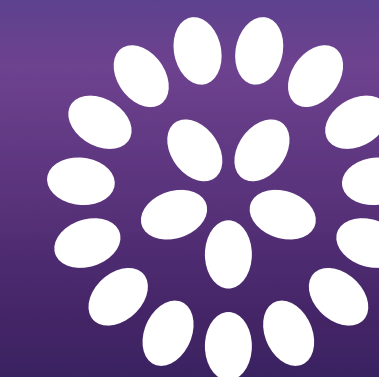


FAIRY – FAIRification of YEASTRACT+ to Support Yeast-based Bioeconomy and Health



OSCAR

Open Science Clusters' Action
for Research & Society

The FAIRY project focuses on enhancing YEASTRACT+, a widely used open-access FAIRsharing Knowledge-base and repository, that supports research on yeast transcriptional regulation. FAIRY aims to significantly advance scientific understanding of yeast regulatory networks and improve the platform by integrating advanced data analysis tools, ensuring compliance with FAIR principles.



LSRI
Life Sciences

Challenge

Despite YEASTRACT+'s role as a leading resource for yeast transcriptional regulation, it currently lacks quantitative gene expression data. Moreover, many yeast species in the database remain poorly characterised, while many yeast species remain understudied.

Solution

FAIRY will develop and integrate tools for quantitative transcriptomics analysis within YEASTRACT+, allowing researchers to identify regulatory interactions and assess their quantitative impact on gene expression levels. It will rely on the Galaxy Europe platform for raw data curation, deploying machine learning models trained on cross-species regulatory data

Scientific Impact

By offering ready-made predictions on how genes are regulated and how yeast cells process nutrients, the project will make it easier for scientists to reuse the data, speeding up research in designing better yeast strains for industry and finding new antifungal drug targets.

Partners

INESC-ID Lisboa, Instituto Superior Técnico - Universidade de Lisboa

<https://www.oscars-project.eu/projects/fairy-fairification-yeastract-support-yeast-based-bioeconomy-and-health>