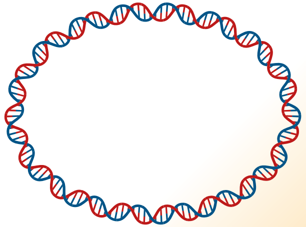
भारत सरकार
GOVERNMENT OF INDIA
विज्ञान और प्रौद्योगिकी मंत्रालय
MINISTRY OF SCIENCE AND TECHNOLOGY
जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY
सत्यमेव जयते

Genome Announcement: *Enterococcus faecium*

Accession#ERS21332721 (ENA)
INS0004990 (INDA)

BRIC
A DBT Organisation
thsti

1. Genome Sequencing

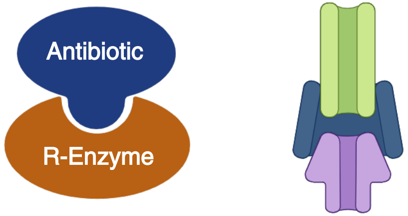


BRIC-THSTI presenting the whole genome sequence of ***Enterococcus faecium*** isolated from the India urban wastewater.

2. Analysis

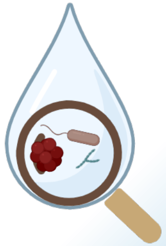
This genomic analysis reveals information related to resistance mechanism, genetic adaptability and potential pathogenicity.

3. Insights



The insights of the ***Enterococcus faecium*** showing multi drug resistance including aminoglycosides, β-lactam, macrolide, tetracyclin.

4. Translation



Genomic surveillance of *E. faecium* in wastewater can tract the spread of antibiotic resistance strains in hospital and community settings

Enterococcus faecium: 'An Exploiter' bridging the gut and organic decay

भारत सरकार
GOVERNMENT OF INDIA

विज्ञान और प्रौद्योगिकी मंत्रालय
MINISTRY OF SCIENCE AND TECHNOLOGY

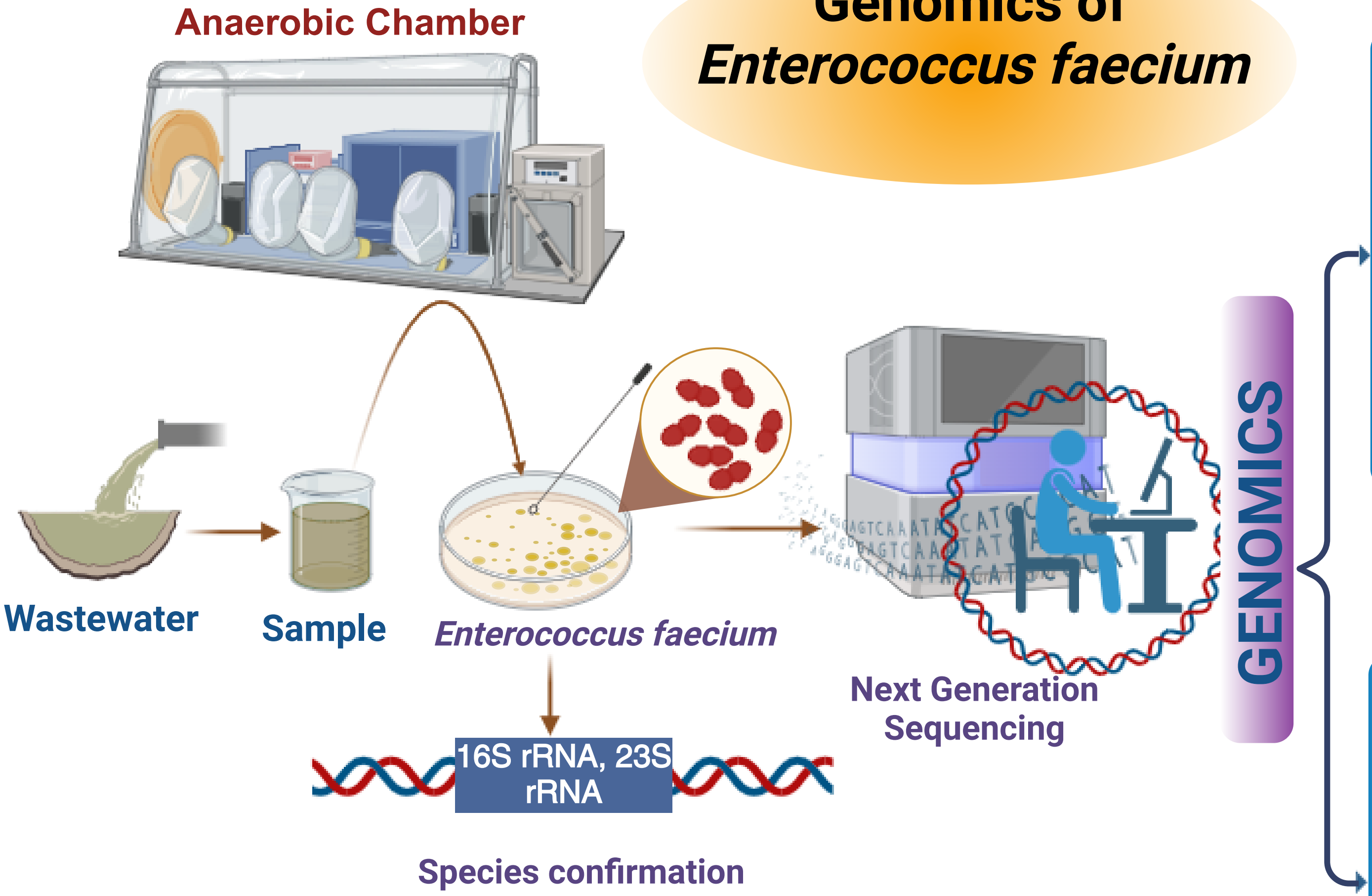
जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY

सत्यमेव जयते

BRIC
A DBT Organisation

thsti

Genomics of *Enterococcus faecium*



Anaerobic Chamber

Wastewater

Sample

Enterococcus faecium

16S rRNA, 23S rRNA

Species confirmation

Next Generation Sequencing

GENOMICS

Genome characteristics

Genome size: 2.95mb
GC percent: 38%
CDS: 2822
Plasmid: repU *(tetM)*
rRNA=8, tRNA=64

Important Functions

AMR genes: *aac(6') aph(3') erm, msrC tetM van*