Figure 1

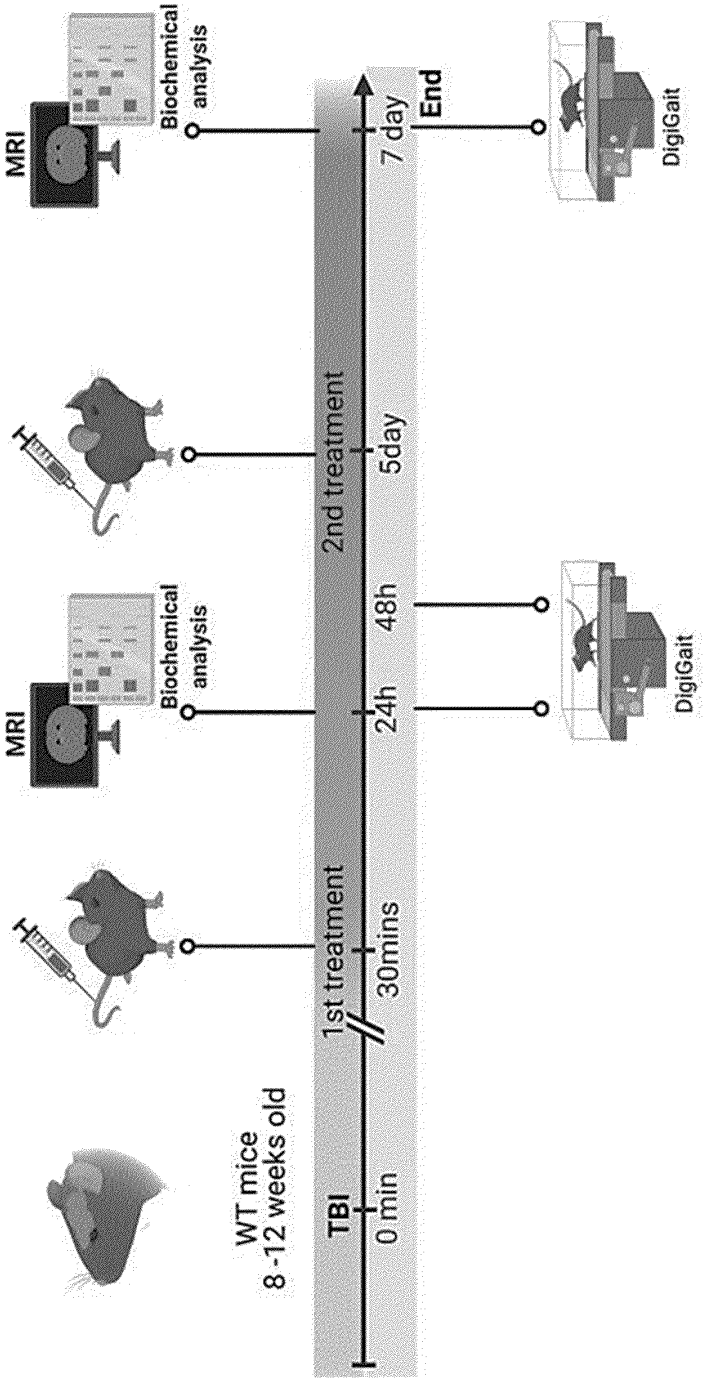

WT mice
8 -12 weeks old
TBI
0 min
1st treatment
30mins
2nd treatment
24h
48h
5day
7 day
End
MRI
Biochemical analysis
DigiGait
MRI
Biochemical analysis
DigiGait

Figure 2

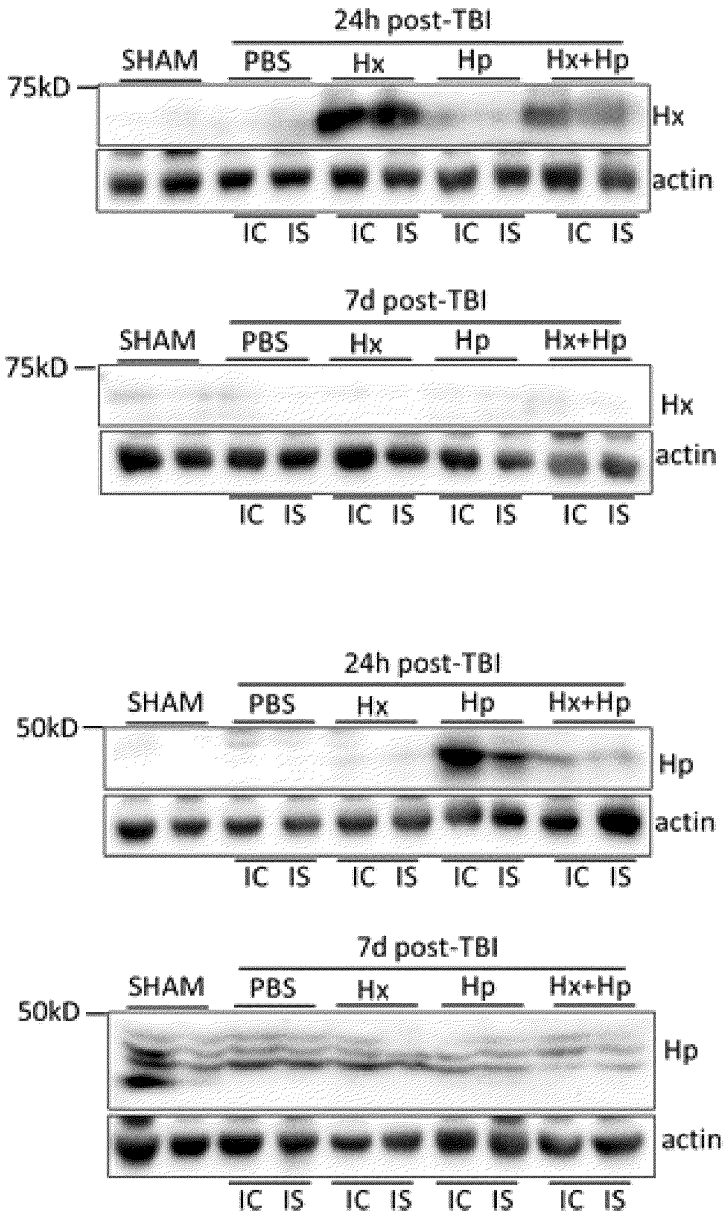

24h post-TBI
SHAM
PBS
Hx
Hp
Hx+Hp
75kD
Hx
actin
IC IS IC IS IC IS IC IS
7d post-TBI
SHAM
PBS
Hx
Hp
Hx+Hp
75kD
Hx
actin
IC IS IC IS IC IS IC IS
24h post-TBI
SHAM
PBS
Hx
Hp
Hx+Hp
50kD
Hp
actin
IC IS IC IS IC IS IC IS
7d post-TBI
SHAM
PBS
Hx
Hp
Hx+Hp
50kD
Hp
actin
IC IS IC IS IC IS IC IS

Figure 3

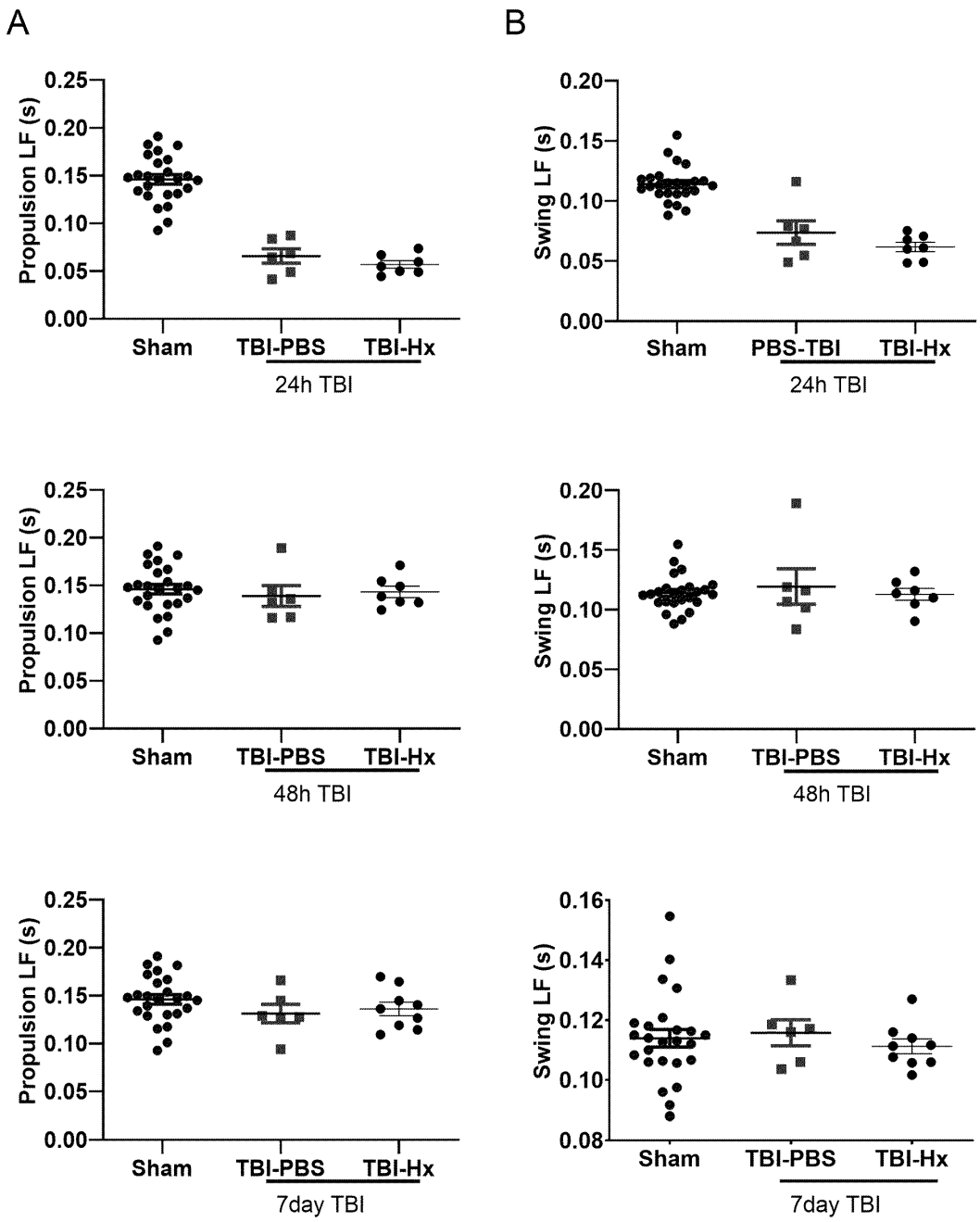

A
B
Propulsion LF (s)
Swing LF (s)
0.25
0.20
0.15
0.10
0.05
0.00
0.16
0.14
0.12
0.10
0.08
Sham
TBI-PBS
TBI-Hx
PBS-TBI
24h TBI
48h TBI
7day TBI

Figure 3

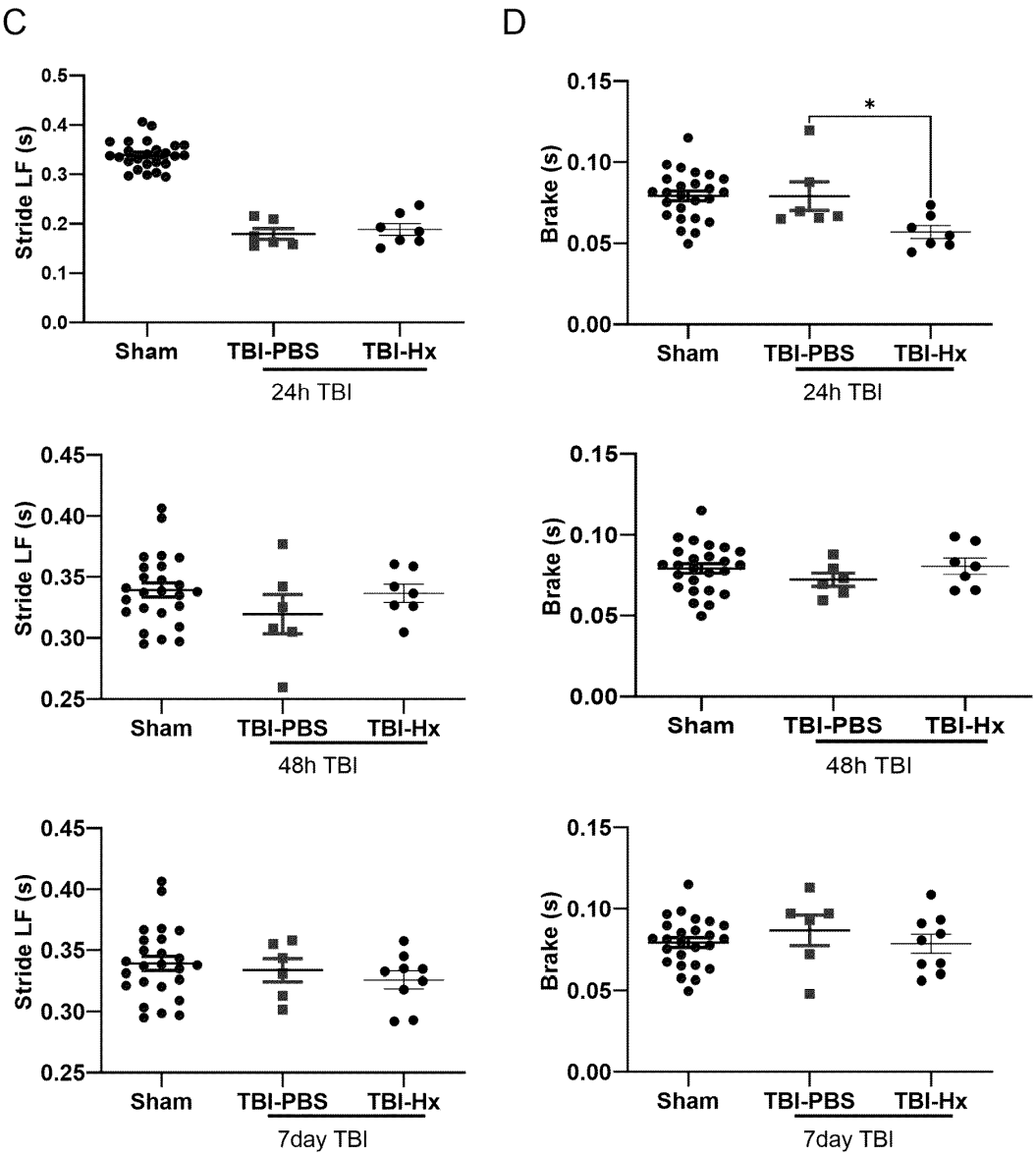

C
D
Stride LF (s)
Brake (s)
0.5
0.4
0.3
0.2
0.1
0.0
0.15
0.10
0.05
0.00
*
Sham
TBI-PBS
TBI-Hx
24h TBI
0.45
0.40
0.35
0.30
0.25
48h TBI
7day TBI

Figure 4

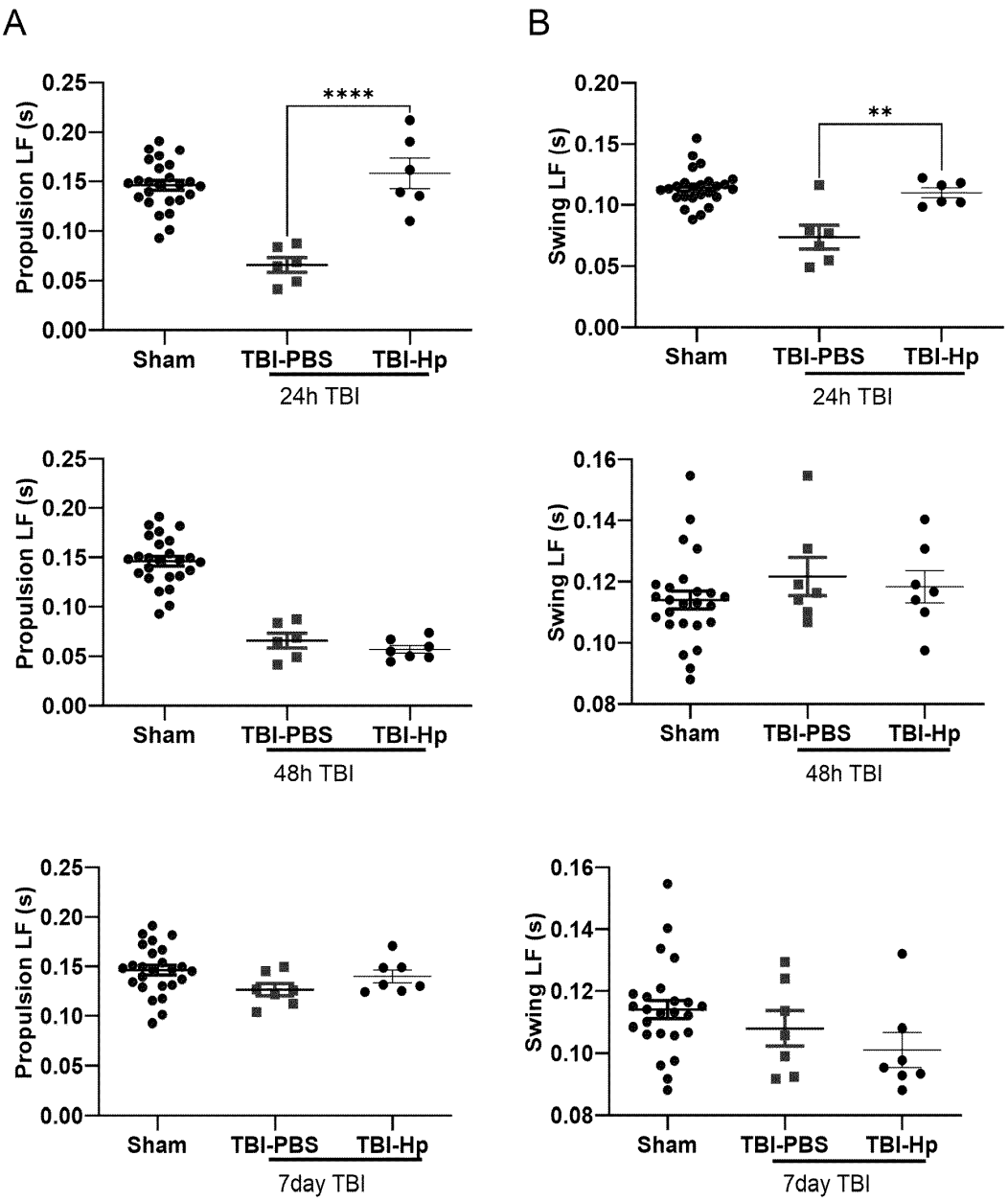

A
B
Propulsion LF (s)
Swing LF (s)
0.25
0.20
0.15
0.10
0.05
0.00
0.16
0.14
0.12
0.08
****
**
Sham
TBI-PBS
TBI-Hp
24h TBI
48h TBI
7day TBI

Figure 4

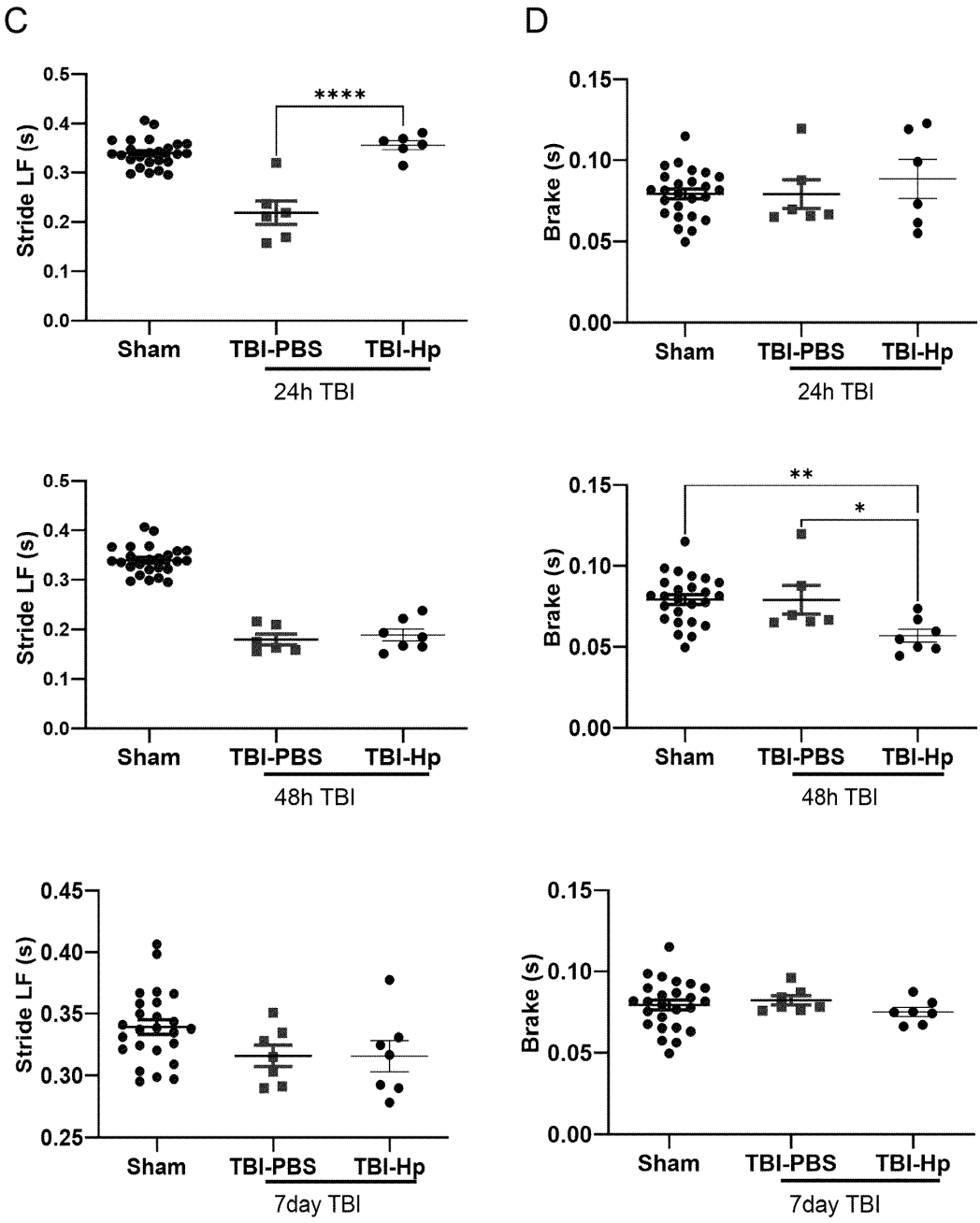

C
D
Stride LF (s)
Brake (s)
****
**
*
Sham
TBI-PBS
TBI-Hp
24h TBI
48h TBI
7day TBI

Figure 5

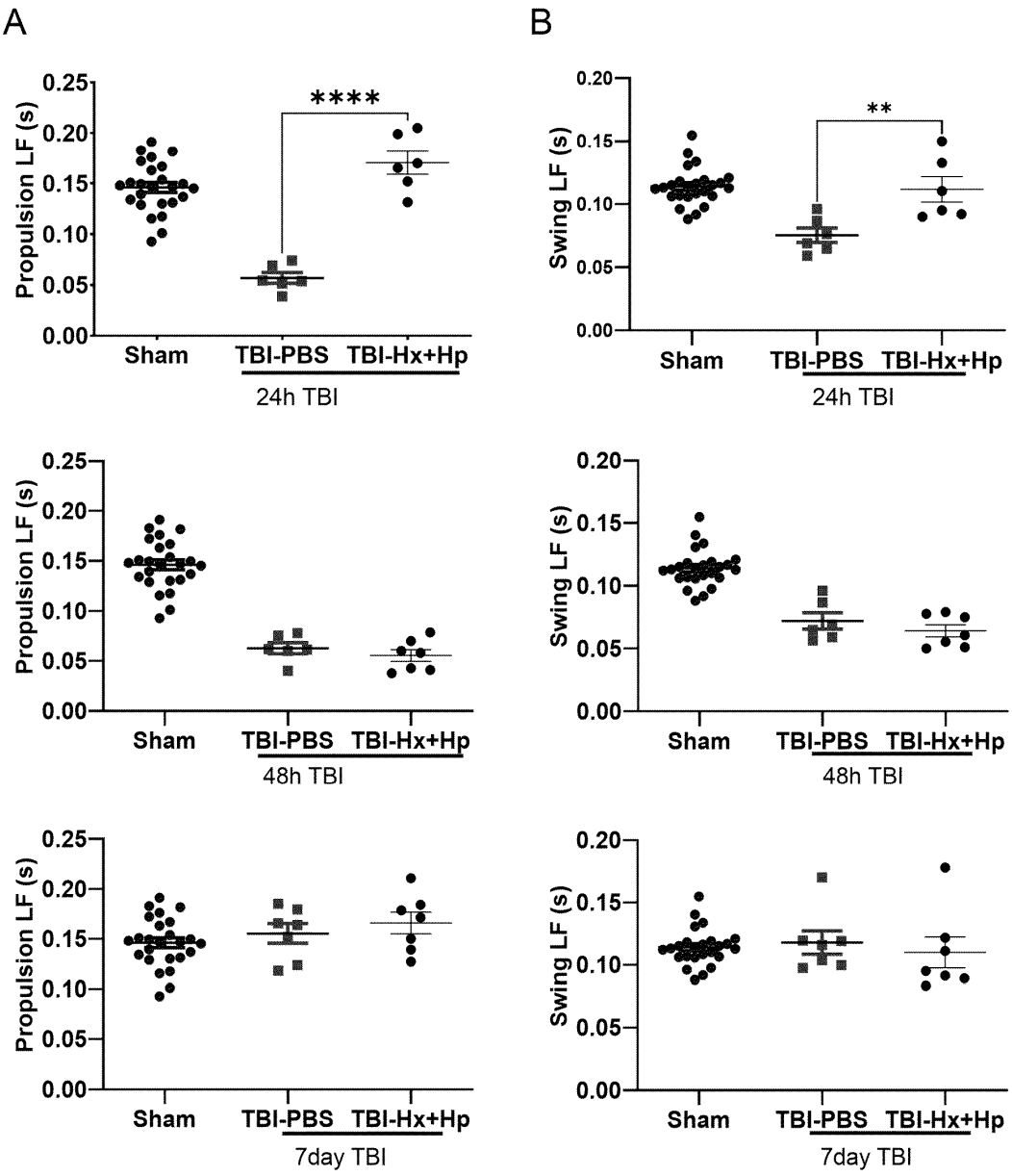

A
B
Propulsion LF (s)
Swing LF (s)
0.25
0.20
0.15
0.10
0.05
0.00
****
**
Sham
TBI-PBS
TBI-Hx+Hp
24h TBI
48h TBI
7day TBI

Figure 5

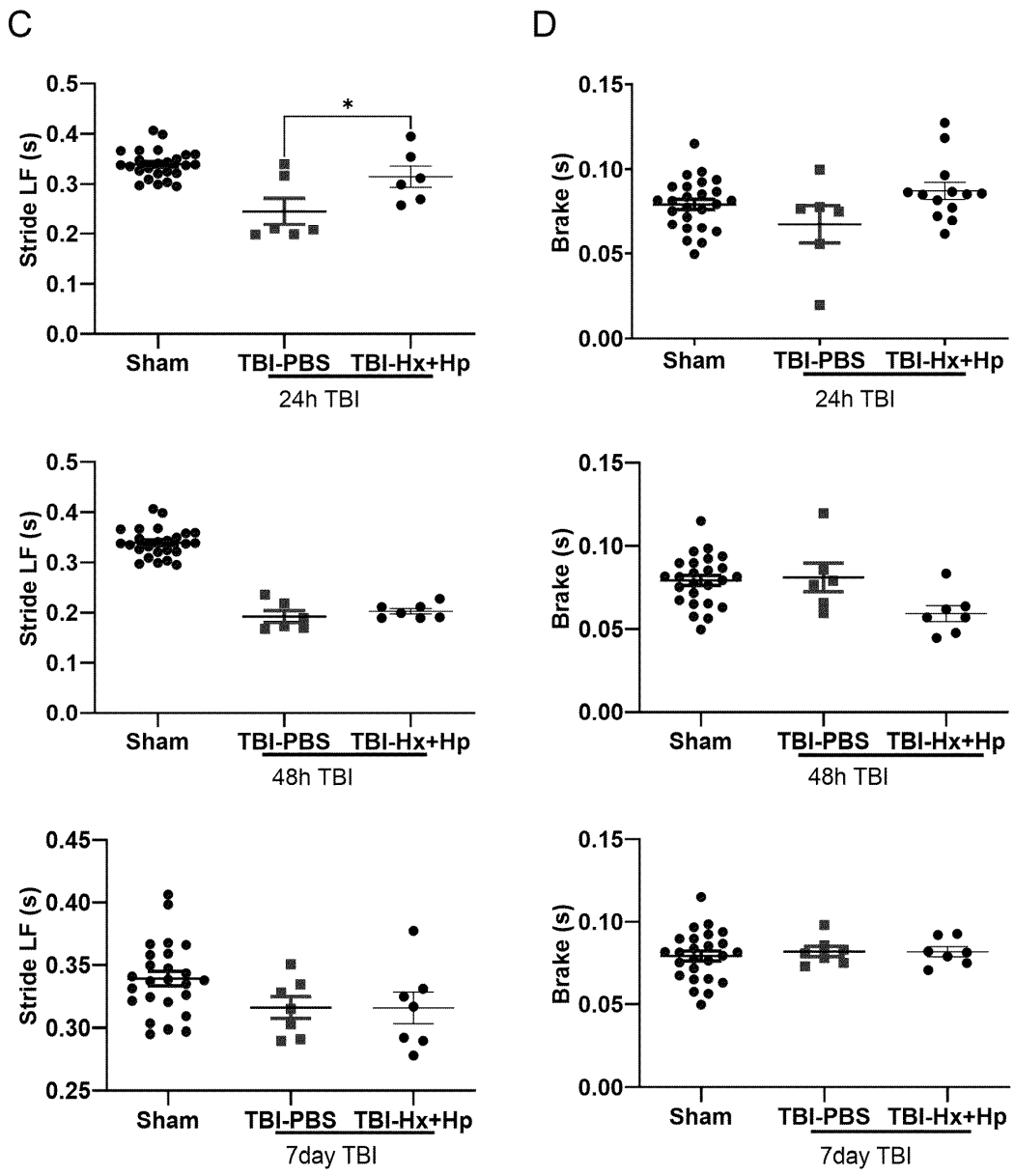

C
D
Stride LF (s)
Brake (s)
Sham
TBI-PBS
TBI-Hx+Hp
24h TBI
48h TBI
7day TBI
*

Figure 6

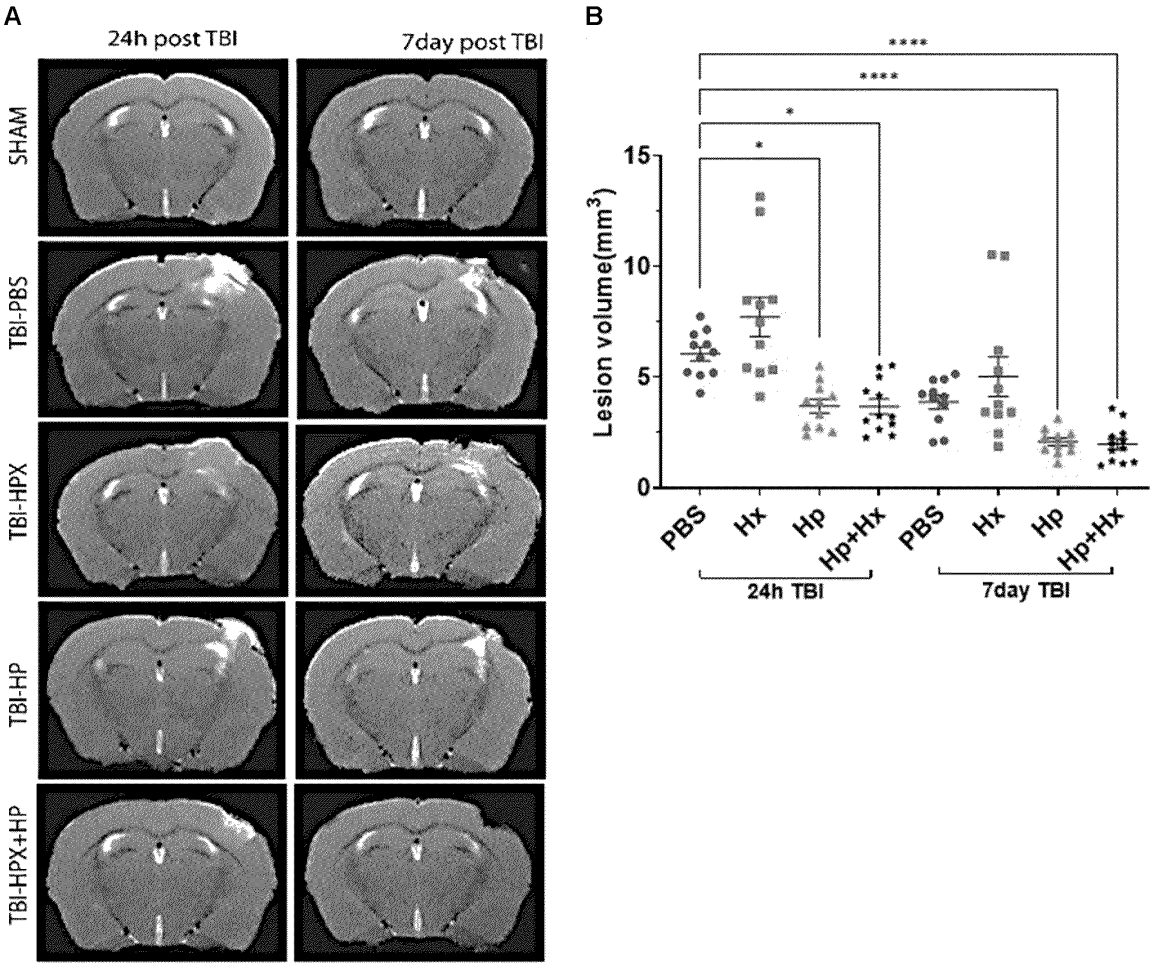
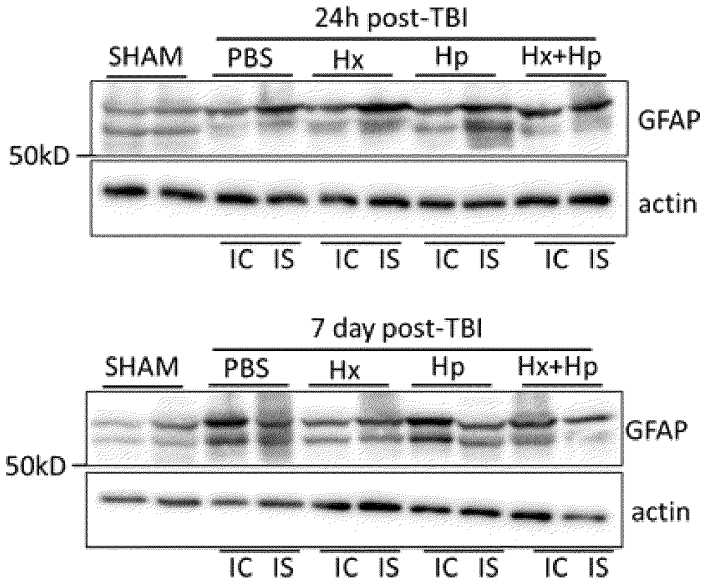

A
24h post TBI
7day post TBI
SHAM
TBI-PBS
TBI-HPX
TBI-HP
TBI-HPX+HP
B
Lesion volume(mm3)
15
10
5
0
****
****
*
*
PBS
Hx
Hp
Hp+Hx
PBS
Hx
Hp
Hp+Hx
24h TBI
7day TBI

Figure 7

A


24h post-TBI
SHAM
PBS
Hx
Hp
Hx+Hp
50kD
GFAP
actin
IC IS IC IS IC IS IC IS
7 day post-TBI
SHAM
PBS
Hx
Hp
Hx+Hp
50kD
GFAP
actin
IC IS IC IS IC IS IC IS

B

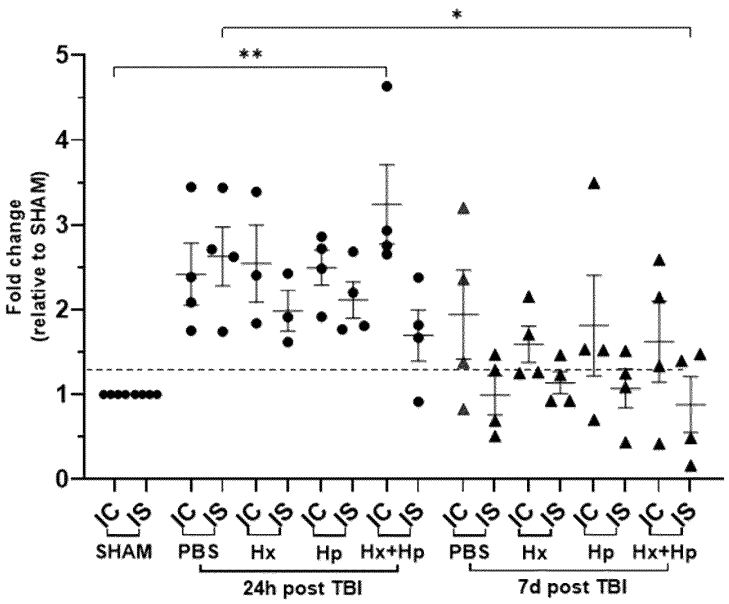
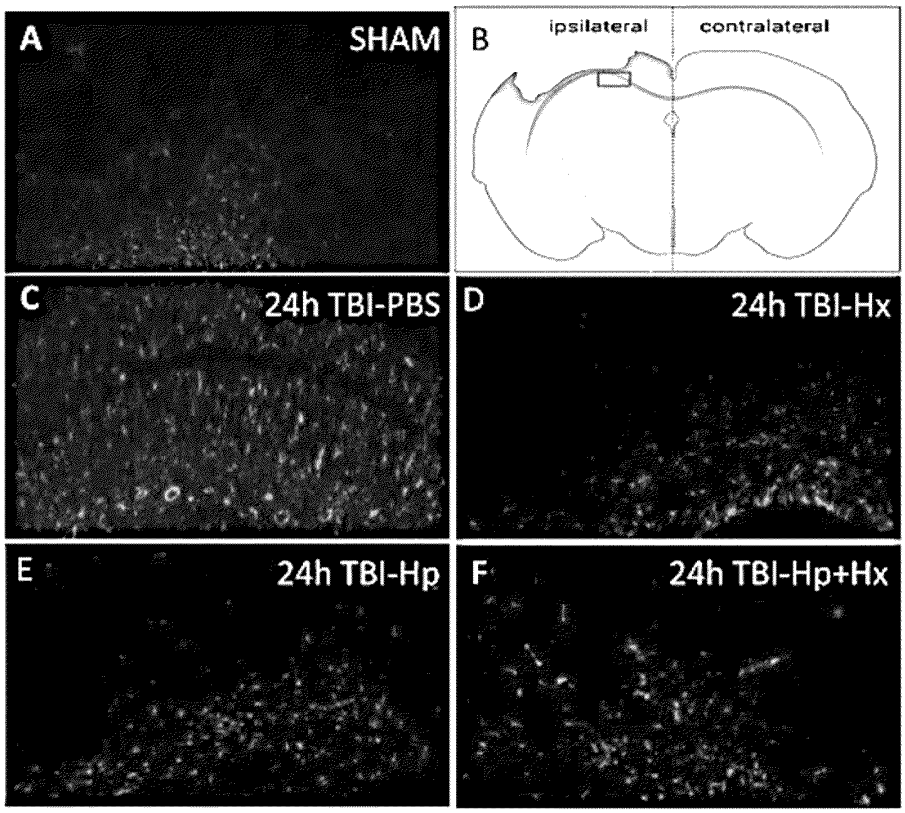

**
*
Fold change (relative to SHAM)
0
1
2
3
4
5
IC IS
SHAM
PBS
Hx
Hp
Hx+Hp
24h post TBI
PBS
Hx
Hp
Hx+Hp
7d post TBI

Figure 8


A
SHAM
B
ipsilateral
contralateral
C
24h TBI-PBS
D
24h TBI-Hx
E
24h TBI-Hp
F
24h TBI-Hp+Hx

G

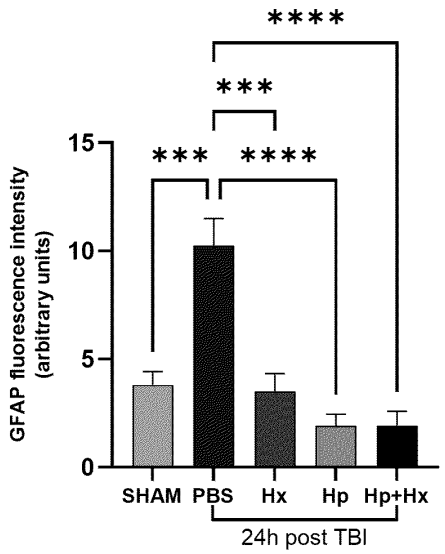
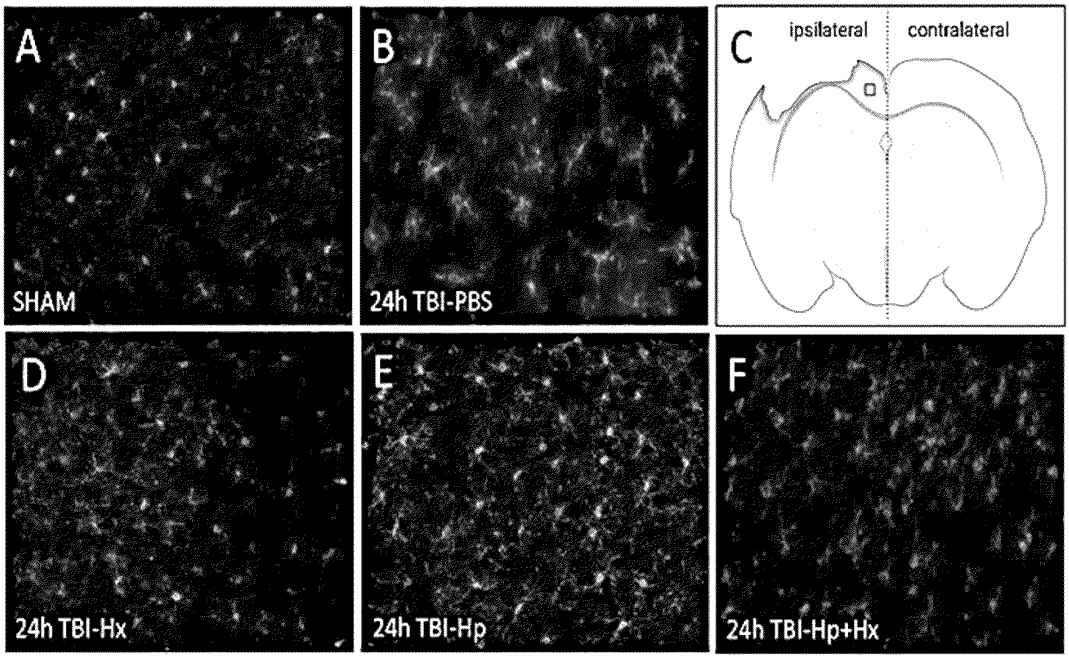

****
***
***
****
15
10
5
0
GFAP fluorescence intensity (arbitrary units)
SHAM
PBS
Hx
Hp
Hp+Hx
24h post TBI

Figure 9


A
SHAM
B
24h TBI-PBS
C
ipsilateral
contralateral
D
24h TBI-Hx
E
24h TBI-Hp
F
24h TBI-Hp+Hx

G

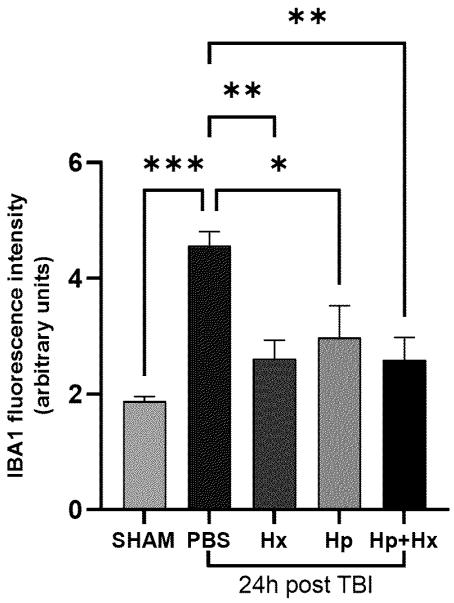

**
**
***
*
IBA1 fluorescence intensity (arbitrary units)
6
4
2
0
SHAM
PBS
Hx
Hp
Hp+Hx
24h post TBI

Figure 10

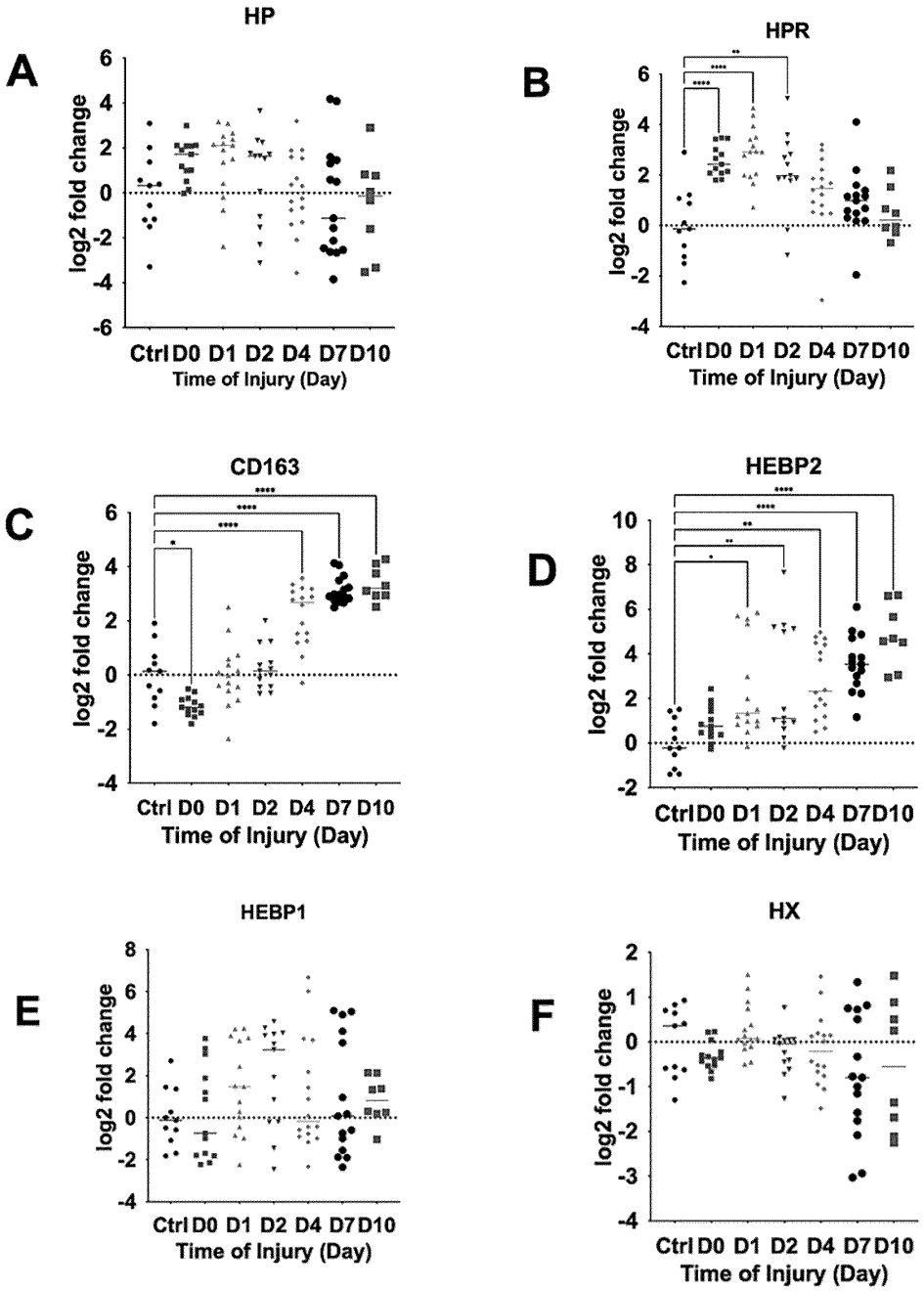
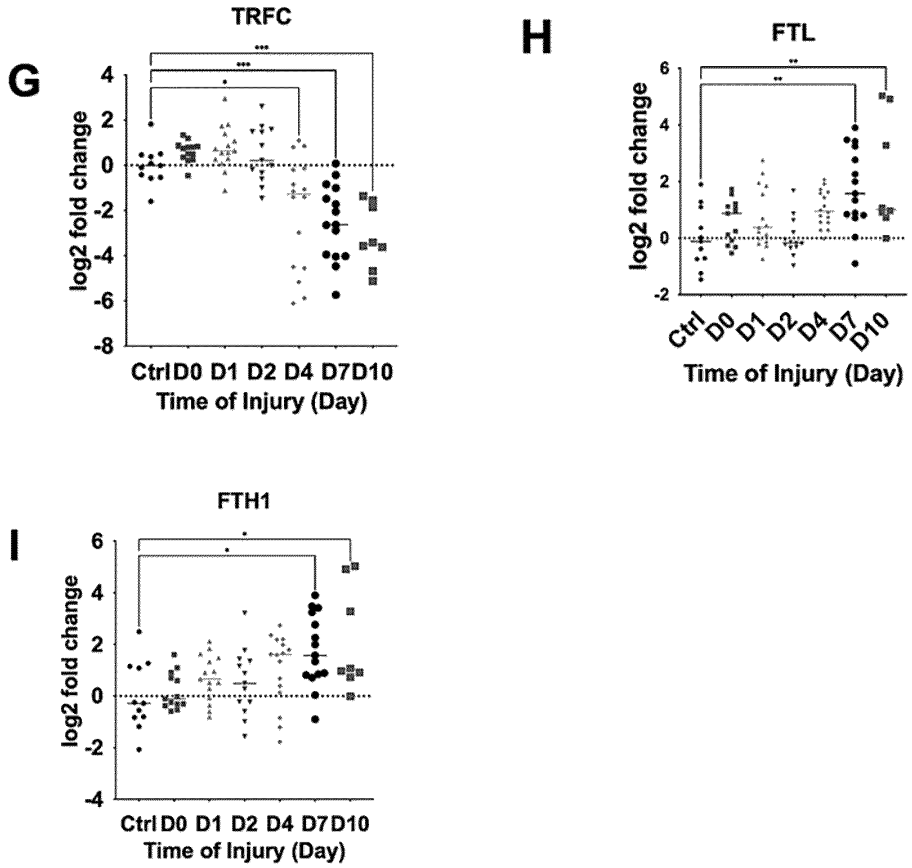

A
HP
log2 fold change
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)
B
HPR
log2 fold change
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)
C
CD163
log2 fold change
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)
D
HEBP2
log2 fold change
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)
E
HEBP1
log2 fold change
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)
F
HX
log2 fold change
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)

Figure 10


G
TRFC
log2 fold change
4
2
0
-2
-4
-6
-8
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)
H
FTL
log2 fold change
6
4
2
0
-2
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)
I
FTH1
log2 fold change
6
4
2
0
-2
-4
Ctrl D0 D1 D2 D4 D7 D10
Time of Injury (Day)