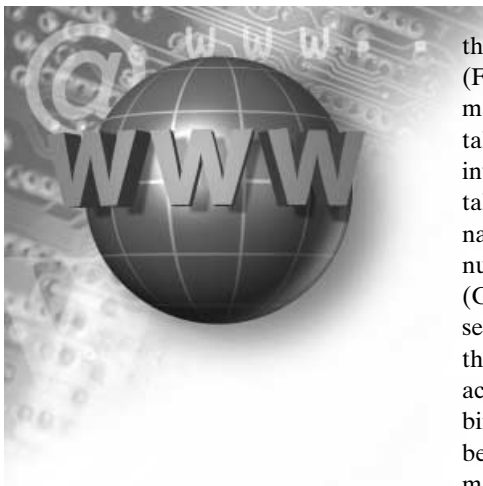

The Phosphorylation Site Database—A Valuable Tool for Biologists and Biochemists?

Catchy expressions such as "knowledge management" have permeated scientific and economic publications. Therefore, it is delightful to find a web site which was apparently designed to process existing knowledge and to present it in a manner that facilitates the use of that knowledge. Knowledge management is extremely important in our knowledge-driven society, where it is easy to obtain information but hard to filter the data or, even worse, spend a lot of time to reinvent the wheel over and over again.

The home page of the Phosphorylation Site Database (Figure 1) contains some general information pertaining to the purpose of the site, the authors, and the principles according to which new entries are added to the database. For researchers who are new to the field of protein phosphorylation, the links at the bottom of the page are very useful, for instance to the Protein Kinase Resource.

A list of search options is followed by the link to the actual search page (Figure 2). The choice of search options makes it apparent that the authors have taken the needs of different user groups into account. Searches can be undertaken using either the protein name, the name of the corresponding gene, a number drawn from another database (GenBank, SwissProt, or PIR), the sequence which is phosphorylated in the protein, the phosphorylated amino acid, and bibliographic data, or a combination of the above. Helpful hints can be activated by clicking on the question mark next to each search field.

The search criterion "Archea" or "Bacteria" does not really influence the search speed because there are only 79 entries in the database (at the time of writing). However, restructuring a database at a later point in time is always tedious, therefore this foresight is commendable.

Search results are presented in a very organized fashion. The data contain numerous links which open a new window and bring the user directly to the corresponding entries in another database, such as SwissProt. The bibliographic data are linked to the paper in question at the publisher's site. The focus of this database may be too narrow for a large part of the scientific community. As more information is gathered, which proves the importance of phosphorylation processes for the viability of organisms, this database will likely attract more attention in the future.

The "New Entries Since" field revealed that, unfortunately, no new entries have been added since March 2001. Hence, one is left to hope that the authors add more entries, or allow other users to enter their data via suitable entry forms. The latter option would probably enhance the popularity of this database.

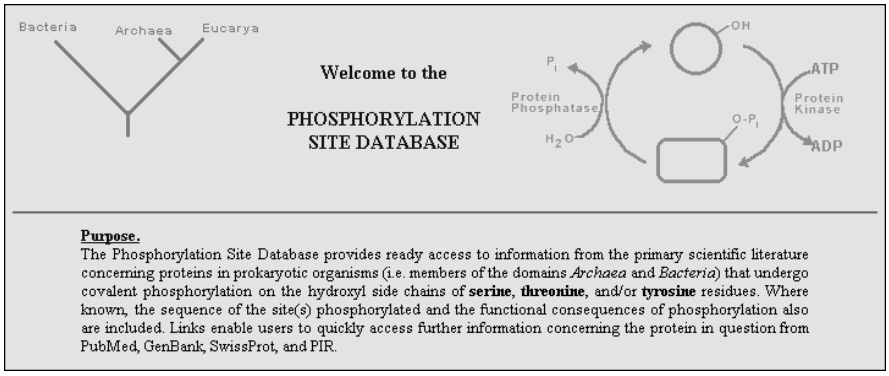

Figure 1. Excerpt from the Homepage of the Phosphorylation Site Database.

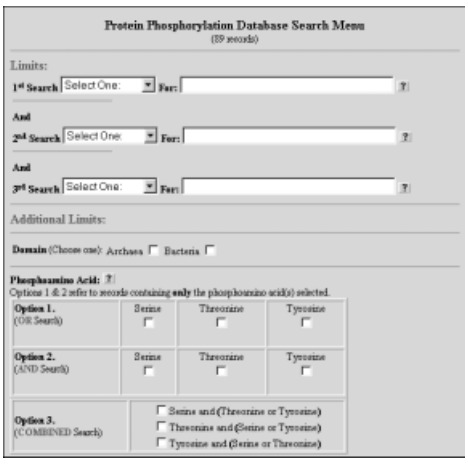

Figure 2. The Phosphorylation Site Database Search Page.

Suggest a web site or submit a review:
angewandte@wiley-vch.de

The authors have facilitated the access to information on phosphorylated proteins. They have made some of the available information manageable. In light of the number of phosphorylated and phosphorylating proteins and peptides, the current size of the database is too small to support a rating as an important tool for researchers. An enlargement of the database is necessary. Who should undertake this task? Given the current amount of research in this field, a single person or group would soon be unable to handle the flow of data. Asking different groups to enter the data themselves may lead to problems as well. Hence, a system similar to PDB is needed. In conclusion, this database is a very good idea, but further developments are more than necessary.

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