### ~~Study ST001140~~

[~~https://metabolomicsworkbench.org/data/show\_metabolite\_heatmap.php?STUDY\_ID=ST001140&ANALYSIS\_ID=AN001870&TITLE=&COMMENTS~~](https://metabolomicsworkbench.org/data/show_metabolite_heatmap.php?STUDY_ID=ST001140&ANALYSIS_ID=AN001870&TITLE=&COMMENTS)~~=~~

study ST001154

<https://metabolomicsworkbench.org/data/DRCCMetadata.php?Mode=Study&StudyID=ST001154>

<https://metabolomicsworkbench.org/data/stats_toolbox.php?STUDY_ID=ST001154>

<https://metabolomicsworkbench.org/data/datasharing.php>

**Q**: Can I download data from the repository and publish new research based on such data?  
**A**: Yes, as long as the related source of the data is correctly cited. That includes the accession number of the experiment as well as associated publications where the data was first released. However, there may be restrictions, if you are not willing to share the data with Metabolomics Data Repository. You are highly encouraged to contact NMDR personnel for more information.

<https://github.com/barupal/ChemRICH>

Classical pathway analyses are inappropriate for metabolomics datasets for two major reasons - 1) biochemical databases are incomplete for metabolomics so we are biased towards only a handful for selected compounds 2) a hypergeometric test relies on a background database which does not exist for metabolomics datasets.

ChemRICH is an approach that defines chemical classes for metabolites and then runs a KS test to obtain the set-level p-values. It uses chemical similarity against the MeSH database to obtain chemical classes, but users can also provide their own chemical classes to turn the KS-test.