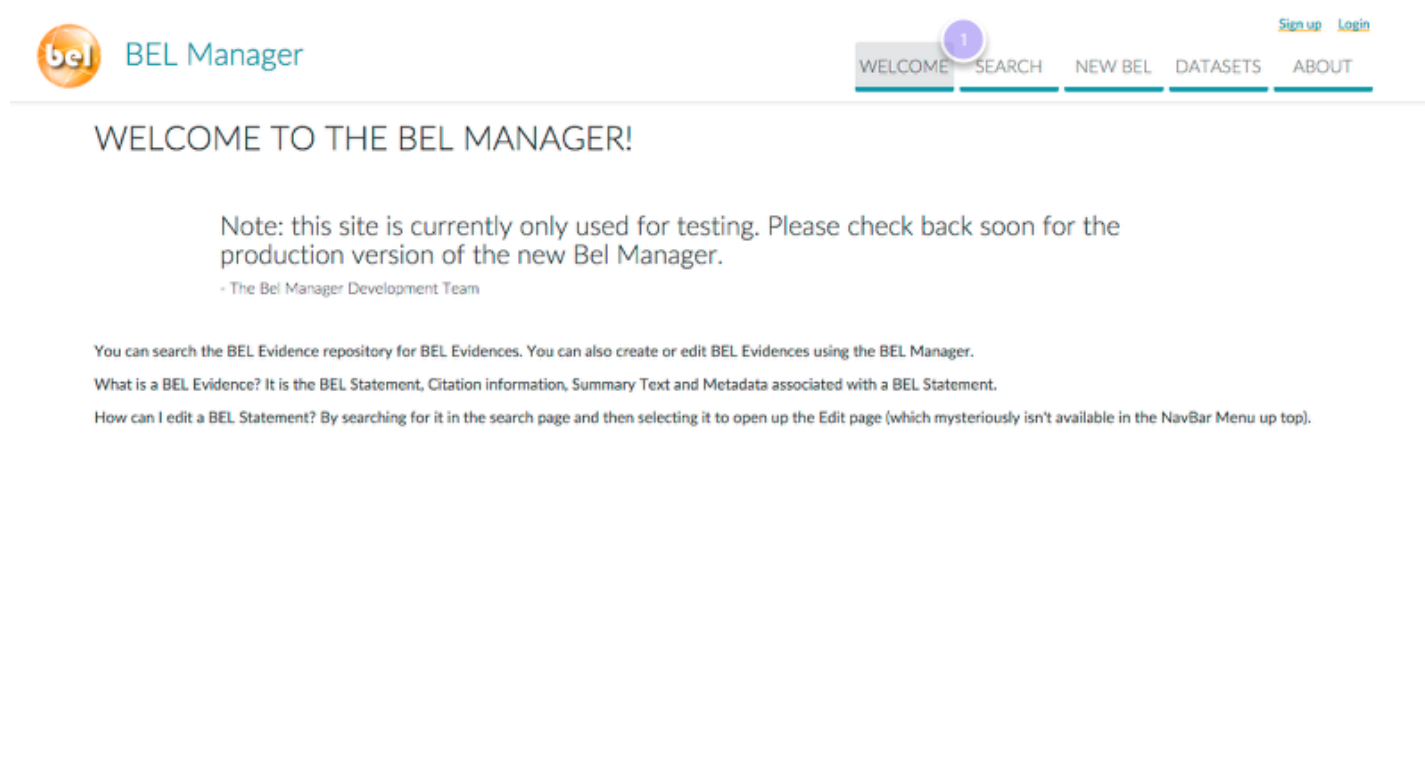


1. BELMgr Overview (USER)

1.1 Welcome Page (USER)



Welcome to the BEL Manager! The Welcome page offers resources on how to get started with the BEL Language and the BEL Manager. You may return to this page at any point by clicking on the Welcome tab on the navigation bar (1).

1.2 Search - Navigation



The Search page can be accessed by clicking on the 'Search' tab on the navigation bar (1). This page will allow you to search for BEL Evidences.

1.3 Search - Page Tour

The screenshot shows the BEL Manager Search interface. Callout 1 points to a search result entry. Callout 2 points to the 'SHOWING 50 OF 54479 RESULTS' dropdown. Callout 3 points to the 'SPECIES' filter section on the left. Callout 4 points to the search bar at the top.

Search Bar (4): Contains the text 'search' and a magnifying glass icon.

Results Summary: SHOWING 50 OF 54479 RESULTS

Filters (3):

- SPECIES**
 - 9606 (34292)
 - 10090 (14398)
 - 10116 (5132)
- TEXTLOCATION**
 - Review (1769)
 - Results (1422)
 - Abstract (662)
 - Legend (146)
- ANATOMY**
 - liver (1723)

Search Results (1):

	a(CHEBI:"1-octadec-9-enoylglycero-3-phosphate") increases kin(p(HGNC:EGFR)) Species::9606, Anatomy::prostate gland, Cell::squamous epithelial cell	
	a(CHEBI:"1-octadec-9-enoylglycero-3-phosphate") increases kin(p(HGNC:MAPK1)) Species::9606	
	a(CHEBI:"1-octadec-9-enoylglycero-3-phosphate") increases kin(p(HGNC:MAPK1)) Species::9606, Cellline::3T3-L1 cell, Anatomy::cardiovascular system endothelium, Cell::T cell, Disease::leukemia	
	a(CHEBI:"1-octadec-9-enoylglycero-3-phosphate") increases kin(p(HGNC:MAPK1)) Species::9606	
	a(CHEBI:"1-octadec-9-enoylglycero-3-phosphate") increases kin(p(HGNC:MAPK3)) Species::9606	
	a(CHEBI:"1-octadec-9-enoylglycero-3-phosphate") increases kin(p(HGNC:MAPK3))	

The BEL Evidence results (1) listed on the Search page include the BEL statement, experimental context, associated study species icon, and the option to delete a statement by clicking on the delete icon to the right of the statement. Note: deleting an Evidence result on the BEL Manager will remove the file permanently for all users. Be sure to double check that you are selecting the correct BEL Evidence before proceeding to delete!

You may adjust the number of search results shown per page using the drop-down above the search results(2). The BEL Manager will save your view preferences to your username profile.

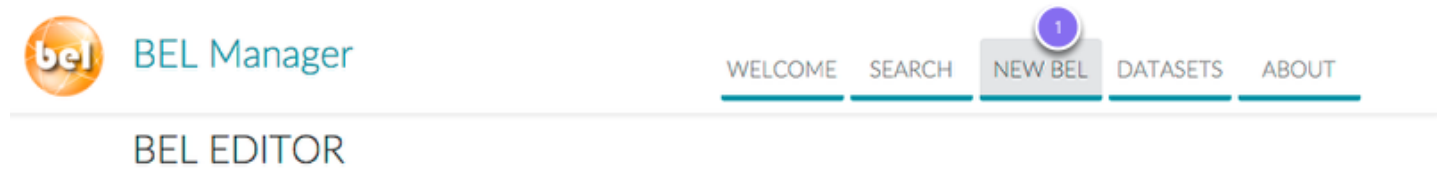
Filters on the lefthand side of the page will allow you to search for BEL Evidences by metadata keywords (3). The numbers surrounded by parens to the right of the keywords indicate the total number of statements in the database associated with each individual keyword. The numbers are dynamically updated as multiple keyword criteria are selected. Keywords are organized by the following metadata categories:

- Species
- Text Location
- Anatomy
- Cell
- Cell Structure
- Cell Line
- Reference ID
- Disease
- Mesh Anatomy
- Mesh Disease
- NCBI Taxonomy

The Search Bar (4) atop the metadata search filters will allow you to search BEL Statements by keyword. After searching a keyword in the Search Bar all filter result counts will be updated.

Selecting a BEL Statement will route you to the BEL Editor page where you may review the content associated with the Evidence or contribute your own content to the Evidence.

1.4 BEL Editor: Editing and Creating BEL Evidences - Navigation



The BEL Editor allows you to edit or create a new BEL Evidence. Access the BEL Editor by selecting a BEL Evidence from the Search page to review or edit (as shown on the previous step), or click on the 'New BEL' (1) tab on the Navigation Bar to create a new Evidence.

1.5 BEL Editor: Editing and Creating BEL Evidences - Page Tour

CITATION ¹

Type	Reference ID	Publication Date
PubMed	Citation Reference - e.g. PubmedID, ISBN, or URL	mm/dd/yyyy
Reference Name Citation Name - e.g. journal or book reference		
Authors		

BEL STATEMENT ²

	--Relation--	
--	--------------	--

SUMMARY TEXT ³

Extract from source text supporting this BEL Statement

EVIDENCE NOTES ⁴

EXPERIMENTAL CONTEXT ⁵

Context Type	Value
	Enter experimental context value

BEL EVIDENCE METADATA ⁶

Review Status Draft	Author	Date Created mm/dd/yyyy
	Reviewer	Date Reviewed mm/dd/yyyy
	BEL Evidence Source	

The BEL Editor contains the following fields:

1. Citation: this section contains the study citation fields: type, reference ID, Publication Date, Reference Name and Authors.
2. BEL Statement: contains the statement triplet fields. An autocomplete feature will begin to list possible choices for the text fields after you have input three or more characters into the field.
3. Summary Text: is designated for text derived directly from the research article text supporting the BEL Statment Claim.

4. Evidence Notes: is designated for any text that is not derived directly from the research text. This text is often summarized text, explanations, etc.
5. Experimental Context: contains the Context Type field and associated Value field. An autocomplete feature will begin to list possible choices for the Context Type or Context Type and Value fields after you have input three or more characters into the field. You may enter multiple rows of Experimental Context in this section. A new row containing the Context Type and Value fields will appear upon completion of the previous row.
6. BEL Evidence Metadata: contains the Review Status, Author, Date Created, Reviewer, Date Reviewed and BEL Evidence Source Fields.

1.6 BEL Editor: Editing and Creating BEL Evidences - PubMed ID

CITATION

Type	Reference ID	Publication Date
PubMed	10532586	10/01/1999
Reference Name		
Authors		
separate authors with a semicolon ;		
<div> <div>Replace</div> <div>Authors listed on PubMed: Rizza C; Leitinger N; Yue J; Fischer DJ; Wang DA; Shih PT; Lee H; Tigyi G; Berliner JA</div> </div>		

When either editing or creating a BEL Evidence, a PubMed Reference ID inputted to the 'Reference ID' (1) field in the Citation section will allow the BEL Manager to retrieve study Evidence content from PubMed. You can see in the 'Authors' section of this study that the BEL Manager has retrieved the authors of the BEL Evidence associated study (2). Rather than typing or copy/pasting this information, you can simply click the 'Replace' (3) button to enter this data into the associated field.

1.7 BEL Editor: Editing Existing BEL Evidences - PubMed Study Content

BEL EDITOR

Europe PubMed Central

PubMed

PUBMED TITLE

Lysophosphatidic acid as a regulator of endothelial/leukocyte interaction.

ABSTRACT

Lysophosphatidic acid (LPA) is produced by a variety of activated cell types and acts as an intercellular mediator of processes associated with inflammation and repair including

CITATION

Type	Reference ID	Publication Date
PubMed	10532586	10/01/1999
Reference Name		
Lab Invest 1999 Oct 79(10) 1227-35		
<div> <div>Replace</div> <div>PubMed Citation: Lab. Invest., 1999 Oct, 79(10) p:1227-1235</div> </div>		
Authors		

While editing an BEL Evidence (selected from the Search page), and assuming that the Evidence is associated with a PubMed ID number (1), a gray bar on the lefthand side of the page will display the Title (2) and Abstract (3) of the Evidence's associated study. To navigate to the full text of the study, click on the 'PubMed' or 'Europe PubMed Central' buttons (4) at the top of the gray bar.

1.8 BEL Editor: Editing Existing BEL Evidences - Saving the Evidence



Note that when completed editing an Evidence, you will have the option to select either (1) 'Update Current BEL' or (2) 'Save as New.' Use caution: 'Update Current BEL' will apply your changes by overwriting the original Evidence with your updates. The 'Save as New' button will duplicate the original statement and save your changes within a new BEL Evidence.

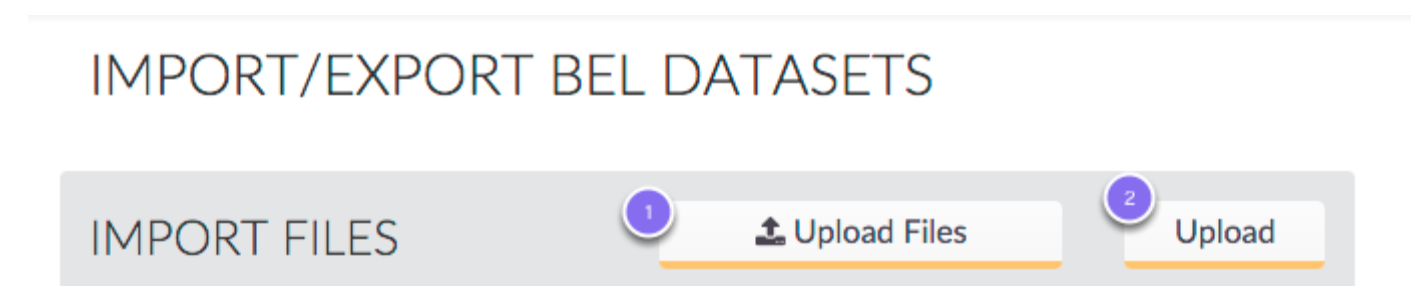
1.9 Datasets Page - Navigation



IMPORT/EXPORT BEL DATASETS

The Datasets Page can be accessed by clicking the 'Datasets' tab (1) on the Navigation Bar. It is used for importing and exporting files to/from the BEL Manager in BEL Script, BEL Evidence JSON and XBEL formats.

1.10 Datasets Page - Import Files



To Import Files, select the 'Upload Files' button (1) in the gray box at the top of the page. Upon selecting your local file, the file name will be listed within the button. Click the 'Upload' button (2) to upload the file to the BEL Manager.

1.11 Datasets Page Export Files

EXPORT FILES

<div>1</div> <div>BEL Framework Example 1 Document</div> <div>Example of modeling a full abstract taken from the BEL V1.0 Language Overview.</div>	<div>2</div> <div><div>BEL</div><div>JSON</div><div>XBEL</div></div>	<div>3</div> <div></div>
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The Export Files section lists the files available to download. Each row includes a file's title and file detail text (1), along with download buttons for BEL Script, JSON and XBEL formats (2). On the far right of every row is a delete icon (3). Use caution: deleting a dataset on the BEL Manger will remove the file permanently for all users. Be sure to double check that you are selecting the correct file before proceeding to delete!