$Broliden_5325$

14 October, 2020

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#Load libraries and other scripts	
#Defining some variables for the analysis	

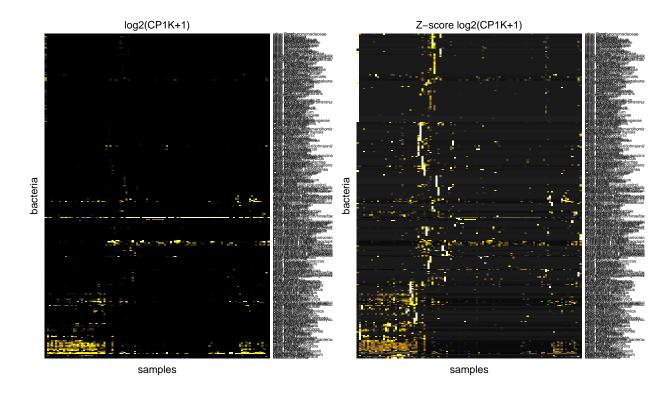
Loading data and metadata

```
## $ASV_tissue_V3_normalized_batch_corrected.csv
## [1] 767 96
##
## $ASV_CVL_V3_normalized_batch_corrected.csv
## [1] 767 111
##
## $ASV_CVL_V2_normalized_batch_corrected.csv
## [1] 767 111
##
## $ASV_CVL_V2_normalized_NOT_batch_corrected.csv
## [1] 767 111
```

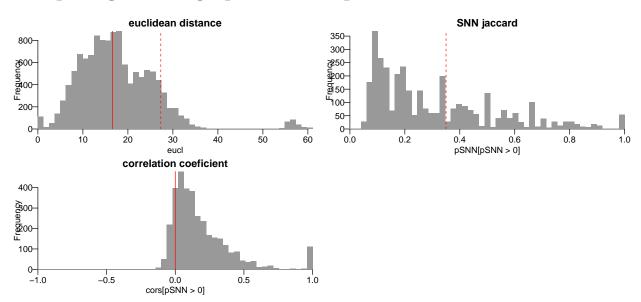
Merging microbiome datasets

Organise the datasets

Organise the datasets



Computing a SNN graph from sample correlations



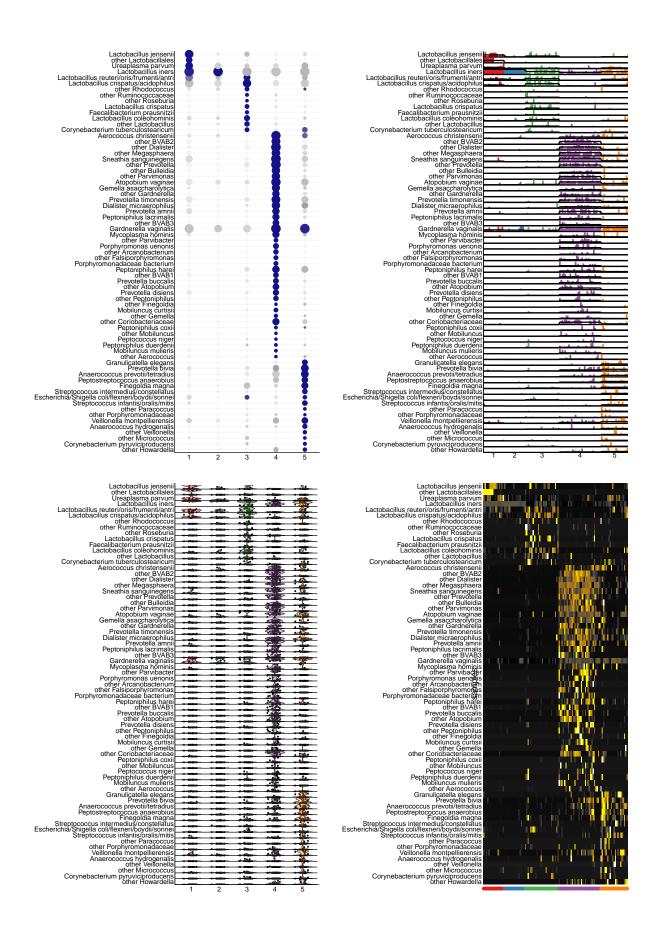
Visualise the data

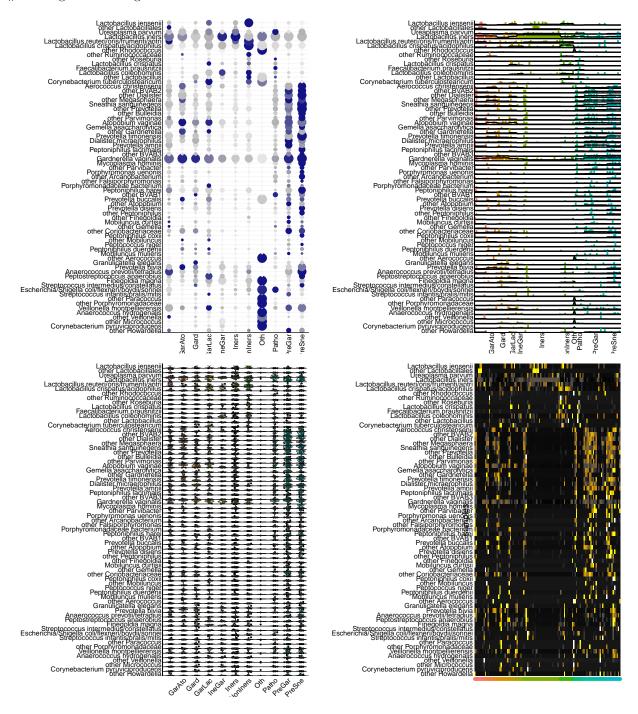


Computing differential expression across clusters

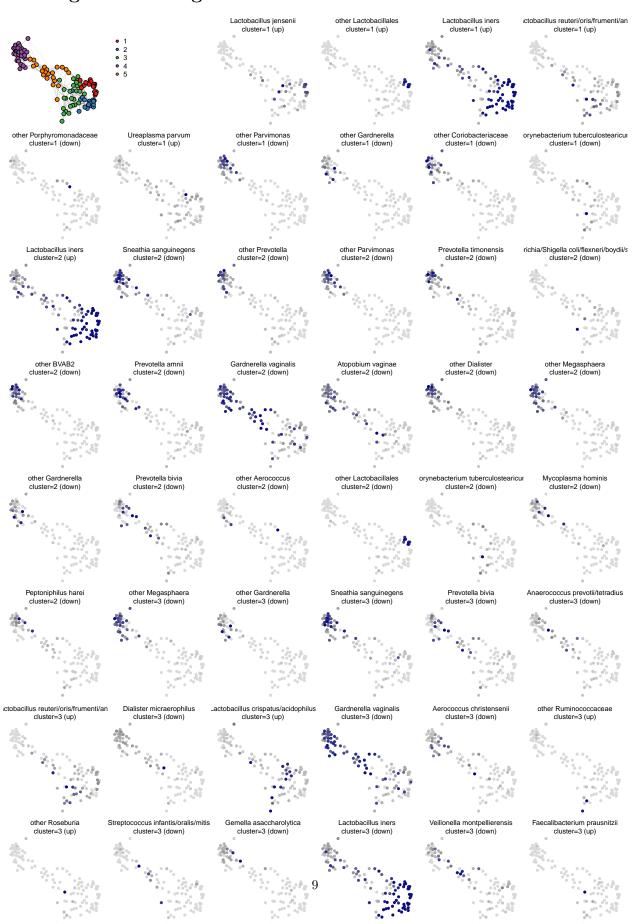
[1] 120 8

 $\# \mbox{Plotting}$ the most significant bacteria across clusters





Plotting the most significant bacteria across clusters



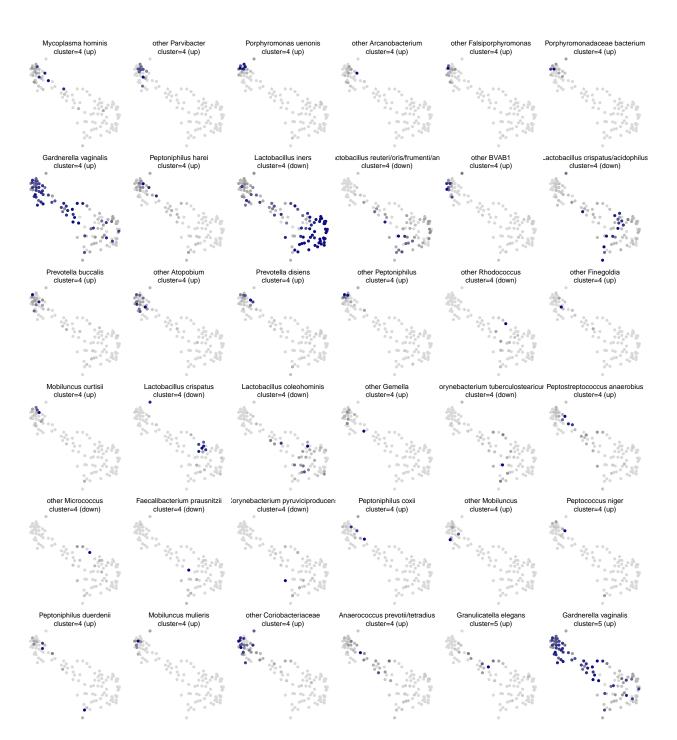
Lactobacillus crispatus

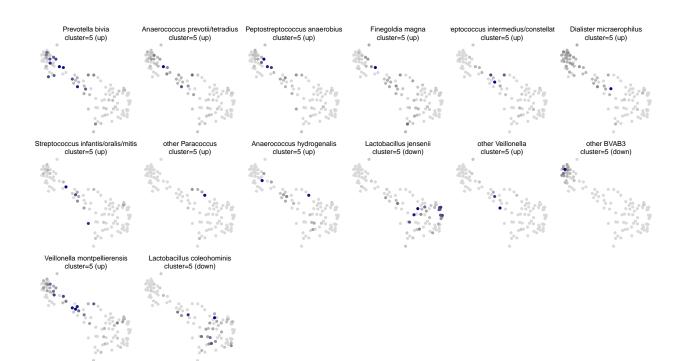
other Lactobacillus

Mycoplasma hominis

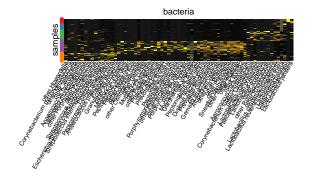
other Howardella

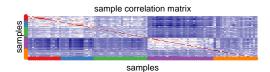
Peptostreptococcus anaerobius





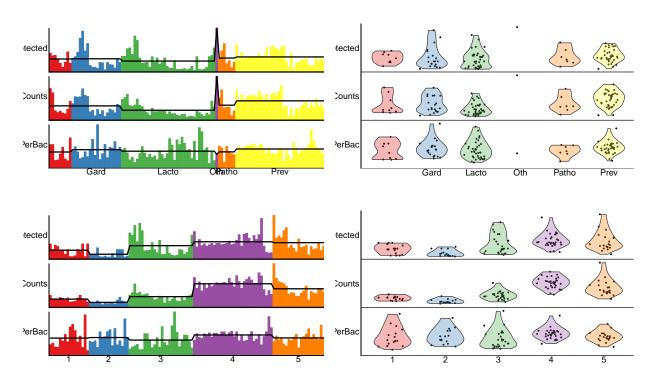
#Plotting bacteria across clusters





[1] -0.01463636

#Plotting bacteria across clusters



##		2					
##	. 1		${\tt Gard}$	${\tt Lacto}$	$0 { t th}$	${\tt Patho}$	Prev
##	1	3	0	11	0	1	1
##	2	1	2	9	0	1	3
##	3	1	8	12	0	2	3
##	4	2	4	2	0	2	22
##	_	2	6	1	- 1	- 1	7

#Plotting bacteria across clusters

 $\# {\it Dataset integration}$