Resource Summary Report

Generated by FDI Lab - SciCrunch.org on May 1, 2025

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: database, data or information resource

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

Funding: BMBF ;
European Union FP6 EMBO ;
ProBioC

Resource Name: Search Tool for Interactions of Chemicals

Resource ID: SCR_007947

Alternate IDs: OMICS_01589, nif-0000-03499

Record Creation Time: 20220129T080244+0000

Record Last Update: 20250430T055542+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 636 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

Ye H, et al. (2025) Improvement of the accuracy of breeding value prediction for egg production traits in Muscovy duck using low-coverage whole-genome sequence data. Poultry science, 104(2), 104812.

Bumbaca B, et al. (2025) Network analyses of brain tumor multiomic data reveal pharmacological opportunities to alter cell state transitions. NPJ systems biology and applications, 11(1), 14.

Ploypetch S, et al. (2025) Salivary peptidomic profiling of chronic gingivostomatitis in cats by matrix-assisted laser desorption/ionization-time-of-flight mass spectrometry and nanoscale liquid chromatography-tandem mass spectrometry. Journal of veterinary internal medicine, 39(1), e17247.

Liang H, et al. (2025) The multi-target mechanism of action of Selaginella doederleinii Hieron in the treatment of nasopharyngeal carcinoma: a network pharmacology and multi-omics analysis. Scientific reports, 15(1), 159.

Rajeeve AD, et al. (2025) Elucidating the potential of EGFR mutated NSCLC and identifying its multitargeted inhibitors. Scientific reports, 15(1), 3649.

Tyagi A, et al. (2025) Limosilactobacillus reuteri fermented brown rice alleviates anxiety improves cognition and modulates gut microbiota in stressed mice. NPJ science of food, 9(1), 5.

Zhai Y, et al. (2025) Network pharmacology: a crucial approach in traditional Chinese medicine research. Chinese medicine, 20(1), 8.

Sakarin S, et al. (2024) Proteomic analysis of the serum in dogs with pulmonary hypertension secondary to myxomatous mitral valve disease: the preliminary study. Frontiers in veterinary science, 11, 1327453.

Almowallad S, et al. (2024) Berberine modulates cardiovascular diseases as a multitarget-mediated alkaloid with insights into its downstream signals using in silico prospective screening approaches. Saudi journal of biological sciences, 31(5), 103977.

Lee J, et al. (2024) Anti-Atopic Effect of Scutellaria baicalensis and Raphanus sativus on Atopic Dermatitis-like Lesions in Mice by Experimental Verification and Compound-Target Prediction. Pharmaceuticals (Basel, Switzerland), 17(3).

Saquib M, et al. (2024) Functional Significance of miR-4693-5p in Targeting HIF1? and Its Link to Rheumatoid Arthritis Pathogenesis. Non-coding RNA, 10(2).

Chen J, et al. (2024) Network pharmacology combined with experimental validation to investigate the effect of Rongjin Niantong Fang on chondrocyte apoptosis in knee osteoarthritis. Molecular medicine reports, 29(6).

Qing L, et al. (2024) The mechanism of geniposide in patients with COVID-19 and atherosclerosis: A pharmacological and bioinformatics analysis. Medicine, 103(31), e39065.

Qi L, et al. (2024) Exploring the potential mechanism of atrazine-induced dopaminergic neurotoxicity based on integration strategy. Environmental health and preventive medicine, 29, 46.

Tarnathummanan C, et al. (2024) Plasma proteomic profiles of patients with HIV infection and coinfection with hepatitis B/C virus undergoing anti?retroviral therapy. Biomedical reports, 21(5), 155.

Fang J, et al. (2024) A hypoxia-derived gene signature to suggest cisplatin-based therapeutic responses in patients with cervical cancer. Computational and structural biotechnology journal, 23, 2565.

Zhang B, et al. (2024) Exploring the therapeutic potential of isoorientin in the treatment of osteoporosis: a study using network pharmacology and experimental validation. Molecular medicine (Cambridge, Mass.), 30(1), 27.

Polizel GHG, et al. (2024) Liver transcriptomics-metabolomics integration reveals biological pathways associated with fetal programming in beef cattle. Scientific reports, 14(1), 27681.

Jabbar M, et al. (2024) Characterization and antibacterial application of peppermint essential oil nanoemulsions in broiler. Poultry science, 103(12), 104432.

Sun X, et al. (2024) The inhibitory efficacy of Ginsenoside Rg3 on proliferation and migration of colonic carcinoma cells through the JAK3/STAT5 signaling pathway. Discover oncology, 15(1), 608.