FOR A BETTER NUTRITION IN THE 21ST CENTURY
The 27th Nestlé Nutrition Workshop, For A Better Nutrition in the 21st Century, was held at Nestlé Research Center, Lausanne, Switzerland, September 19–21st, 1990.

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Editors

Peter Leathwood
Nestlé Research Center
Lausanne, Switzerland

Marc Horisberger
Nestlé Research Center
Lausanne, Switzerland

W. Philip T. James
The Rowett Research Institute
Aberdeen, Scotland, United Kingdom

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Preface

This Workshop set out to consider a remarkable range of topics, all geared to an attempt to consider how best to anticipate developments with which those involved in the fields of agriculture and food will have to contend in the coming decades. Nutrition involves not only food production and processing, but also health, so an amazing range of interests is affected. This inevitably means that many organizations and disciplines have to be involved in developing a coherent view of nutrition and its relevance to national concerns. The intensity with which issues relating to nutrition are debated is not surprising or new, but it still comes as a surprise to those who do not spend time considering the history of nutritional ideas. The fascination of the ancient Greeks with the powerful effects of food on health was matched by the extraordinary changes in their capacity to survive in towns and cities once innovations in crop husbandry were successfully introduced. Thus, for millennia, nutritional ideas and food availability have been key components of society’s thinking.

The everyday interest in nutritional folklore, in superstition, and anecdotal observation on the effects of different foods have all contributed to the debate. Ideas on food policy and the control of food production have also been seen until recently as an issue of national survival. Only perhaps this century have we considered that the validity of scientific ideas should determine our thinking on the relationship between food and health. Political and economic ideas about food production are also changing. Within the last five years we have seen a serious attempt to consider the production and international trade in food as strictly analogous to that of any other business and not necessarily a fundamental priority for each nation.

Perhaps we should recognize that nutritional thinking has already seen three phases of development during this century. First, we have had the remarkable series of vitamin discoveries and the excitement of the early biochemical research which was all related to nutritional issues. Thus, the concept emerged that minute components of food could have fundamental effects on health. This, together with the striking improvements in the growth and health of children, led to easy assumptions which most nutritionists and the public accept to this day, i.e., the need for an ample and varied diet with sufficient energy, protein, vitamins, and minerals.

The success of rationing during the Second World War was based on scientific assessments, and the improved health of children and adults suggested that doctors and nutritionists had planned well in coping with the worries about potential vitamin and mineral deficiencies. The “problems” of poor nutrition were therefore seen as soluble. The principal issue then remained one of growing enough food efficiently so that even the poorest sections of society could afford to purchase a good diet.

The second phase began immediately after the Second World War and was essentially a science-led revolution in agriculture and an industrial development of the
food processing and retailing business. The spectacular success of this policy in Western Europe meant that by the end of the 1970s food surpluses were appearing, but the cost of food had fallen to a record low, with the retailing industry providing a plethora of choices of foods, some of which might come from remote parts of the globe.

The third phase or revolution is now upon us with renewed concern about the role of diet in modulating the aging process, and the development of a wide range of diseases, such as cancer, heart disease, diabetes, and many others. This leads us into many issues which will eventually be of concern to both the developed and developing world.

It is always easy to fall into the trap of believing that the latest phase in nutritional thinking is the one which will persist, but this Workshop provides ample evidence of major new developments which are already under way. These developments affect all aspects of society and involve technological opportunity, organizational change, and major shifts in public perceptions about food and health. With all the complexities and achievements in nutritional science, it is easy to conclude that we shall become ever more sophisticated and refined in our ability to provide an enjoyable and healthy diet.

This Workshop was fortunate to have as its opening speaker a man of formidable intellect who graced the Symposium with one of his last appearances when he was already unwell. The late Sir Kenneth Blaxter, my predecessor at the Rowett Research Institute in Aberdeen, made a major contribution to this Symposium by forcing us all to consider the stark future of our planet should the population outstrip our natural resources, as seems all too likely. Sir Kenneth has, for decades, been a champion of the poor, a passionate supporter of the farming world, and an incisive thinker on the fundamentals of energy needs, fossil fuel use, and world food supplies. His courtesy and unceasing search for truth were again evident to us all. We were privileged to have him with us.

W. Philip T. James, M.D., D.Sc., F.R.C.P.
The Rowett Research Institute
Aberdeen, United Kingdom
Foreword

The 27th Nestlé Nutrition Workshop was initiated on the basis of two very simple questions: "How can we use past and present knowledge to plan for better nutrition?", and "How can we translate practical, technical, and scientific knowledge into useful solutions for the future?".

Planning for better nutrition is a fascinating and complex enterprise. Several levels of need are covered by the consumption of food. At the most fundamental biological level, food has to provide adequate amounts of nutrients, but it also has to satisfy psychological, social, cultural, and symbolic needs, which can sometimes interfere with each other, making the task of achieving better nutrition ever more difficult.

The amount of information generated by nutrition research around the world is enormous. First class work is being accomplished in many areas of nutrition and related fields. How can this information be condensed and best used in practice? For each topic, there are usually several schools of thought, so consensus is often hard to reach. Add to this the unfortunate but not infrequent hurried publishing of doubtful results and their eager propagation by a nonspecialized press, and you obtain a situation of confusion in which the consumer is simply unable to interpret, despite the enormous public interest in nutrition and health. People want to know how to improve their diet. Even health professionals wishing to give useful advice are frustrated by the seemingly inconsistent and rapidly changing ideas of researchers and the dietary recommendations they generate.

In this workshop, we tried to avoid two traps. The first is to become lost in the complexity of the problem, and was summed up by Herodotus (5th century, B.C.) who said, "Of all human miseries the most bitter is to know so much and to have control over nothing". The second trap is to follow the unthinking optimists with their quick fixes, simplistic conclusions, and rushed decisions. As H. L. Mencken said, "To every human problem there is a solution that is simple, elegant . . . and wrong!".

The goals of this workshop were to assess dietary guideline strategy and its relationship with other factors that can influence food intake and choice. The Workshop covered three aspects: lessons we can draw from the past; a critical analysis of current nutritional thinking; and speculation as to future trends. It included considerations from nutrition to behavioral and cultural aspects of food consumption and, last but not least, a discussion on research planning for better nutrition from both governmental and industrial points of view.
FOREWORD

It is our hope that these proceedings will help all parties involved to move in the same direction and in the right direction. As it is important to communicate with decision makers, the different authors were careful to provide texts with sound and readable messages.

**Marc Huisbergen, Ph.D.**

*Scientific Director*

*Nestlé Research Center*

*Lausanne, Switzerland*
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Contributors

Margaret Ashwell  
British Nutrition Foundation  
15 Belgrave Square  
London SW1X 8PG  
England, United Kingdom

Sir Kenneth Blaxter*  
Stradbroke Hall  
Stradbroke, Suffolk IP21 5HH  
England, United Kingdom

Ratko Buzina  
Institute of Public Health  
Zagreb  
Croatia

Adam Drewnowski  
School of Public Health M-5170  
Human Nutrition Program  
University of Michigan  
1420, Washington Heights  
Ann Arbor, Michigan 48109-2029, USA

Paul-André Finot  
Nestlé Research Centre  
P.O. Box 44  
Vers-chez-les-Blanc  
1000 Lausanne 26, Switzerland

Claude Fischler  
Ecole des Hautes  
Etudes en Sciences Sociales  
Centre d'études transdisciplinaires  
105 Boulevard Raspail  
75006 Paris, France

Douglas L. Geogala  
AFRC Institute of Food Research  
Early Gate  
Whiteknights Road  
Reading, Berkshire RG6 2EF  
England, United Kingdom

Alfred E. Harper  
381 N.W. 112th Street  
Seattle, Washington 98177-4840, USA

Marc Horisberger  
Nestec Ltd.  
Avenue Nestlé 55  
1800 Vevey, Switzerland

Ian Horman  
Nestlé Research Centre  
P.O. Box 44  
Vers-chez-les-Blanc  
1000 Lausanne 26, Switzerland

Joseph H. Hulse  
Siemens-Hulse International  
Development Associates  
1628 Featherstone Drive  
Ottawa K1H 6P2, Ontario, Canada

W. Philip T. James  
Rowett Research Institute  
Greenburn Road  
Bucksburn, Aberdeen AB2 9SB  
Scotland, United Kingdom

Shubh K. Kumar  
International Food Policy Research Institute  
1200 17th Street, N.W.  
Washington DC 20036-3006, USA

Christine A. Ralph MacNulty  
Applied Futures Limited  
83 Kingsway  
London WC2 B6SD,  
England, United Kingdom

Robert E. Olson  
Departments of Medicine and Pharmacology  
Health Sciences Center BST-8, R-122  
SUNY Stony Brook  
Stony Brook, New York 11794-8651, USA

* Deceased
CONTRIBUTORS

David P. Richardson
Nestlé UK Ltd.
St. George's House
Croydon, Surrey CR9 1NR
England, United Kingdom

John C. Stanley
Nestlé Research Centre
P.O. Box 44
Vers-chez-les-Blanc
1000 Lausanne 26, Switzerland

Susan S. Schiffman
Department of Psychiatry
Duke University Medical Center
Durham, North Carolina 27706,
USA

Ronald Walker
Food Safety Group
School of Biological Sciences
University of Surrey
Guildford, Surrey GU2 5XH
England, United Kingdom

Invited Attendees

Abdulaziz Ibrahim Al-Othaimeen / Riyadh, Saudi Arabia
Subhash C. Arya / New Delhi, India
Nils-Georg Asp / Lund, Sweden
Klaus-Beyreiss / Leipzig, Germany
Eugenio Cialfa / Roma, Italy
Jaime Dalmauserra / Valencia, Spain
Mansour M. El-Mauhoub / Benghazi, Libya
Denis Goldberg / Deerfield, Illinois, USA
Philippe Goyens / Brussels, Belgium
Friedrich Karl Grütte / Bergholz-Rehbruecke, Germany
Maria Jackson / Kingston, Jamaica
Jaak Jaeken / Leuven, Belgium
Eric Jéquier / Lausanne, Switzerland
Jules P. Leroy / Gent, Belgium
Claudia Lintas / Roma, Italy
Paul Malvaux / Brussels, Belgium
Jean Mauron / Vevey, Switzerland
Manuel Perez Perez / Sevilla, Spain
Michael Radke / Rostock, Germany
Brigitte Rémy / Paris, France
Eberhard Schmidt / Düsseldorf, Germany
Yves Schutz / Lausanne, Switzerland
Liliane Sacre-Smits / Brussels, Belgium
Günther Scheerschmidt / Erfurt, Germany
David H. Schmerling / Zürich, Switzerland
Kraisid Tontisirin / Bangkok, Thailand

Nestlé Participants*

Maurice Arnaud, Orbe, Switzerland
Werner Bauer, Lausanne, Switzerland
Umberto Bracco, Lausanne, Switzerland
Cornélia Conrad, Vevey, Switzerland
Karel de Block, Brussels, Belgium
Cedric de Prelle, Brussels, Belgium
Olivier de Rahm, Vevey, Switzerland

* Many other co-workers attended. We apologize for any names that are not mentioned.
Henri Dirren, Lausanne, Switzerland
Laila Dufour, Vevey, Switzerland
Bianca Exl, München, Germany
David Farr, Lausanne, Switzerland
Edward Fern, Lausanne, Switzerland
Richard Hurrell, Lausanne, Switzerland
Angelo Husler, Vevey, Switzerland
Nicholas J. Jardine, York, England, United Kingdom
Peter Leathwood, Lausanne, Switzerland
Rémy Liardon, Orbe, Switzerland
Jean Mauron, Vevey, Switzerland
Nicholas Melachouris, Glendale, California, USA
Hubert Milon, Lausanne, Switzerland
Hans Rudolf Müller, Vevey, Switzerland
Brian Suter, Vevey, Switzerland
Hans-Peter Würzner, Lausanne, Switzerland
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Volume 25: Sugars in Nutrition

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