

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

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: 20260808T190111+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 26 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Senizza B, et al. (2026) Morpho-Physiological, Root Exudation and Metabolomics Insights on the Single and Combined Effect of Exogenous Strigolactones and Mycorrhiza in Tomato. *Physiologia plantarum*, 178(1), e70814.

Hao H, et al. (2026) Trehalose ameliorates severe acute pancreatitis by modulating gut microbial metabolism. *NPJ biofilms and microbiomes*, 12(1).

Zhang H, et al. (2026) Multi-omics analysis reveals the potential for fermented *Cordyceps militaris* mushroom substrate in laying hens. *Frontiers in microbiology*, 17, 1807060.

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

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.

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.

Gui WY, et al. (2024) Integrated analysis of metabolome, lipidome, and gut microbiome reveals the immunomodulation of *Astragali radix* in healthy human subjects. *Chinese medicine*, 19(1), 174.

Liu YA, et al. (2024) Metabolomic characterization of human glioblastomas and patient plasma: a pilot study. *F1000Research*, 13, 98.

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.

Zhou Y, et al. (2023) Aqueous extract of *Platycodon grandiflorus* attenuates lipopolysaccharide-induced apoptosis and inflammatory cell infiltration in mouse lungs by inhibiting PI3K/Akt signaling. *Chinese medicine*, 18(1), 36.

Mogul R, et al. (2023) Metabolomic and cultivation insights into the tolerance of the spacecraft-associated *Acinetobacter* toward Kleenol 30, a cleanroom floor detergent.

Frontiers in microbiology, 14, 1090740.

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

Shanks HRC, et al. (2022) Serum unsaturated phosphatidylcholines predict longitudinal basal forebrain degeneration in Alzheimer's disease. Brain communications, 4(6), fcac318.

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).

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).

Desruelle AV, et al. (2022) Cecal Metabolomic Fingerprint of Unscathed Rats: Does It Reflect the Good Response to a Provocative Decompression? Frontiers in physiology, 13, 882944.

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).

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