Electronic Supplementary Material (ESI) for Molecular BioSystems.
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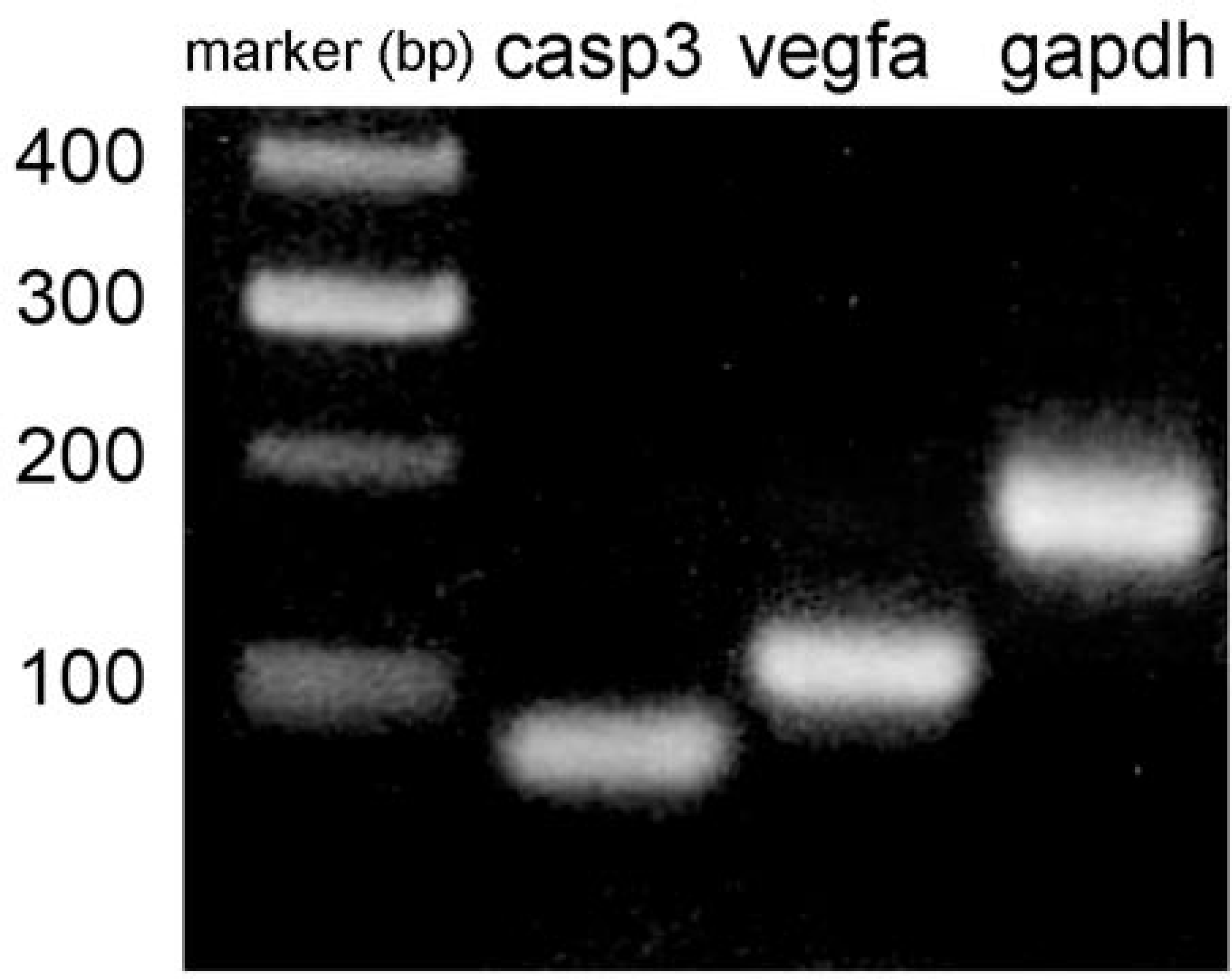
Suppl. Fig. 1. Representative *gel electrophoresis of qPCR products.*

Suppl. Fig. 2. Lipid peroxidation and pro-inflammatory markers, as assessed using untargeted metabolomic analyses. Values are expressed as mean ± SEM (n = 5) of the fold change over non-ischemic retinas (broken lines). $^{\S}P < 0.01$; $^{\S\S}P < 0.001$; $^{\S\S\S}P < 0.0001$ against non-ischemic controls; *P <0.01; **P < 0.001; ***P < 0.0001 against untreated ischemic retinas, ANOVA.

Suppl. Fig. 3. Arginine-citrulline-ornithine nitric oxide-related metabolism and secondary messenger metabolites (including cyclic AMP, inositol triphosphate, PIP2 and PIP3), as assessed using untargeted metabolomic analyses. Values are expressed as mean ± SEM (n = 5) of the fold change over non-ischemic retinas (broken lines). $^{\S}P < 0.01$; $^{\S\S\S}P < 0.0001$ against non-ischemic controls; *P <0.01; **P < 0.001; ***P < 0.0001 against untreated ischemic retinas, ANOVA.

Suppl. Fig. 4. Krebs cycle metabolites, as assessed using untargeted metabolomic analyses. Values are expressed as mean ± SEM (n = 5) of the fold change over non-ischemic retinas (broken lines). $^{\S}P < 0.01$; $^{\S\S\S}P < 0.0001$ against non-ischemic controls; *P <0.01; **P < 0.001; ***P < 0.0001 against untreated ischemic retinas, ANOVA.

Suppl. Fig. 5. Purine metabolism, as assessed using untargeted metabolomic analyses. Values are expressed as mean ± SEM (n = 5) of the fold change over non-ischemic retinas (broken lines). $^{\S}P < 0.01$; $^{\S\S\S}P < 0.0001$ against non-ischemic controls; *P <0.01; ***P < 0.0001 against untreated ischemic retinas, ANOVA.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casp3
vegfa
gapdh
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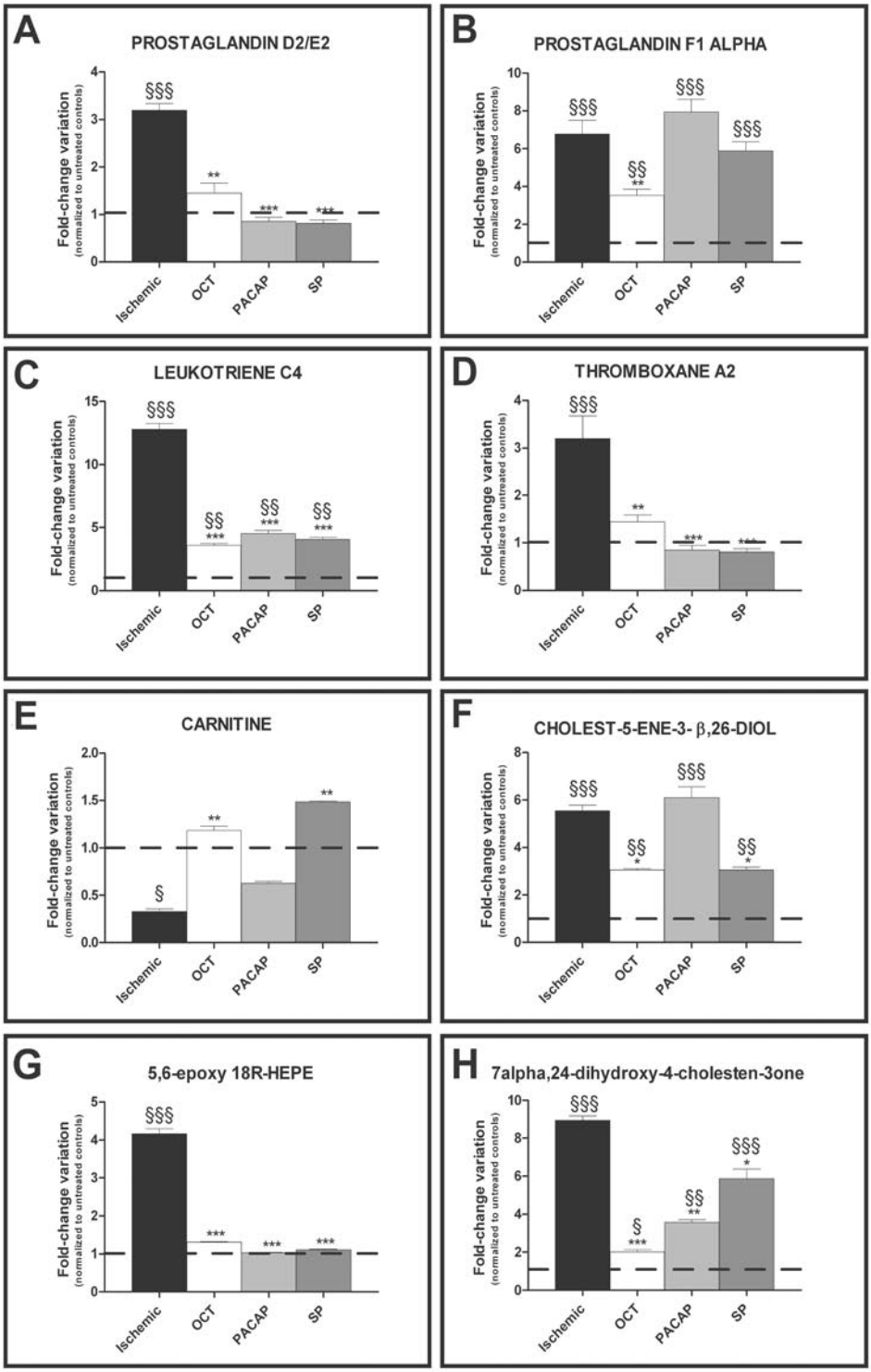
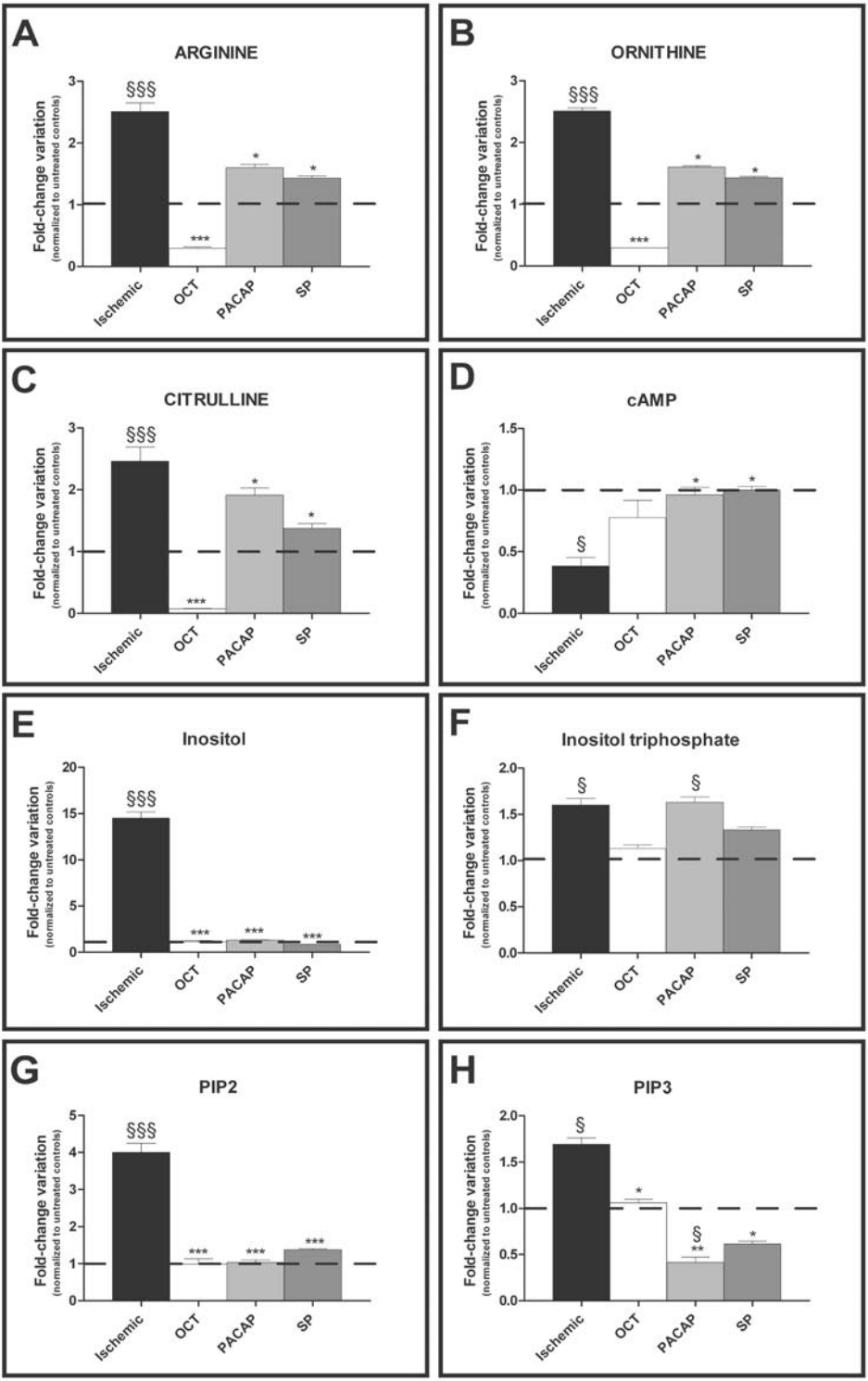
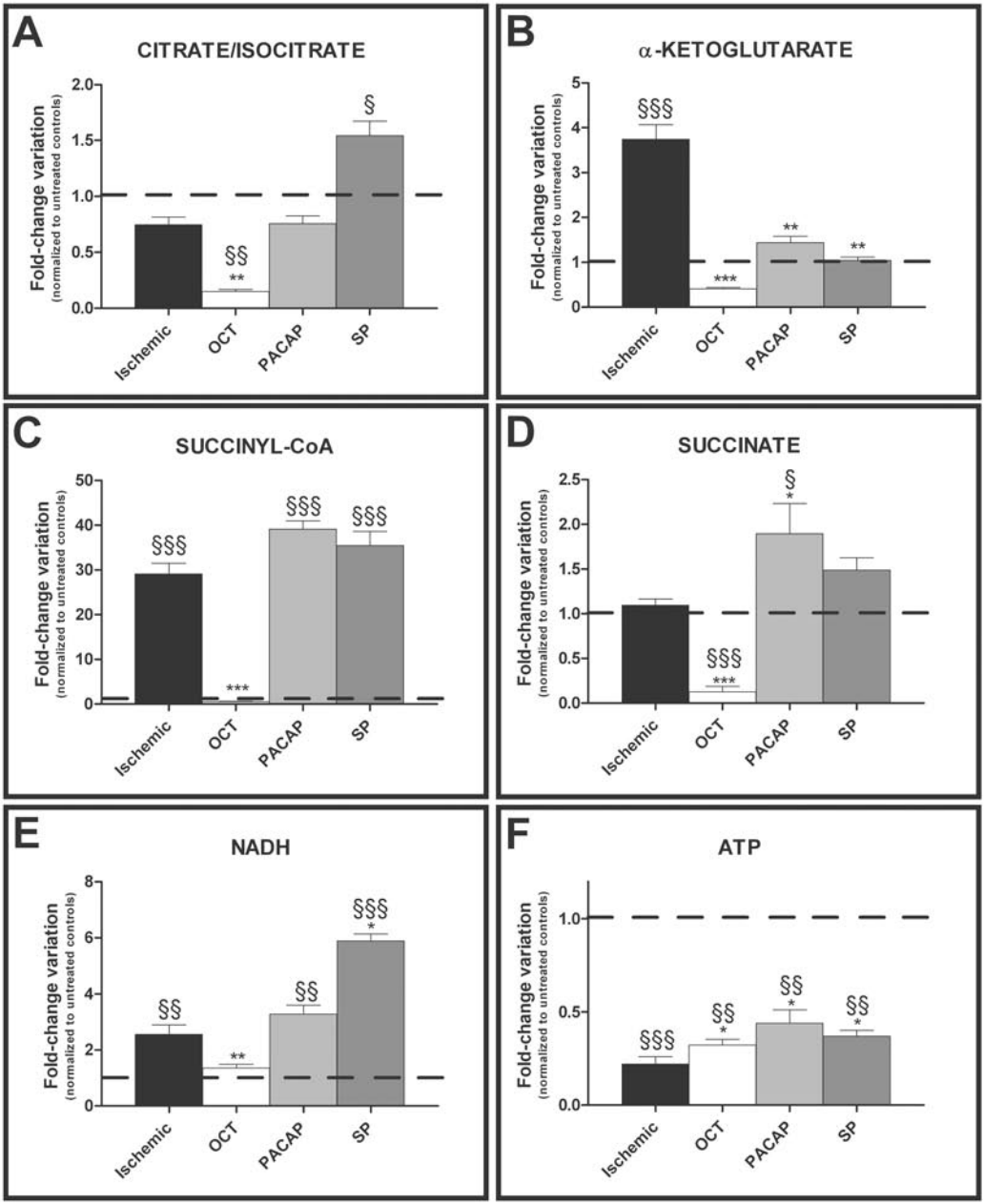
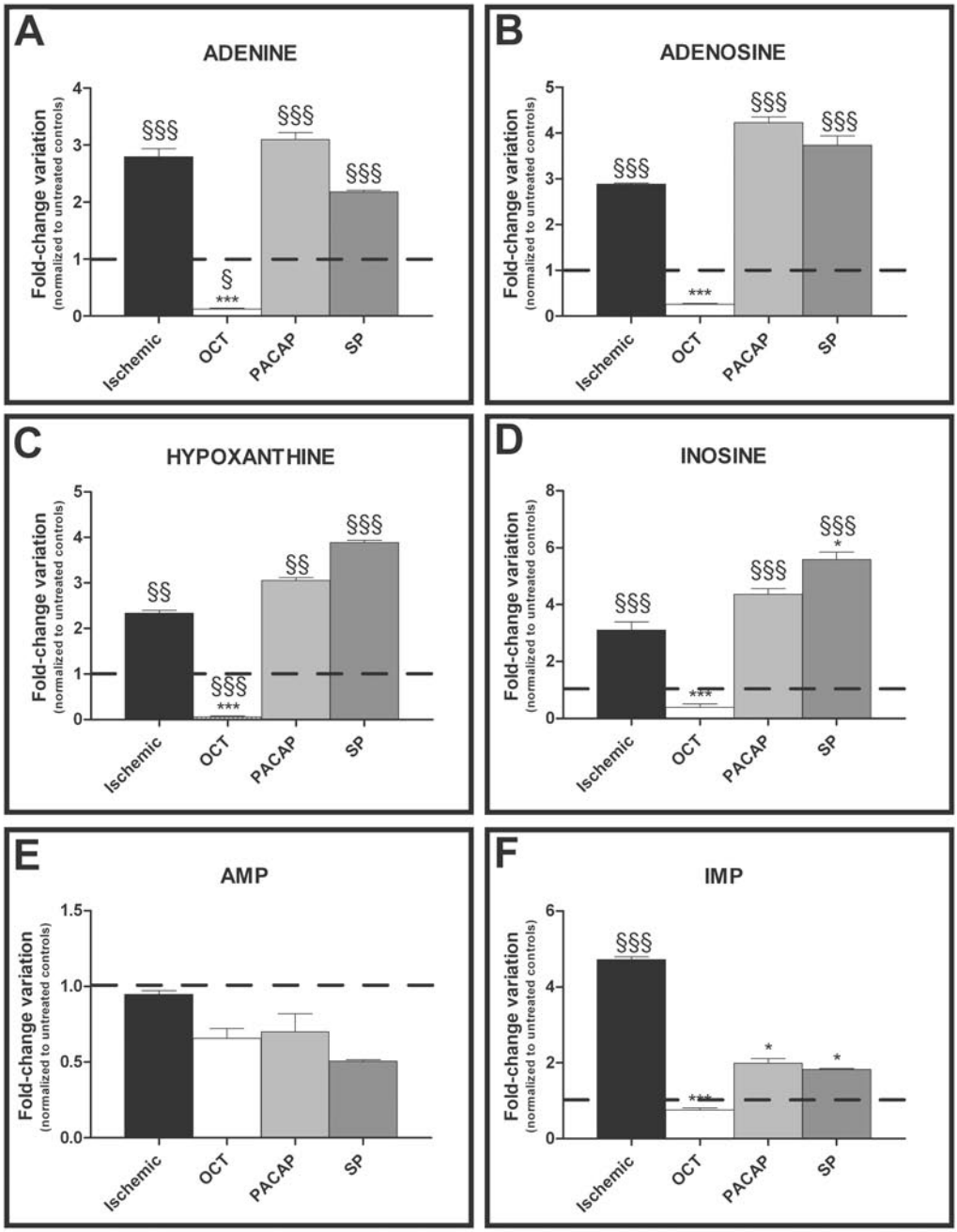
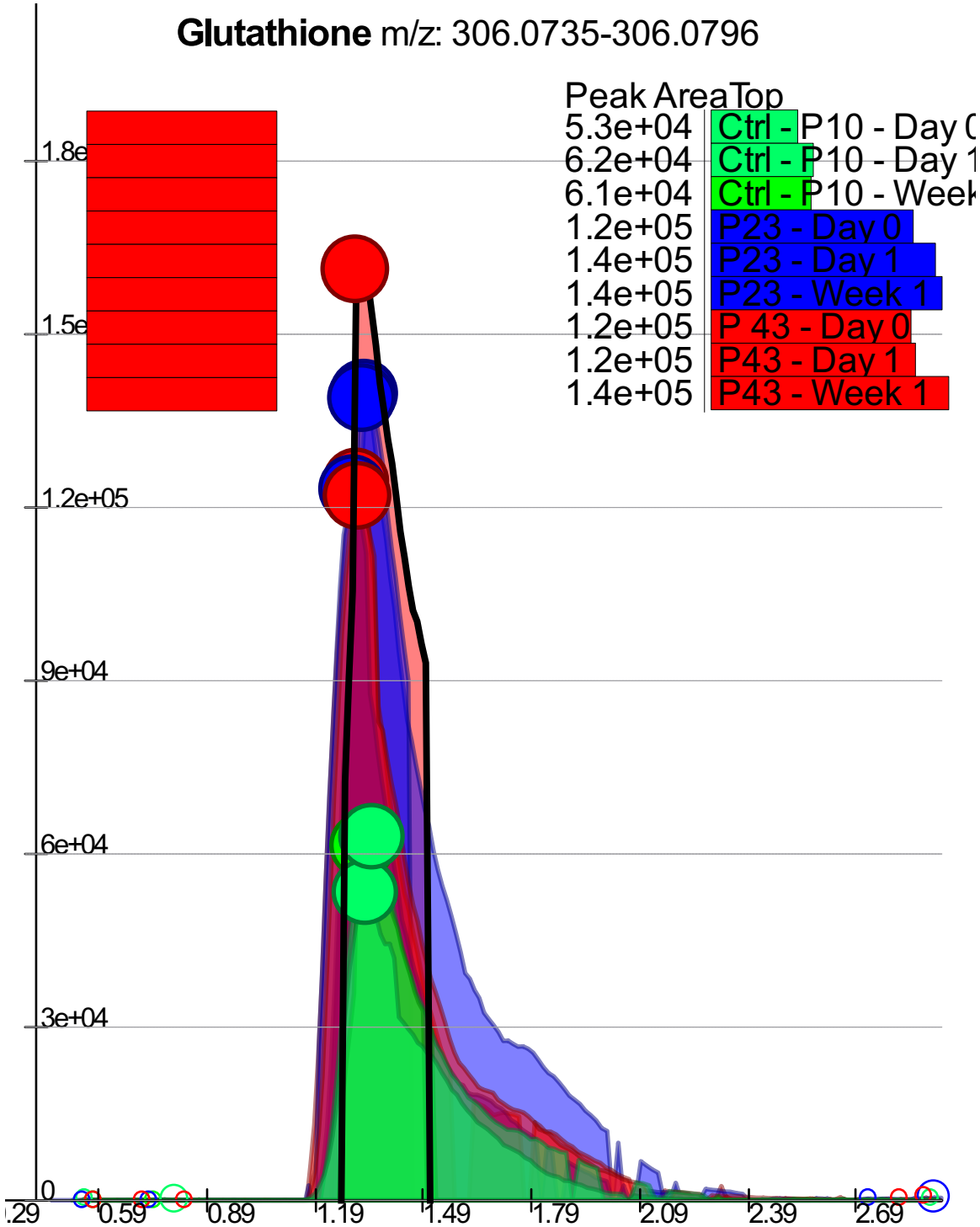
300
200
100


A
PROSTAGLANDIN D2/E2
Fold-change variation
(normalized to untreated controls)
Ischemic
OCT
PACAP
SP
B
PROSTAGLANDIN F1 ALPHA
C
LEUKOTRIENE C4
D
THROMBOXANE A2
E
CARNITINE
F
CHOLEST-5-ENE-3- β,26-DIOL
G
5,6-epoxy 18R-HEPE
H
7alpha,24-dihydroxy-4-cholesten-3one


A
ARGININE
Fold-change variation
(normalized to untreated controls)
§§§
***
*
*
Ischemic
OCT
PACAP
SP
B
ORNITHINE
C
CITRULLINE
D
cAMP
§
E
Inositol
F
Inositol triphosphate
G
PIP2
H
PIP3
**


A
CITRATE/ISOCITRATE
Fold-change variation
(normalized to untreated controls)
2.0
1.5
1.0
0.5
0.0
§
§§
**
Ischemic
OCT
PACAP
SP
B
α-KETOGLUTARATE
Fold-change variation
(normalized to untreated controls)
5
4
3
2
1
0
§§§
***
**
**
Ischemic
OCT
PACAP
SP
C
SUCCINYL-CoA
Fold-change variation
(normalized to untreated controls)
50
40
30
20
10
0
§§§
§§§
§§§
***
Ischemic
OCT
PACAP
SP
D
SUCCINATE
Fold-change variation
(normalized to untreated controls)
2.5
2.0
1.5
1.0
0.5
0.0
§
*
§§§
***
Ischemic
OCT
PACAP
SP
E
NADH
Fold-change variation
(normalized to untreated controls)
8
6
4
2
0
§§
**
§§
§§§
*
Ischemic
OCT
PACAP
SP
F
ATP
Fold-change variation
(normalized to untreated controls)
1.0
0.5
0.0
§§§
§§
*
§§
*
§§
*
Ischemic
OCT
PACAP
SP


A
ADENINE
Fold-change variation
(normalized to untreated controls)
§§§
§
***
§§§
§§§
Ischemic
OCT
PACAP
SP
B
ADENOSINE
Fold-change variation
(normalized to untreated controls)
§§§
***
§§§
§§§
Ischemic
OCT
PACAP
SP
C
HYPOXANTHINE
Fold-change variation
(normalized to untreated controls)
§§
§§§
***
§§
§§§
Ischemic
OCT
PACAP
SP
D
INOSINE
Fold-change variation
(normalized to untreated controls)
§§§
***
§§§
§§§
*
Ischemic
OCT
PACAP
SP
E
AMP
Fold-change variation
(normalized to untreated controls)
Ischemic
OCT
PACAP
SP
F
IMP
Fold-change variation
(normalized to untreated controls)
§§§
***
*
*
Ischemic
OCT
PACAP
SP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Peak AreaTop
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6.1e+04 Ctrl - P10 - Week
1.2e+05 P23 - Day 0
1.4e+05 P23 - Day 1
1.4e+05 P23 - Week 1
1.2e+05 P 43 - Day 0
1.2e+05 P43 - Day 1
1.4e+05 P43 - Week 1
1.8e
1.5e
1.2e+05
9e+04
6e+04
3e+04
0
.29
0.59
0.89
1.19
1.49
1.79
2.09
2.39
2.69