

Bacterial Isolate Characterization via Whole-Genome Sequencing



CosmosID's CLIA-certified NGS Service Laboratories offer end-to-end whole genome sequencing (WGS) and analysis of bacterial isolates.

From cell pellets or DNA, CosmosID carries out both short and/or long-read sequencing to generate high-quality data for the identification and characterization of your bacterial genome.

For bioinformatic analysis, we use an expertly built bioinformatics pipeline which leverages both in-house and open-source tools to answer your study questions with confidence.

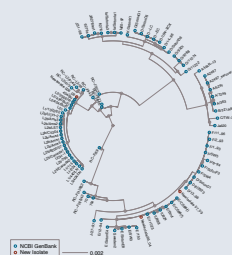
Benefits of Whole-Genome Sequencing

Whole Genome Sequencing (WGS) of bacterial isolates offers unique advantages over traditional typing methods.

Unlike PCR, this affordable technology reveals the complete genetic makeup of an organism and offers unprecedented insight.

A single assay reveals:

- Unambiguous genotyping & taxonomic classification with SNP-level resolution
- Characterization of genes associated with metabolic pathways, Antimicrobial Resistance (AMR) and Virulence Factors (VF)
- Highly accurate depiction of strain relatedness, pathogenesis & transmission
- Supports Regulatory & IP Documentation



Applications



Live Biotherapeutics & Probiotics

- Strain Discovery & Characterization
- IP & Patent Application
- FDA/EFSA/GRAS & Regulatory Support
- Strain Stability Testing - Master & Research Cell Banks
- Strain Stability Testing - Drug Substance & Drug Product



Industrial Applications

- Environmental Monitoring
- Characterization of Bacteria in Enzyme Production
- Food Safety & Spoilage
- Biologicals & Biostimulants in Agriculture
- Water Surveillance

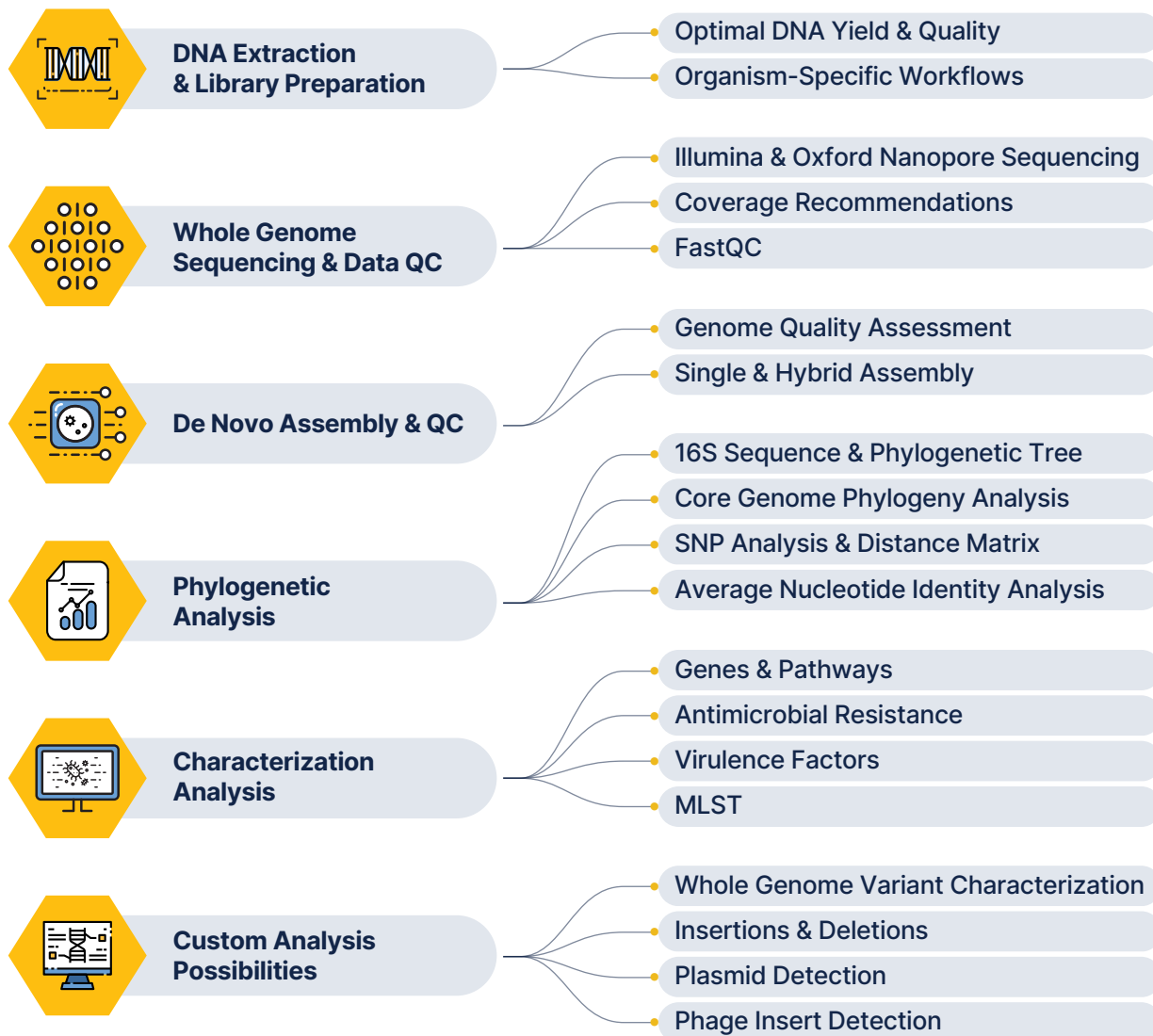


Clinical Microbiology

- Hospital Acquired Infections (HAI) Source Tracking
- Outbreak Control
- Resistance Monitoring
- Novel Organism Characterization



What we deliver?



How it works?

You mail us your isolate cell pellets or isolate DNA.

You select your sequencing technology of choice. Again, our specialists are happy to consult you on your choice.

We return to you your raw NGS data and a comprehensive report. A consultation to walk you through the results is included.

Have a project in mind?
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