

Organisms
with a set of
known
essential
genes for
training

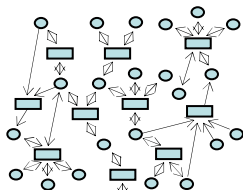


Query
organisms



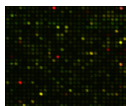
Data Integration

Metabolic Network



Topology based features

- Producibility
- Local net
- Deviations
- Choke points and load scores
- Damages
- Centrality



ATCGAGTTGCAAT
ATCGTGTTATCGG

Genomic and transcriptomic features

- Homologous genes
- Gene expression
- Gene sequences (codon usage)
- Phyletic retention



Statistical
Analysis



Machine
Learning



Performance



Prediction