

Resource Summary Report

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Gene Set Enrichment Analysis

RRID:SCR_003199

Type: Tool

Proper Citation

Gene Set Enrichment Analysis (RRID:SCR_003199)

Resource Information

URL: <http://www.broadinstitute.org/gsea/>

Proper Citation: Gene Set Enrichment Analysis (RRID:SCR_003199)

Description: Software package for interpreting gene expression data. Used for interpretation of a large-scale experiment by identifying pathways and processes.

Abbreviations: GSEA

Synonyms: GSEA, Gene Set Enrichment Analysis, Gene Set Enrichment Analysis (GSEA)

Resource Type: software resource, data processing software, software application, software toolkit, data analysis software

Defining Citation: [PMID:16199517](#)

Keywords: gene, expression, profile, pathway, data, set, phenotype, genome, enrichment, RNA, analysis, bio.tools, bio.tools

Funding: NCI ;
NIH ;
NIGMS

Availability: Free, Freely available, Registration required to download, Tutorial available

Resource Name: Gene Set Enrichment Analysis

Resource ID: SCR_003199

Alternate IDs: nif-0000-30629, SCR_016882, biotools:gsea, OMICS_02279

Alternate URLs: <http://www.broad.mit.edu/gsea>, <https://bio.tools/gsea>

License: BSD license

Record Creation Time: 20220129T080217+0000

Record Last Update: 20250501T080547+0000

Ratings and Alerts

No rating or validation information has been found for Gene Set Enrichment Analysis.

No alerts have been found for Gene Set Enrichment Analysis.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 15835 mentions in open access literature.

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

Zhang JJ, et al. (2025) Eriocitrin ameliorates hepatic fibrosis and inflammation: The involvement of PPAR γ -mediated NLRP1/NLRC4 inflammasome signaling cascades. Journal of ethnopharmacology, 338(Pt 3), 119119.

Cómitre-Mariano B, et al. (2025) S100A proteins show a spatial distribution of inflammation associated with the glioblastoma microenvironment architecture. Theranostics, 15(2), 726.

Hwang J, et al. (2025) Structurally Oriented Classification of FOXA1 Alterations Identifies Prostate Cancers with Opposing Clinical Outcomes and Distinct Molecular and Immunologic Subtypes. Clinical cancer research : an official journal of the American Association for Cancer Research, 31(5), 936.

Olney KC, et al. (2025) Distinct transcriptional alterations distinguish Lewy body disease from Alzheimer's disease. Brain : a journal of neurology, 148(1), 69.

Tejedor JR, et al. (2025) Integration of multi-omics layers empowers precision diagnosis through unveiling pathogenic mechanisms on maple syrup urine disease. Journal of inherited metabolic disease, 48(1), e12829.

Huang XX, et al. (2025) Effects of RAR γ ligand binding domain mutations on breast

fibroepithelial tumor function and signaling. NPJ breast cancer, 11(1), 1.

Hu W, et al. (2025) CYP3A5 promotes glioblastoma stemness and chemoresistance through fine-tuning NAD⁺/NADH ratio. Journal of experimental & clinical cancer research : CR, 44(1), 3.

Li R, et al. (2025) Glycosylation gene expression profiles enable prognosis prediction for colorectal cancer. Scientific reports, 15(1), 798.

Okonechnikov K, et al. (2025) Biglycan-driven risk stratification in ZFTA-RELA fusion supratentorial ependymomas through transcriptome profiling. Acta neuropathologica communications, 13(1), 4.

Li Y, et al. (2025) Identification and validation of a prognostic risk model based on radiosensitivity-related genes in nasopharyngeal carcinoma. Translational oncology, 52, 102243.

Renzi G, et al. (2025) Epigenetic suppression of creatine kinase B in adipocytes links endoplasmic reticulum stress to obesity-associated inflammation. Molecular metabolism, 92, 102082.

Weber M, et al. (2025) Transcriptomic and proteomic profiling identifies feline fibrosarcoma as clinically amenable model for aggressive sarcoma subtypes. Neoplasia (New York, N.Y.), 60, 101104.

Zhang L, et al. (2025) The transcription factor CREB regulates epithelial-mesenchymal transition of lens epithelial cells by phosphorylation-dependent and phosphorylation-independent mechanisms. The Journal of biological chemistry, 301(1), 108064.

Yu P, et al. (2025) PWWP domain-containing protein Crf4-3 specifically modulates fungal azole susceptibility by regulating sterol C-14 demethylase ERG11. mSphere, 10(1), e0070324.

Zhao D, et al. (2025) Identification of TUBB3 as an immunotherapy target in lung cancer by genome wide in vivo CRISPR screening. Neoplasia (New York, N.Y.), 60, 101100.

Shigeno S, et al. (2025) Intrahepatic Exhausted Antiviral Immunity in an Immunocompetent Mouse Model of Chronic Hepatitis B. Cellular and molecular gastroenterology and hepatology, 19(1), 101412.

Fan M, et al. (2025) Borosilicate bioactive glass synergizing low-dose antibiotic loaded implants to combat bacteria through ATP disruption and oxidative stress to sequentially achieve osseointegration. Bioactive materials, 44, 184.

Huang S, et al. (2025) STAMBPL1/TRIM21 Balances AXL Stability Impacting Mesenchymal Phenotype and Immune Response in KIRC. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 12(1), e2405083.

Liu Y, et al. (2025) Ginkgetin Alleviates Inflammation and Senescence by Targeting STING.

Advanced science (Weinheim, Baden-Wurttemberg, Germany), 12(2), e2407222.

Lei M, et al. (2025) Prenatal Silicon Dioxide Nanoparticles Exposure Reduces Female Offspring Fertility Without Affecting Males. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 12(3), e2410353.