

Book Review

The Hundred Year Lie: How food and medicine are destroying your health

Edited by Randall Fitzgerald

Publish by Dutton Publishers (Penguin Group) New York, 2006

ISBN: 0-525-94951-8

In the mid to late 19th century organic chemistry surged ahead, especially in Giessen, Germany, with the brilliant chemist and scientific father and grandfather of many ultimate Nobel Prize winners, Justus von Liebig. Most of today's giant industrial chemical, pharmaceutical and food industries were spawned by him or his scientific progeny. The book by Randall Fitzgerald is an instalment in this incredible saga, as was "Silent Spring" by Rachel Carson in 1962. But these books concentrate on the down-side and consider the overall risk-benefit equations in this more-than-a-hundred-year story. The picture in brief is that hundreds, may be thousands, of novel chemicals have been isolated or synthesized during this period and that human exposure to them is unlikely to have coped with the biological challenge. Homo sapiens evolved over hundreds of thousands of years and will not have been able to adapt to this recent onslaught of foreign chemicals, it is argued. The author reasons that we have managed longer and healthier lives, more in the face of this challenge than because of the presumed benefits.

The book title and chapter headings are provocative, even emotive, and alert the potential reader to the book possibly being "at the edge" of science and reason. "From the Womb to the Grave", "Wizards of Oz: the Food Industry", "Sorcerer's Apprentices: The Drug and Medical Industries", "Are we becoming a Mutant Species?", "Beyond Apocalypse Now", "When Western Medicine Fails" are the captions. But the substance of these pages is actually well-researched and I found myself reviewing some of my own well-formatted views, in particular in regard to fluoridation of the water supply and the many currently non-diagnosable symptom sets one encounters in clinical practice and which may have certain novel chemical(s), or their combination, as causative exposures. On the other hand, in some areas with which I am quite familiar, like non-nutritive sweeteners and the failure of Western Medicine (and the alternatives), I found the evidence adduced to be not as robust as the author has implied. In these days of Evidence-Based Medicine (EBM), people look for certain kinds and hierarchies of evidence to be confident and measured in policy-setting. These EBM approaches themselves have limitations and the appeal for portfolios of evidence with avoidance of implied causality from intervention studies (showing effect but not necessarily cause) along with sound logic and integrative thinking grows. Fitzgerald makes a contribution to this reappraisal of the nature of evidence.

One of the author's most important contributions is to address the belief system and culture which has devel-

oped in regard to synthetic chemicals. This culture affects individuals, communities, nations and their governments. Somehow, even though we may be relatively science and health-literate, we ignore the warnings and the phenomena around us and "trust the government" or its agencies even if we purport otherwise. The telling example of a warning at the entrance to a Californian Wal-Mart about products possibly containing dangerous chemicals yet universally ignored, opens chapter one. Possibly, there is a well-developed sense of risk analysis in consumers' minds, but probably there is not.

The increasingly recognised pharmaceutical industry strategy of medicalising behaviours and the extremes of population distribution curves for mood, feelings, symptoms or bio-markers to create new markets for products is ably described.

Some books of this type seek to create a sense of credibility by heavy, if inappropriate, referencing. By contrast, Fitzgerald references with relevance the countless examples he gives to make his case.

Even to the skeptic, he leaves an impression and message that all is not well in the realm of synthetic chemicals and their governance. No doubt their contribution to human health and development has been over-rated. But we are still left wondering whether our options are not few and fewer as the countdown for planetary sustainability proceeds.

By Mark L Wahlqvist

Essentials of human nutrition

Edited by Jim Mann & A. Stewart Tru-swell, Third edition 2007

Published by Oxford University Press, Oxford

ISBN: 978-0-19-929097-0

It is increasingly difficult for a nutrition textbook to be all things to those who are interested in or wish to learn about the discipline. But, invariably, one must ask about a textbook which claims to be the "Essentials of human nutrition" as to how comprehensive it is. One way, now espoused by the International Union of Nutrition Science (IUNS), is to ask if it embraces the 3 dimensions of bio-medical, socio-economic and environmental science. The present book is strong in the first, reasonable in the second and almost silent on the third of these. Only here and there does it have a "food systems" approach to human nutrition, although the chapter by James and Rigby on Chronic Diseases comes close. There are segments on "Food Groups" with several provided by authors from the food industry, without a cohesive approach to eco-systems or their relevance to human health.

Nutrition is an ever-changing science, as science should be, but the international and national regulatory systems like Codex Alimentarius, the role of the United Nations, and governance in food security are surely worth a chapter in this day and age. At the same time, it is

pleasing to see chapters on Nutritional Crises and on poverty and food insecurity from other points of view.

The book includes a life course approach, with several eminent authors. In this approach, with tenuous connection to it, is a thorough chapter on Sports Nutrition by Louise Burke from the Australian Institute of Sport who has written earlier versions in other textbooks of nutrition. If it is Clinical Nutrition the reader seeks, Nutritionally Related Disorders (NRD) are reasonably covered, nutrition assessment is accorded a section, there is a chapter on dietary counselling (in another section) and chapters on HIV and AIDS and on nutrition support in another section. In other words, clinical nutrition is somewhat scattered in the book. The important global health problem, for public health and clinical medicine, of nutrition, immune function and infection is not systematically addressed. There is no chapter dealing with the process of nutritional diagnosis.

In the Introduction, the "Tools of the Trade" are enumerated, but one of the crucial tools, that of body compositional studies, is omitted. Fortunately, it appears, without cross-reference, in the section on "Nutritional Assessment".

The book is multi-author, including many high profile figures in nutrition. Their different writing styles show as do their peculiar emphases, insights, expertise, biases and approaches to classification of information. Some material is more prosaic than scientific; expressions like "dead drunk" in the alcohol chapter and assertions like "our ancestors originally ate fruits for their sweetness" (did they or did they not? how do we know? what are the alternative constructs?) are at least provocative, if not inappropriate in a learned text. Likewise, unless one expects one's readership to be principally Christian, the sundry Biblical references, interspersed with science, are not impressive. Perhaps they are intended as a literary flourish, but they fail in this.

Having observed some textual weaknesses which detract from credibility, a great strength of the book is the Evidence Based Nutrition (EBN) approach taken by Jim Mann in all the chapters he has authored and by Martin Wiseman in the prototype EBN work on nutrition and cancer which he and the World Cancer research Fund (WCRF) have executed and released on November 1st 2007, which is reflected in his chapter.

Is the book up-to-date? What should we expect to be reflected in a textbook when evidence is changing so rapidly? The most expert contributors can write ahead of their published (and review article) field and this is evident in some of the chapters. An example of what this book does is in the well-established field of micronutrient nutrition—an illuminating history, a reliable synthesis of the classical knowledge, a sense of its importance in international health, and some pointers to new directions. As the book went to press, however, new concerns had emerged about folic acid (as opposed to folacin) fortification of food-stuffs with increased twinning rates and colo-rectal cancer incidence; there were newly-recognized functions of vitamin D in the CNS (central nervous system), and in pulmonary, metabolic (insulin-resistance syndrome) and immune (especially in regard to tuberculosis) functions. No textbook can be truly up-to-

date, but can provide some judgements about the "state of play" of the science. By and large this book does so for the topics it canvasses.

One must ask what the future of textbooks like this is, in the age of information explosion and the internet. A group of disciplinary scholars, since one or two will no longer suffice, with responsibility for their field of knowledge, could be expected to bring together the prevailing understanding and wisdom in that field from time to time. Perhaps textbooks will continue to serve this function, but alternatives will rapidly emerge. Encyclopedias are now evolving (or giving way) to "Wikipedias" which are the product of people-at-large, with more and more iterative forms of learning in curricula and in continuing education. The present textbook of nutrition stands at the interface between the old and the new in the field of compilation and interpretation of disciplinary knowledge. It offers the transitional facility of an adjunctive web-site, www.oxfordtextbooks.co.uk/orc/mann3e. It serves as a valuable sign post, directing its readership to what constitutes a fairly agreed body of scientifically-based nutrition knowledge, but is not sufficiently anticipatory of its imminent crises through food system failure or changing patterns of NRDs.

By Mark L Wahlqvist

Nutritional Anemia & The Guidebook Nutritional Anemia

Edited by Klaus Kraemer and Michael B Zimmermann & Jane Badham, Michael B Zimmermann and Klaus Kraemer

Published by SIGHT AND LIFE Press, Switzerland, 2007

ISBN: 3-906412-33-4 & 3-906412-35-0

Nutritional anaemia remains one of the world's most prevalent health problems, affecting some 800 million women and children under the age of 5 years. Put another way, almost half of preschool children and pregnant women and nearly one third of non-pregnant women suffer from anaemia. Most of this is in Africa and Asia, Iron deficiency accounts for about half of anemia in developing countries. The situation, its recognition and epidemiology, contributory factors, be they socio-cultural or biomedical, health and societal consequences and what can be done about it are thoroughly reviewed in this 2007 multi-authored book edited by Klaus Kramer and Michael B Zimmermann. All of the authors have the credentials to be authoritative with their contribution. This does not mean that all the answers are in or the material is uncontroversial as the persistence of this global epidemic shows.

Understanding the complexity of anaemia, the extent to which it is nutritional, the importance of its interplay with infectious and inflammatory diseases and with haemoglobinopathies, its food-based and multimicro-nutrient

nature and the need for intersectoral and diverse interventions is espoused in this publication.

Inevitably, then, there are chapters which address the strengths and weaknesses of supplementation and various forms of food fortification, with biofortification showing promise as a more sustainable intervention where dependency on iron (and micronutrient)-poor staples characterize the food supply.

The companion Guidebook to the parent Textbook is most useful for its factual summaries of the problems and possible solutions, especially for those who must be advocates to policy makers and mentors of those in the field. Material is also available on www.sightandlife.org

By Mark L Wahlqvist

Future Events

December 6-8, 2007

2nd International Congress & Exhibition on Nutrition, Fitness and Health, Shanghai, China
nfh.sstec.com.cn

February 21-24, 2008

6th World Congress on the Aging Male, Tampa, Florida, USA
www.kenes.com/aging-congress

March 4-6, 2008

5th International Congress on Vegetarian Nutrition, Loma Linda, California, USA
www.vegetariannutrition.org

March 6-8, 2008

2nd International Conference on Hypertension, Lipids, Diabetes and Stroke Prevention Prague, Czech Republic
www.kenes.com/strokeprevention

June 1-4, 2008

9th Nordic Nutrition Conference, Copenhagen, Denmark
www.nutrition2008.ics.dk

September 27-30, 2009

World Congress on Oils and Fats & 28th ISF Congress, Sydney, Australia
www.isfsydney2009.com

October 4-9, 2009

19th International Congress of Nutrition 2009, Bangkok, Thailand
www.icn2009.com