UniApp quarterly update: Meta-interaction analysis, gene and enhancer lolliplots, dataset engineering algorithms, improved UI & UX and more

UniApp release note | July 2024

Summer is here, and the Unicle team has been working tirelessly to bring you a wave of exciting updates. Contact us for a live demonstration and to brainstorm how these upgrades could benefit your project!

Key metrics

4 New algorithms

Allowing you to merge, integrate, feature engineer and correlate your datasets

57 deployed upgrades

Upgrades include enhancements for plotting speed, pivot table module stability and label clarity

4 hours

To map your ambitions onto tech possibilities

Maximize benefit

Contact us to learn about these new functionalities and how to leverage them maximally

How to get started

- Meta-interaction analysis
- Gene & enhancer lolliplot
- Merging
- Integration
- Feature engineering
- Save a new plot
- Reopen pivot table plot

Find out more on how we accelerate biomedical research on Unicle.com

New and improved functionality

1. **Meta-interaction analysis:** Identify and visualize relationships in gene expression between different cell types across multiple datasets using regression lines.
2. **Gene and gene enhancer lolliplots:** Visualize gene structure, variant information, and enhancer binding locations and customize their details using the pivot table.
3. **Dataset merging:** Effortlessly combine data and metadata from multiple scRNA-seq datasets into one unified dataset.
4. **Integration:** Remove batch effects from your scRNA-seq dataset for visualization and clustering.
5. **Feature engineering:** Transform your gene-by-observation matrix into a gene set-by-observation matrix for a gene set-centered analysis of your data.
6. **Save a new plot:** Save the current customized plot visualization in the interactive plot page as a new plot in your track.
7. **Reopen pivot table plot:** Reopen exported plots in the pivot table to modify them again.
8. **Project-focused landing page:** A simplified design for easy exploration of public data portals, Unicle's analysis templates, and quick access to your recent projects.
9. **Overall improvements:** Improved loading times for GSEA and marker gene results, enhanced color-coding options for pivot table plots, enhanced plot burst functionality.

Outlook next quarter update

1. **Data driven project page:** We plan to release a project page with an improved UI that enables seamless data-driven storytelling while keeping the scientific narrative of the project as the main focus
2. **Rerun analyses:** Easily rerun your analyses with updated settings