Nestlé Nutrition
Workshop Series
Volume 5

NESTLÉ NUTRITION
HUMAN MILK BANKING
Preface

The purpose in calling the meeting on which this volume is based was to consider the role of human milk and human milk fractions in the feeding of very-low-birth-weight infants. We sought to bring together investigators from many disciplines interested in this field to exchange information on the processing, biochemistry, and clinical applications of human milk fractions and fortified human milk.

It has long been recognized there are major problems in evaluating even the nutrition of term healthy infants. Although extremes of malnutrition are readily measurable, the only available short-term measures of nutrition for healthy infants are patterns of growth, complicated as they are by the enormous variability between babies from different families and environmental and racial backgrounds. Nevertheless, for the term infant at least, it is accepted that the appropriate food is the infant's own mother's fresh milk.

In the case of very-low-birth-weight preterm infants, the position is even more complex. Here, even growth is not a simple outcome measure given the profound influence of clinical factors other than nutrition, such as intracranial hemorrhage or respiratory failure, quite apart from the difficulties of providing appropriate extrauterine growth standards. These problems are further compounded in the long term by genetic and environmental influences. Although the identification of the proper food for such infants is fraught with difficulties, it remains likely that human milk and human milk products are the most appropriate food sources for such babies given the favorable amino acid composition of human milk proteins, the likely but unmeasured importance of the nonnutritional components of human milk, and the need to avoid nonhuman milk proteins with their potential for sensitization of the immature infant.

For these reasons it seemed worthwhile to provide a forum for
investigators interested in the problems of human milk fractionation with a view to exchanging fundamental information on the processing and biological properties of human milk fractions and an evaluation of their use in clinical practice.

A. F. Williams
J. D. Baum
Foreword

The advantages of breast milk for feeding normal term babies is beyond doubt. Breast milk expressed by mothers of low-birth-weight babies is also thought to offer the best nutrition for these infants, but there remains a good deal of controversy about feeding very-low-birth-weight (VLBW) infants with banked human milk. Thus, the energy, protein, and phosphorus requirements of VLBW infants may not be met adequately with the amount of banked human milk these infants can usually accept. Moreover, most hospital milk banks have problems in controlling the processing of human milk to maintain all the important qualities of human milk while minimizing the risk of transmitting infectious agents.

This book, the fifth in the Nestlé Nutrition Workshop Series, deals with some of the problems of feeding VLBW babies. It does not set out to give definitive answers, for, as one workshop participant remarked, we do not yet know all the questions. Nonetheless, there is much of interest in these contributions for all pediatricians, nutritionists, and others working to optimize the healthy survival of VLBW infants.

and Assessment for Normal Growth, edited by M. Gracey and F. Falkner.

PIERRE R. GUESRY, M.D.
Vice President
Nestlé Products Technical Assistance Co. Ltd.
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Contributors

S. Aubry
Lacterium de Paris
26 Boulevard Brune
Paris 75014, France

I. Axelsson
Department of Pediatrics
University of Lund
Malmö General Hospital
S-214 01 Malmö, Sweden

*V. Barrois-Larouze
Lacterium de Paris
26 Boulevard Brune
75014 Paris, France

*J. D. Baum
Department of Paediatrics
John Radcliffe Hospital
Oxford OX3 9DU, England

*Peter N. Campbell
Courtauld Institute of
Biochemistry
The Middlesex Hospital Medical
School
Mortimer Street
London W1P 7PN, England

*Roger K. Craig
Courtauld Institute of
Biochemistry
The Middlesex Hospital Medical
School
Mortimer Street
London W1P 7PN, England

Michael S. Davies
Courtauld Institute of
Biochemistry
The Middlesex Hospital Medical
School
Mortimer Street
London W1P 7PN, England

C. Dill
Department of Pediatrics
Baylor College of Medicine
1200 Moursund Avenue
Houston, Texas 77030, U.S.A.

J. Faber
Department of Pediatrics
Shaare Zedek Hospital
Jerusalem 91002, Israel

R. Fondén
Arla Research and Development
Department
Stockholm, Sweden

*S. Freier
Department of Pediatrics
Shaare Zedek Hospital
Jerusalem 91002, Israel

*C. Garza
Department of Pediatrics
Baylor College of Medicine
1200 Moursund Avenue
Houston, Texas 77030, U.S.A.

*Conference participant.
CONTRIBUTORS

*G. E. Gaull  
Institute of Basic Research in Mental Retardation  
1050 Forest Hill Road  
Staten Island, New York 10314 U.S.A.

*F. A. Glover  
Process Technology Department  
National Institute for Research in Dairying, Shinfield  
Reading RG2 9AT, England

A. S. Goldman  
Department of Pediatrics  
Baylor College of Medicine  
1200 Moursund Avenue  
Houston, Texas, 77030, U.S.A.

L. Grimonprez  
Laboratoire de Biochemie  
Faculté de Pharmacie de Montpellier  
Montpellier, France

S. Hagelberg  
Department of Pediatrics  
St. Göran’s Children’s Hospital  
Box 12500  
S-11281 Stockholm, Sweden

Éveline D. Hall  
National Institute for Research in Dairying, Shinfield  
Reading RG2 9AT, England

Len Hall  
Courtauld Institute of Biochemistry  
The Middlesex Hospital Medical School  
Mortimer Street  
London W1P 7PN, England

*H. Hilpert  
Research Department  
Nestlé Products Technical Assistance Co. Ltd.  
CH-1814 La Tour de Peitz  
Switzerland

Manjit Hunjan  
National Institute for Research in Dairying  
Hounslow TW3 4BW, England

P. Hylmö  
Department of Pediatrics  
University of Lund  
Malmö General Hospital  
S-214 01 Malmö, Sweden

Charles E. Isaacs  
Institute of Basic Research in Mental Retardation  
1050 Forest Hill Road  
Staten Island, New York 10314 U.S.A.

I. Jakobsson  
Department of Pediatrics  
University of Lund  
Malmö General Hospital  
S-214 01 Malmö, Sweden

Sylvie Jorieux  
Laboratoire de Chimie Biologique  
Université des Sciences et Techniques de Lille I  
59655 Villeneuve d’Ascq Cédex, France

*Anne-Brit Kolstø Otnæs  
Vaccine Department  
National Institute of Public Health  
Oslo 1, Norway
Leslie Krueger
Institute of Basic Research in Mental Retardation
1050 Forest Hill Road
Staten Island, New York 10314
U.S.A.

Astrid Lægreid
Vaccine Department
National Institute of Public Health
Oslo 1, Norway

*B. S. Lindblad
Department of Pediatrics
St. Göran's Children's Hospital
Box 12500
S-11281 Stockholm, Sweden

A. Lundsjö
Department of Pediatrics
St. Göran's Children's Hospital
Box 12500
S-11281 Stockholm, Sweden

*Richard L. J. Lyster
National Institute for Research in Dairying, Shinfield
Reading RG2 9AT, England

Joël Mazurier
Laboratoire de Chimie Biologique
Université des Sciences et Techniques de Lille I
59655 Villeneuve d'Ascq Cédex, France

Jean Montreuil
Laboratoire de Chemie Biologique
Université des Sciences et Techniques de Lille I
59655 Villeneuve d'Ascq Cédex, France

Jean Navarro
Hôpital Bretonneau
Pavillon Legroux
75018 Paris, France

B. L. Nichols
Department of Pediatrics
Baylor College of Medicine
1200 Moursund Avenue
Houston, Texas 77030, U.S.A.

Ivar Ørstadvik
Microbiological Laboratory
Ullevål Hospital
Oslo 1, Norway

B. Persson
Department of Pediatrics
St. Göran's Children's Hospital
Box 12500
S-11281 Stockholm, Sweden

S. Polberger
Department of Pediatrics
University of Lund
Malmö General Hospital
S-214 01, Malmö, Sweden

Guy Putet
University Hospital Edouard Herriot
Lyons, France

*N. Råihä
Department of Pediatrics
University of Lund
Malmö General Hospital
S-214 01 Malmö, Sweden

*Bruno Reiter
23 Brompton Court
Roy Park Avenue
Maidenhead
Berks SL6 8EA, England
CONTRIBUTORS AND ATTENDEES

Jacques Rigo  
Department of Neonatal Pediatrics  
State University of Liège  
Hôpital de Bavière  
4020 Liège, Belgium

Harris H. Tallan  
Institute of Basic Research in Mental Retardation  
1050 Forest Hill Road  
Staten Island, New York 10314, U.S.A.

Charles Romond  
Faculté de Pharmacie  
Laboratoire de Microbiologie  
59045 Lille Cédex, France

Karin Trollerud  
Vaccine Department  
National Institute of Public Health  
Oslo 1, Norway

*R. J. Schanler  
Department of Pediatrics  
Baylor College of Medicine  
1200 Moursund Avenue  
Houston, Texas 77030, U.S.A.

Marcel Voyer  
Institut de Puériculture de Paris  
Paris, France

*Jacques Senterre  
Department of Neonatal Pediatrics  
State University of Liège  
Hôpital de Bavière  
B-4020 Liège, Belgium

*A. F. Williams  
Department of Paediatrics  
John Radcliffe Hospital  
Oxford OX3 9DU, England

*Geneviève Spik  
Laboratoire de Chimie Biologique  
Université des Sciences et Techniques de Lille I  
59655 Villeneuve d'Ascq Cédex, France

Charles E. Wright  
Institute of Basic Research in Mental Retardation  
1050 Forest Hill Road  
Staten Island, New York 10314, U.S.A.

Invited Attendees

K. Amatayakul/Chiangmai, Thailand
S. Calvert/Oxford, England
P. Cheeseman/London, England
P. Chowanich/Chiangmai, Thailand
E. DeMaeyer/Geneva, Switzerland
J. Dobbing/Manchester, England
J. A. Dodge/Cardiff, Wales
S. R. Fine/London, England
C. Fisher/Oxford, England
S. Flache/Zurich, Switzerland
S. Forsey/Windsor, England
V. Greasley/Oxford, England
CONTRIBUTORS AND ATTENDEES

J. Harrington/Windsor, England
D. Harris/Oxford, England
D. Hull/Nottingham, England
P. Jenkins/Oxford, England
T. Lesoli/Oxford, England
R. Lindemann/Oslo, Norway
A. Lucas/Cambridge, England
R. Preston/Oxford, England
J. D. Priddle/Oxford, England
S. Silpisornkosol/Chiangmai, Thailand
W. A. Silverman/Greenbrae, California, U.S.A.
G. Soltesz/Oxford, England
T. E. T. Stacey/Middlesex, England
B. Wharton/Birmingham, England
M. Woolridge/Oxford, England

Nestlé Participants

S. R. Allen
Nestlé Products Technical Assistance Co. Ltd.
La Tour de Peilz, Switzerland

Pierre R. Guesry
Vice President
Nestlé Products Technical Assistance Co. Ltd.
La Tour de Peilz, Switzerland

H. Hilpert
Research Department
Nestlé Products Technical Assistance Co. Ltd.
La Tour de Peilz, Switzerland

G. A. Raffe
The Nestlé Co. Ltd.
Croydon, England