Resource Summary Report

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GOLEM An interactive, graphical gene-ontology visualization, navigation, and analysis tool

RRID:SCR_003191
Type: Tool

Proper Citation

GOLEM An interactive, graphical gene-ontology visualization, navigation, and analysis tool (RRID:SCR_003191)

Resource Information

URL: http://function.princeton.edu/GOLEM/index.html

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Description: THIS RESOURCE IS NO LONGER IN SERVICE, documented July 7, 2017. Welcome to the home of GOLEM: An interactive, graphical gene-ontology visualization, navigation,and analysis tool on the web. GOLEM is a useful tool which allows the viewer to navigate and explore a local portion of the Gene Ontology (GO) hierarchy. Users can also load annotations for various organisms into the ontology in order to search for particular genes, or to limit the display to show only GO terms relevant to a particular organism, or to quickly search for GO terms enriched in a set of query genes. GOLEM is implemented in Java, and is available both for use on the web as an applet, and for download as a JAR package. A brief tutorial on how to use GOLEM is available both online and in the instructions included in the program. We also have a list of links to libraries used to make GOLEM, as well as the various organizations that curate organism annotations to the ontology. GOLEM is available as a .jar package and a macintosh .app for use on- or off- line as a stand-alone package. You will need to have Java (v.1.5 or greater) installed on your system to run GOLEM. Source code (including Eclipse project files) are also available. GOLEM (Gene Ontology Local Exploration Map)is a visualization and analysis tool for focused exploration of the gene ontology graph. GOLEM allows the user to dynamically expand and focus the local graph structure of the gene ontology hierarchy in the neighborhood of any chosen term. It also supports rapid analysis of an input list of genes to find enriched gene ontology terms. The GOLEM application permits the user either to utilize local gene ontology and annotations files in the absence of an Internet connection, or to access the most recent ontology and annotation information from the gene ontology

webpage. GOLEM supports global and organism-specific searches by gene ontology term name, gene ontology id and gene name. CONCLUSION: GOLEM is a useful software tool for biologists interested in visualizing the local directed acyclic graph structure of the gene ontology hierarchy and searching for gene ontology terms enriched in genes of interest. It is freely available both as an application and as an applet.

Abbreviations: GOLEM

Synonyms: GOLEM An interactive graphical gene-ontology visualization navigation and analysis tool, GOLEM An interactive graphical gene-ontology visualization navigation analysis tool

Resource Type: source code, service resource, production service resource, data analysis service, analysis service resource, software resource

Defining Citation: PMID:17032457

Keywords: gene ontology, ontology visualization, ontology analysis

Funding: NIGMS R01 GM071966;
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Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: GOLEM An interactive, graphical gene-ontology visualization, navigation, and analysis tool

Resource ID: SCR_003191

Alternate IDs: nif-0000-30620

Alternate URLs: https://lsi.princeton.edu/golem-interactive-graph-based-gene-ontology-navigation-and-analysis-tool

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Record Last Update: 20250519T203236+0000

Ratings and Alerts

No rating or validation information has been found for GOLEM An interactive, graphical gene-ontology visualization, navigation, and analysis tool.

No alerts have been found for GOLEM An interactive, graphical gene-ontology visualization, navigation, and analysis tool.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 3 mentions in open access literature.

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

Rozman J, et al. (2018) Identification of genetic elements in metabolism by high-throughput mouse phenotyping. Nature communications, 9(1), 288.

Fairhead M, et al. (2014) Plug-and-play pairing via defined divalent streptavidins. Journal of molecular biology, 426(1), 199.

Sharpe HJ, et al. (2010) A comprehensive comparison of transmembrane domains reveals organelle-specific properties. Cell, 142(1), 158.