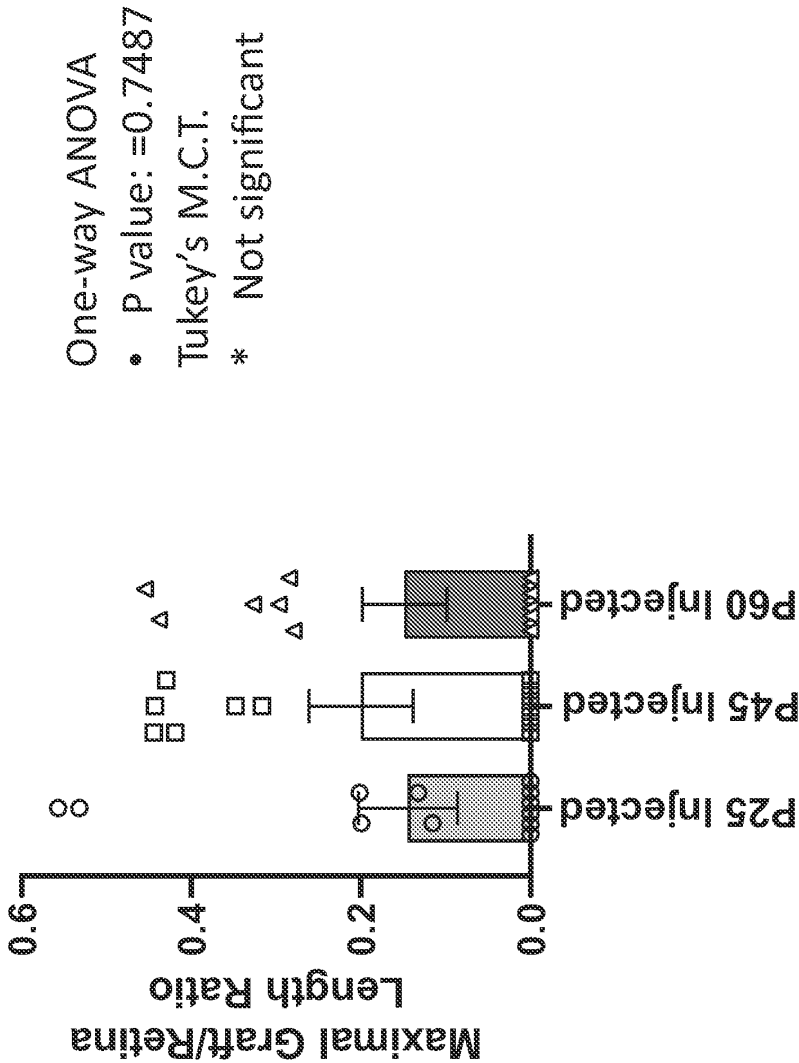
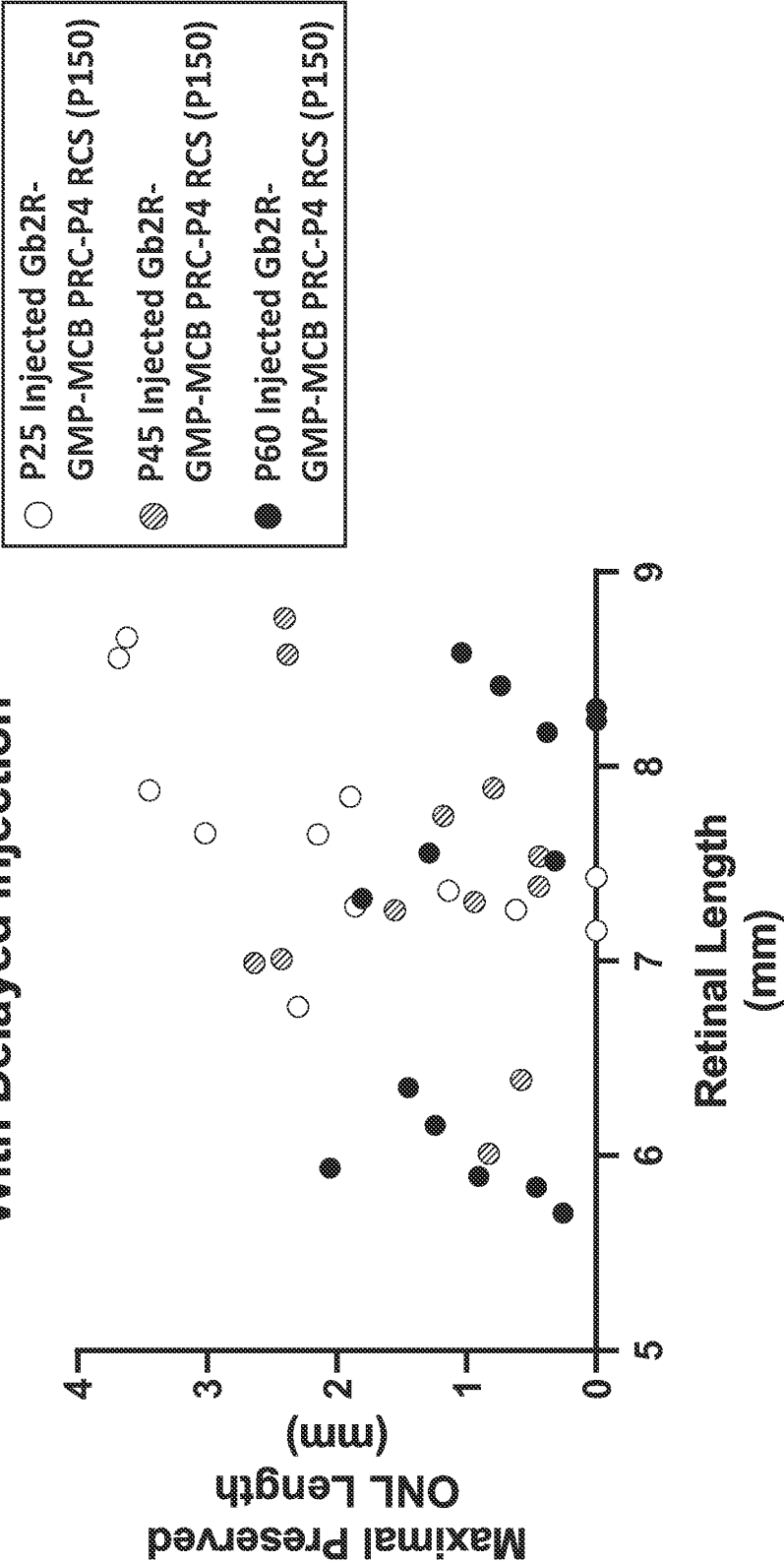


FIG. 39A

Relative ONL Preservation
With Delayed Injection



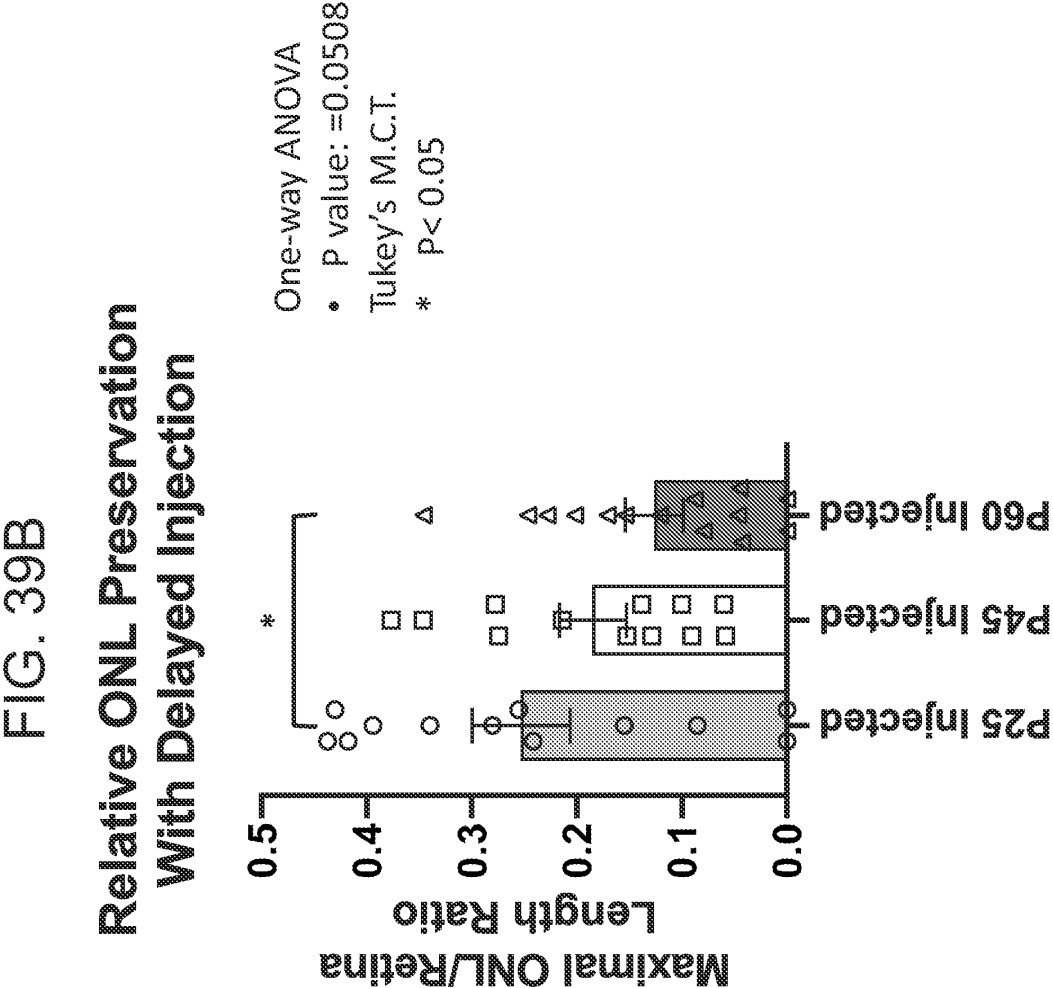


FIG. 40A

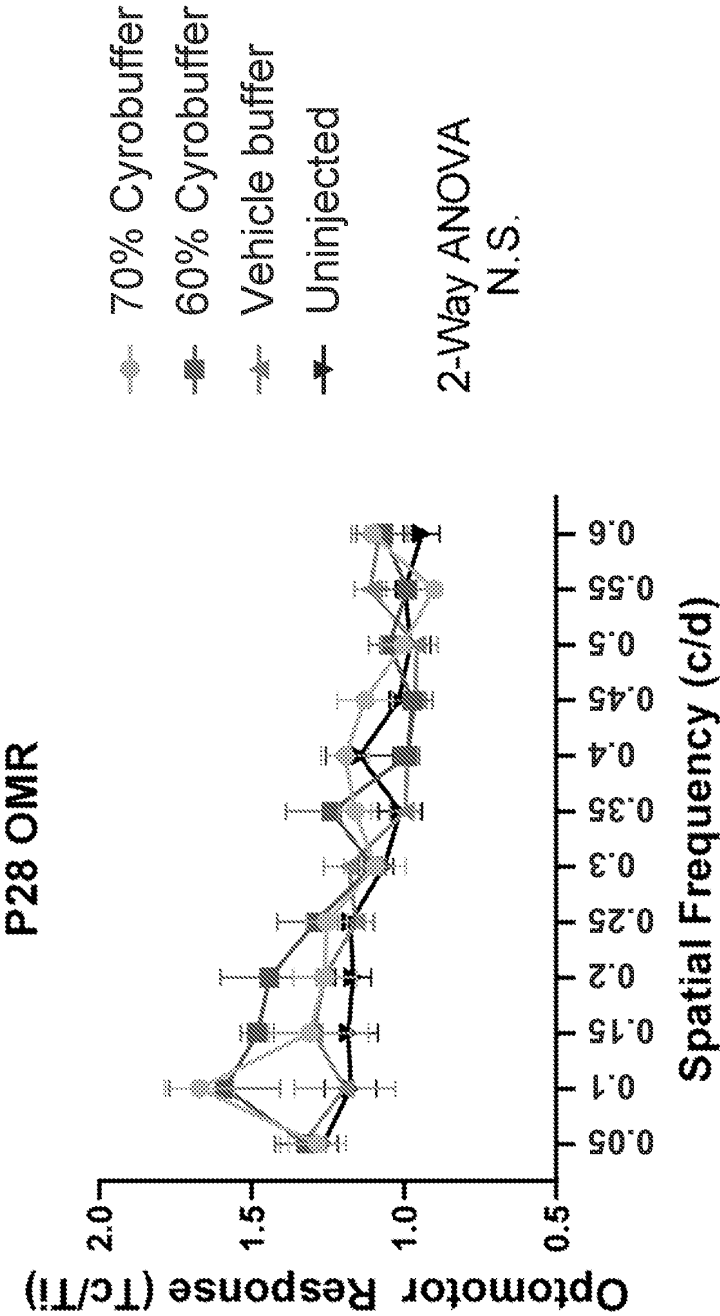


FIG. 40B

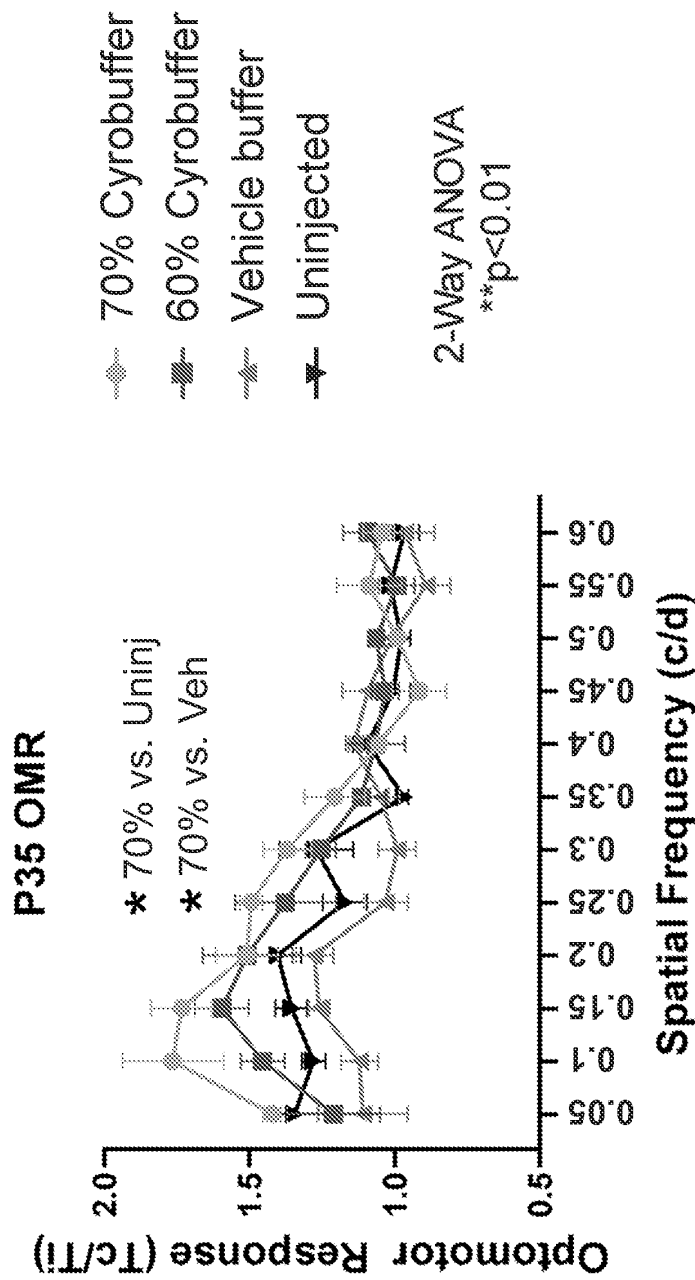


FIG. 40C

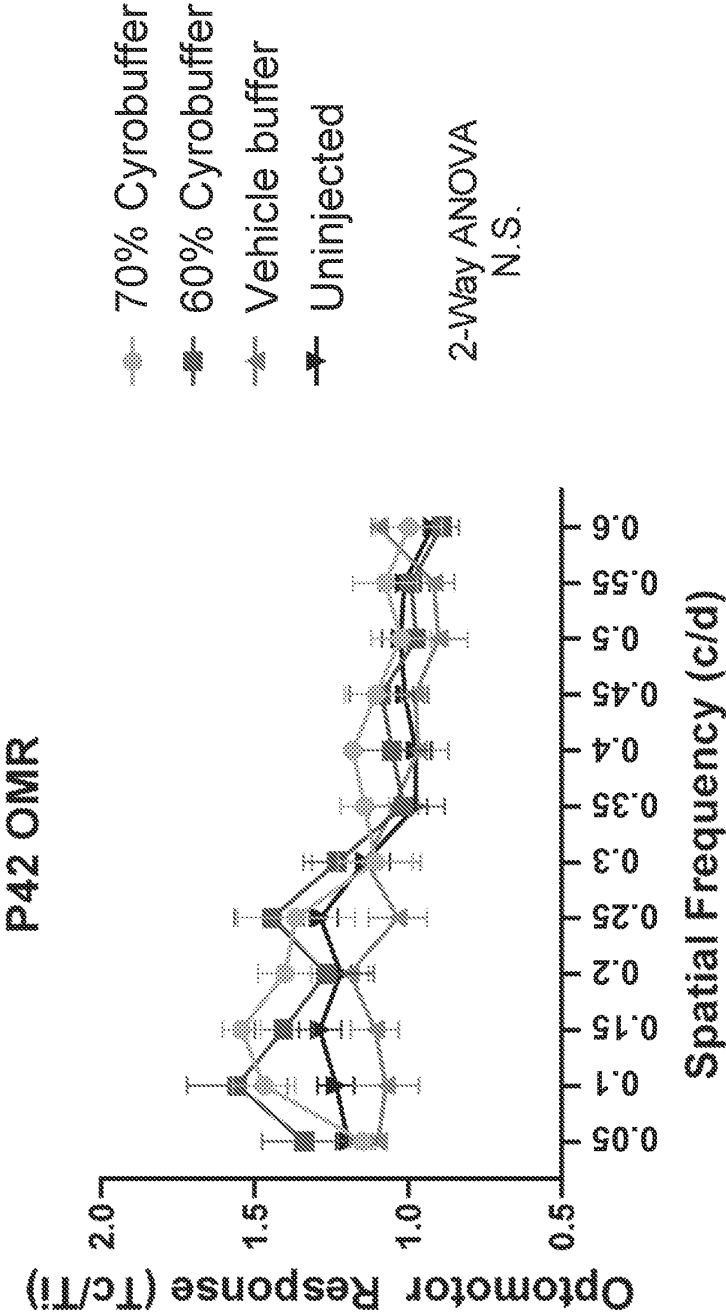


FIG. 40D

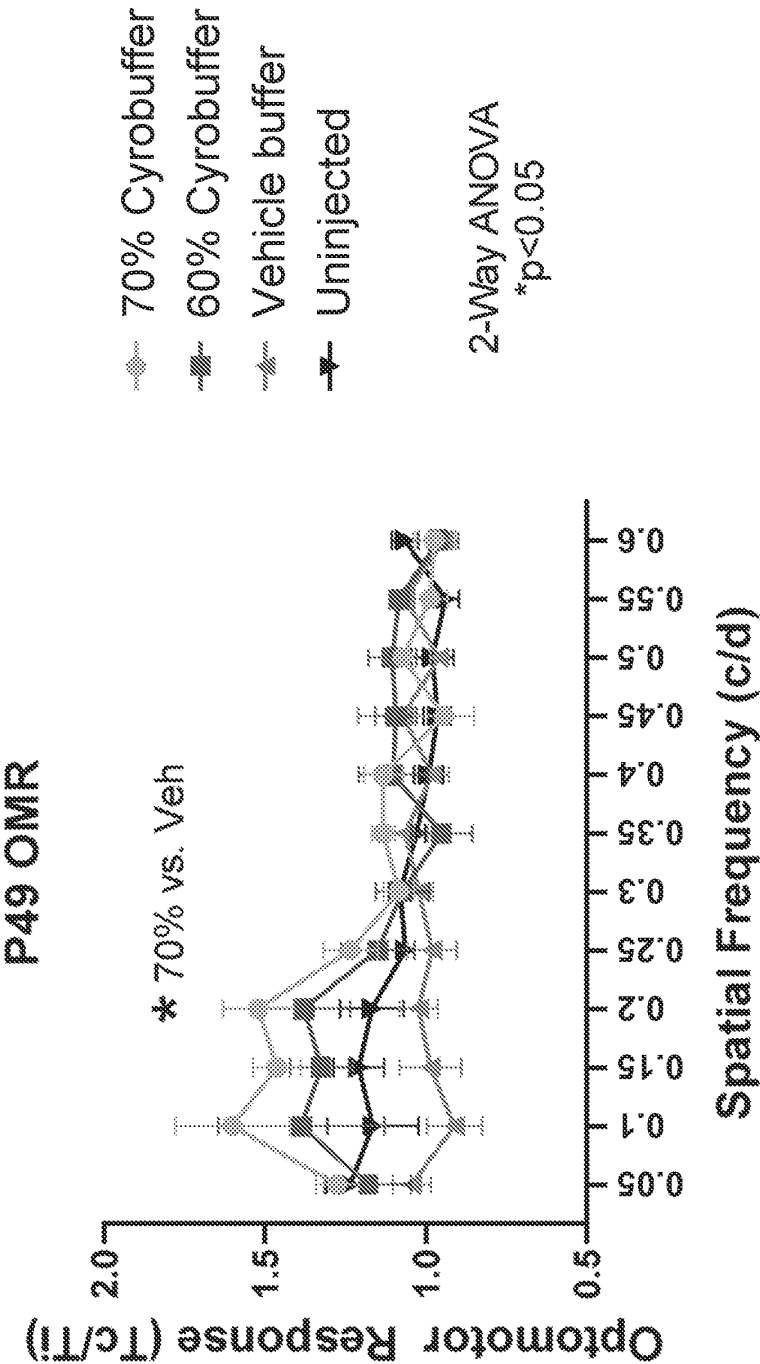


FIG. 41A

OCT: D0
Group 1 (OD)
≥70%

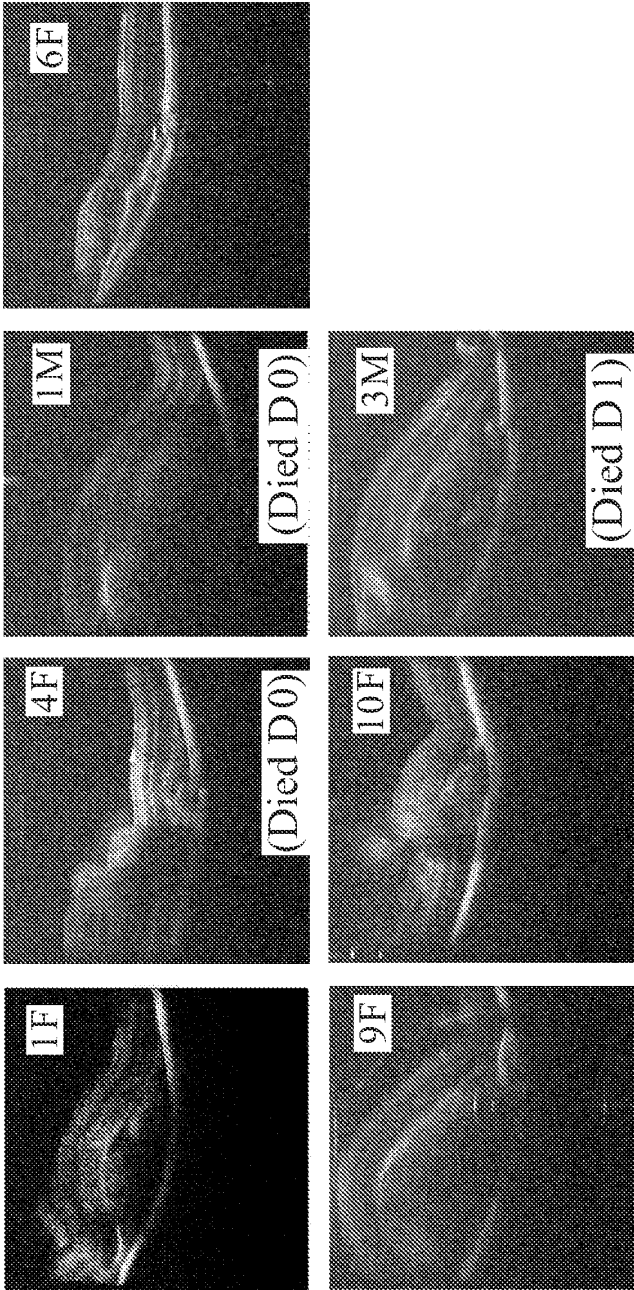


FIG. 41B

OCT: D0
GROUP 2 (OD)
≤60%

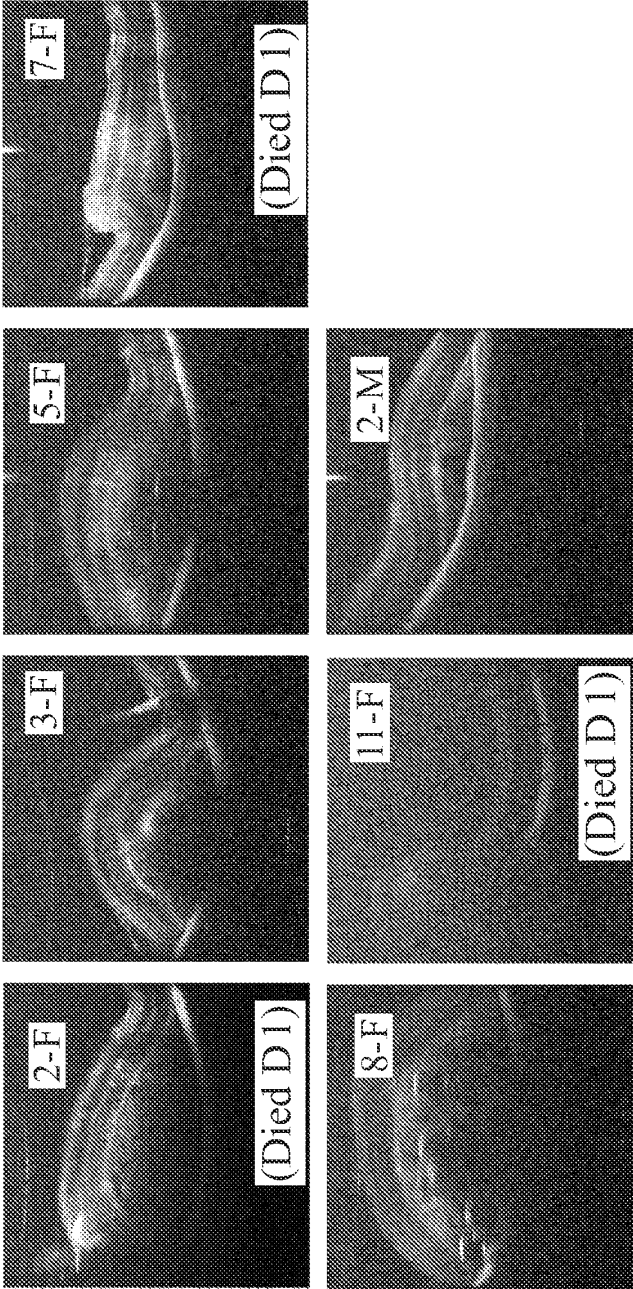


FIG. 41C

OCT: D9
Group 1 (OD)
≥70%

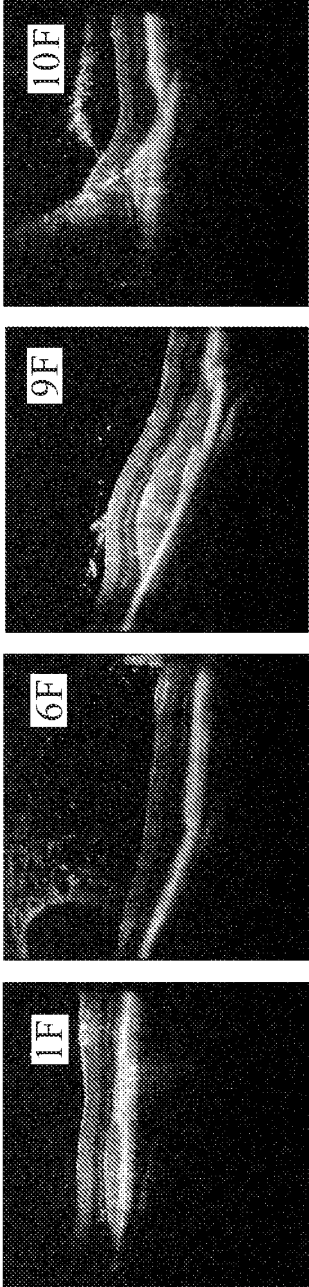


FIG. 41D

OCT: D9
GROUP 2 (OD)
≤60%

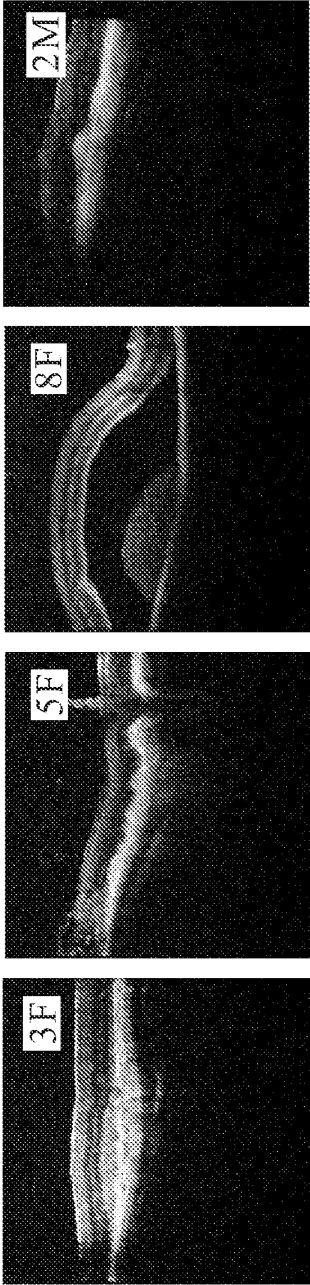


FIG. 41E

OCT:
D35
Group 1

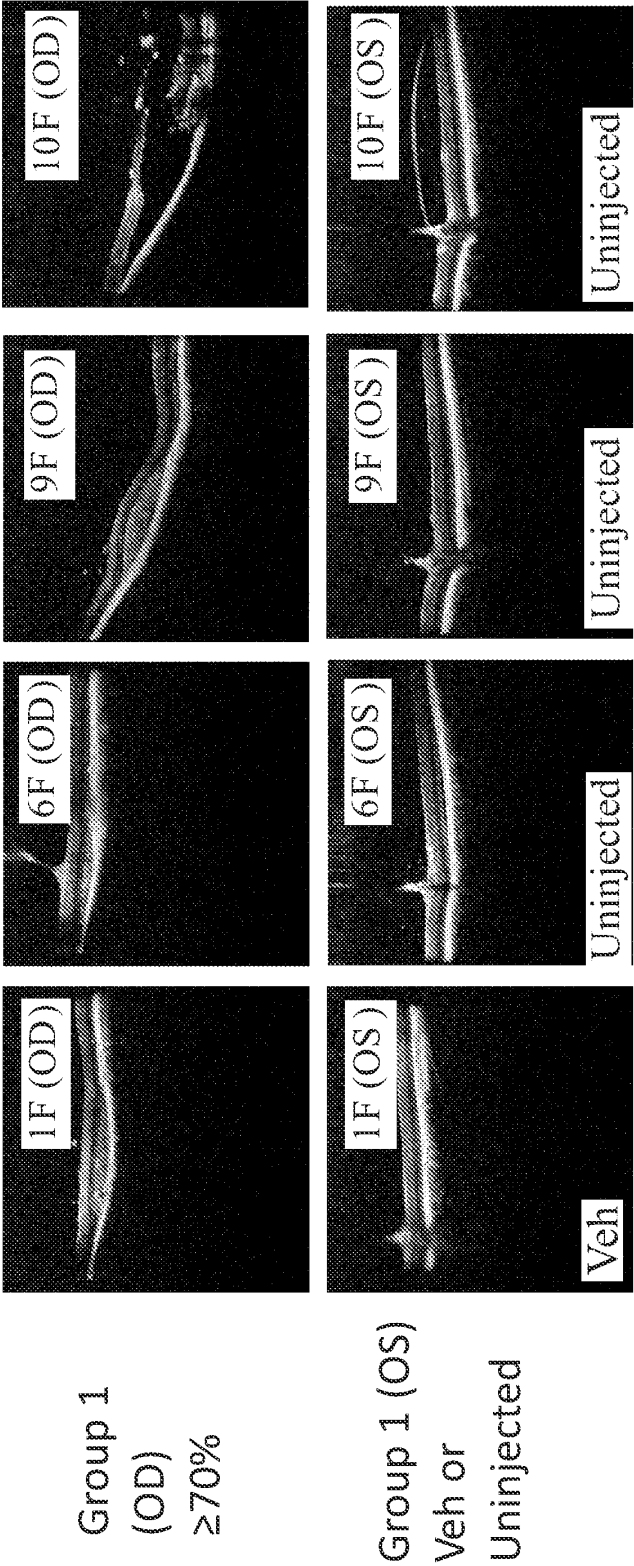


FIG. 41F

OCT: D35
Group 2

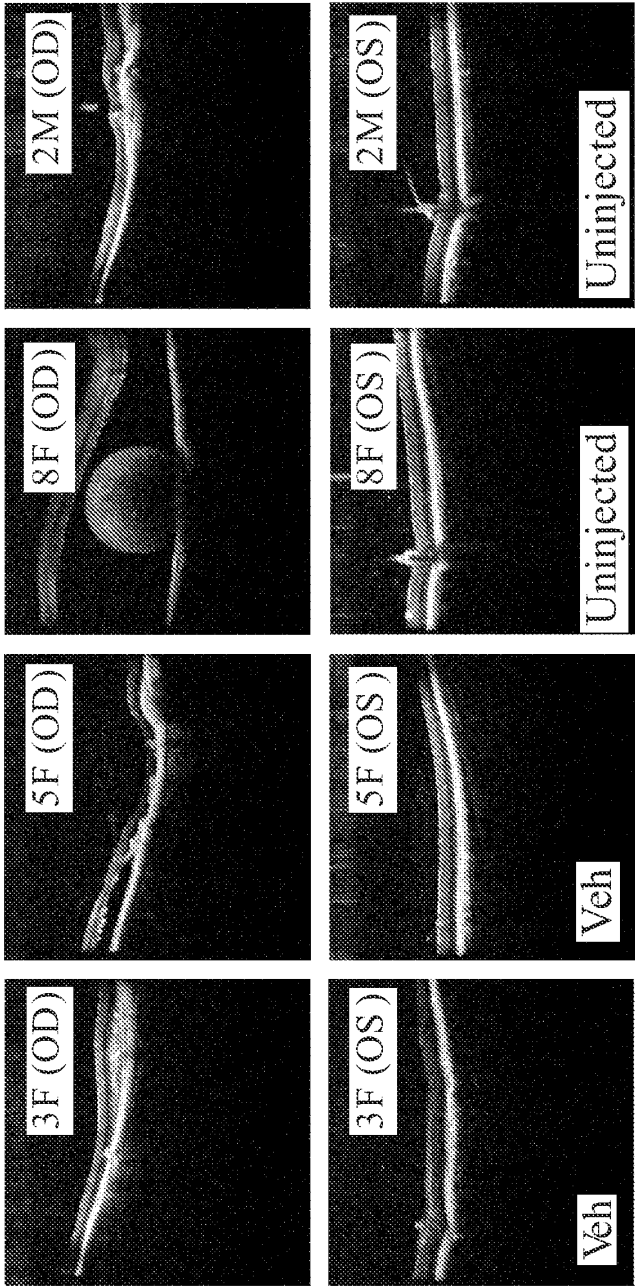


FIG. 42A

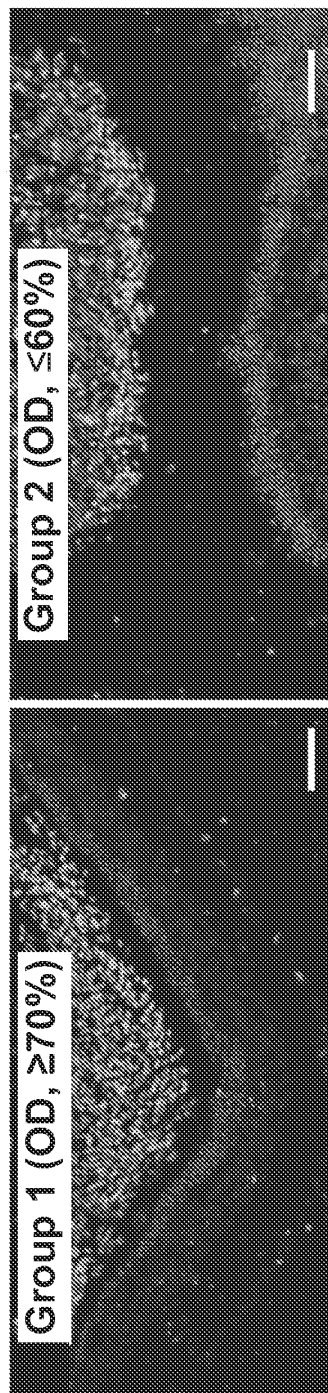
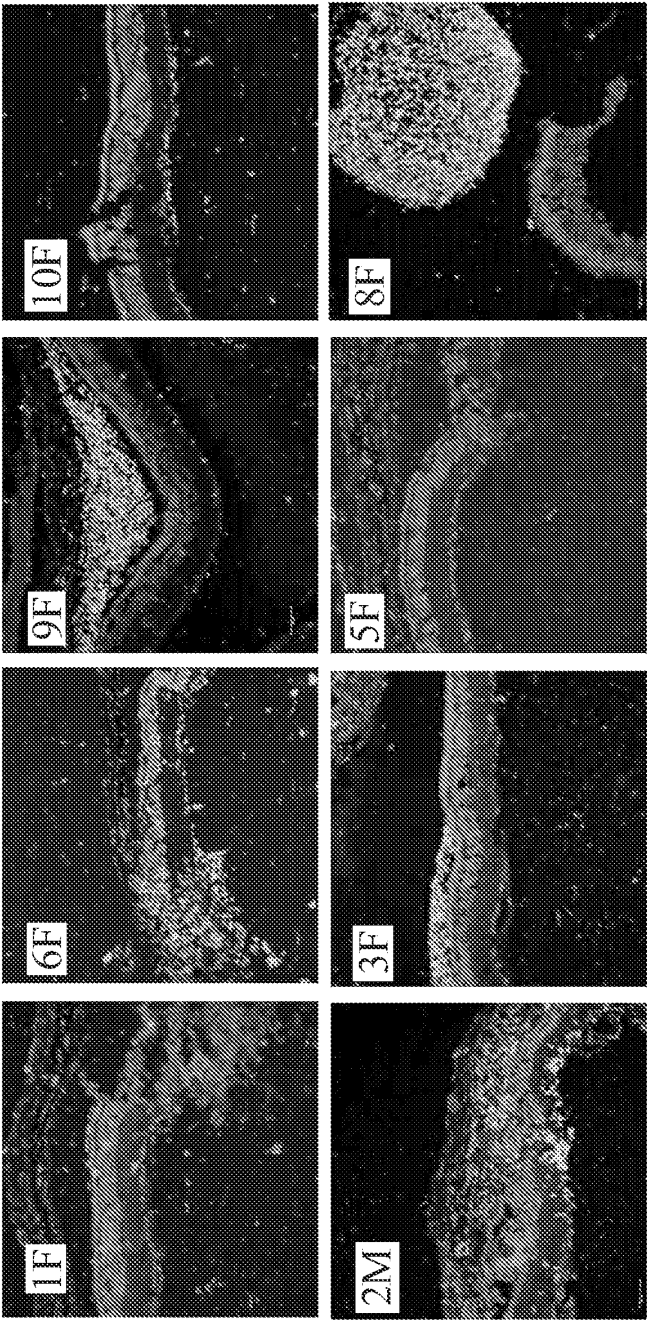


FIG. 42B



Group 1
(OD): >70%
PRC
formulation

Group 2
(OD): <60%
PRC
formulation

FIG. 43A

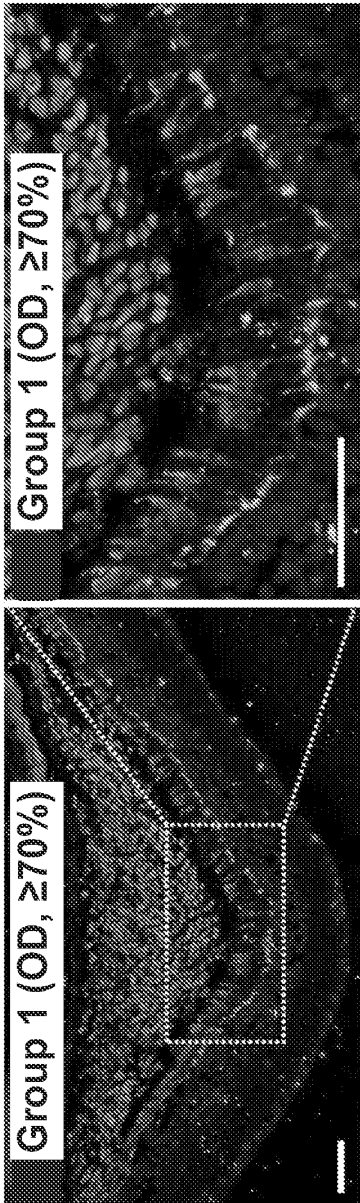


FIG. 43C

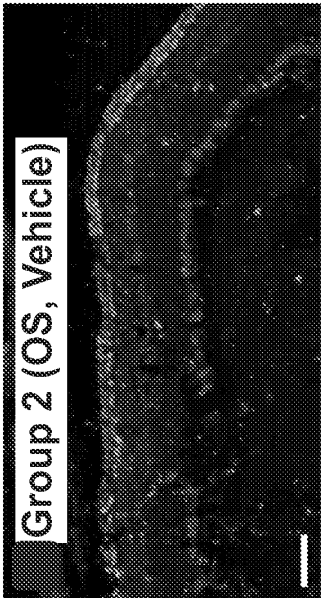


FIG. 43B

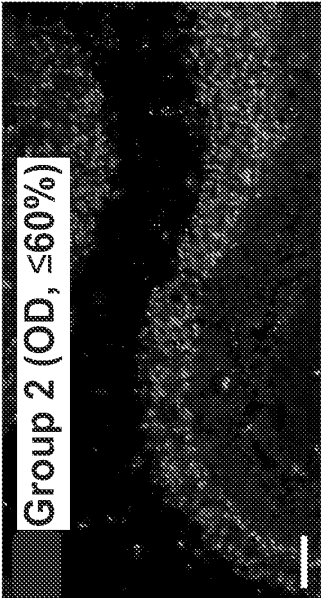


FIG. 43D

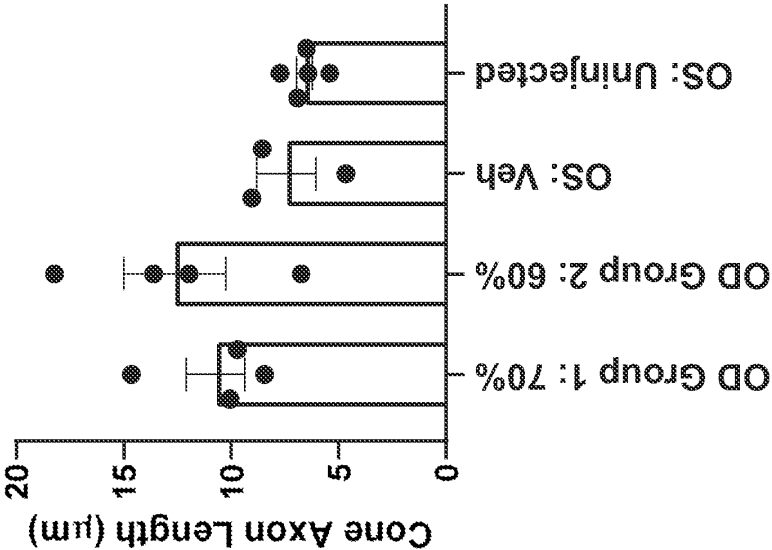


FIG. 43E

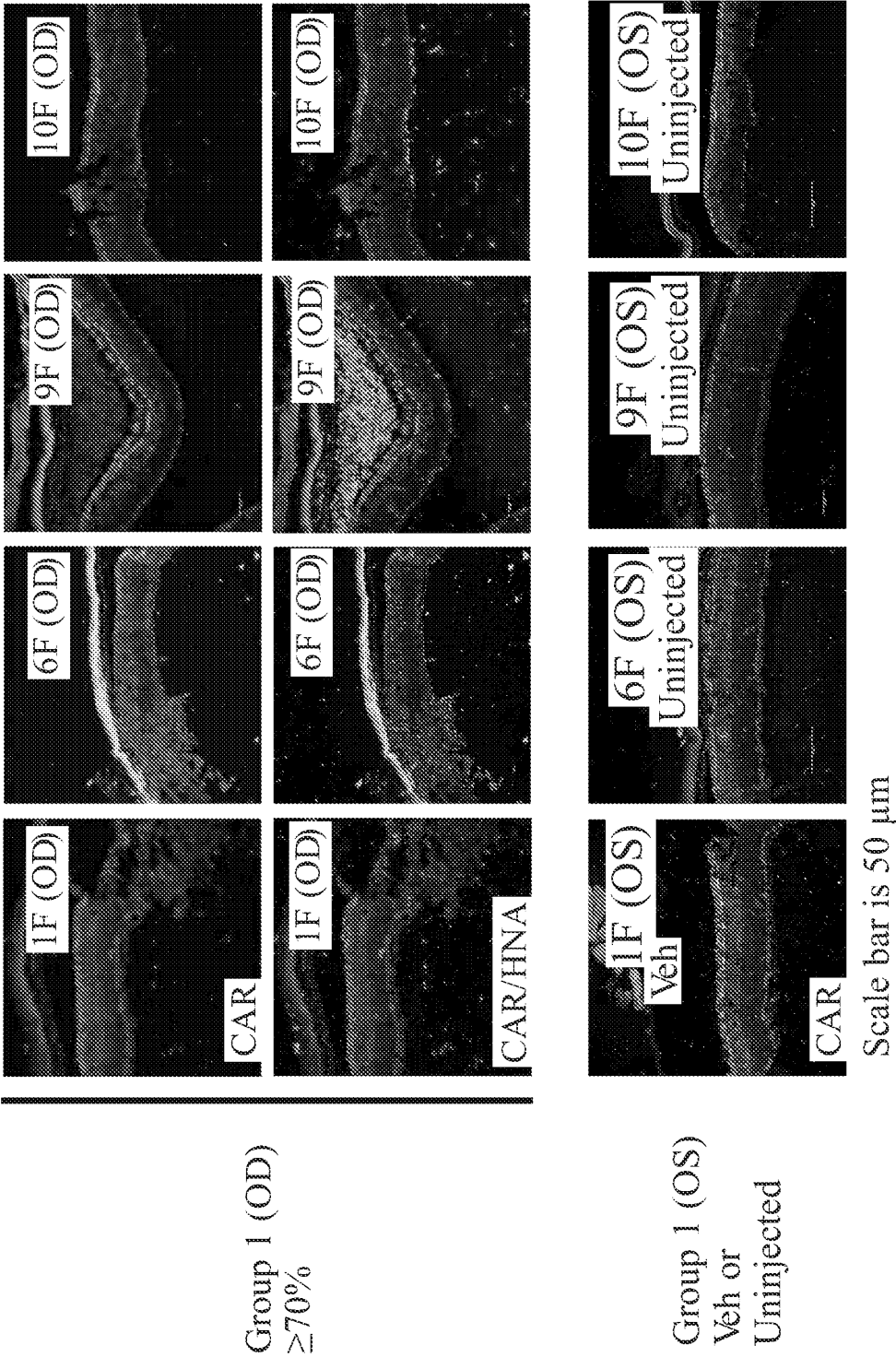
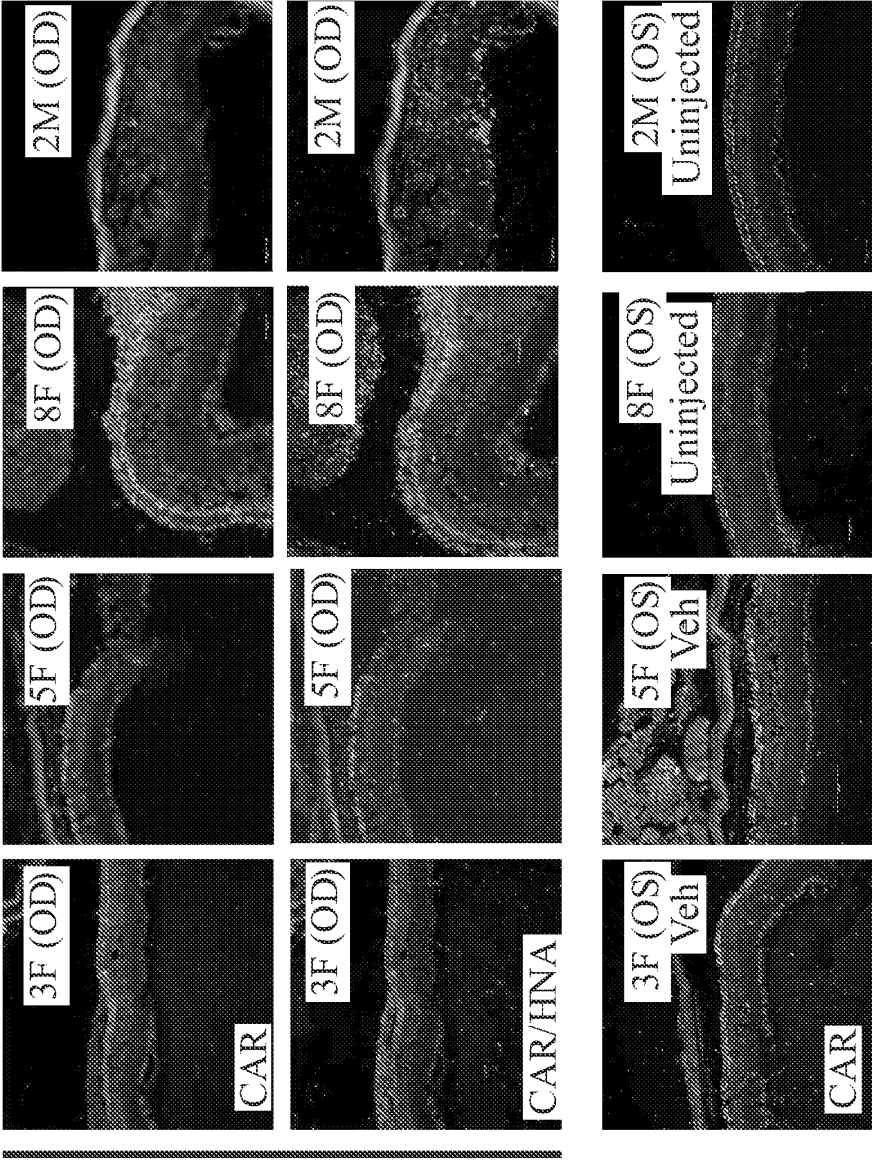


FIG. 43F



Group 2
(OD)
≤60%

Group 2
(OS) Veh or
uninjected

Scale bar is 50 μm

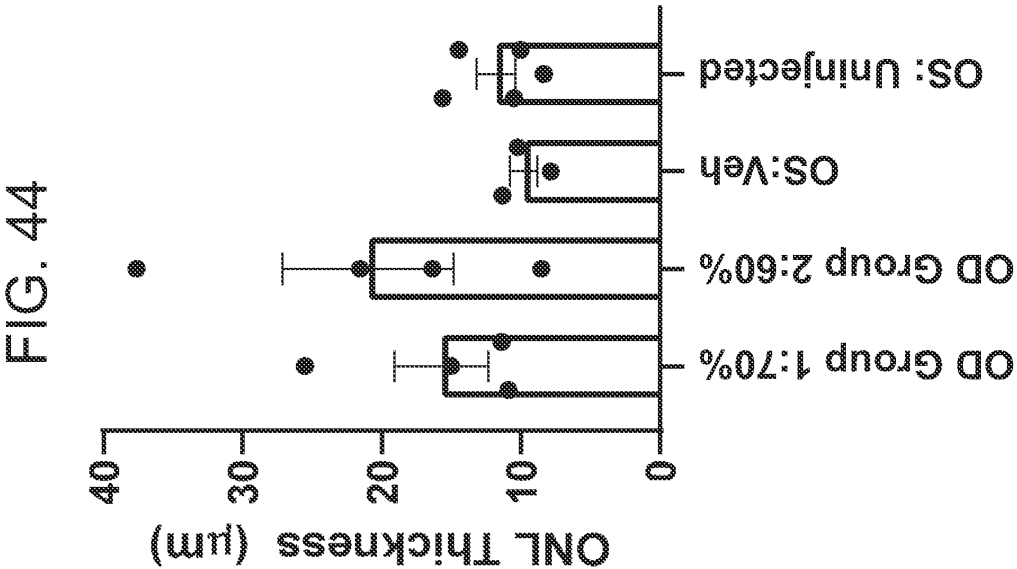
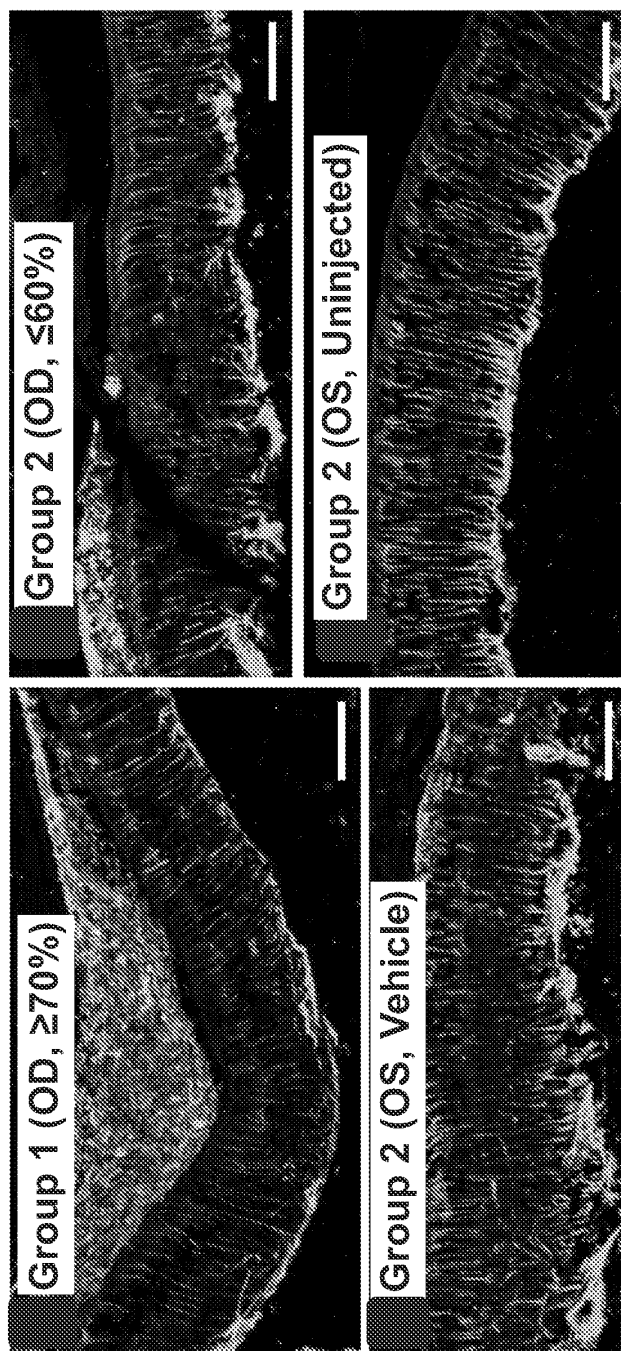


FIG. 45



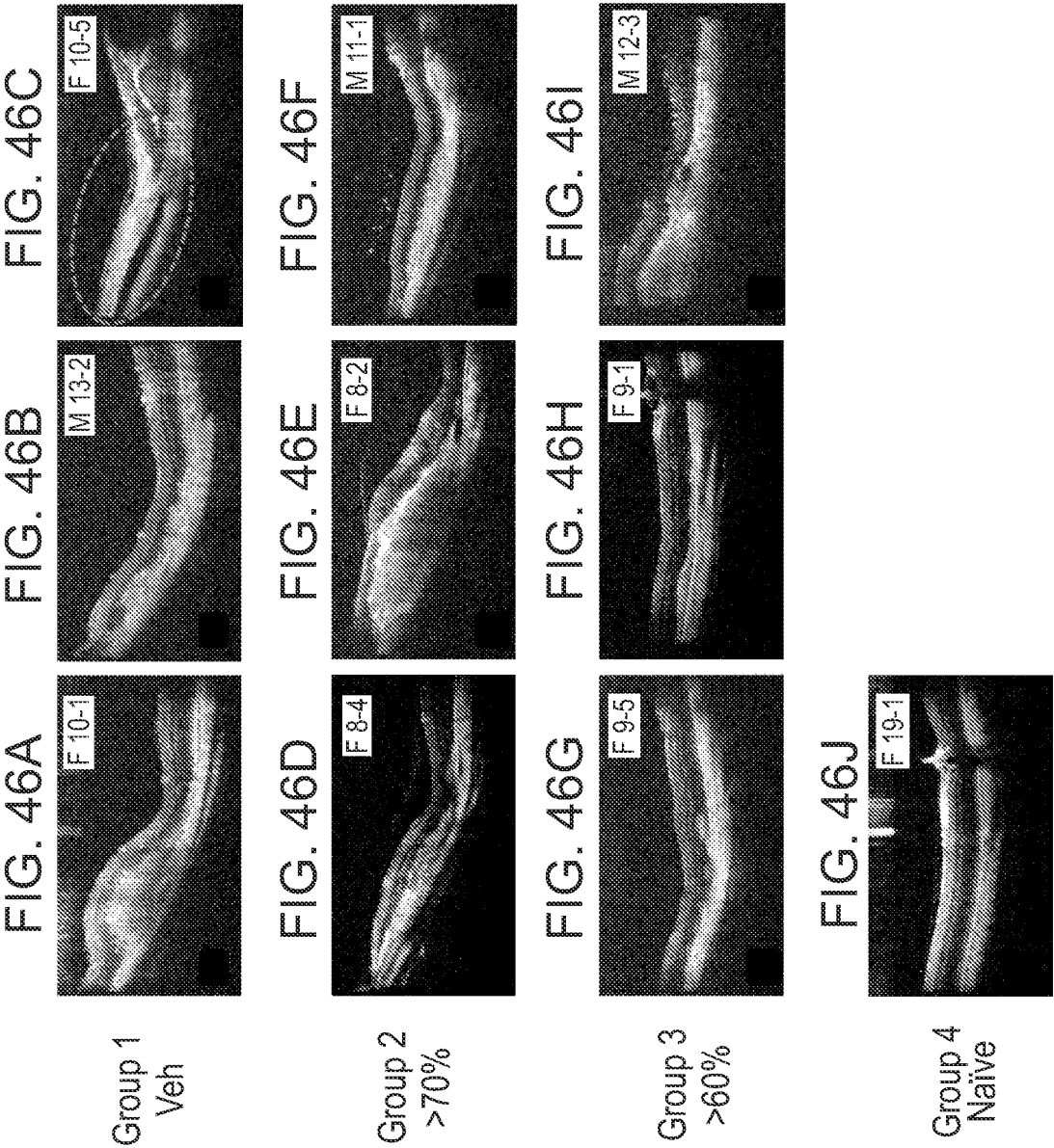


FIG. 47B

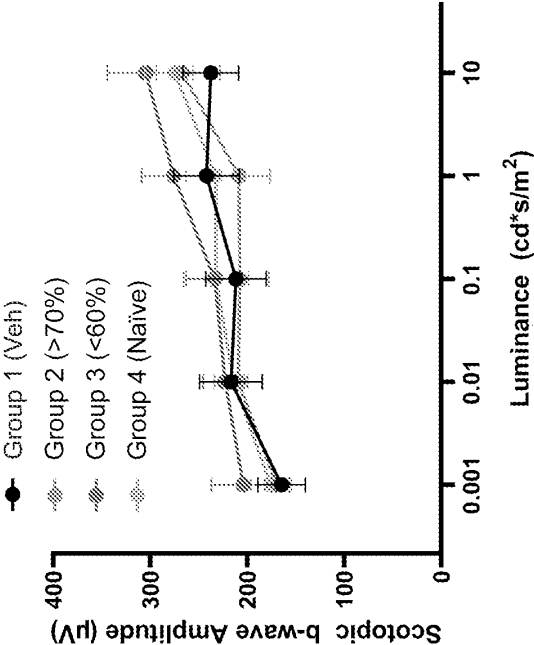
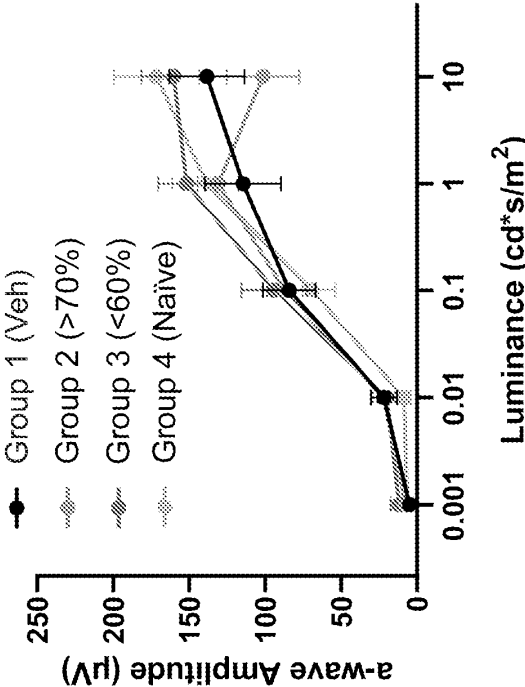
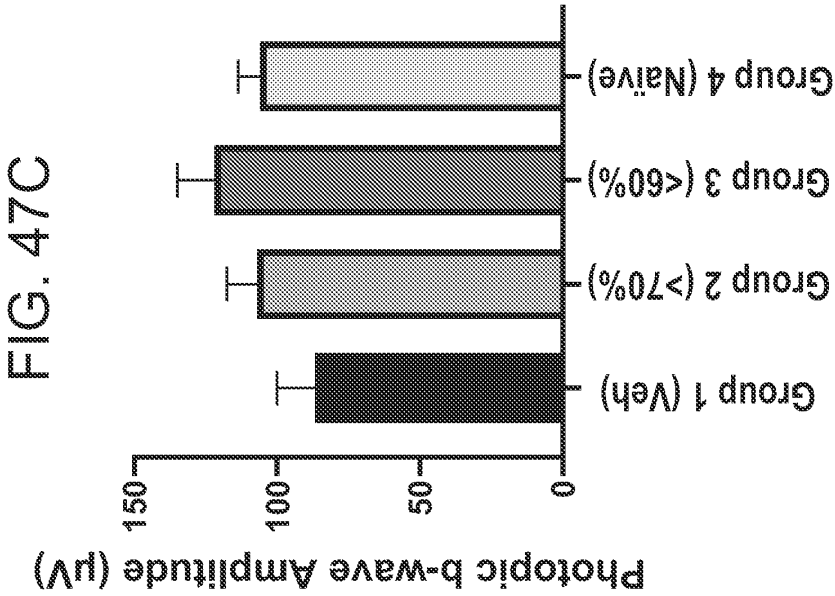
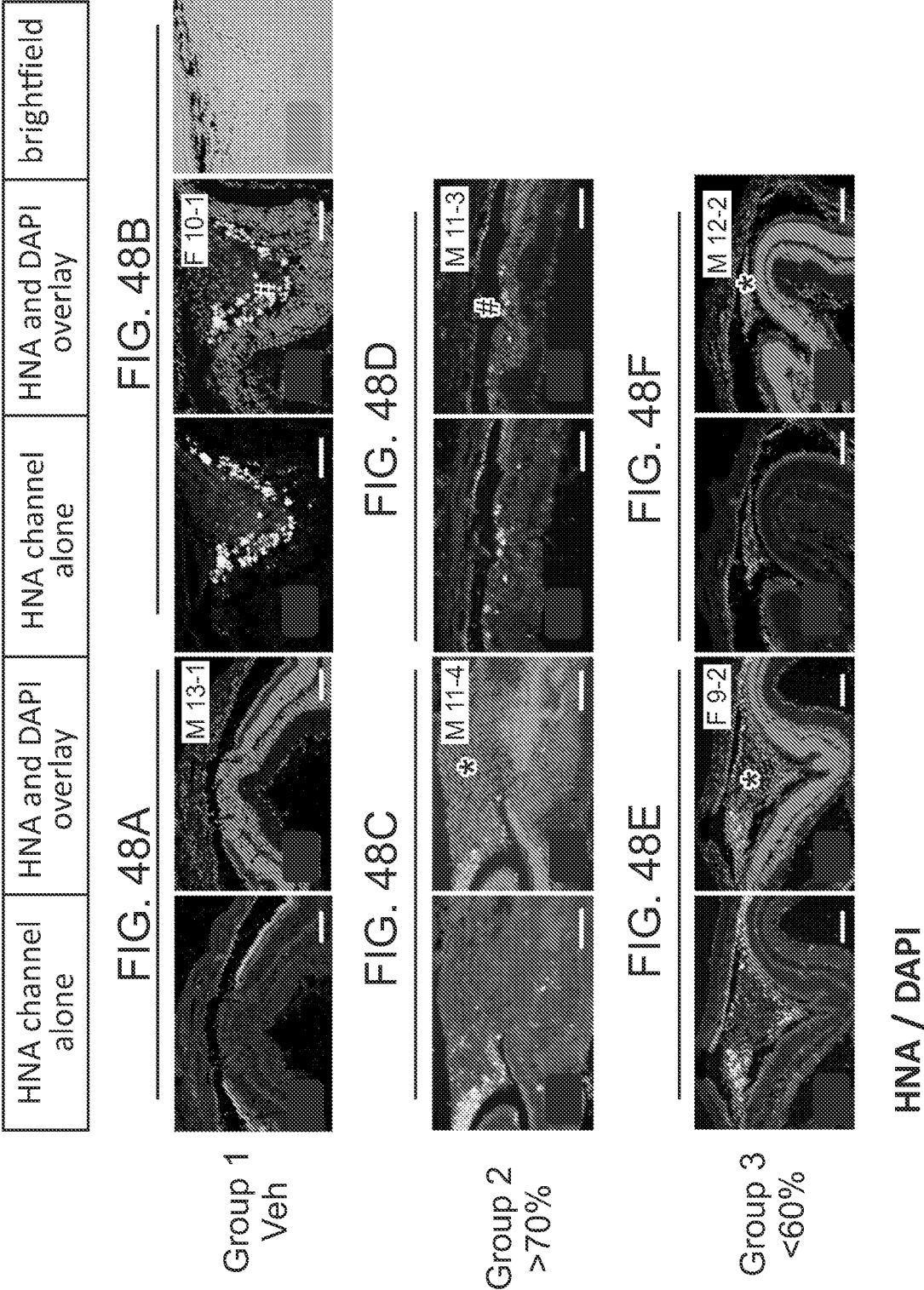


FIG. 47A







GFAP channel alone	GFAP and DAPI overlay	GFAP channel alone	GFAP and DAPI overlay
-----------------------	--------------------------	-----------------------	--------------------------

FIG. 49A

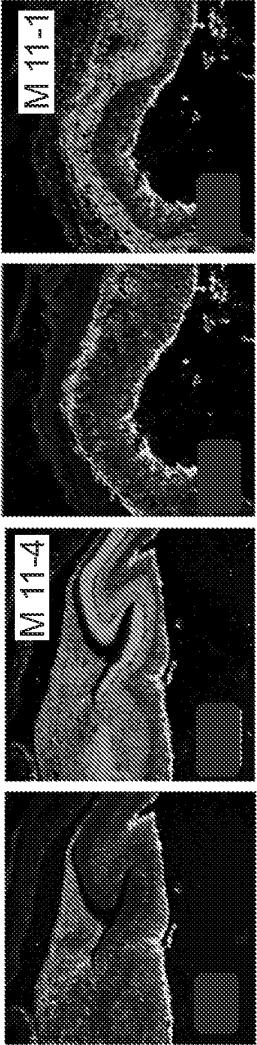
FIG. 49B



Group 1
Veh

FIG. 49C

FIG. 49D



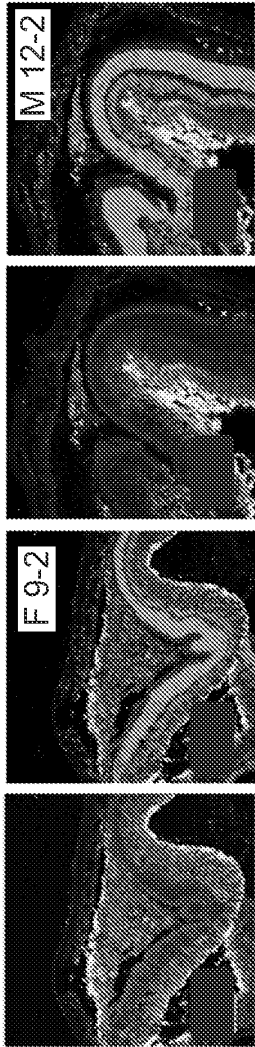
Group 2
70%

GFAP/ DAPI

GFAP channel alone	GFAP and DAPI overlay	GFAP channel alone	GFAP and DAPI overlay
-----------------------	--------------------------	-----------------------	--------------------------

FIG. 49E

FIG. 49F



Group 3
<60%

FIG. 49G

FIG. 49H



Group 4
Naïve

GFAP/ DAPI

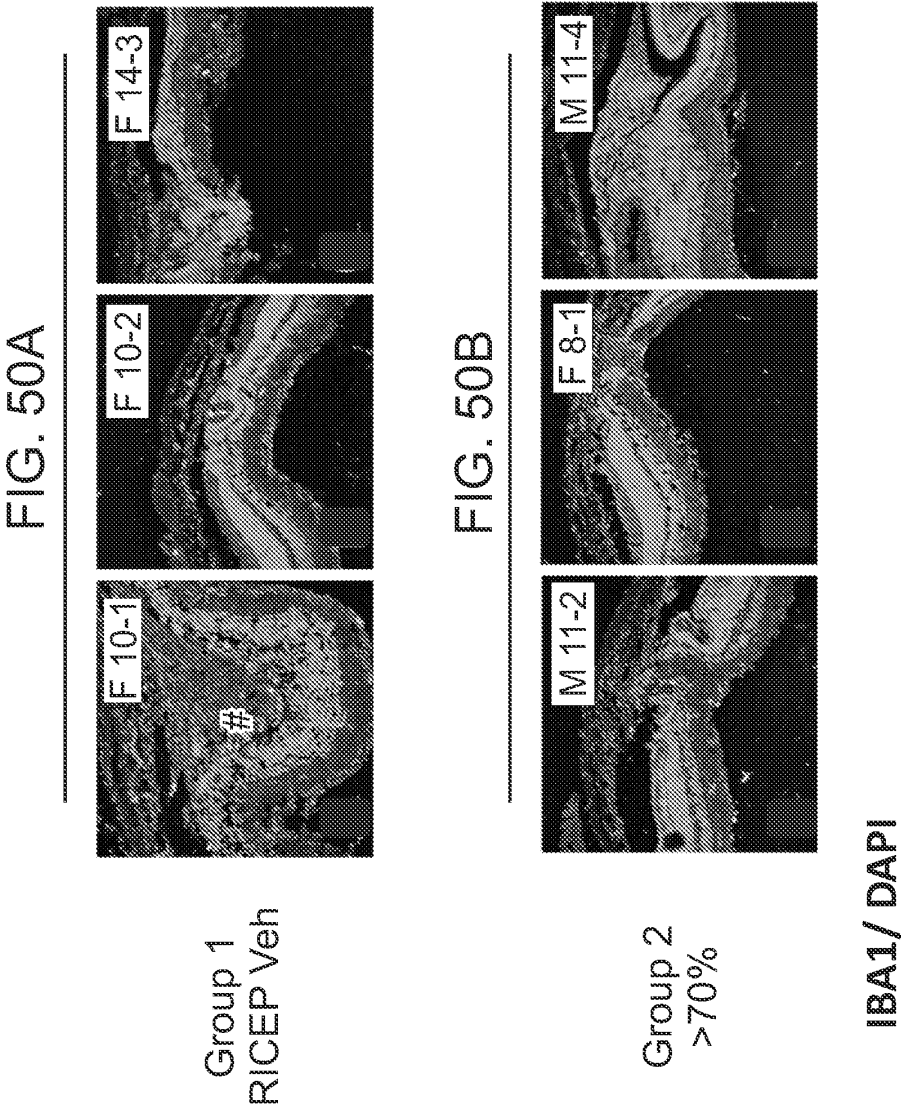
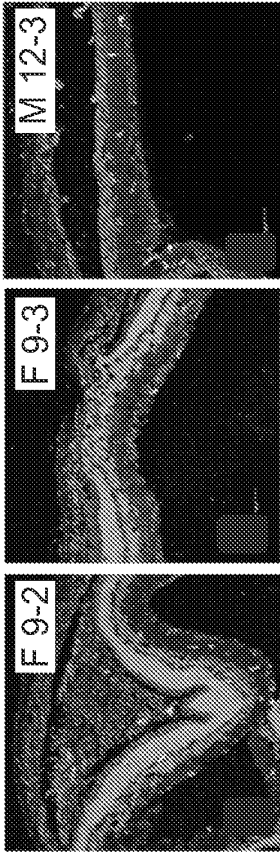
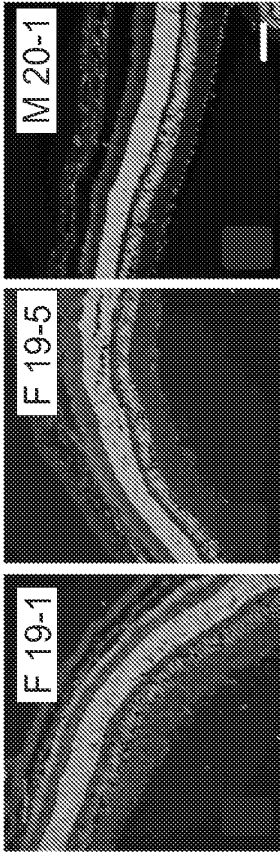


FIG. 50C



Group 3
<60%

FIG. 50D



Group 4
Naïve

IBA1/ DAPI