Protein and Energy Requirements in Infancy and Childhood
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Foreword

The topic ‘Protein and Energy Requirements in Infancy and Childhood’ was chosen for the 58th Nestlé Nutrition Pediatric Workshop, which took place in November 2005 in Ho Chi Minh City, Viet Nam. In 1993 the 33rd Nestlé Nutrition Workshop on ‘Protein Metabolism during Infancy’, chaired by Prof. Niels Raïhâ, was held in South Africa. In this workshop, Prof. Raïhâ introduced a new concept in terms of protein requirements, proposing a reduction in the protein level of infant formulas in order to come closer to that of human milk. In 2000, the workshop entitled ‘Infant Formula: Closer to the Reference’ (Nestlé Nutrition Workshop Series, Vol. 47, supplement) chaired by Prof. Niels Raïhâ and Prof. Firmino Rubaltelli, included a review of more recent information showing the safety and efficacy of reducing the protein content of infant formulas to a level closer to that of human milk.

The outcome of these workshops has enabled Nestlé R&D to successfully develop a new generation of starter infant formulas with significantly improved protein quality at the level of 1.8 g/100 kcal, coming closer to that of human milk during early lactation. After successful clinical testing, these starter infant formulas are now soliciting high interest among infant health professionals. Of late, attention has also focused on whether or not it may also be desirable to optimize the protein quality and reduce the protein level of follow-up infant formulas. Moreover, other studies have suggested associations between protein nutrition in the first year of life, and the subsequent risk of obesity, diabetes and other related chronic diseases. Whilst protein requirements have received a great deal of attention, the aspect of energy requirements has never been reviewed on a systematic basis in the Nestlé Nutrition Workshop Series. Hence we believe it is timely to review the latest knowledge on the energy and protein requirements of infants and children.

We wish to thank the two chairpersons, Prof. Ekhard E. Ziegler and Prof. Jacques Rigo, recognized experts in this field, for establishing the workshop program and for bringing together the key opinion leaders in the field of protein and energy requirements.

Ekhard E. Ziegler, Professor of Pediatrics and Head of the Samuel J. Fomon Infant Nutrition Unit, at the University of Iowa, USA, is well known for his work on protein metabolism. Prof. Jacques Rigo is the Head of the Neonatal Department of the University of Liege in Belgium and a member of the ESPGHAN Committee of Nutrition.
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