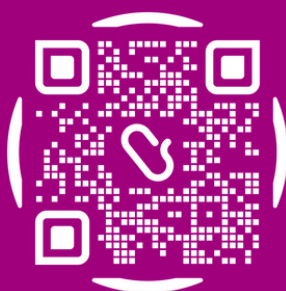# ABRomics
ANTIBIORESISTANCE

An online community-driven web platform to scale up and improve surveillance and research on antibiotic resistance from a One Health perspective

WHY ABROMICS?

Antimicrobial resistance (AMR), i.e. the capacity of microbes to resist drugs they were initially susceptible to, is today a major threat to health. Antibiotic Resistance Genes (ARGs) can spread widely across humans, animals and the environmental domains, transcending borders. Recent evidence showed that AMR kills more people than HIV, tuberculosis or malaria and should be considered as a top priority for research.

In response to this urgent global challenge, France has launched a national Priority Research Programme (PPR) focused on antibiotic resistance. Interdisciplinary research projects and infrastructures have been founded since 2019 of which the ABRomics platform: started in november 2021, this structuring project is an answer to the need of a national portal allowing interoperability of (meta)genomic and analysis tools for the surveillance and the research in antimicrobial resistance in a One Health context.

ABRomics is open to registered users, and allows them to upload their data and analyze them with the ABRomics pipelines. The platform is currently in active development, and new features are added regularly.

To learn more

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The ABRomics Consortium ABRomics gathers a large and multidisciplinary consortium of 43 teams belonging to the main French research organizations.

It covers the diversity of ABR research in clinical and fundamental fields, mathematical modeling methods and the whole range of expertise in computer science, bioinformatics, database and computer architecture.

OBJECTIVES

1 Provide an open access to genomic and metagenomic analyses through standardised and controlled pipelines and an up-to-date set of mathematical and bioinformatic tools

2 Built a repository of structured, interoperable, standardized and well-annotated multi-omics microbiological data from human, animal and environmental origin

3 Provide a shared platform to strengthen the surveillance and research onantibiotic resistance

SERVICES

Explore
Discover global antimicrobial resistance patterns through our interactive visualization tools

Collaborate
Share and compare genomes in ABRomics

Analysis
Automated detection of AMR genes in bacterial genomes

Upload
Upload bacterial genomes sequencing data and metadata

Discover our platform
https://analysis.abromics.fr