



DO Buzz Newsletter - July 2021

Upcoming Meetings

14th Annual Biocuration

<u>Conference</u>

Virtual

- Aug 17, 2021
- Oct 5, 2021
 - Annual general meeting
 - Biocuration award talks
- Poster session
- Dec 14, 2021

Environmental Health Language Collaborative Workshop

Sept 9-10, 2021 Virtual

12th International Conference

on Biomedical Ontologies Sept 15-18, 2021 Virtual / In-person Hybrid Bolzano, Italy

<u>American Society of Human</u> <u>Genetics Annual Meeting</u>

Oct 18-24, 2021 Virtual

Latest News: Check out the latest data and website updates!

- ♦ The Human Disease Ontology now includes 10,855 disease terms (76% with text definitions), 707 EQ, and 6,542 SubClassOf disease axioms
- ♦ Term updates:
 - Added "Disease Drivers", a new application ontology created for DO import
 - Added "Onset" an import from the Human Phenotype Ontology
 - Added environmental exposure terms for alcohol and age of onset
 - Added Ryanodine receptor-1 (RYR1) related disease terms
- ♦ Replaced "located in" with "disease has location" from the Relation Ontology
- ♦ New slim!! The **DO_RAD_slim** was created for the <u>**RadoNorm project**</u> -- an EU project focused on reducing the risks of radon and <u>naturally occurring radioactive material</u> (NORM) exposure.

Spotlight: Databases Using DO



	FlyBase	MGD	RGD	SGD	WormBase	ZFIN	Total
Genes	29,288	40,762	66,016	10,371	30,936	41,288	218,661
Alleles	2,988	13,300	160	0	418	426	17,292
Models	0	7,340	833	0	132	754	9,059
Total	32,276	61,402	67,009	10,371	31,486	42,468	245,012
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Disease records in databases of the Alliance of Genome Resources.

There are more than 245,000 records of disease annotations to genes, alleles, and affected genomic models among the model organism databases of the Alliance. A special thanks to the curators at the Alliance member databases for their work!

Select Databases Created or Updated this Year Using DO:

- IDG TCRD (Illuminating the Druggable Genome Target Central Resource Database): Proteomic, druggable target database behind the Illuminating the Druggable Genome program; searchable by disease. PubMed ID: <u>33156327</u>
- MNDR v3.1 (Mammalian ncRNA-Disease Repository): Contains >1 million ncRNA-disease entries for 11 mammals including miRNAs, lncRNAs, circRNAs, piRNAs and snoRNAs. PubMed ID: <u>32833025</u>
- HumanMetagenomeDB:

Ontology standardized metadata database for 69,822 metagenomes from MG-RAST and SRA; searchable by disease (links to DOIDs not included). **PubMed ID:** <u>33221926</u>





Latest Release Notes:

DO Data Release: Available in DO's GitHub repository: (previous release notes)

Release #99: July 29, 2021 Release Notes

DO's 99th GitHub release: includes 10,855 disease terms (76% with text definitions), 707 EQ and 6,542 SubClassOf disease axioms. Addition of "Disease Drivers" and "Onset" imports; doid-base.owl file, new disease terms including: diffuse large B-cell lymphoma activated B-cell type, diffuse large B-cell lymphoma germinal center B-cell type, autoimmune epilepsy, tuberculous encephalopathy; revised the Cowden classification; replace Relation term: 'located in' with 'disease has location'.

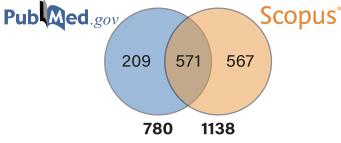
Release #98: June 8, 2021 Release Notes

This release includes axiom updates defining anatomy to disease relationships (change from 'located in' to 'disease has location' usage in the logical axioms); the addition of Ryanodine receptor-1 (RYR1) related disease terms. 10,844 DO disease terms.

Disease Ontology Citations:

The DO team has identified > 1300 DO project citations (as of July 2021). This is a big increase from the 700+ reported in February. Now, articles citing DO in Scopus are listed in addition to those found by data mining PubMed publications (direct DO paper citations, inclusions of 'Disease Ontology', DO URL or DOID).

Here's the breakdown of articles identified in PubMed and Scopus: <u>PubMed MyNCBI collection (DO-citing papers)</u> Scopus (requires subscription)



This collection represents the growing number of instances of integration of DO in databases, research studies, and bioinformatics tools.

<u>DO's YouTube</u> Channel Latest Videos:



- ♦ Cancer resources and tools utilizing the Human Disease Ontology
- ♦ How the Human Disease Ontology is used for drug studies

Videos are also available as a playlist ("The Human Disease Ontology") on:

Society for Biocuration <u>YouTube Channel</u> and **Biomedical Ontology World** <u>YouTube Channel</u>