



VIVA - V is for Vegetable

Applying learning theory to liking and intake of vegetables

University of St Andrews
600 YEARS

Viva
EATING A RAINBOW

Viva International Congress

21-22 March 2013

V is for vegetable:
applying learning theory
to liking and intake of vegetables

how can science contribute
to healthy eating habits in
the youngest and beyond?

As part of the VIVA project (WP6), an International Congress was organized by the partners at St Andrews University during the 600th anniversary of the University. The congress took place on March 21-22, 2013 to promote dissemination of the research from project VIVA, and to provide a platform to others from across Europe and beyond to explore state of the art evidence on infant feeding and make suggestions on how parents, health care professionals, government and industry can contribute to laying the foundations of healthy eating patterns early in life.

One hundred scientists, health care professionals, policy makers, representatives of industry and stakeholder groups participated in this VIVA congress. Delegates came from Europe, Asia and the USA.

This international congress had been planned at the start of the project to provide a final step to the research for exchange, discussion and dissemination.

Diets high in vegetables and fruits are considered beneficial in preventing chronic diseases. However, both European adults and children eat fewer vegetables than is recommended. Over the last decade it has become clear that food preferences and eating behaviours established in infancy track over time and set the foundation of later eating habits. Thus, healthy eating established in early life facilitates healthy eating later and this may help to reduce the risk of developing chronic diseases such as cardiovascular disease, cancer and obesity.

The congress focused on weaning (i.e. the introduction of complementary feeding / introduction of foods to infants) and addressed important questions such as:

- How to introduce vegetables in the diet of an infant to promote liking and intake
- What parental feeding styles contribute to vegetable acceptance
- How infants and toddlers learn about food
- What we can do to be more effective in promoting healthy eating habits and to prevent obesity

During the congress posters presenting results from the VIVA project were displayed - abstracts available online at:
<http://www.vivacongress2013.co.uk/>

- WP1 - Complementary feeding: comparison and evaluation of national and international guidelines. C. Schwartz, P. Scholtens, A. Lalanne, H. Weenen, S. Nicklaus.
- WP3 - For French mothers complementary feeding is a 'taste journey'. C. Schwartz, J. Madrelle, C. Vereijken, H. Weenen, S. Nicklaus, M. Hetherington.
- WP4 - A step-by-step introduction to vegetables at the beginning of weaning: the effects of early and repeated exposure. M. Hetherington, C. Schwartz, F. Croden, J. Madrelle, C. Vereijken, H. Weenen.
- WP4 - Analysis of video recorded eating behaviours of infants: a better way to assess liking of foods by infants? J. Madrelle, C. Barends, M. Pinilo, H. Weenen, M. Hetherington.
- WP5 - It's never too late to learn – applying learning theory to improve liking and intake of vegetables in pre-school age children. J. Cecil, M. Wilson, A. Wright, C. Allais, C. Schwartz, D. Jackson, H. Weenen, M. Hetherington



Also, presentations from the **HabEat** project were delivered as both talks and posters: <http://www.habeat.eu/>

Oral presentation

INRA: "Eating a variety of vegetables: the importance of feeding practices at weaning and onwards". S. Nicklaus

Posters

- ULeeds: "An investigation into vegetable consumption in pre-school children and the role of exposure". M. Ahern, S. J. Caton, M. M. Hetherington.
- UCL: "Early exposure to vegetable variety on infants' liking and consumption: results of the TASTE intervention study". A. Fildes, J. Wardle, L. Cooke.
- DLO-FBR: "The effect of three social learning techniques on Dutch 4- to 6-year old children vegetable consumption". G.G. Zeinstra, V. Kooijman.
- WUR: "Repeated exposure more effective than flavour flavour learning as mechanism to increase vegetable consumption in pre-school children". V. de Wild, K. de Graaf, G. Jager.
- INRA: "Comparison of Repeated Exposure, Flavor-Flavor Learning, and Flavor-Nutrient Learning to increase artichoke intake in weaning infants". E. Remy, S. Issanchou, V. Boggio, S. Nicklaus.



a) Jerome Madrelle with Harriet Oster and Hugo Weenen



b) Sophie Nicklaus addresses the audience



c) Posters and lunch



d) Discussion Group lead by Annie Anderson and Fiona Croden



e) Keynote speaker Dr Leann Birch