

Bibliometrics for Lipidomics

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Bibliometrics is the use of computational methods to analyze bodies of text, such as scientific articles. This iSLS workshop will introduce two bibliometrics resources and demonstrate how to use them to study lipid research. However, the tools are not specific to lipids and are equally useful to study other fields of science. In this workshop, we will specifically cover how to perform advanced literature searches in Europe PMC and visualize the results as networks using VOSviewer.

Europe PMC provides access to life sciences literature, metadata and annotations. It is available for anyone, anywhere, for free. With Europe PMC you can search and read 43.5 million publications, including all those in PubMed and PubMed Central, preprints, patents and other documents enriched with links to other databases and repositories. Europe PMC also provides an interface to text mining results, including for organisms, diseases, genes, proteins and small(er) molecules such as lipids.

Complementing Europe PMC, the VOSviewer is a software tool for building and visualizing networks from a body of documents such as scientific papers. The nodes in the network can represent (key)words, authors, journals or institutions, while the edges typically represent co-occurrences, co-authorships or citations. Information about publication date can be used to visualize trends in research topics or methodology. The VOSviewer and Europe PMC work well together, with the VOSviewer being able to search Europe PMC directly, as well as take Europe PMC results as input.

Europe PMC and the VOSviewer are a powerful combination for generating overviews of a field of research, addressing questions such as who does research on what and with whom, and when and where this research was performed or published. This is equally useful for PhD students starting out in a field as for senior researchers writing grant applications or reviews.