

Resource Summary Report

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PharmGKB

RRID:SCR_002689

Type: Tool

Proper Citation

PharmGKB (RRID:SCR_002689)

Resource Information

URL: <http://www.pharmgkb.org/>

Proper Citation: PharmGKB (RRID:SCR_002689)

Description: Database and central repository for genetic, genomic, molecular and cellular phenotype data and clinical information about people who have participated in pharmacogenomics research studies. The data includes, but is not limited to, clinical and basic pharmacokinetic and pharmacogenomic research in the cardiovascular, pulmonary, cancer, pathways, metabolic and transporter domains. PharmGKB welcomes submissions of primary data from all research into genes and genetic variation and their effects on drug and disease phenotypes. PharmGKB collects, encodes, and disseminates knowledge about the impact of human genetic variations on drug response. They curate primary genotype and phenotype data, annotate gene variants and gene-drug-disease relationships via literature review, and summarize important PGx genes and drug pathways. PharmGKB is part of the NIH Pharmacogenomics Research Network (PGRN), a nationwide collaborative research consortium. Its aim is to aid researchers in understanding how genetic variation among individuals contributes to differences in reactions to drugs. A selected subset of data from PharmGKB is accessible via a SOAP interface. Downloaded data is available for individual research purposes only. Drugs with pharmacogenomic information in the context of FDA-approved drug labels are cataloged and drugs with mounting pharmacogenomic evidence are listed.

Abbreviations: PharmGKB

Synonyms: Pharmacogenomics Knowledge Base

Resource Type: data or information resource, data repository, storage service resource, data access protocol, database, service resource, data set, software resource, web service

Defining Citation: [PMID:11908751](#)

Keywords: pharmacogenomics, microarray, pathway, phenotype, snp array, genotype, clinical, genetic variation, drug, gene, genetic variation, disease, cardiovascular, pulmonary, cancer, metabolic, transporter, drug response, small molecule, research, drug response, FASEB list

Funding: NIGMS R24 GM61374

Availability: Free, Freely available

Resource Name: PharmGKB

Resource ID: SCR_002689

Alternate IDs: nif-0000-00414, OMICS_01586, r3d100012325

Alternate URLs: <https://doi.org/10.17616/R31H1N>

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Record Creation Time: 20220129T080214+0000

Record Last Update: 20260801T190212+0000

Ratings and Alerts

No rating or validation information has been found for PharmGKB.

No alerts have been found for PharmGKB.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1152 mentions in open access literature.

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

Tremmel R, et al. (2026) Clinical Implementation of Pharmacogenomics and Drug-Drug Interaction Screening in a German Academic Teaching Hospital and Outpatient Follow-Up. Clinical pharmacology and therapeutics, 119(1), 241.

Derobertmeasure A, et al. (2026) Feasibility of dried blood spot collection for caffeine pharmacokinetic studies in microgravity: Insights from parabolic flight campaigns. British journal of clinical pharmacology, 92(1), 35.

Lai YJ, et al. (2025) Inferring Drug-Gene Relationships in Cancer Using Literature-Augmented Large Language Models. Cancer research communications, 5(4), 706.

Nieh HV, et al. (2025) Major Allele Frequencies in CYP2C9 and CYP2C19 in Asian and European Populations: A Case Study to Disaggregate Data Among Large Racial Categories. *Journal of personalized medicine*, 15(7).

Mao X, et al. (2025) Integrative UHPLC-HRMS and computational biology reveal ferroptosis and anoikis targeting by Wenpitongluo decoction in cardiorenal syndrome. *Frontiers in chemistry*, 13, 1617676.

Halman A, et al. (2025) BCyrius: An Upgraded Version of Cyrius for Accurate CYP2D6 Genotyping From Short-Read Sequencing Data. *Pharmacology research & perspectives*, 13(1), e70065.

Patrinos GP, et al. (2025) Systematic analysis of the pharmacogenomics landscape towards clinical implementation of precision therapeutics in Greece. *Human genomics*, 19(1), 11.

He G, et al. (2025) Network analysis and in vivo experiments reveal the therapeutic mechanisms of total ginsenosides in a *Drosophila* model of ulcerative colitis. *Frontiers in pharmacology*, 16, 1556579.

Zhang M, et al. (2025) Topical transdermal administration of lenalidomide nanosuspensions-based hydrogels against melanoma: In vitro and in vivo studies. *International journal of pharmaceutics*: X, 9, 100316.

Zhang Y, et al. (2025) Exploring similarities and differences in anti-atherosclerotic potential bioactives among *Dendrobium* species by UPLC-Q-Exactive Orbitrap MS. *NPJ science of food*, 9(1), 6.

Tian S, et al. (2025) Network Medicine-Based Strategy Identifies Maprotiline as a Repurposable Drug by Inhibiting PD-L1 Expression via Targeting SPOP in Cancer. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 12(1), e2410285.

Katsukunya JN, et al. (2025) NOS3 rs3918188C>A is associated with susceptibility to resistant hypertension while CES1 genetic variation was not associated with resistant hypertension among South Africans. *Frontiers in genetics*, 16, 1608423.

Ruskin D, et al. (2025) Moving Away from One-Size-Fits-All: Assessing the Use of Pharmacogenetic-Guided Medication Therapy in Pediatric Patients with Chronic Pain. *Children (Basel, Switzerland)*, 12(6).

Zou J, et al. (2025) Carnosic acid alleviated periodontitis by inhibiting ferroptosis via the Nrf2/GPX4 pathway. *BMC oral health*, 25(1), 1648.

Matthias J, et al. (2025) Empirical Drug Dosage Validates Pharmacogenomic Associations in All of Us. *Clinical and translational science*, 18(11), e70406.

Yang F, et al. (2025) The N-butanol extract of modified Yanghe decoction alleviates ferroptosis in bone marrow mesenchymal stem cells in glucocorticoid-induced osteoporosis by activating the HIF-1 α /GPX4 signaling pathway. *Journal of orthopaedic surgery and research*, 20(1), 1049.

Du Z, et al. (2025) Wogonin inhibits the proliferation of prolactinoma through the PI3K/AKT signaling pathway. *Frontiers in pharmacology*, 16, 1546285.

Rendina M, et al. (2025) Human xenobiotic metabolism proteins have full-length and split homologs in the gut microbiome. *G3 (Bethesda, Md.)*, 15(9).

Kung SP, et al. (2025) Cucurbitacin B inhibits Th17 cell differentiation via the suppression of the JAK/STAT pathway and alleviates collagen-induced arthritis in mice. *International journal of immunopathology and pharmacology*, 39, 3946320251348715.

Oelofse C, et al. (2025) Characterization of the complex TB pharmacogenomic landscape in Africa using bioinformatic tools. *Briefings in bioinformatics*, 26(5).