

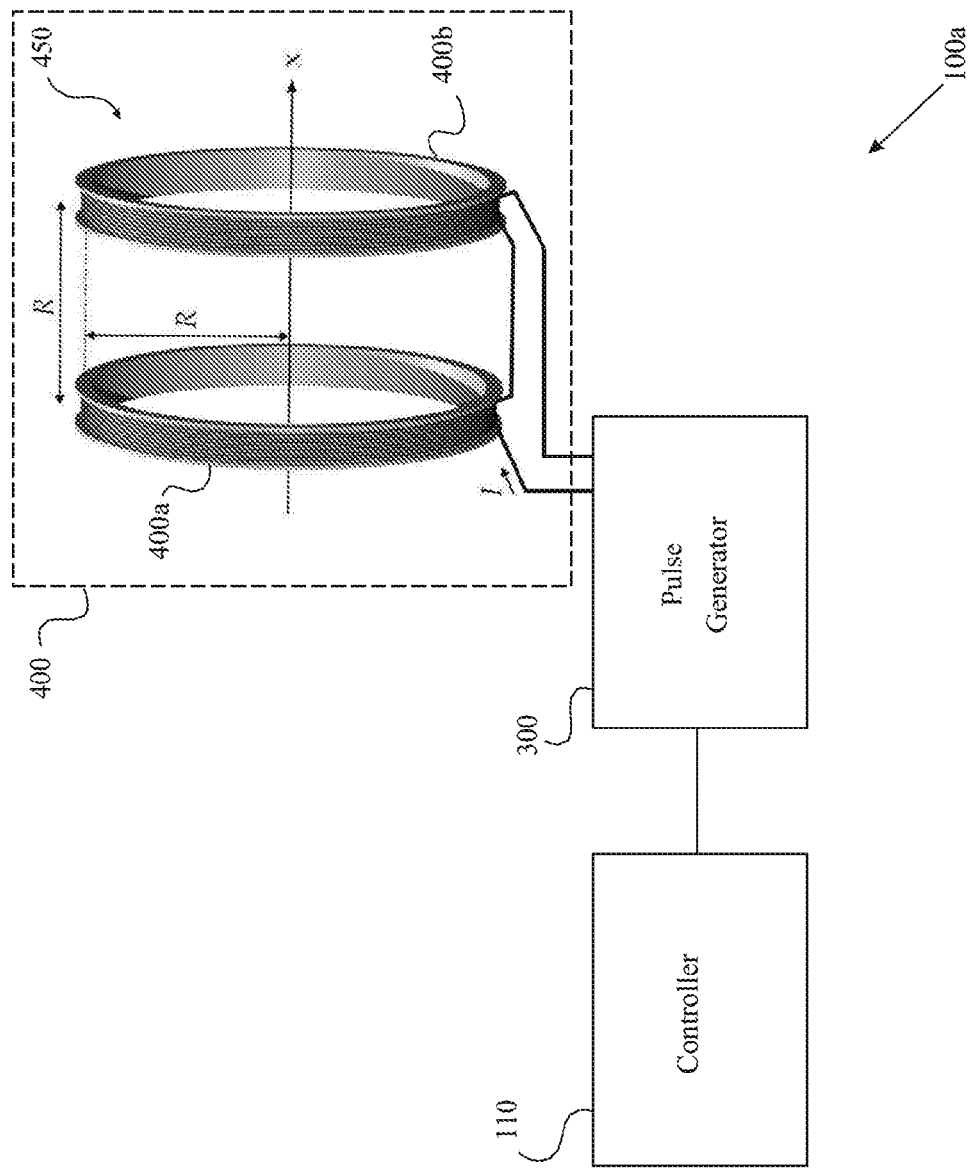
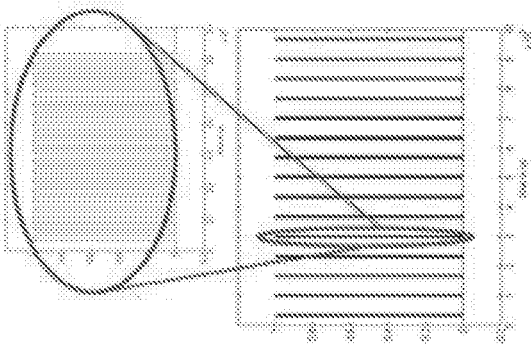


FIG. 1A

FIG. 1B

Representative
Intra-Burst PEMF
Pulse Sequence:

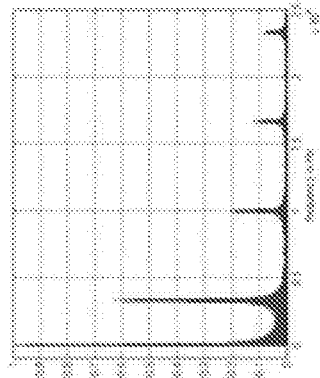


Representative
PEMF Burst
Sequence:

signal shape

FIG. 1C

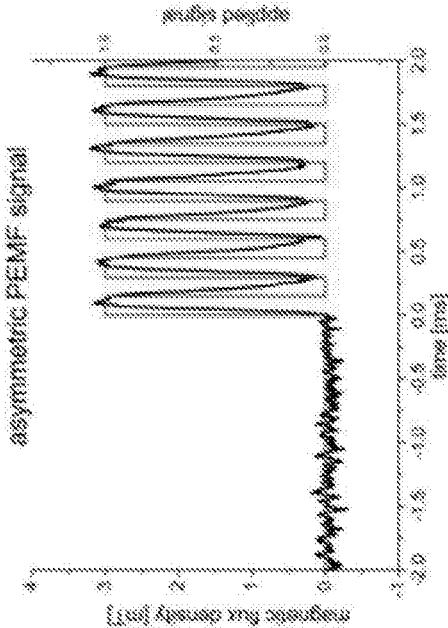
Representative
Frequency Spectrum of
Intra-Burst PEMF Pulses



spectrum

FIG. 1D

Measured Magnetic Flux Density vs.
Time Characteristics of a Representative
Asymmetric PEMF Burst Sequence



measured characteristics

Representative Example Parameters of PEMF Signals to which Target Tissues such as Muscle

Tissues are Exposable / Exposed During one or more PEMF Exposure Sessions:

- Maximum peak field strength up to 5mT
- 15 bursts per second (15Hz repetition frequency)
- 1 burst: 20 pulses at 150 μ s
- main frequency components: 0.015, 3.3, 10, 16.6 kHz

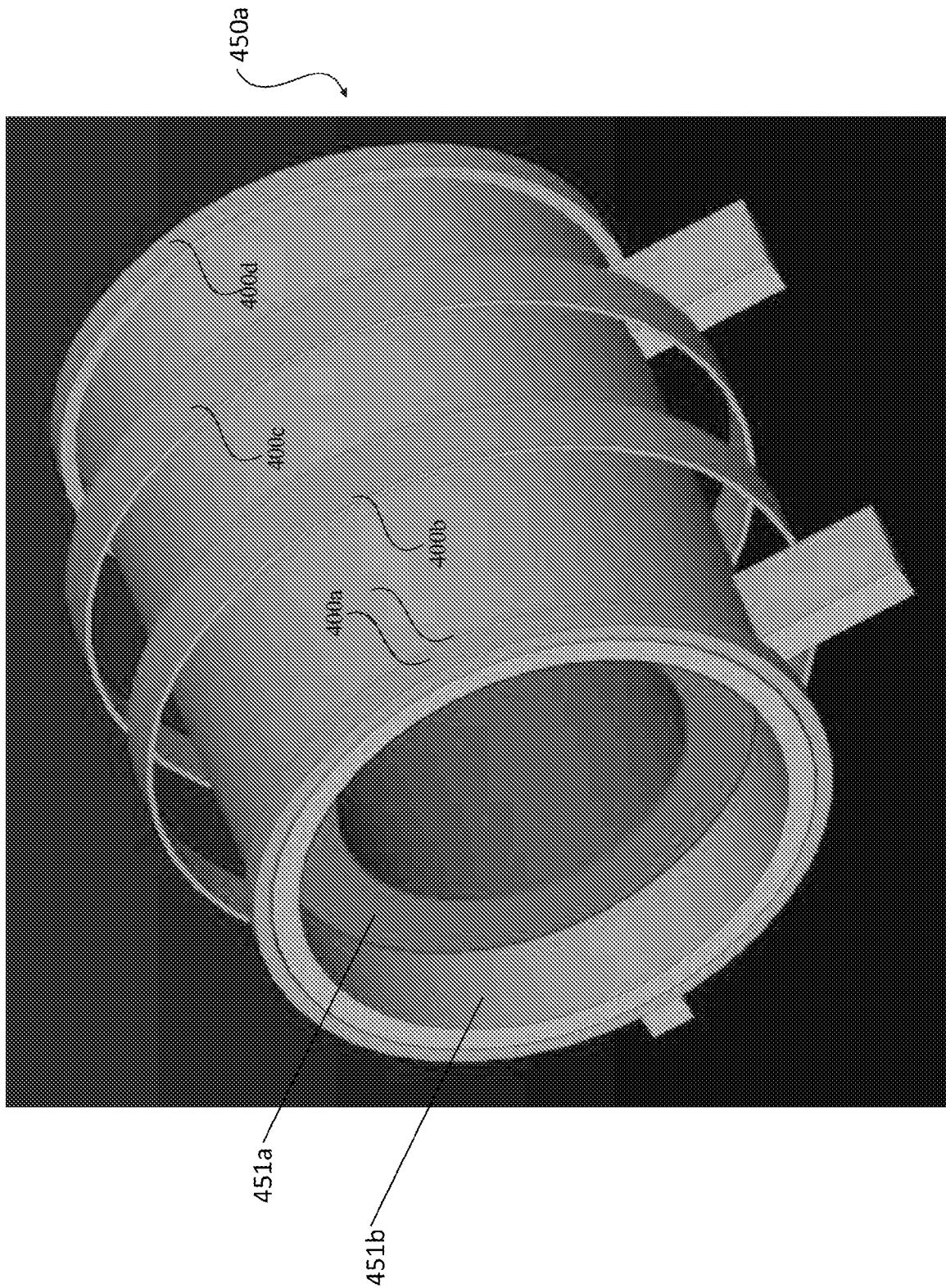


FIG. 2A

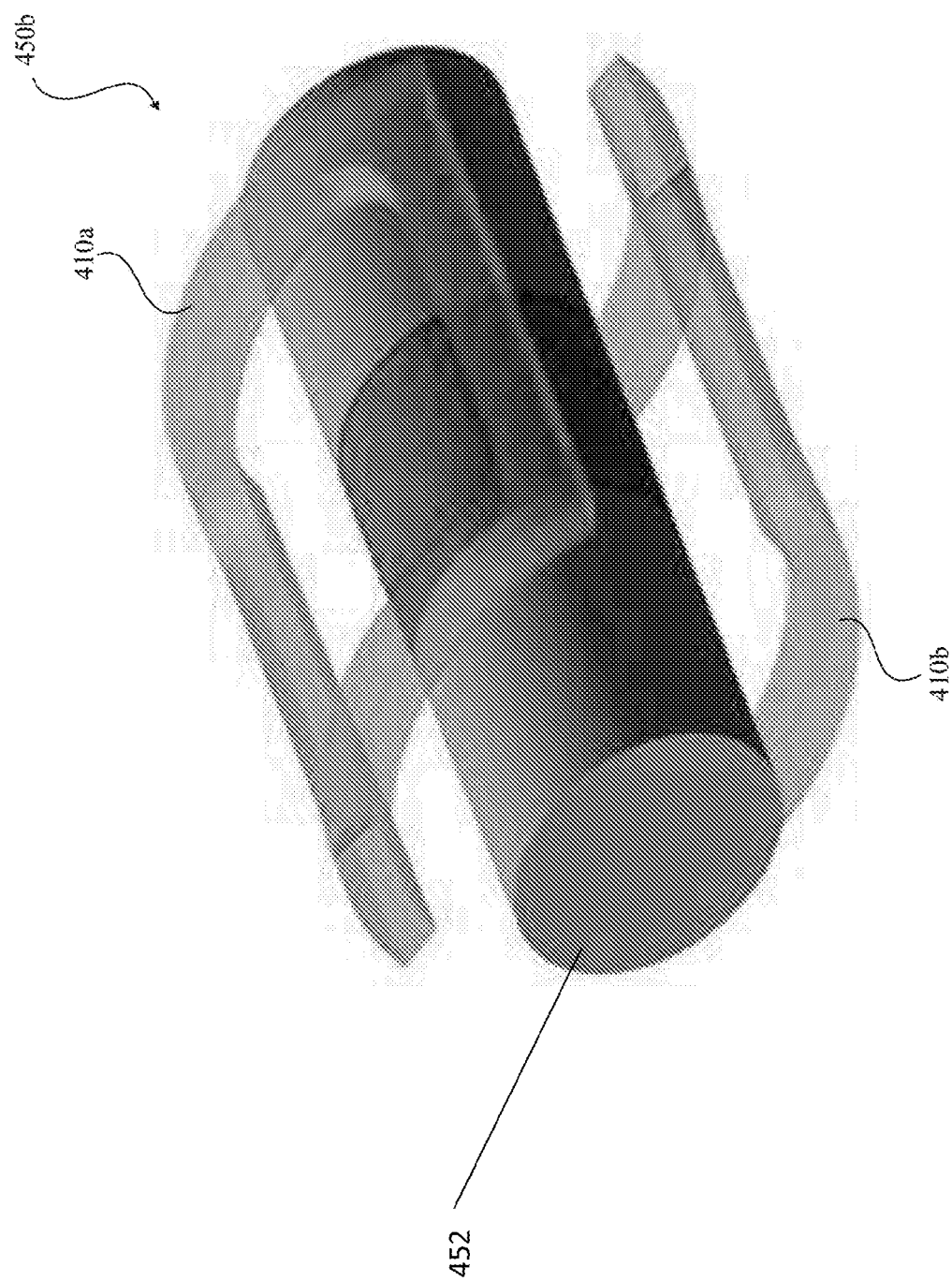
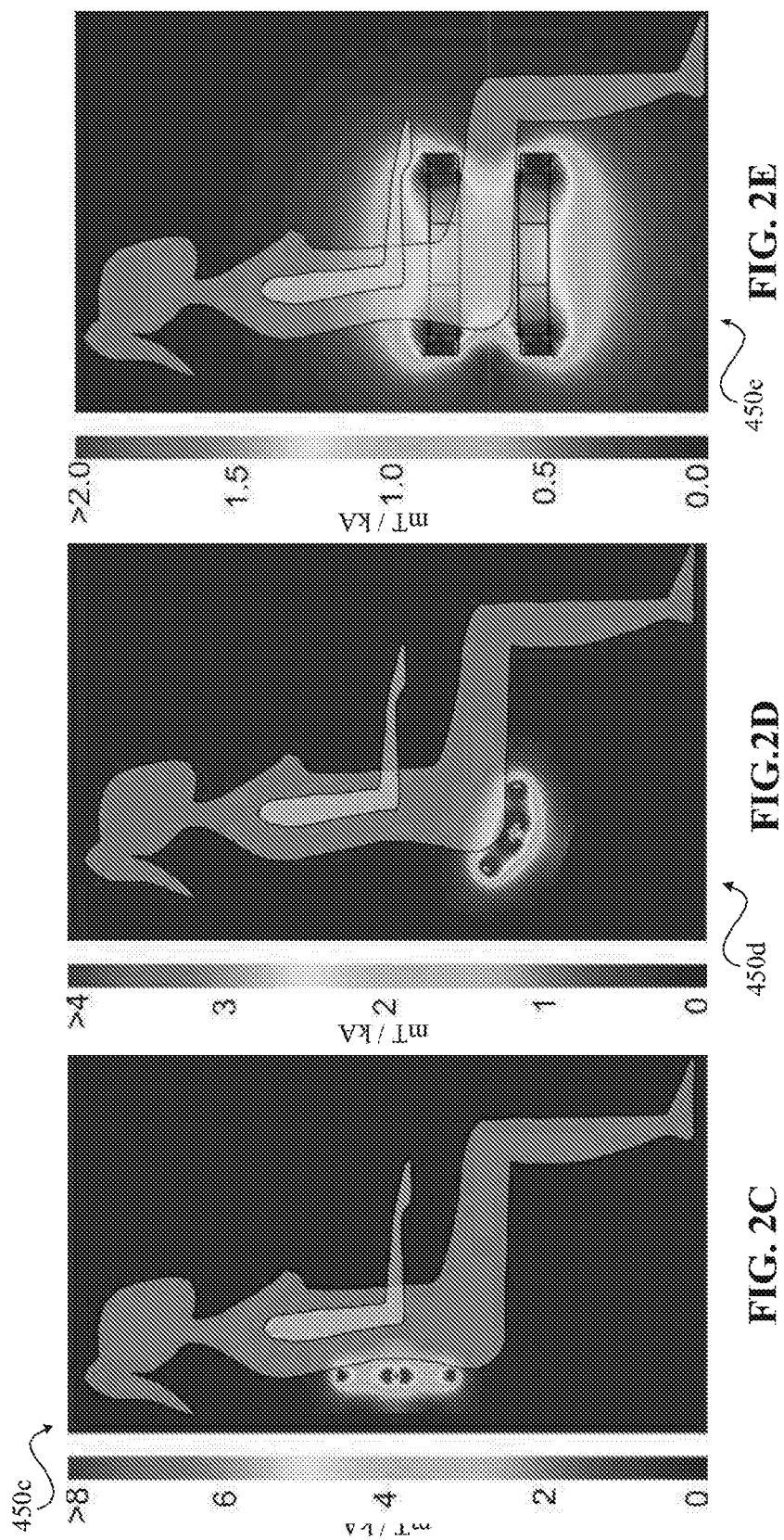


FIG. 2B



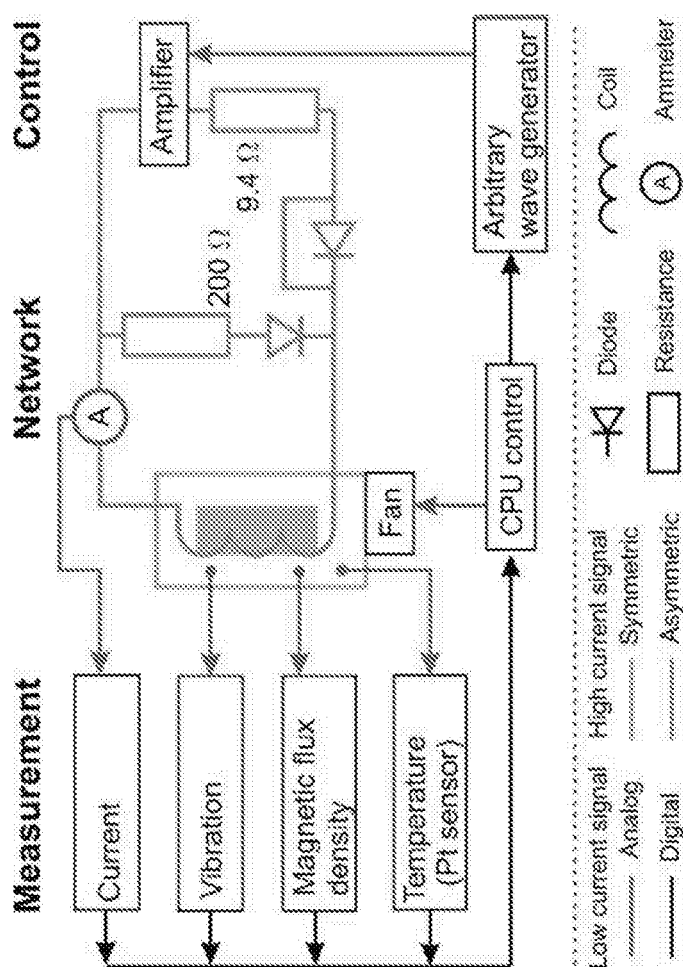


FIG. 2F

460

Subject ID: #####

Subject Name: John Smith

Today's Date: ##/##/####

☒

Generate PEMF Signals

PEMF Exposure Regimen: 3 Times / Week, M-W-F

PEMF Exposure Session: 1 mT, 10 min.

☐

Perform MR Scan

Start PEMF Exposure Session

View Subject Details / History

Edit Regimen Details

Edit Exposure Session Details

FIG. 2G

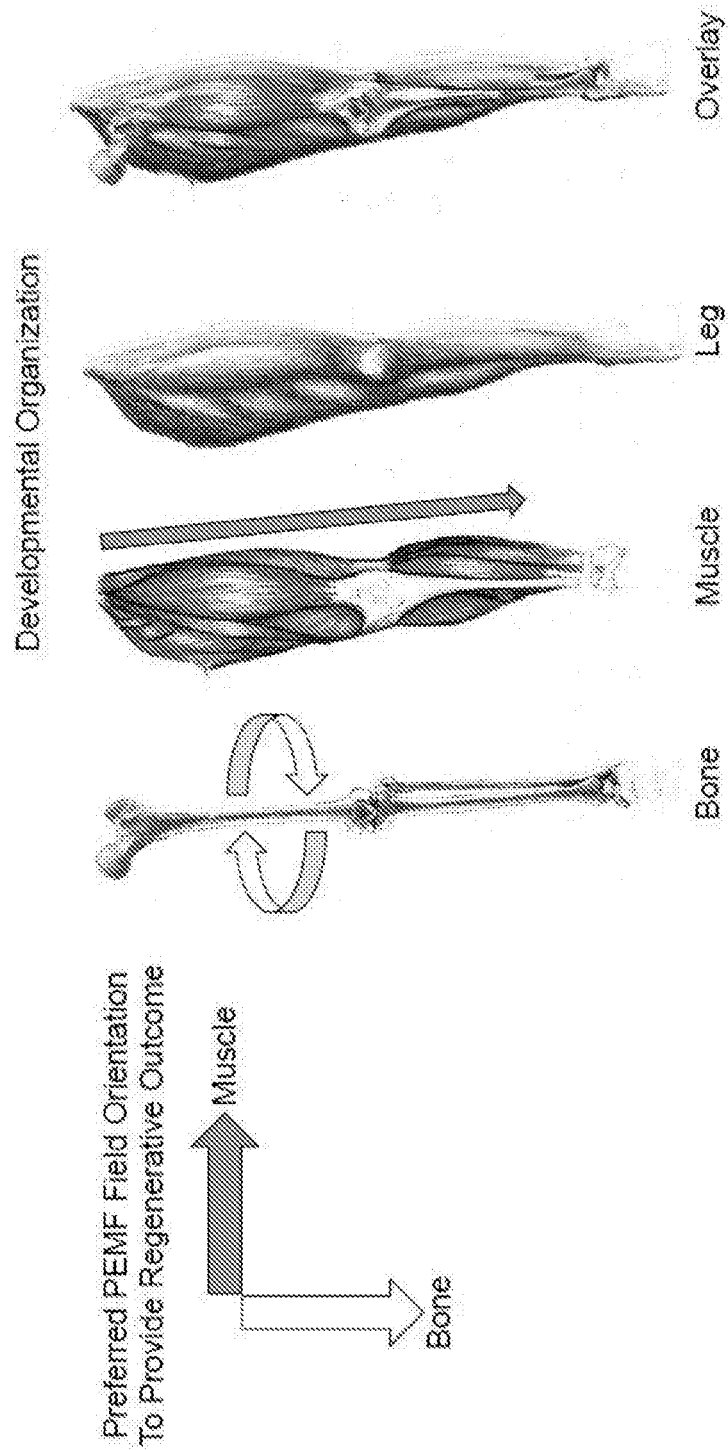


FIG. 2H

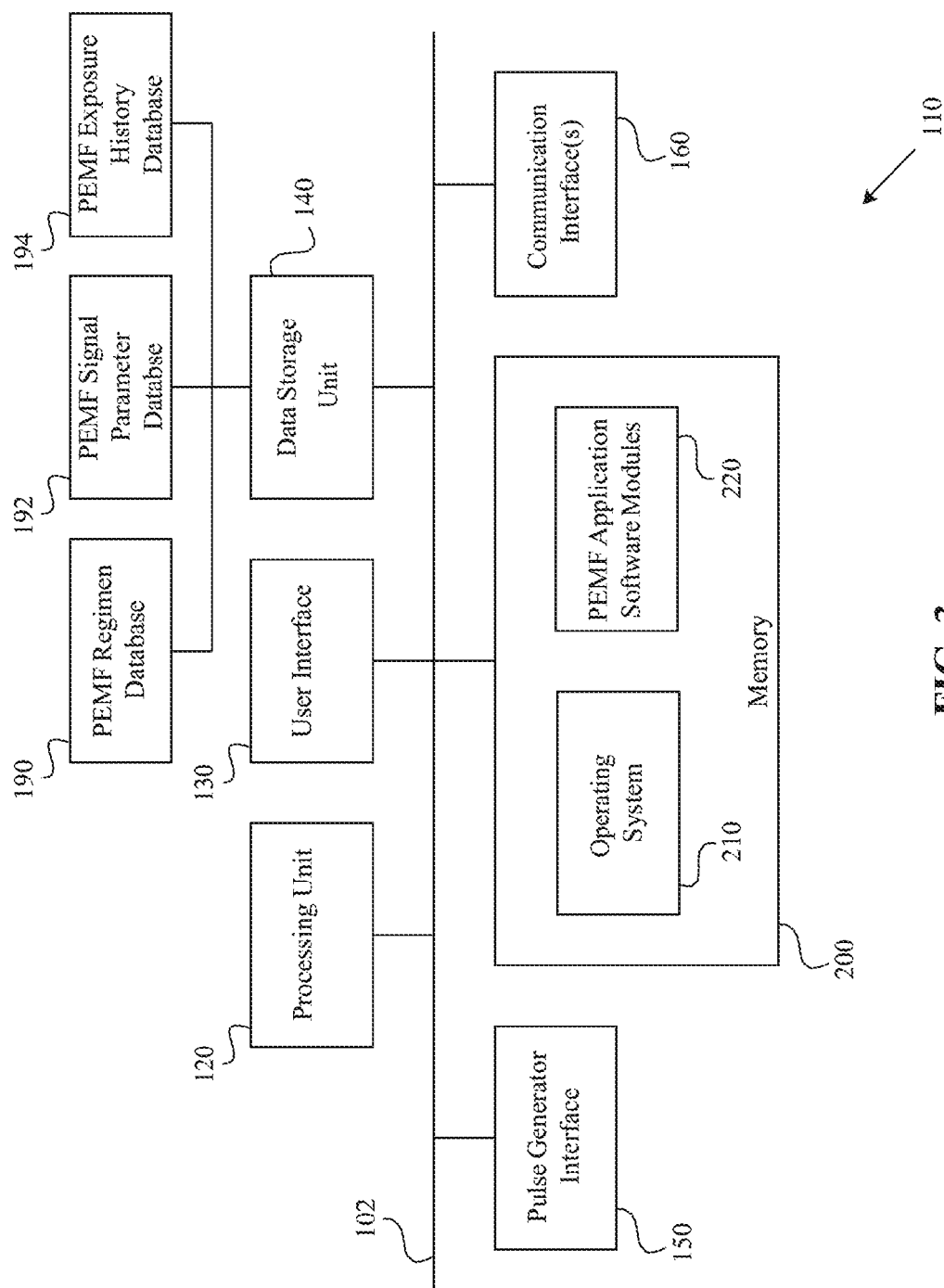


FIG. 3

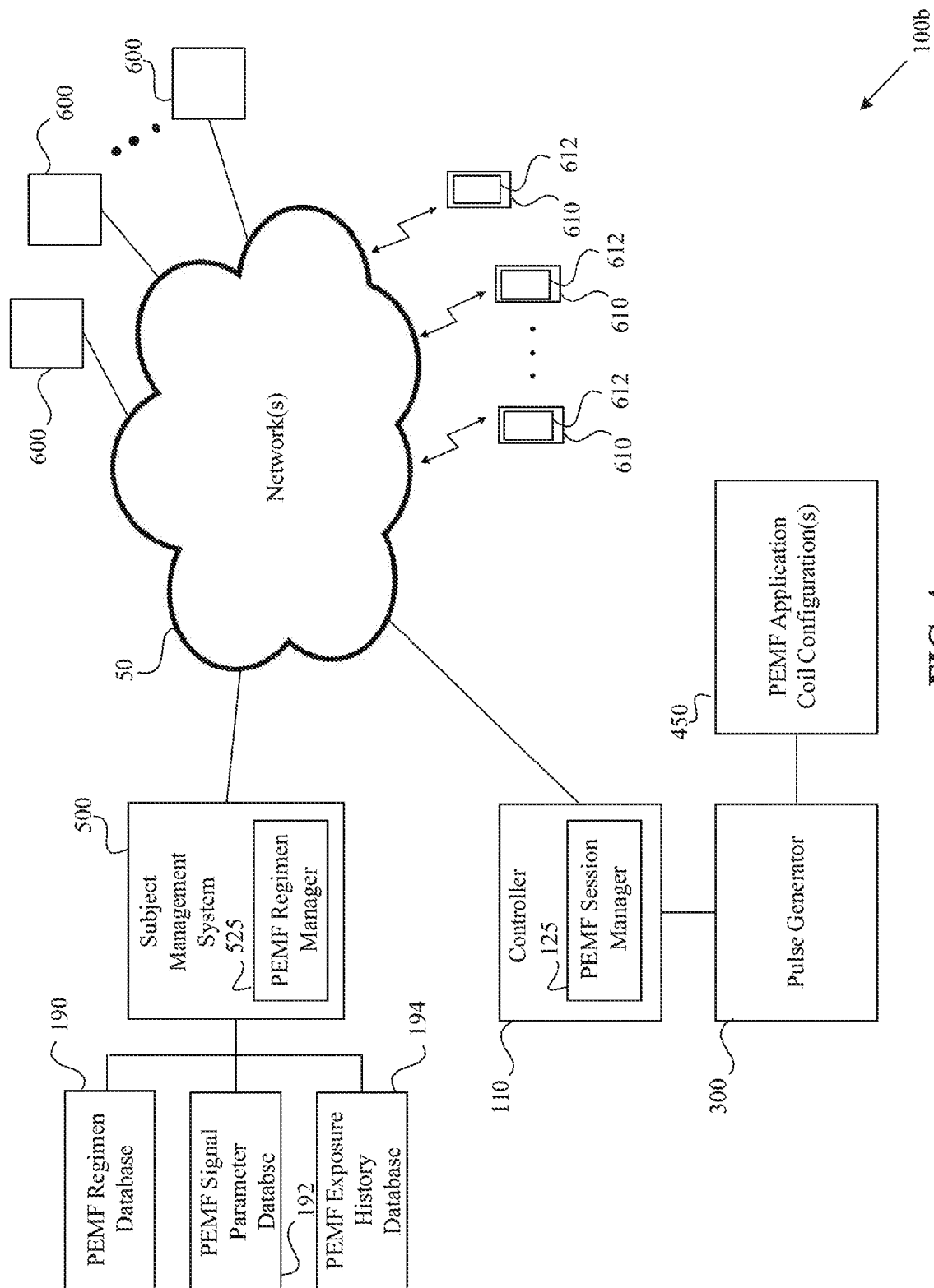


FIG. 4

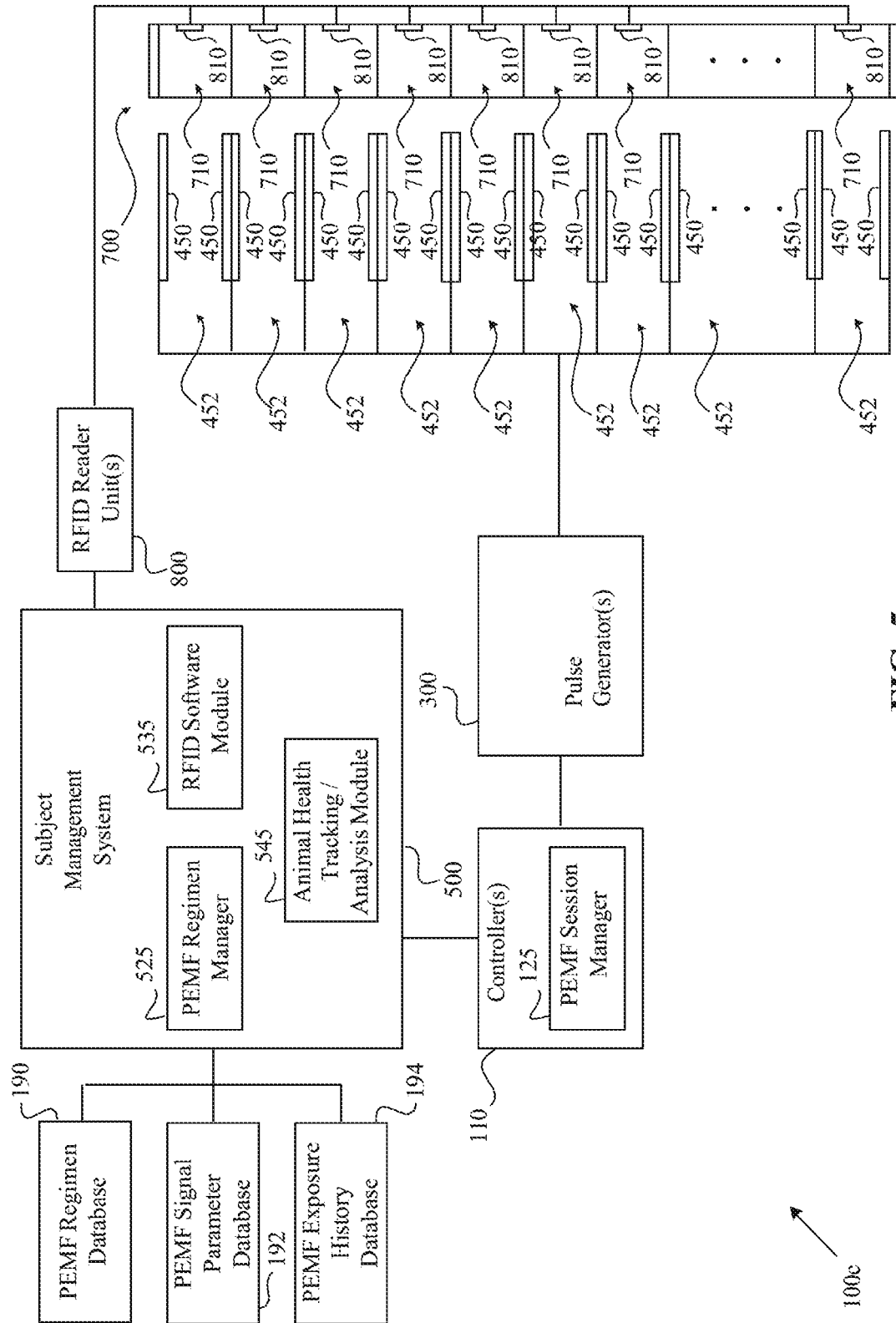


FIG. 5

PEMF Efficacy Window (EEW) Lookup Table						
	PEMF parameters (i.e. efficacy window data)					
	Cell of Tissue Type	Amplitude (mT)	Duration (min)	Frequency (Hz)	Directionality	Exposures/week
	Skeletal Muscle	1.5	10	15	Orthogonal	1
	Cardiac Muscle	3	10	15	Orthogonal	1
	Lymphocytes	2	10	15	Orthogonal	1
	MSCs	3	10	15	Orthogonal	1
	Chondrocytes	2	10	15	Orthogonal	1
	Browning Adipocytes	1	10	15	Orthogonal	1
	Smooth Muscle	3	10	15	Orthogonal	1

Table 1

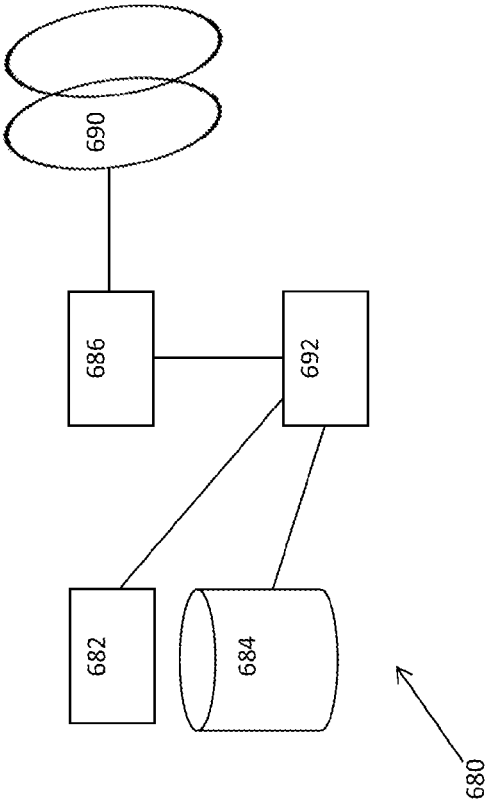


FIG. 6

14/84

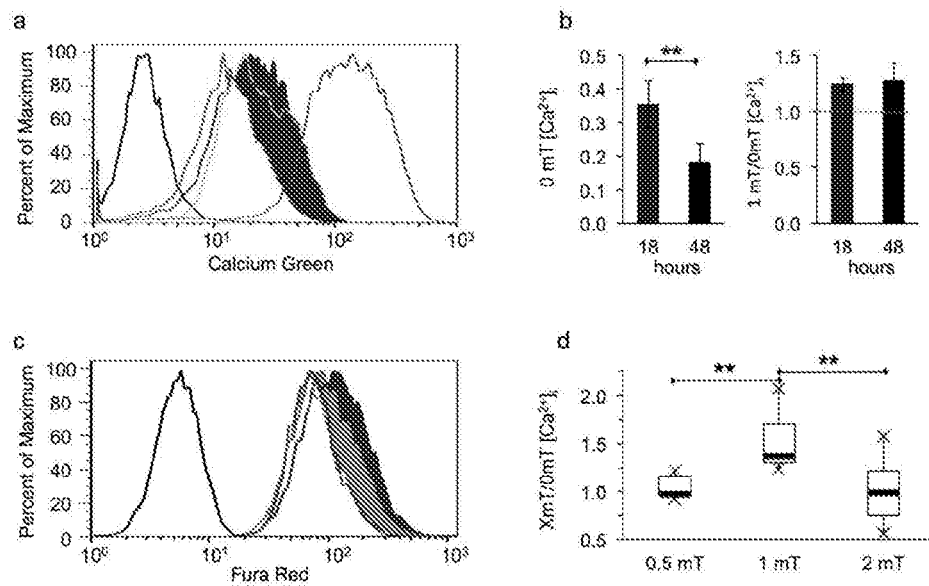


FIG. 7

15/84

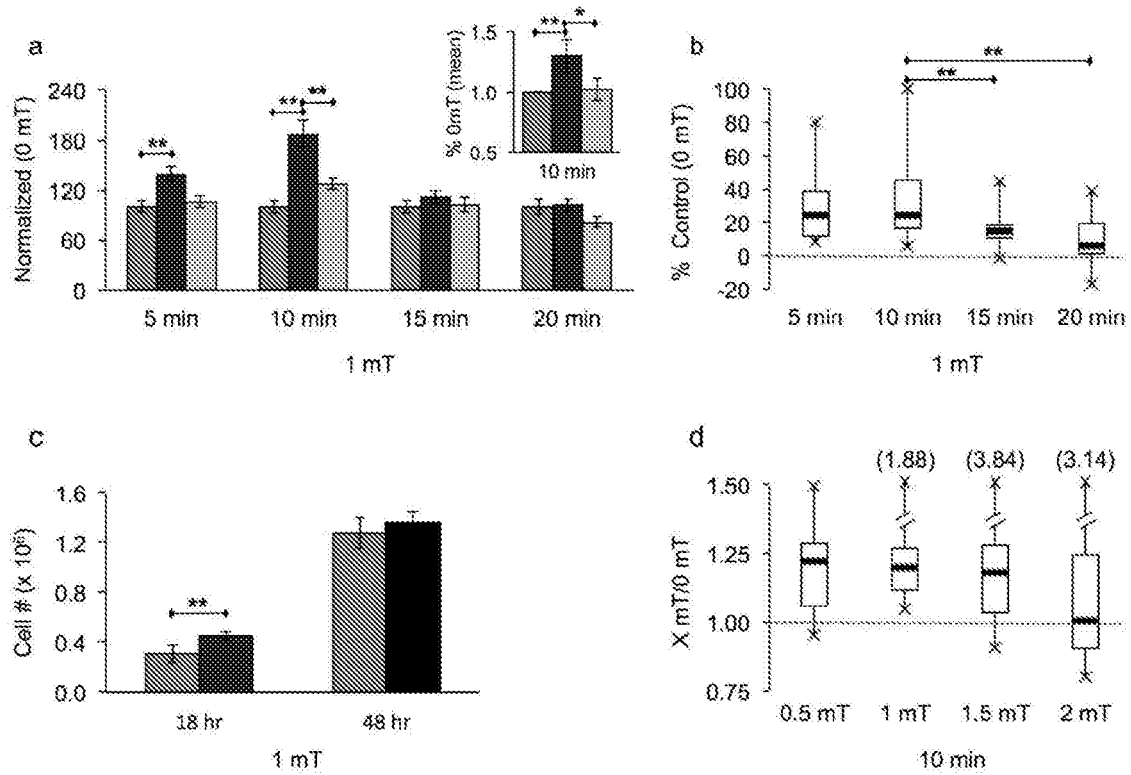


FIG. 8

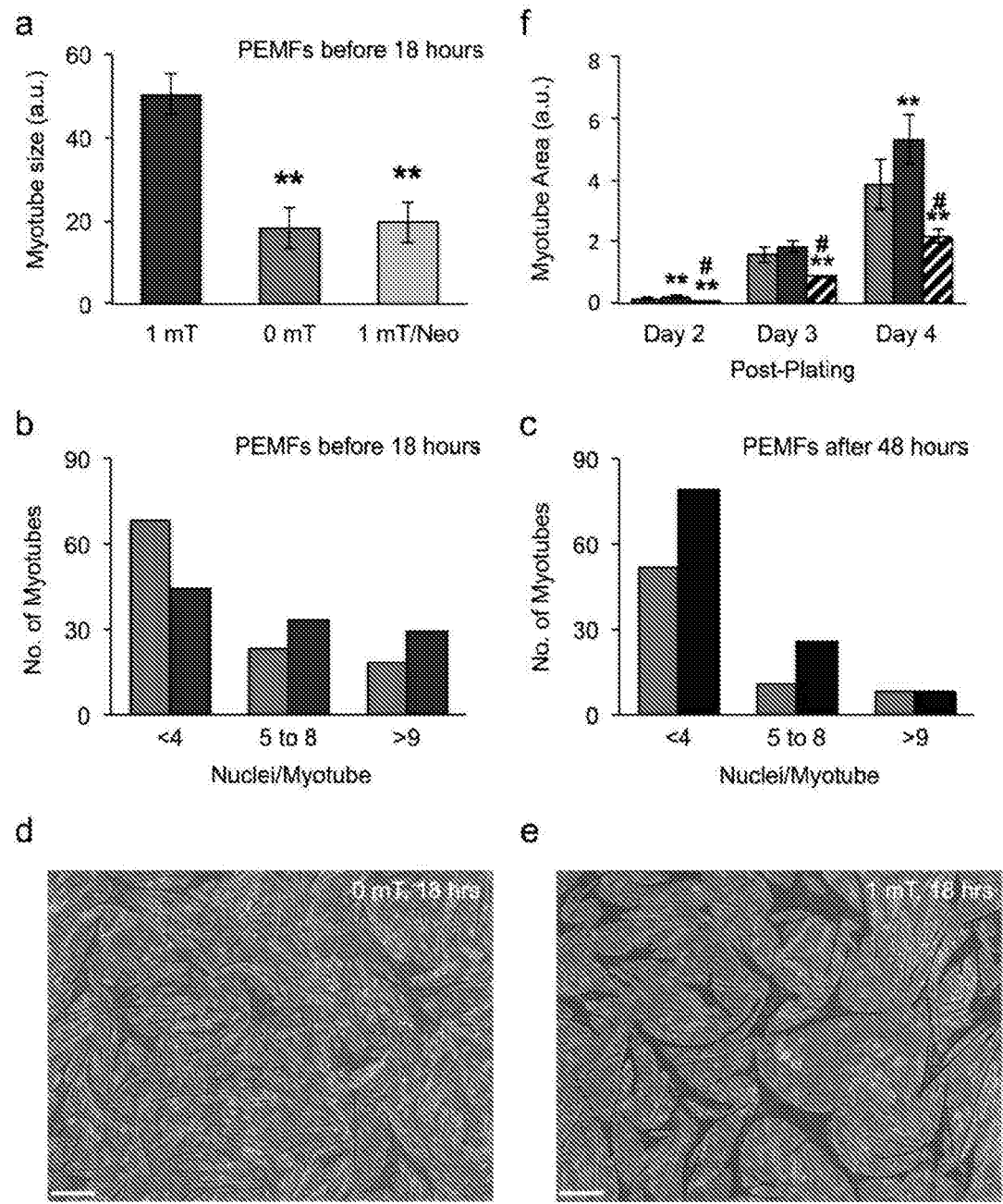


FIG. 9

17/84

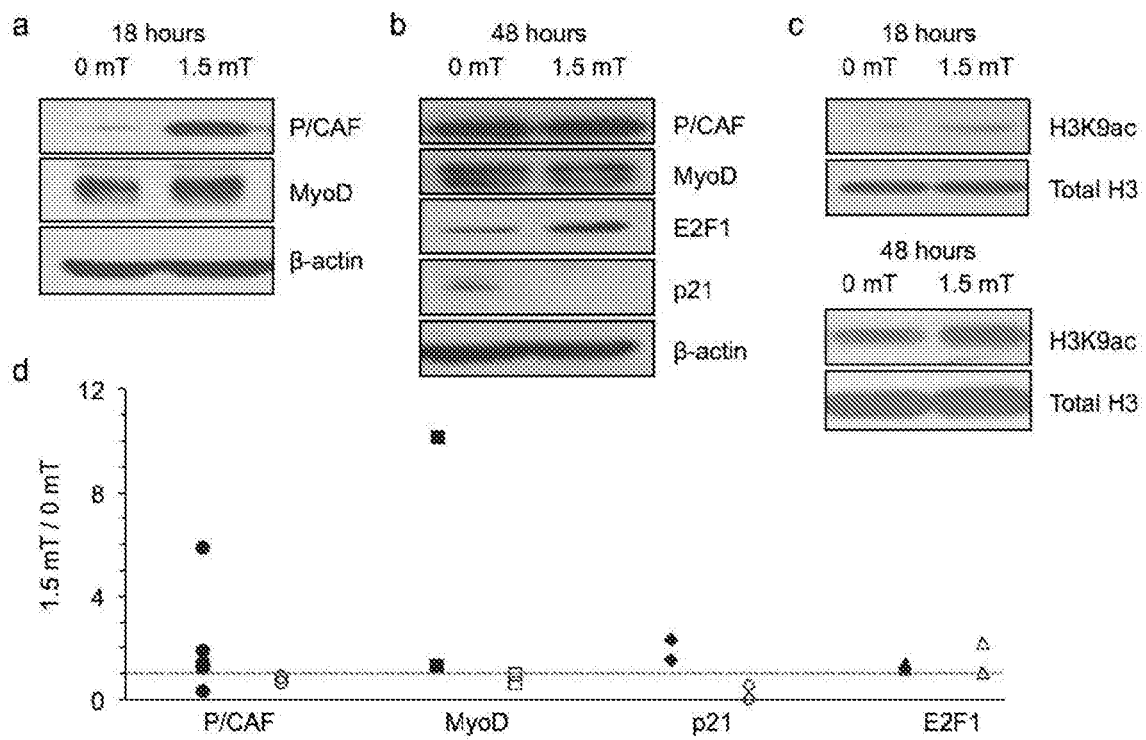


FIG. 10

18/84

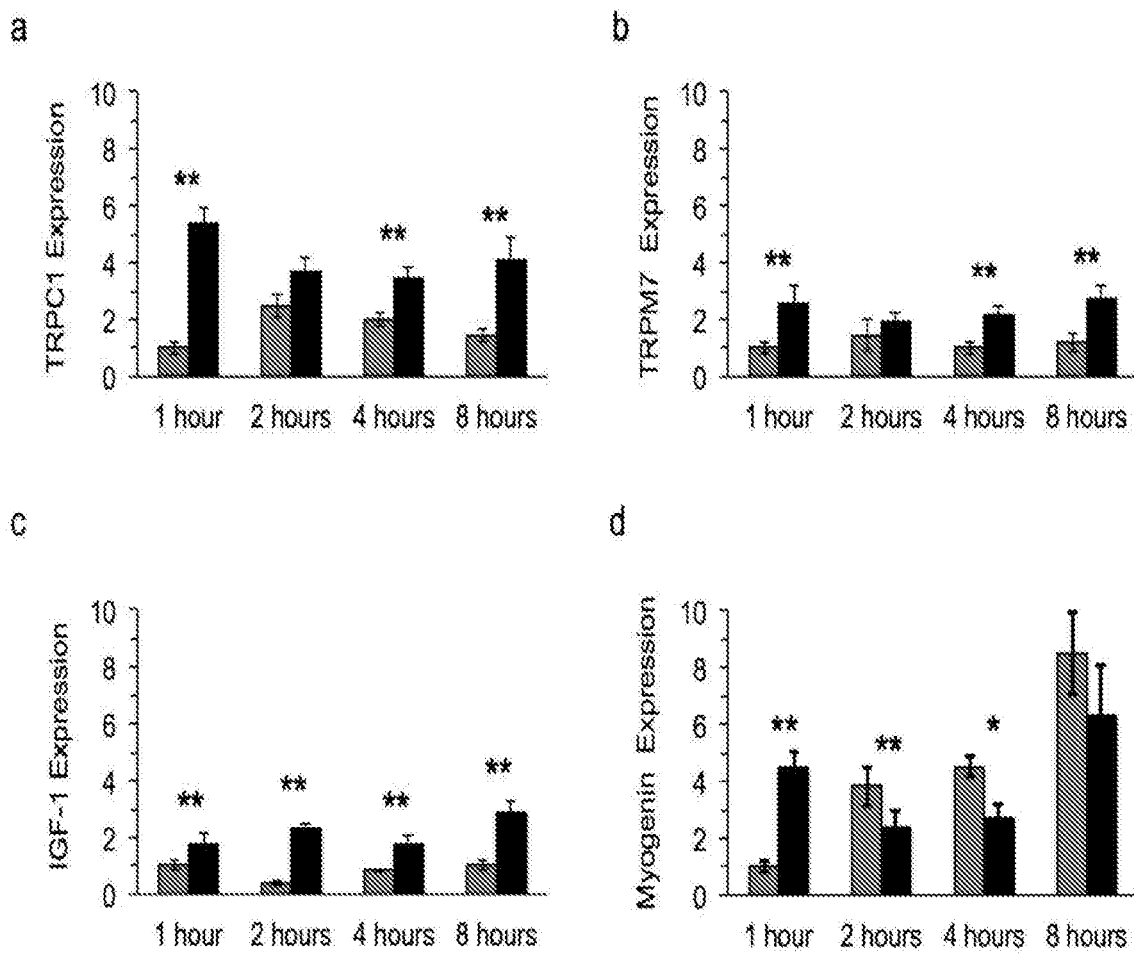


FIG. 11

19/84

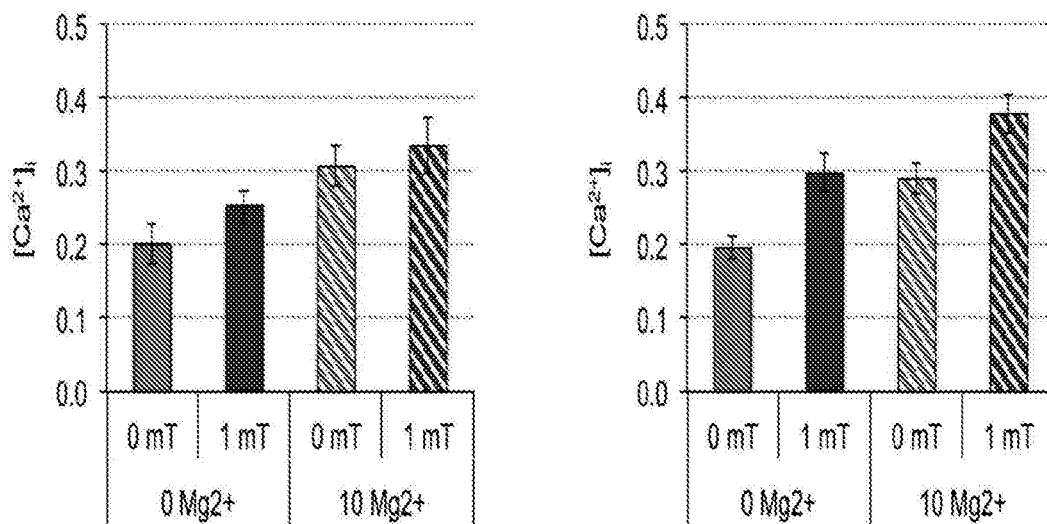


FIG. 12

20/84

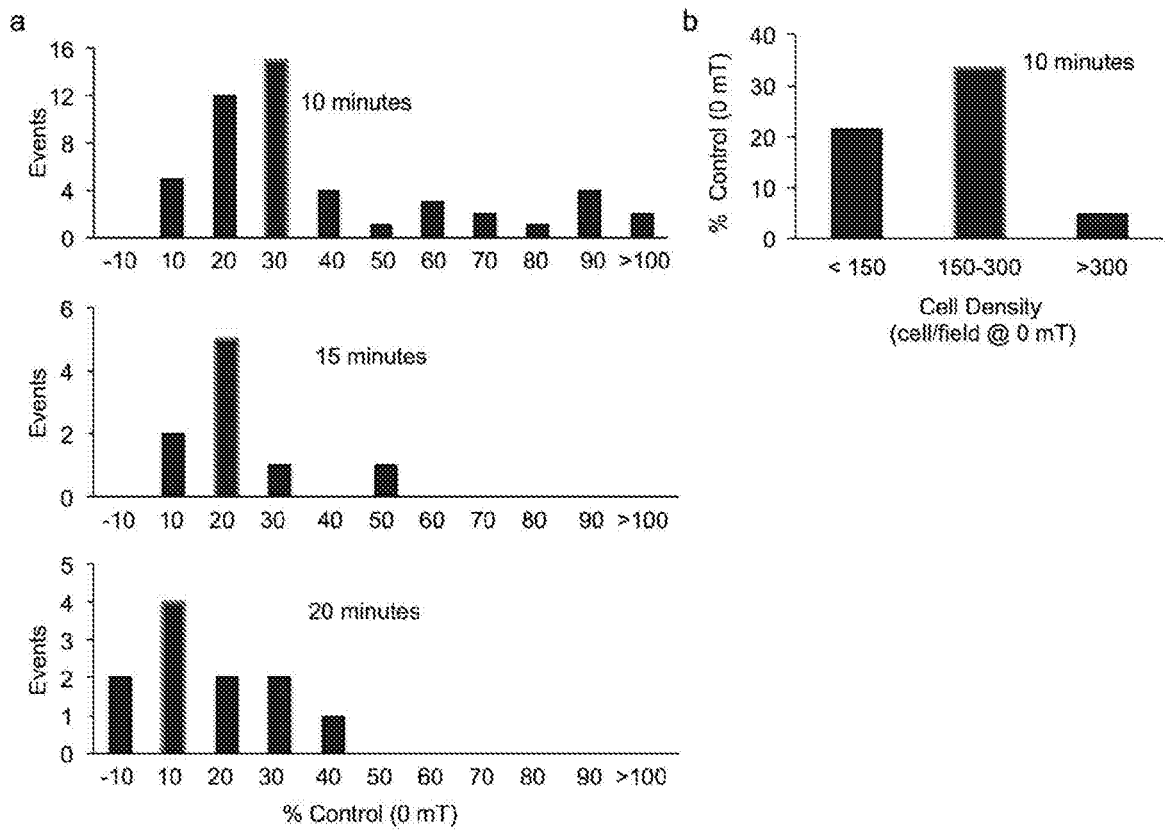


FIG. 13

21/84

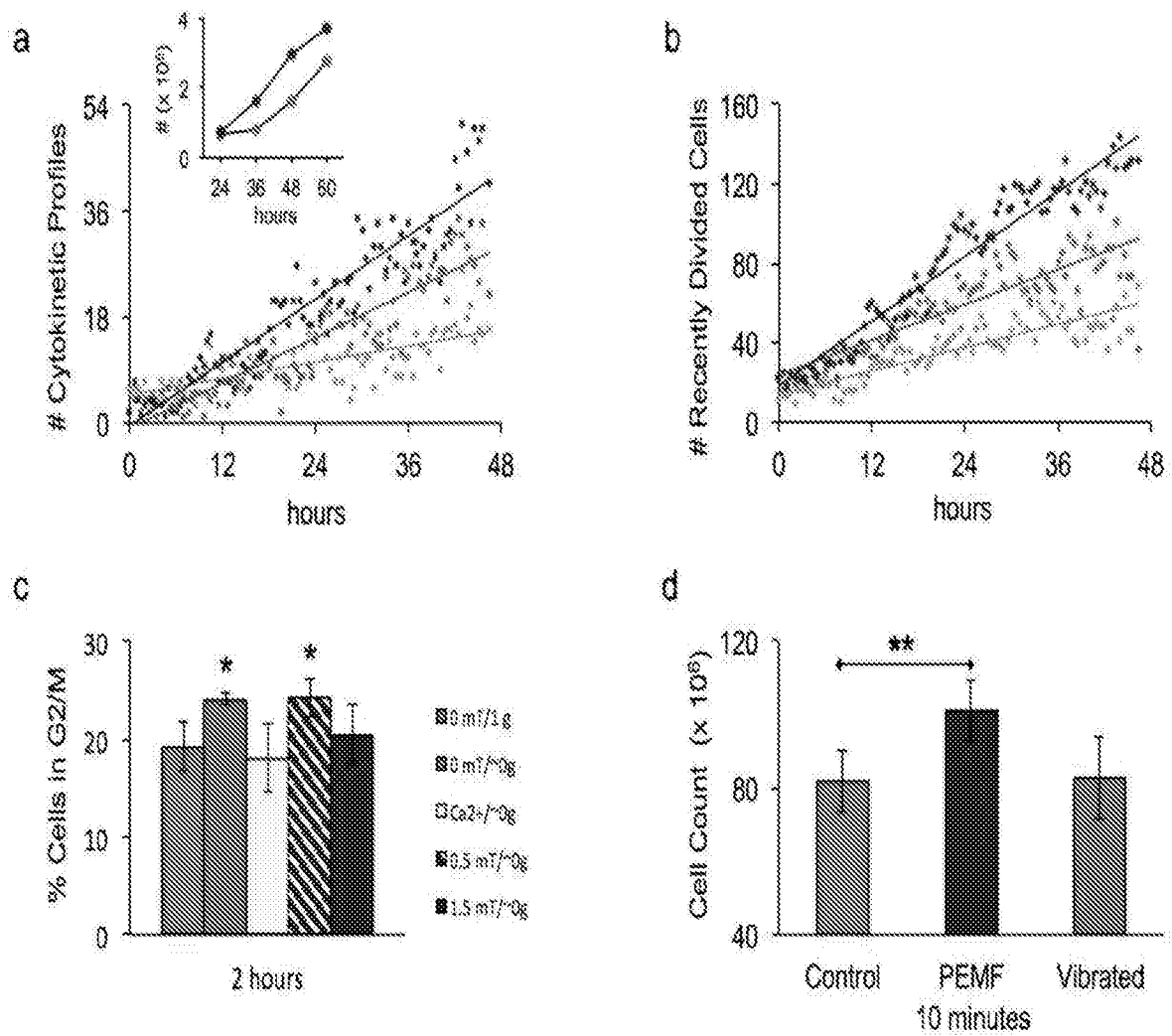


FIG. 14

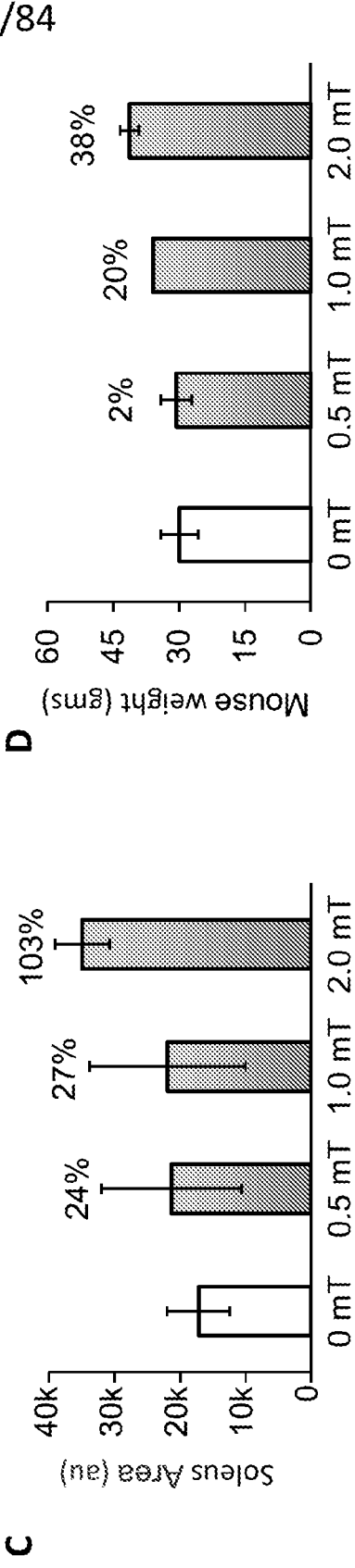
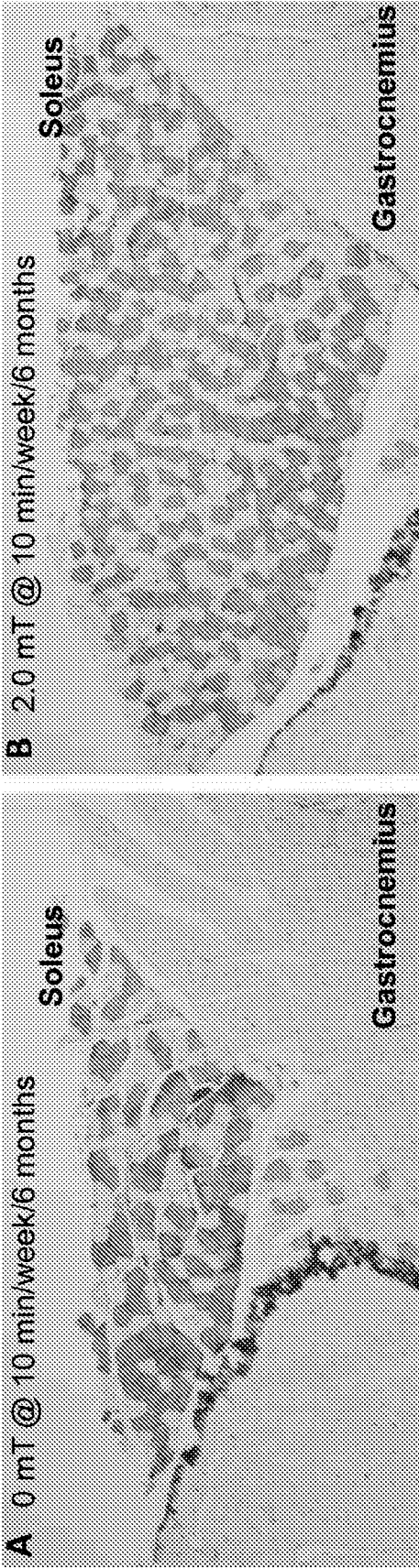


Figure 15

22/84

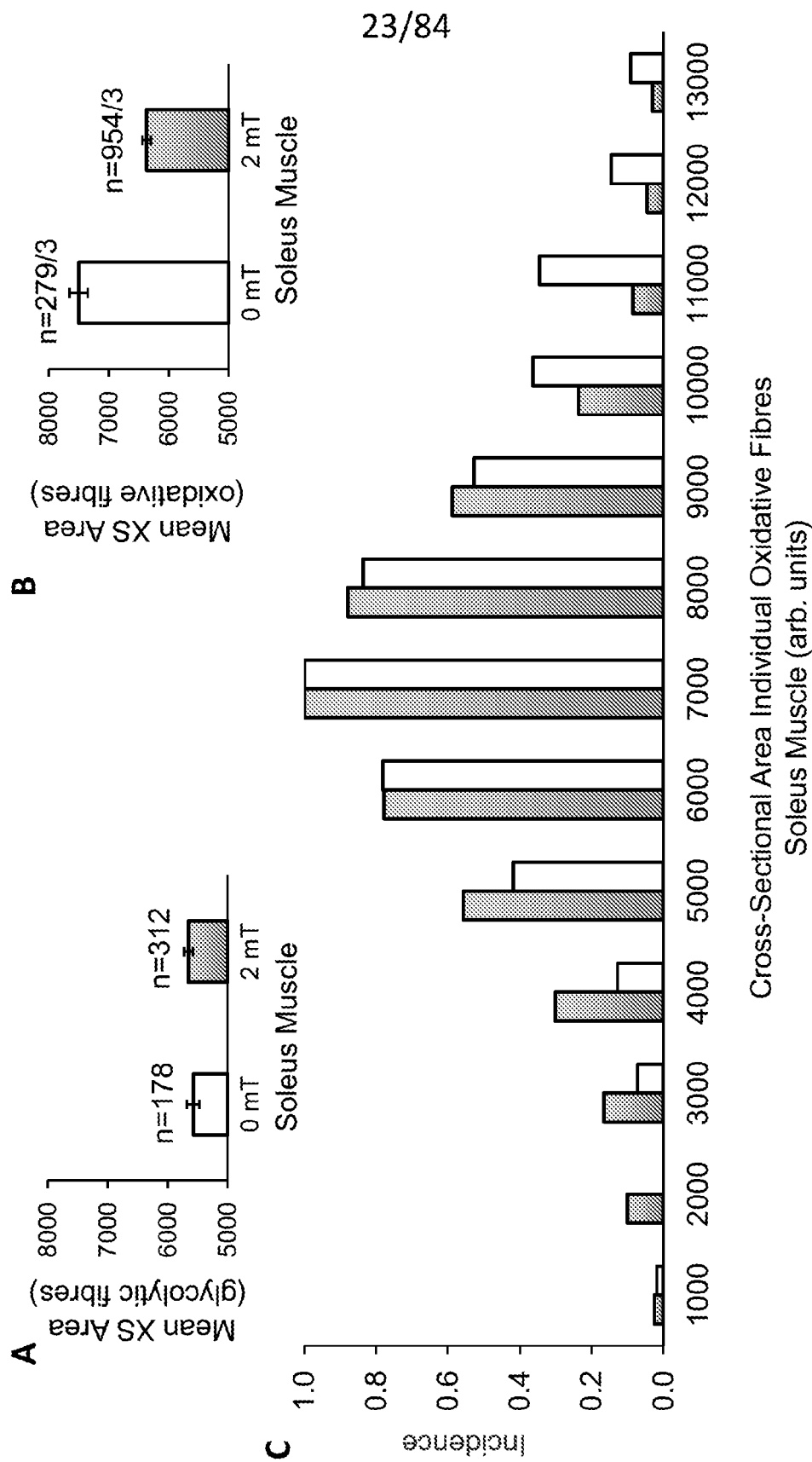


Figure 16

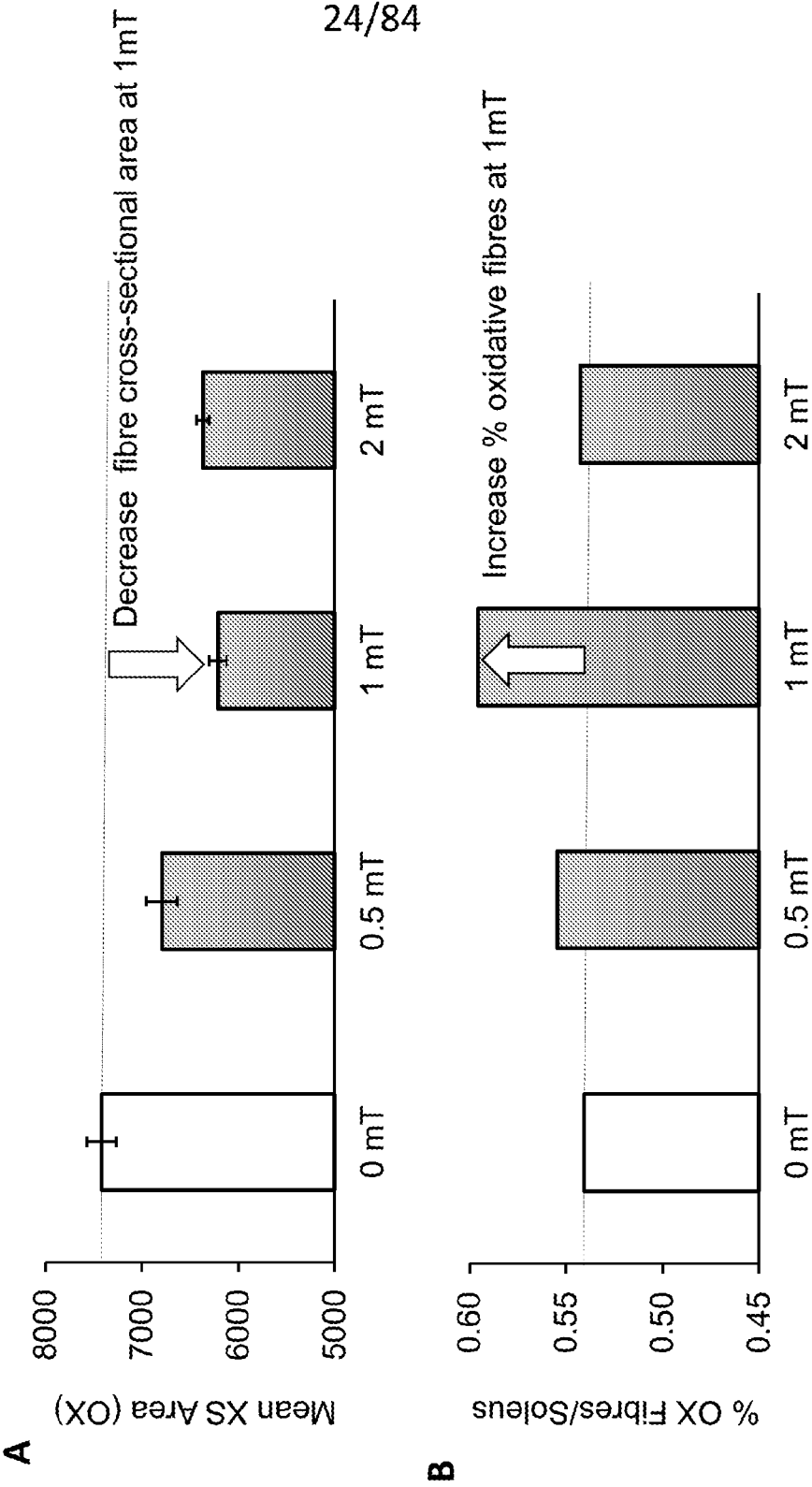


Figure 17

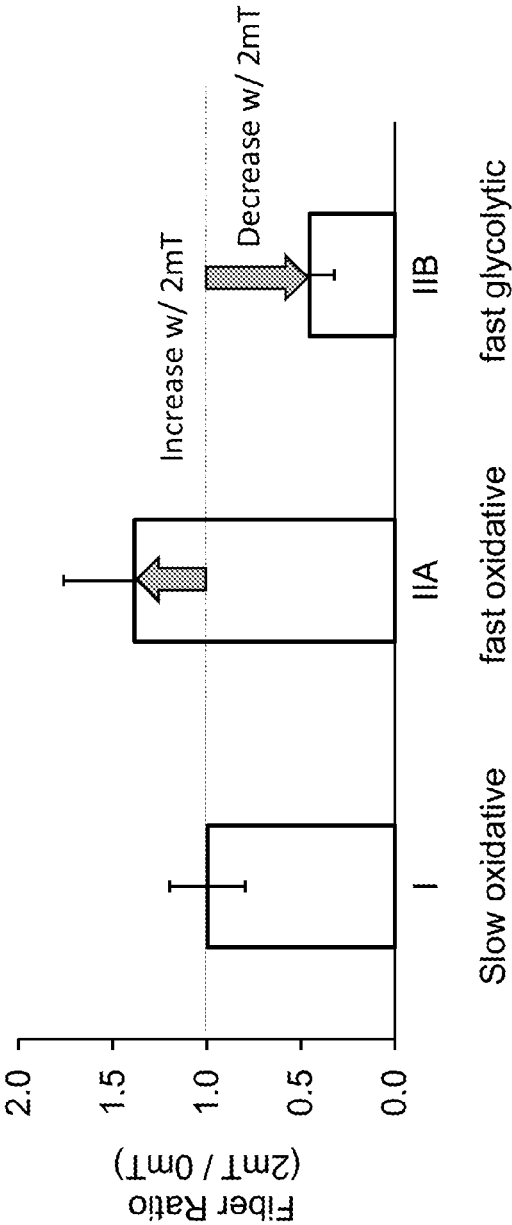


Figure 18

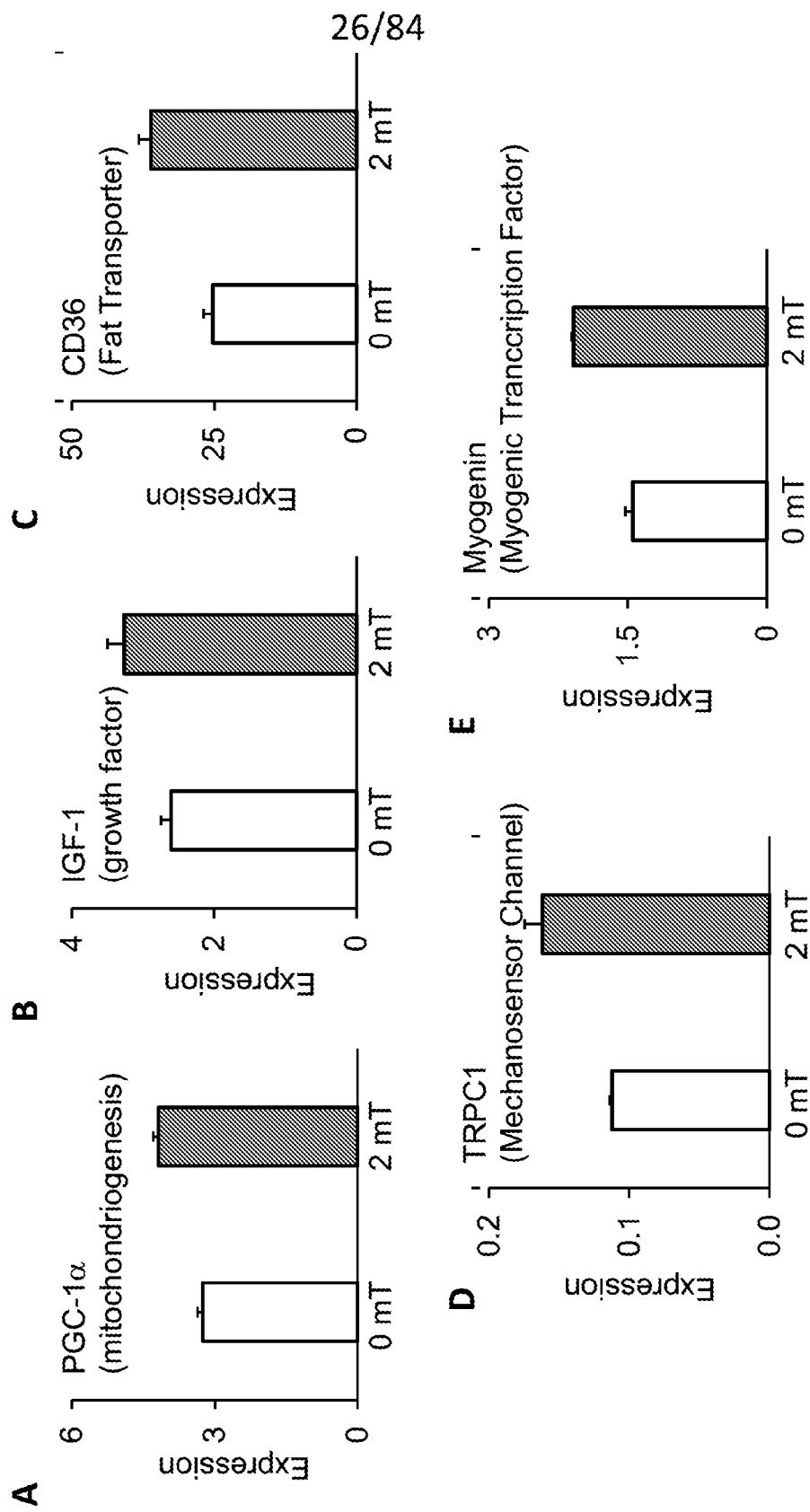


Figure 19

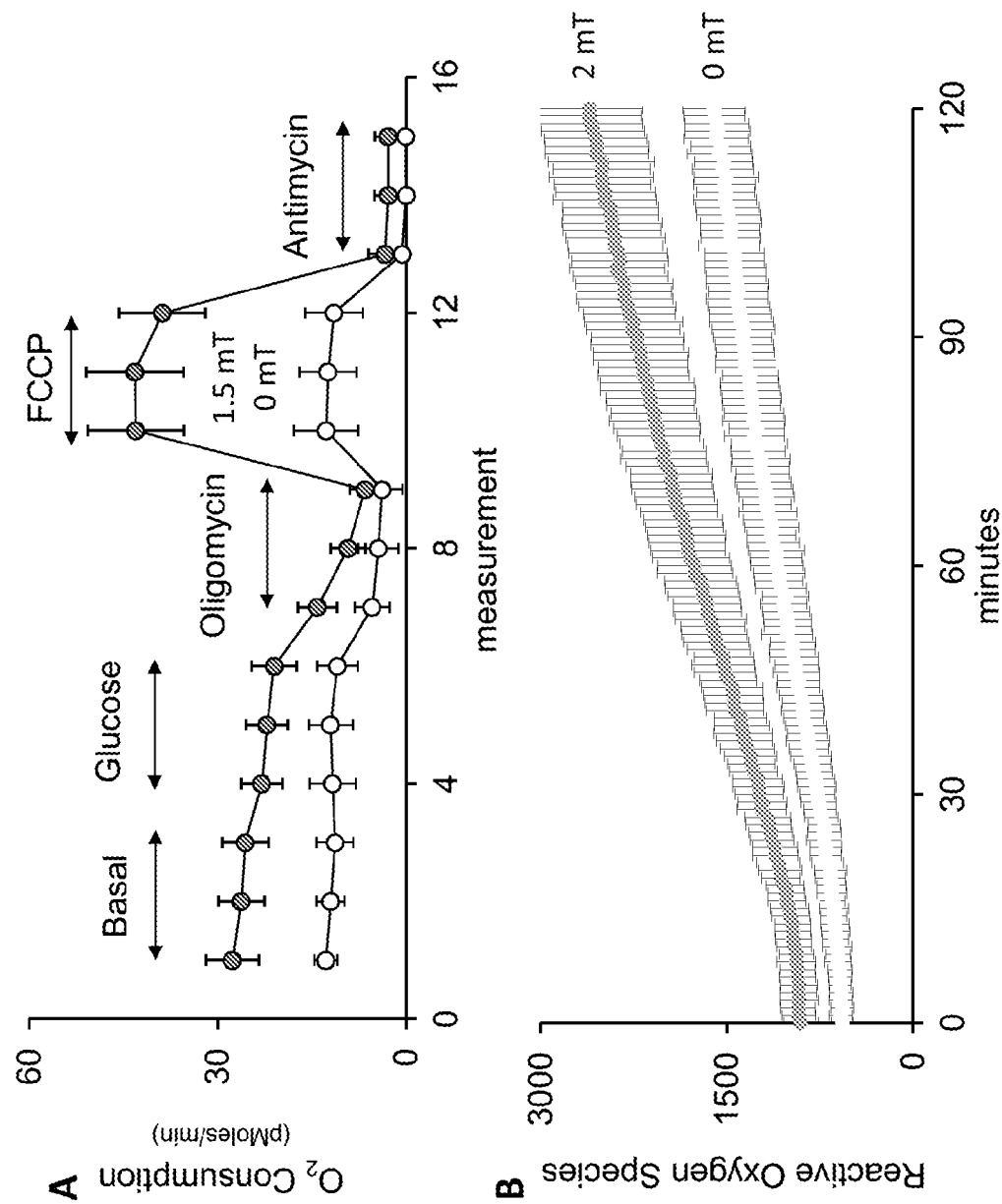


Figure 20A

28/84

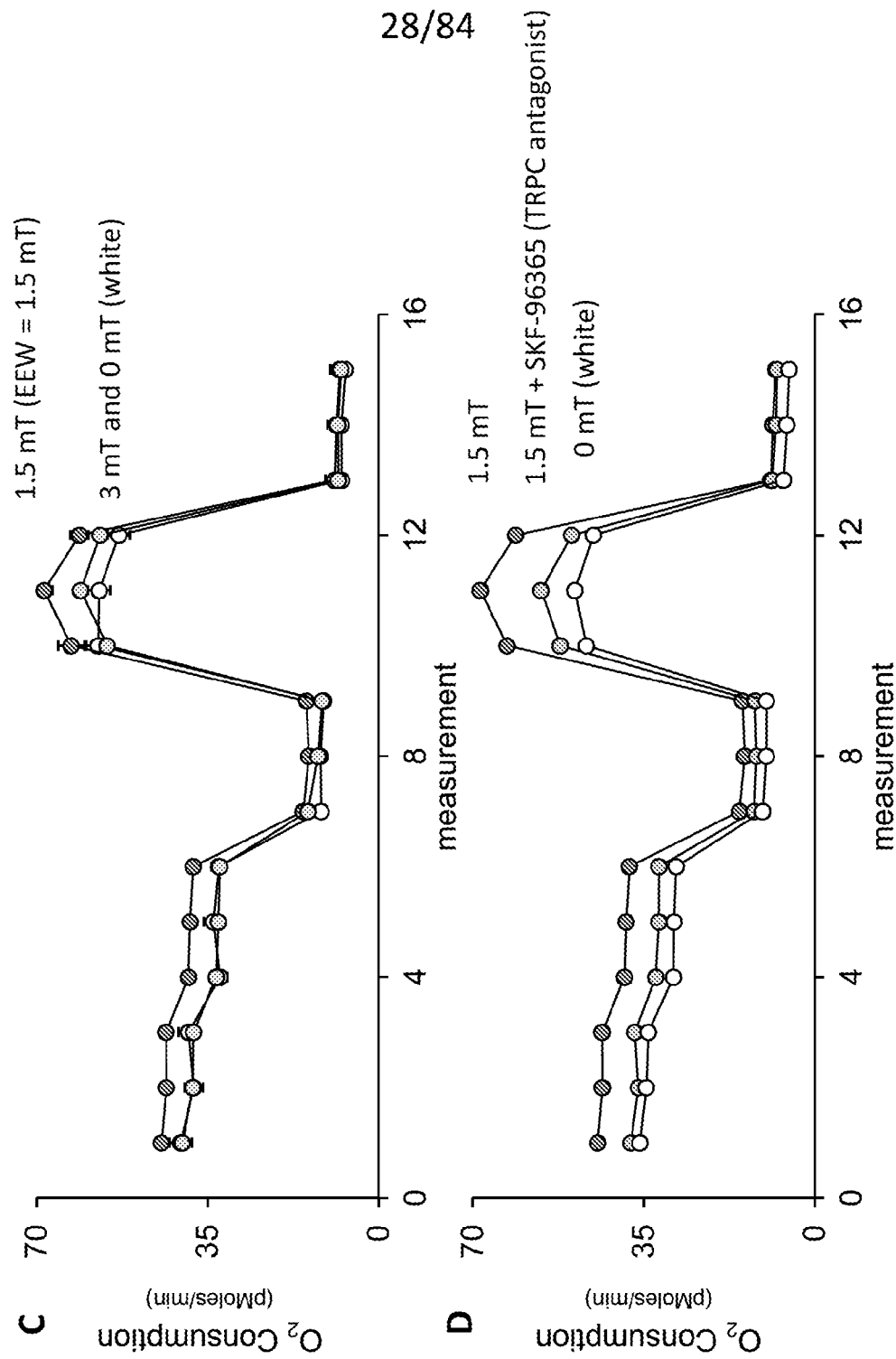


Figure 20B

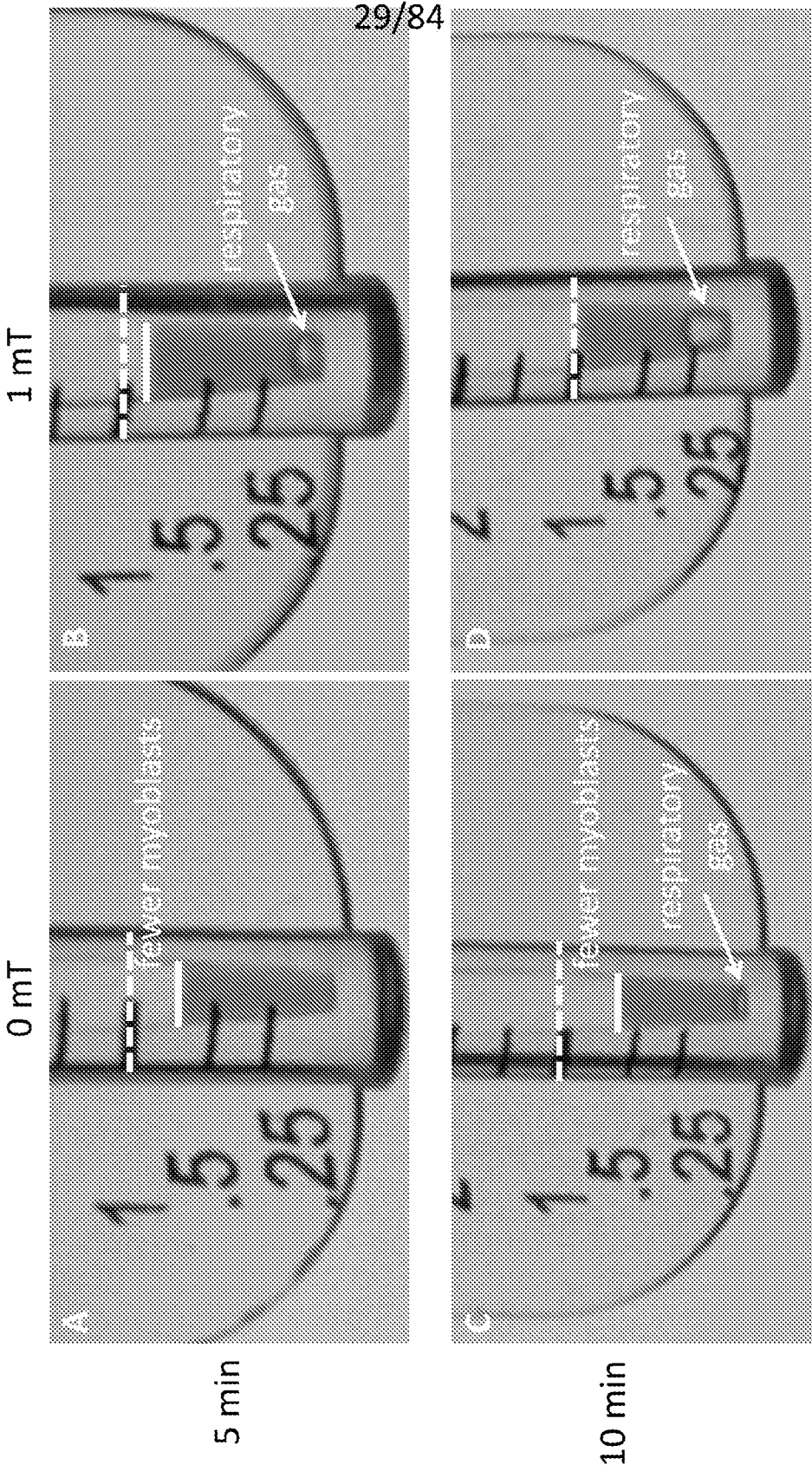


Figure 21

30/84

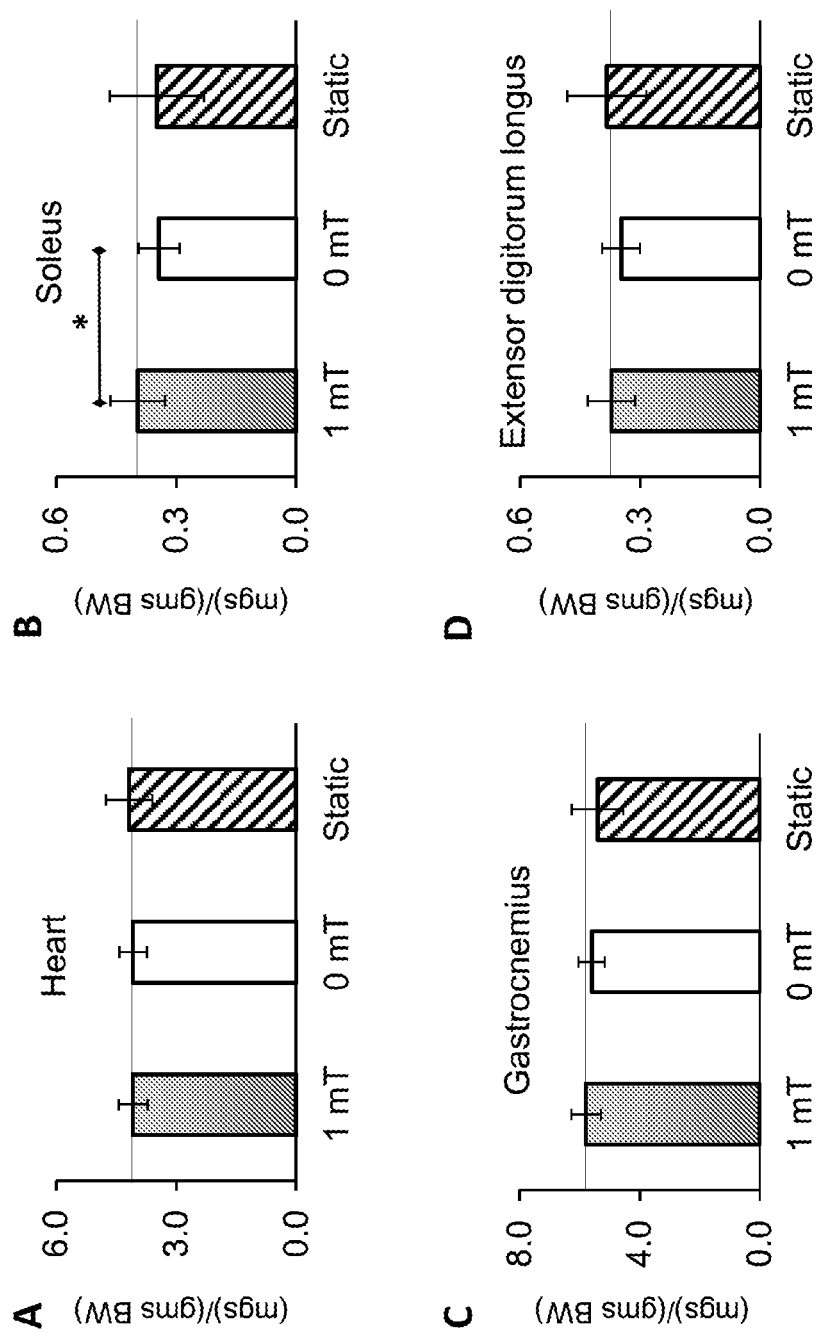


Figure 22

31/84

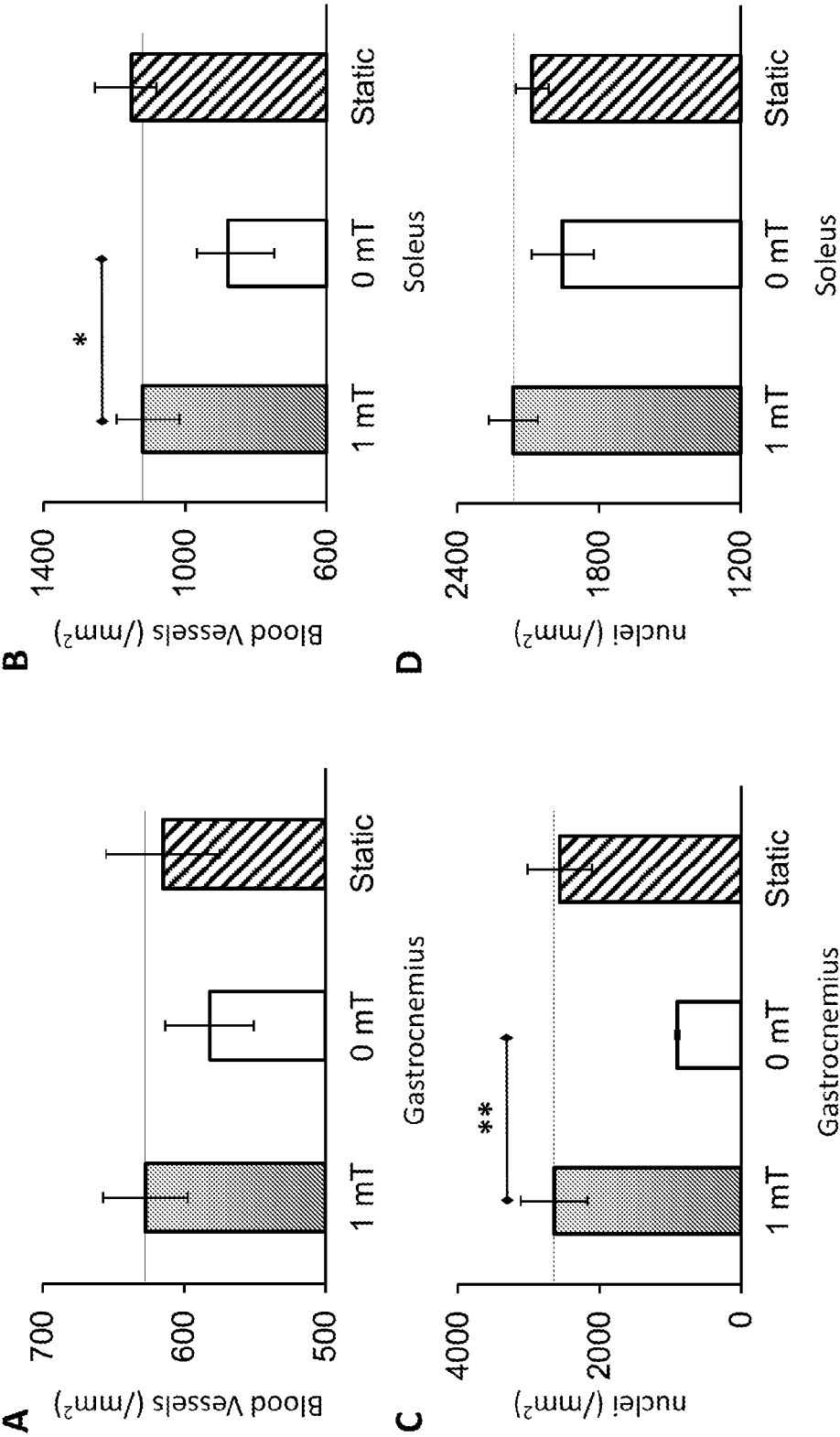


Figure 23

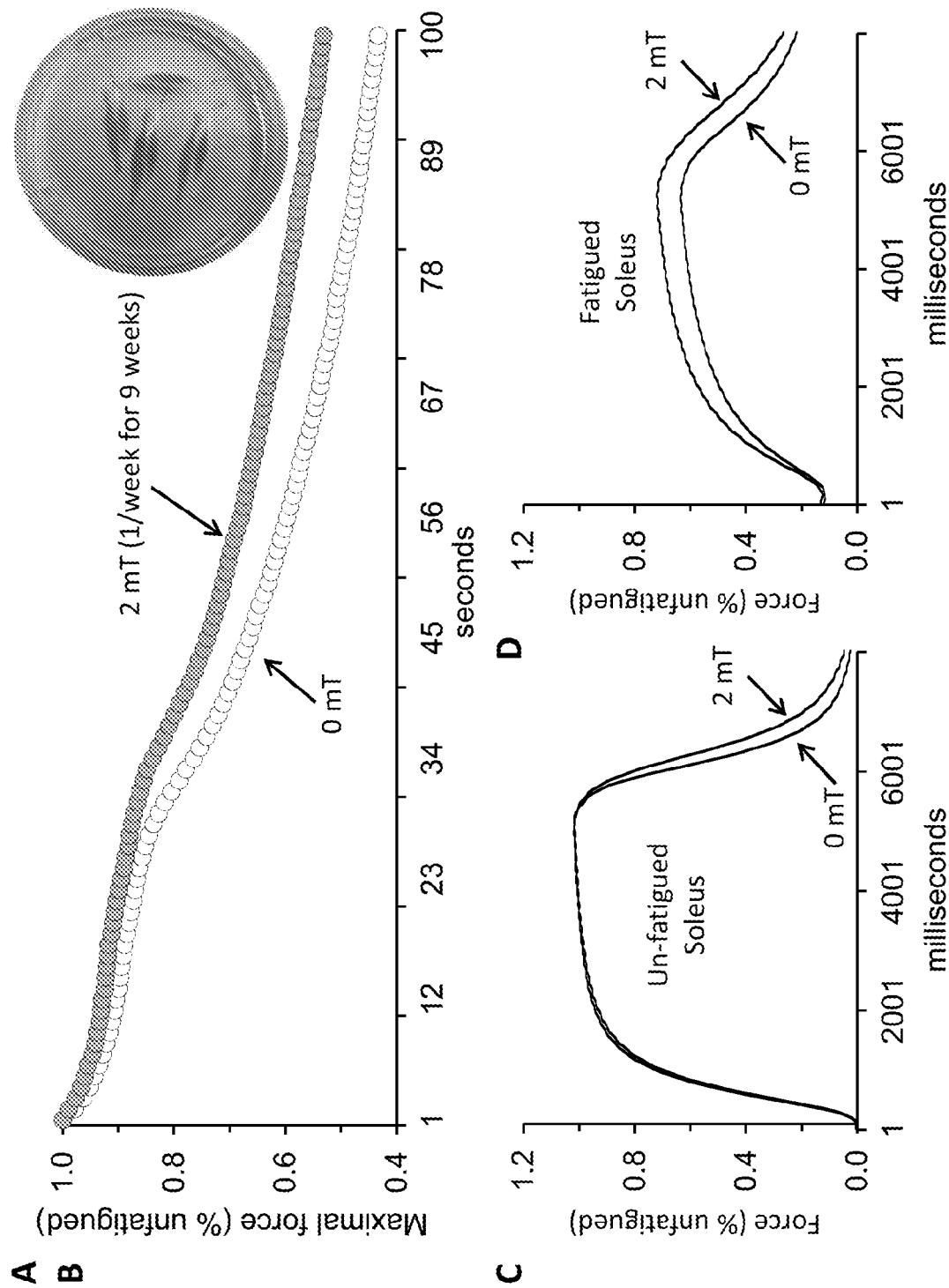


Figure 24

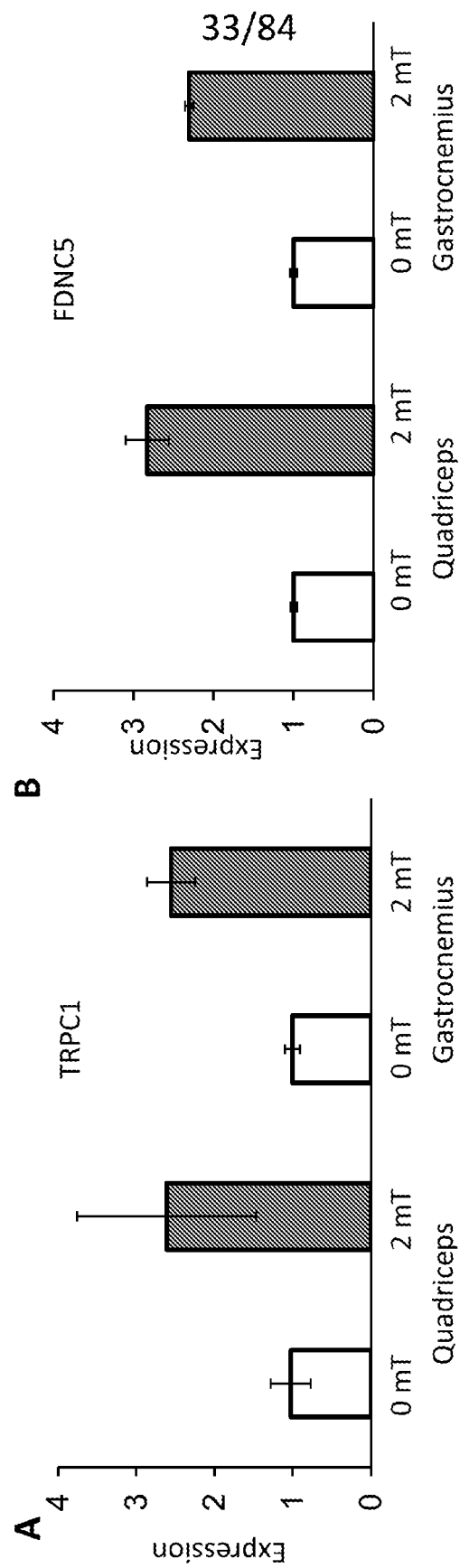


Figure 25

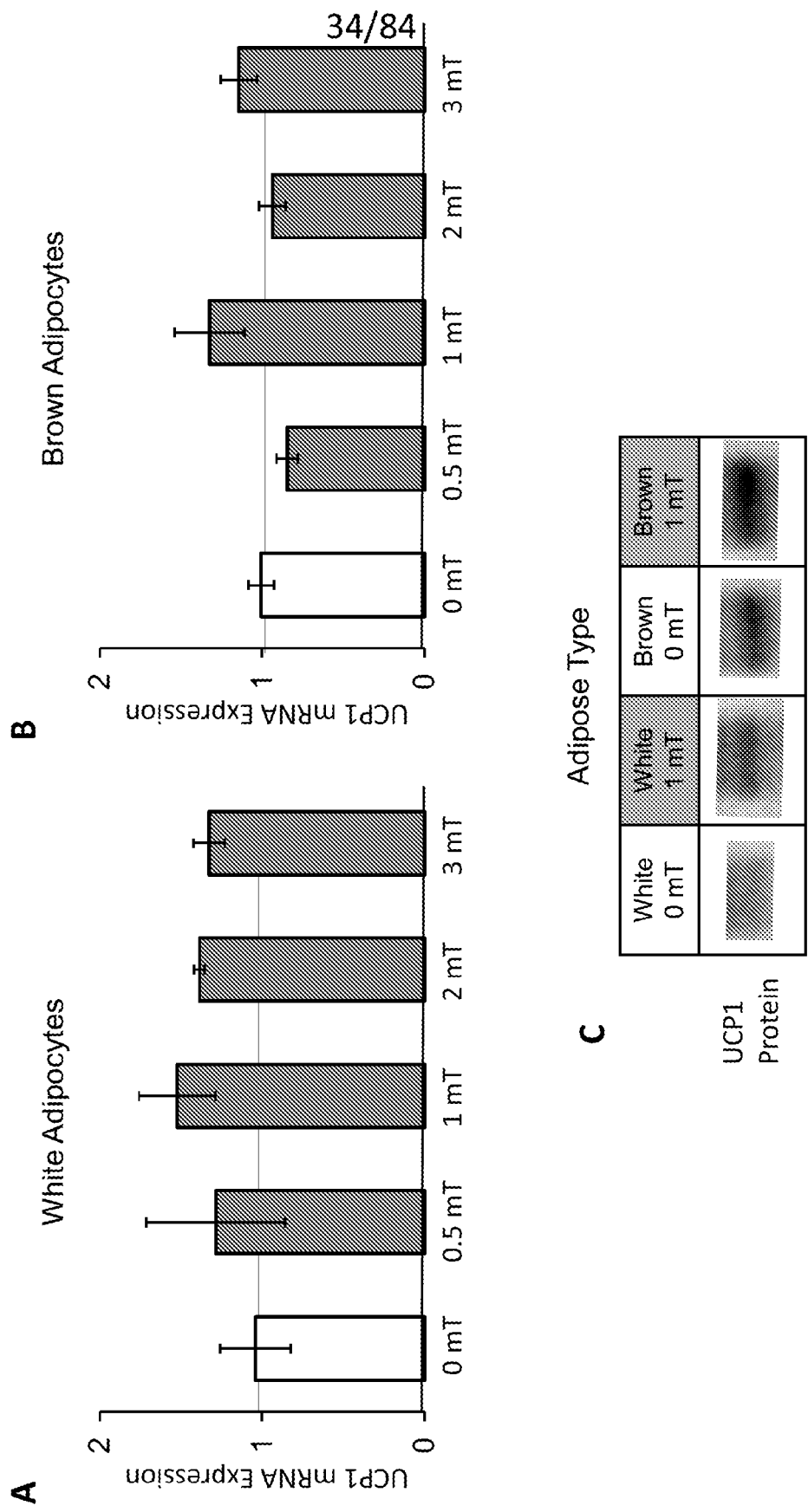


Figure 26

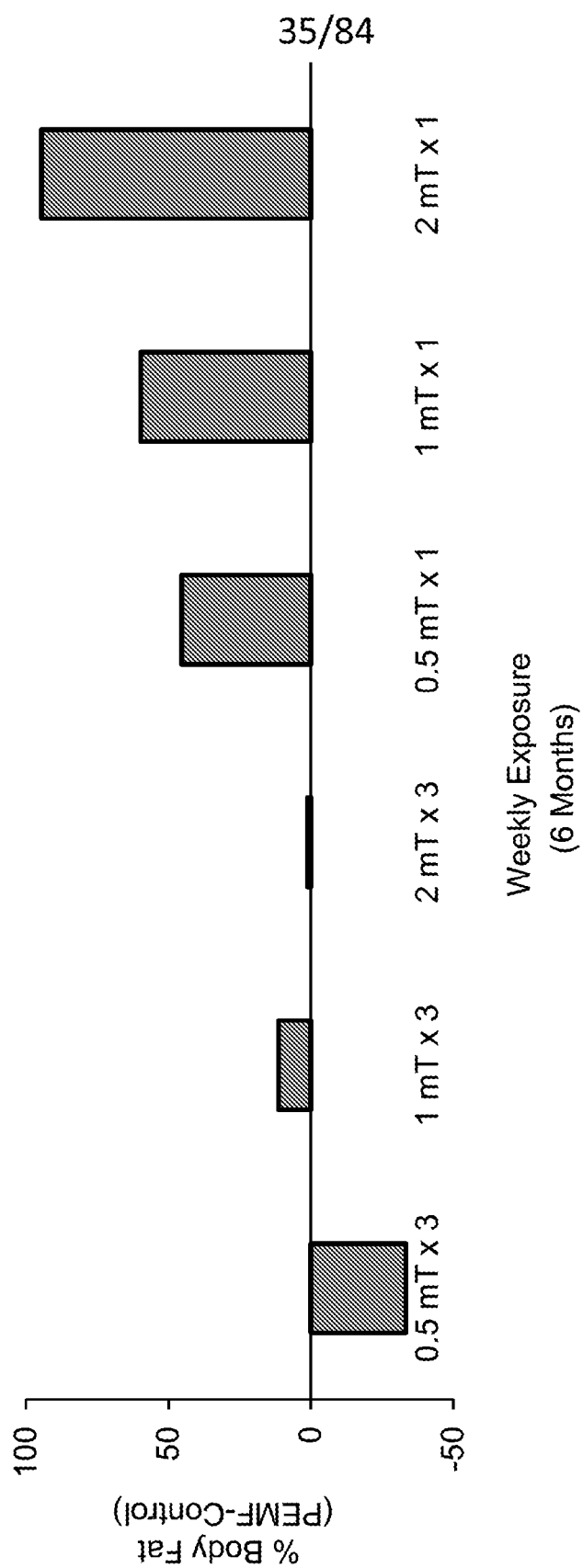


Figure 27

36/84

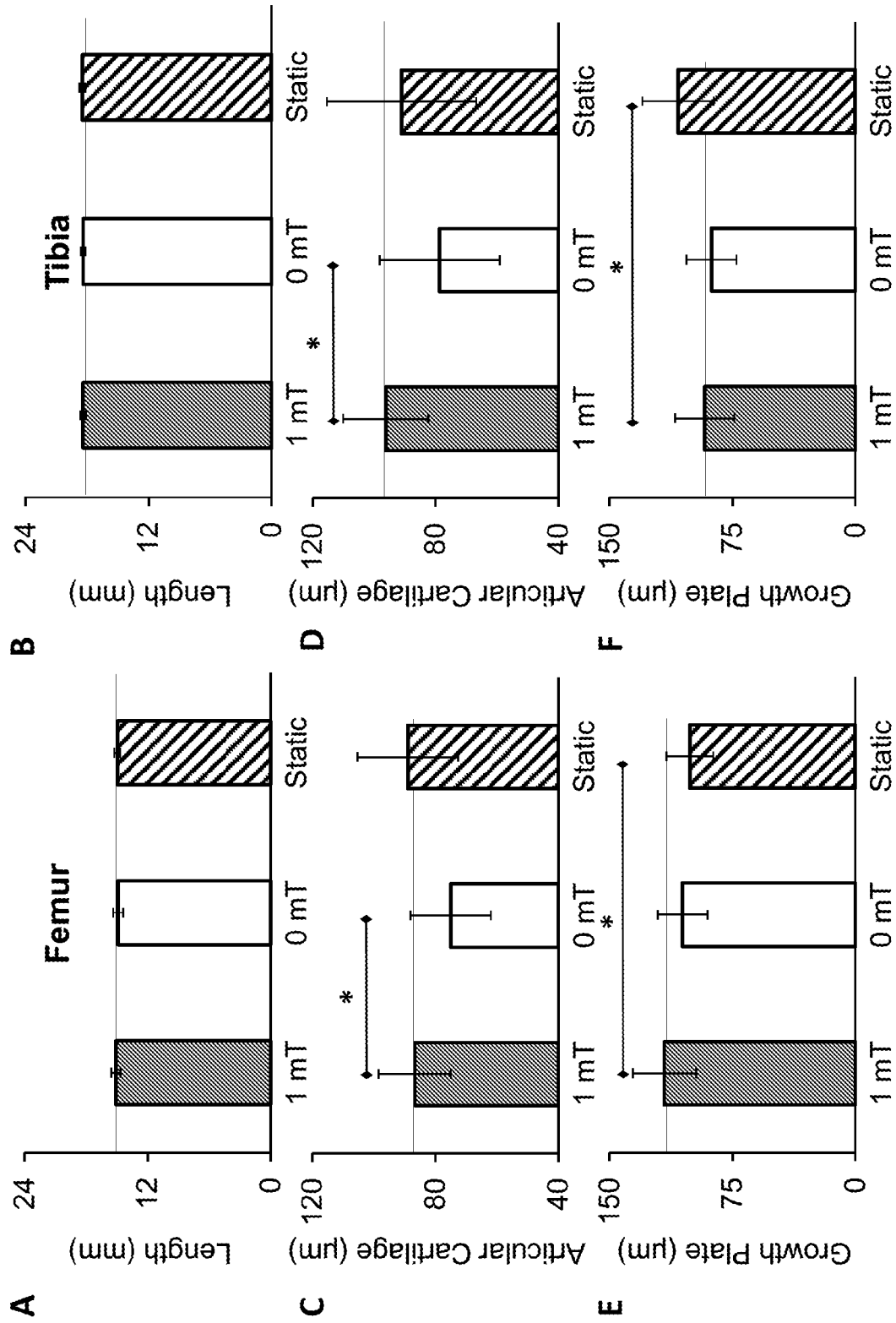


Figure 28

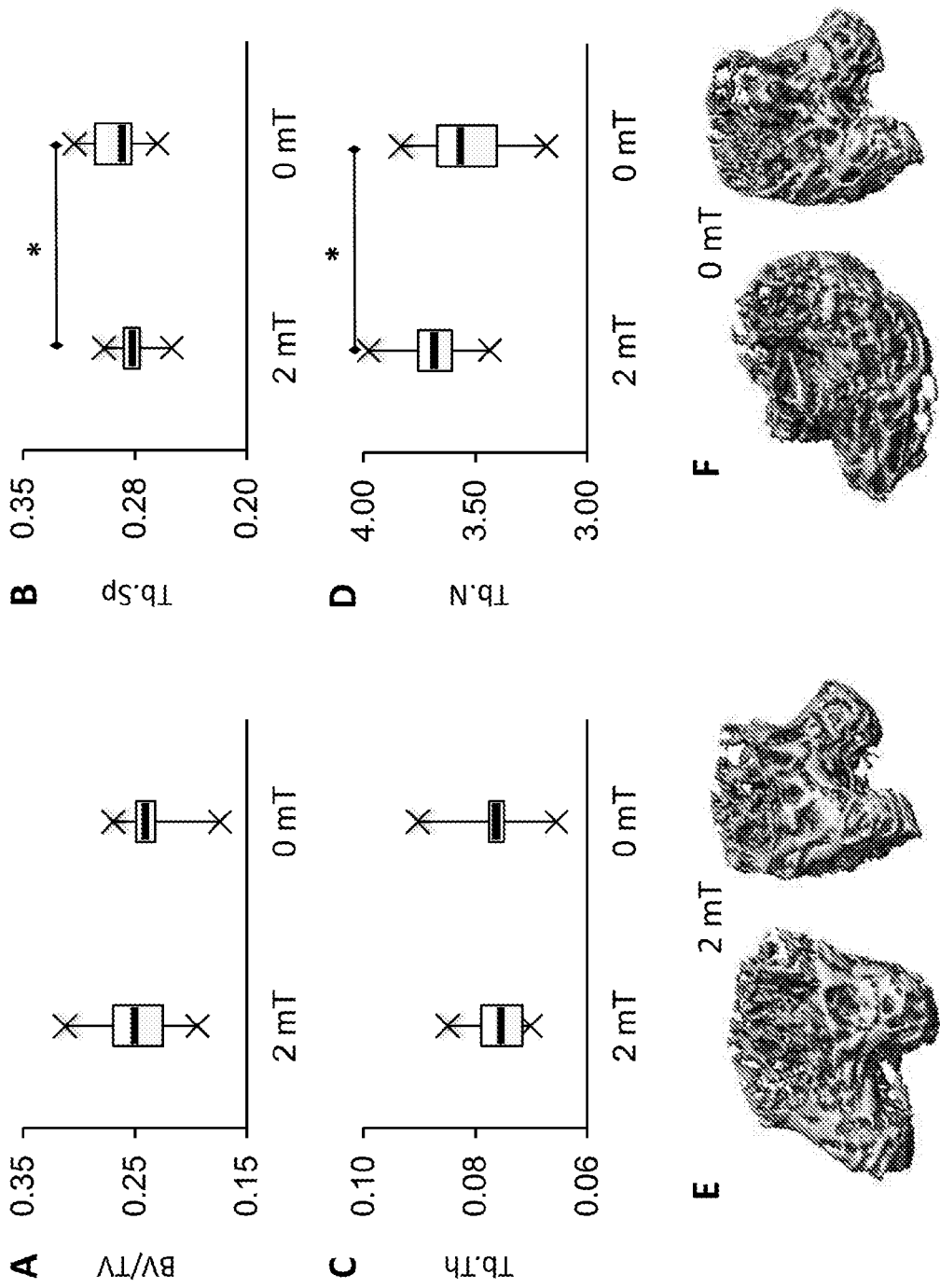


Figure 29

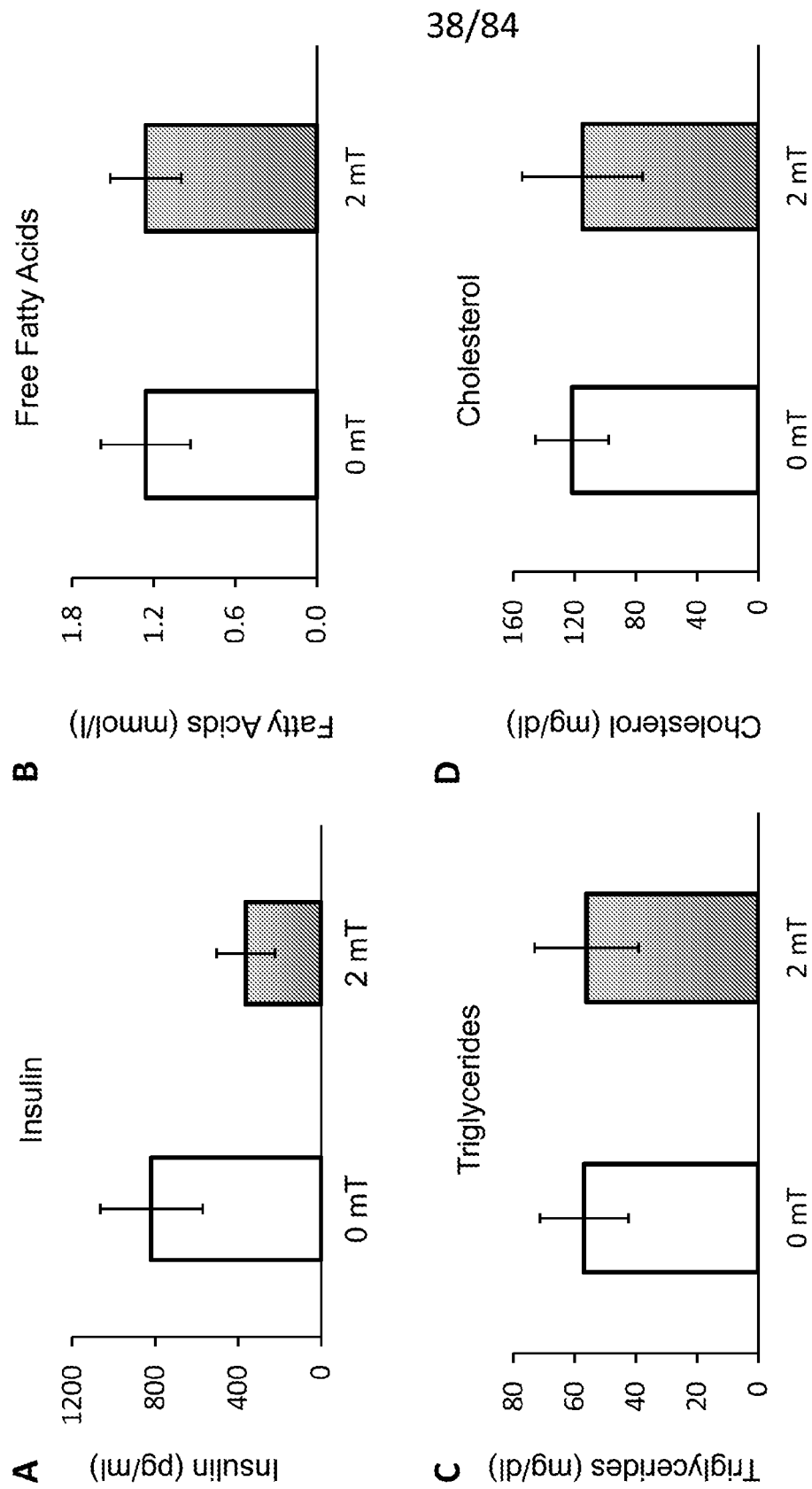


Figure 30

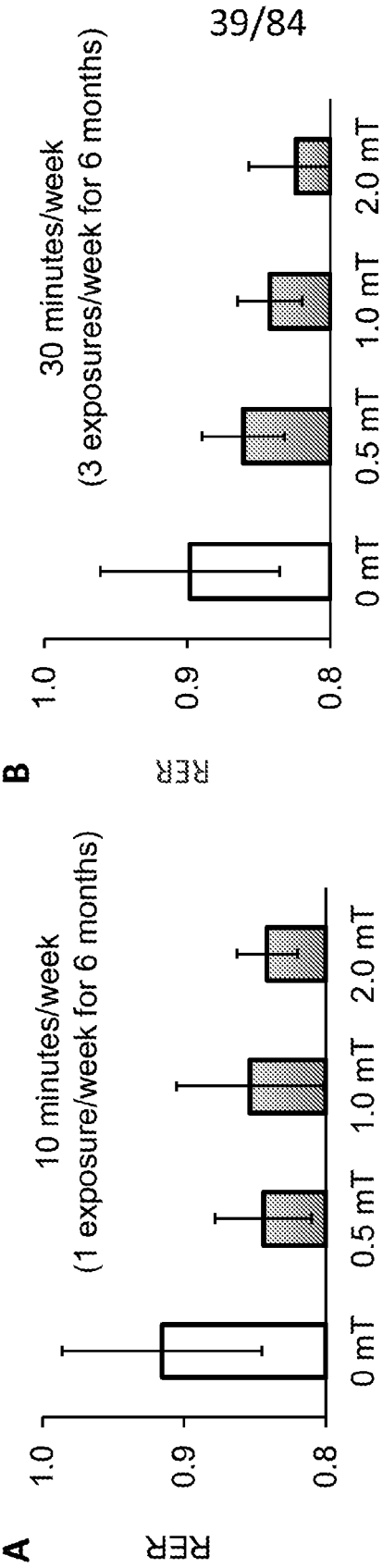


Figure 31

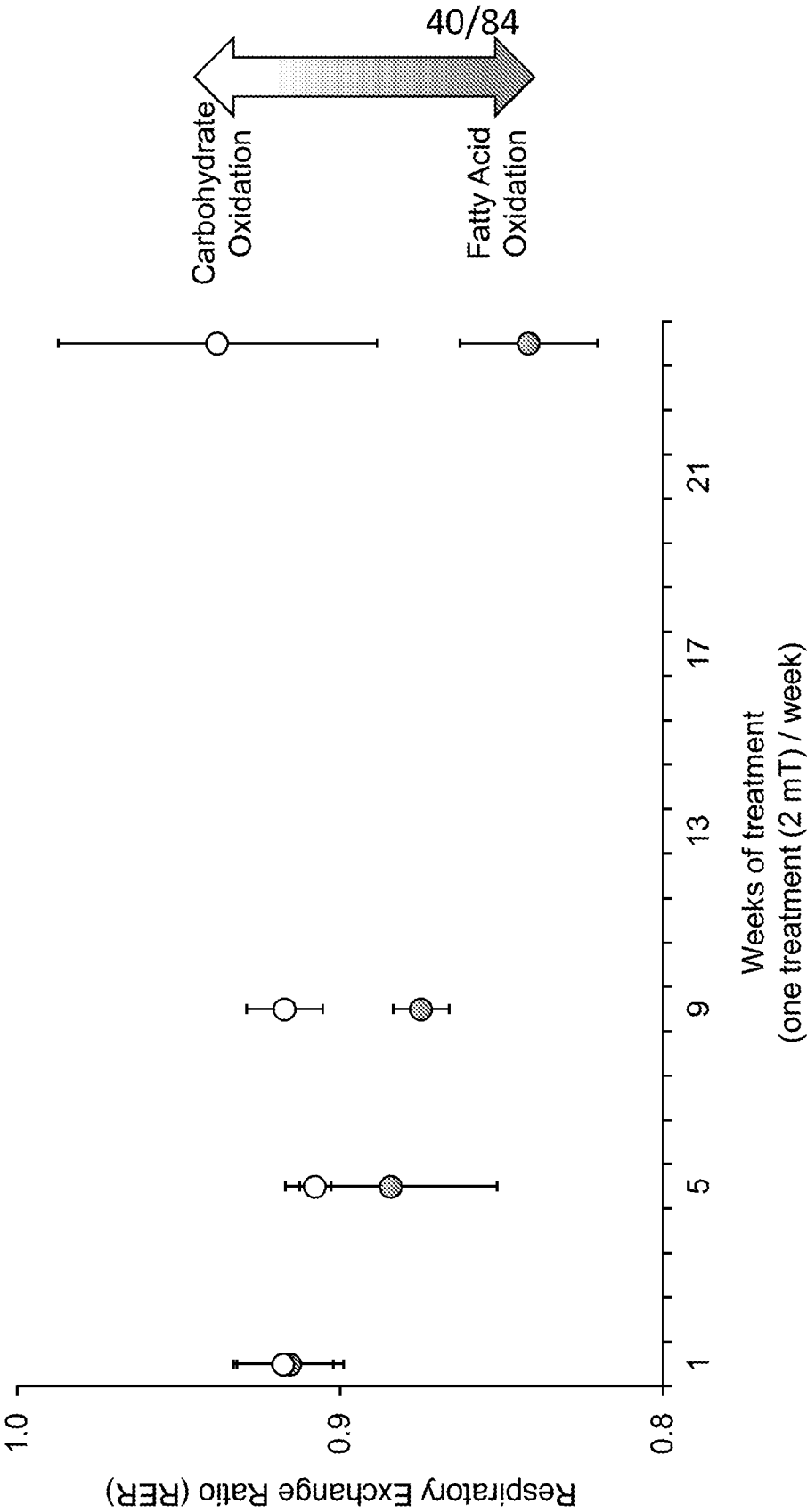


Figure 32

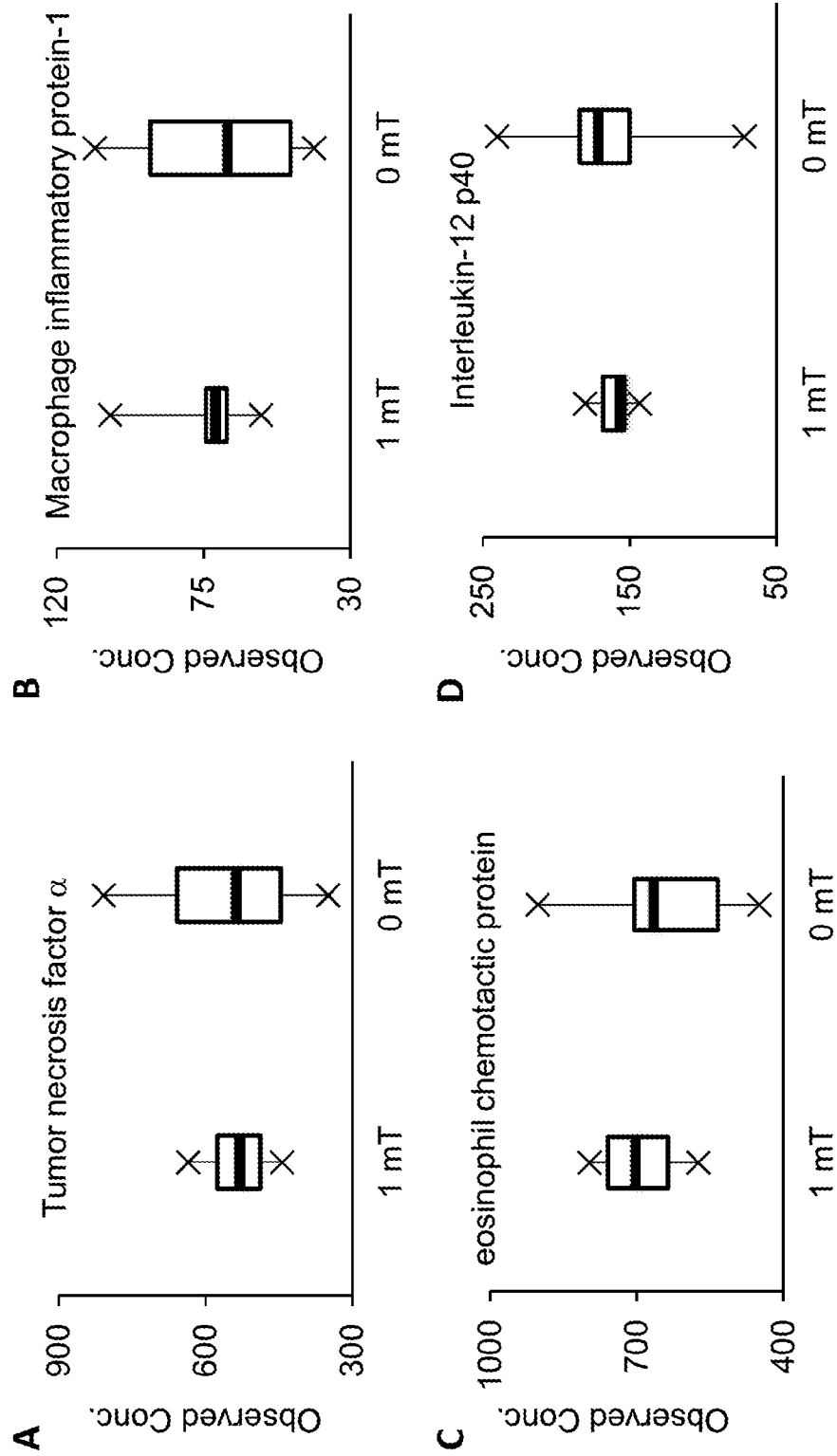


Figure 33

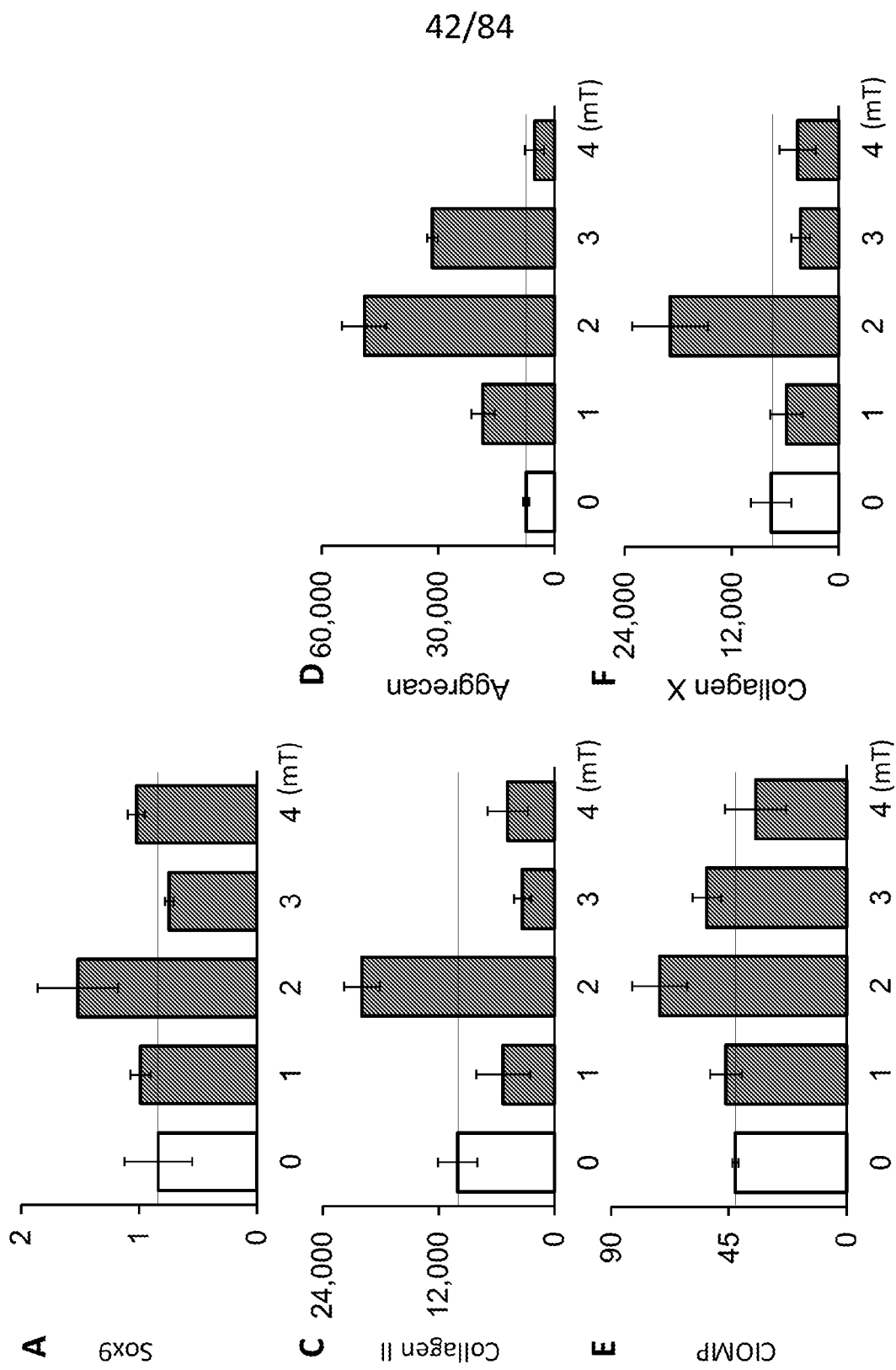


Figure 34

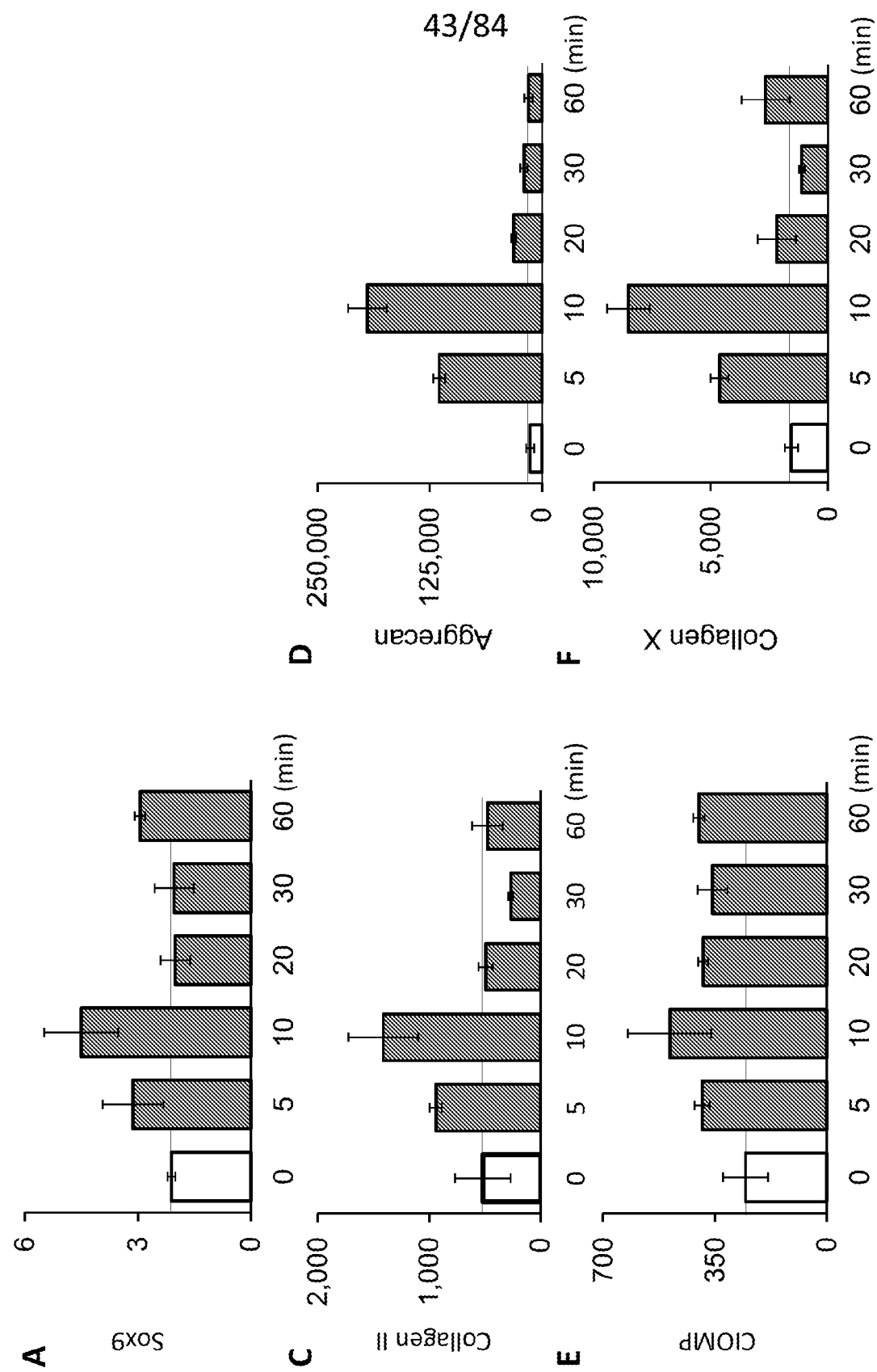


Figure 35

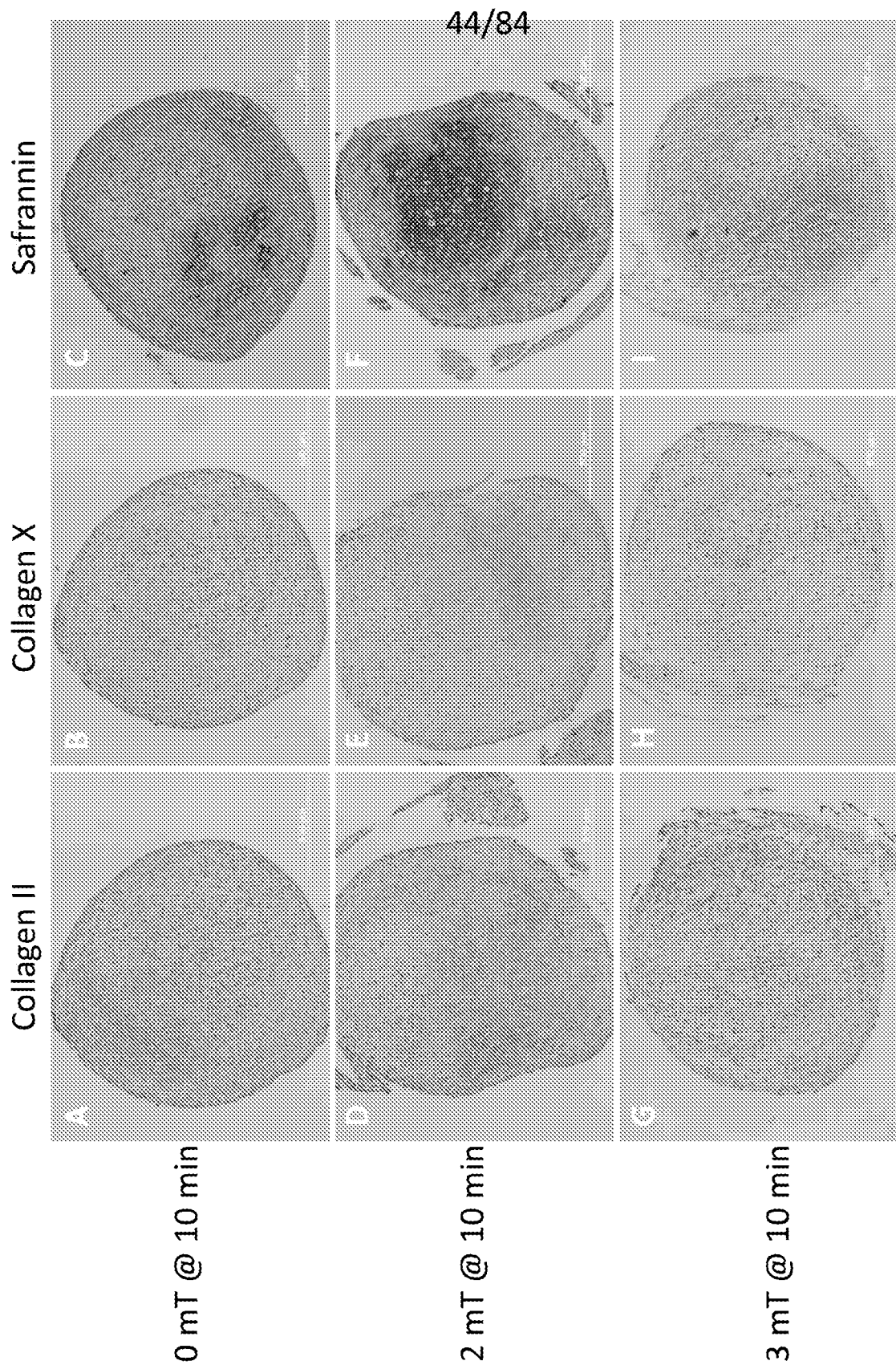


Figure 36

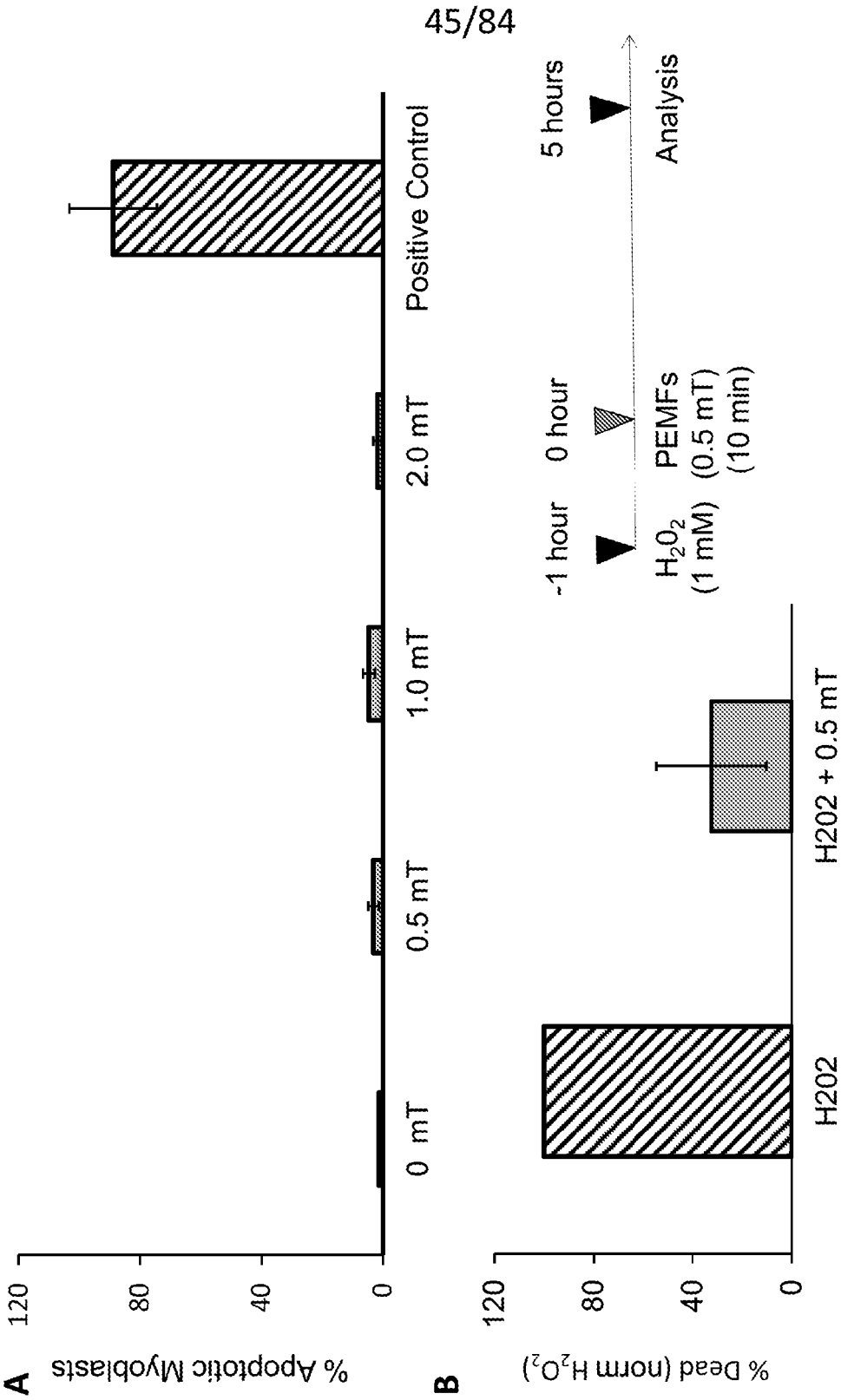


Figure 37

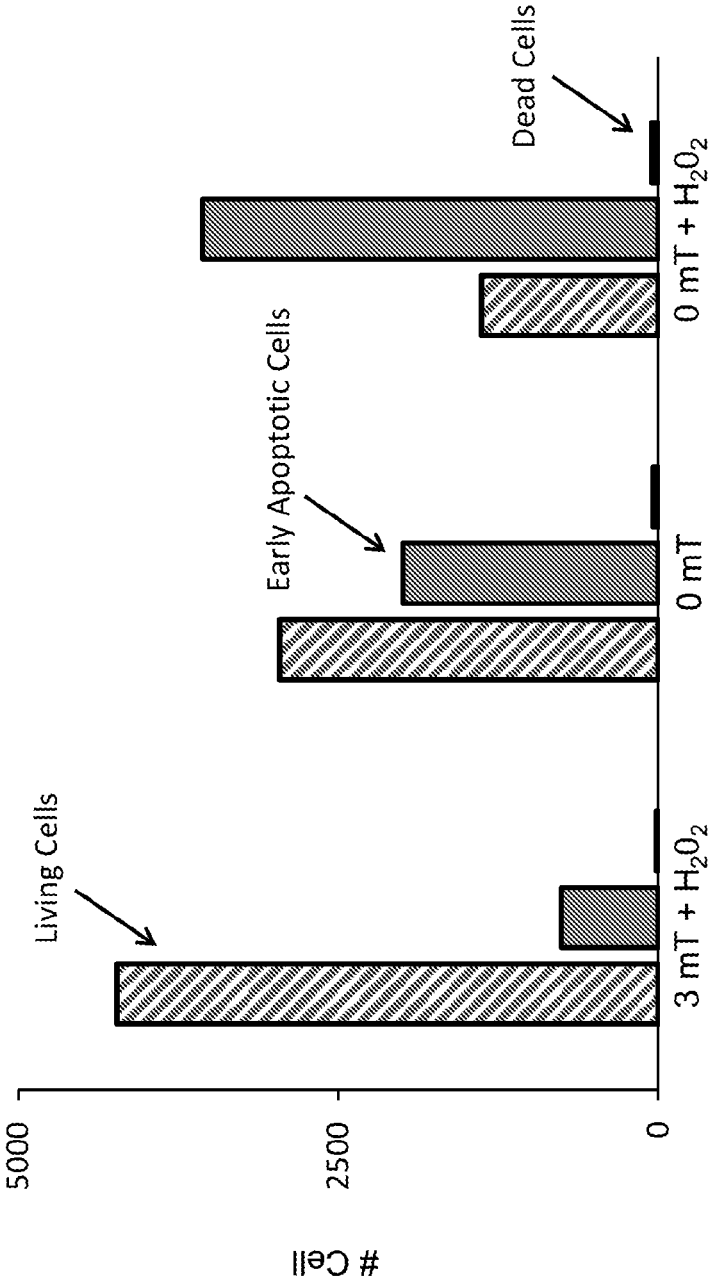


Figure 38

47/84

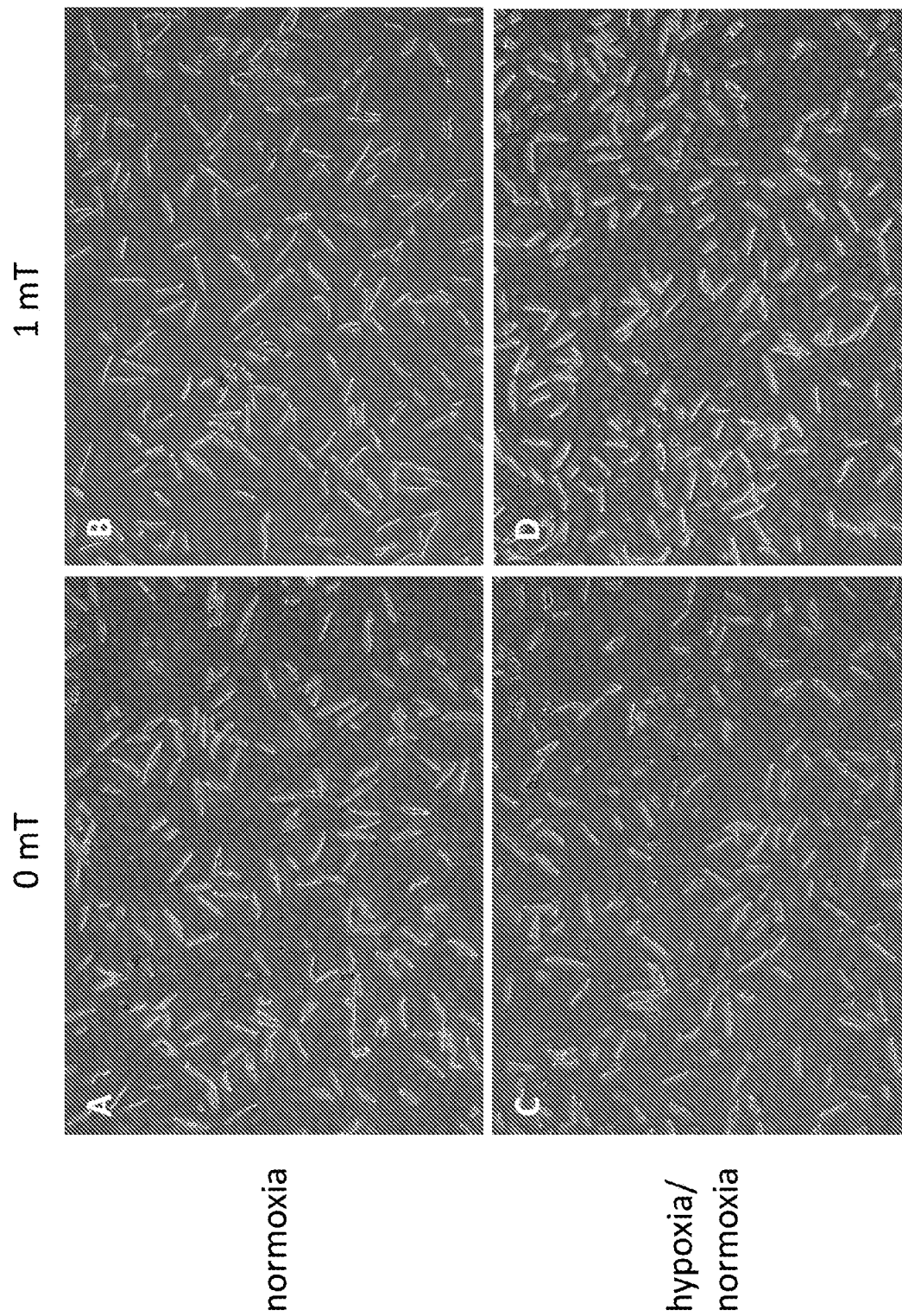


Figure 39

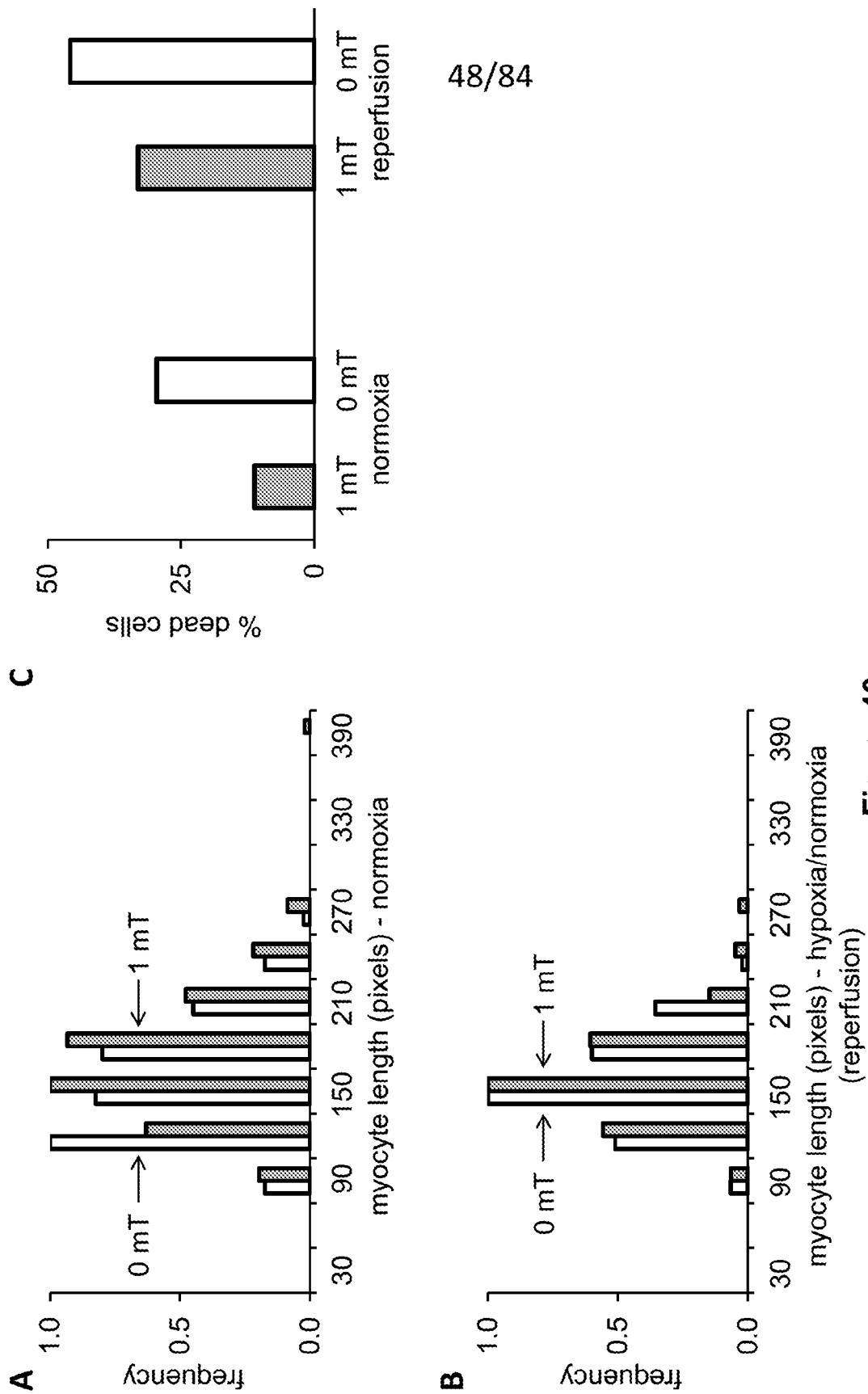


Figure 40

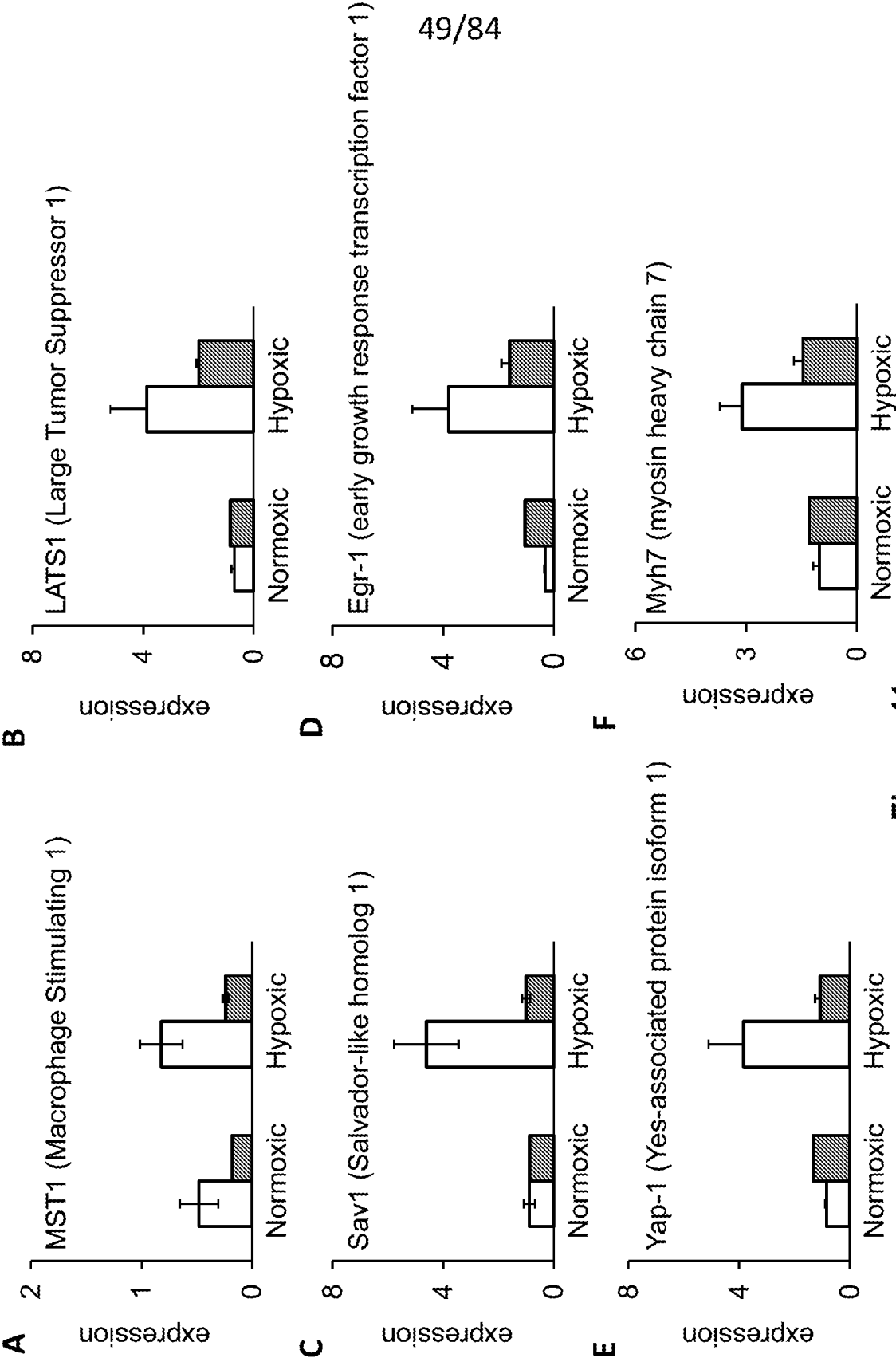


Figure 41

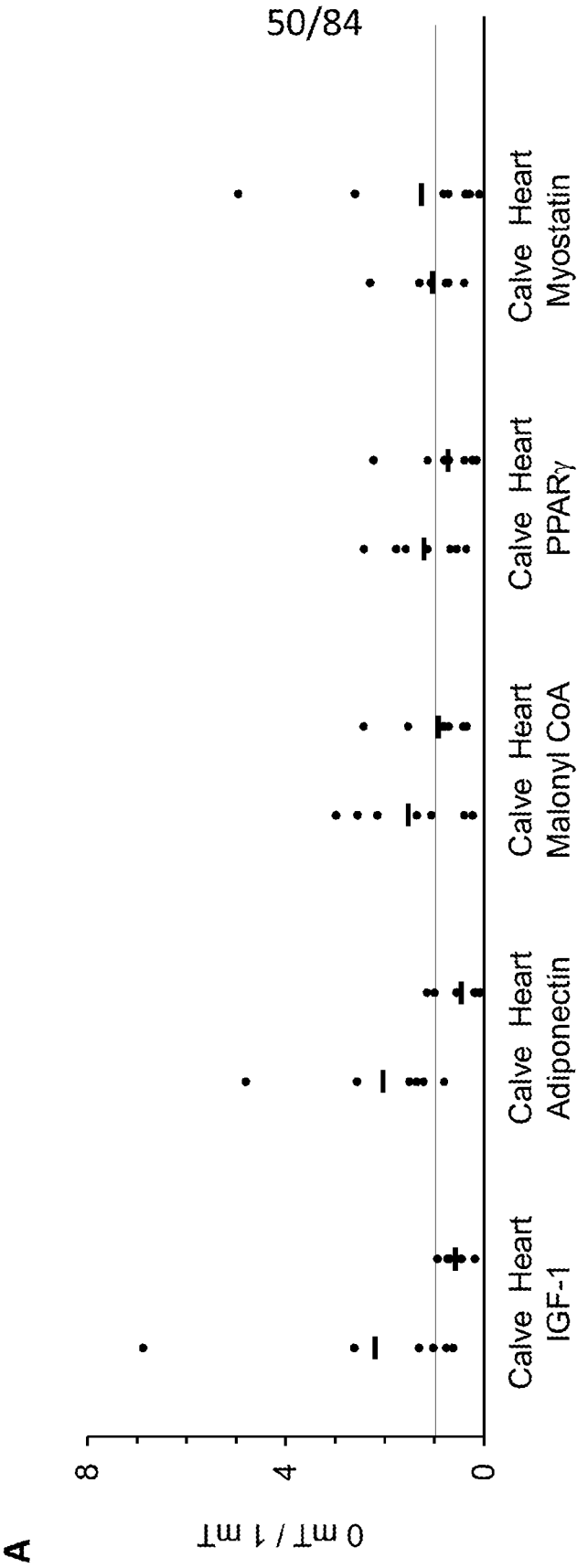


Figure 42

51/84

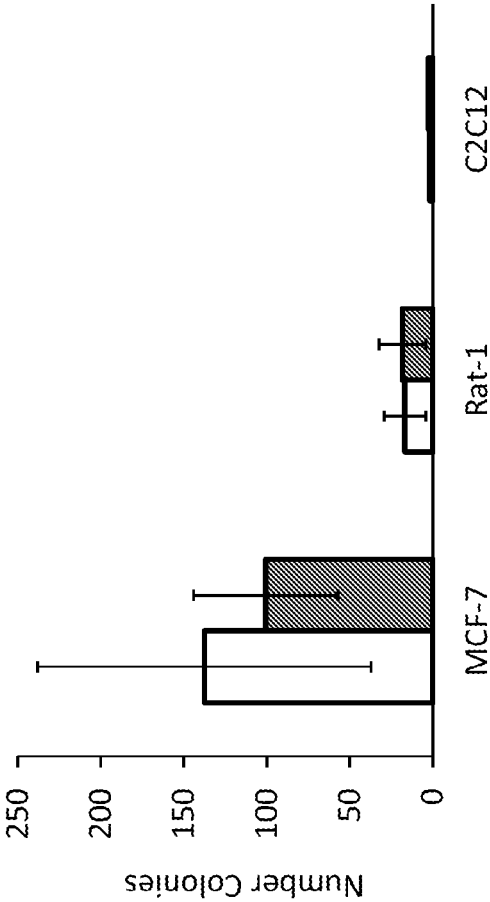


Figure 43

52/84

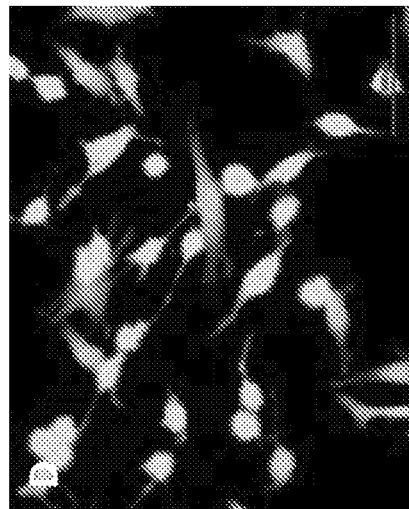
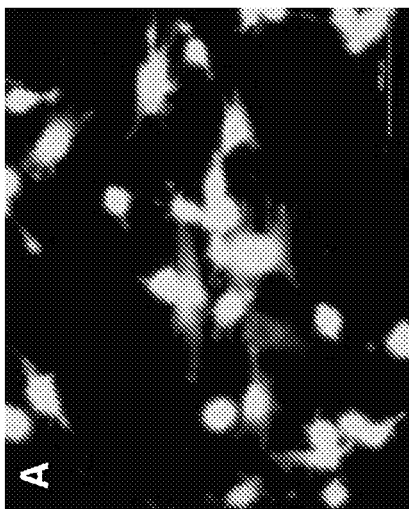
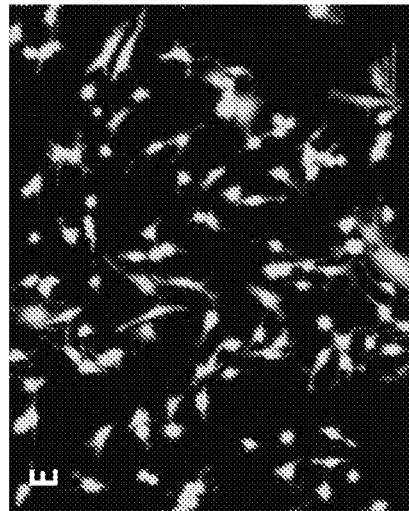
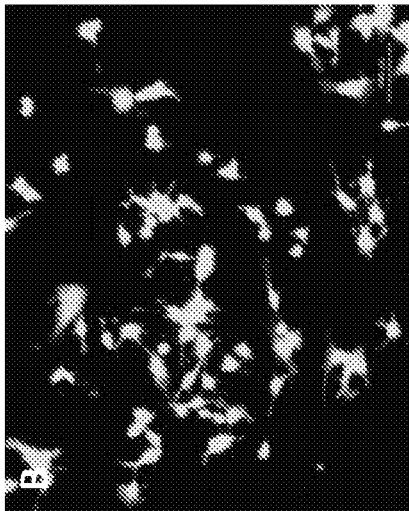
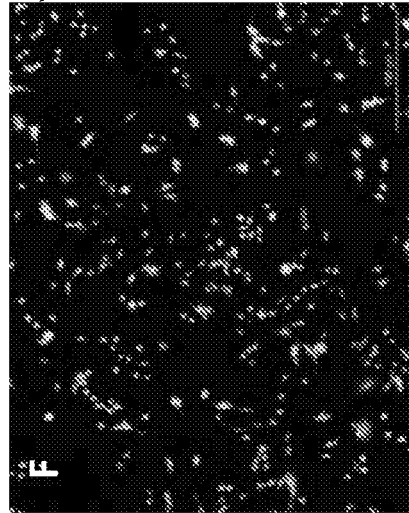
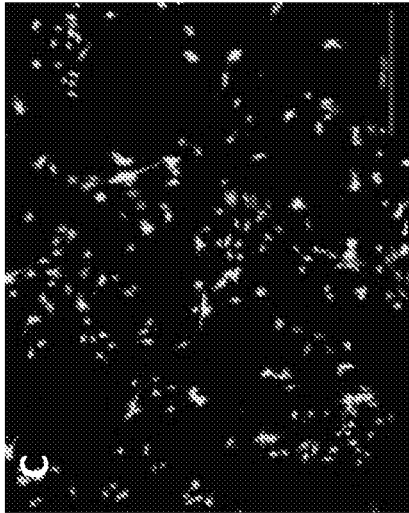


Figure 44

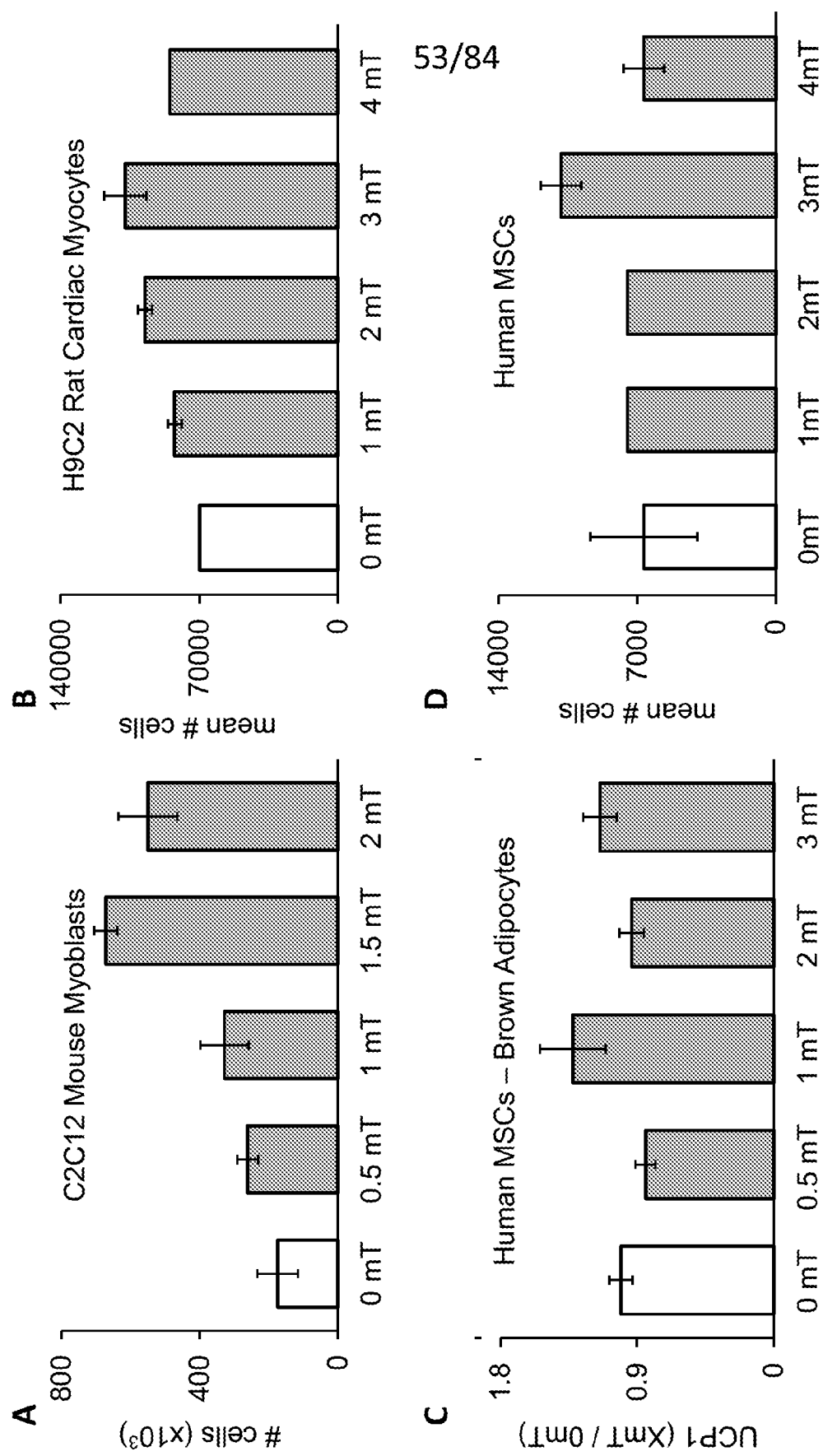
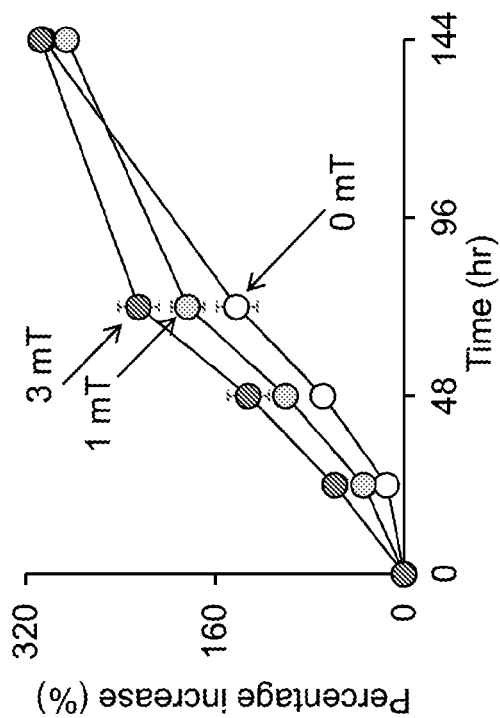
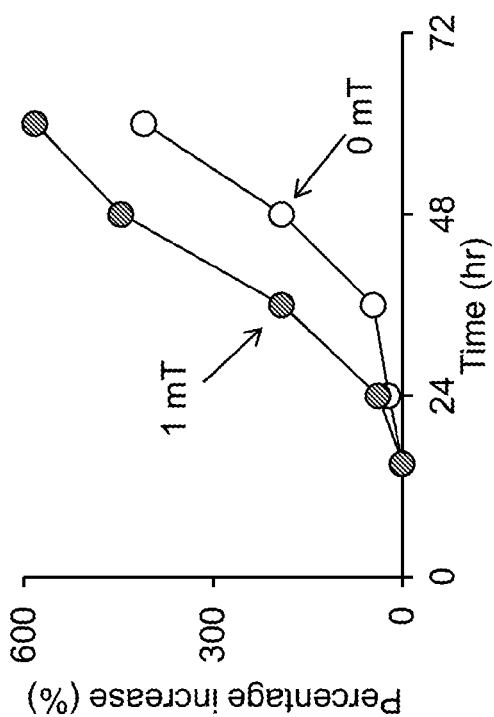


Figure 45

54/84



B



A

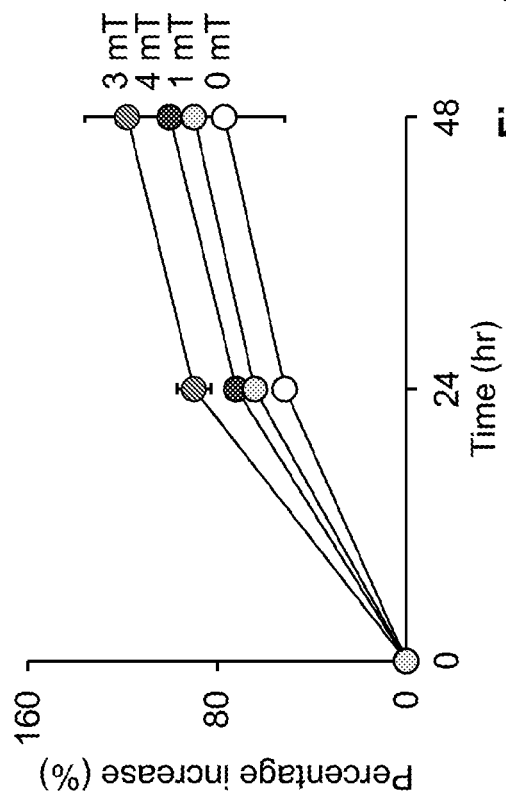


Figure 46

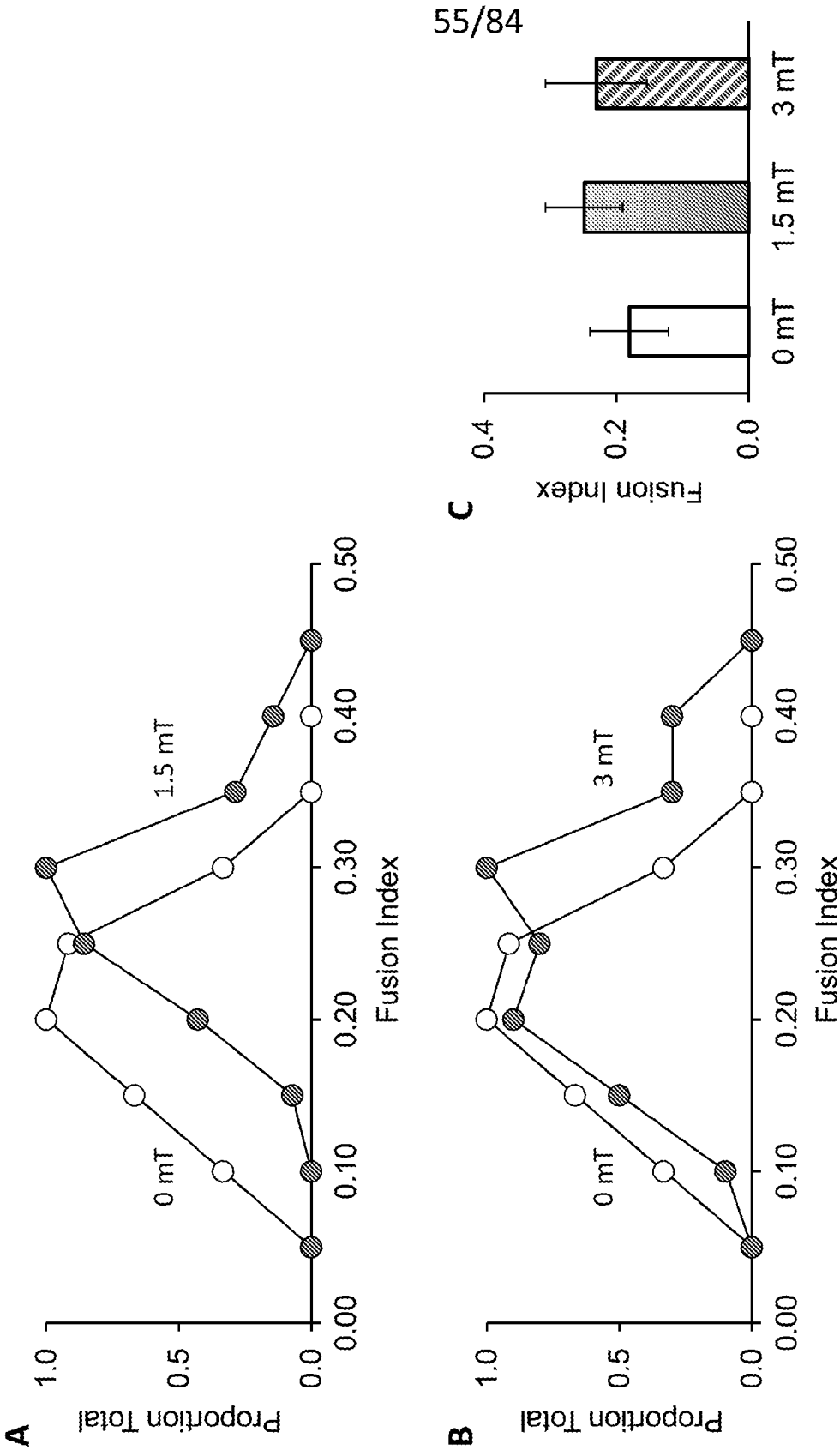


Figure 47

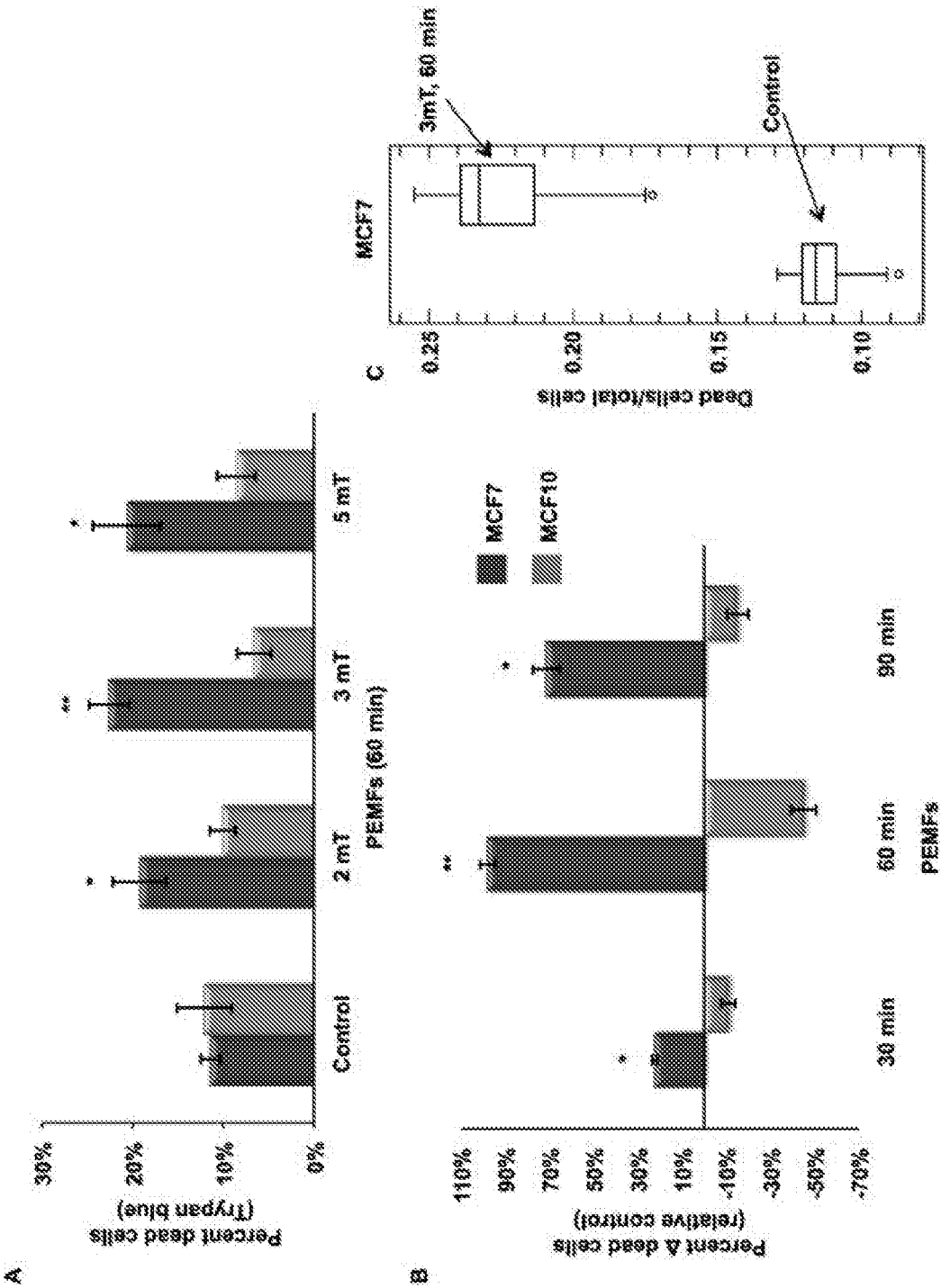


Figure 48

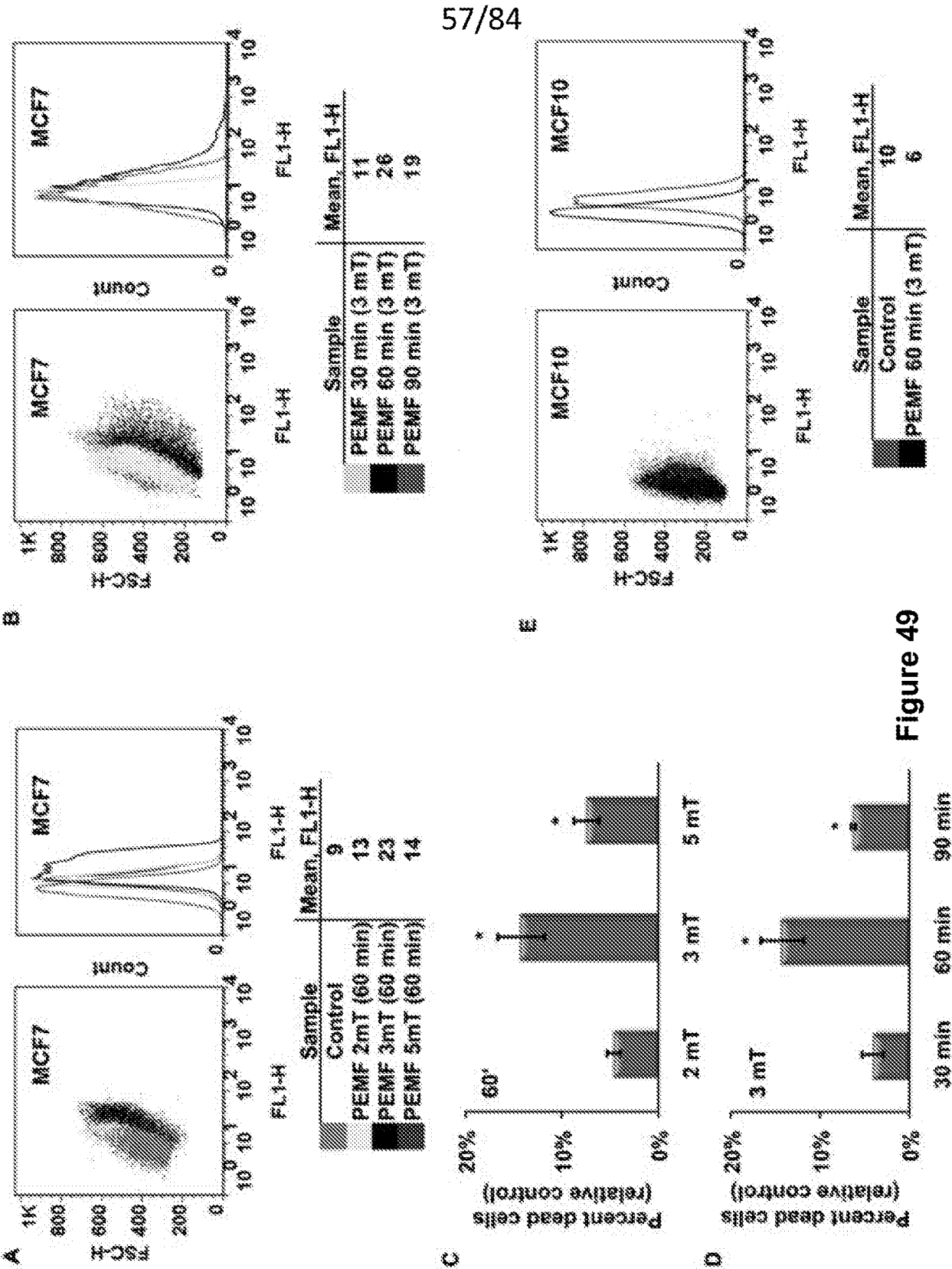


Figure 49

58/84

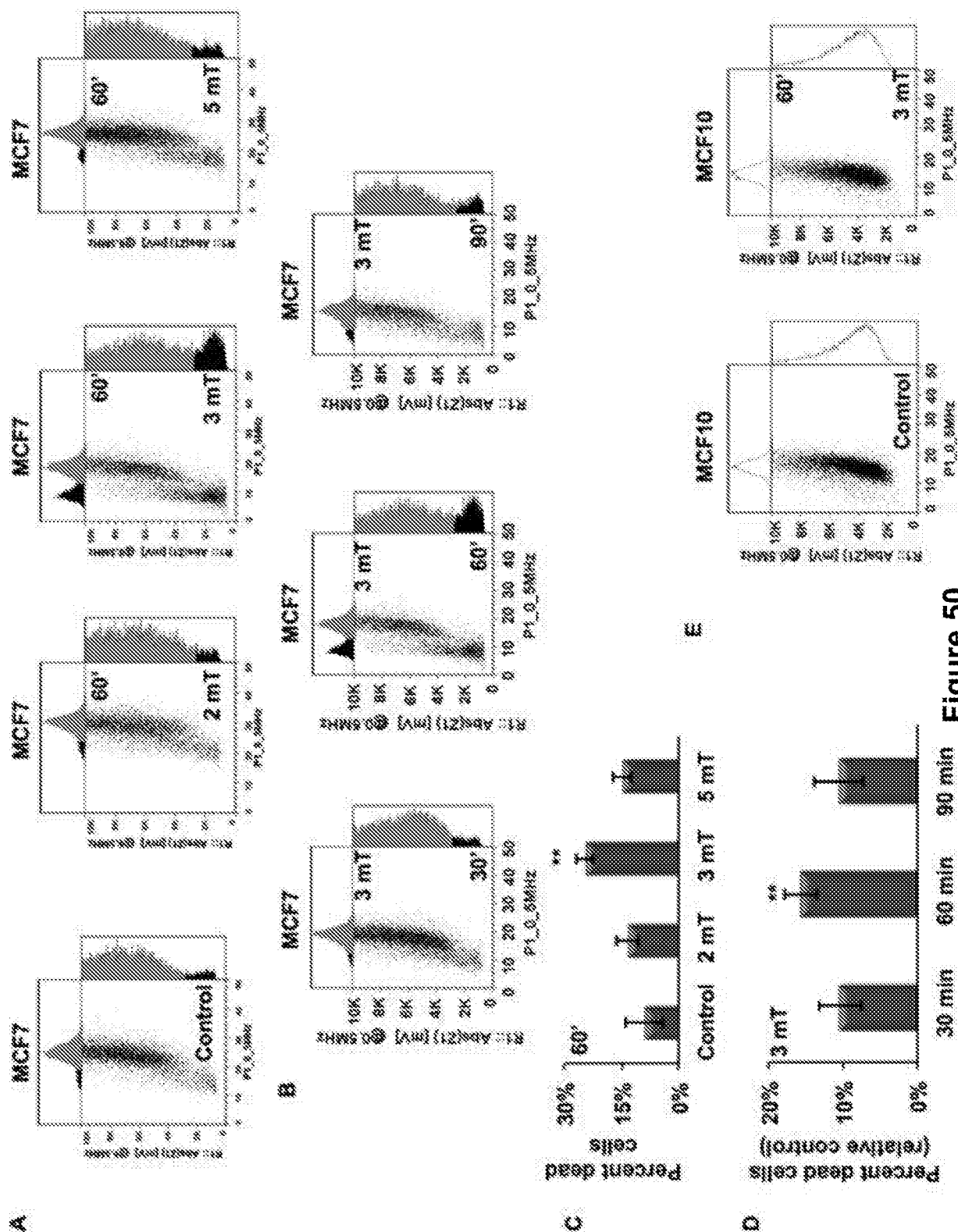
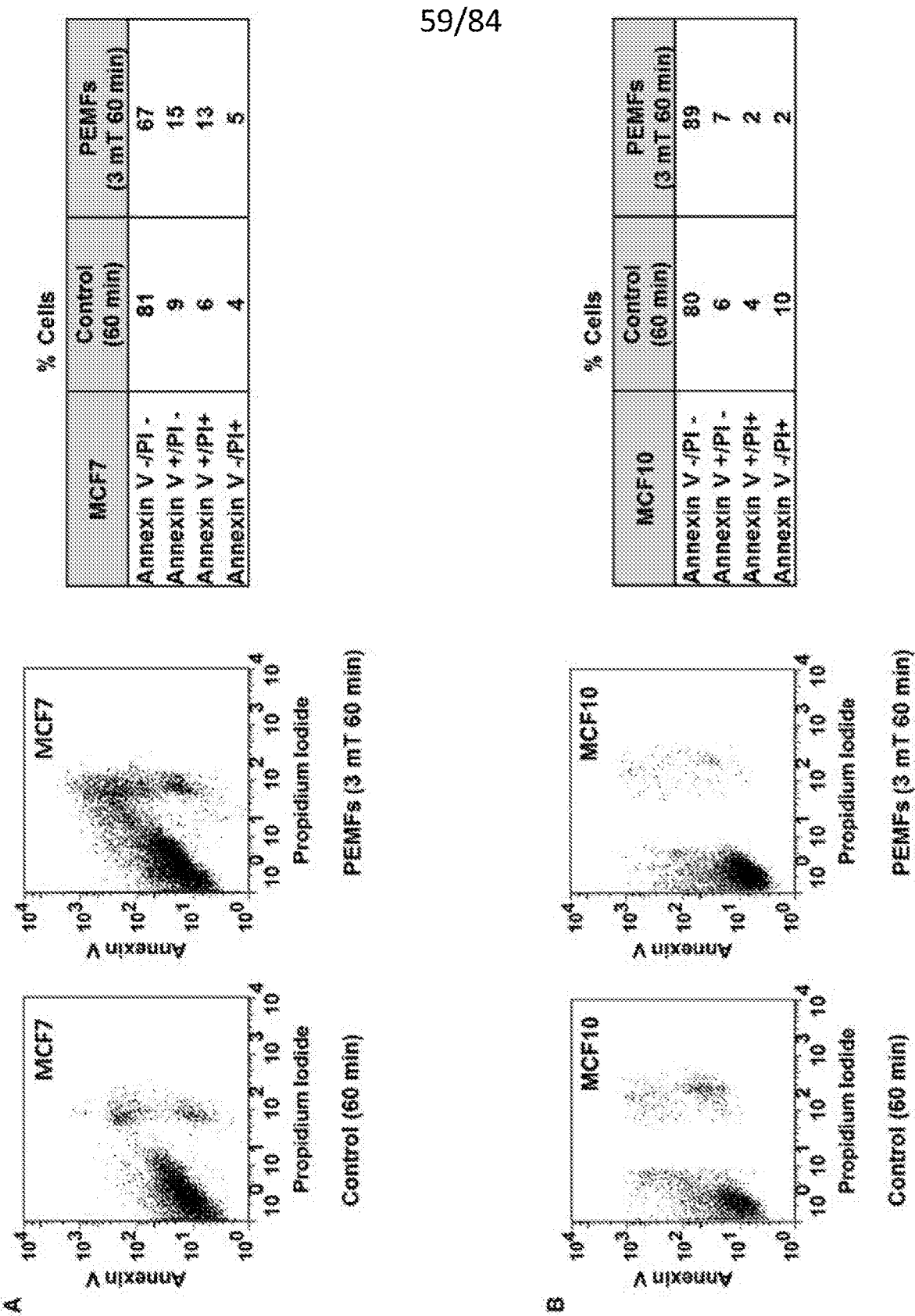


Figure 50



59/84

Figure 51

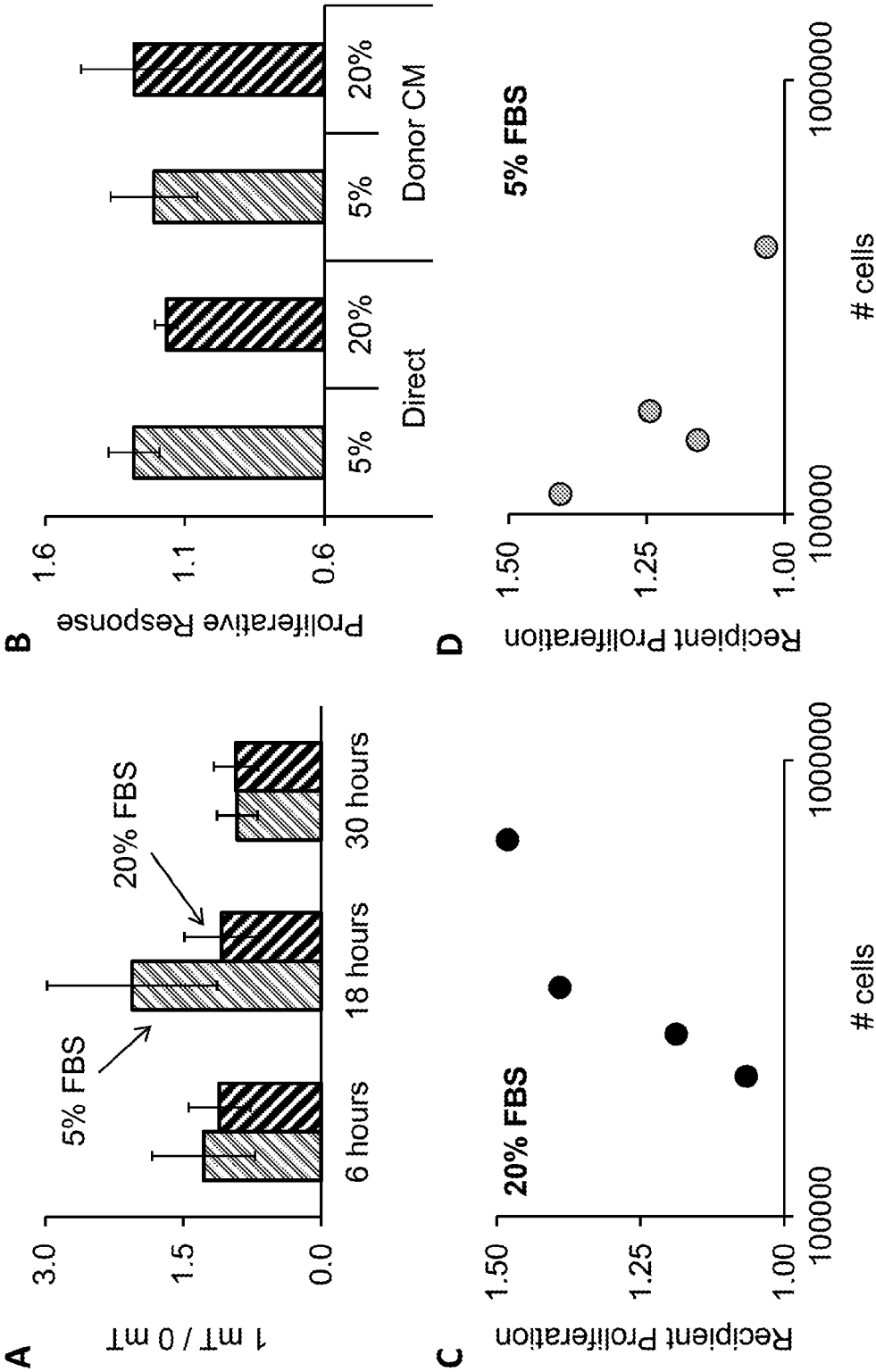


Figure 52

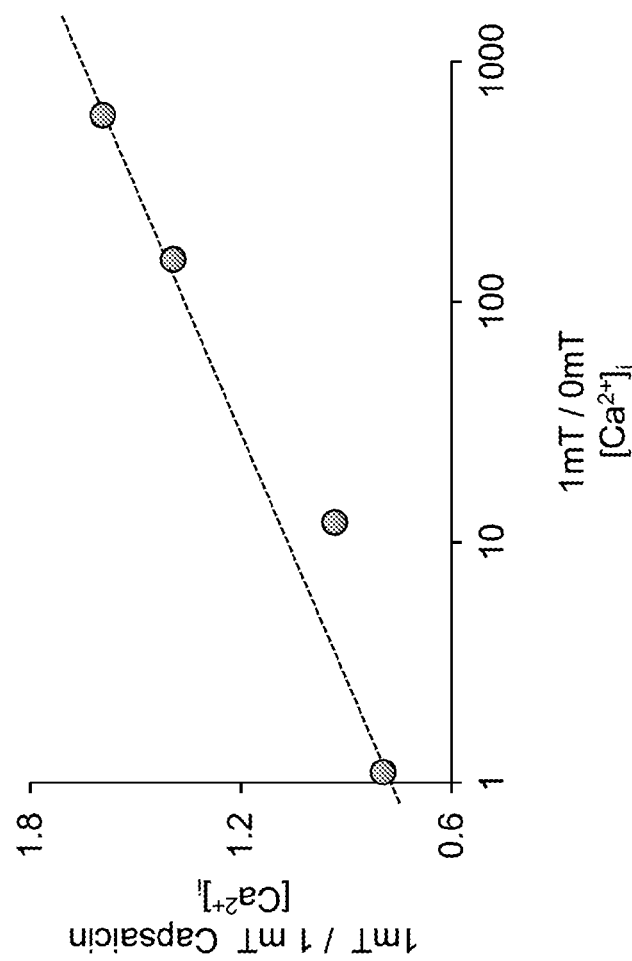


Figure 53

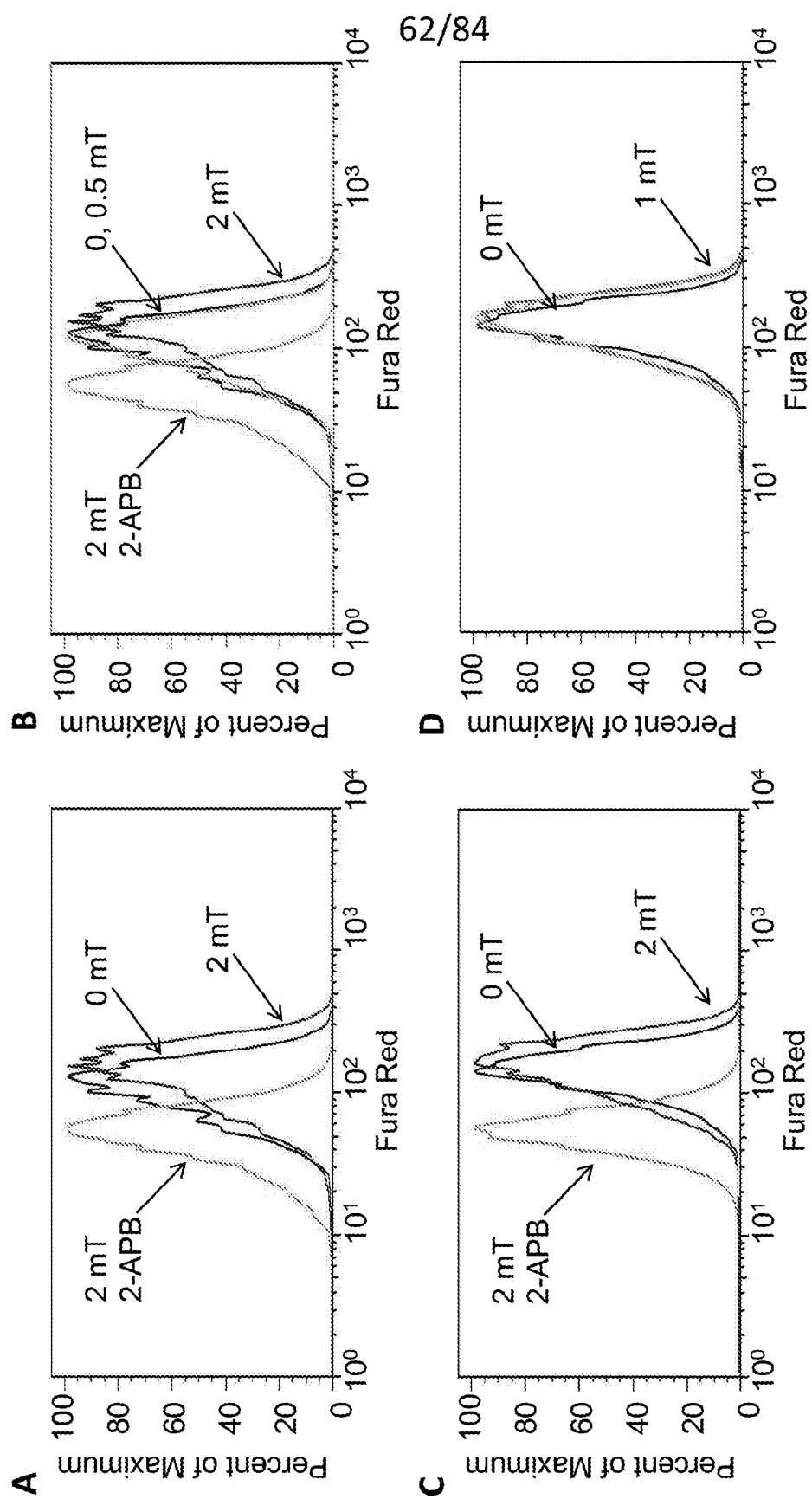


Figure 54

63/84

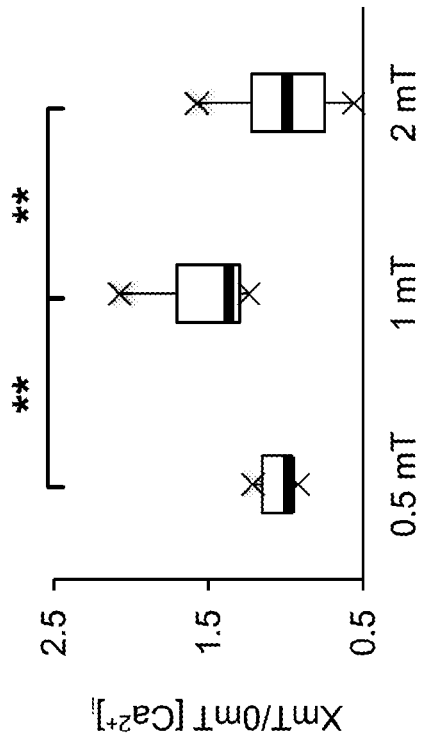


Figure 55

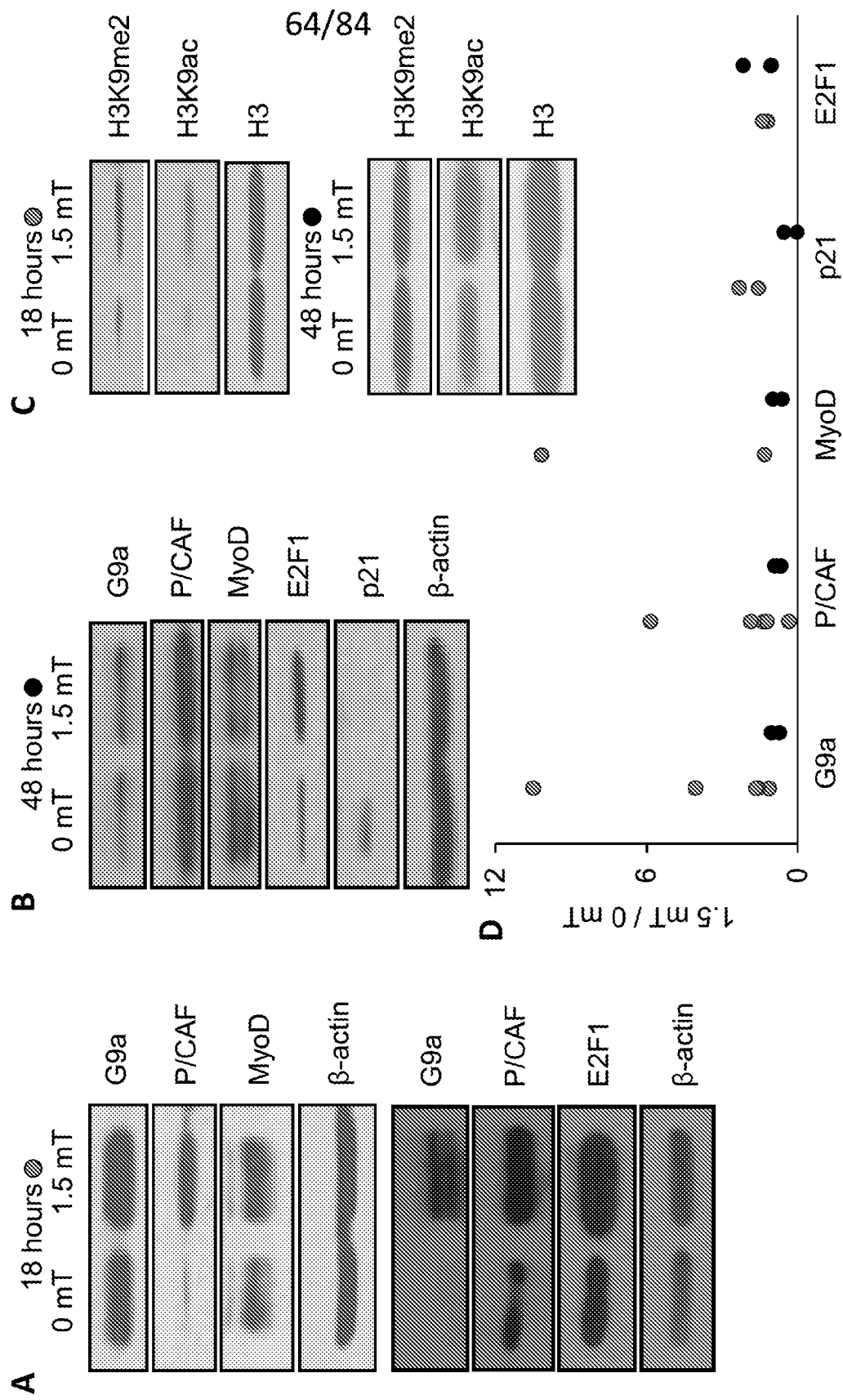


Figure 56

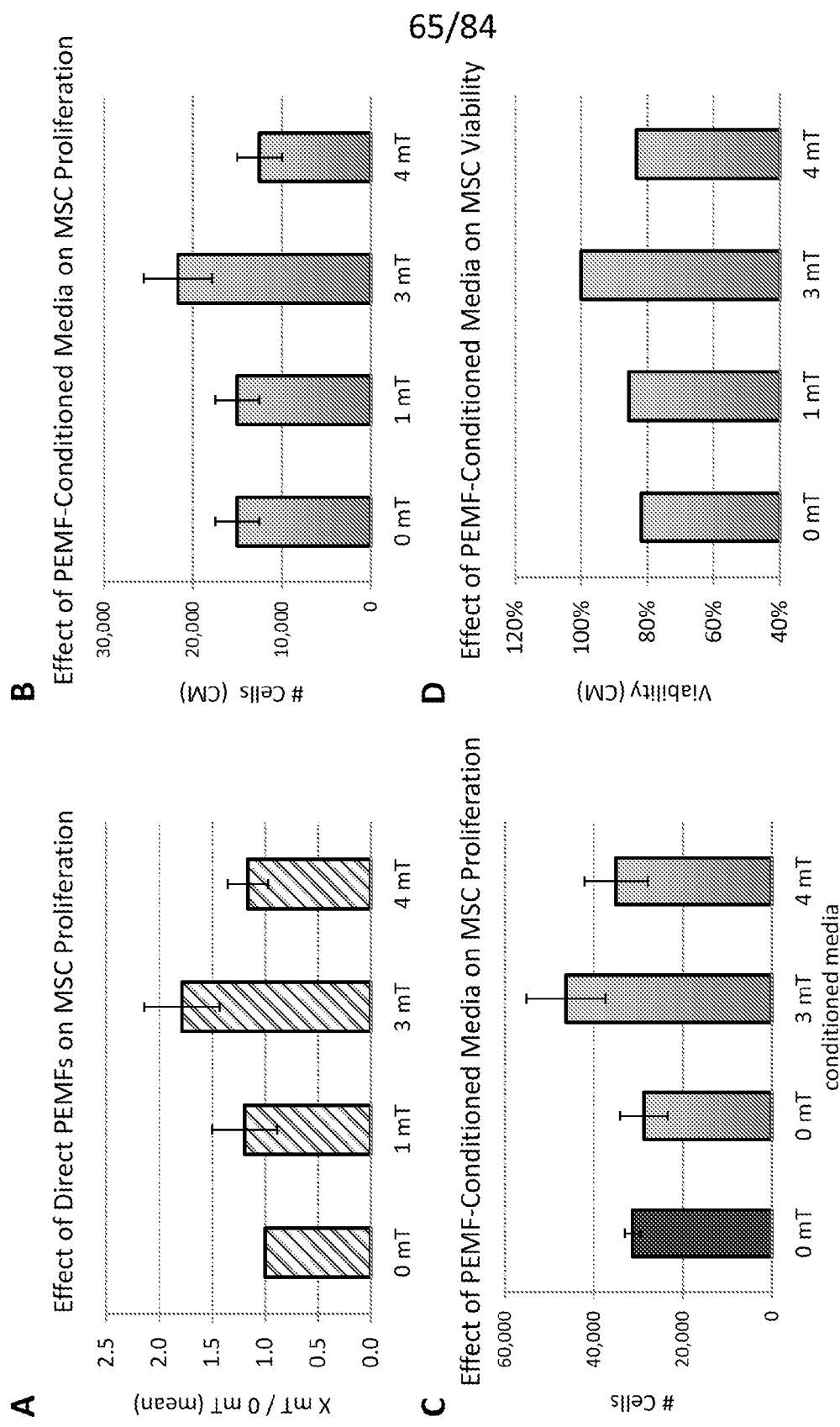


Figure 57

66/84

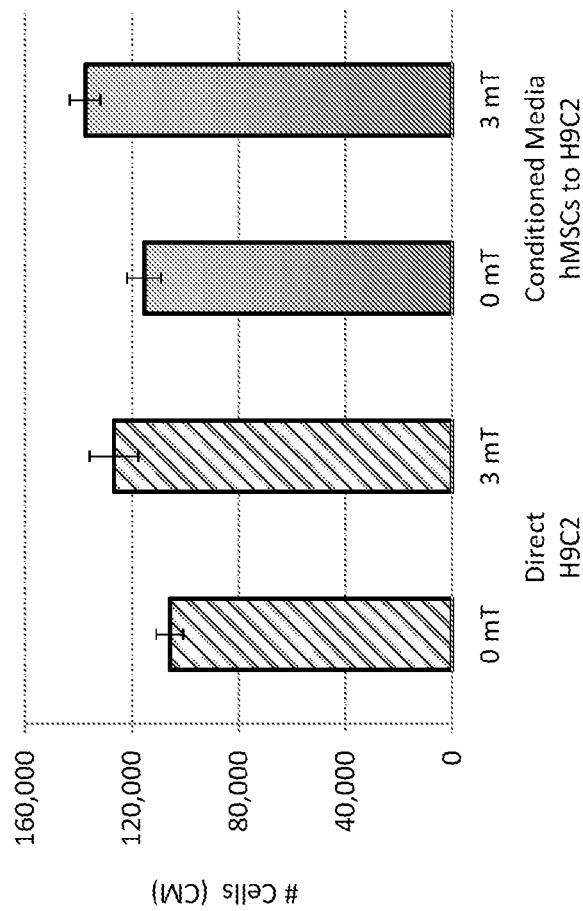


Figure 58

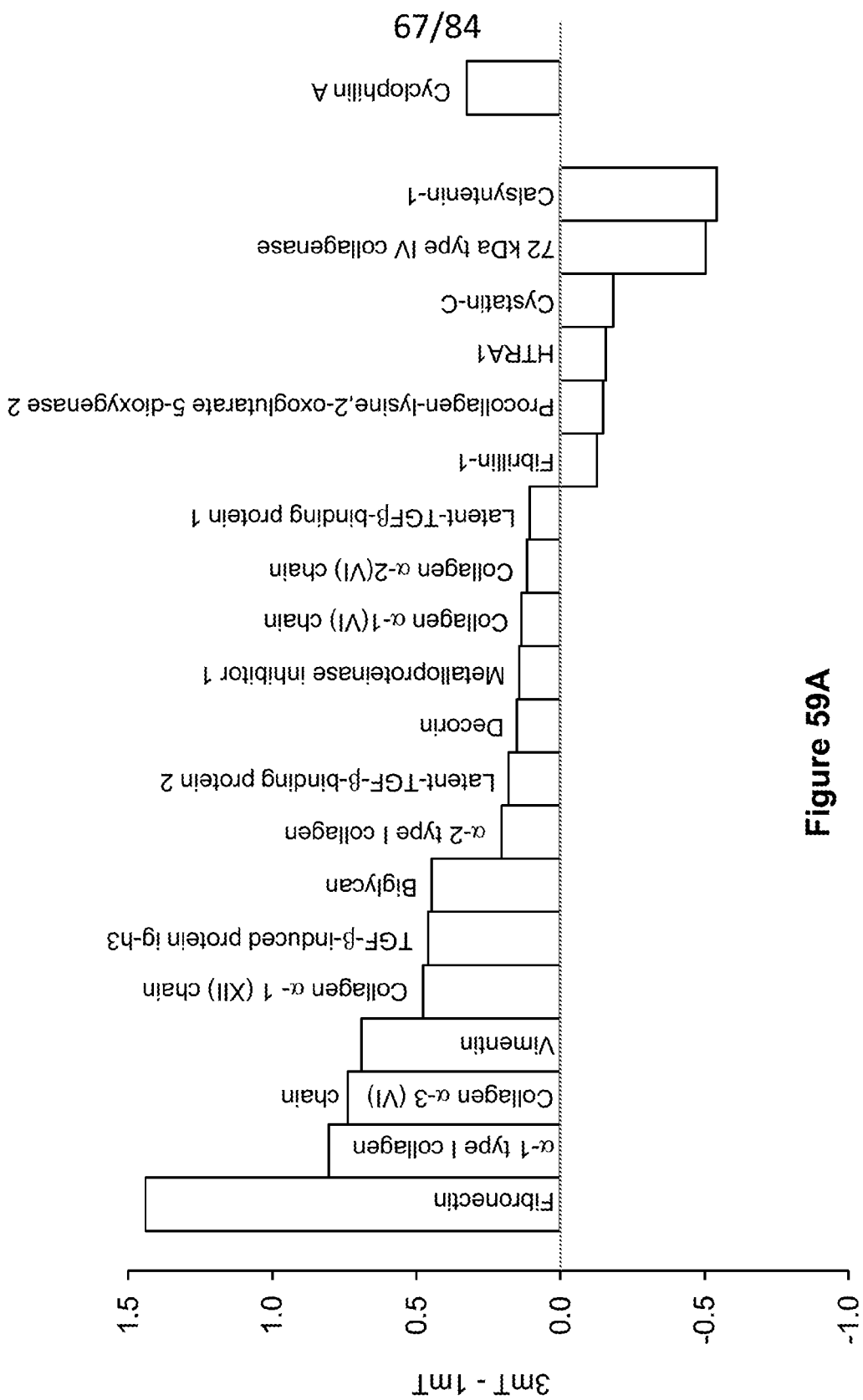


Figure 59A

68/84

Protein	3 mT/0 mT	Protein	3mT/0 mT
GAPDH	6.244	Protein disulfide-isomerase A6	4.088
Neuroblast differentiation-associated protein	5.984	Plasminogen	3.557
Cdlin-2	4.770	Epidermal secretory protein E1	2.913
Pyruvate kinase	4.718	Protein canoy homolog 2	2.531
Anexin A1	4.592	Major prion protein (PrP)	2.801
Triphosphohalan isomerase	4.511	Perlecan-3	2.774
Filamin-B	4.318	Thymosin beta-40	2.710
Vasodil	3.759	ATP synthase subunit beta	2.587
Protein disulfide isomerase M4	3.453	Bone morphogenetic protein 1	2.586
Follistatin-related protein	3.446	Thymosin beta-4	2.467
Heterogeneous nuclear ribonucleoprotein A1-like 2	3.303	Calmodulin	2.145
Moesin OS	3.301	ATP-citrate synthase	2.088
Peptidyl-prolyl cis-trans isomerase A	3.185	Reticulocalbin-3	2.083
Myosin-9	3.159	Macrophage colony-stimulating factor 1	1.988
Protein S100-A8	3.043	Transitional endoplasmic reticulum ATPase	1.882
Insulin-like growth factor-binding protein 2	2.980	Peroxiredoxin-2	1.879
Heat shock cognate 71 kDa protein	2.886	Phosphatidylethanolamine-binding protein 1	1.870
Transitional endoplasmic reticulum ATPase	2.724	Cysteine and glycine-rich protein 1	1.852
Transgelin-2	2.678	Complement C3	1.811
Macrophage migration inhibitory factor	2.522	Annexin A1	1.808
Thymosin beta-10	2.474	Nucleoside diphosphate kinase B	1.791
Extracellular matrix protein 1	2.242	Testican-1	1.784
Heterogeneous nuclear ribonucleoproteins A2/B1	2.235	Collagen alpha-1(I) chain	1.749
Thymosin beta-4	2.133	Glutathione S-transferase P	1.748
Thioredoxin domain-containing protein 17	2.030	Vitamin D-binding protein	1.746
Filamin-A	2.001	Thioredoxin domain-containing protein 5	1.889
Alpha-enolase	1.989	Collagen alpha-2(V) chain	1.883
Beta-enolase	1.986	Ribgycan	1.856
45 kDa calcium-binding protein	1.970	Lactotransferrin	1.893
Spectrin beta chain, non-erythrocytic 1	1.947	Fibulin-1	1.653
Protein deglycase DJ-1	1.936	Collagen alpha-2(VI) chain	1.817
Phosphoglycerate kinase 1	1.923	Latent-transforming growth factor beta-binding protein 1	1.581
Tenesin1	1.910	Beta-enolase	1.578
A disintegrin and metalloprotease with thrombospondin motifs 1	1.891	Insulin-like growth factor-binding protein 2	1.577
Alpha-2-macroglobulin	1.867	Decorin	1.569
Heat shock protein beta-1	1.839	Transforming growth factor-beta-induced protein ig-h3	1.521
Senaphorin-7A	1.609		
Einngalton factor 1-alpha 1	1.603		
Metalloproteinase inhibitor 1	1.788		
Parathymosin	1.781		
Insulin-like growth factor-binding protein 4	1.767		
Translationally-controlled tumor protein	1.728		
Prothymosin alpha	1.677		
Anexin A2	1.658		
Galectin-1	1.628		
Vinculin	1.611		
L-lactate dehydrogenase B chain	1.600		
Histone H2A type 1-B/E	1.596		
Nucleolin	1.583		
Caldesmon	1.566		
Nucleodendin-1	1.526		
14-3-3 protein gamma	1.525		
Heat shock protein HSP 90-alpha	1.525		

Figure 59B

69/84

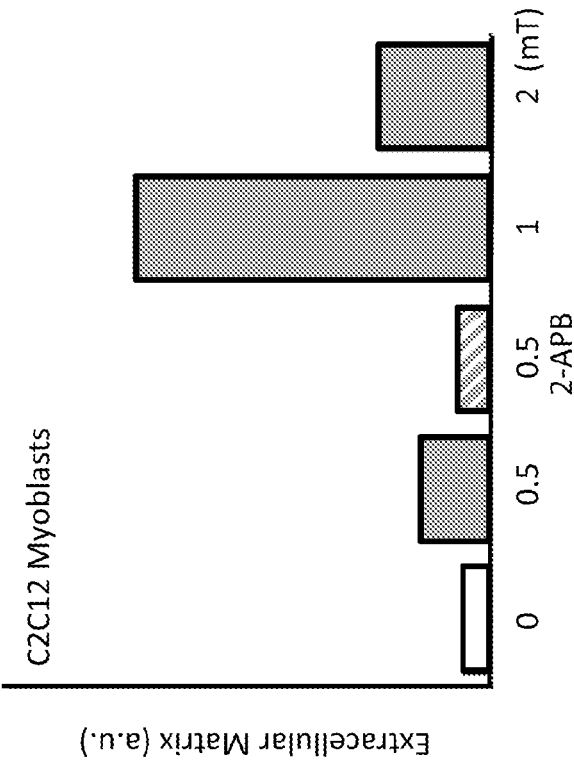


Figure 60

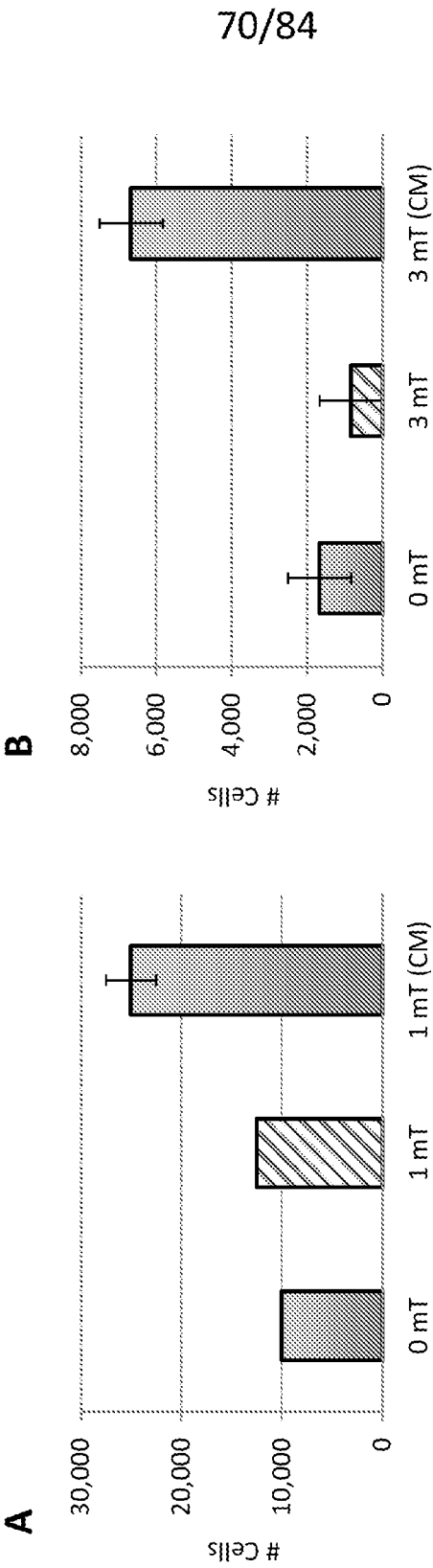


Figure 61

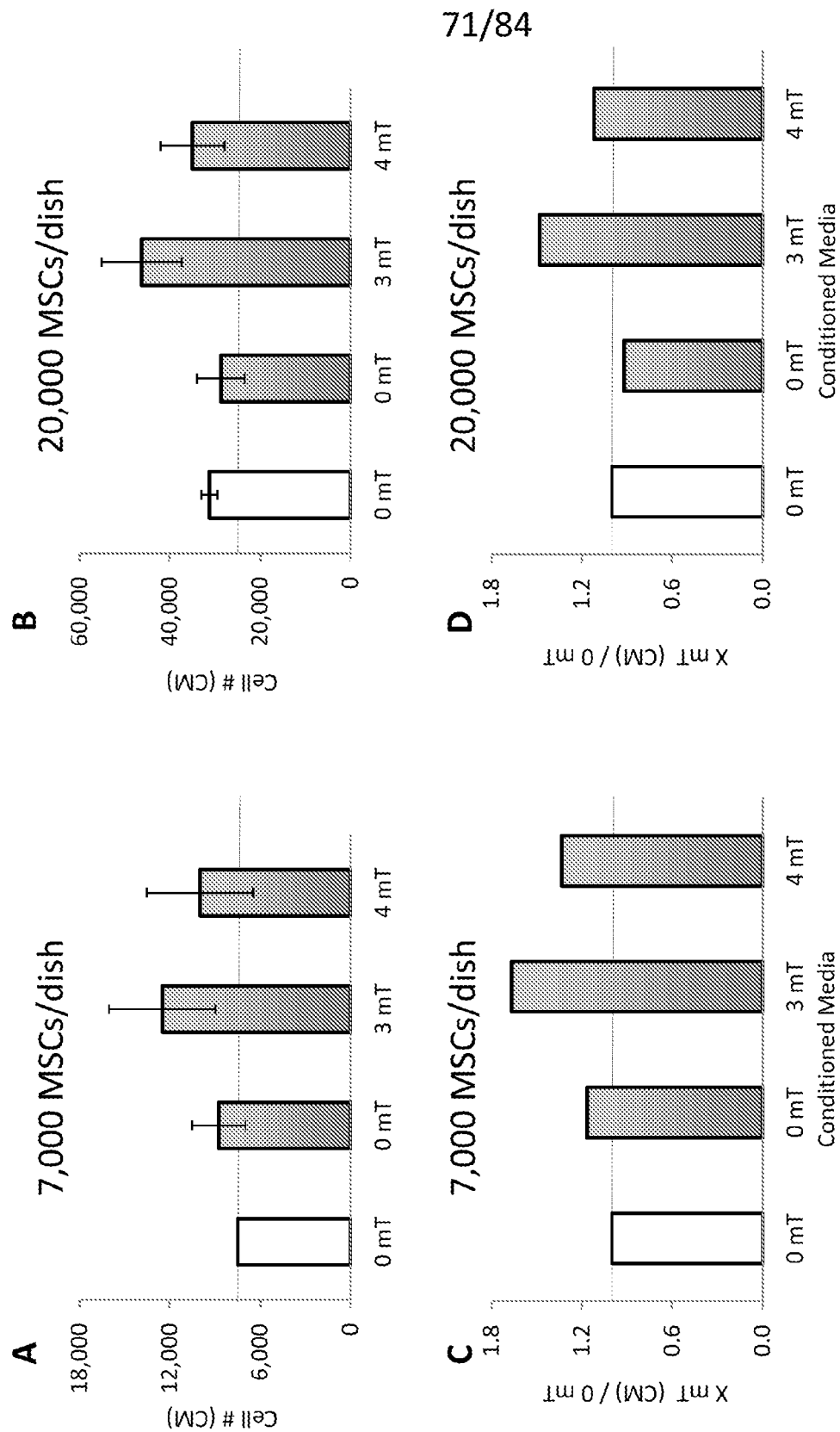


Figure 62A

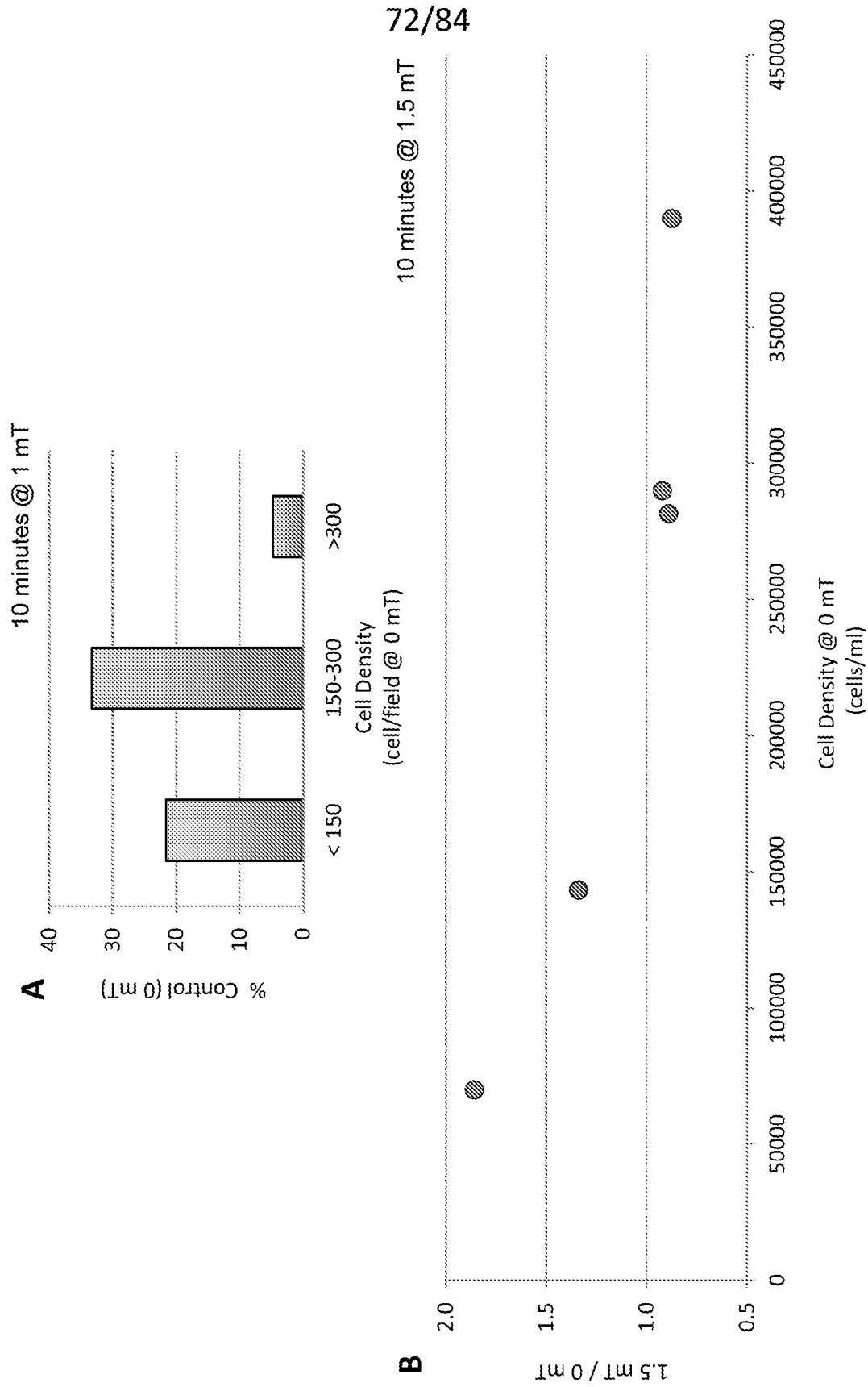


Figure 62B

73/84

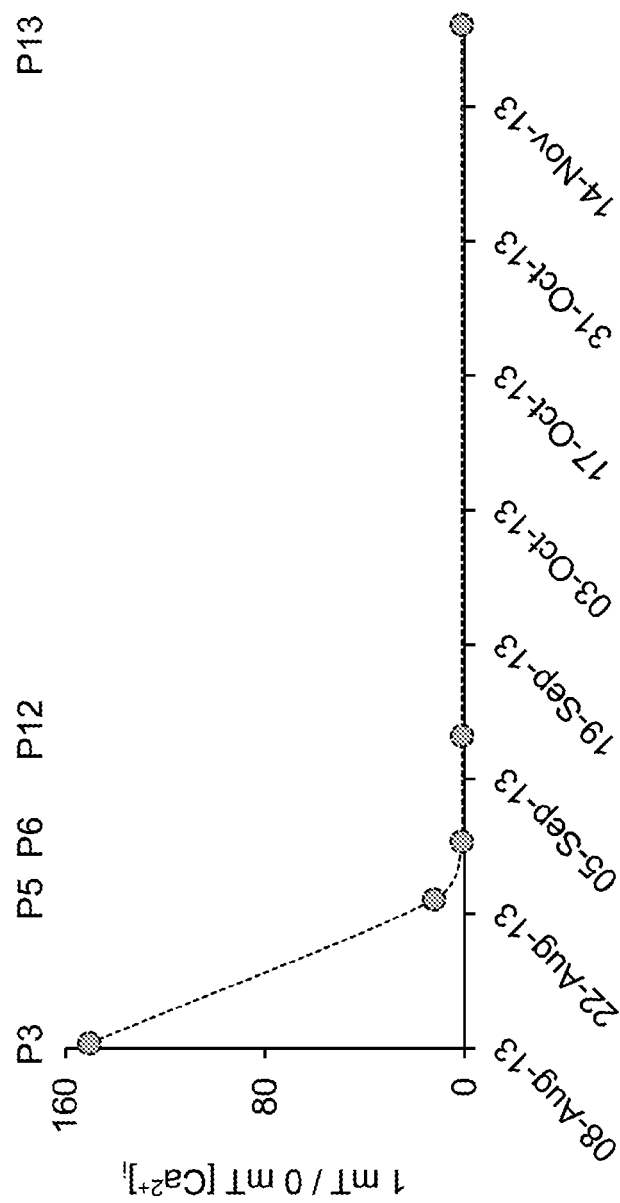


Figure 62C

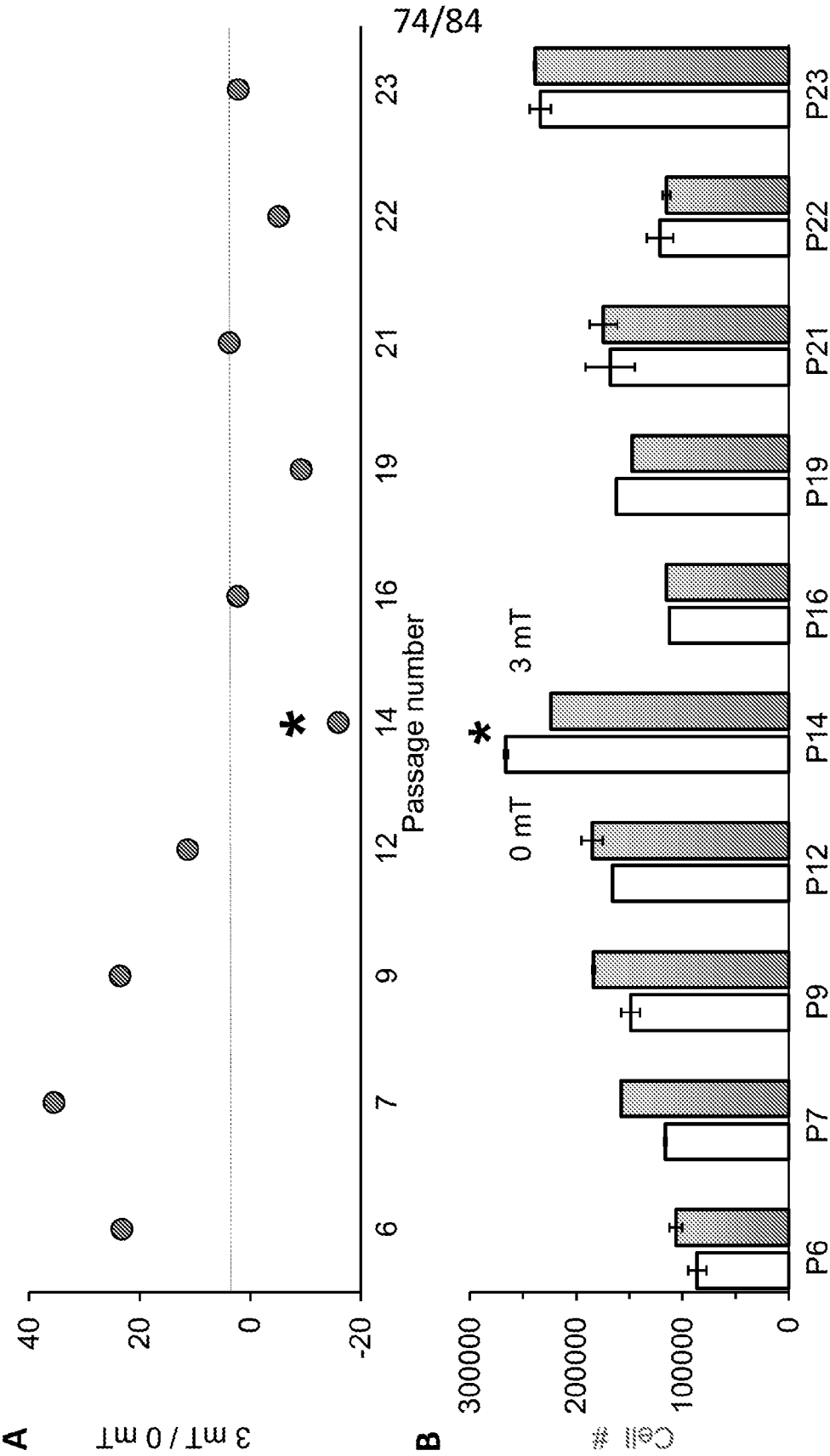


Figure 62D

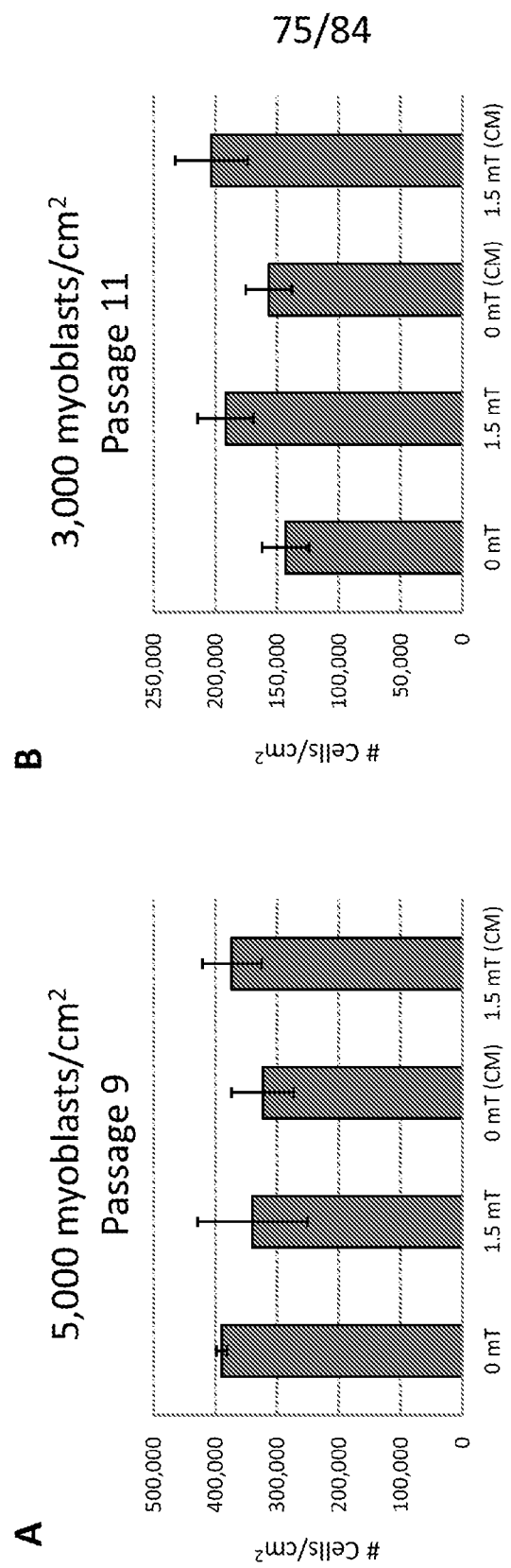


Figure 63

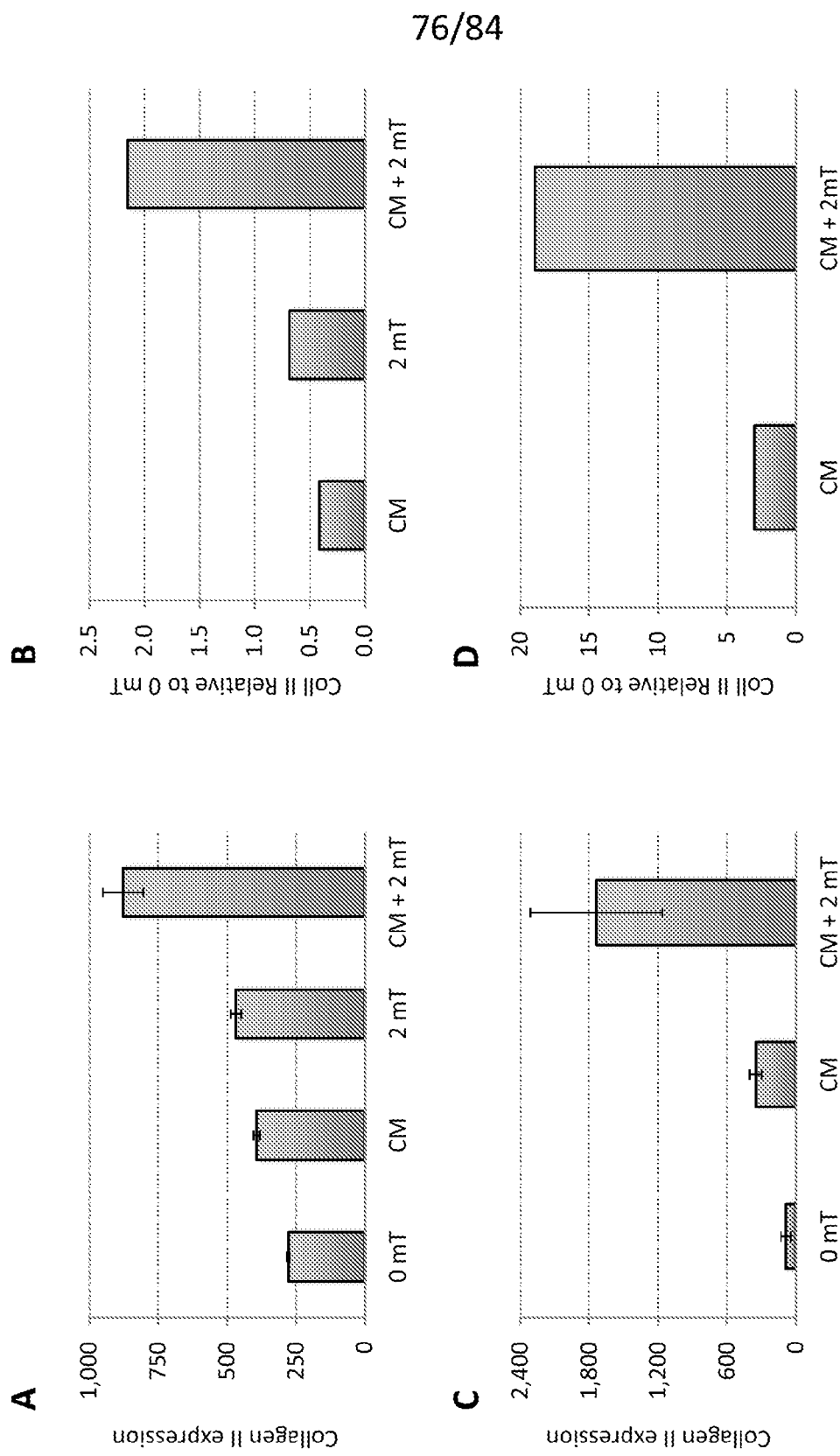


Figure 64

77/84

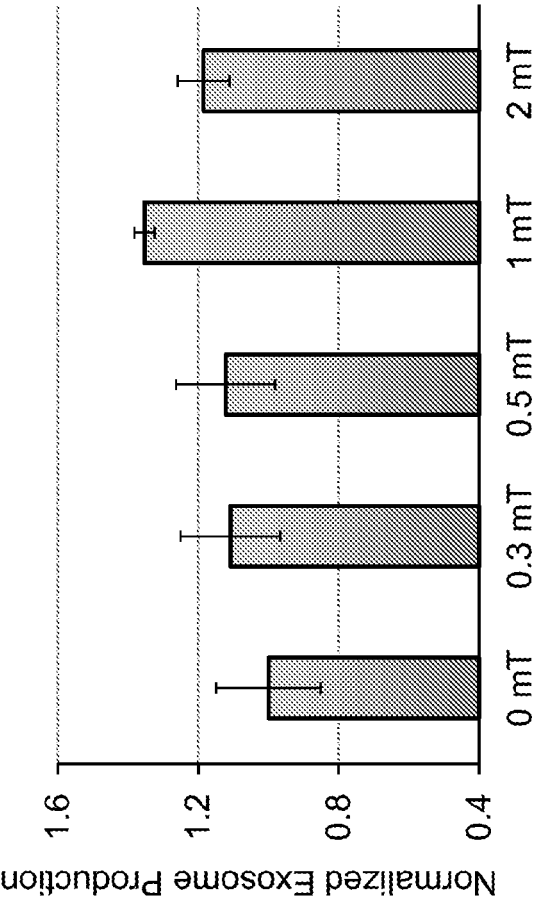


Figure 65

78/84

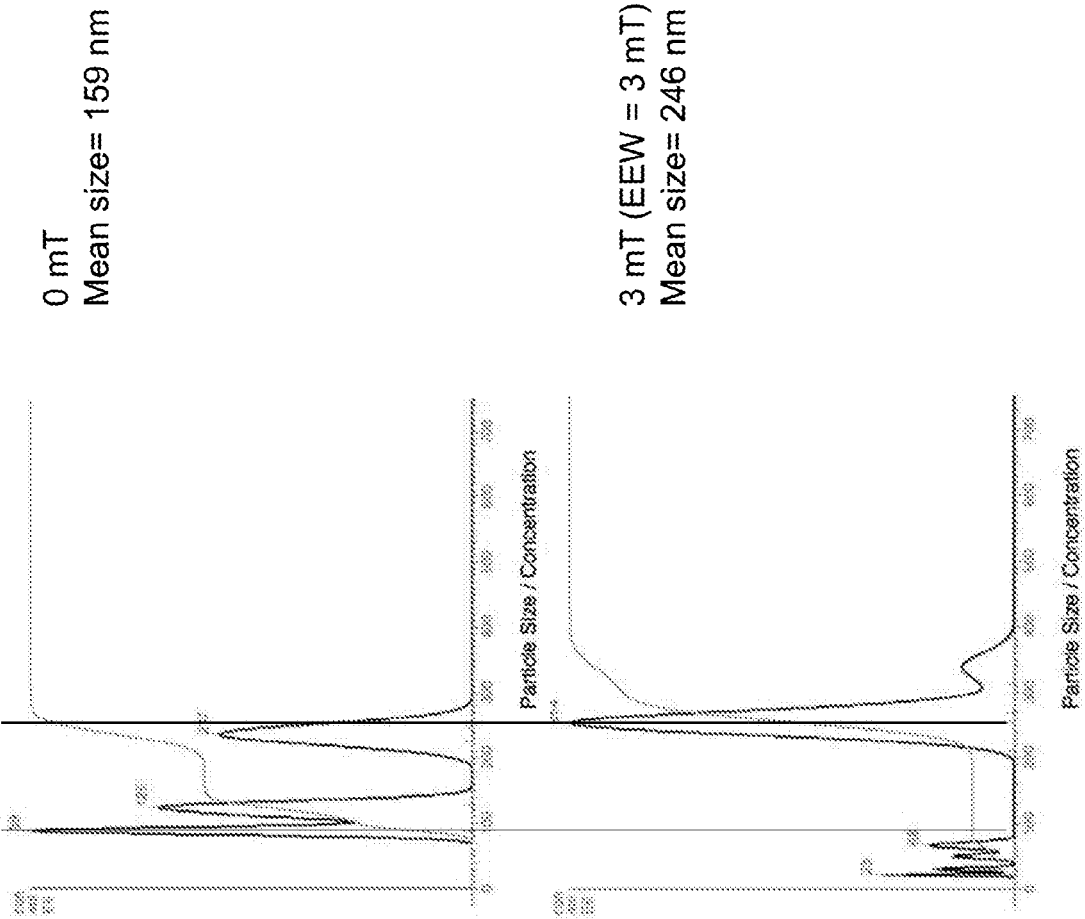


Figure 66

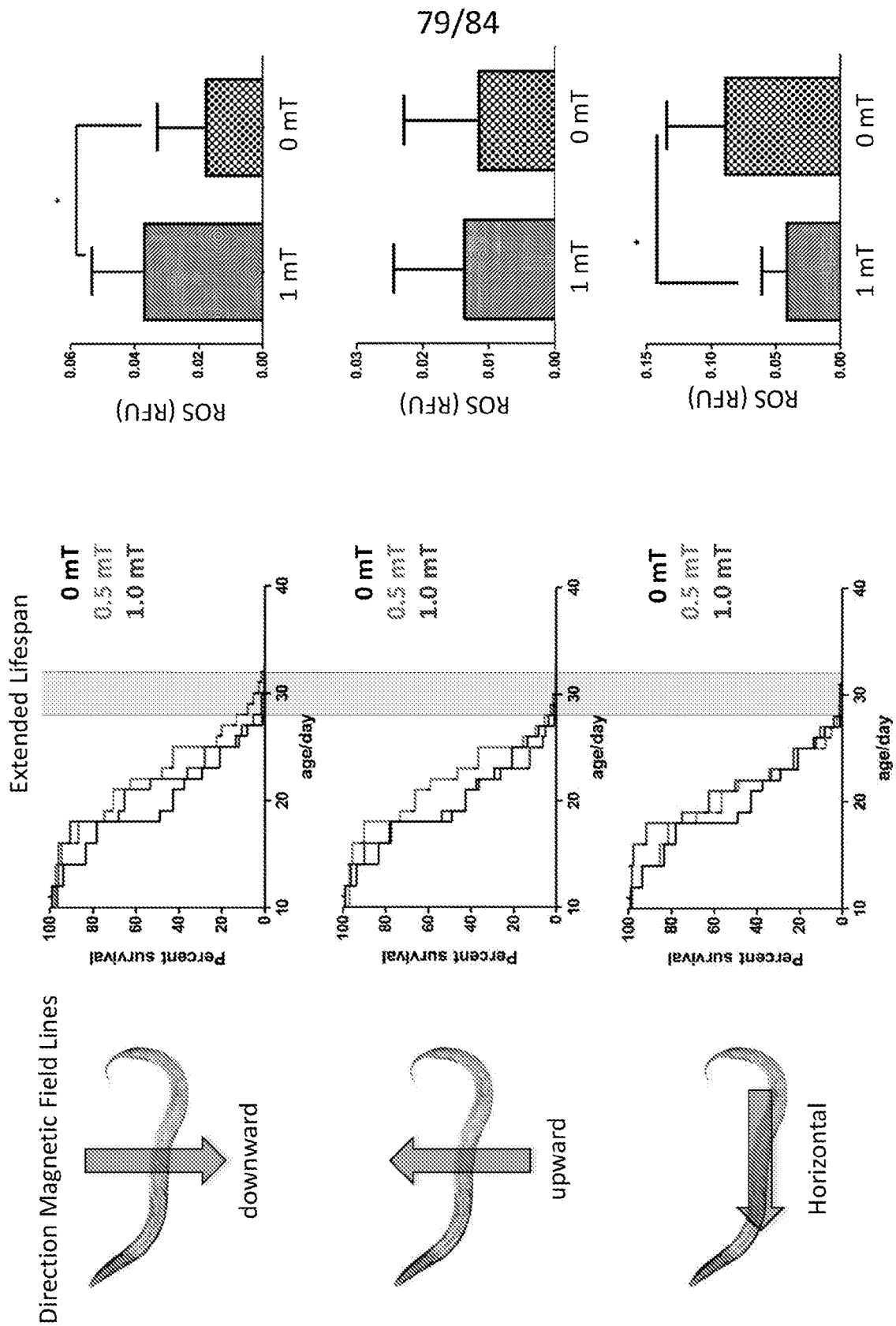


Figure 67

80/84

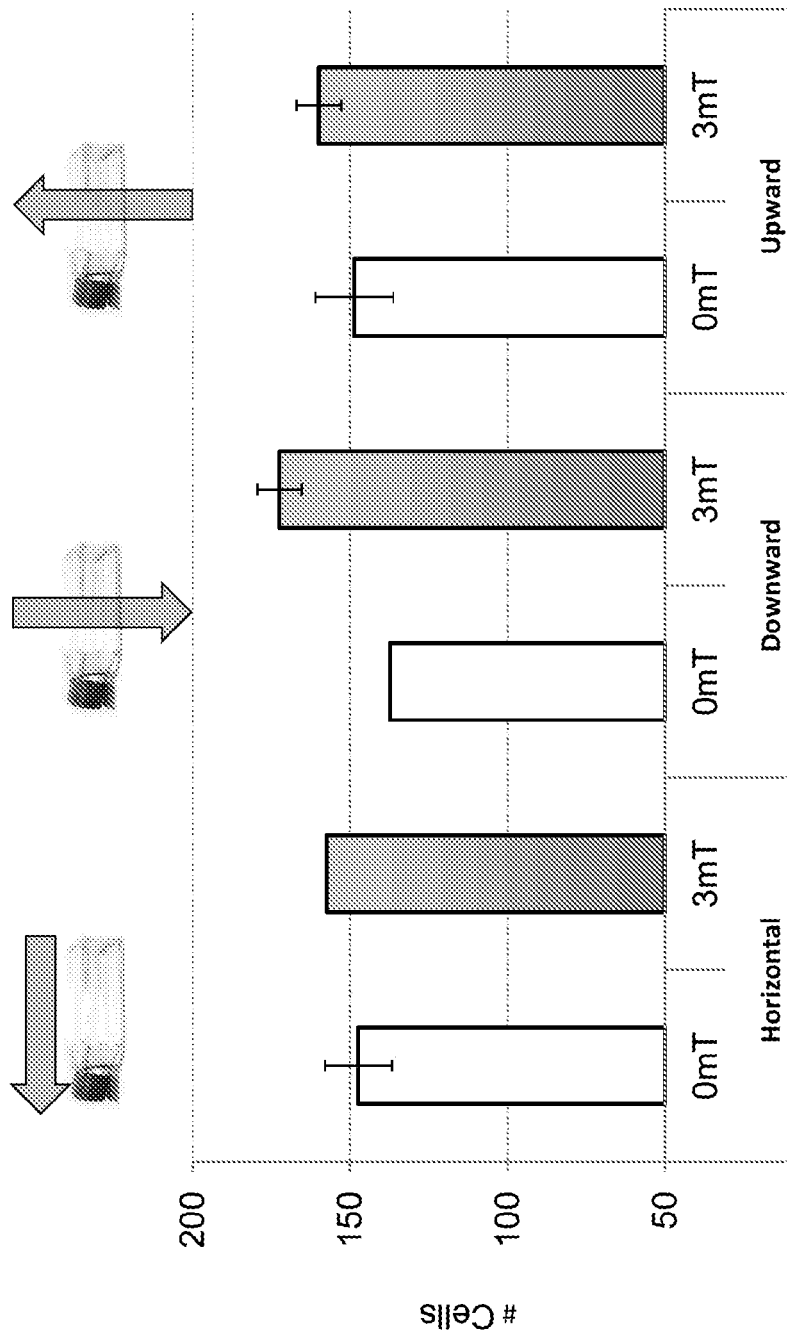


Figure 68

81/84

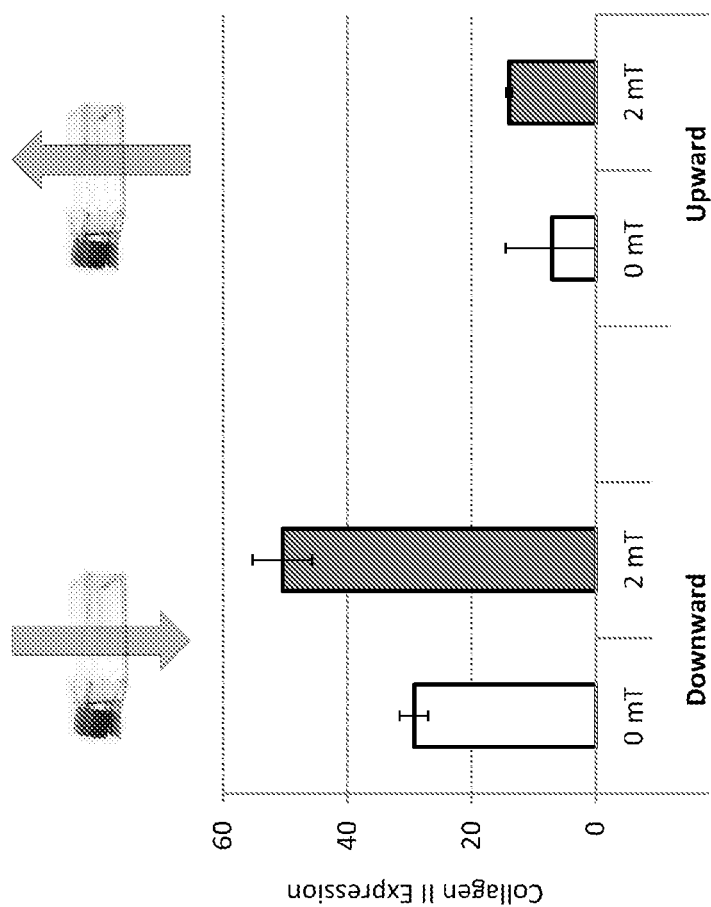


Figure 69

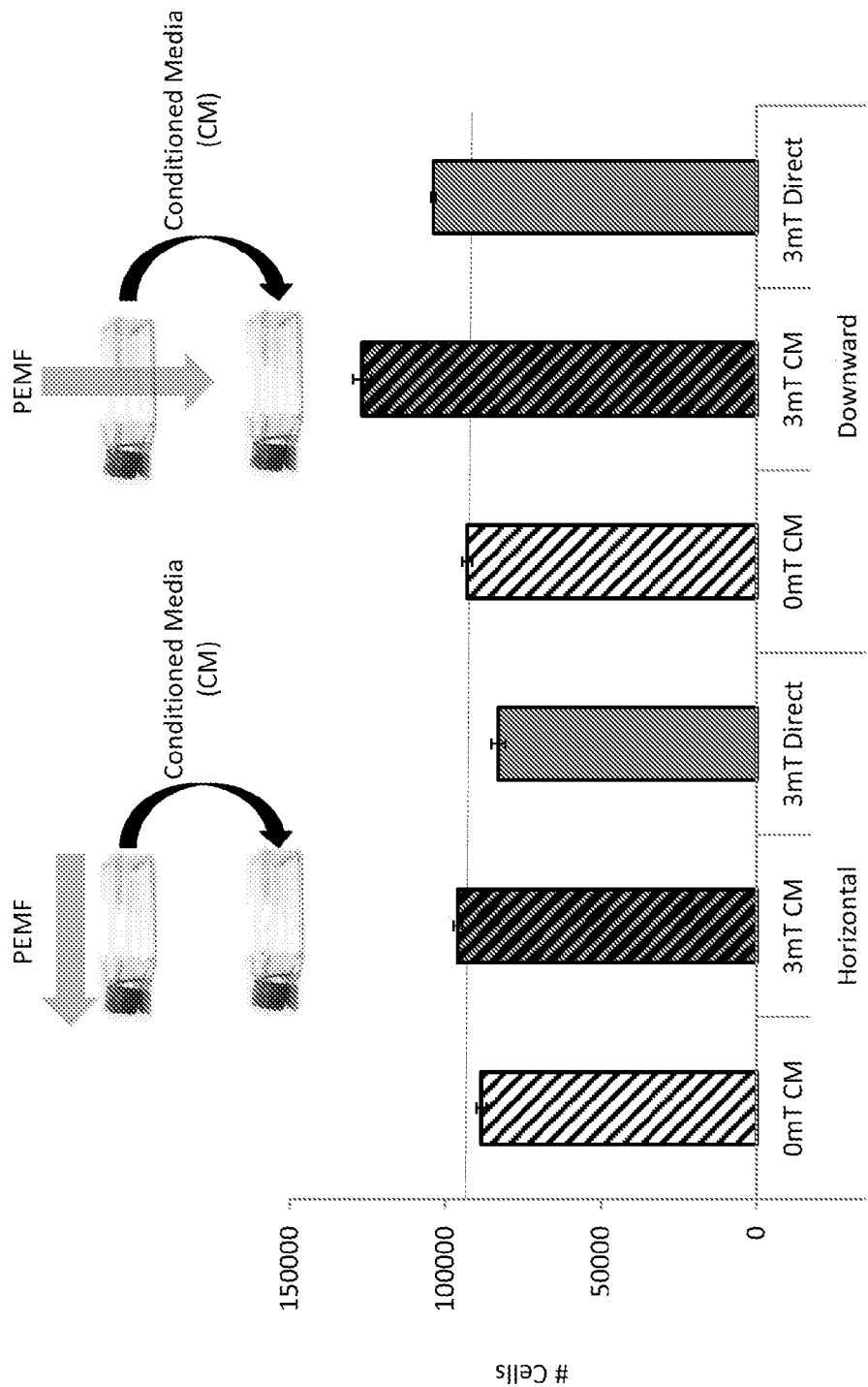


Figure 70

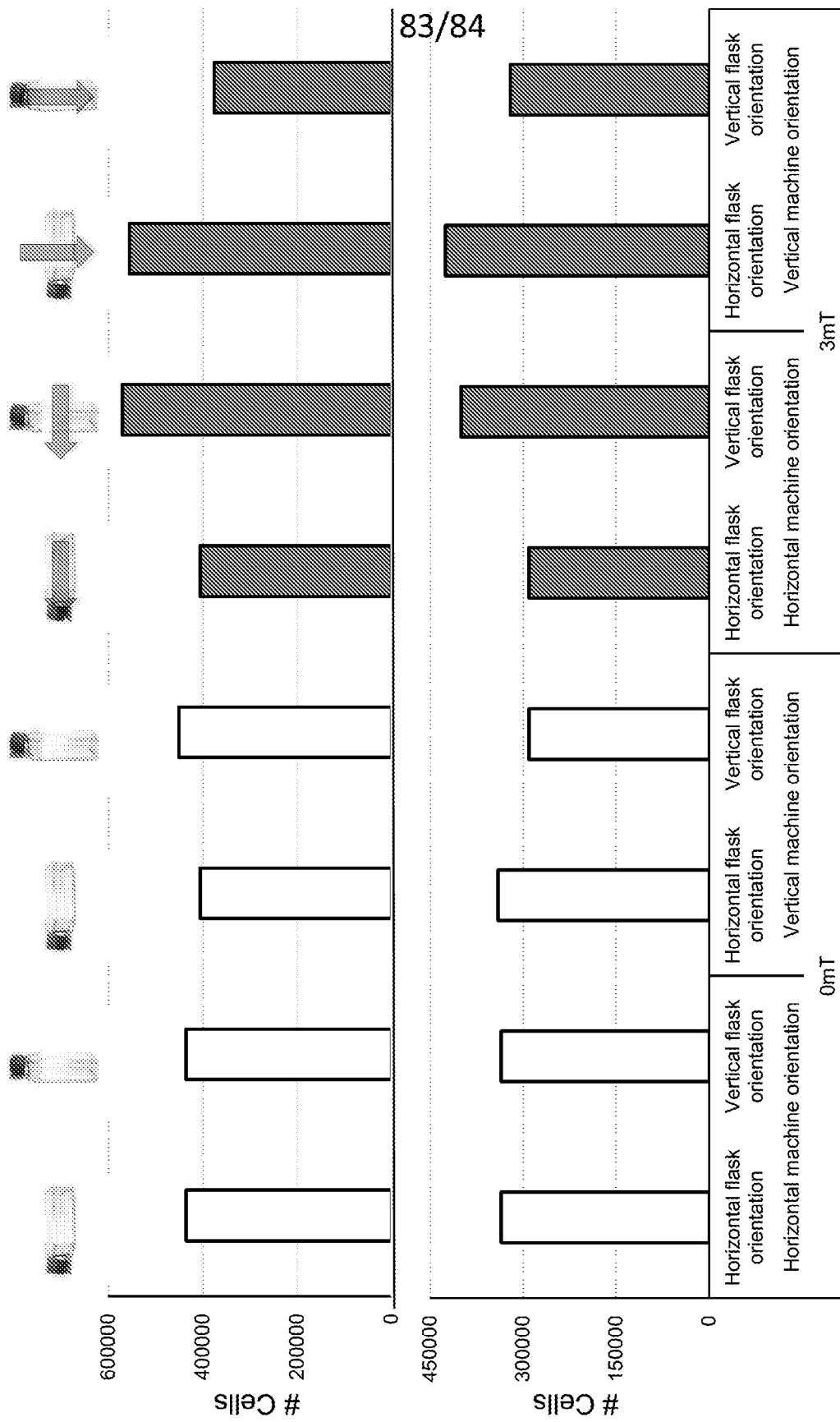


Figure 71

84/84

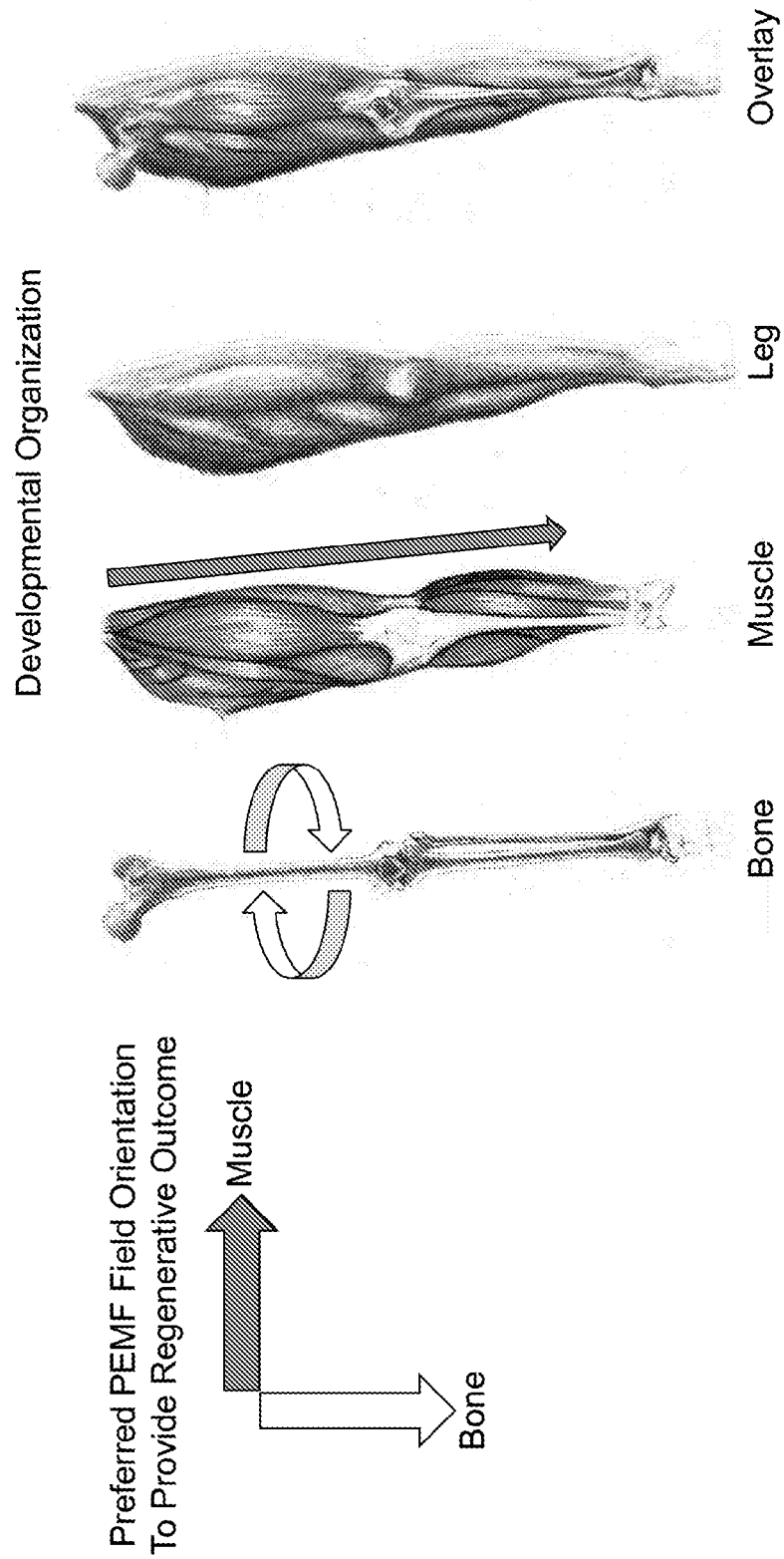


Figure 72