# Using BibTeX to add a bibliography

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#### Overview

In this example, the use of BibTeX for incorporating references into a Markdown manuscript is described.

BibTeX is a file format used for describing references and is commonly used in conjunction with LaTeX documents. A .bib file contains one or more reference entries, each of which contains all of the necessary information to describe a single bibliography entry.

An example entry might look like:

```
@article{Yizhak2015,
author = {Yizhak, Keren and Chaneton, Barbara and Gottlieb, Eyal and Ruppin, Eytan},
keywords = {11,15252,20145307,2015,817,accepted 26 may 2015,cancer metabolism,doi 10,genome-
pages = {1--17},
title = {{Modeling cancer metabolism on a genome scale}},
year = {2015}
}
```

Additional fields for including an abstract, isbn, etc. may also be included.

Notice in particular the string just after the opening bracket on the first line: Yizhak2015. This will be the reference key you use to cite the article in your document text (more on this later.)

Most popular reference managers are capable of generating .bib files for a collection of references. For example, in Mendeley, you can use the "export" option on a selected set of references to generate a BibTeX file. An easy way to organize your references then is to simply have a separate folder for each manuscript in Mendeley. Indeed there is even an option to have Mendeley automatically generate a .bib file for each folder you create, such that whenever a new reference is added to that folder, the corresponding .bib file is automatically updated.

## Adding a BibTeX bibliography

After generating a BibTeX bibliography, you need to tell Pandoc where to find it. To do this, edit the YAML block at the top of your Markdown document, and add a bibliography entry:

\_\_\_

title: Using BibTeX to add a bibliography

author: Keith Hughitt date: 2015/09/10

bibliography: references.bib

---

To cite an article in your bibliography, you simply add an entry of the following form:

```
[@Ref1; @Ref2; etc.]
```

For example, here we cite the first two entries from our bibliography (1, 2), and a few more (3–6).

To have a references section automatically generated and appended to the bottom of the file, we can then use the excellent pandoc citeproc extension:

```
pandoc --filter pandoc-citeproc input.md -o output.pdf
```

## Specifying the citation style to use

To specify which citation and bibliography style should be used for the output PDF, you can use the --csl citeproc parameter to choose from one of over 7500 possible citation styles.

Simply download the citation style (.csl) file for the format you wish to use and modify your pandoc command to include it, e.g.:

```
pandoc --filter pandoc-citeproc input.md --csl nucleic-acids-research.csl -o output.pdf
```

Some additional examples of how to include citations in Markdown are described in the RMarkdown documentation.

## References

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- 4. Clarke, R., Ressom, H.W., Wang, A., Xuan, J., Liu, M.C., Gehan, E. a and Wang, Y. (2008) The properties of high-dimensional data spaces: implications for exploring gene and protein expression data. *Nature reviews. Cancer*, **8**, 37–49.
- 5. Yin, W., Garimalla, S., Moreno, A., Galinski, M.R. and Styczynski, M.P. (2015) A tree-like Bayesian structure learning algorithm for small-sample datasets from complex biological model systems. *BMC Systems Biology*, **9**, 49.
- 6. Yizhak, K., Chaneton, B., Gottlieb, E. and Ruppin, E. (2015) Modeling cancer metabolism on a genome scale.