

Resource Summary Report

Generated by [RRID](#) on Apr 10, 2025

[BioPortal](#)

RRID:SCR_002713

Type: Tool

Proper Citation

BioPortal (RRID:SCR_002713)

Resource Information

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

Proper Citation: BioPortal (RRID:SCR_002713)

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: storage service resource, controlled vocabulary, data or information resource, service resource, data repository, ontology, 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: Open unspecified license, Acknowledgement requested, The community can contribute to this resource

Resource Name: BioPortal

Resource ID: SCR_002713

Alternate IDs: nif-0000-23346

Alternate URLs: <https://www.force11.org/node/4646>

Record Creation Time: 20220129T080214+0000

Record Last Update: 20250410T064921+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 304 mentions in open access literature.

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

Romao P, et al. (2024) An ontology-based tool for modeling and documenting events in neurosurgery. *BMC medical informatics and decision making*, 24(1), 216.

Behr AS, et al. (2024) Ontologies4Cat: investigating the landscape of ontologies for catalysis research data management. *Journal of cheminformatics*, 16(1), 16.

Geroyaska S, et al. (2024) N-Myristoyltransferase Inhibition Causes Mitochondrial Iron Overload and Parthanatos in TIM17A-Dependent Aggressive Lung Carcinoma. *Cancer research communications*, 4(7), 1815.

Cavalleri E, et al. (2024) An ontology-based knowledge graph for representing interactions involving RNA molecules. *Scientific data*, 11(1), 906.

Nourani E, et al. (2024) Lifestyle factors in the biomedical literature: an ontology and comprehensive resources for named entity recognition. *Bioinformatics (Oxford, England)*, 40(11).

Liu BL, et al. (2024) ?Midget cave spiders (Araneae, Leptonetidae) from Jiangxi and Fujian Province, China. *ZooKeys*, 1189, 287.

Song ZQ, et al. (2024) ?Taxonomic notes on the genus *Itea* (Iteaceae). *PhytoKeys*, 239, 59.

Parker N, et al. (2024) Leveraging the Genetics of Psychiatric Disorders to Prioritize Potential Drug Targets and Compounds. *medRxiv : the preprint server for health sciences*.

Corcho O, et al. (2024) A maturity model for catalogues of semantic artefacts. *Scientific data*, 11(1), 479.

Lin RZ, et al. (2024) Dermoscopy Differential Diagnosis Explorer (D3X) Ontology to Aggregate and Link Dermoscopic Patterns to Differential Diagnoses: Development and Usability Study. *JMIR medical informatics*, 12, e49613.

Dong Y, et al. (2024) The Role of SPEN Mutations as Predictive Biomarkers for Immunotherapy Response in Colorectal Cancer: Insights from a Retrospective Cohort Analysis. *Journal of personalized medicine*, 14(2).

Mullin S, et al. (2024) Chemical entity normalization for successful translational development of Alzheimer's disease and dementia therapeutics. *Journal of biomedical semantics*, 15(1), 13.

Herr K, et al. (2024) Estimating prevalence of rare genetic disease diagnoses using electronic health records in a children's hospital. *HGG advances*, 5(4), 100341.

Di Muri C, et al. (2024) Assessing semantic interoperability in environmental sciences: variety of approaches and semantic artefacts. *Scientific data*, 11(1), 1055.

Hu J, et al. (2024) Development and application of Chinese medical ontology for diabetes mellitus. *BMC medical informatics and decision making*, 24(1), 18.

de Boer A, et al. (2024) Disentangling the heterogeneity of multiple sclerosis through identification of independent neuropathological dimensions. *Acta neuropathologica*, 147(1), 90.

Altuhaifa F, et al. (2024) Developing an Ontology Representing Fall Risk Management Domain Knowledge. *Journal of medical systems*, 48(1), 47.

Gonçalves RS, et al. (2024) The text2term tool to map free-text descriptions of biomedical terms to ontologies. *Database : the journal of biological databases and curation*, 2024.

Jung KH, et al. (2024) Acetyl-CoA synthetase 2 contributes to a better prognosis for liver cancer by switching acetate-glucose metabolism. *Experimental & molecular medicine*, 56(3), 721.

van Rijn JPM, et al. (2024) From papers to RDF-based integration of physicochemical data and adverse outcome pathways for nanomaterials. *Journal of cheminformatics*, 16(1), 49.