

Resource Summary Report

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Search Tool for Interactions of Chemicals

RRID:SCR_007947

Type: Tool

Proper Citation

Search Tool for Interactions of Chemicals (RRID:SCR_007947)

Resource Information

URL: <http://stitch.embl.de>

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Description: Database to explore known and predicted interactions of chemicals and proteins. It integrates information about interactions from metabolic pathways, crystal structures, binding experiments and drug-target relationships. Inferred information from phenotypic effects, text mining and chemical structure similarity is used to predict relations between chemicals. STITCH further allows exploring the network of chemical relations, also in the context of associated binding proteins. Each proposed interaction can be traced back to the original data sources. The database contains interaction information for over 68,000 different chemicals, including 2200 drugs, and connects them to 1.5 million genes across 373 genomes and their interactions contained in the STRING database.

Abbreviations: STITCH

Synonyms: STITCH: Chemical-Protein Interactions

Resource Type: data or information resource, database

Defining Citation: [PMID:22075997](#), [PMID:19897548](#), [PMID:18084021](#)

Keywords: drug-target relationship, chemical, chemical-protein interaction, chemical relationship, crystal structure, metabolic pathway interaction, protein, interaction, small molecule, drug, interaction network, FASEB list

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ProBioC

Resource Name: Search Tool for Interactions of Chemicals

Resource ID: SCR_007947

Alternate IDs: r3d100012165, OMICS_01589, nif-0000-03499

Alternate URLs: <https://doi.org/10.17616/R3606X>, <https://doi.org/10.17616/R3606X>

Record Creation Time: 20220129T080244+0000

Record Last Update: 20260912T200156+0000

Ratings and Alerts

No rating or validation information has been found for Search Tool for Interactions of Chemicals.

No alerts have been found for Search Tool for Interactions of Chemicals.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1054 mentions in open access literature.

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

Chen Y, et al. (2026) Elucidating the mechanisms by which acetyl tributyl citrate affects fracture healing: a comprehensive network toxicology study. BMC pharmacology & toxicology, 27(1).

Hou L, et al. (2026) Exploring the Mechanism of Oral Cancer With Shikonin Based on the Network Pharmacology and Molecular Docking Technology. International dental journal, 76(2), 103954.

Duan R, et al. (2026) Integrative bioinformatics analyses identify EDNRA and BCL2L1 as candidate hub genes linking predicted MEHP targets and gastric cancer. Discover oncology, 17(1).

Chen H, et al. (2026) Elucidating the mechanistic association of xylene inducing non-small cell lung cancer through network toxicology and molecular docking analysis. PloS one, 21(3), e0341548.

Chai J, et al. (2026) Mechanistic insights into PFAS derivatives-induced coronary heart disease and atherosclerotic renal artery stenosis via integrated network toxicology and molecular modeling. Toxicology research, 15(1), tfaf190.

Chen X, et al. (2026) Integrative network toxicology and experimental evidence reveal mechanisms underlying diethyl phthalate-induced initiation and progression of endometrial cancer. Scientific reports, 16(1).

Lu Z, et al. (2026) Bisphenol a exposure and major depressive disorder: an integrative analysis combining network toxicology, molecular docking, genetic epidemiology, and transcriptomic validation. *Translational psychiatry*, 16(1).

Du A, et al. (2026) Elucidating the Potential Targets and Mechanisms of Bisphenol A-Induced Prostate Cancer Based on Network Toxicology and Molecular Docking Analyses. *Oncology research*, 34(5), 35.

Wang W, et al. (2026) Network pharmacology and Mendelian randomization analysis to unravel the mechanism of Qingwen Baidu Decoction in sepsis treatment. *Medicine*, 105(20), e48814.

Qu Y, et al. (2026) Network toxicology-driven insights on nitrogen-based flame retardant-induced hepatotoxicity: Computational prediction and experimental validation. *Medicine*, 105(22), e48977.

He Y, et al. (2026) Identification and exploration of potential N6-methylation related mRNAs in endometriosis. *Frontiers in genetics*, 17, 1790963.

Tang Y, et al. (2026) Investigating the mechanistic link between pesticide DDT and breast cancer through network toxicology, molecular docking, and molecular dynamics simulation. *Scientific reports*, 16(1).

Yang H, et al. (2026) Inflammatory and neurotoxic risk of atorvastatin in diabetic peripheral neuropathy: TNF-centered evidence integrating network toxicology, scRNA-Seq, and cell validation. *Frontiers in chemistry*, 14, 1739085.

Huo X, et al. (2026) An integrative analysis reveals the mechanism of plastic stabilizers inducing breast cancer. *PLoS computational biology*, 22(3), e1014025.

Wu JW, et al. (2026) Computational pharmacovigilance of tranexamic acid: implications for intracerebral hemorrhage based on FAERS database and network toxicology. *Frontiers in pharmacology*, 17, 1809788.

Yang H, et al. (2026) Sodium nitrite promotes atherosclerosis via IL-1 β : Network toxicology and machine learning insights. *PloS one*, 21(5), e0347642.

Aruvornlop P, et al. (2026) Tissue Proteomics of Feline Mammary Carcinoma: Differences in Protein Profiles Among Histological Grades Using Liquid Chromatography-Tandem Mass Spectrometry. *Veterinary and comparative oncology*, 24(1), 128.

Pan Y, et al. (2026) Integrated network toxicology, molecular docking, and molecular dynamics simulation reveals mechanisms of benzo[a]pyrene-induced pan-cancer. *BMC pharmacology & toxicology*, 27(1), 31.

Yu Z, et al. (2026) Potential mechanisms and effects of AFB1-induced asthma: A comprehensive analysis based on network toxicology and molecular docking. *PloS one*, 21(1), e0341172.

Chen J, et al. (2026) Multi-scale systems toxicology defines a KLF5-centered adverse outcome pathway linking DEHP exposure to pancreatic cancer progression and signaling programs relevant to therapy tolerance. *Frontiers in cell and developmental biology*, 14, 1769023.