



## Snapshots of Biochemistry

One mouse click and the internet user is located on the site of a small biochemistry tutorial of the Indiana State University (Figure 1). The first page presents a subject index which is comparable to a summary of headlines from a biochemistry lecture for medical students. In addition to some introductory chapters on the basic principles of chemistry, the explanations about general metabolism are quite extended. Besides glycolysis, gluconeogenesis, the TCA cycle, and oxidative phosphorylation, more specialized topics are discussed as well, such as sphingolipid metabolism and glycoprotein synthesis. There is, of course, a prior introduction to the principles of enzyme catalysis and the function of vitamins as coenzymes, as well as to the fundamentals of enzyme kinetics.

Furthermore, processes during gene expression are discussed and signal transduction is illustrated through the example of G-protein coupled receptors as well as receptor tyrosine kinases.

The special medical character of this site is reflected by the selection of subjects like "type 1 and 2 diabetes mellitus", "molecular tools of medicine", and the chapter about "tumor suppressors and cancer" as well as by the content focus of some chapters. For example, the representation of the sphingolipid metabolism is focused on the pathology of a disease which is due to a defect of the acidic sphingomyelinase. Unfortunately, there is only little information on the enzyme itself, which exists in different isoforms.

The question of the optimal layout of such a site will naturally be answered in a subjective manner. Therefore, it should only be noticed that the dismal brown used as a background color surely causes no further motivation of the reader. In this context however, it is more important that each subject is introduced by an optically highlighted index and that the text is written briefly and precisely and structured in a meaningful way by exact headings. Many links interconnect the individual chapters to an organic whole and enable to represent biochemistry as an overview. Unfortunately, the author failed to provide literature references, so that the interested reader is left alone with the search for further articles or reviews. Moreover, in some chapters

there are only a few illustrations, and they often have an insufficient resolution. Furthermore, a special print version of all pages could save a lot of paper and page breaks in the middle of pictures could also easily be avoided.

Suggest a web site or submit a review:  
[angewandte@wiley-vch.de](mailto:angewandte@wiley-vch.de)

This site is certainly not a mirror image of current research, but rather presents the very basics of biochemistry. It contains more or less all that medical students should keep in their long-time memories in the course of their studies. The site can be recommended in lectures, not as an online textbook, but rather as a collection of summarizing filing cards based on a part thereof.

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Figure 1. Start page of the medicinal biochemistry site.

For further information visit:  
<http://web.indstate.edu/thcme/mwking/home.html>  
 or contact  
[mwking@indstate.edu](mailto:mwking@indstate.edu)