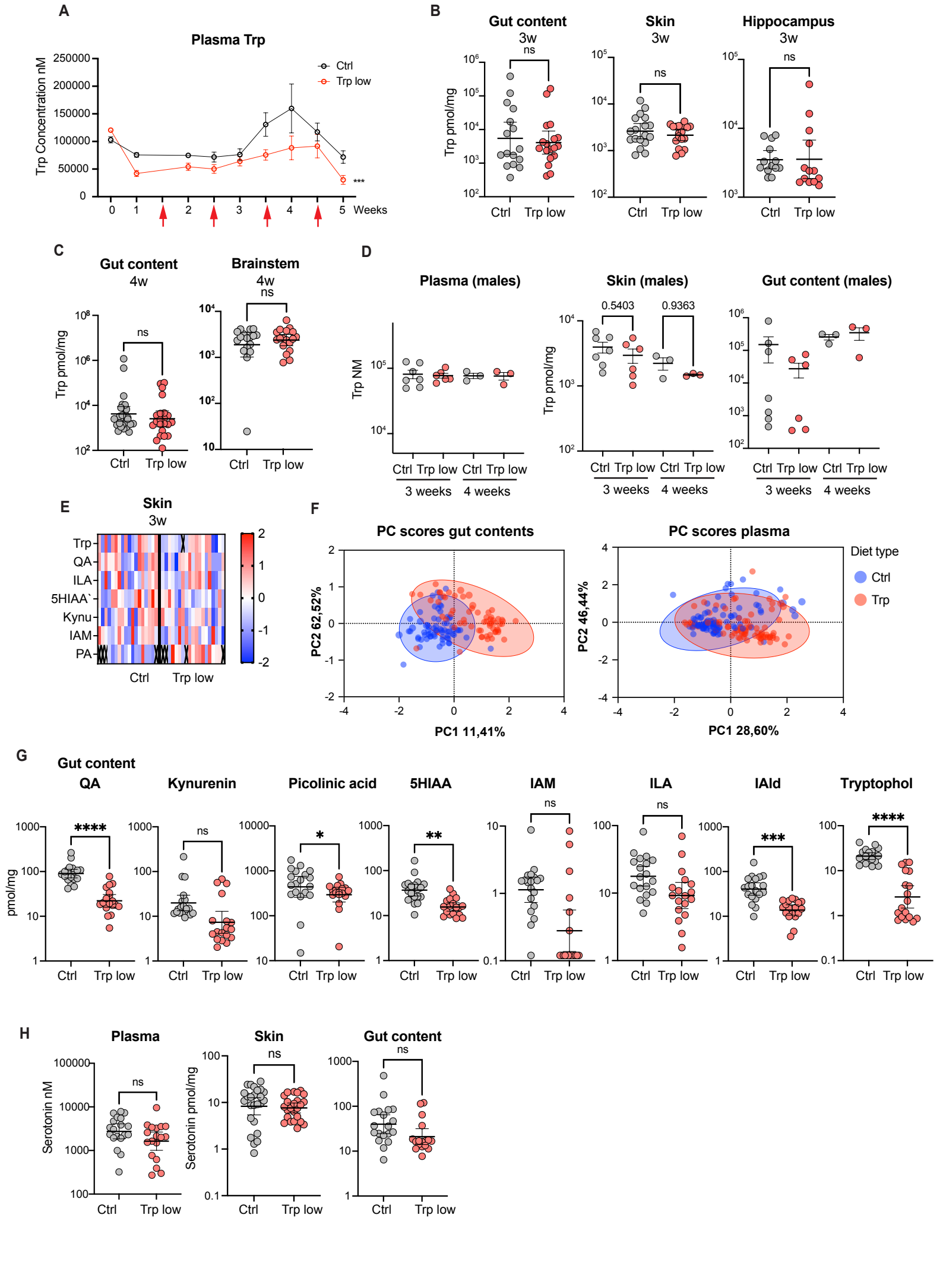
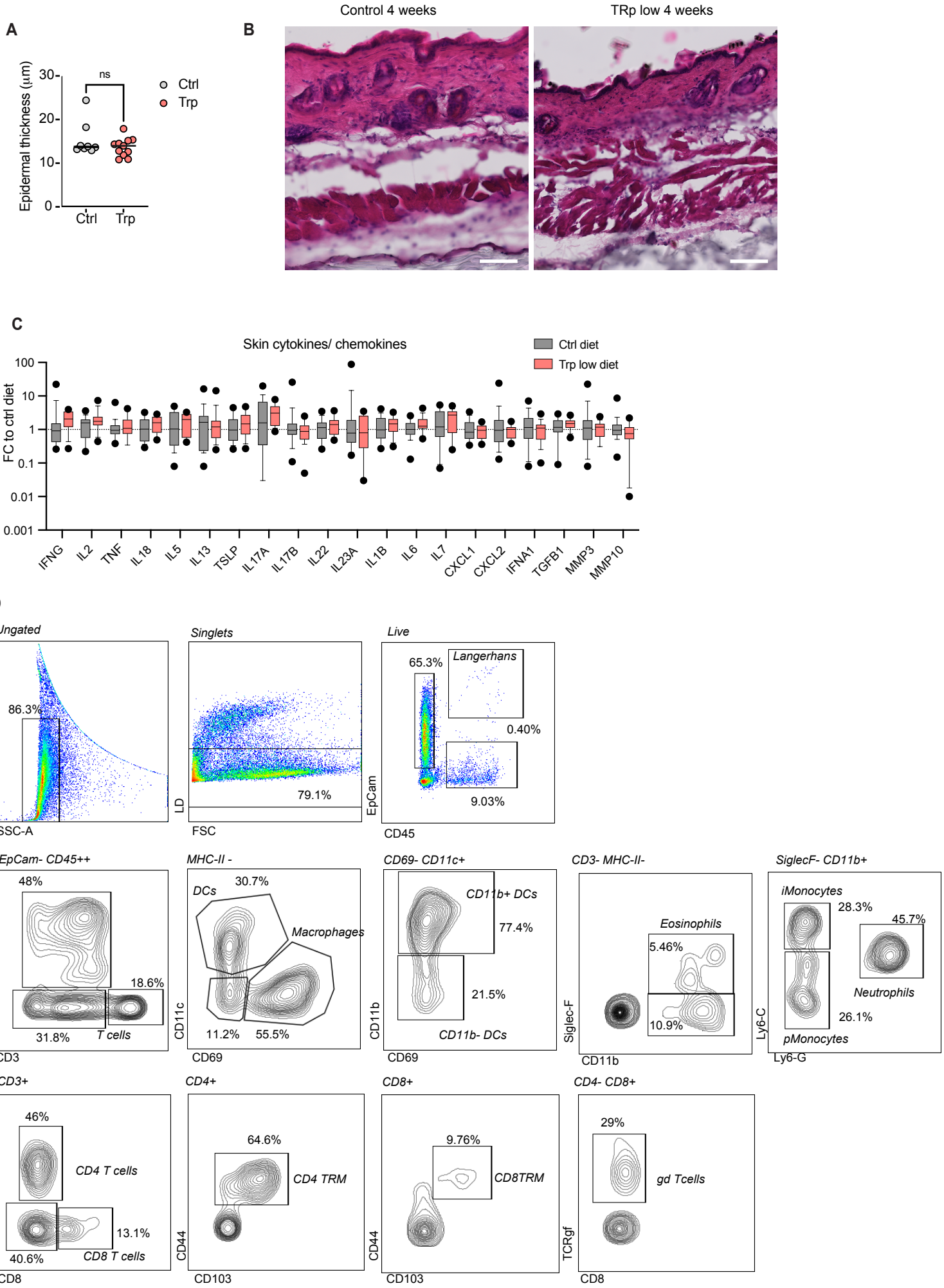
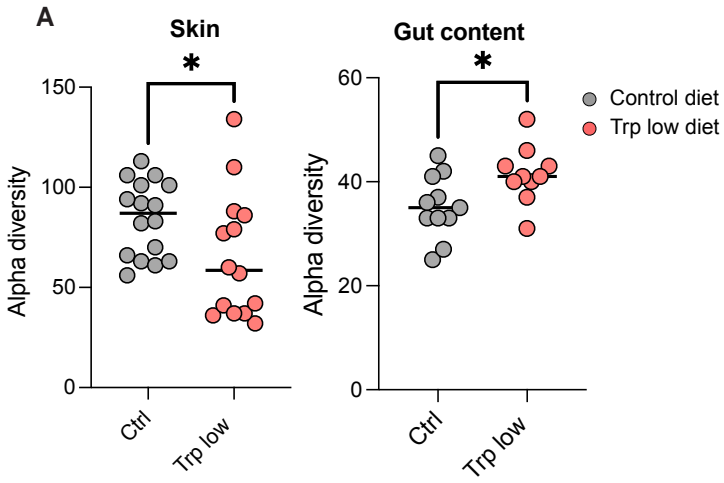
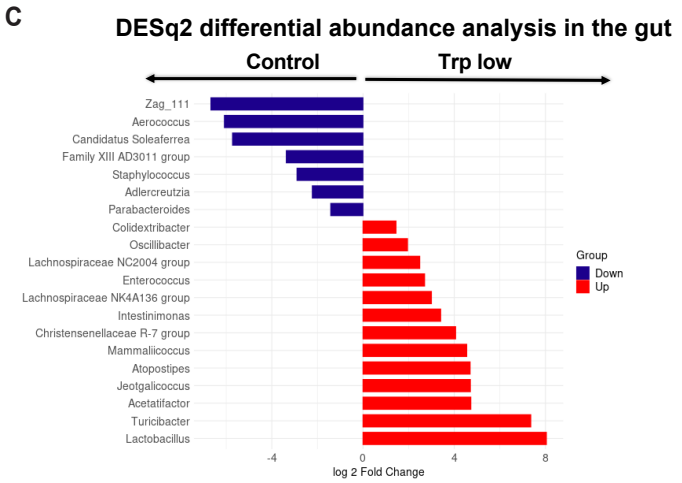
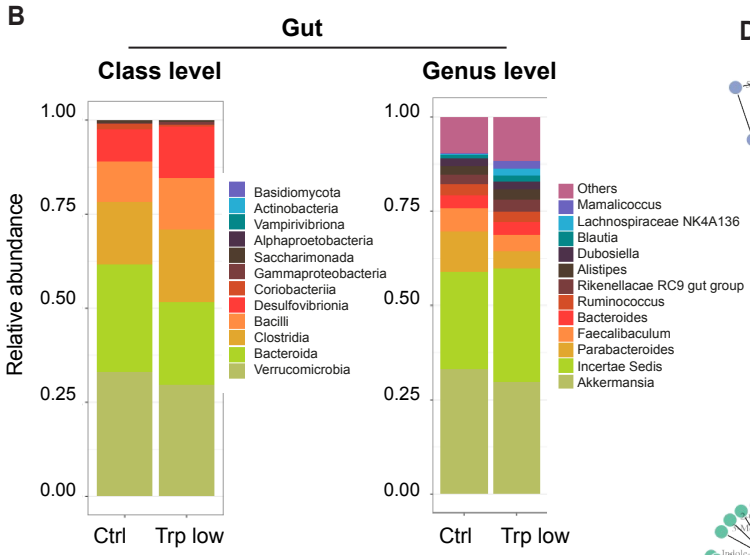

A
Plasma Trp
Trp Concentration nM
Ctrl
Trp low
Weeks
***
B
Gut content
3w
Skin
3w
Hippocampus
3w
Trp pmol/mg
ns
Ctrl
Trp low
C
Gut content
4w
Brainstem
4w
Trp pmol/mg
ns
D
Plasma (males)
Skin (males)
Gut content (males)
Trp NM
Trp pmol/mg
0.5403
0.9363
Ctrl Trp low Ctrl Trp low
3 weeks 4 weeks
E
Skin
3w
Trp
QA
ILA
5HIAA`
Kynu
IAM
PA
F
PC scores gut contents
PC scores plasma
PC2 62,52%
PC1 11,41%
PC2 46,44%
PC1 28,60%
Diet type
Ctrl
Trp
G
Gut content
QA
Kynurenin
Picolinic acid
5HIAA
IAM
ILA
IAld
Tryptophol
pmol/mg
****
ns
*
**
***
H
Plasma
Skin
Gut content
Serotonin nM
Serotonin pmol/mg

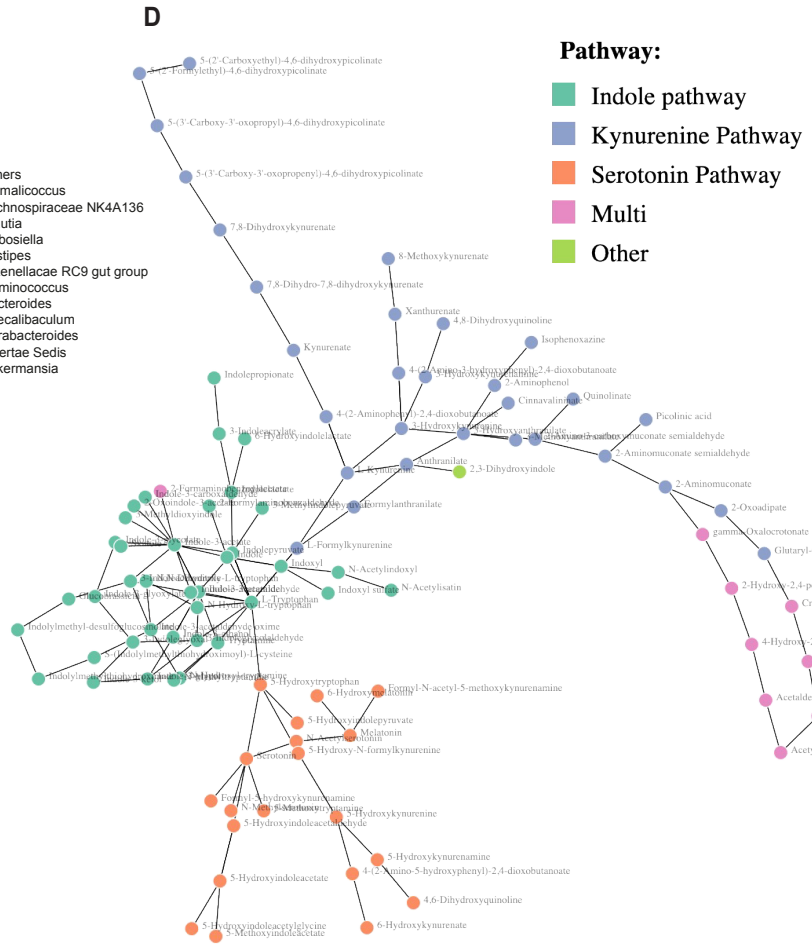
**Supplemental Figure 2**




A
Skin
Gut content
Alpha diversity
Ctrl
Trp low
Control diet
Trp low diet


C
DESq2 differential abundance analysis in the gut
Control
Trp low
Zag_111
Aerococcus
Candidatus Soleaferrea
Family XIII AD3011 group
Staphylococcus
Adlercreutzia
Parabacteroides
Colidextribacter
Oscillibacter
Lachnospiraceae NC2004 group
Enterococcus
Lachnospiraceae NK4A136 group
Intestinimonas
Christensenellaceae R-7 group
Mammaliicoccus
Atopostipes
Jeotgalicoccus
Acetatifactor
Turicibacter
Lactobacillus
Group
Down
Up
log 2 Fold Change


B
Gut
Class level
Genus level
Relative abundance
Ctrl
Trp low
Basidiomycota
Actinobacteria
Vampirivibrionia
Alphaproteobacteria
Saccharimonada
Gammaproteobacteria
Coriobacteriia
Desulfovibrionia
Bacilli
Clostridia
Bacteroida
Verrucomicrobia
Others
Mamalicoccus
Lachnospiraceae NK4A136
Blautia
Dubosiella
Alistipes
Rikenellacae RC9 gut group
Ruminococcus
Bacteroides
Faecalibaculum
Parabacteroides
Incertae Sedis
Akkermansia


D
Pathway:
Indole pathway
Kynurenine Pathway
Serotonin Pathway
Multi
Other