

President of the Association of Applied Biologists 2011-12

During the March Council Meeting it was proposed that all members of the Association should be invited to suggest who should follow Mike Jeger as Vice President in 2009 and 2010 and become President of the Association in 2011 and 2012.

Past Presidents have all been recognised scientists and fifteen have been Fellows of the Royal Society. Presidents have also included at least three knights of the realm and thirteen others in receipt of various Orders of the British Empire. Only this January, the previous President, Brian Kerry was awarded an MBE. Whilst I am not suggesting for a moment that the next President will immediately be showered with honours, we are looking for a person who is eminent in their field. The three key roles of the President are (1) to represent the Association to outside organisations, (2) to chair meetings of Council and (3) to encourage and support the Convenors and Office Staff in their work in moving the Association forwards.

I would welcome suggestions from any member of the Association of the names of individuals you feel would be qualified to act as President. These may be people whom you have informally approached, or those you wish me to contact directly. The names and institutional addresses should be sent to me at p.lea@lancaster.ac.uk by the end of May 2008.

Peter J. Lea, President 2007-8

Functional Foods. Authentication Workshop. 17th December 2007.

This one day workshop brought together food producers, academics and regulators seeking answers to broad questions about functional foods. In particular it covered the broad concerns of producers (how can I prove that this product is functional?) and from academics (wow - this product is really functional but how can it be made commercial?)

In addition producers and academics have common questions on whether a possible product may be accepted as a food or whether extensive legislation will require an exhausting series of trials.

Given these aims, both producer and academic presentations were received with interest and produced some detailed and perceptive discussion. The range of functional foods covered many tastes from breakfast cereals to coffee and included relatively unknown foods such as guarana (Brazilian fruit with demonstrable effects on mental ability) and known microbes such as *Bifidobacteria*.

The requirements for sound evidence was an early distinction provided by Dr Kieran Tuohy from the Food Science unit at the University of Reading. Intestinal fermentations may not be a popular addition to a laboratory but are necessary to demonstrate effective gut colonisation. Kieran outlined results from example fermentations showing the effect of foods on microbial populations. With over a kilogram of bacteria in your digestive system it is pretty important to keep the right balance of species.

The value of cereals in enhancing beneficial gut flora was expanded by Jon Pritchard from Munton's malt with details of barley and oat effects and expanded by Dr Severino Pandiella from the Satake Centre for Grain Process Engineering at the University of Manchester. Specific fractions from the husk of grains have been shown to enhance the growth of probiotic organisms suggesting that these materials could be valuable prebiotics. The potential of cereals to support microbial growth was presented by Raquel Rozada Sanchez from the University of Manchester with particular emphasis on *Bifidobacter*.

The basic definition of functional foods being those with an effect to stimulate gut microflora was broadened with contributions from the Nutrials unit at Northumbria University. Andrea Zangara outlined the evolution of

nutrition from initially preventing deficiencies to today's neurological investigations. With so many foods focused on disease prevention it is interesting to hear that psychological surveys show that consumers are particularly concerned with short term benefits, particularly skin care and enhancing sports performance.

Examples of specific functionality were provided by David Kennedy and Emma Stevenson from Northumbria University. David outlined how extracts from guarana seeds enhanced the speed and accuracy of mental processing in specific tests. Emma has been involved in more strenuous investigations by persuading cyclists to pedal to exhaustion with and without chocolate milk refreshment. This was a pretty impressive experiment given that it takes all day to tire a cyclist but longer after drinking chocolate milk. The major disappointment here was to learn that the milk tested contains no chocolate and the effect arises from the protein and lipid supplement!

Kirsten Brandt from the University of Newcastle gave us a broad view of defining the physiological effects of functional foods in terms of the concentration of ingredients, the level of intake, the bioavailability and bioactivity to stress how each factor requires the others to achieve final impact. The extra dimension of genotype differences is increasingly important and may well lead to personalised diets.

Caroline Orfila from the University of Northumberland outlined the benefits of carrots arising from falcarinol while Gordon McDougal from the Scottish Crop Research Institute gave details of another long established functional food - the berry. Although colour is a major feature of berries it appears that tannins are more effective anticancer ingredients and may also inhibit amylases so affecting glucose digestion and associated metabolic disorders.

An important caution was provided by Chris Jones from the Food Standards Agency outlining the requirements of registration of novel foods, particularly as they may contain allergens or toxins. With so many foods being discussed it was fitting to finish with samples of another historic food, this time bread and beer brewed by Chris Holliland to illustrate the traditional character of naturally fermented cereal extracts. A final presentation on the difficulties of claiming functionality for alcoholic beverages was curtailed leaving participants to savour the flavour of an archaic diet of bread and beer without exercising their conscience.

Dr Keith Thomas, AM & B Convenor