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Programme:

Friday, Feb.11, 2011

Time: 17:55 – 18:15

Speaker:

Prof. Ferdinand Haschke, MD

Lecture:

Foetal and Infant Nutrition –
Short- and Long-Term Health
Effects

FOETAL AND INFANT NUTRITION – SHORT- AND LONG-TERM HEALTH EFFECTS

Animal experiments and epidemiological data indicate that nutrition during the foetal period and the first months is crucial for pre- and post-natal growth and development.

Foetal nutrition is suboptimal in many developing countries and is associated with a higher prevalence of low birth weight. Fortunately, exclusive breastfeeding during the first 6 months, and continuation of breastfeeding during the weaning period, has been the best practice to contribute to short-term health. During the last decade, more and more information has become available from epidemiological studies that early infant nutrition can also be crucial for long-term health. In South Asia, 25% of infants are born with low birth weight. Vitamin B12 deficiency might be an important factor. Poor pre- and

post-natal growth is associated with lower IQ in childhood. 3 fatty acids (DHA), which are found in breast milk, are important for brain and eye function. During recent years, DHA has been added to some infant formulas. All low birth weight infants benefit from DHA intake. In addition, subgroups of term infants seem to benefit. Recently, it has been shown that gene polymorphisms (C Allele of FADS2) were associated with higher IQ at school age if DHA had been provided during early infant nutrition.

Intensive research is needed to understand the interactions between early nutrition and the function of our genes. Epigenetic factors can modify the function of our genes (metabolic programming) during the whole life period. This is an exciting new field in paediatric nutrition, which will provide more insight into how the phenotype is interlinked with the genotype.