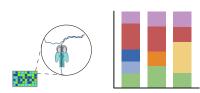
# **Long-read metagenomics Applications**

## **Taxanomy**

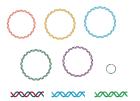
Rapid identification of community structure



- Identification of pathogen types
- Monitoring of the environmental community

### Genome

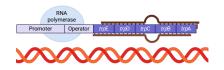
Assembly circlized genome



- Assembly complete genome
- Establish microbiome reference catalogue
- Investigate phylogenomics

#### Gene

Predict gene and elements



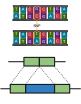
- Recovering full-length biosynthetic gene clusters
- Discovery mobile genetic element

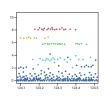
## **Pupulation**

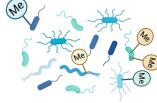
Microbial variation and population heredity



Epigenetic and association







- Structural variation
- Population heterogeneity
- Methylation profile
- Mobile elements-host association
- · Assist Binning