time compared with either manual calculation or use of a small electronic calculator.

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Computer-Operated Systems for the Retrieval of Information from Current Biochemical Literature

By JOHN B. JEPSON (*Courtauld Institute of Biochemistry, The Middlesex Hospital Medical School, London W1P 5PR, U.K.*)

Several machine-readable information systems encompassing the biological sciences are now operating in Britain, with the Biochemical Society officially involved in their development and evaluation through its links with the Consortium on Chemical Information and the Biological Council's Committee on Biological Information. The 'selective dissemination of information' is particularly difficult in biochemistry, which refuses to be confined within conventional disciplinary boundaries. The modes of operation of, and typical outputs from, two current systems, namely SCISEARCH and BA-PREVIEWS, will be demonstrated and compared.

SCISEARCH, now commercially available (via Cybernet Time Sharing Ltd.), can search the total data base of all the *Current Contents* publications of the Institute for Scientific Information (Philadelphia) for the current month, i.e. about 30000 references per month. This is a direct interrogation procedure, the enquirer using a teletype terminal to receive instant references to articles that include specified words or phrases in their titles. A terminal connected to the SCISEARCH programme and data will be displayed.

We thank Mr. A. E. Cawell, Director of ISI European Branch, Uxbridge, and CYBERNET Time Sharing Ltd., London W.1, for their participation and the provision of additional facilities.

The BA-PREVIEWS system uses the data base of *Biological Abstracts*, covering a quarter of a million references per year. The user's interest is expressed as a 'profile', built from freely chosen items, e.g. keywords, word stems, group concepts, methods, authors' names and so on, each with a weighting factor to achieve various types of logical connexion between the items specified. An article's title and reference are only part of the data: each title is enriched with terms expressing concepts, biological and chemical names, techniques. The computer searches the data tapes as they are issued at fortnightly intervals, and prints out the current references that satisfy the profile. The BA-PREVIEWS system is under experimental study by the Office for Scientific and Technical Information, through the Experimental Information Unit at Oxford and Nottingham; several members of the Biochemical Society are involved in this evaluation.

An Interactive Computer Program for Teaching the Use of Computers to Medical Students

By D. A. BENDER (*Courtauld Institute of Biochemistry, The Middlesex Hospital Medical School, London W1P 5PR, U.K.*)

As part of an experiment in teaching some aspects of the use of computers to all preclinical medical students in this School, an interactive program has been written, to demonstrate the way in which the computer and operator can interact and how the computer can extract information from the user. The program has been written in the BASIC programming language for use on the Leasco-Response computer time-sharing system.

The computer calls for simple anthropometric data (age, height and weight) that the student should have readily available. This input has to be in standardized format, so the computer issues appropriate instructions and reports errors. From the data are calculated and printed, with explanation, the approximate value of the basal metabolic rate and total daily energy requirement. The student is quizzed on his appreciation of the underlying physiology: lack of understanding produces a short remedial lesson. As well as introducing the student to an aspect of computers other than solely as rapid calculating devices this program reinforces teaching from other departments.

The generosity of Leasco-Response in making available a video display terminal for this demonstration is gratefully acknowledged.