

Resource Summary Report

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ChemRICH

RRID:SCR_017609

Type: Tool

Proper Citation

ChemRICH (RRID:SCR_017609)

Resource Information

URL: <http://chemrich.fiehnlab.ucdavis.edu/>

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Description: Software tool for chemical similarity enrichment analysis of metabolomics datasets. Used in studies to uncover biological mechanisms in organisms under genetic or environmental stress in system biology manner or finding risk factors for chronic diseases in exposome wise association studies using blood specimens. Allows users to realize pathway analysis.

Resource Type: analysis service resource, software resource, production service resource, service resource, web application

Defining Citation: [PMID:29109515](#)

Keywords: Chemical, similarity, enrichment, analysis, metabolomic, dataset, genetic, environmental, stress, risk, factor, chronic, disease, exposome, association, blood, specimen

Availability: Free, Freely available

Resource Name: ChemRICH

Resource ID: SCR_017609

Alternate URLs: <https://github.com/barupal/chemrich>

Record Creation Time: 20220129T080336+0000

Record Last Update: 20260805T044410+0000

Ratings and Alerts

No rating or validation information has been found for ChemRICH.

No alerts have been found for ChemRICH.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 17 mentions in open access literature.

Listed below are recent publications. The full list is available at [nidm-terms](#).

Devi S, et al. (2025) The effect of parenteral vitamin B12 treatment on its plasma metabolomic profile and on functional biomarkers of its deficiency. *Scientific reports*, 15(1), 24062.

Zhao L, et al. (2025) Biochemical impact of ALAEm supplementation in late gestation on the reproductive performance of sows. *Frontiers in veterinary science*, 12, 1548263.

Yu H, et al. (2025) MassCube improves accuracy for metabolomics data processing from raw files to phenotype classifiers. *Nature communications*, 16(1), 5487.

Vald??s A, et al. (2024) In vivo neuroprotective capacity of a *Dunaliella salina* extract - comprehensive transcriptomics and metabolomics study. *NPJ science of food*, 8(1), 4.

Liu A, et al. (2023) A pilot study on metabolomic characterization of human glioblastomas and patient plasma. *Research square*.

Germain A, et al. (2022) Plasma metabolomics reveals disrupted response and recovery following maximal exercise in myalgic encephalomyelitis/chronic fatigue syndrome. *JCI insight*, 7(9).

Zhu C, et al. (2022) Lipidomics for Determining Giant Panda Responses in Serum and Feces Following Exposure to Different Amount of Bamboo Shoot Consumption: A First Step towards Lipidomic Atlas of Bamboo, Giant Panda Serum and Feces by Means of GC-MS and UHPLC-HRMS/MS. *International journal of molecular sciences*, 23(19).

Yan H, et al. (2021) Huanglong Antitussive Granule Relieves Acute Asthma Through Regulating Pulmonary Lipid Homeostasis. *Frontiers in pharmacology*, 12, 656756.

van Vliet S, et al. (2021) A metabolomics comparison of plant-based meat and grass-fed meat indicates large nutritional differences despite comparable Nutrition Facts panels. *Scientific reports*, 11(1), 13828.

Vallee N, et al. (2021) Evidence of a hormonal reshuffle in the cecal metabolome fingerprint of a strain of rats resistant to decompression sickness. *Scientific reports*, 11(1), 8317.

Jadhav SR, et al. (2021) Utilizing the Food-Pathogen Metabolome to Putatively Identify Biomarkers for the Detection of Shiga Toxin-Producing E. coli (STEC) from Spinach. *Metabolites*, 11(2).

Karlstaedt A, et al. (2021) Stable Isotopes for Tracing Cardiac Metabolism in Diseases. *Frontiers in cardiovascular medicine*, 8, 734364.

Astolfi S, et al. (2020) Single and Combined Fe and S Deficiency Differentially Modulate Root Exudate Composition in Tomato: A Double Strategy for Fe Acquisition? *International journal of molecular sciences*, 21(11).

de Maistre S, et al. (2020) Cecal metabolome fingerprint in a rat model of decompression sickness with neurological disorders. *Scientific reports*, 10(1), 15996.

Marastoni L, et al. (2020) Changes in physiological activities and root exudation profile of two grapevine rootstocks reveal common and specific strategies for Fe acquisition. *Scientific reports*, 10(1), 18839.

Lucarelli G, et al. (2020) Integration of Lipidomics and Transcriptomics Reveals Reprogramming of the Lipid Metabolism and Composition in Clear Cell Renal Cell Carcinoma. *Metabolites*, 10(12).

Germain A, et al. (2020) Comprehensive Circulatory Metabolomics in ME/CFS Reveals Disrupted Metabolism of Acyl Lipids and Steroids. *Metabolites*, 10(1).