Article:
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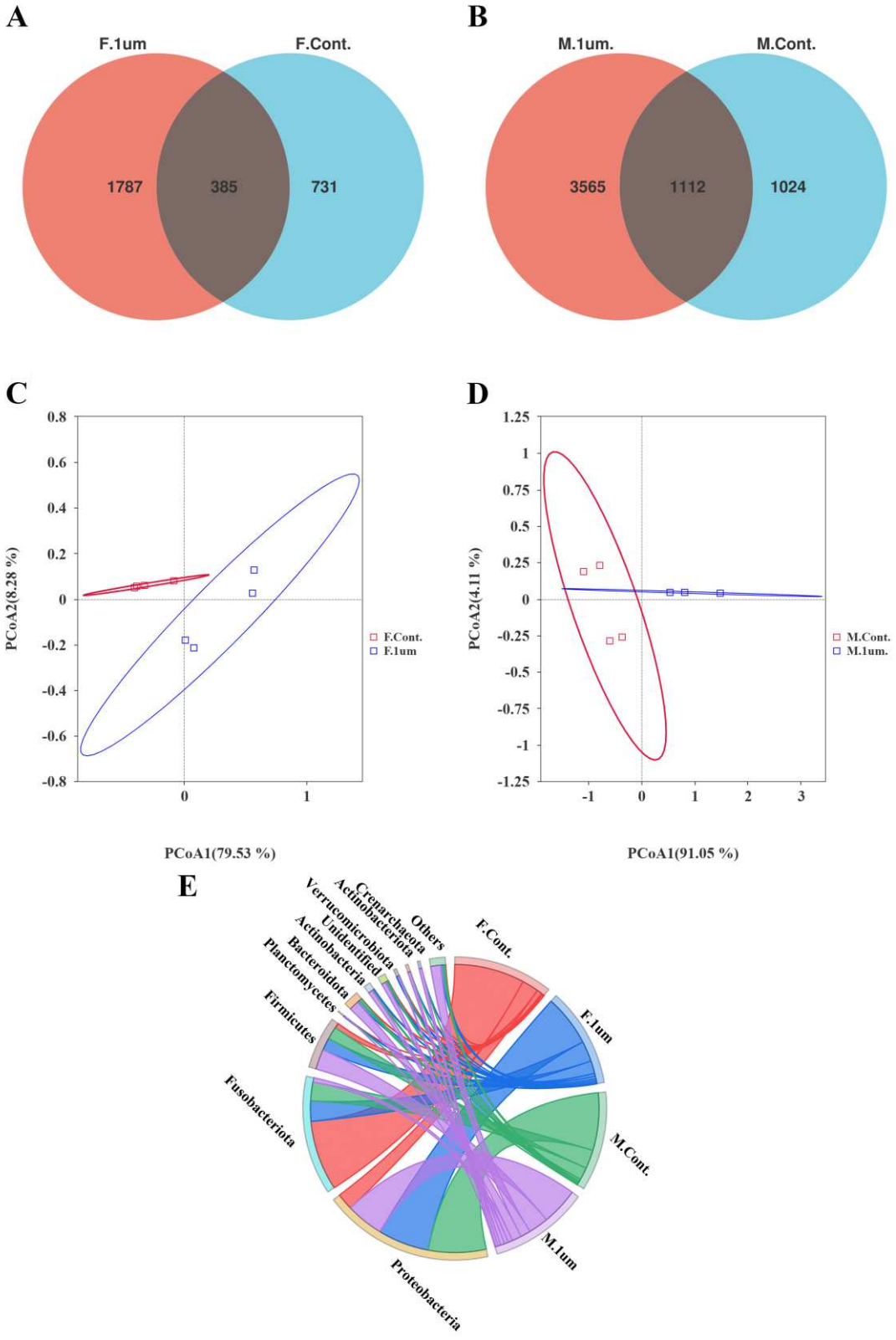
A
F.1um
F.Cont.
1787
385
731
B
M.1um.
M.Cont.
3565
1112
1024
C
PCoA2(8.28 %)
PCoA1(79.53 %)
F.Cont.
F.1um
D
PCoA2(4.11 %)
PCoA1(91.05 %)
M.Cont.
M.1um.
E
Crenarchaeota
Actinobacteriota
Verrucomicrobiota
Unidentified
Actinobacteria
Bacteroidota
Planctomycetes
Firmicutes
Fusobacteriota
Proteobacteria
Others
F.Cont.
F.1um
M.Cont.
M.1um

Figure 1.

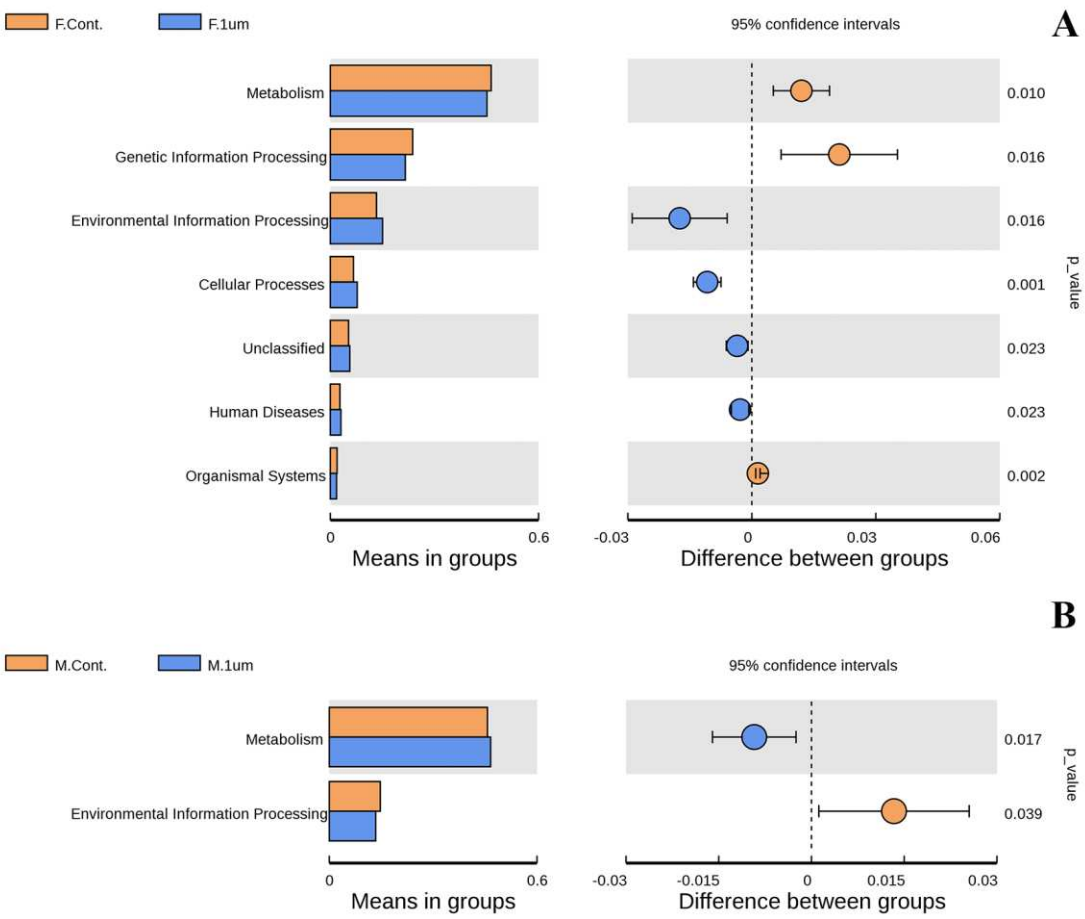
A
F.Cont.
F.1um
95% confidence intervals
Metabolism
Genetic Information Processing
Environmental Information Processing
Cellular Processes
Unclassified
Human Diseases
Organismal Systems
0.010
0.016
0.016
0.001
0.023
0.023
0.002
p_value
0
0.6
Means in groups
-0.03
0
0.03
0.06
Difference between groups
B
M.Cont.
M.1um
95% confidence intervals
Metabolism
Environmental Information Processing
0.017
0.039
p_value
0
0.6
Means in groups
-0.03
-0.015
0
0.015
0.03
Difference between groups

Figure 2.

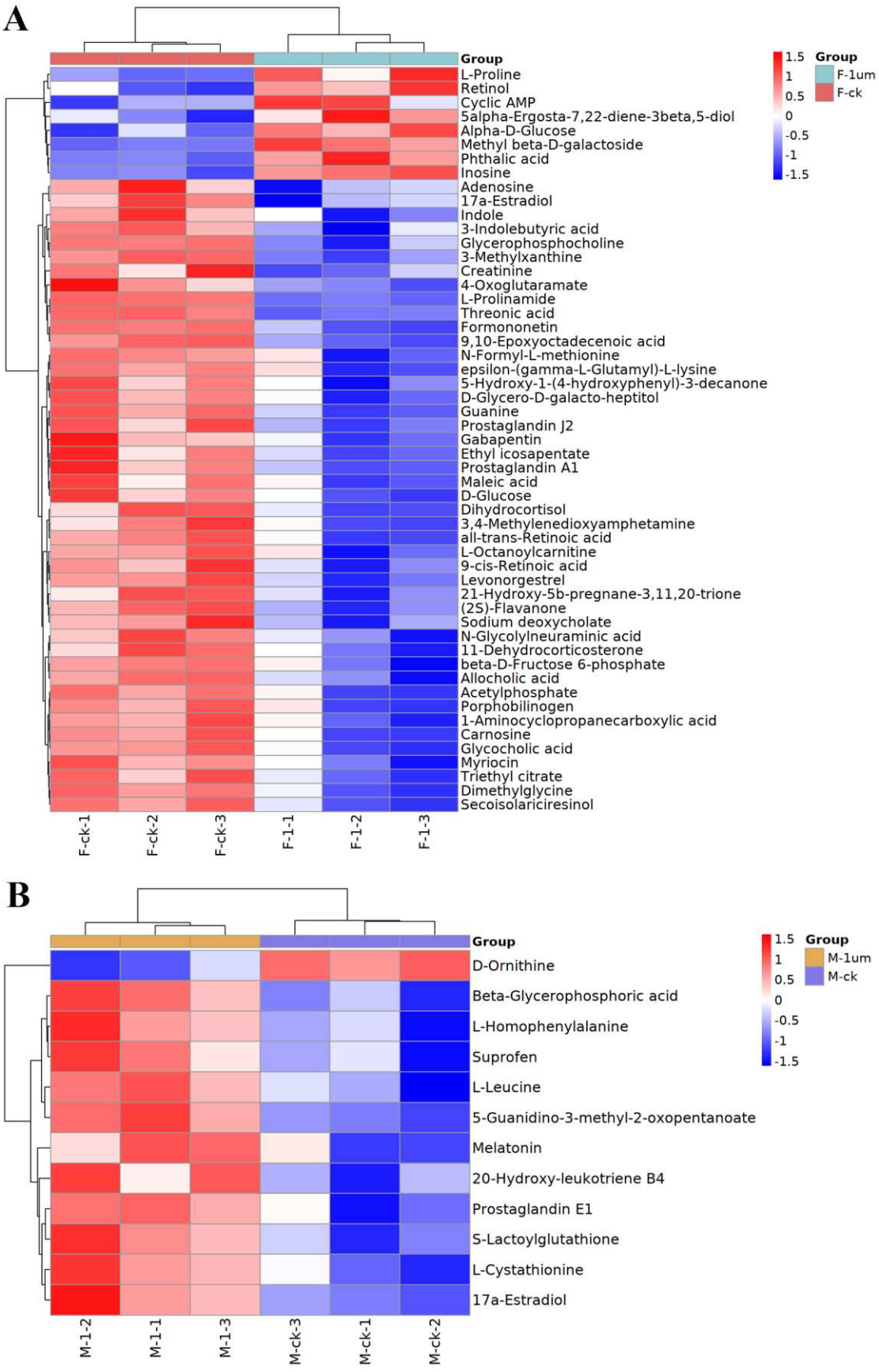
A
Group
L-Proline
Retinol
Cyclic AMP
5alpha-Ergosta-7,22-diene-3beta,5-diol
Alpha-D-Glucose
Methyl beta-D-galactoside
Phthalic acid
Inosine
Adenosine
17a-Estradiol
Indole
3-Indolebutyric acid
Glycerophosphocholine
3-Methylxanthine
Creatinine
4-Oxoglutaramate
L-Prolinamide
Threonic acid
Formononetin
9,10-Epoxyoctadecenoic acid
N-Formyl-L-methionine
epsilon-(gamma-L-Glutamyl)-L-lysine
5-Hydroxy-1-(4-hydroxyphenyl)-3-decanone
D-Glycero-D-galacto-heptitol
Guanine
Prostaglandin J2
Gabapentin
Ethyl icosapentate
Prostaglandin A1
Maleic acid
D-Glucose
Dihydrocortisol
3,4-Methylenedioxyamphetamine
all-trans-Retinoic acid
L-Octanoylcarnitine
9-cis-Retinoic acid
Levonorgestrel
21-Hydroxy-5b-pregnane-3,11,20-trione
(2S)-Flavanone
Sodium deoxycholate
N-Glycolylneuraminic acid
11-Dehydrocorticosterone
beta-D-Fructose 6-phosphate
Allocholic acid
Acetylphosphate
Porphobilinogen
1-Aminocyclopropanecarboxylic acid
Carnosine
Glycocholic acid
Myriocin
Triethyl citrate
Dimethylglycine
Secoisolariciresinol
F-ck-1
F-ck-2
F-ck-3
F-1-1
F-1-2
F-1-3
1.5
1
0.5
0
-0.5
-1
-1.5
Group
F-1um
F-ck
B
Group
D-Ornithine
Beta-Glycerophosphoric acid
L-Homophenylalanine
Suprofen
L-Leucine
5-Guanidino-3-methyl-2-oxopentanoate
Melatonin
20-Hydroxy-leukotriene B4
Prostaglandin E1
S-Lactoylglutathione
L-Cystathionine
17a-Estradiol
M-1-2
M-1-1
M-1-3
M-ck-3
M-ck-1
M-ck-2
1.5
1
0.5
0
-0.5
-1
-1.5
Group
M-1um
M-ck

Figure 3.

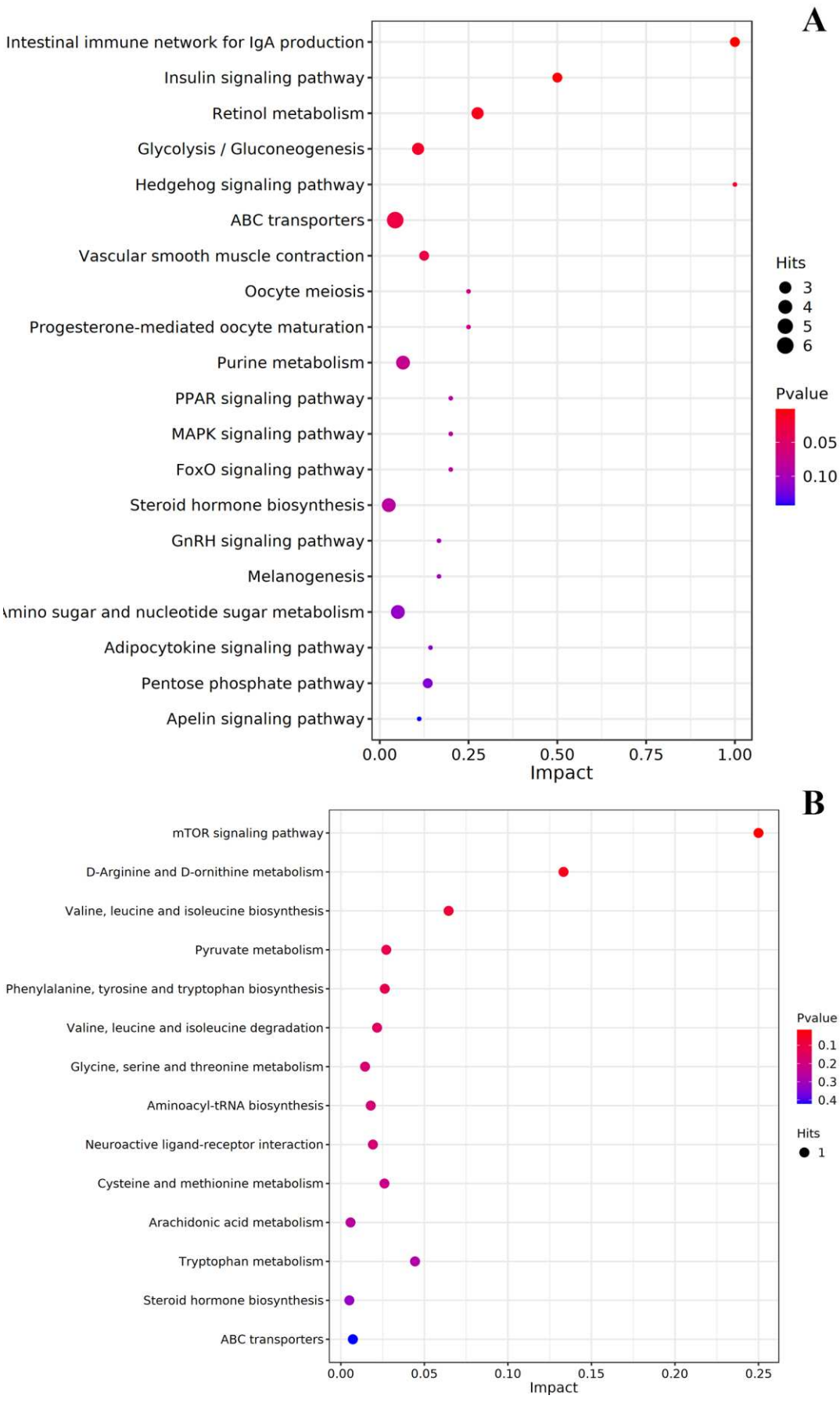
A
Intestinal immune network for IgA production
Insulin signaling pathway
Retinol metabolism
Glycolysis / Gluconeogenesis
Hedgehog signaling pathway
ABC transporters
Vascular smooth muscle contraction
Oocyte meiosis
Progesterone-mediated oocyte maturation
Purine metabolism
PPAR signaling pathway
MAPK signaling pathway
FoxO signaling pathway
Steroid hormone biosynthesis
GnRH signaling pathway
Melanogenesis
Amino sugar and nucleotide sugar metabolism
Adipocytokine signaling pathway
Pentose phosphate pathway
Apelin signaling pathway
0.00
0.25
0.50
0.75
1.00
Impact
Hits
3
4
5
6
Pvalue
0.05
0.10
B
mTOR signaling pathway
D-Arginine and D-ornithine metabolism
Valine, leucine and isoleucine biosynthesis
Pyruvate metabolism
Phenylalanine, tyrosine and tryptophan biosynthesis
Valine, leucine and isoleucine degradation
Glycine, serine and threonine metabolism
Aminoacyl-tRNA biosynthesis
Neuroactive ligand-receptor interaction
Cysteine and methionine metabolism
Arachidonic acid metabolism
Tryptophan metabolism
Steroid hormone biosynthesis
ABC transporters
0.00
0.05
0.10
0.15
0.20
0.25
Impact
Pvalue
0.1
0.2
0.3
0.4
Hits
1

Figure 4.

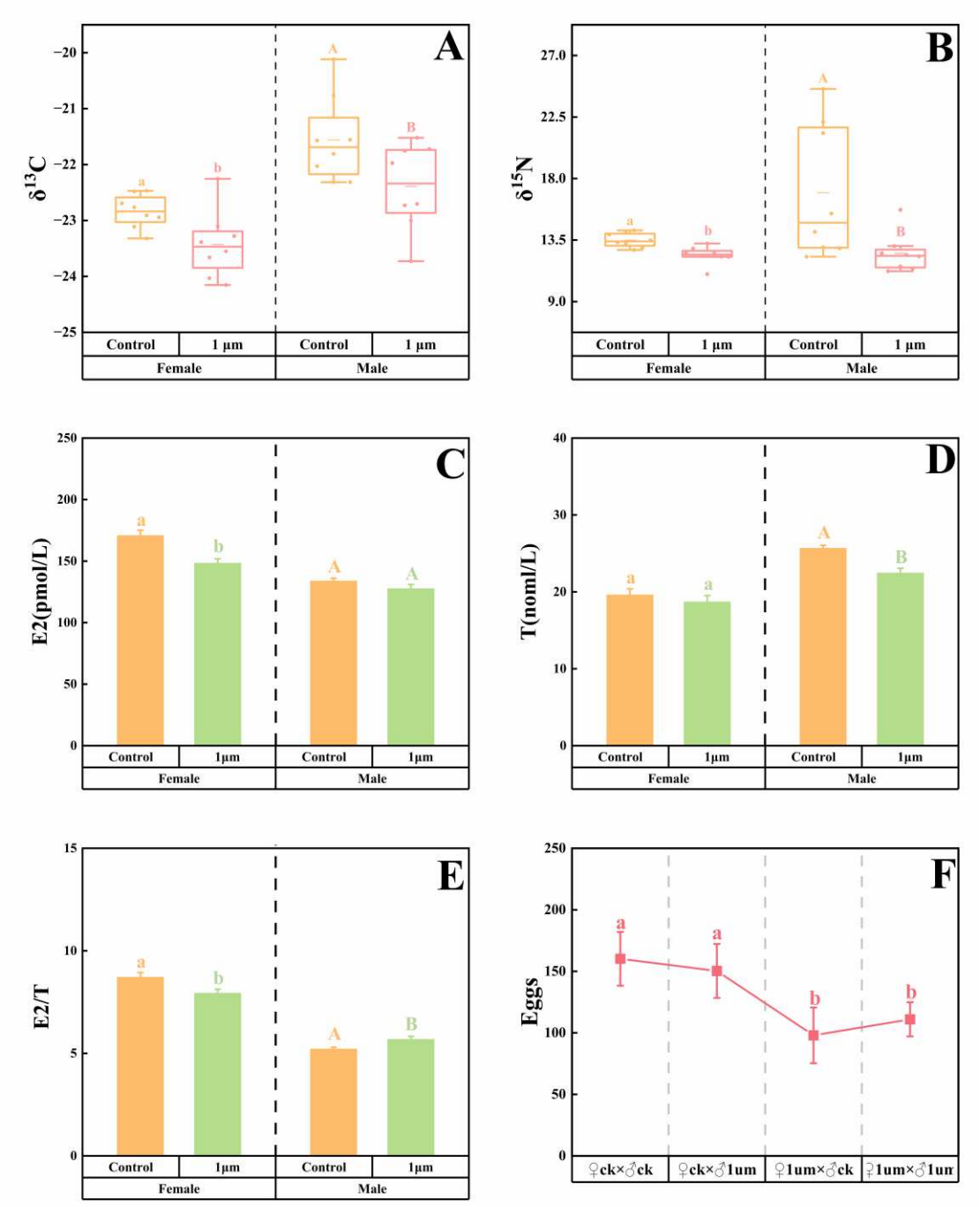
A
B
C
D
E
F
δ13C
δ15N
E2(pmol/L)
T(noml/L)
E2/T
Eggs
Control
1 μm
1μm
Female
Male
♀ck×♂ck
♀ck×♂1um
♀1um×♂ck
♀1um×♂1um

Figure 5.

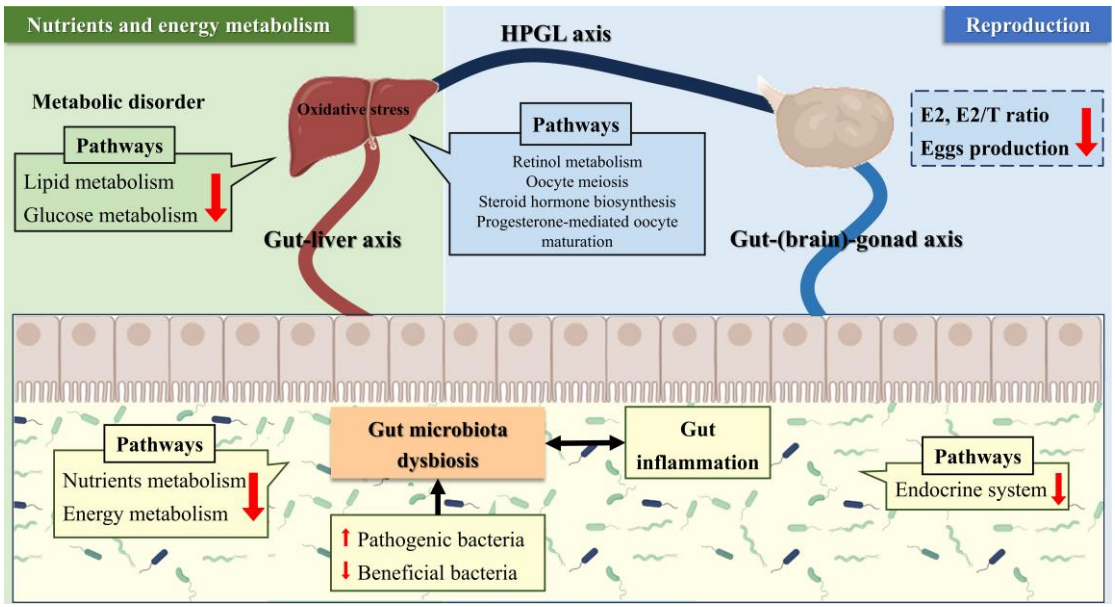

Figure 6. Potential toxicity mechanisms of PS microplastics on gut microbiota, liver metabolism, and reproductive process in females.