Next generation sequencing platforms are producing biological sequencing data in unprecedented amounts. The DNA Data Bank of Japan (DDBJ) has established the **DDBJ Sequence Read Archive (DRA)** and the **DDBJ Omics Archive (DOR)**. The DRA is intended to be a repository for data from the primary analysis phase of next-generation sequencing. The DOR is an archival database for quantitative genomics data both from microarray and high-throughput sequencing platforms. The DOR archives MIAME- and MINSEQE-compliant data with the MAGE-TAB metadata and export data to the ArrayExpress. The DOR register companion raw data to the DRA instead of submitters. These two public databases of the DDBJ work collaboratively with the National Center for Biotechnology Information (NCBI) and the European Bioinformatics Institute (EBI).

**DOR** : Database for quantitative genomics data.

**DRA** : Database for data from the primary analysis phase of next generation sequencing.

**DDBJ** : Database for annotated sequence data.

**DDBJ Read Annotation Pipeline** : Analytical pipeline performs mapping, assembly, RNA-seq, SNP, structural, functional annotations and so on.

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**Databases and analytical services of DDBJ**

**DDBJ Read Annotation Pipeline**
- **Basic Analysis**
  - Mapping
- **High-level Analysis**
  - Tag counting
  - Small RNAs
  - SNP detection

**Buncher Transcripome Browser**
- [http://togoexp.ddbj.nig.ac.jp/buncher](http://togoexp.ddbj.nig.ac.jp/buncher)

**Next-generation Sequencer**
- Image data

**MiGAP Bacterial Genome Annotation Pipeline**
- [http://migap.lifesciencedb.jp](http://migap.lifesciencedb.jp)

**DDBJ Sequence Data**
- **Contigs** (Overlapping reads)
- **Scaffolds** (Supercontigs)
- **Complete genome**
- **Annotation**

**DDBJ Sequence Read Archive**
- **Raw Data**
  - 454 off illumina seq...
  - fastq

**DDBJ Omics Archive**
- **Quantitative Data**
  - Tag + Count
  - Mapped reads

**CIBEX**
- **D-way e-mail**
- **Meta-data**

**DOR**
- **D-way**
  - **Release at specified date**
  - **Register companion raw data to the DRA**

**DRA**
- **DRA/DOR submission system**
  - **SRA**
  - **Release at specified date**
  - **D-way web upload**

**GenBank**
- **Release at specified date**

**EBI**
- **Release at specified date**

**ArrayExpress**
- **UML-Exp**
- **File Checker**

**Submission system**
- FTP download

**Public fastq data size**

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The DOR archives both array-based and sequence-based quantitative genomics data. The DOR archives the MIAME- and MINSEQE-compliant data with MAGE-TAB metadata. The public DOR data are exported to ArrayExpress. DOR will integrate array-based CIBEX data.

For next-generation sequencing data, the DOR will register corresponding raw data to the DRA instead of submitters.