Transcriptomics RNA-seq

microomics®
Small things that matter.

We offer a gene expression level analysis service under different experimental conditions. Additionally, an enrichment analysis is performed to help the interpretation of the results.

The **transcriptome** refers to the set of **RNA molecules** present in a cellular **environment** at a given moment. Most of this RNA originates from the transcription of genes that are active under specific environmental conditions. Transcriptome **sequencing** enables these **active genes** and their **level of expression** to be detected, and helps to determine whether certain metabolic pathways are more or less **enriched** under specific conditions.

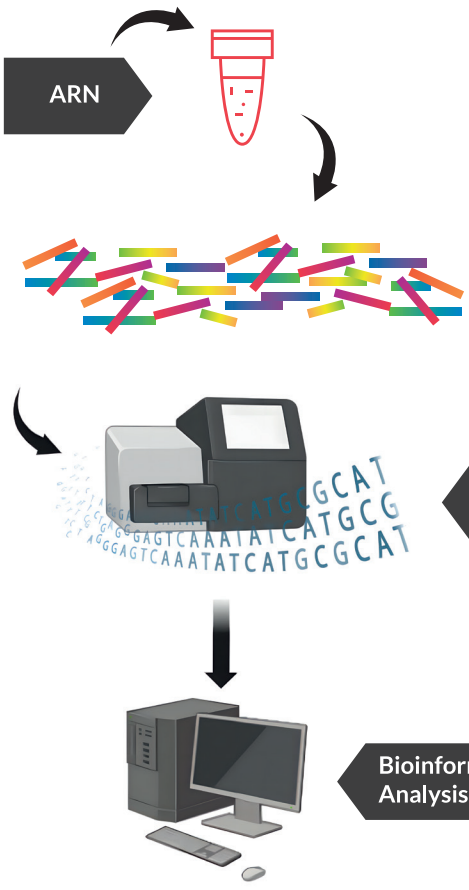
Consultancy and Study Design

Personalized scientific-technical consulting by our transcriptomics experts for:

- Experimental desing
- Sampling
- Project Monitoring
- Results delivery meeting
- Drafting or reviewing publications

Molecular Biology Laboratory

A highly qualified team with extensive experience in metagenomics will carry out:



Sample Quality Control

Sample reception

- Already extracted ARN from 1.000 ng
  - Minimal volume 25 µl
  - Minimal concentration 100 ng/µl
  - Purity: OD260/280 = 2.0-2.2
    OD260/230 = 2.0

Types of Libraries

- Eukaryotic Protocol: selection using poliA tail
- *Low input* Protocol
- Procaryotic Protocol: selection by ribodepletion

Library Quality Control

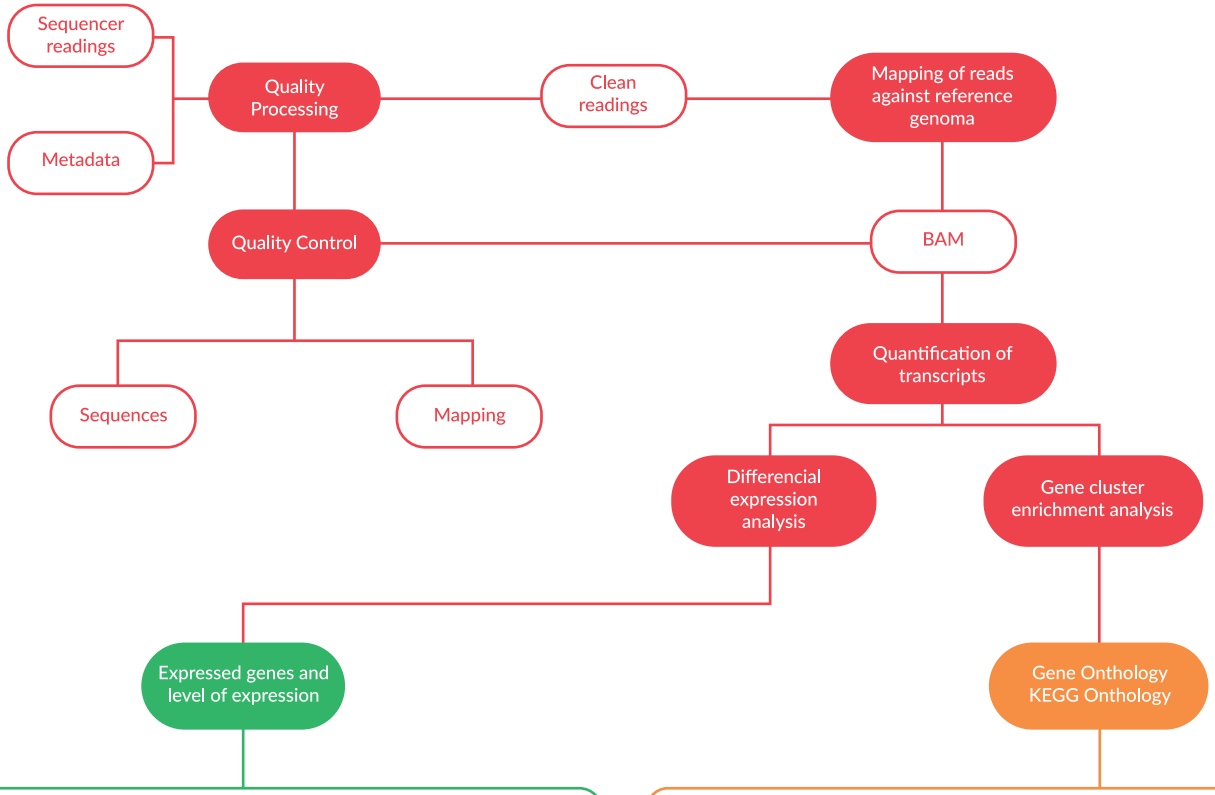
Sequencing

- Illumina NovaSeq 2x150 pb
- 40 million of guaranteed reads (20 M paired-end) per sample

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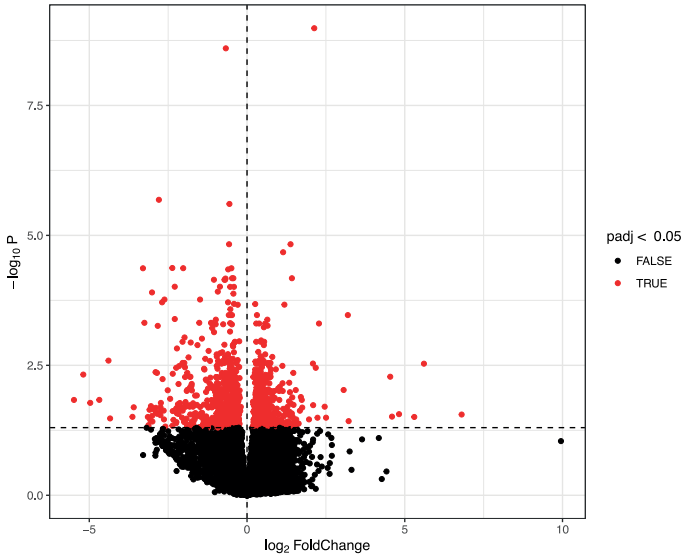
Bioinformatic and Statistical analysis

Our Bioinformatic Department has **pipelines designed to customize each analysis** according to the study's needs, addressing:



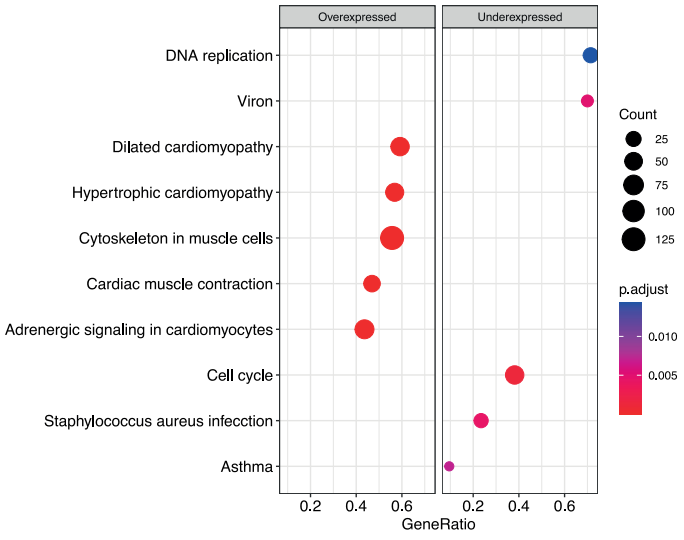
Differencial expression analysis

Identification of differentially expressed genes between the two study groups. The ID of the genes will be according to the available genome annotation.



Enrichment analysis

Enrichment study to detect metabolic pathways that are overexpressed or underexpressed in the two study groups.



Complementary services

Customized bioinformatics analysis: bioinformatics analysis consulting service, **which includes 2 hours of post-delivery analysis in any complete study.**

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