

Book Reviews

Biochemistry Practicals in the Oral Cavity. G. de Castro-Bernas and J.M. Ferriols-Pavico. Manila: Unique Printing House. 1988. 159 pp. of text.

This represents a very brave attempt by two dedicated teachers of biochemistry in the Philippines to produce a laboratory manual for their students of dentistry which contains "experiments in which classical biochemistry is applied and fused into dental activities and clinical situations." Their "hope of making biochemistry more relevant and more appealing" to such students is based on their belief that "Biochemistry is life's secret science". Their intentions have been met in large measure. What is amazing is that this was done with the use, almost completely, of simple color and precipitation reactions and a pH meter.

Materials employed in the various exercises are mostly teeth, saliva, dental plaque, blood, soft drinks and fruit juices, toothpastes, dental wax, native seeds and fruits, and local anesthetics. These choices cannot but relate the exercises outlined to clinical dentistry. In this way, they obviate any criticism by the students that the activities they are involved in are without relevance to their future career.

There is no attempt, or any unstated intention, to produce biochemistry research workers out of the students through these exercises. However, the students should acquire some sense of the reasoning by which some of our established knowledge has been obtained. After all, the techniques used here were standard laboratory procedures of biochemistry three decades or so ago and are still in occasional use in many countries today.

Given the enthusiasm of the authors, I feel sure their students enjoy

and derive benefit from the exercises contained in this book. These are mainly qualitative or roughly quantitative in nature, as is to be expected in a country where relatively large numbers of students are to be taught and little modern laboratory equipment is available.

There are spelling and syntactical errors here and there (e.g. the *r* of *dentrifice* is misplaced every time the word is used, *catalasemia* occurs where *acatalasemia* is meant, and *anticariostatic* in place of *anticariogenic* or *cariostatic*). Also, the experiment of "Vitamin K in action" cannot but be meaningless as described. These can easily be attended to in future editions. What is important is that the authors have tried to help their students enjoy and derive some meaning from their practical exercises in biochemistry under conditions where even the simplest of chemicals and laboratory equipment are difficult to come by.

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BIOCHEMISTRY ILLUSTRATED. International Student Edition. Peter N. Campbell, Anthony D. Smith. 2nd ed. London: Churchill Livingstone, c1988. 288 pp. of text.

This consists of nine chapters (the proteins, structure and function of enzymes, nucleic acids and protein biosynthesis, coenzymes and water-soluble vitamins, carbohydrate chemistry, nitrogen metabolism, carbohydrate

and fat metabolism, membrane structure and function), which are just about the more important topics to be taken up in a basic course on medical biochemistry. The book has achieved its purpose - that of providing a survey of biochemistry, especially to students for whom English is not a native language. This is largely met by its informal two-column layout, with the left-hand (and narrower) column containing the section headings and a very concise summary of the subject matter, and the right-hand column containing further details and the illustration.

The columns are conveniently divided into frames so that a student has a visual as well as a mental demarcation of topics. The graphics are very well done, enhanced by only one color above the black-on-white print. They vary, from the rather complex drawings of cellular organelles, to ball-and-stick representations of proteins, diagrammatical representations of biomolecules and some of their interactions, to graphs, and chemical and mathematical equations.

This book does not pretend to be what it is not. It is too concise to be used as a textbook even for a general course in biochemistry, but it is a very good reference and guidebook for the student and the teacher who believe that a thorough understanding of the basics of the course could lead to a greater interest in it and a desire for advanced studies. There are no guide questions at the end of the chapters, as the text layout already tries to eliminate the need for them. The reader would therefore have to look elsewhere, if he feels practice questions would enhance his understanding of the subject. ■

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