

Resource Summary Report

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Comparative Toxicogenomics Database (CTD)

RRID:SCR_006530

Type: Tool

Proper Citation

Comparative Toxicogenomics Database (CTD) (RRID:SCR_006530)

Resource Information

URL: <http://ctdbase.org/>

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Description: A public database that enhances understanding of the effects of environmental chemicals on human health. Integrated GO data and a GO browser add functionality to CTD by allowing users to understand biological functions, processes and cellular locations that are the targets of chemical exposures. CTD includes curated data describing cross-species chemical–gene/protein interactions, chemical–disease and gene–disease associations to illuminate molecular mechanisms underlying variable susceptibility and environmentally influenced diseases. These data will also provide insights into complex chemical–gene and protein interaction networks.

Abbreviations: CTD

Synonyms: CTD - Comparative Toxicogenomics Database

Resource Type: analysis service resource, data analysis service, data or information resource, database, production service resource, service resource

Defining Citation: [PMID:16902965](#), [PMID:16675512](#), [PMID:14735110](#), [PMID:12760826](#)

Keywords: environment, chemical, disease, gene, pathway, protein, interaction, animal model, ontology, annotation, toxin, ontology or annotation browser, FASEB list

Funding: American Chemistry Council ;
NCRR P20 RR016463;
NIEHS ES014065;
NIEHS R01 ES019604;
NIEHS U24 ES033155;
Pfizer

Availability: Free, Freely available

Resource Name: Comparative Toxicogenomics Database (CTD)

Resource ID: SCR_006530

Alternate IDs: OMICS_01578, nif-0000-02683, r3d100011530

Alternate URLs: <http://ctd.mdibl.org>, <https://doi.org/10.17616/R3KS7N>

Record Creation Time: 20220129T080236+0000

Record Last Update: 20260905T132556+0000

Ratings and Alerts

No rating or validation information has been found for Comparative Toxicogenomics Database (CTD).

No alerts have been found for Comparative Toxicogenomics Database (CTD).

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1901 mentions in open access literature.

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

Jiang YY, et al. (2026) Ze-qi Decoction Inhibits Neutrophil Extracellular Trap Formation to Suppress the Progression and Metastasis of Non-Small Cell Lung Cancer. Integrative cancer therapies, 25, 15347354261420750.

Fadhal E, et al. (2026) Graph-theoretical Analysis of a Modeled Protein-protein Interaction Network in the RAS Signaling Pathway. Journal of visualized experiments : JoVE(229).

Zhou T, et al. (2026) Integrated Transcriptomics and Experimental Validation Reveal That Ellagic Acid Alleviates Fuchs Endothelial Corneal Dystrophy via PLA2/NF- κ B Signaling. Investigative ophthalmology & visual science, 67(1), 31.

Wang Y, et al. (2026) Exploration Novel Therapeutic Targets for Periodontitis via Stress Granules Biomarkers. International dental journal, 76(2), 109390.

Chen C, et al. (2026) Computational-experimental study reveals direct target and bioactives of Ajania fruticulosa against NAFLD via TLR2/NF- κ B/PPAR- γ signaling. NPJ science of food, 10(1), 73.

Li S, et al. (2026) Rheumatoid arthritis and gout: a rare combination or overlooked coexistence? Arthritis research & therapy, 28(1), 48.

- He Y, et al. (2026) Mitochondrial-related biomarkers as the diagnostic markers in sepsis induced acute respiratory distress syndrome. *European journal of medical research*, 31(1), 199.
- Li Z, et al. (2026) Potential of SP1 as a prognostic marker and therapeutic target in acute myocardial infarction: a bioinformatics, Mendelian randomization and experimental validation study. *Frontiers in immunology*, 17, 1742618.
- Zhao R, et al. (2026) From early smoking to COPD and other chronic respiratory disease: unraveling the roles of chemical pollutants and underlying toxicological mechanisms. *BMC pulmonary medicine*, 26(1).
- Li Y, et al. (2026) Network toxicology study and key target validation of chlorpyrifos-induced nonalcoholic fatty liver disease. *Scientific reports*, 16(1).
- Ding ZL, et al. (2026) 1-Nitropyrene induces acute lung injury via SYVN1/Caspase-11-mediated apoptosis and pyroptosis in pulmonary epithelial cells. *Frontiers in pharmacology*, 17, 1723593.
- Schimith LE, et al. (2026) Glycosylation Matters: Network Pharmacology-Based and Molecular Docking Analysis of Resveratrol Glycosylated Derivatives on Parkinson's Disease. *ACS omega*, 11(5), 7597.
- Zhuang C, et al. (2026) Mechanisms of deoxynivalenol-induced multi-organ toxicity in broiler chickens: The central role of the Rap1/MAPK pathway revealed by network pharmacology and molecular docking. *Poultry science*, 105(4), 106494.
- Zhang Y, et al. (2026) Forchlorfenuron Exposure Induces Hepatocyte Apoptosis via MKK3/P38/ATF2 Pathway. *International journal of molecular sciences*, 27(5).
- Tan Z, et al. (2026) Unraveling the Molecular Mechanisms Linking Cigarette Smoke Exposure to Skin Damage. *International journal of molecular sciences*, 27(5).
- Li T, et al. (2026) Unraveling the potential carcinogenic risk of bisphenols: a comprehensive network analysis and computational toxicology insights. *Human genomics*, 20(1).
- Zhang S, et al. (2026) Identification of mitochondria-related key genes in type 2 diabetes mellitus and elucidation of the Zhimu-Huangbai herb Pair's mechanism: an integrated approach of bioinformatics, machine learning, and experimental validation. *Frontiers in cell and developmental biology*, 14, 1763178.
- Li H, et al. (2026) Study on the Potential Mechanism of Astragaloside IV on Renoprotection in Db/Db Mice via Network Pharmacology and Experimental Validation. *Journal of diabetes research*, 2026(1), e5345971.
- Chen J, et al. (2026) Multiomics combined drugs to explore the potential mechanism and treatment of ankylosing spondylitis. *Journal of orthopaedic surgery and research*, 21(1).
- Li K, et al. (2026) ACADL and ADH1B signify ketone body metabolic reprogramming in osteoarthritic synovium: insights from bioinformatics and animal model studies. *Frontiers in medicine*, 13, 1700784.