Resource Summary Report

Generated by NIF on Aug 12, 2026

BioPortal

RRID:SCR_002713
Type: Tool

Proper Citation

BioPortal (RRID:SCR_002713)

Resource Information

URL: http://bioportal.bioontology.org/

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Description: Open repository of biomedical ontologies that provides access via Web browsers and Web services to ontologies. It supports ontologies in OBO format, OWL, RDF, Rich Release Format (RRF), Protege frames, and LexGrid XML. Functionality includes the ability to browse, search and visualize ontologies as well as to comment on, and create mappings for ontologies. Any registered user can submit an ontology. The NCBO Annotator and NCBO Resource Index can also be accessed via BioPortal. Additional features: * Add Reviews: rate the ontology according to several criteria and describe your experience using the ontology. * Add Mappings: submit point-to-point mappings or upload bulk mappings created with external tools. Notification of new Mappings is RSS-enabled and Mappings can be browsed via BioPortal and accessed via Web services. * NCBO Annotator: Tool that tags free text with ontology terms. NCBO uses the Annotator to generate ontology annotations, creating an ontology index of these resources accessible via the NCBO Resource Index. The Annotator can be accessed through BioPortal or directly as a Web service. The annotation workflow is based on syntactic concept recognition (using the preferred name and synonyms for terms) and on a set of semantic expansion algorithms that leverage the ontology structure (e.g., is_a relations). * NCBO Resource Index: The NCBO Resource Index is a system for ontology based annotation and indexing of biomedical data; the key functionality of this system is to enable users to locate biomedical data linked via ontology terms. A set of annotations is generated automatically, using the NCBO Annotator, and presented in BioPortal. This service uses a concept recognizer (developed by the National Center for Integrative Biomedical Informatics, University of Michigan) to produce a set of annotations and expand them using ontology is_a relations. * Web services: Documentation on all Web services and example code is available at: BioPortal Web services.

Abbreviations: BioPortal

Synonyms: BioPortal Knowledgebase

Resource Type: service resource, controlled vocabulary, data or information resource, storage service resource, ontology, repository, data repository

Defining Citation: PMID:19483092, PMID:21672956, PMID:18999306

Keywords: biomedical, thesaurus, ontology mapping, annotation, metadata standard, ontology repository, portal, web service, obo, owl, rdf, rrf protege frame, lexgrid xml

Funding: NIGMS U24 GM143402

Availability: Free, Available for download, Freely available

Resource Name: BioPortal

Resource ID: SCR_002713

Alternate IDs: nif-0000-23346, r3d100012344

Alternate URLs: https://www.force11.org/node/4646, https://doi.org/10.17616/R3J362

Record Creation Time: 20220129T080214+0000

Record Last Update: 20260812T044037+0000

Ratings and Alerts

No rating or validation information has been found for BioPortal.

No alerts have been found for BioPortal.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 363 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF .

Dorstyn L, et al. (2026) Caspase-2 deficiency drives pathogenic liver polyploidy and increases age-associated hepatocellular carcinoma in mice. Science advances, 12(1), eaeb2571.

Siragusa G, et al. (2026) Loss of WT1 Drives Adaptive Plasticity in CCDC6-RET Selpercatinib-Resistant Papillary Thyroid Cancer. Current issues in molecular biology, 48(3).

Smit I, et al. (2026) Integrating artificial intelligence and manual curation to enhance bioassay annotations in ChEMBL. Journal of cheminformatics, 18(1), 24.

Kim JD, et al. (2026) Resources for screening the literature for glycan-related terms using PubAnnotation in GlyCosmos. Glycobiology, 36(5).

Cai H, et al. (2026) The role of PLOD family genes in liver hepatocellular carcinoma: from mechanisms to therapeutic potential. BMC cancer, 26(1), 172.

Stingone JA, et al. (2026) The development of the Human Health Exposure Analysis Resource (HHEAR) Data Repository for environmental epidemiology research. Environment international, 207, 109967.

Gibson-Khademi A, et al. (2026) Developing a comprehensive database and search tool for single-cell ATAC-seq data. Scientific reports, 16(1), 2201.

Maisto L, et al. (2026) Multifaceted human gut microbiome data associated with health and nutrition. Frontiers in microbiology, 17, 1722500.

Brown GS, et al. (2026) Using semantic search to find publicly available gene-expression datasets. Bioinformatics (Oxford, England), 42(3).

Duncan WD, et al. (2026) Representing dental caries and dysbiosis within the oral microbiome in the Oral Health and Disease Ontology. Journal of biomedical semantics, 17(1).

Laulederkind SJF, et al. (2026) Mapping of EFO terms from the GWAS catalog data to multiple ontologies at the Rat Genome Database. Database : the journal of biological databases and curation, 2026.

Musen MA, et al. (2026) Knowledge Engineering for Open Science: Building and Deploying Knowledge Bases for Metadata Standards. AI magazine, 47(1).

Bhowmik S, et al. (2026) Integrating text mining and knowledge graph to enhance biopharmaceutical process optimization. PloS one, 21(1), e0339197.

Kiedanski N, et al. (2026) Subclassification of Small Cell Lung Cancer Based on Gene Expression Signatures and Machine Learning. Cancer research communications, 6(3), 545.

Dutta N, et al. (2026) Representing dental restoration materials in the oral health and disease ontology. Journal of biomedical semantics, 17(1).

Malara A, et al. (2025) Polypharmacy appropriateness in Italian Long-Term Care Facilities: the nationwide prescription day point survey. Aging clinical and experimental research, 37(1), 291.

Graefe ASL, et al. (2025) RareLink: scalable REDCap-based framework for rare disease interoperability linking international registries to FHIR and Phenopackets. NPJ genomic medicine, 10(1), 72.

Xu S, et al. (2025) Bending the boundaries: the many facets of endophilin-As from membrane dynamics to disease. Cellular and molecular life sciences : CMLS, 82(1), 339.

, et al. (2025) Guidance on the use of read-across for chemical safety assessment in food and feed. EFSA journal. European Food Safety Authority, 23(7), e9586.

Vendetti J, et al. (2025) BioPortal: an open community resource for sharing, searching, and utilizing biomedical ontologies. Nucleic acids research, 53(W1), W84.