# **Resource Summary Report**

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## **InterLex**

RRID:SCR\_016178

Type: Tool

### **Proper Citation**

InterLex (RRID:SCR\_016178)

#### **Resource Information**

**URL:** http://interlex.org

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**Description:** The InterLex project - a core component of SciCrunch and supported by projects such as the Neuroscience Information Framework project (NIF), the NIDDK Information Network (dkNET), and the Open Data Commons for Spinal Cord Injury - is a dynamic lexicon of biomedical terms. Unlike an encyclopedia, a lexicon provides the meaning of a term, and not all there is to know about it. InterLex is being constructed to help improve the way that biomedical scientists communicate about their data, so that information systems like NIF and dkNET can find data more easily and provide more powerful means of integrating that data across distributed resources. One of the big roadblocks to data integration in the biomedical sciences is the inconsistent use of terminology in databases and other resources such as the literature. When we use the same terms to mean different things, we cannot easily ask questions that span across multiple resources. For example, if three databases have information about what genes are expressed in cortex, but they all use different definitions of cerebral cortex, then it is hard to compare them. InterLex allows for the association of data values (i.e. the value of a field or text within a field) to terminologies enabling the crowdsourcing of data-terminology mappings. InterLex was built on the foundation of NeuroLex (see Larson and Martone 2013 Neurolex: An online framework for neuroscience knowledge. Frontiers in Neuroinformatics, 7:18) and contains all of the existing NeuroLex terms. The initial entries in NeuroLex were built from the NIFSTD ontologies. NIFSTD currently has about 60,000 concepts (includes both classes and synonyms) that span gross anatomy, cells, subcellular structures, diseases, functions and techniques. InterLex models terms using primitives of the Web Ontology Language (OWL) and can export directly to a variety of standard ontology formats. A primary goal of interlex is to provide a stable layer on top of the many other existing terminologies, lexicons, and ontologies (i.e. provide a way to federate ontologies for data applications) and to provide a set of inter-lexical and inter-data-lexical mappings. In the future, InterLex will support user

specific namespaces so that users can customize the exact definitions or ontologies they source from, as well as the relationships on those terms. Importantly, however, InterLex enforces a simple rule which is that terms which represent the same concept under the same superclass will maintain the same identifier fragment (i.e. 'ilx\_1234567'). However, each user will be able to 'fork' a term into their own namespace (e.g.

http://uri.interlex.org/user/ilx\_1234567). This enables the various perspectives on a term or concept to have equal space so that the full diversity of views on a term can be seen and expressed. Sign-up for updates to get notified about updates to InterLex and when new features are available.

**Resource Type:** controlled vocabulary, wiki, data or information resource, ontology, narrative resource

**Keywords:** terminology, lexicon, vocabulary

**Funding:** 

**Resource Name:** InterLex

Resource ID: SCR\_016178

Old URLs: https://scicrunch.org/scicrunch/interlex/dashboard

**Record Creation Time:** 20220129T080329+0000

**Record Last Update:** 20250524T060701+0000

### **Ratings and Alerts**

No rating or validation information has been found for InterLex.

No alerts have been found for InterLex.

#### Data and Source Information

Source: SciCrunch Registry

### **Usage and Citation Metrics**

We found 4 mentions in open access literature.

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

Bueckle A, et al. (2025) Construction, Deployment, and Usage of the Human Reference Atlas Knowledge Graph for Linked Open Data. bioRxiv: the preprint server for biology.

lavarone E, et al. (2023) Thalamic control of sensory processing and spindles in a

biophysical somatosensory thalamoreticular circuit model of wakefulness and sleep. Cell reports, 42(3), 112200.

Surles-Zeigler MC, et al. (2022) Extending and using anatomical vocabularies in the stimulating peripheral activity to relieve conditions project. Frontiers in neuroinformatics, 16, 819198.

Kennedy DN, et al. (2019) Everything Matters: The ReproNim Perspective on Reproducible Neuroimaging. Frontiers in neuroinformatics, 13, 1.