TREx: Transcriptional Regulation and Expression Facility

Cornell University

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Resources for Biological Discovery from RNAseq Data

R (RStudio) www.rstudio.com windows-style environment for R, Shiny apps

iDEP bioinformatics.sdstate.edu/idep web interface for PCA, clustering, DEgenes (R tools)

Heatmapper www2.heatmapper.ca/expression heatmap with clustering

Panther pantherdb.org GO term, pathway enrichment in DE genes

Nature Protocols: www.nature.com/articles/s41596-019-0128-8

DAVID david.ncifcrf.gov GO term, pathway enrichment in DE genes

Nature Protocols: www.nature.com/articles/nprot.2008.211

Reactome reactome.org pathway enrichment in DE genes, expression overlay

bmcbioinformatics.biomedcentral.com/articles/10.1186/s12859-017-1559-2

GSEA/MSig* software.broadinstitute.org/gsea gene set enrichment across full log2FC

User guide: software.broadinstitute.org/gsea/doc/GSEAUserGuideFrame.html

Ingenuity† www.qiagenbioinformatics.com/products/ingenuity-pathway-analysis/

Tutorials: qiagen.force.com/KnowledgeBase/KnowledgeIPAPage

General Resources for RNAseq

Overview chagall.med.cornell.edu/RNASEQcourse/Intro2RNAseq.pdf

Galaxy usegalaxy.org web-based NGS analysis tools

BRC BioIT biohpc.cornell.edu high-performance servers*, workshops at Cornell

^{*} login required

[†] license required (contact WCM Library: library.weill.cornell.edu/node/1050)