Tools for Your Biological Sciences Research

Year 2 students

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Science Resource Librarians
13 Feb 2020
Keep this window open at all times! 😊

Access at
https://pollev.com/makmak
Outline

Using the Library

Working on your assignments

• Information Sources
• Overview of Search Strategies
• Performing a search in Scopus
• Accessing full texts in Google Scholar & external websites
• In-text Citations and Bibliography
• Bibliographic Software & Introduction to Zotero
Using the Library

https://libguides.nus.edu.sg/new2nus
The Library Portal (www.lib.nus.edu.sg)

- Searching for books, articles & more!
- Important Links and Information
- News & Events @ NUS Libraries
- Library Opening Hours & Calendars
FindMore (New) - Pilot

Search for books, journals, articles, media and more

Your Filters: Books and E-Resources, ScholarBank@NUS, Digital Gems, Yewno

Books and E-Resources
- The American horseshoe crab
  - Shuster, Carl N.; Barlow, Robert B.; Brockmann, H. Jane
  - Published: 2003

ScholarBank@NUS
- Application of cell-free hemolymph of horseshoe crab in antimicrobial drug screening
  - Du, R.; Ho, B.; Ding, J.L.
  - Published: 2011

- The dynamic role of lactulose in bacterial infection: A model for the formation of LPS-recognition complex by pathogen recognition receptors
  - Ng, N.G.; Chua, P.K.S.; Cheung, Sui C.;
  - Published: 2005

FindMore (New)

Use if you wish to discover relevant information from everything found in:
- Print/electronic collections
- NUS’ research output
- Digitised rare, historical & primary source materials
LINC

Use if you wish to search for a specific book or journal title

Physical Resources

Aquatic functional biodiversity: an ecological and evolutionary perspective


<table>
<thead>
<tr>
<th>LOCATION</th>
<th>CALL #</th>
<th>STACK#</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Library Books</td>
<td>QH90.8 Bio 2015</td>
<td></td>
<td>AVAILABLE</td>
</tr>
</tbody>
</table>

What if it’s a Closed Stacks item?
LINC

Use if you wish to search for a specific book or journal title

Electronic Resources

Aquatic functional biodiversity: an ecological and evolutionary perspective


Title: Aquatic functional biodiversity [electronic resource]: an ecological and evolutionary perspective / edited by Andrea Belgrano, Guy Woodward, Ute Jacob.


Online access via:

- ScienceDirect E-Books
- About this E-Resource
**RBR**
Book/textbook recommended by lecturers for specific modules

[FAQ on RBRs]
Outline

Using the Library

**Working on your assignments**

- Information Sources
- Overview of Search Strategies
- Performing a search in Scopus
- Accessing full texts in Google Scholar & external websites
- In-text Citations and Bibliography
- Introduction to Zotero

Assignment Cycle

- Identify database based on topic
- Develop search strategy
- Select relevant articles
- Obtain full text of identified articles
- Import citations
- Write assignment with references
- Write assignment with references
Working on your assignments

Information Sources

Assignment Cycle

1. Identify database based on topic
2. Develop search strategy
3. Select relevant articles
4. Obtain full text of identified articles
5. Import citations
6. Write assignment with references
Information Sources

- Theses & Dissertations
- Conference Proceedings
- Journal & newspaper articles
- Patents

- Review articles
- Bibliographies
- Books

can be retrieved by

databases and search engines
Let us know you better!

#WeAllChat

In the past, what websites/databases did you use to get information for your assignments?
**Recommended Online Resources**

<table>
<thead>
<tr>
<th>Type of Information</th>
<th>Recommended E-Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-disciplinary</td>
<td>Web of Science / Scopus / FindMore</td>
</tr>
<tr>
<td>Biomedical &amp; Life Sciences</td>
<td>BIOSIS Previews</td>
</tr>
<tr>
<td>Animal Biology &amp; Taxonomic Reference</td>
<td>Zoological Record</td>
</tr>
<tr>
<td>Animal Biology &amp; Taxonomic Reference</td>
<td>Biodiversity Heritage Library</td>
</tr>
<tr>
<td>Animal Biology &amp; Taxonomic Reference</td>
<td>Biodiversity Library of Southeast Asia</td>
</tr>
<tr>
<td>Medicine, Dentistry, Pharmacy, Healthcare &amp; Life Sciences</td>
<td>PubMed (MEDLINE)</td>
</tr>
<tr>
<td>Medicine, Dentistry, Pharmacy, Healthcare &amp; Life Sciences</td>
<td>Embase</td>
</tr>
<tr>
<td>Experimental Protocols</td>
<td>Springer Nature Experiments</td>
</tr>
<tr>
<td>Chemical Substance Structure / Properties &amp; Reaction Searching</td>
<td>Reaxys</td>
</tr>
<tr>
<td>Chemical Substance Structure / Properties &amp; Reaction Searching</td>
<td>SciFinder (registration)</td>
</tr>
<tr>
<td>Newspaper Articles / Local Content</td>
<td>Factiva / Nexis Uni / NewspaperSG</td>
</tr>
</tbody>
</table>
Overview of Search Strategies

Working on your assignments

1. Identify database based on topic
2. Develop search strategy
3. Select relevant articles
4. Obtain full text of identified articles
5. Import citations
6. Write assignment with references
7. Assignments Cycle
Workflow

1. Identify the keywords
2. Construct an effective search statement
3. Refine the search statement
Topic: importance of lactate dehydrogenase
Identified keywords: importance, lactate dehydrogenase

**OR**
- Connects synonyms or alternative terms:
  - importance OR significance
  - lactate dehydrogenase OR LDH

**/**
- Allows the search for different variations of a keyword
  - importance / important ⇒ importan*

**Broaden** your search with these search operators!
2 Construct an effective search statement

Identified keywords: importance, lactate dehydrogenase

“ ” Allows the search for exact phrases
“lactate dehydrogenase”

AND Connects the keywords together and restricts the search to retrieve only works that contain ALL of these keywords
importance AND lactate dehydrogenase

Narrow your search with these search operators!
Ideally, an effective search statement is one that
• enables a comprehensive search
• retrieves only relevant results

importan* OR significan*
AND
“lactate dehydrogenase” OR LDH
3 Refine the search statement

Look at the search results or the articles that are retrieved

• Are there NEW keywords or synonyms that you can add to your search statement?

Improvise your search statement!

#WeAllChat

Which search statement is likely to retrieve the highest number of results?
Working on your assignments

Performing a search in Scopus

Assignment Cycle

- Develop search strategy
- Identify database based on topic
- Select relevant articles
- Obtain full text of identified articles
- Import citations
- Write assignment with references

Performing a search in Scopus

Identify database based on topic

Develop search strategy

Select relevant articles

Obtain full text of identified articles

Import citations

Write assignment with references
Accessing Scopus

A **multi-disciplinary resource** covering the Sciences, Arts & Humanities and Social Sciences

*Image source: https://www.elsevier.com/solutions/scopus/content*
Accessing Scopus

NUS Libraries’ Portal:
Viewing the search results

47,495 document results

Viewing & sorting options

Documents  Secondary documents  Patents

Show all abstracts  Sort on: Date (newest)

Document title  Authors  Year  Source  Cited by


View abstract  View at Publisher  Related documents

2  Prognostic Nomogram For Locoregionally Advanced Nasopharyngeal Carcinoma  Jiang, Y., Qu, S., Pan, X., Huang, S., Zhu, X.  2020  Scientific Reports 10(1),861

View abstract  View at Publisher  Related documents

Filter options

Search within results...
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Year</th>
<th>Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>20(8), pp. 1234-1249</td>
</tr>
</tbody>
</table>

View abstract ▼ [Find It @ NUS Libraries] View full text View at Publisher Related documents
Viewing the document record

Use these features to help you access related articles

Cited by 18 documents

TRPM7 in CHB-induced renoprotection upon ischemia reperfusion-related injury

Prognostic value of D-lactate dehydrogenase in patients with clear cell renal cell carcinoma

Upregulation of lactate-inducible snail protein suppresses oncogene-mediated senescence through p16INK4a inactivation

View all 18 citing documents

Inform me when this document is cited in Scopus:

Set citation alert  Set citation feed

Related documents

Lactate dehydrogenase 5: An old friend and a new hope in the war on cancer

Inhibition of the Warburg effect with a natural compound reveals a novel measurement for determining the metastatic potential of breast cancers

Discovery of 2-((3-cyanopyridin-2-yl)thio)acetamides as human lactate dehydrogenase A inhibitors to reduce the growth of MG-63 osteosarcoma cells: Virtual screening and biological validation
Cui, W., Lv, W., Qu, Y. (2016) Bioorganic and Medicinal Chemistry Letters

View all related documents based on references

Find more related documents in Scopus based on:

Authors  Keywords
References (126)

1. Mi, K., Kalady, M.F., Quintini, C., Khorana, A.A.
Integrating systemic and surgical approaches to treating metastatic colorectal cancer
doi: 10.1016/j.soc.2014.09.006

2. Rolfo, C., Giovannetti, E., Hong, D.S., Bivona, T., Raez, L.E., Bronte, G., Buffoni, L., (...), Rosell, R.
Novel therapeutic strategies for patients with NSCLC that do not respond to treatment with EGFR inhibitors
http://www.elsevier.com/inca/publications/store/6/2/3/0/2/2/index.htm
doi: 10.1016/j.ctrv.2014.05.009

Other documents that are cited by this document
Using the search history

Scopus’ homepage:

<table>
<thead>
<tr>
<th>Search history</th>
<th>Combine queries...</th>
<th>e.g. #3 AND NOT #3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5 TITLE-ABS-KEY (lactate AND dehydrogenase)</td>
<td>107,812 document results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 TITLE-ABS-KEY (lactate dehydrogenase)</td>
<td>103,334 document results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (TITLE-ABS-KEY (importance) AND TITLE-ABS-KEY (&quot;lactate dehydrogenase&quot;))</td>
<td>2,126 document results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (TITLE-ABS-KEY (importance OR significance) AND TITLE-ABS-KEY (&quot;lactate dehydrogenase&quot; OR ldh))</td>
<td>6,545 document results</td>
<td></td>
<td></td>
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<tr>
<td>1 (TITLE-ABS-KEY (importance OR significance) AND TITLE-ABS-KEY (&quot;lactate dehydrogenase&quot; OR ldh))</td>
<td>47,495 document results</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- View search results again
- Edit search statement
Working on your assignments

Accessing full texts in Google Scholar & external websites

Assignment Cycle

- Develop search strategy
- Select relevant articles
- Import citations
- Obtain full text of identified articles
- Write assignment with references
- Identify database based on topic
Instructions on setting up NUS Libraries access in Google Scholar
Accessing full texts in external websites

Proxy Bookmarklet
Enables access to full-texts of subscribed journal articles on any webpage that requires users to pay, e.g. publisher’s or vendor’s site (example)

Instructions on installing NUS Libraries’ Proxy Bookmarklet
Working on your assignments

In-text Citations and Bibliography

Assignment Cycle

1. Identify database based on topic
2. Develop search strategy
3. Select relevant articles
4. Import citations
5. Obtain full text of identified articles
6. Write assignment with references

Working on your assignments
Why cite?

- To **acknowledge** the contributor(s) of ideas used in writings
- To **lend support to arguments** by referring to authoritative sources
- To help readers **verify** your claims
- To **show research done**

Figure 2. Plagiarism (Toonpool)
A common problem in the field of biotechnology is the unpredictability inherent in engineering complex biological systems. The use of a whole-system approach can prevent some of the obstacles encountered in bioengineering, including toxicity due to metabolite overproduction (Fletcher et al., 2016), metabolic bottlenecks, and other issues.
At the end of document:


Format varies according to the cited document type
- Book
- Book chapter
- Journal article
Let us know you better!

#WeAllChat

In the past, how did you cite the resources that you used in your assignment?
Assignment Cycle

- Identify database based on topic
- Develop search strategy
- Select relevant articles
- Obtain full text of identified articles
- Import citations
- Write assignment with references

Introduction to Zotero

Working on your assignments
A software that:

- stores + organises references from many sources
- inserts these references into a Word document
- automatically formats inserted references according to a predefined citation style

APA 6th
MLA
Harvard
Chicago
Reference management software

Comparison of EndNote, Mendeley and Zotero

NUS Libraries’ guide on EndNote
NUS Libraries’ guide on Mendeley
NUS Libraries’ guide on Zotero
## Related workshops

### Semester 2, AY 2019/2020

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Registration</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Feb (Sat)</td>
<td>12-2pm</td>
<td>Central Library</td>
<td>Link</td>
<td>Visit <a href="#">NUS Libraries’ guide on Mendeley</a> for instructions before attending the workshop</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Theatrette 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 Feb (Wed)</td>
<td>2-4pm</td>
<td>TBC</td>
<td>Link</td>
<td></td>
</tr>
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</table>

**Information updated as of 13 Feb 2020**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Registration</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 Feb (Thu)</td>
<td>10am-12pm</td>
<td>Science Library</td>
<td>TBC</td>
<td>Visit <a href="#">NUS Libraries’ guide on EndNote</a> for instructions before attending the workshop</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Training Room</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Visit NUS Libraries’ guide on Mendeley](#)
[Visit NUS Libraries’ guide on EndNote](#)
Zotero Workflow

1. Open Zotero Library
2. Add references to Zotero Library
3. Insert citations into Word document
4. Create bibliography in Word document
5. Change citation style
1 Open Zotero Library

Launch Zotero in your PC. An empty library will be displayed:

Welcome to Zotero!

View the Quick Start Guide to learn how to begin building your library, and be sure to install a Zotero Connector so you can add items to Zotero as you browse the web.

Already using Zotero on another computer? Set up syncing to pick up right where you left off.
2a Add references to Zotero Library

Install the Zotero Connector by clicking “Install”:

In Chrome Web Store, select “Add to Chrome”. A popup message appears – click “Add extension”:
2a Add references to Zotero Library

A document icon* appears beside the address bar when Zotero Connector is successfully installed:

*Depending on the detected material type, this icon appears differently from site to site

Go back to the database where the target work(s) is/are. Click the icon:
In the popup box, select the work(s) whose reference(s) are to be downloaded. Click “OK”:
2b Add references to Zotero Library

Alternatively, drag and drop downloaded PDFs (containing DOIs) in the Zotero Library.
Add references to Zotero Library

Alternatively, click the plus button to add a reference manually by keying in the details.
2 Add references to Zotero Library

Are you adding a...

You can try:

**Method 1**
Import PDF of e-book

**Method 2**
Search for the book in [FindMore](#) or [Amazon](#), and use Zotero connector to add reference

Let’s try this book!
Understanding PCR: A Practical Bench-Top Guide
Add references to Zotero Library

Are you adding a...

You can try:

Step 1
Use Zotero connector in the website of the article to add reference

Step 2
Check that the imported details are complete and edit accordingly

Let’s try this article!  The Straits Times
3 Insert citations into Word document

Install add-in via Zotero Library before you begin:

A message appears when installation is successful:
Open Word and select the new Zotero tab:

Type the title, author or year to search and select the work that you wish to cite. Select the right title and press Enter key to insert:

We can insert the relevant citations into the document as we complete our reports and thesis.
3 Insert citations into Word document

You may also search for multiple references at a time if you wish to cite multiple sources for a single point raised:

We can insert the relevant citations into the document as we complete our reports and theses.
Place the text cursor at the end of the document. Click “Add/Edit Bibliography” to generate the bibliography:

We can insert the relevant citations into the document as we complete our reports and thesis:

References


5 Change citation style

Click “Document Preferences” to select the desired style from the list:

If the style is not found in the list, click “Manage Styles...”: 
Another box pops up. Click “Get additional styles...”:

Conduct a title search and click the desired style:
Once the newly-added style is in the Style Manager, click “OK”:

To adopt the newly-added style, click “Document Preferences” again and select it from the list:
Edit/remove citations

Place the text cursor at the in-text citation that needs amendments. Click “Add/Edit Citation”:

Delete the unwanted citation(s) or edit the citation by clicking it:
Save the present document first.
By clicking “Unlink Citations”, field codes are removed after the Word Document is saved as an additional plain text Document.
Let us know you better!

Visit your usual go-to database/website, do a search and try adding the references. Where did you try in? Did it work, and how did you do it?
Quiz Time!

Please access the quiz at https://kahoot.it/
Thank you!

Please access the survey @ http://bit.ly/ScienceT2020

Programme Name: Year 2 Bio Workshop

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sclib@nus.edu.sg
Facebook:  
NUS Life Sciences Society  

Instagram:  
@nuslifescisoc
Let us know you better!

#WeAllChat

What other kinds of workshops/initiatives would you like to see Life Sciences Society organising/kickstarting?
LIKE US ON FACEBOOK

NUSLIBRARIES