

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 toolkit, data analysis software, software application, software resource, data processing 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

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: 20260801T190205+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 18865 mentions in open access literature.

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

Cappadona C, et al. (2026) Multi-omics identifies oxidative stress, prothrombotic pathways, and lactoperoxidase variants as key factors in COVID-19 severity. EBioMedicine, 123, 106111.

Stern YE, et al. (2026) Targeting CDK12/13 Drives Mitotic Arrest to Overcome Resistance to KRASG12C Inhibitors. Cancer research, 86(2), 485.

Muppirala AN, et al. (2026) Tachykinin signaling defines distinct populations of glia in the enteric nervous system. Neuron.

Yan C, et al. (2026) RAS/MEK/PI3K pathway inhibition augments response to CD40 agonism by targeting CD11b+ Bregs thereby overcoming melanoma PD1-resistance. Nature communications, 17(1), 162.

Williams EC, et al. (2026) Expression of endogenous retroviral elements is associated with extracellular matrix remodeling in prostate cancer. Mobile DNA, 17(1), 1.

Pereira-Martins DA, et al. (2026) ??Np73 isoform defines a TP53-mutant-like poor-risk subgroup of acute myeloid leukemia. Cell reports. Medicine, 102540.

Xu M, et al. (2026) Neutrophil extracellular traps-triggered hepatocellular senescence exacerbates lipotoxicity in non-alcoholic steatohepatitis. Journal of advanced research, 79, 521.

An Y, et al. (2026) Activation and Spatial Redistribution of RNA Splicing Factors Trigger Hepatic Regeneration. Cellular and molecular gastroenterology and hepatology, 20(2), 101654.

Burgos-Ruiz AM, et al. (2026) A single-cell multiomics roadmap of zebrafish spermatogenesis reveals regulatory principles of male germline formation. *Molecular systems biology*, 22(1), 42.

Hua L, et al. (2026) Myeloid-Derived CD38 Mediates Age-Related Endometrial Aging Through NAD⁺ Depletion. *Aging cell*, 25(1), e70356.

Maung JN, et al. (2026) Altered lipid metabolism and inflammatory programs associate with adipocyte loss in familial partial lipodystrophy 2. *The Journal of clinical investigation*, 136(1).

Sharma MZ, et al. (2026) Brain transcriptome-wide association studies in diverse ancestral populations reveal genes implicated in an anxiety-related phenotype. *G3 (Bethesda, Md.)*, 16(1).

Aid M, et al. (2026) Long COVID involves activation of proinflammatory and immune exhaustion pathways. *Nature immunology*, 27(1), 61.

Zou Y, et al. (2026) Gut microbiota dysbiosis exacerbates acute pancreatitis via *Escherichia coli*-driven neutrophil heterogeneity and NETosis. *Gut microbes*, 18(1), 2606480.

Lasher AT, et al. (2026) Uncoupling Insulin Sensitivity From Longevity: A Sex-Dependent Effect of Hepatic Glucagon Signaling. *Aging cell*, 25(1), e70349.

Yu Y, et al. (2026) *Perilla frutescens* seeds enhance lamb immunity and antioxidant capacity via the microbiota-gut-liver-muscle axis. *Journal of animal science and biotechnology*, 17(1), 1.

Vidak S, et al. (2026) Transcriptional profiling of Hutchinson-Gilford progeria patients identifies primary target pathways of progerin. *Nucleus (Austin, Tex.)*, 17(1), 2611484.

Gao Y, et al. (2026) Altered Inflammatory Signature in a C9ORF72 -ALS iPSC-Derived Motor Neuron and Microglia Coculture Model. *Glia*, 74(1), e70084.

Xie H, et al. (2026) Ubc9-Mediated SUMOylation of RPL3, an Unappreciated Mechanism against Hepatocyte Senescence by Repressing the DHX9-p16 Axis. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 13(1), e10240.

Hwang CY, et al. (2026) The role of sestrin2 in skeletal muscle regeneration after injury. *The Korean journal of physiology & pharmacology : official journal of the Korean Physiological Society and the Korean Society of Pharmacology*, 30(1), 19.