

Nutraceuticals. By Lisa Rapport and Brian Lockwood (University of Manchester, UK). Pharmaceutical Press, London, UK. 2002. xvii + 163 pp. 15.5 × 23.5 cm. \$49.95. ISBN 0-85369-503-2.

The authors state in the preface that they wanted to fill a gap in the literature on complementary medicines of natural origin that are not herbal remedies, while eliminating vitamins and minerals, as there is already a substantial amount of literature that covers these topics. This leads to the description of eight products or groups of products in this book, consisting of glucosamine, octacosanol, proanthocyanidins and grape seed products, lycopene, carnitine, flaxseed and flaxseed oil, melatonin, and ornithin alpha ketoglutarate. The present book is intended for health care professionals but also for people with an interest in any of the supplements presented.

The first chapter of the book gives a very interesting introduction to nutraceuticals. A short history of nutraceuticals is given along with information on the reasons why a consumer would use a supplement. Next there is a short overview on the legal situation with respect to nutraceuticals in the UK, EEC, USA, and Canada and some general comments on quality assurance, safety, and clinical trials. This initial chapter is especially helpful with some clarification of the meanings of such fashionable words as "dietary supplements", "functional foods", "nutritional supplements", and other similar phrases that have been created lately by consultants and marketers. The authors might have given more weight to quality assurance, as it is one of the problems of a health practitioner to choose a reliable product out of the enormous number of brands that contain the same product. Therefore, it would have been helpful not only to suggest a "standardized" product but also to look for other important parameters (e.g., if the product has been submitted to some level of bioactivity testing) as well as correct dosages.

Chapters two through nine are each dedicated to a single nutraceutical. Each monograph starts with a short introduction and gives some background on the chemistry and

biochemistry of the compound. The structure drawings were sometimes a little odd, and the authors should correct the structure of melatonin and the stereochemistry of the grape seed molecules in a future edition. The monographs go on with the indications and the pharmacology of the product, as far as the latter is known. As shown by the example of L-carnitine, the authors focus not only on the "nutraceutical" claim, which is the enhancement of athletic performance, but also on other potential benefits of L-carnitine such as those for patients on haemodialysis, heart disease, or insulin resistance. Every indication is discussed using the available *in vitro* and clinical data. I am especially grateful that the authors took a closer look at the clinical studies and that they dedicated an important part of each chapter to discussing flaws in methodology, whenever such flaws were evident. The last part of each monograph discusses side-effects and contraindications and ends with a conclusion. Due to the lack of this type of information, dosage and drug interactions are given only for a few nutraceuticals. Each chapter has a complete list of literature cited at the end.

In conclusion, this book is an excellent source regarding current knowledge on the nutraceuticals presented and is useful in demystifying many of the claims that have been attributed to certain products. On the other hand, the reader might find new potential applications of these products, even though these applications do not really fall within the scope of self-medication. The book is definitively a very helpful source on a topic where scientific evaluation is running behind marketing claims. The focus on pharmacological and clinical data makes it a handy reference, especially for health care professionals.

Stefan Gafner

*Tom's of Maine
302 Lafayette Center
Kennebunk, Maine 04043*

NP020724J

10.1021/np020724j