

# Resource Summary Report

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## Piano

RRID:SCR\_003200

Type: Tool

### Proper Citation

Piano (RRID:SCR\_003200)

### Resource Information

**URL:** <http://www.sysbio.se/piano/>

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**Description:** Software R-package for running gene set analysis using various statistical methods, from different gene level statistics and a wide range of gene-set collections. The Piano package contains functions for combining the results of multiple runs of gene set analyses.

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

**Defining Citation:** [PMID:23444143](#)

**Keywords:** r, omics, bio.tools

**Availability:** Free, Available for download, Freely available

**Resource Name:** Piano

**Resource ID:** SCR\_003200

**Alternate IDs:** OMICS\_01558, biotools:piano

**Alternate URLs:** <https://bio.tools/piano>

**Record Creation Time:** 20220129T080217+0000

**Record Last Update:** 20260829T182125+0000

### Ratings and Alerts

No rating or validation information has been found for Piano.

No alerts have been found for Piano.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 188 mentions in open access literature.

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

Pellon A, et al. (2026) Fungal infection drives metabolic reprogramming in epithelial cells via aerobic glycolysis and an alternative TCA cycle shunt. *Science advances*, 12(6), eaea0405.

De Biaggi JS, et al. (2026) Enzyme-constrained genome-scale model of *Yarrowia lipolytica* predicts growth-phase specific metabolic engineering targets. *Applied microbiology and biotechnology*, 110(1).

Bousamaki J, et al. (2026) Nintedanib Lacks Efficacy in a Spirometry-Confirmed and Bleomycin-Induced Mouse Model of Idiopathic Pulmonary Fibrosis. *Basic & clinical pharmacology & toxicology*, 138(4), e70220.

Arif M, et al. (2026) Integrative analysis of left ventricle and epicardial adipose tissue identifies SDHA and OGDH as candidate targets for ischemic heart disease. *iScience*, 29(7), 116370.

Bousamaki J, et al. (2025) Distinct lung functional, histological and cell senescence signatures in the single and repetitive bleomycin mouse models of idiopathic pulmonary fibrosis. *Physiological reports*, 13(18), e70560.

Régnier M, et al. (2025) Liver gene expression and its rewiring in hepatic steatosis are controlled by PI3K $\gamma$ -dependent hepatocyte signaling. *PLoS biology*, 23(4), e3003112.

Zhang J, et al. (2025) Porcine Ovarian piRNA Dynamics: A Comparative Study During Follicular Atresia. *Biology*, 14(6).

Capendale PE, et al. (2025) Parechovirus-3 infection disrupts immunometabolism and leads to glutamate excitotoxicity in neural organoids. *Cellular and molecular life sciences : CMLS*, 82(1), 382.

Aldiss P, et al. (2025) FGF21 deletion mildly exacerbates hepatic dysfunction in GAN diet and alcohol fed rats. *npj metabolic health and disease*, 3(1), 21.

Montoliu-Gaya L, et al. (2025) Proteomic analysis of Down syndrome cerebrospinal fluid compared to late-onset and autosomal dominant Alzheimer's disease. *Nature communications*, 16(1), 6003.

Diaz-Meza S, et al. (2025) Insights in nonlinear ground response in volcanic environments from distributed dynamic strain sensing. *Scientific reports*, 15(1), 32698.

Ali MM, et al. (2025) Mechanisms of mitochondrial reactive oxygen species action in bone mesenchymal cells. *bioRxiv : the preprint server for biology*.

Sayavedra L, et al. (2025) Bacterial microcompartments and energy metabolism drive gut colonization by *Bilophila wadsworthia*. *Nature communications*, 16(1), 5049.

Carbonell F, et al. (2025) Tau-related reduction of glucose metabolism in mild cognitive impairment occurs independently of APOE  $\epsilon$ 4 genotype and is influenced by A $\beta$ . *Alzheimer's & dementia : the journal of the Alzheimer's Association*, 21(2), e14625.

Ali MM, et al. (2025) Mechanisms of mitochondrial reactive oxygen species action in bone mesenchymal cells. *The Journal of biological chemistry*, 301(9), 110551.

Aboltins C, et al. (2025) Outcomes after suppressive antimicrobial therapy for prosthetic joint infection: a prospective cohort study. *Antimicrobial agents and chemotherapy*, 69(6), e0178424.

Kuchenbecker LA, et al. (2025) Novel set of plasma proteins classifies Alzheimer's dementia in African American individuals with high accuracy. *Alzheimer's & dementia : the journal of the Alzheimer's Association*, 21(7), e70505.

Zheng T, et al. (2025) Extracellular-vesicle-mediated transfer of let-7b/7c promotes the proliferation of transition-state spermatogonia in neonatal mouse testis. *Stem cell reports*, 20(11), 102681.

Wang N, et al. (2025) Fast Optimization of Robust Transcriptomics Embeddings using Probabilistic Inference Autoencoder Networks for multi-Omics. *bioRxiv : the preprint server for biology*.

Wu L, et al. (2024) Tunable Light-Responsive Polyurethane-urea Elastomer Driven by Photochemical and Photothermal Coupling Mechanism. *ACS applied materials & interfaces*, 16(15), 19480.