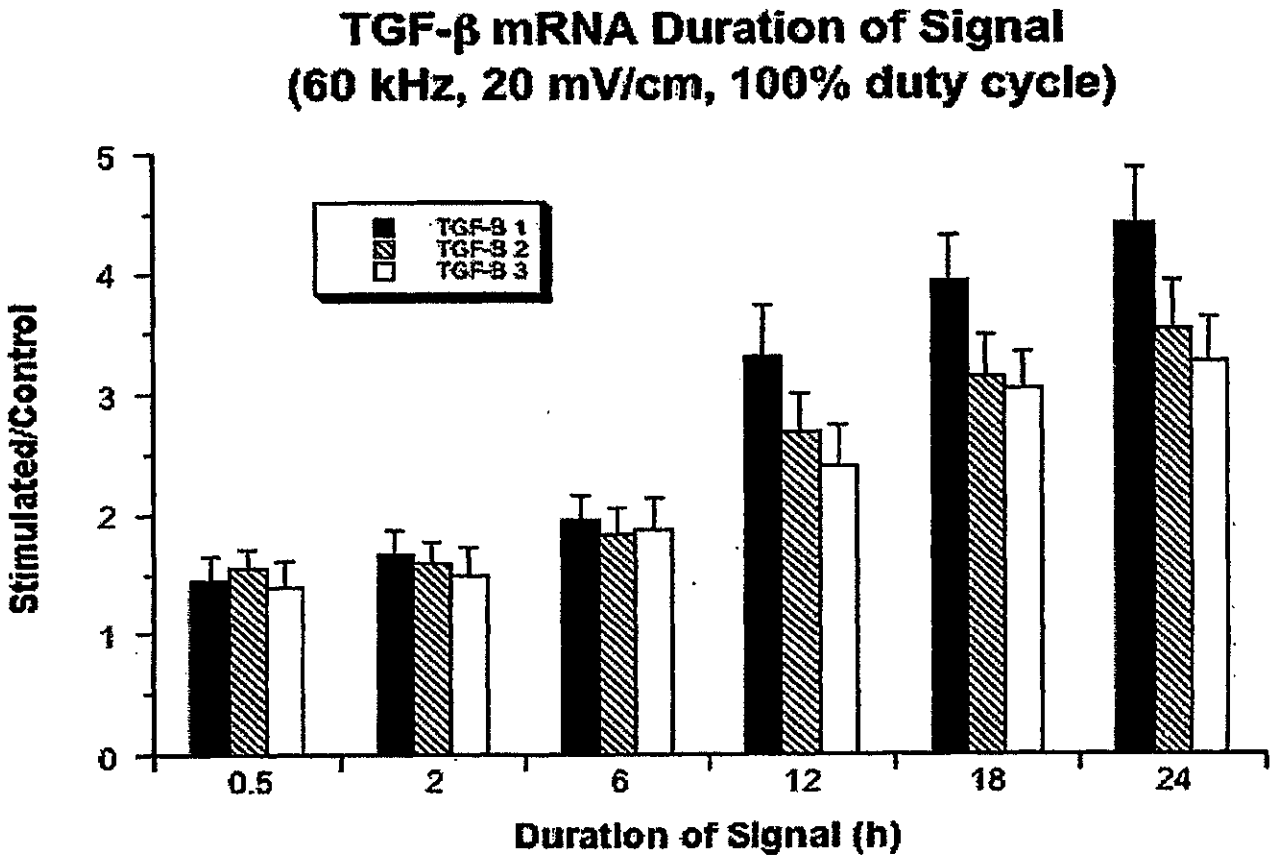

TGF-β mRNA Duration of Signal
(60 kHz, 20 mV/cm, 100% duty cycle)
Stimulated/Control
0
1
2
3
4
5
TGF-β 1
TGF-β 2
TGF-β 3
0.5
2
6
12
18
24
Duration of Signal (h)

FIGURE 1

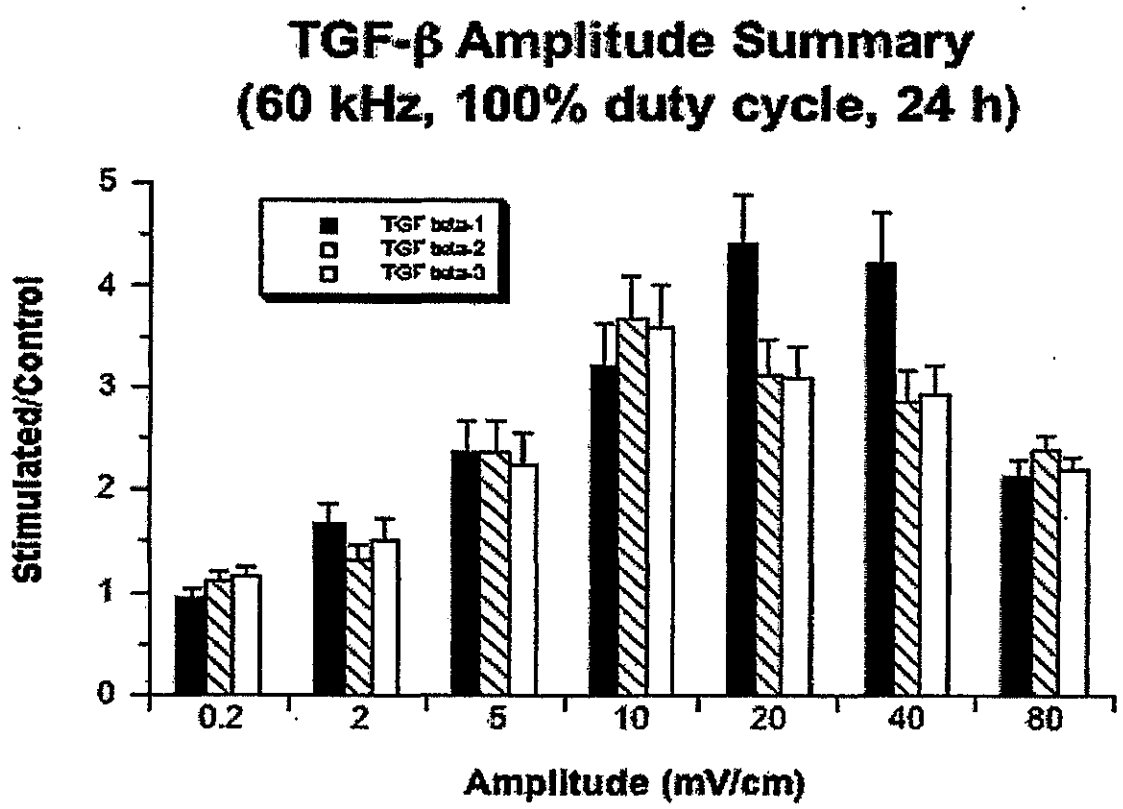

TGF-β Amplitude Summary
(60 kHz, 100% duty cycle, 24 h)
Stimulated/Control
0
1
2
3
4
5
TGF beta-1
TGF beta-2
TGF beta-3
0.2
2
5
10
20
40
80
Amplitude (mV/cm)

FIGURE 2

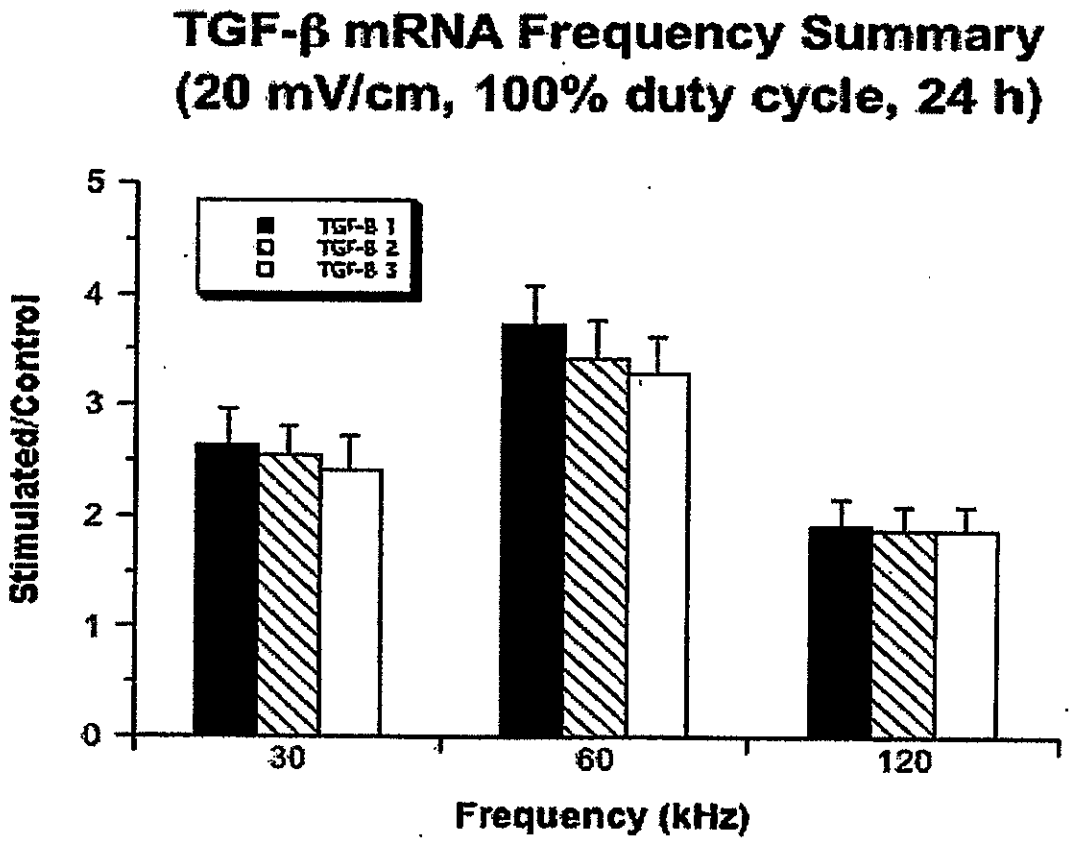

TGF-β mRNA Frequency Summary
(20 mV/cm, 100% duty cycle, 24 h)
TGF-B 1
TGF-B 2
TGF-B 3
Stimulated/Control
0
1
2
3
4
5
30
60
120
Frequency (kHz)

FIGURE 3

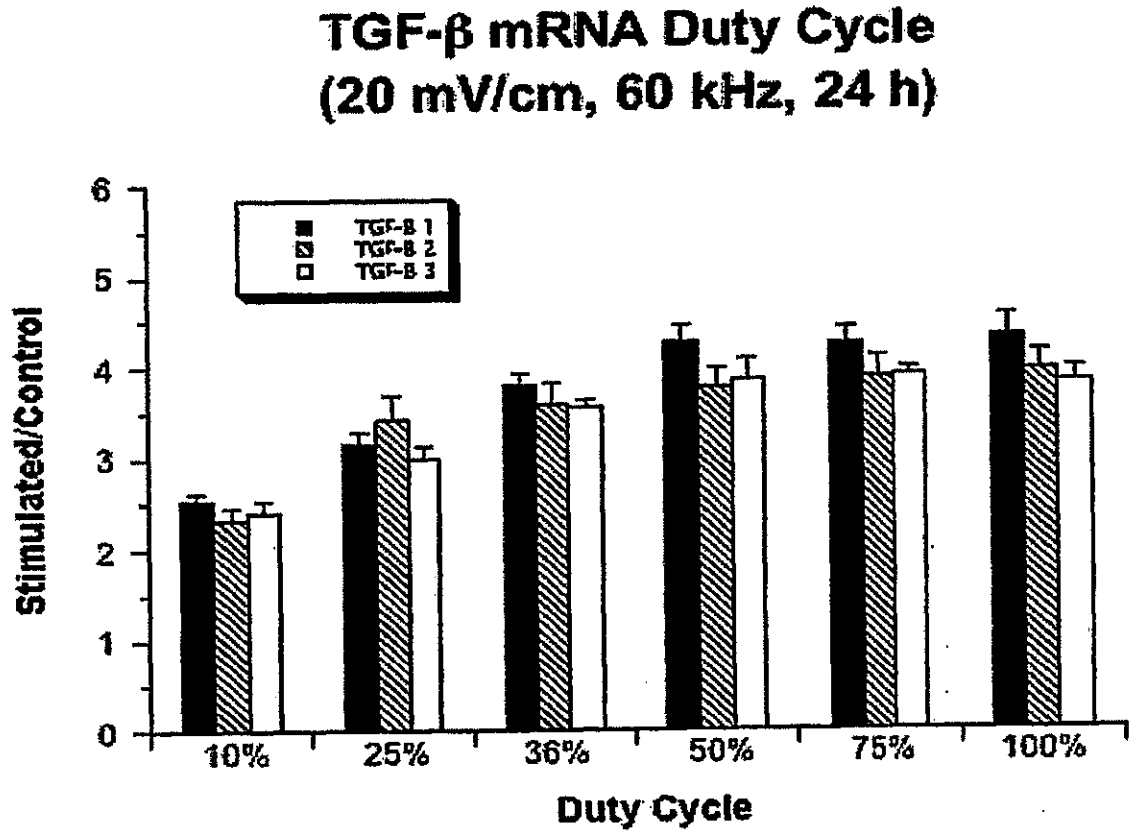

TGF-β mRNA Duty Cycle
(20 mV/cm, 60 kHz, 24 h)
TGF-B 1
TGF-B 2
TGF-B 3
Stimulated/Control
0
1
2
3
4
5
6
10%
25%
36%
50%
75%
100%
Duty Cycle

FIGURE 4

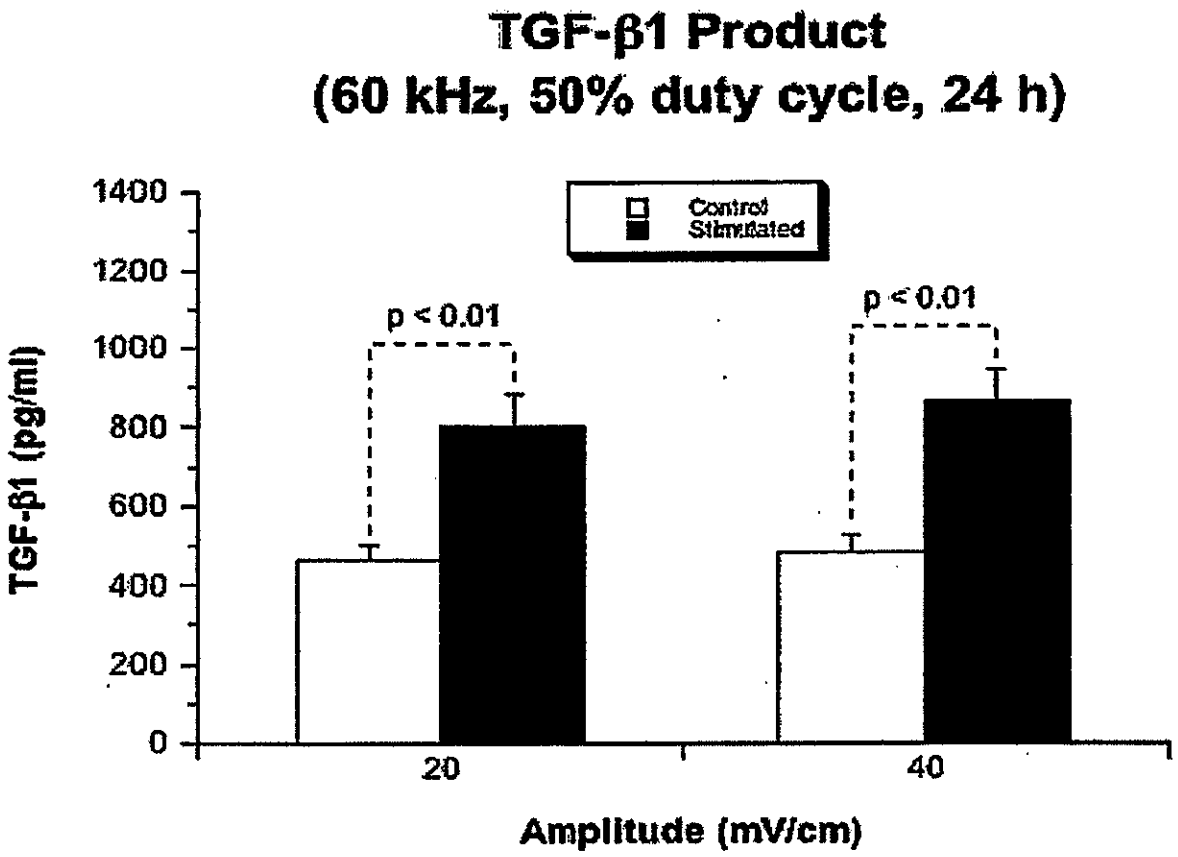

TGF-β1 Product
(60 kHz, 50% duty cycle, 24 h)
Control
Stimulated
p < 0.01
p < 0.01
TGF-β1 (pg/ml)
1400
1200
1000
800
600
400
200
0
20
40
Amplitude (mV/cm)

FIGURE 5

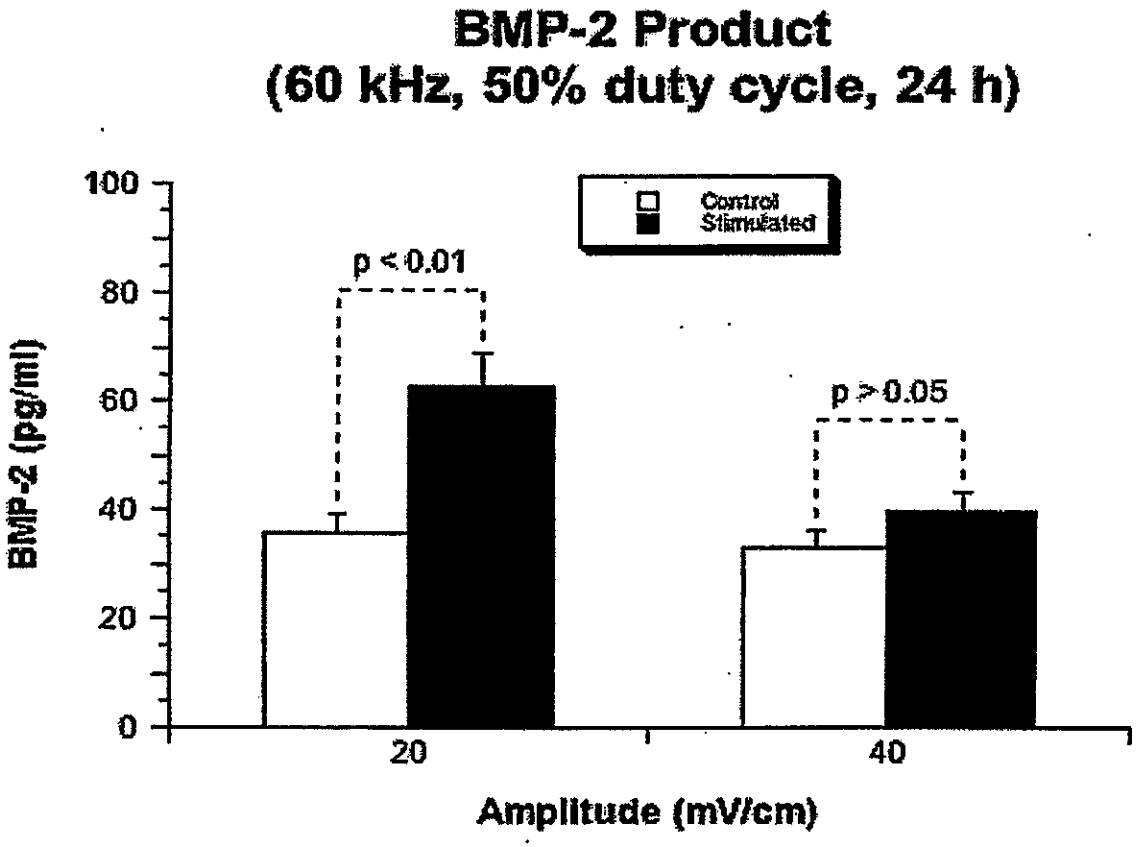

BMP-2 Product
(60 kHz, 50% duty cycle, 24 h)
Control
Stimulated
p < 0.01
p > 0.05
BMP-2 (pg/ml)
100
80
60
40
20
0
20
40
Amplitude (mV/cm)

FIGURE 6

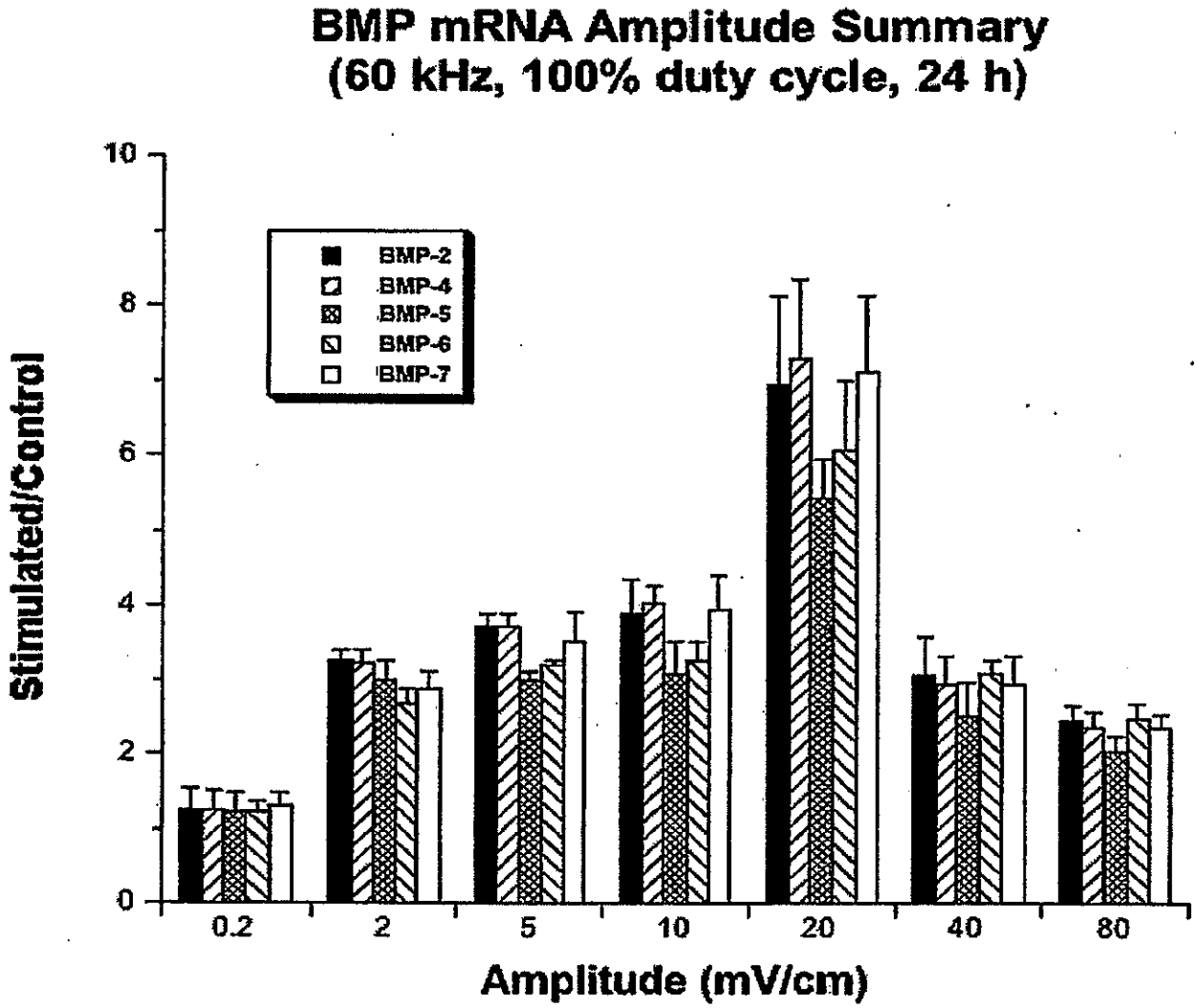

BMP mRNA Amplitude Summary
(60 kHz, 100% duty cycle, 24 h)
Stimulated/Control
10
8
6
4
2
0
BMP-2
BMP-4
BMP-5
BMP-6
BMP-7
0.2
2
5
10
20
40
80
Amplitude (mV/cm)

FIGURE 7

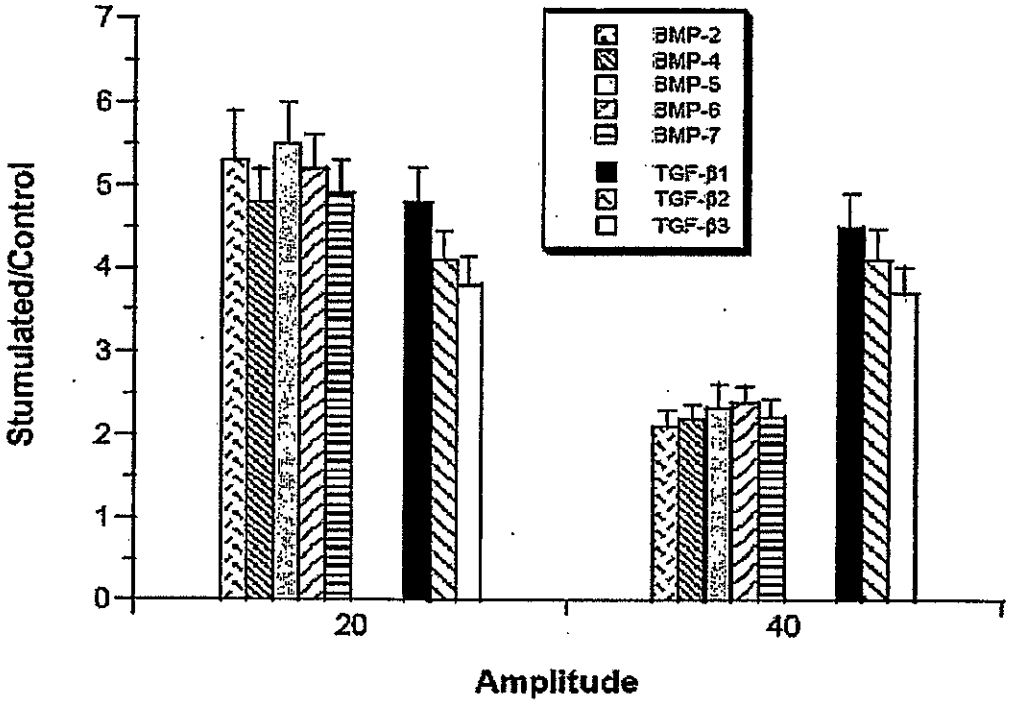

Stumulated/Control
7
6
5
4
3
2
1
0
20
40
Amplitude
BMP-2
BMP-4
BMP-5
BMP-6
BMP-7
TGF-β1
TGF-β2
TGF-β3

FIGURE 8

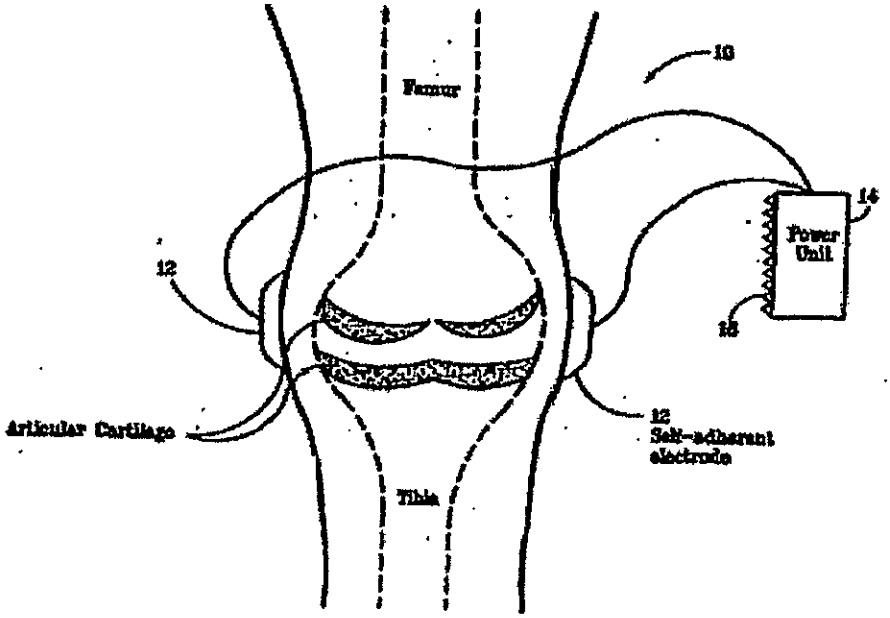

Femur
10
14
Power Unit
12
16
Articular Cartilage
12
Self-adherent electrode
Tibia

FIGURE 9