Resource Summary Report

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MUMA

RRID:SCR_002412 Type: Tool

Proper Citation

MUMA (RRID:SCR_002412)

Resource Information

URL: http://cran.r-project.org/web/packages/muma/

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Description: Software that provides guidelines for the whole process of metabolomic data interpretation, from data pre-processing, to dataset exploration and visualization, to identification of potentially interesting metabolites. Guidelines outline the following processes: preprocessing of high-throughput data (normalization and scalings); principal component analysis with help tool for choosing best-separating principal components and automatic testing for outliers; automatic univariate analysis for parametric and non-parametric data, with generation of specific reports (volcano and box plots); partial least square discriminant analysis (PLS-DA); orthogonal partial least square discriminant analysis (OPLS-DA); Statistical Total Correlation Spectroscopy (STOCSY); and Ratio Analysis Nuclear Magnetic Resonance (NMR) Spectroscopy (RANSY).

Abbreviations: MUMA

Synonyms: Metabolomics Univariate and Multivariate Analysis (MUMA), Metabolomic Univariate and Multivariate Analysis

Resource Type: standalone software, software application, software resource

Keywords: standalone software, mac os x, unix/linux, windows, r, metabolomics, univariate, multivariate, data analysis

Funding:

Resource Name: MUMA

Resource ID: SCR_002412

Alternate IDs: OMICS_03370

License: GNU General Public License v2

Record Creation Time: 20220129T080213+0000

Record Last Update: 20250508T064748+0000

Ratings and Alerts

No rating or validation information has been found for MUMA.

No alerts have been found for MUMA.

Data and Source Information

Source: <u>SciCrunch Registry</u>

Usage and Citation Metrics

We found 25 mentions in open access literature.

Listed below are recent publications. The full list is available at <u>dkNET</u>.

luri HA, et al. (2025) Unveiling high solifuge diversity: Review of the genus Pseudocleobis Pocock, 1900 (Ammotrechidae) in Chile with the description of nine new species. PloS one, 20(1), e0309776.

Zhang T, et al. (2024) Integrative proteome and metabolome analyses reveal molecular basis of the tail resorption during the metamorphic climax of Nanorana pleskei. Frontiers in cell and developmental biology, 12, 1431173.

Crowther LM, et al. (2023) Metabolomics analysis of antiquitin deficiency in cultured human cells and plasma: Relevance to pyridoxine-dependent epilepsy. Journal of inherited metabolic disease, 46(1), 129.

Trujillo L, et al. (2023) Cytotoxic Activity of Amaryllidaceae Plants against Cancer Cells: Biotechnological, In Vitro, and In Silico Approaches. Molecules (Basel, Switzerland), 28(6).

Gu X, et al. (2023) Probing long COVID through a proteomic lens: a comprehensive two-year longitudinal cohort study of hospitalised survivors. EBioMedicine, 98, 104851.

Khalaf HI, et al. (2022) The Effects of Pin Profile on HDPE Thermomechanical Phenomena during FSW. Polymers, 14(21).

Mathis T, et al. (2022) Untargeted plasma metabolomics identifies broad metabolic perturbations in glycogen storage disease type I. Journal of inherited metabolic disease, 45(2), 235.

Chasapi SA, et al. (2022) NMR-Based Metabolomics in Differential Diagnosis of Chronic Kidney Disease (CKD) Subtypes. Metabolites, 12(6).

Demard EP, et al. (2021) Re-description of seven predatory mite species of family Phytoseiidae (Acari: Mesostigmata) sourced from Florida citrus groves. PloS one, 16(8), e0255455.

Ol?re? E, et al. (2021) Double-Cross-Linked Networks Based on Methacryloyl Mucin. Polymers, 13(11).

Chen Z, et al. (2020) Lipidomic profiling of dairy cattle oocytes by high performance liquid chromatography-high resolution tandem mass spectrometry for developmental competence markers. Theriogenology, 144, 56.

Wilkinson DJ, et al. (2020) Untargeted metabolomics for uncovering biological markers of human skeletal muscle ageing. Aging, 12(13), 12517.

Tian W, et al. (2020) Immune suppression in the early stage of COVID-19 disease. Nature communications, 11(1), 5859.

Serafim A, et al. (2020) Bioinspired Hydrogel Coating Based on Methacryloyl Gelatin Bioactivates Polypropylene Meshes for Abdominal Wall Repair. Polymers, 12(8).

Ntirandekura JB, et al. (2020) Molecular characterization of Brucella species detected in humans and domestic ruminants of pastoral areas in Kagera ecosystem, Tanzania. Veterinary medicine and science, 6(4), 711.

Igboeli HA, et al. (2019) Discovery of Primarolides A and B from Marine Fungus Asteromyces cruciatus Using Osmotic Stress and Treatment with Suberoylanilide Hydroxamic Acid. Marine drugs, 17(8).

Gaude E, et al. (2018) NADH Shuttling Couples Cytosolic Reductive Carboxylation of Glutamine with Glycolysis in Cells with Mitochondrial Dysfunction. Molecular cell, 69(4), 581.

Snyder MN, et al. (2017) Biomarker analysis of American toad (Anaxyrus americanus) and grey tree frog (Hyla versicolor) tadpoles following exposure to atrazine. Aquatic toxicology (Amsterdam, Netherlands), 182, 184.

Akkhawattanangkul Y, et al. (2017) Targeted deletion of GD3 synthase protects against MPTP-induced neurodegeneration. Genes, brain, and behavior, 16(5), 522.

Zhang Y, et al. (2016) Metabolomic Analysis of Biochemical Changes in the Plasma of High-

Fat Diet and Streptozotocin-Induced Diabetic Rats after Treatment with Isoflavones Extract of Radix Puerariae. Evidence-based complementary and alternative medicine : eCAM, 2016, 4701890.