Biochemical software: Carbohydrates on Laboratory.

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Educators around the world are being challenged to develop and design better and more effective strategies for student learning using a variety of modern resources. In this present work, an educational hypermedia software was constructed as a support tool to biochemistry teaching. Occurrence, structure, main characteristics and biological function of the biomolecule Carbohydrates were presented through modules. The software was developed using concept maps, ISIS-Draw, and FLASH-MX animation program. The chapter Carbohydrates on Laboratory illustrates experimental methods of carbohydrates characterization, through animation of a laboratory scenery. The subject was developed showing reactions as Bial, Benedict, Selliwanoff, Barfoed, Phenol Sulphuric, and Iodines, and also enzymatic reactions as glucose oxidase and amylase. There are also links with short texts in order to help the understanding of the contents and principles of laboratory practice as well as background reactions. Application of the software to undergraduate students and high school teachers showed an excellent acceptance. All of them considered the software a very good learning tool. Both teachers and students welcomed this program as it is more flexible, and allows the learning in a more individual rhythm. In addition, application of the software would be suitable to a more effective learning and it is less expensive than conventional experimental teaching.

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