

## 1 Antimicrobial resistance identification using ARIBA

No exercises in this section.

## 2 Detect prescence/absence of genes with ARIBA

### 2.1 Exercises

1. How many samples have the fitA gene?

All 3 samples.

2. How many samples have the fbpA gene?

All 3 samples.

## 3 Use a standard AMR database with ARIBA

### 3.1

### 3.2

### 3.3

### 3.4

### 3.5

### 3.6 Exercises

1. Which AMR genes are present in all 3 samples?

Neisseria\_-\_1 (Neisseria\_gonorrhoeae\_16S.3003495.CP020418.1.383737\_385288.4136 and Neisseria\_meningitidis\_16S.3003497.NC\_003112.1.60970\_62514.4137)

mtrA

2. Which AMR genes are absent in sample ERR1067813 but present in the other two samples?

None.

3. Which AMR genes are absent in sample ERR1067814 but present in the other two samples?

PBP1 (Neisseria\_gonorrhoeae\_PBP1.3004833.U80933.1.122\_2519.5846)

gyrA\_3 (gyrA.3003928.AE004969.1.618438\_621189.5269)

parC\_2 (parC.3003929.AE004969.1.1210523\_1212827.5461)

4. Which AMR genes are absent in sample ERR1067815 but present in the other two samples?

None.

## **4 Prepare a custom reference database for ARIBA**

No exercises in this section.

## **5 Run ARIBA using a custom reference database**

No exercises in this section.

## **6 Viewing ARIBA results in Phandango**

No exercises in this section.

## **7 Investigating MIC data**

No exercises in this section.