

Sequencing reads

Sample 1

Sample s

Sample S

Co-assembly

Contigs

Binning

TNF
+
Coverage

Metagenomic bins

Target bin

Frequencies across samples

1 s S

COG 1

COG n

Resolve
haplotypes

Haplotypes

1 s S

H1

H2

Variable positions on SCSGs

COG 1

COG n

Haplotype number

Deviance

1 2 3 4 5

SCSGs

COG 1

COG n

Accessory genes

H1 H2

v=1

v=2

v=V

	H1	H2
v=1		
v=2		
v=V		