FIG. 1

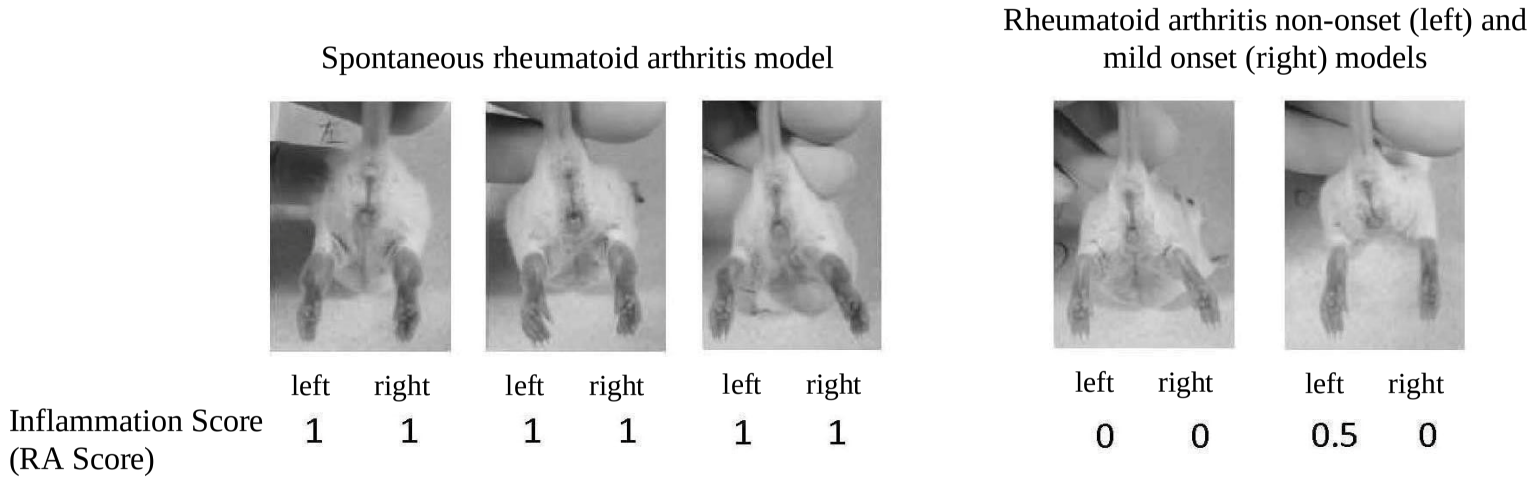

Spontaneous rheumatoid arthritis model
Rheumatoid arthritis non-onset (left) and mild onset (right) models
left right left right left right left right left right
Inflammation Score (RA Score)
1 1 1 1 1 1
0 0 0.5 0

FIG. 2

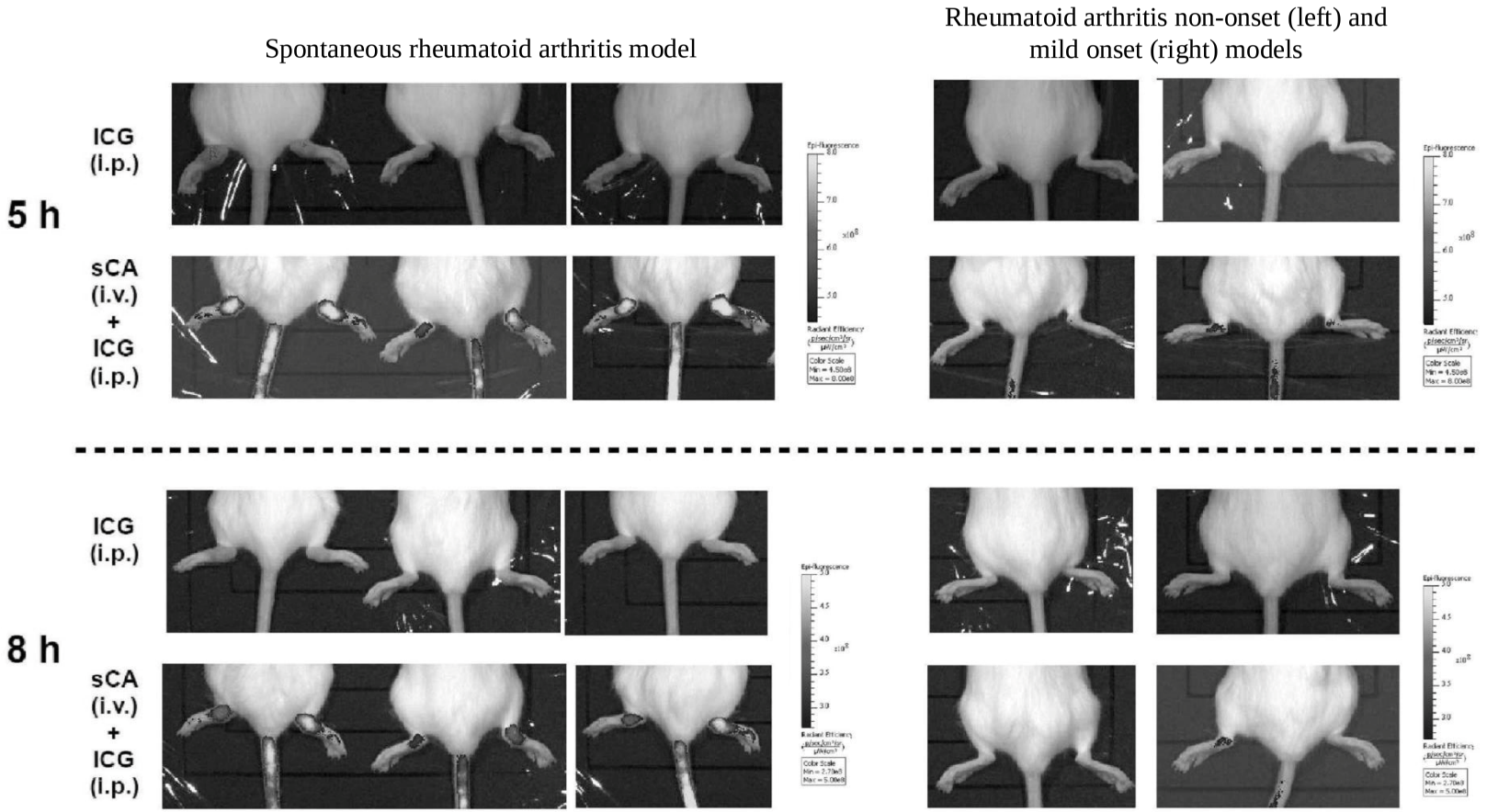

Spontaneous rheumatoid arthritis model
Rheumatoid arthritis non-onset (left) and mild onset (right) models
5 h
ICG (i.p.)
sCA (i.v.) + ICG (i.p.)
8 h
ICG (i.p.)
sCA (i.v.) + ICG (i.p.)

FIG. 3

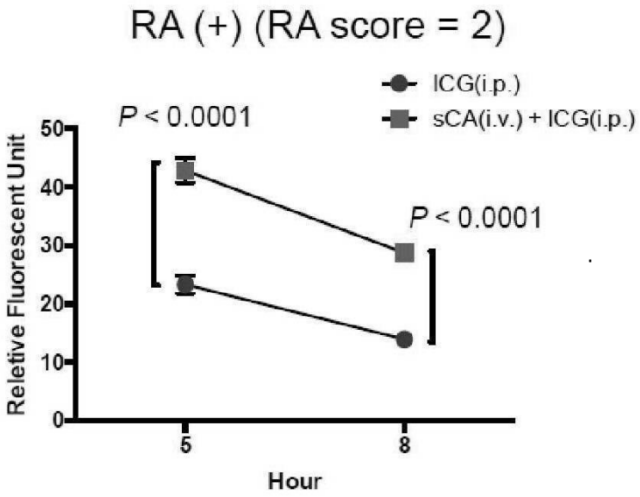
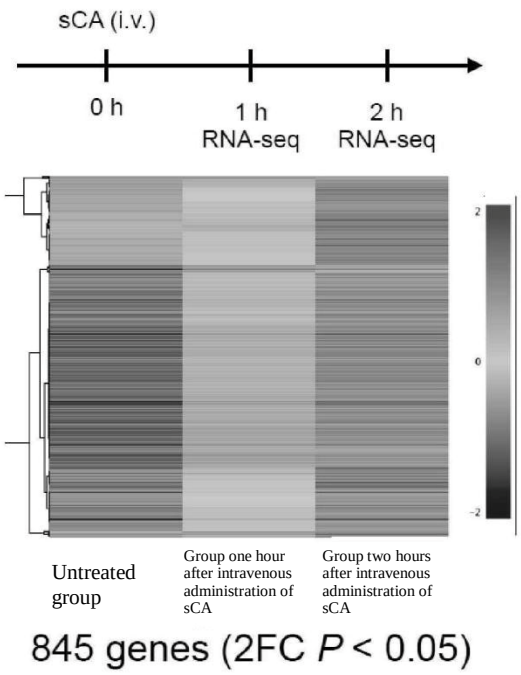


FIG. 4



IPA upstream regulator analysis of the 845 genes

Upstream Regulator	Predicted Activation State	Activation Z-score
H_2O_2	Activated	5.363
NFkB	Activated	4.962
EGF	Activated	4.302
VEGF	Activated	4.043
prostaglandin E2	Activated	3.082
reactive oxygen species	Activated	2.93
TNF	Activated	2.635
PTGS2(COX2)	Activated	2.369
NOS1	Activated	2.000

FIG. 5

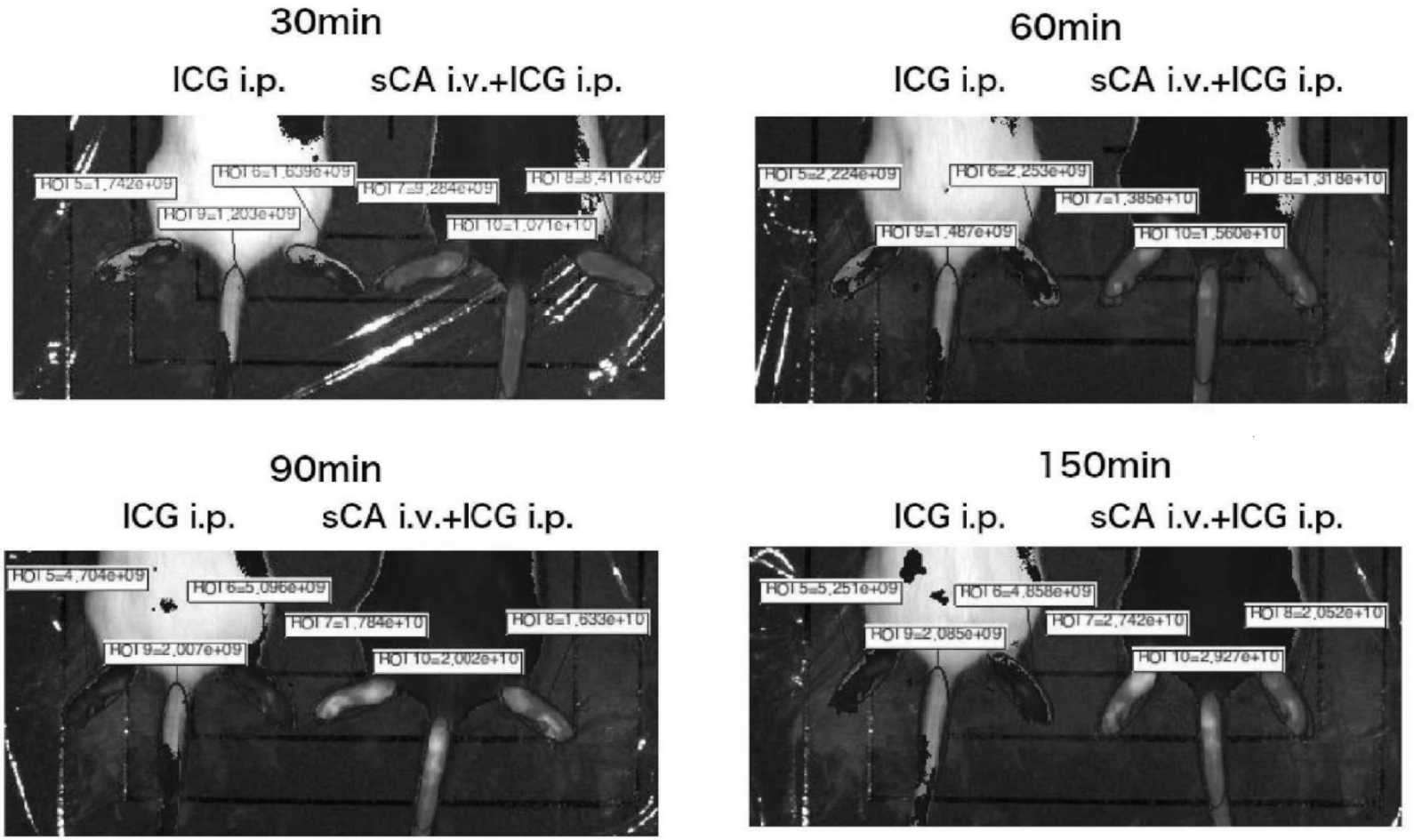

30min
ICG i.p.
sCA i.v.+ICG i.p.
60min
ICG i.p.
sCA i.v.+ICG i.p.
90min
ICG i.p.
sCA i.v.+ICG i.p.
150min
ICG i.p.
sCA i.v.+ICG i.p.

FIG. 6

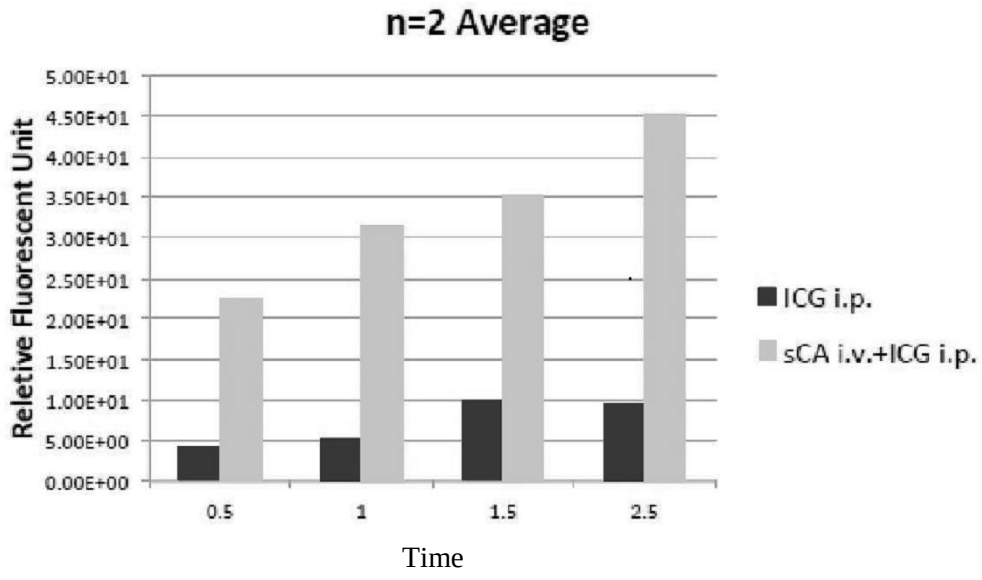

n=2 Average
Reletive Fluorescent Unit
5.00E+01
4.50E+01
4.00E+01
3.50E+01
3.00E+01
2.50E+01
2.00E+01
1.50E+01
1.00E+01
5.00E+00
0.00E+00
0.5
1
1.5
2.5
Time
ICG i.p.
sCA i.v.+ICG i.p.

FIG. 7

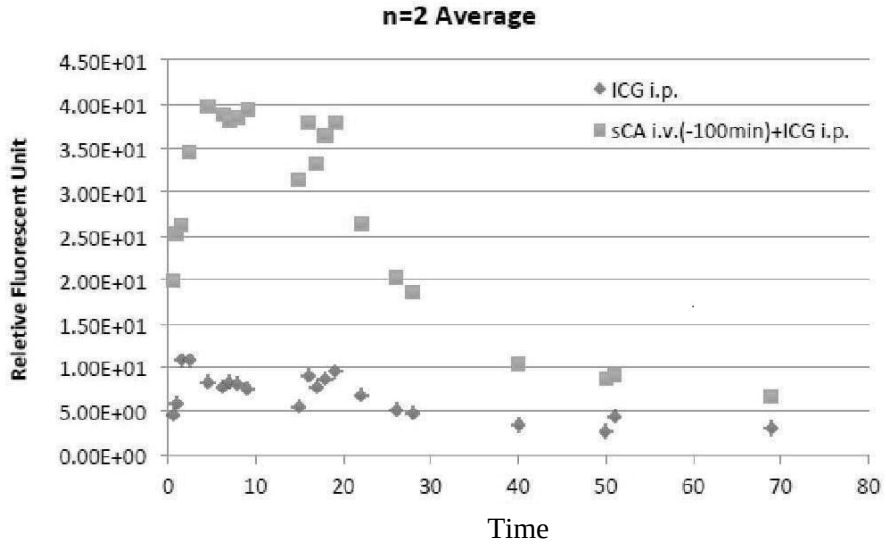

n=2 Average
Reletive Fluorescent Unit
4.50E+01
4.00E+01
3.50E+01
3.00E+01
2.50E+01
2.00E+01
1.50E+01
1.00E+01
5.00E+00
0.00E+00
0
10
20
30
40
50
60
70
80
Time
ICG i.p.
sCA i.v.(-100min)+ICG i.p.

FIG. 8

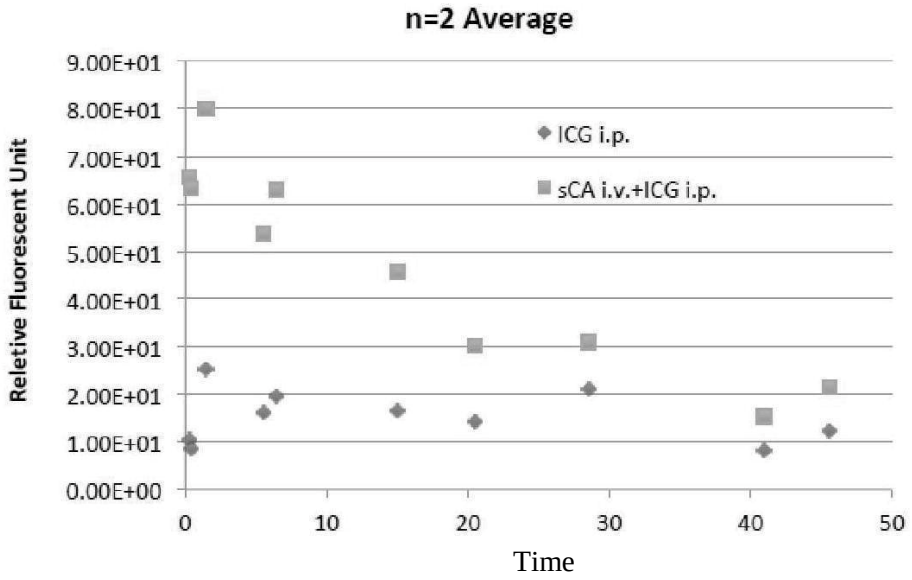
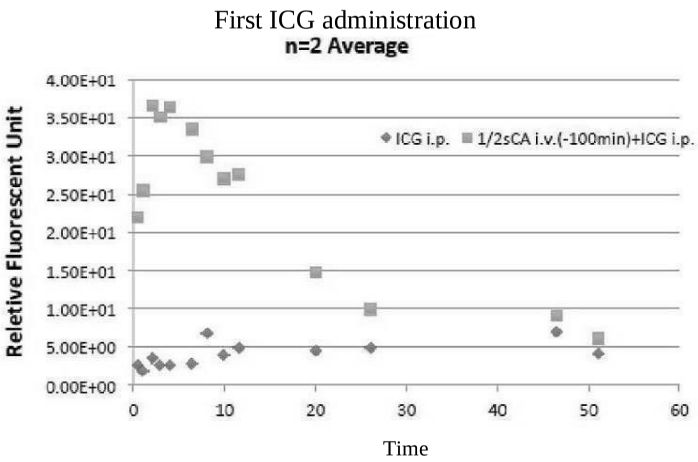

n=2 Average
Reletive Fluorescent Unit
9.00E+01
8.00E+01
7.00E+01
6.00E+01
5.00E+01
4.00E+01
3.00E+01
2.00E+01
1.00E+01
0.00E+00
0
10
20
30
40
50
Time
ICG i.p.
sCA i.v.+ICG i.p.

FIG. 9

a


First ICG administration
n=2 Average
Reletive Fluorescent Unit
4.00E+01
3.50E+01
3.00E+01
2.50E+01
2.00E+01
1.50E+01
1.00E+01
5.00E+00
0.00E+00
0
10
20
30
40
50
60
Time
ICG i.p.
1/2sCA i.v.(-100min)+ICG i.p.

b

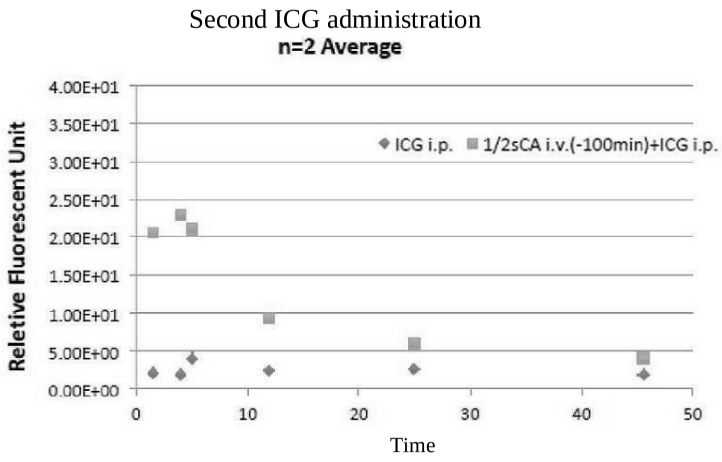

Second ICG administration
n=2 Average
Relative Fluorescent Unit
4.00E+01
3.50E+01
3.00E+01
2.50E+01
2.00E+01
1.50E+01
1.00E+01
5.00E+00
0.00E+00
0
10
20
30
40
50
Time
ICG i.p.
1/2sCA i.v.(-100min)+ICG i.p.

FIG. 10

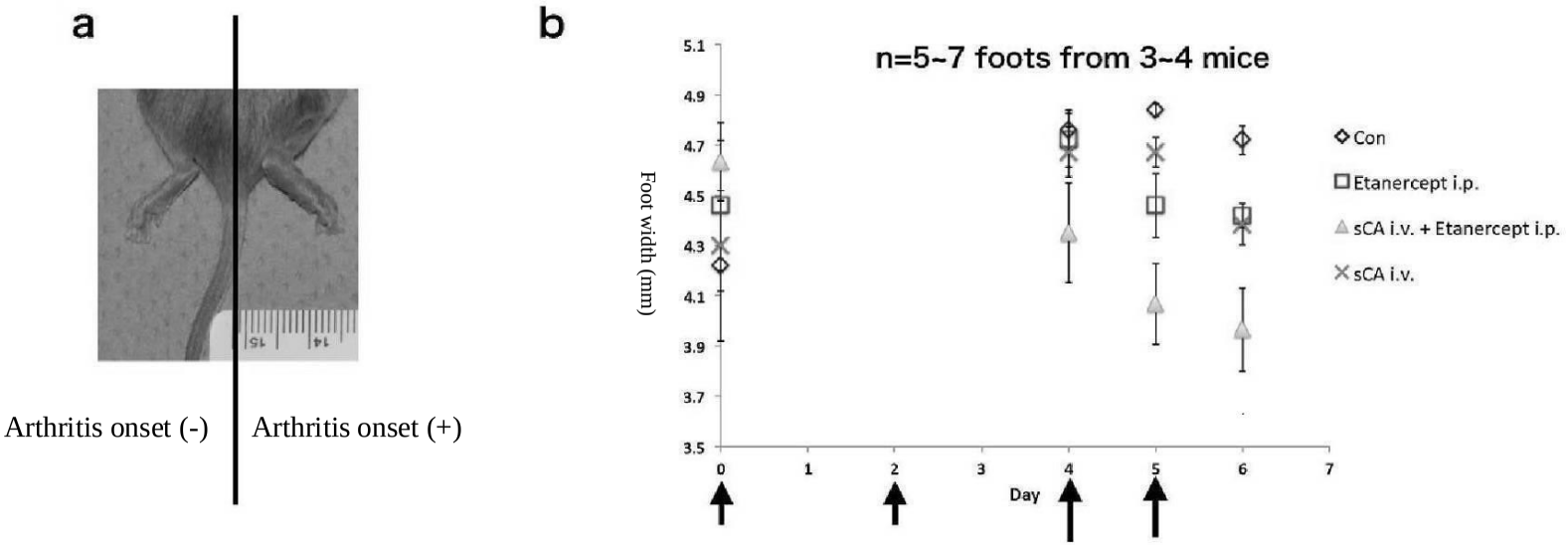

a
Arthritis onset (-)
Arthritis onset (+)
b
n=5~7 foots from 3~4 mice
Foot width (mm)
5.1
4.9
4.7
4.5
4.3
4.1
3.9
3.7
3.5
0
1
2
3
4
5
6
7
Day
Con
Etanercept i.p.
sCA i.v. + Etanercept i.p.
sCA i.v.

FIG. 11

