

THE EARLY NUTRITION PROGRAMMING PROJECT
December 15th 2006

Project Number: FOOD-CT-2005-007036

Acronym: EARNEST (EARly Nutrition programming – long term follow up of Efficacy and Safety Trials and integrated epidemiological, genetic, animal, consumer and economic research).

EARNEST is a large collaborative investigation into the long-term consequences of early nutrition programming. It brings together a multi-disciplinary team of scientists and leaders in key areas of the programming field from 38 institutions in 16 European countries. It is funded under the Food Quality and Safety Priority of the Sixth Framework Programme for Research and Technical Development of the European Community and will run from 2005 - 2010.

The project is divided into 9 work streams or themes. EFAD has been invited to join the **Dissemination and Exploitation Consensus Platform (DECP)** which is part of **Theme 7 - Dissemination and Exploitation**

The remit of the DECP is to:

- assist dissemination of European databases arising from EARNEST to research centres and industry
- assist international dissemination of materials arising from EARNEST
- exploit fully the opportunities for databases, tools, products and policies which arise from EARNEST
- provide specific expertise and advice on industry, management issues and matters relating to health and social care services
- act as independent advisers to the project group, providing vision and an understanding of the practical issues such as regulatory matters likely to be encountered
- explore potential for targeted ranges of food products and services for infants and pregnant women, according to identified preferences
- assist in the identification of policies which might benefit from EARNEST results and expertise of EARNEST community.
- assist the development of consumer-friendly tools for manufacturers and health professionals

The first meeting of DECP was held in Cambridge on the 15th December 2006. Members were introduced to the work of EARNEST and given an overview of the work of each of the themes. Exploitable outcomes from the project were considered and the potential interest to a range of stakeholder groups including government and policy makers, health professionals, food industry, charities, the pharmaceutical industry, diagnostics, health insurance, media and research.

It is anticipated the DECP will meet annually, with virtual meetings if necessary in between as the outcomes from each of the themes are developed as the project progresses. The second meeting will take place in October 2007.

A synopsis of the work of the other themes is given below.

Theme 1 – Follow-up of major intervention trials in pregnancy and early life.

Studies will follow up people who took part in previous intervention trials to enable the effects of the interventions to be tested over a longer period.

Theme 2- Prospective Epidemiology.

This theme is addressing a series of objectives using epidemiological cohorts which have already been established, such as the Danish National Birth Cohort, the Norwegian Mother and Child Cohort and the Avon Longitudinal Study of Parents and Children.

Theme 3 – Animal, Cell and Molecular Studies.

This covers animal studies which are designed to determine the primary metabolic pathways by which altered maternal nutrition either during pregnancy or lactation results in offspring being at risk of later disease. It is hoped to define specific mechanisms by which later disease is programmed and determine the precise nutritional conditions that contribute to these processes.

The key objectives addressed by these 3 themes are:

- Quantification of the effects of early programming on later cardiovascular diseases, obesity, diabetes, cognitive and mental disorders, bone health and some cancers.
- Definition of the relative importance of critical periods in foetal and early life on later disease.
- Exploration of the impact of genetic determinants on early programming effects and on subsequent outcome.
- Understanding the role of specific nutrients and their interactions in the maternal and infant diet on programming effects on disease and their risk factors.
- Development of appropriate strategies for treating and especially for preventing the amplification of adverse programming effects of early nutrition.

Theme 4 – Consumer Attitudes.

This work stream will explore the public health impact of how knowledge about early programming affects consumer behaviour. It will look at the scope for targeted promotions to improve knowledge about the links between early nutrition and lifelong health.

Theme 5 – Economic/Public Health Impact Studies.

This theme has looked at the costs associated with early nutrition programming and the potential savings from effective interventions. It will include a comprehensive health economic analysis of pre and post natal nutritional interventions with long term effects on adult health, well-being and performance.

Theme 6 – Demonstration Studies.

The knowledge generated by EARNEST has the potential for application in new and improved dietetic products. The aim of the group is to evaluate the modification of infant formulae with newly developed inulin-type oligosaccharides and a recombinant human protein.

Theme 8 – Training.

A Virtual Academy of Early Nutrition Programming has been established and can be found on the EARNEST website. The first service it has created is a listing of all recent relevant publications from a wide range of journals to assist those working in the field to keep abreast of developments.

Theme 9 – Project Management.

The project is co-ordinated by Professor Berthold Koltzko, University of Munich and managed by a Co-ordination Committee of the Theme Leaders. Decision making is

the responsibility of the General Assembly, composed of one member from each of the partner organisations.

Information on the project can be found on the EARNEST website:

www.metabolic-programming.org

A joint conference of EARNEST and the European Academy of Nutritional Sciences “Early Nutrition Programming & Health Outcomes in Later Life: Obesity and beyond” will be held 20-21st April 2007 in Budapest. A pre-congress satellite meeting is being held of the European Congress on Obesity.

Carole Middleton
Executive Committee Member