

# A User-centric Framework for Accessing Biological Sources and Tools\*

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**Abstract.** Biologists face two problems in interpreting their experiments: the integration of their data with information from multiple heterogeneous sources and data analysis with bioinformatics tools. It is difficult for scientists to choose between the numerous sources and tools without assistance. Following a thorough analysis of scientists' needs during the querying process, we found that biologists express *preferences* concerning the sources to be queried and the tools to be used. Interviews also showed that the querying process itself – the *strategy* followed – differs between scientists. In response to these findings, we have introduced a user-centric framework allowing to specify various querying processes. Then we have developed the BioGuide system which helps the scientists to choose suitable sources and tools, find complementary information in sources, and deal with divergent data. It is generic in that it can be adapted by each user to provide answers respecting his/her *preferences*, and obtained following his/her *strategies*.

**Availability:** <http://www.lri.fr/~cohen/bioguide/bioguide.html>.

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