ORFik

in Bioconductor since 2018

Web API

Automatic download of data

- SRA/DRA/ERA integration
- Ensemble/refseq/ Genebank

Persistence

Collect NGS data and annotation into one simple persistent object

- ORFik.experiment
- Load data instantaneously with .ofst format

Transcript Ranges API

Abstracts Genomic Ranges API for transcripts / ORFs

- aware of strandenes
- frame/library information
- normalizations within/between groups

Quality Control

Quality control of aligned data

- Alignment analysis
- Read-length analysis
- Correlations
- Contamination
- Coverage statistics

Auto-plotting

Seamless plotting of libraries over any number of regions

- Meta-coverage
- Meta-heatmaps
- Sequence plots

Discovery API

Functions to detect effect or regulation

- ORF finding
- TIS finding with CAGE
- Functional ORF metrics
- Differentiation Translation Analysis (deltaTE)
- Stall site detection
- Initiation Context Analysis