Figure 2. Bacterial Communities and Function

```
knitr::opts_chunk$set(fig.path="./Figures/")
#setwd("/Users/vilkal/work/Brolidens_work/Projects/Gabriella_repo/reports/rmarkdown/manuscript")
```
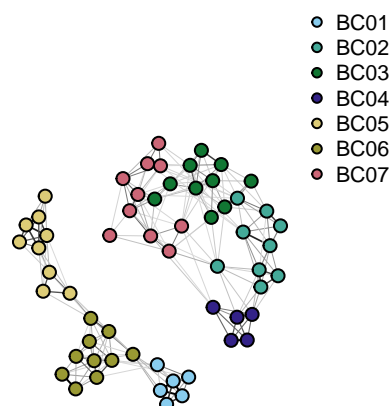
```
## [[1]]
## NULL
##
## $'#0072B2'
## NULL
##
## $'#009E73'
## NULL
##
## $'#D55E00'
## NULL
##
## $'#CC79A7'
## NULL


## [[1]]
## NULL
##
## $'#0072B2'
## NULL
##
## $'#009E73'
## NULL
##
## $'#D55E00'
## NULL
##
## $'#CC79A7'
## NULL


## [[1]]
## NULL
##
## [[2]]
## NULL


## [1] ""
```
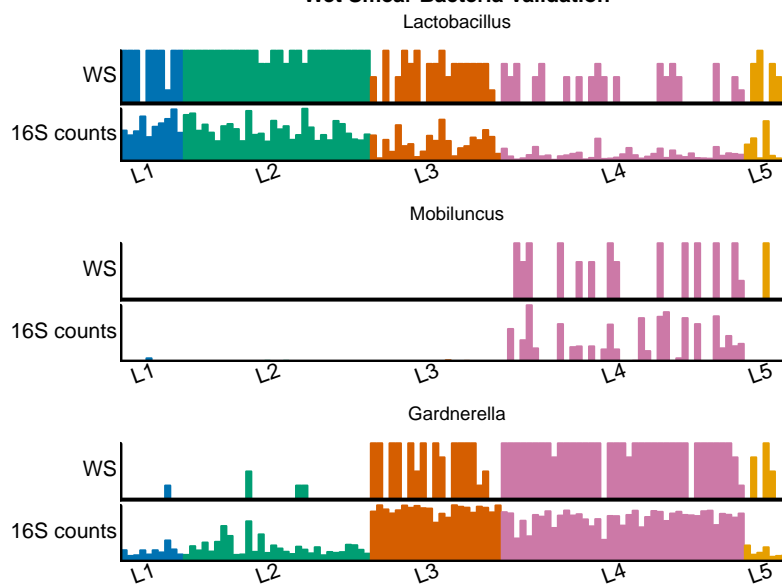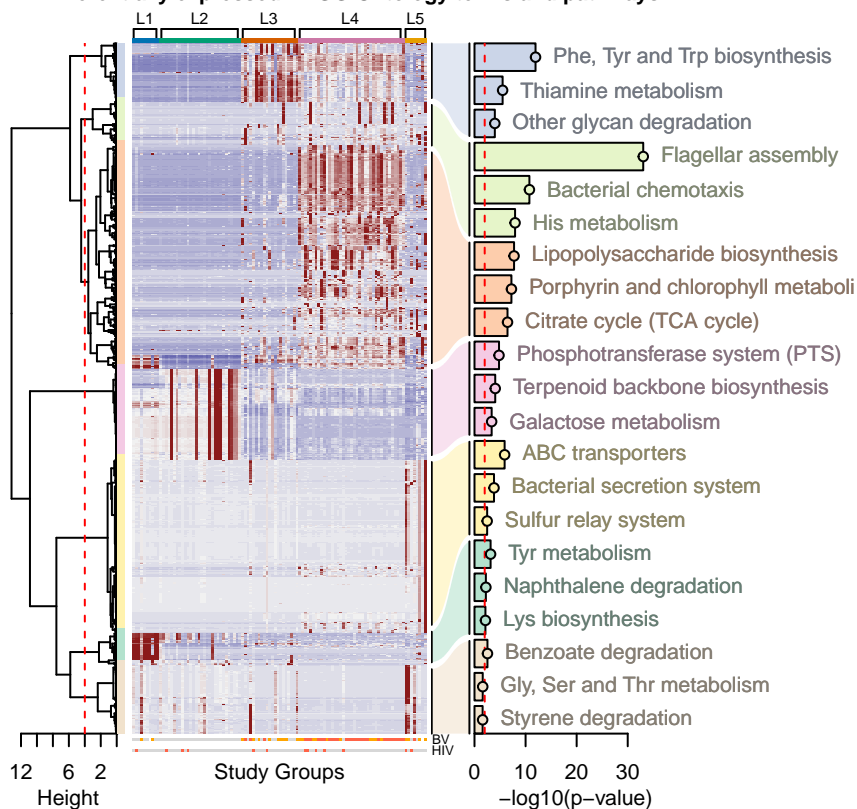
a
Bacterial Communities– Louvain

- BC01
- BC02
- BC03
- BC04
- BC05
- BC06
- BC07

b
Wet Smear Bacteria Validation

Lactobacillus

WS
16S counts

L1 L2 L3 L4 L5

Mobiluncus

WS
16S counts

L1 L2 L3 L4 L5

Gardnerella

WS
16S counts

L1 L2 L3 L4 L5

c
Differentially expressed KEGG Ontology terms and pathways

L1 L2 L3 L4 L5

- Phe, Tyr and Trp biosynthesis
- Thiamine metabolism
- Other glycan degradation
- Flagellar assembly
- Bacterial chemotaxis
- His metabolism
- Lipopolysaccharide biosynthesis
- Porphyrin and chlorophyll metaboli
- Citrate cycle (TCA cycle)
- Phosphotransferase system (PTS)
- Terpenoid backbone biosynthesis
- Galactose metabolism
- ABC transporters
- Bacterial secretion system
- Sulfur relay system
- Tyr metabolism
- Naphthalene degradation
- Lys biosynthesis
- Benzoate degradation
- Gly, Ser and Thr metabolism
- Styrene degradation

BV
HIV

12 6 2
Height

Study Groups

0 10 20 30
−log10(p−value)

d
Top Functional Profile– UMAP

- L1
- L2
- L3
- L4
- L5

2