

## THE BIOVELO QUERY LANGUAGE AND ITS WEB INTERFACES

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BioVelo is a concise query language that has been developed to query biological databases created with Pathway Tools. BioVelo is based on a simple mathematical concept, i.e., list comprehension, that is simpler than the concepts used by SQL (Structured Query Language).

A user Web interface, called the Structured Advanced Query Page (SAQP), that uses BioVelo as its underlying query language, enables the formulation and submission of complex and precise queries against a large number of databases. The SAQP provides a large number of relational and logical operators as well as quantifiers on lists, regular expressions, and table joins.

Essentially, the SAQP is a graphical user interface to formulate queries as complex as could be formulated in SQL. A Free Form Advanced Query Page (FFAQP) is also available where a text form of a BioVelo query can be edited and submitted.

BioVelo, FFAQP and the SAQP have been developed to provide advanced searching tools for the Web version of Pathway Tools. They are available at [BioCyc.org](http://BioCyc.org) as well as many other Web sites based on Pathway Tools.

The latest documentation on BioVelo is available at [BioCyc.org/bioveloLanguage.shtml](http://BioCyc.org/bioveloLanguage.shtml).