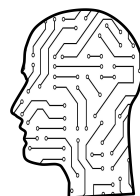


People with HIV



**Gut microbiota 16S
rRNA sequencing
and analysis**

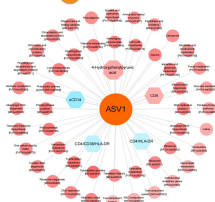


Machine learning

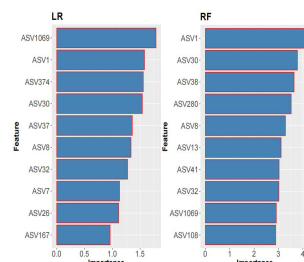
**Detection of gut
metabolites and
blood immune
indices**



Cytoscape



**The interaction of gut microbiota with
immune indices, gut metabolites, and
KEGG functional pathways**



key gut microbiota