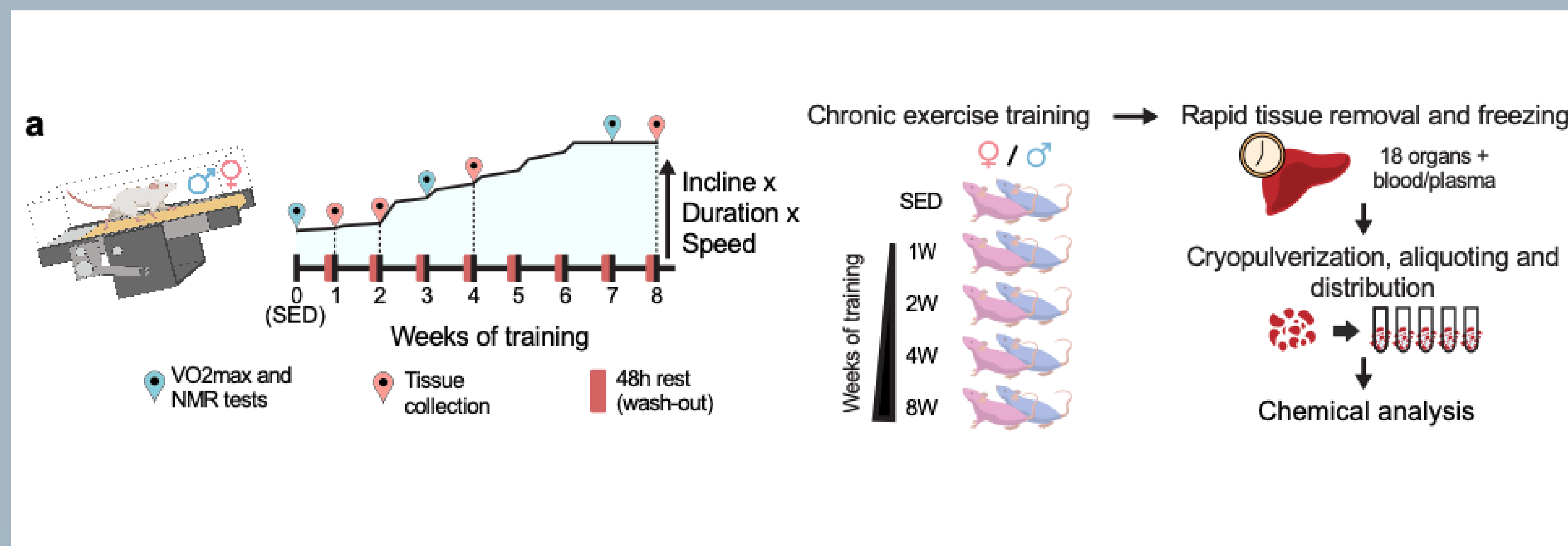
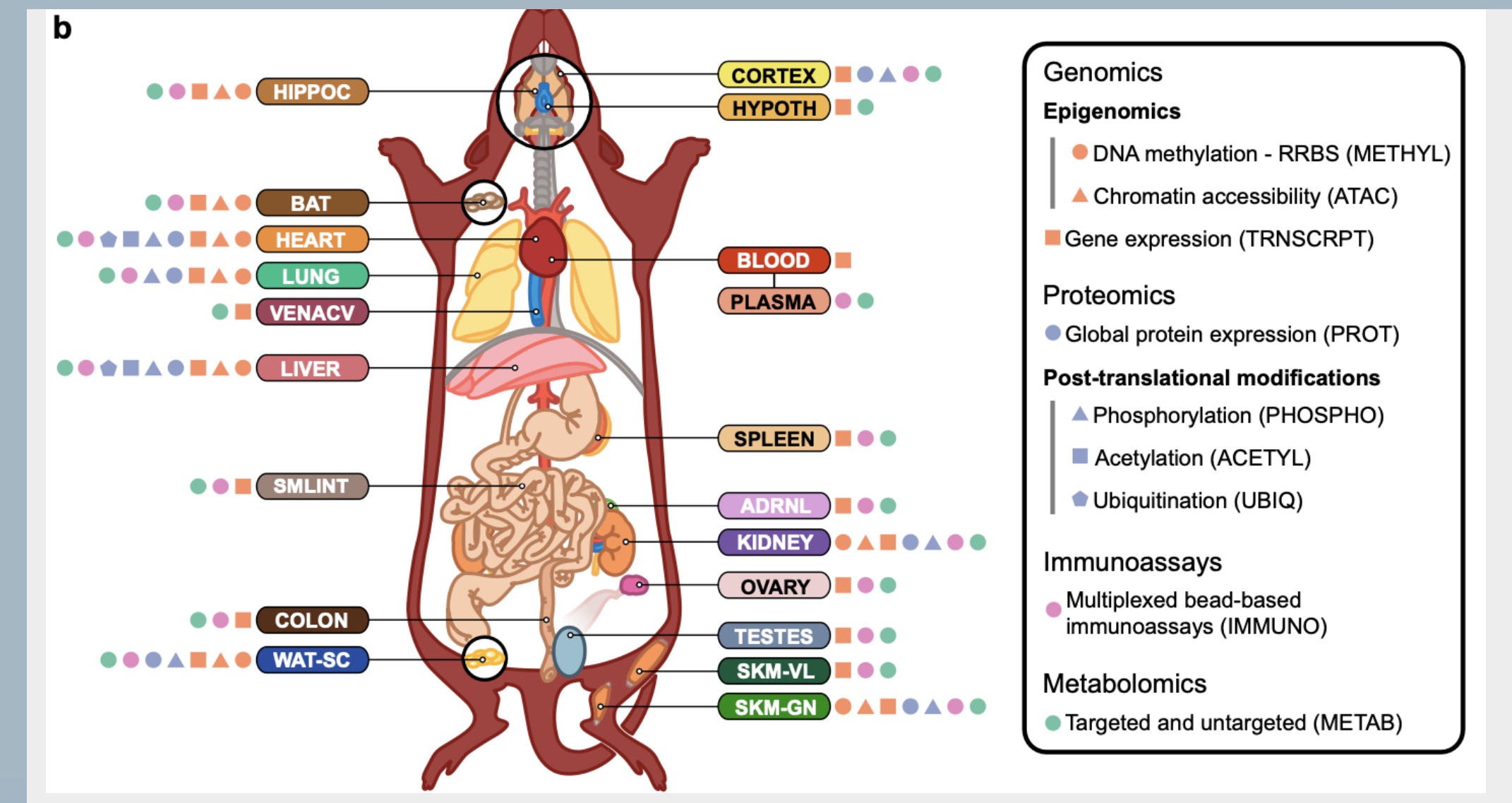




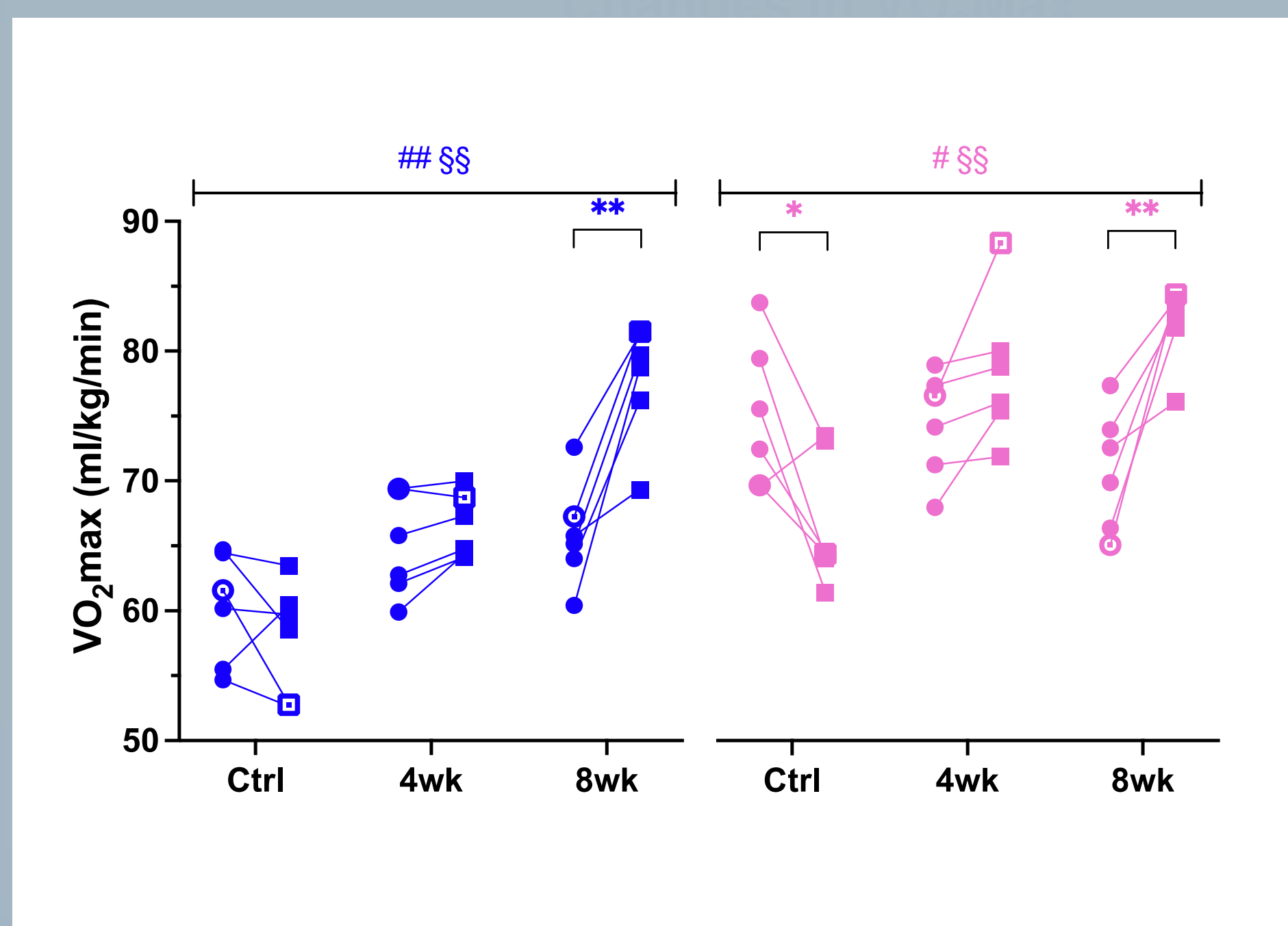
Experimental design & tissue processing



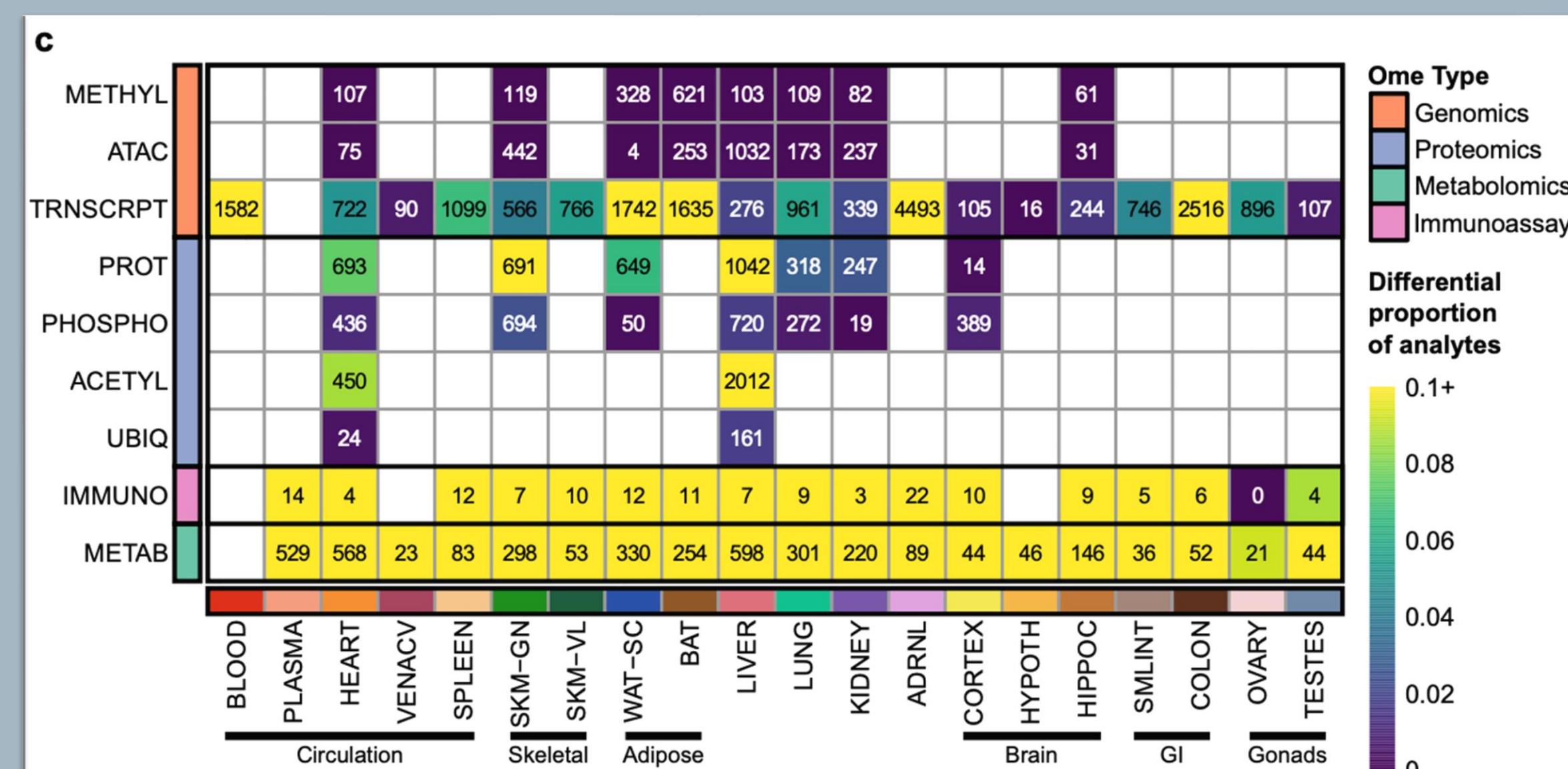
Omic assays by tissue



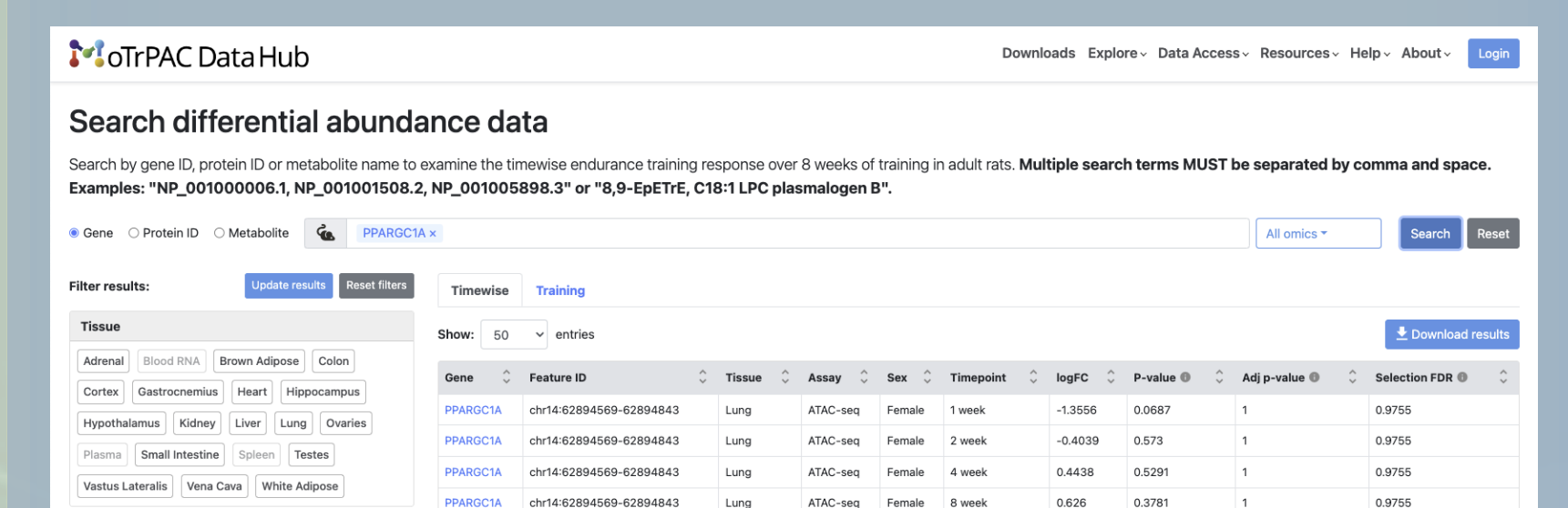
Changes in VO2Max



Training-regulated features at 5% FDR



Direct Feature Visualization



Data Download

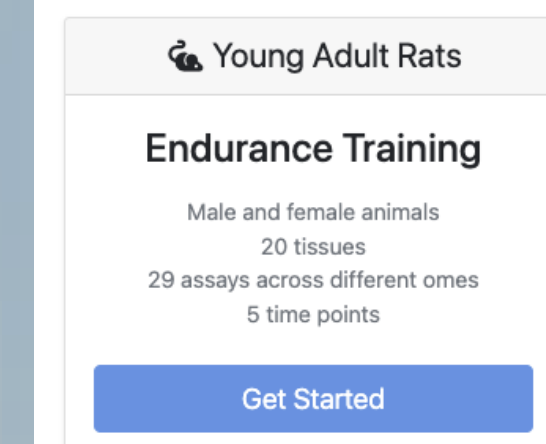
Explore and download the MoTrPAC multi-omics datasets, which includes quantitative results and analyses of molecular changes from exercise across tissues. Currently, the complete young rat endurance training dataset is publicly available. For a summary of all the ongoing studies in MoTrPAC (data available soon), please visit our [Project Overview](#).

Data Types

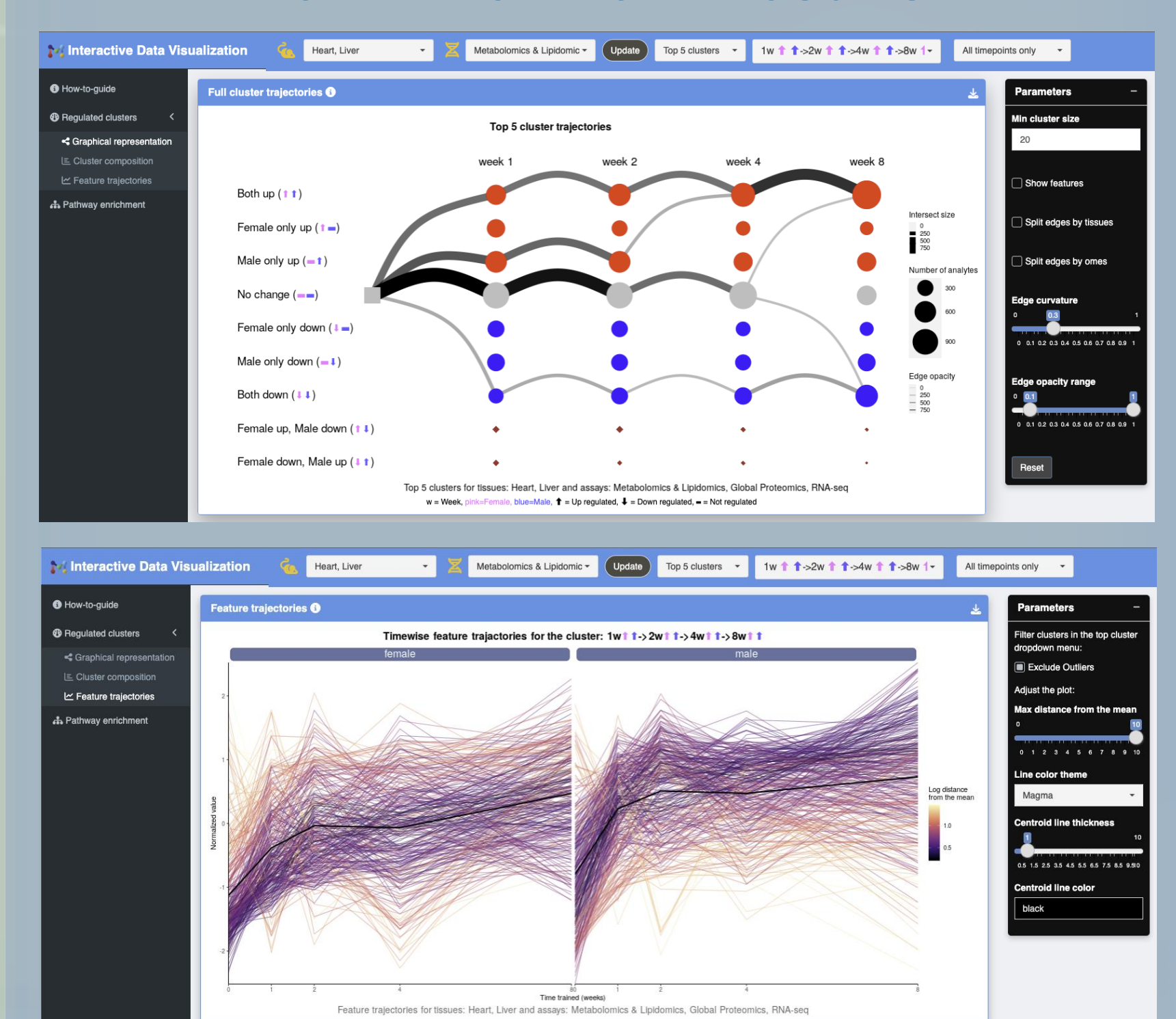
- Assay-specific differential analysis, normalized data, quantitative results, experiment metadata and QA/QC reports
- Cross-platform merged metabolomics data tables for named metabolites
- Phenotypic data

Study Data

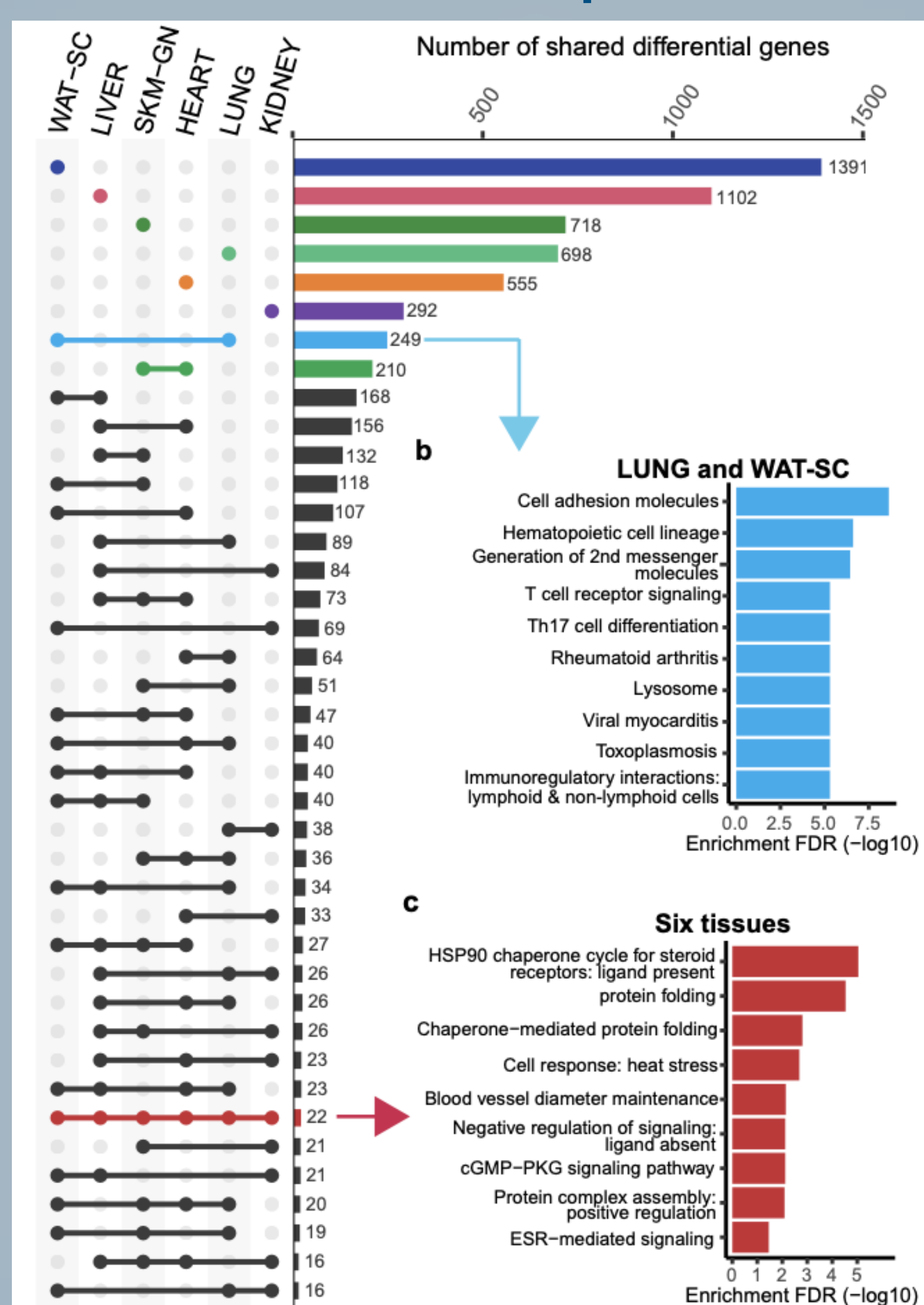
Browse and find the data of your interest by tissue, time, or assay types.



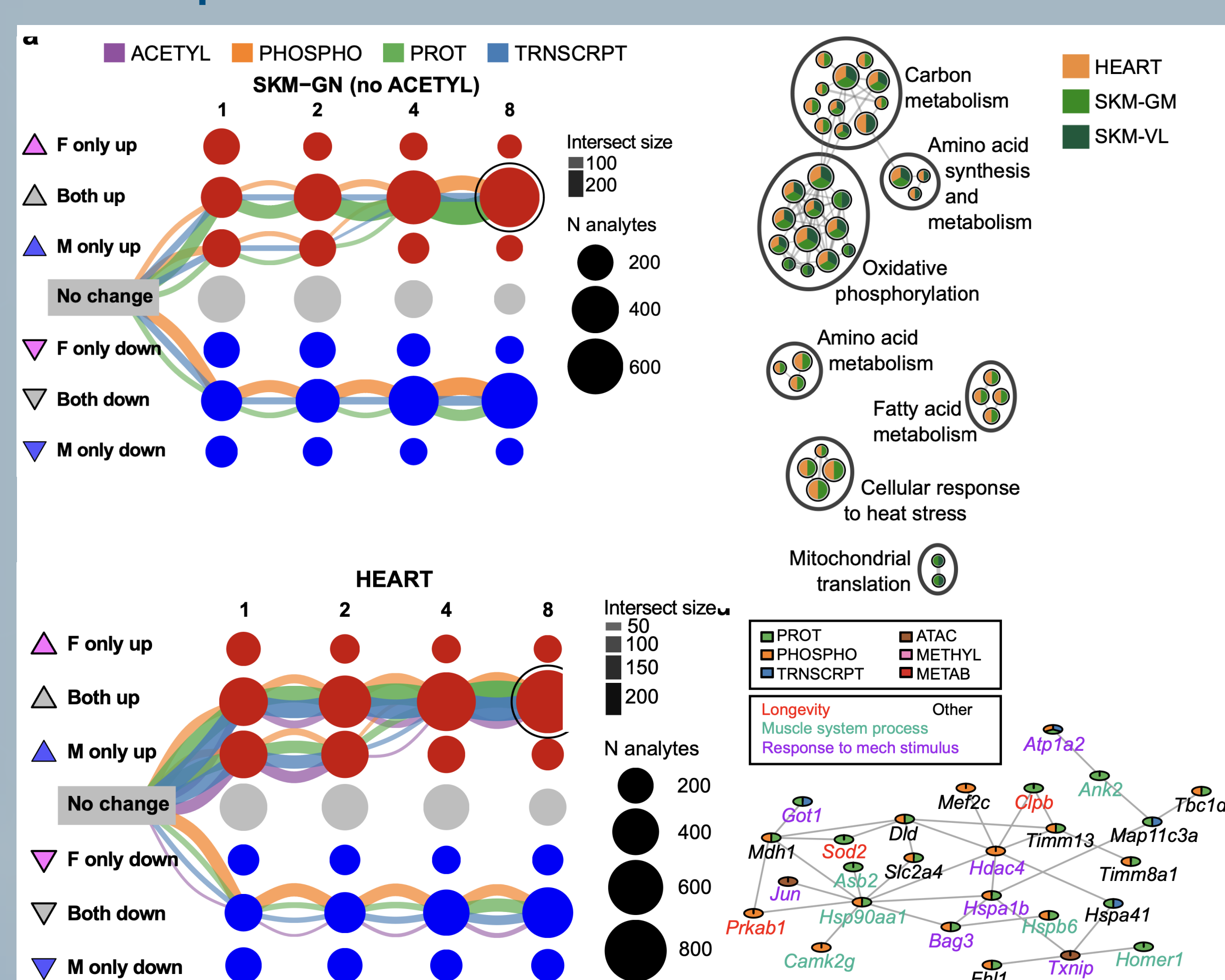
Interactive Graphical Representation for Enrichment Results



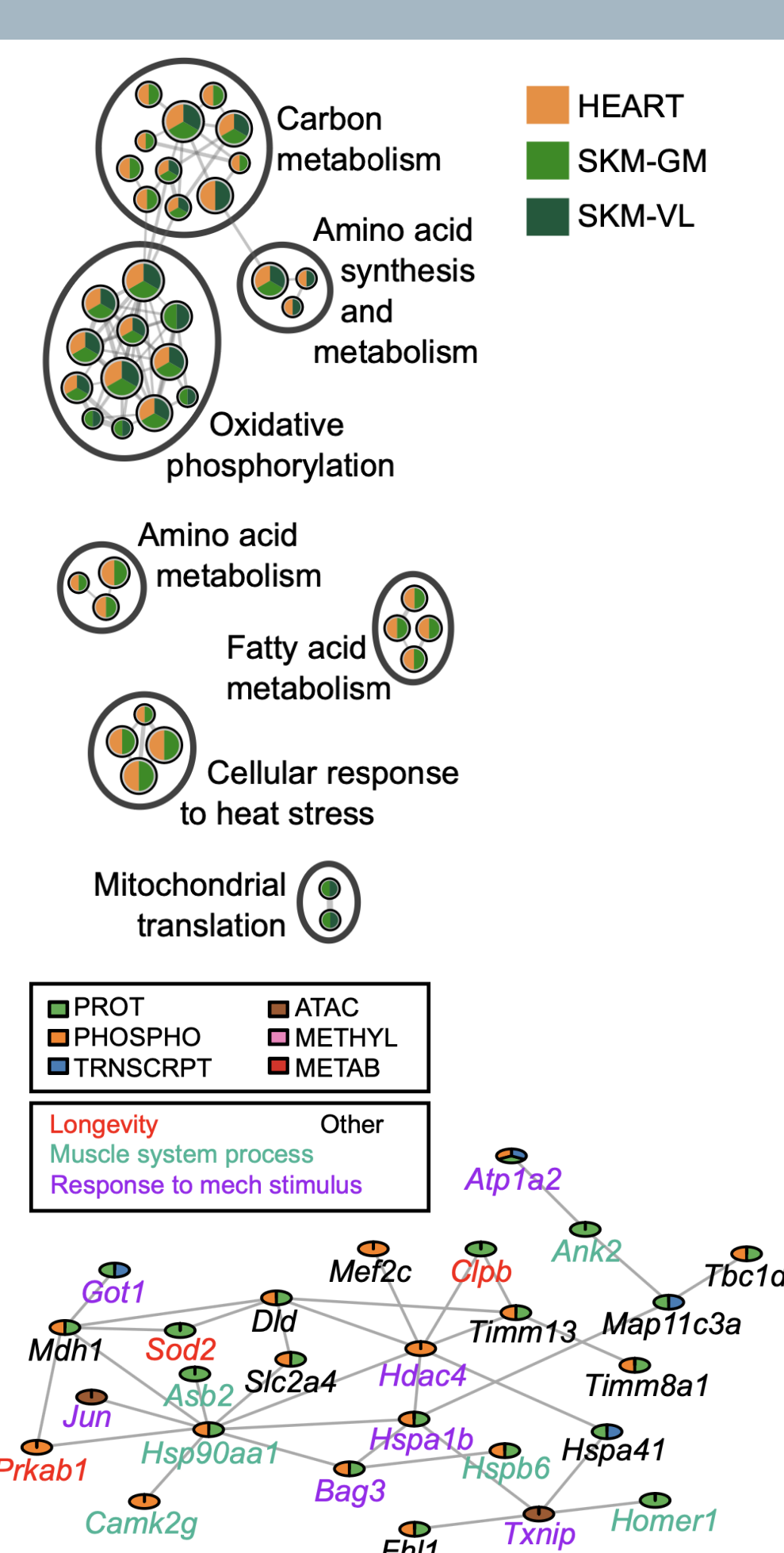
Multi-tissue responses



Temporal patterns of responses in muscle



Nodes of features enriched after 8 weeks in muscle



Conclusions and Future Perspectives

- MoTrPAC provides an unprecedented view of the effects of exercise across 18 tissues, revealing mechanistic details of how exercise impacts mammalian health.
- Findings reveal numerous pathways are affected in a tissue and sex-specific manner
- Interpretation of systemic and tissue-specific molecular adaptations will foster hypothesis-driven research of the health benefits induced by exercise
- All data are available in a public repository, and processed data, analysis results, and code to reproduce major analyses are additionally available in convenient R packages.