Fig 1.

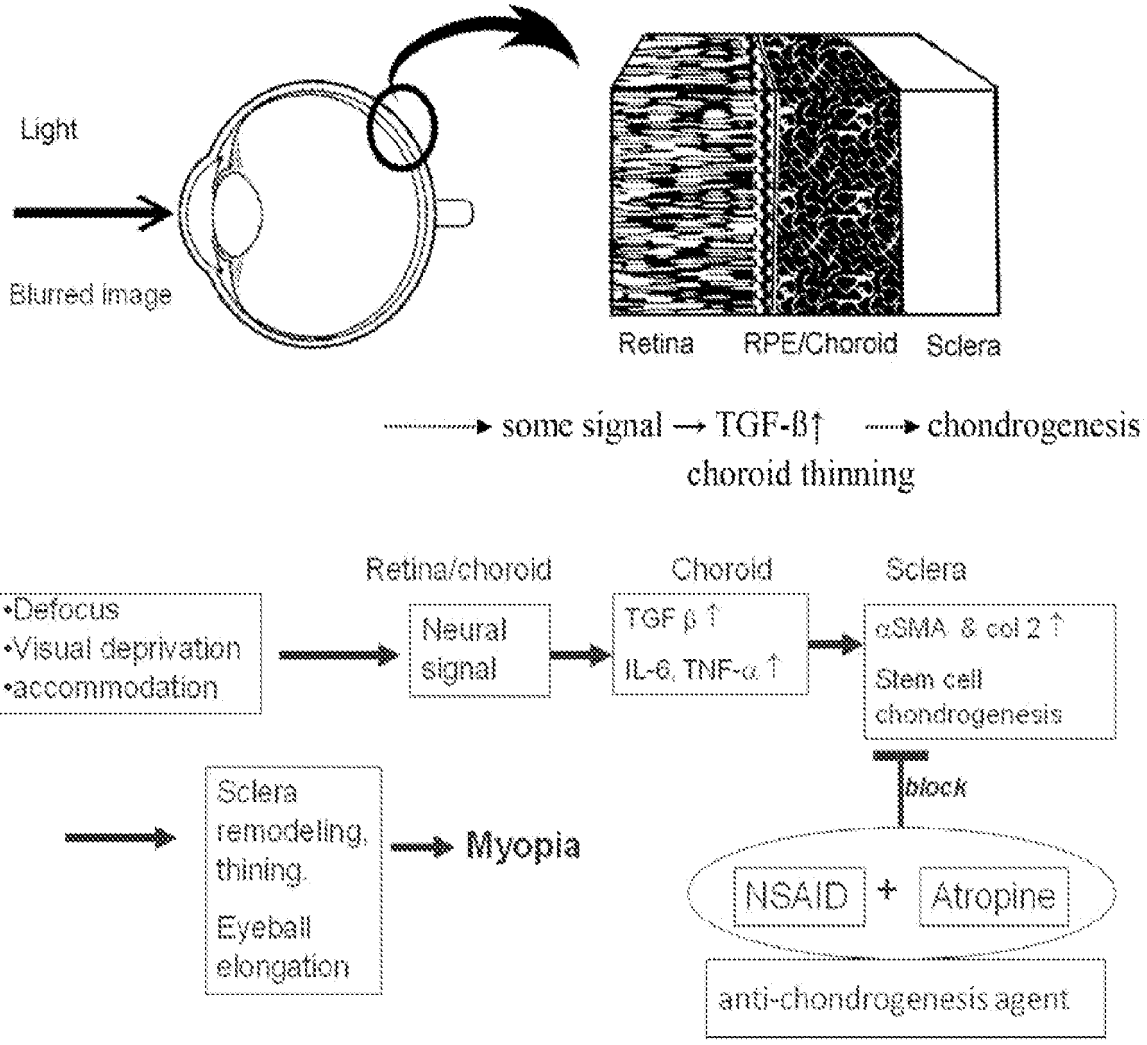

Light
Blurred image
Retina
RPE/Choroid
Sclera
some signal → TGF-ß↑ → chondrogenesis
choroid thinning
Retina/choroid
Choroid
Sclera
•Defocus
•Visual deprivation
•accommodation
Neural signal
TGF β ↑
IL-6, TNF-α ↑
αSMA & col 2 ↑
Stem cell chondrogenesis
block
Sclera remodeling, thining.
Eyeball elongation
Myopia
NSAID + Atropine
anti-chondrogenesis agent

Fig 2.

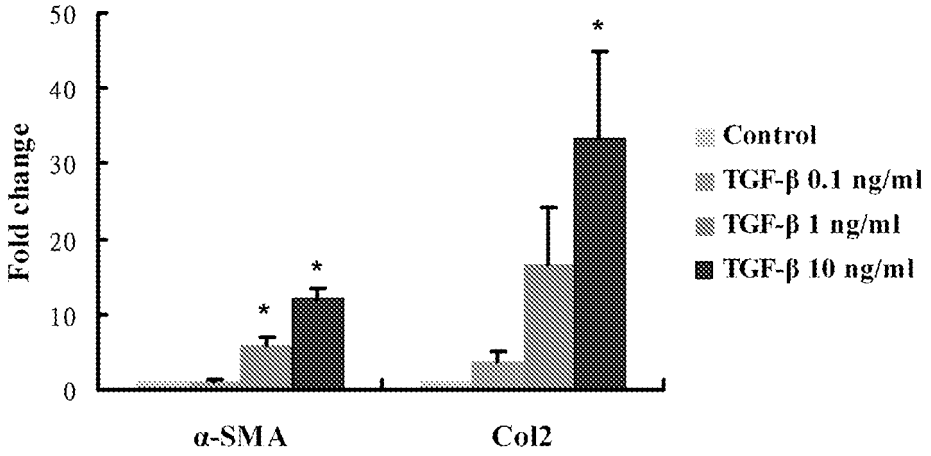

50
40
30
20
10
0
Fold change
*
*
*
α-SMA
Col2
Control
TGF-β 0.1 ng/ml
TGF-β 1 ng/ml
TGF-β 10 ng/ml

Fig 3.

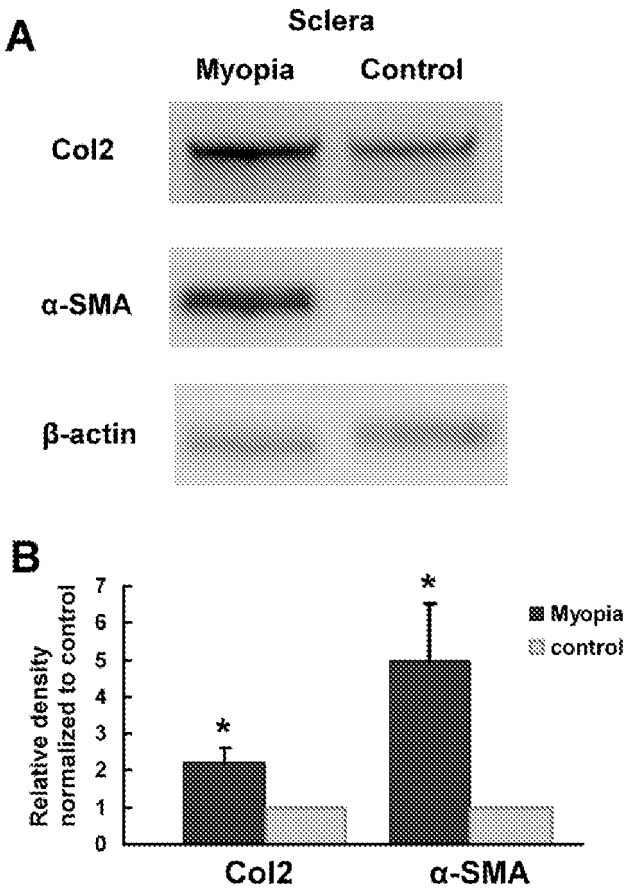

A
Sclera
Myopia
Control
Col2
α-SMA
β-actin
B
Relative density normalized to control
0
1
2
3
4
5
6
7
*
*
Myopia
control
Col2
α-SMA

Fig 4.

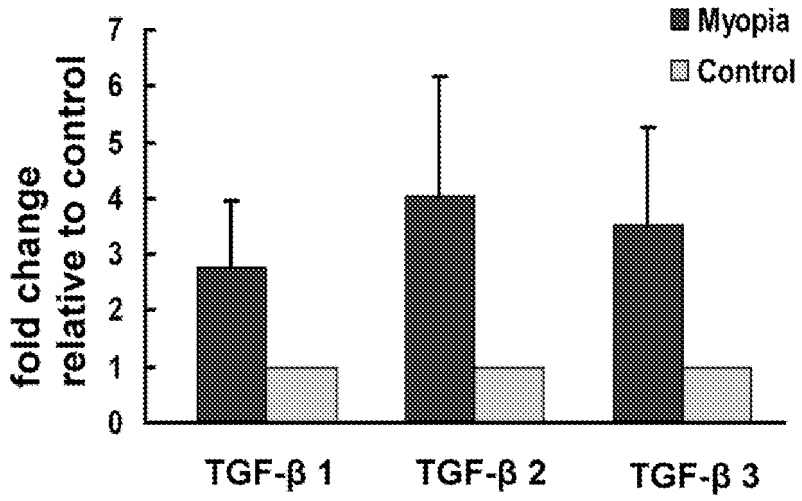
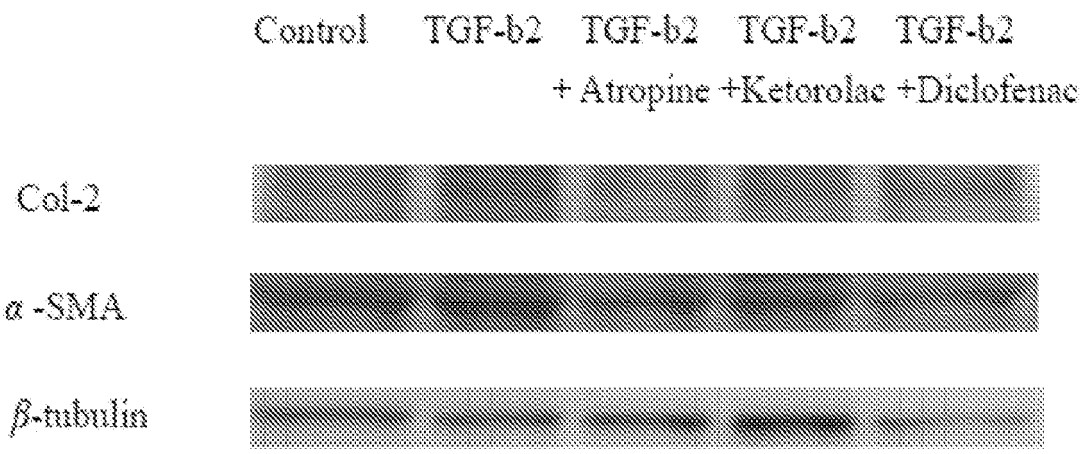

Myopia
Control
fold change relative to control
0
1
2
3
4
5
6
7
TGF-β 1
TGF-β 2
TGF-β 3

Fig. 5

(A)


Control
TGF-b2
TGF-b2 + Atropine
TGF-b2 +Ketorolac
TGF-b2 +Diclofenac
Col-2
α -SMA
β-tubulin

(B)

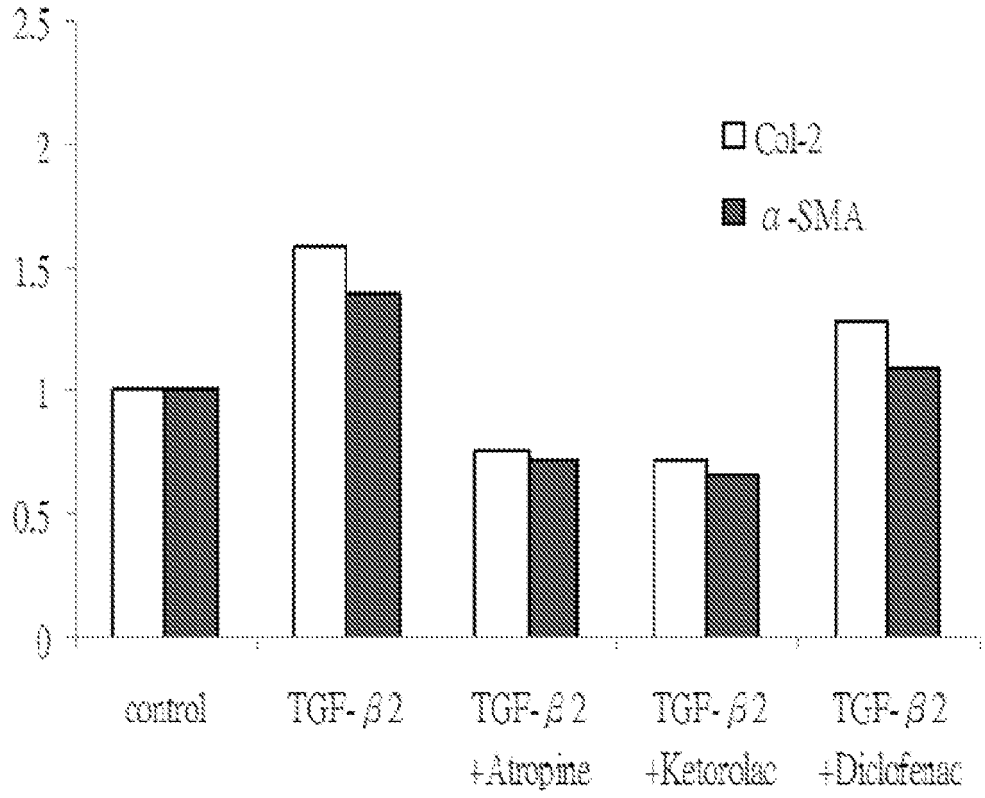

2.5
2
1.5
1
0.5
0
Col-2
α -SMA
control
TGF-β2
TGF-β2 +Atropine
TGF-β2 +Ketorolac
TGF-β2 +Diclofenac

Fig. 6

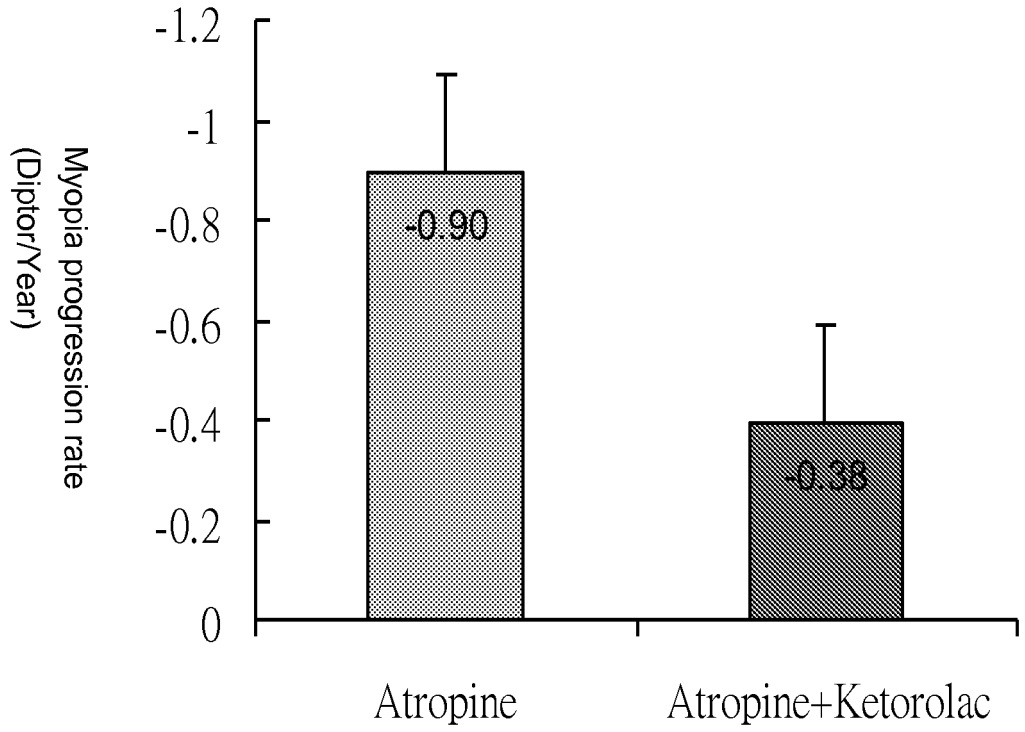

-1.2
-1
-0.8
-0.6
-0.4
-0.2
0
Myopia progression rate
(Diptor/Year)
-0.90
-0.38
Atropine
Atropine+Ketorolac

Fig. 7

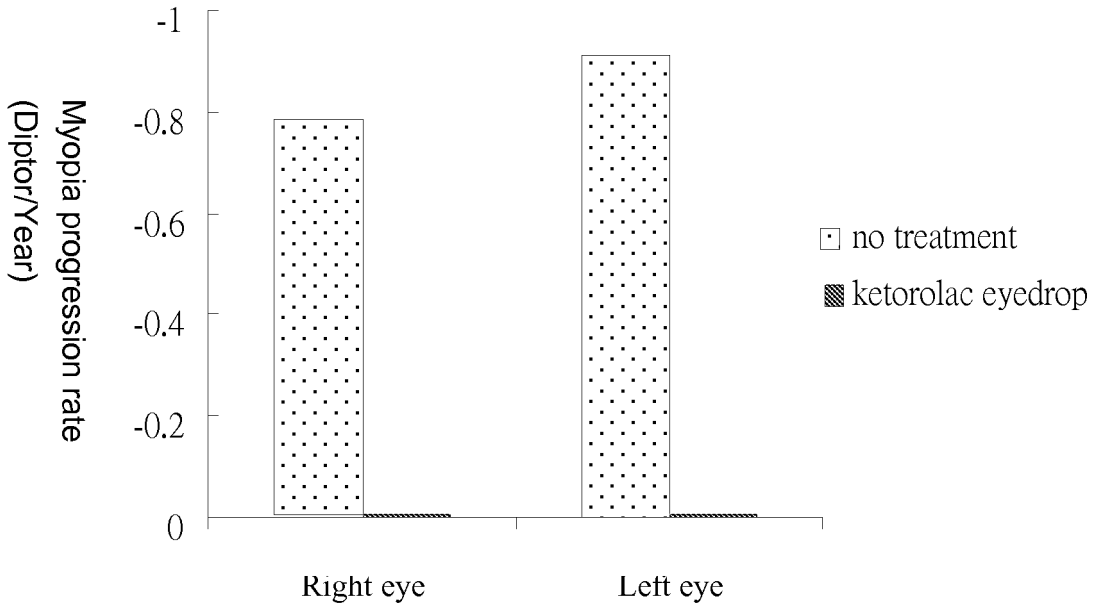

-1
-0.8
-0.6
-0.4
-0.2
0
Myopia progression rate
(Diptor/Year)
Right eye
Left eye
no treatment
ketorolac eyedrop

Fig. 8(A)

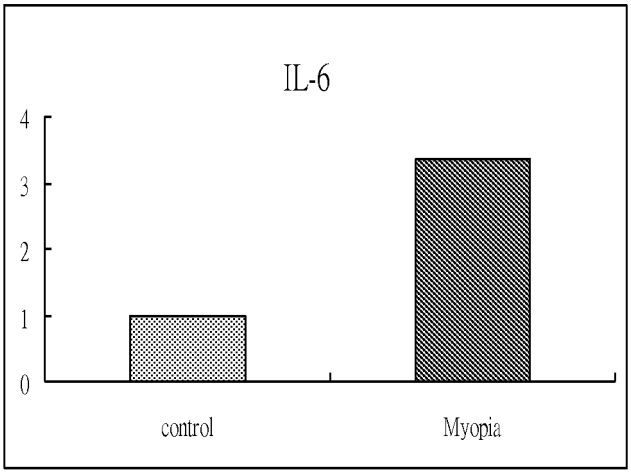

IL-6
4
3
2
1
0
control
Myopia

Fig. 8(B)

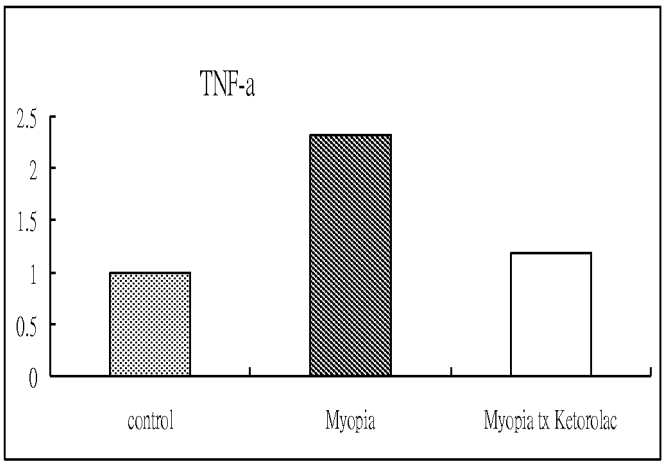

TNF-a
2.5
2
1.5
1
0.5
0
control
Myopia
Myopia tx Ketorolac

Fig. 9(A)

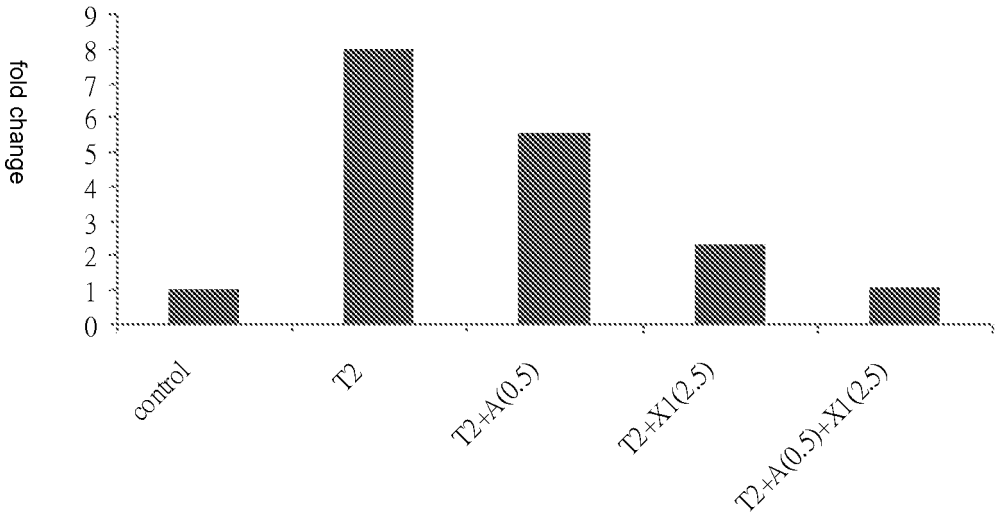
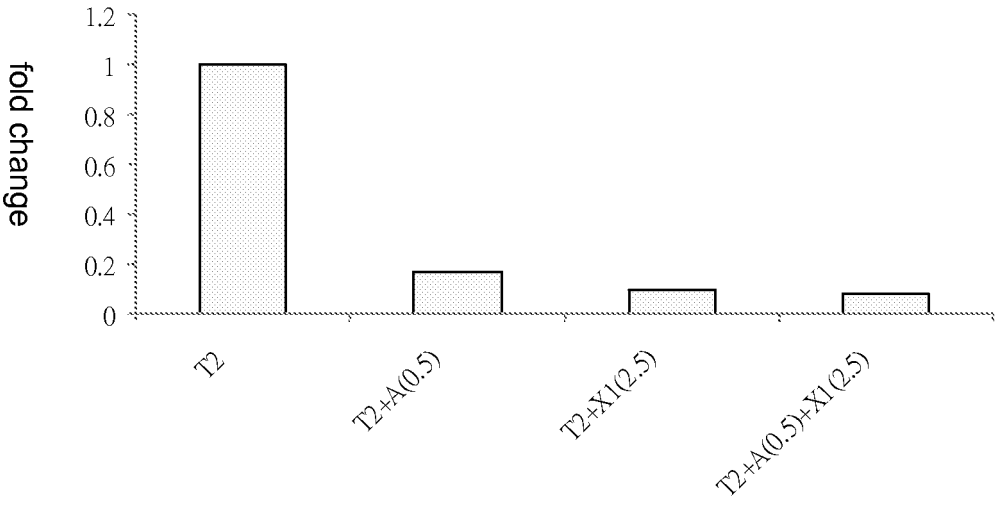

fold change
9
8
7
6
5
4
3
2
1
0
control
T2
T2+A(0.5)
T2+X1(2.5)
T2+A(0.5)+X1(2.5)

Fig. 9(B)


fold change
1.2
1
0.8
0.6
0.4
0.2
0
T2
T2+A(0.5)
T2+X1(2.5)
T2+A(0.5)+X1(2.5)