

## **PRESS RELEASE**

4<sup>th</sup> November 2011

### **Lack of thyroid hormones linked to language delay in childhood**

Children born to women showing low levels of thyroid hormone in pregnancy, have a higher risk of language delay, says research presented by Dr Henning Tiemeier at 11<sup>th</sup> European Nutrition Conference in Madrid. "It has been known since the 1970's that thyroid hormones play a crucial brain development" noted Dr Tiemeier "A developing child relies on a supply of maternal hormone throughout pregnancy but especially during the first three months" Dr Tiemeier presented work showing that children born to women showing reduced levels of thyroid hormone, had a higher risk of developing expressive language delay at 18 months and 30 months. Expressive language includes the ability to form sentences, use grammar correctly, and retell a story or event. Dr Tiemeier concluded that "subtle physiological changes may have considerable effect on the health of children. However, it is too early to speculate about possible interventions" During brain development, thyroid hormones are involved in the formation of the hippocampus a region that has a role in the formation of memory and are also involved in the migration of cells to the cortex, the 'grey matter' of the brain.

Dr Tiemeier and his colleagues at Erasmus are one of 20 partners in Europe and the US taking part in the £8m European Commission funded NUTRIMENTHE project, which is looking at how the diet of pregnant women, babies and children affects their mental performance. Folic acid is just one nutrient of interest to the project. Others include Omega-3 fatty acids, B vitamins, and minerals such as iron, and how these affect mental performance of children in the long term.

The 11<sup>th</sup> European Nutrition Conference took place in Madrid between 26<sup>th</sup> and 29<sup>th</sup> October 2011 and attracted over 2000 nutrition experts from countries worldwide under the banner "Diversity versus Globalisation: A Nutritional Challenge for a Changing Europe" NUTRIMENTHE hosted a symposium on 28th October at the Conference titled "Nutrition and Cognitive Function".

**ENDS**

## Notes to editors

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### The NUTRIMENTHE project

#### A five year study into the effect of diet on the mental performance of children.

Coordinator: Professor Cristina Campoy, Department of Paediatrics, University of Granada, Spain.

Timescale: 1st March 2008- 28th February 2013.

Budget: €8m.

Contribution from European Commission: €5.9m

Partners: 20 partners from UK, Spain, Italy, Germany, The Netherlands, Belgium, Poland, Hungary, USA.

Website: [www.nutrimenthe.eu](http://www.nutrimenthe.eu)

There is evidence that early nutrition can influence or programme later mental performance, cognitive development and behaviour. The idea that the diet of mothers, infants and children could have an influence on long-term mental performance has major implications for public health practice and policy development, economic progress and future wealth creation.

NUTRIMENTHE is a five-year study that draws together a wide range of scientific disciplines from organisations around Europe and beyond to study the effect of diet on the mental performance of children. More than 17,000 mothers and 18,000 children are involved in epidemiological population studies and nutritional intervention studies taking place in study centres around Europe.

NUTRIMENTHE expects to generate a wealth of new information from the studies and link these to the results of neuropsychological tests, biochemical measurements and brain imaging studies. NUTRIMENTHE also aims to establish positive dietary recommendations for the European population as a whole for certain nutrients, especially Omega-3 fatty acids. NUTRIMENTHE also aims to improve public knowledge especially that of parents, teachers and industry, laying the foundations for appropriate health claims about how diet affects mental performance in children.

### **About the European Commission's Seventh Framework Programme**

The European Commission's Framework Programme has been running since 1984 and is the European Union's main scheme for funding research. The current, Seventh Framework Programme (FP7) is the largest programme to date, committing €19bn for research from 2007-2013 including funding for Health, Information Communications Technology, Security, Transport, Environment. NUTRIMENTHE is funded by the Food, Fisheries, Agriculture and Biotechnology programme of FP7.

[http://cordis.europa.eu/fp7/home\\_en.html](http://cordis.europa.eu/fp7/home_en.html)

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