

# Metagenomics Pipeline

Illumina Reads  
6 Obese Controls  
6 Obese Metformin

## MetaWRAP: QA/QC

Adapter removal  
Quality trimming  
Host sequence removal

High-quality reads

## MetaPHIAN3

## HUMAnN3

Taxa abundances

Functional pathway abundances

LEfSe

Differential abundance

Taxa abundance table

Functional Pathway abundance table

Beta diversity with taxa loadings

## DEICODE

Aitchison PCA plot (unsupervised)

Multinomial regression

## Songbird

Taxa ranks associated with metformin treatment (Supervised)

Beta diversity with pathway loadings

## DEICODE

Aitchison PCA plot (unsupervised)

Multinomial regression

## Songbird

Pathway ranks associated with metformin treatment (Supervised)

Visualize taxa ranks

## Qurro

Unsupervised taxa rankings

Visualize taxa ranks

## Qurro

Supervised taxa rankings

Visualize pathway ranks

## Qurro

Unsupervised pathway rankings

Visualize pathway ranks

## Qurro

Supervised pathway rankings

Contributinal diversity

