

## Query sequences

(see Table 1)

```
>algX  
MKTRTSRLFRLSA.....  
>algD  
MRISIFGLGYV....  
>algG  
MPDISLSIPRRR.....
```

## Search database

HQ-MAGs

[prokka annotated protein sequences]



## PSI-BLAST search

## Filter hits

(Step 1-3)

>20% identity

Proximity criterion

# query genes and  
essential genes

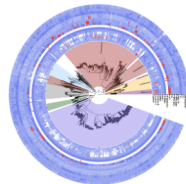
## Domain annotation with InterProScan

(Step 4)

## Visualisation of operons/gene clusters

(Step 5)

**ggtree**



**gggenes**

