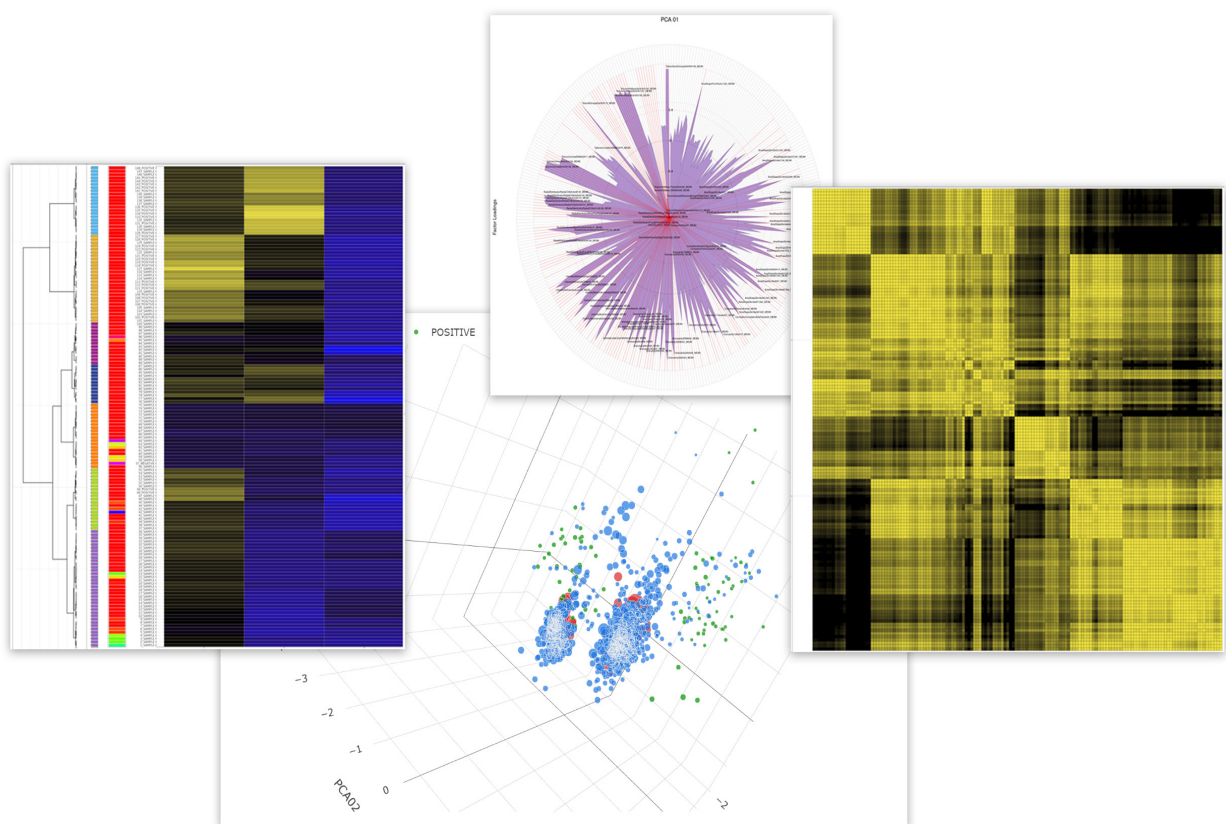# StratoMineR™

Intuitive Data Analytics for Biologists

Core Life Analytics

Intuitive and Powerful Data Analytics

StratoMineR is a cloud-based data analysis tool that helps scientists to independently analyze their high-content data. Its intuitive workflow allows the non-expert to explore their large and complex datasets, and mine them for biological insight. Rich visualizations are then ready to be exported.

Built for Biologists
Let StratoMineR guide you through a best-practice analysis work-flow, easily using complex statistical analyses. No coding required.

Reduce Complexity
StratoMineR helps you focus on what is important, by removing redundant data, and reducing the dimensionality of the remaining data.
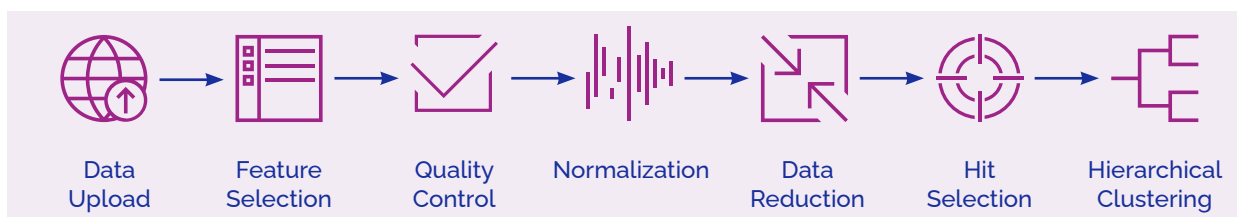
Sophisticated Visualizations
Generate rich and interactive visualizations, such as 3D scatterplots, hierarchical clustering visualizations, and heat maps.

Collaborate
Project management tools enable you to collaborate with your colleagues and ensure consistency and reproducibility across your experiments.

Workflow

Data Upload → Feature Selection → Quality Control → Normalization → Data Reduction → Hit Selection → Hierarchical Clustering
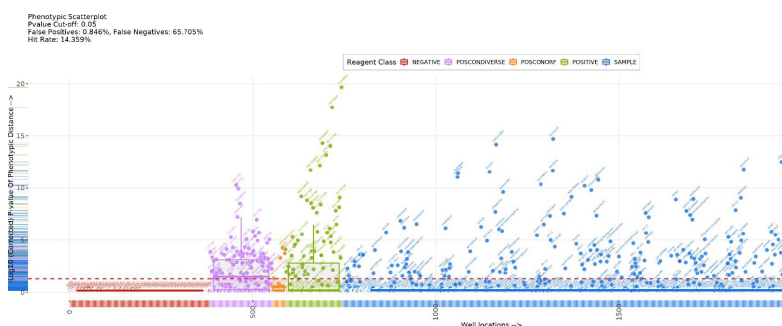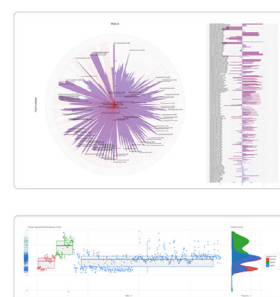
Data reduction

Reduce the complexity of your data using principal component or common factor analysis. Generate Scree plots (left) to determine the right number of factors, and polar plots (right) to visualize the individual factors.
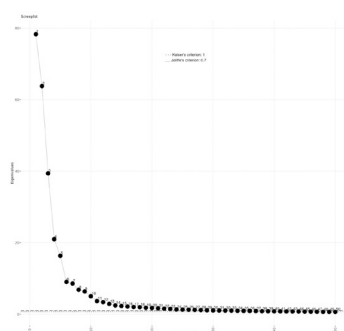

Polar Plot Factor 01

Hit Selection

Phenotypic distance scores are then calculated based on the selected principal components. These are used to determine how different a certain phenotype is from the negative control (red).
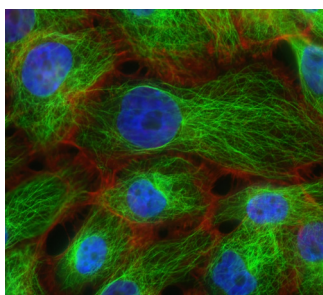

Hierarchical Clustering

Then identify hierarchical relationships and clusters of similar phenotypes using hierarchical clustering, This could for example be used to find compounds with similar mechanisms of action.
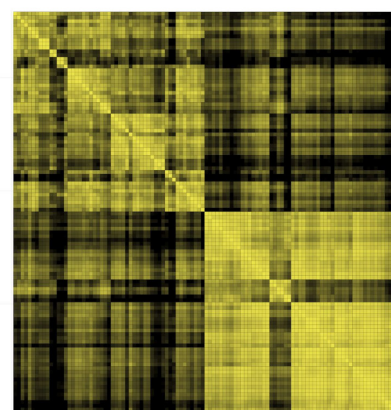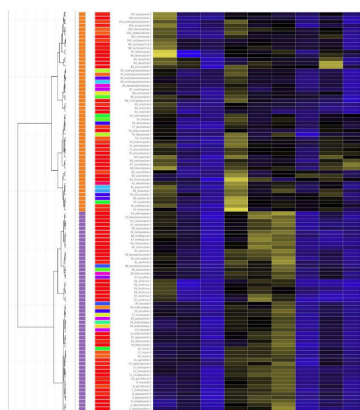
Common Applications

Cell Painting

Cell Painting is a powerful phenotypic profiling tool. Using six fluorescent dyes - revealing eight cellular components or organelles - this technique allows users to characterize rich cellular profiles. Let StratoMineR help you analyze these complex datasets, and see the biology emerge. This information can then be used to gain valuable insights into for example mechanism of action.
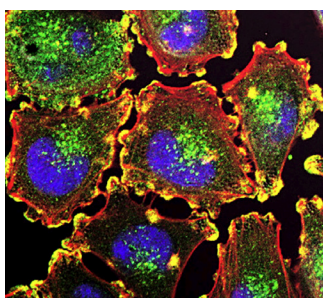
Toxicology

The emergence of unexpected toxicities is a drug development program leader's worst nightmare. Use phenotypic profiles obtained in physiologically relevant *in vitro* assay platforms to predict a compound's toxicity and mechanisms of action in a preclinical setting.

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