

# DISHING UP GOOD FOOD SCIENCE



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The Food Standards Agency's science was put under the microscope recently and we were pleased to get a favourable lab report. The Government's science review led by Chief Scientific Adviser Professor John Beddington said our approach to the use of science has generally been 'impressive'.

The review highlighted what is special about the way we do science and went to the heart of the remit for the Agency. Science at our core – everything we do is based on good science. Our founding chair, Lord Krebs, was a distinguished scientist who set the tone for what was to come. His successor, our outgoing chair, Dame Deirdre Hutton, has devoted a significant part of her time to embedding science in our organisational processes. For me, educated as a microbiologist and zoologist, taking over the Agency has been something of a homecoming, but I bring my experience of years in the food industry, most recently as chief executive of Arla Foods, to the table.

The Government Office for Science's review praised our commitment to open policy making – singling out our pioneering decision to throw open our Board and committee meetings to the public. Bringing our science into the public gaze has been a huge success

because public trust in our science is key to our effectiveness. We were commended for our evidence based approach – relying on research in making risk assessments and reaching conclusions that have been endorsed by the scientific community. Now we have to keep up this high standard and continuously improve in the face of resource restraints.

One of my main challenges as chief executive is to ensure that we have the right people in place. We are proud that 46% of our staff are science graduates and postgraduates and we aim to continue to attract some of the brightest and best of each generation. At the moment we are extending our Continuing Professional Development (CPD) programme, which helps to retain staff and allow them to keep in touch with the latest developments.

Good though our staff are, they can't do it all, so it is also vital that we can call on independent experts from outside the Agency to advise and challenge us. Through our ten scientific advisory committees, we have direct access to 140 scientists at the cutting edge of their fields. The recently formed General Advisory Committee on Science, chaired by Professor Colin

Blakemore, has been given the specific task of investigating and commenting on the Agency's use of scientific evidence to formulate risk assessment. It is a challenge to attract the best, but as scientists become more interested in influencing policy making, we feel the exchange is a fair one. Over the years we have been refining our method of using research. Scientists who sit on our committees have a chance to see policy making at first hand, gaining useful skills for themselves, while having an input into the making of policy that is professionally satisfying and fulfils a pressing public need.

The dilemmas are very real. The Scientific Advisory Committee on Nutrition (SACN), for instance, considered evidence that fortifying bread and flour with folic acid could reduce the incidence of neural tube defects in pregnancies. The science was clear that fortification would reduce the risk of these defects. But the advisory committee had to look at the wider picture which included research that suggested a slight risk of increased bowel cancers and a masking of vitamin B12 deficiency in older people. After SACN gave their advice to the Agency in 2006, the FSA Board had to weigh up carefully the conflicting scientific evidence as well as balancing

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the needs of different groups in the population and the attitudes of the public to mandatory additives in food. As this article is being written, the advisory committee is preparing more advice on folic acid and cancer to government.

A recent development has been strengthening our expertise in the social sciences with a new Social Science Research Committee set up in 2008 and some interesting new staff appointments including a psychologist and social anthropologist. Their input will help us understand human behaviour in more scientific terms, which should help us get our messages across even more effectively.

Like every other public sector body, we have to be realistic about future budgets, and the impact on our research is one of the biggest challenges we face. Each year we have tried to be 'smarter' in our research spend so this is not a bolt from the blue. We try to identify the types of research that will make the most difference.

The field of nutrition is an example of how we try to get the best value for money out of our research. In February 2009 we commissioned a panel of independent external experts to review our nutrition research and to recommend what will be needed over the next few years to support the Agency's work.

Research we commission makes up only a proportion of our total input into scientific research. An important way of making our money go further is by collaborating with other agencies in funding research. An obvious example of this is European funded research. We make sure we have an input into the development of each framework programme for research, to try to ensure that it

is as relevant as possible to food safety, diet and health, and then take part in some of the projects. We also work closely with the UK Research Councils and other government departments and with specialist research funding groups. Our commitment to co-funding is growing, with a record one-fifth of our £20m research budget in 2007/08 going to co-funded projects.

Our research effort is not limited to the funding of outside research. Our in-house staff have a vital role to play in tracking research that is being done elsewhere, analysing its findings and making sure the results come to the attention of those who need to know about them. We see this as an activity that will increase in future.

This leads to one of the areas of greatest challenge facing the Agency, the dilemma memorably described by Donald Rumsfeld – how we deal with the 'unknown unknowns'. Food scares and product recalls impose a huge expense to the country and risk undermining consumers' confidence in the food they eat and the producers who sell it. With about 1,200 incidents a year we need to do everything we can to forestall these crises. So we are working hard to develop ways of anticipating where new problems will arise.

Horizon scanning is becoming part of our day-to-day work. It is partly about people – our staff are in touch with colleagues around the world, for instance through European Union and World Health Organization fora, and are ready to pick up on the first signs of new hazards or new practices that could lead to potential health risks. We are formalising some of these links, with working level agreements with food safety organisations in

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Canada, Australia, New Zealand and the US that allow us to share information before it is made public. Just listing a few of the issues – climate change, increased consumption of pre-prepared food – shows the complexity of the task facing our horizon scanners.

But above all we must be realists. We can do our best to identify the future before it happens but of course we won't succeed in all cases. We therefore give equal priority to improving our methods of dealing with incidents when they happen. Our incident prevention strategy helps us to meet any challenge and deal with it as effectively as possible. As part of this strategy, we are currently analysing all the food scares back to 2000 so we can better understand where the risks came from and how they can be prevented. Our relationships with the industry are crucially important here as their willingness to share information – and particularly how quickly they are prepared to tell us about problems – is the key to an effective response. We are developing new ways of involving industry partners and other stakeholders in devising

and implementing these initiatives.

This is a necessarily brief introduction to the way that the FSA is responding to the science challenges it faces. I don't want you just to take my word for it. This month, the Agency's Board will be focusing on science and discussing many of these issues and I'd invite you to take a look. View it as a video-on-demand and see how we do our science in the open.

**Tim Smith** is Chief Executive of the Food Standards Agency, the non-ministerial Government department set up in 2000 to protect the public's health and consumer interests in relation to food

#### Further information

Information about our science is on the Food Standards Agency website at

<http://www.food.gov.uk/science/>

The live webcast and video-on-demand of our July board meeting will be at <http://www.food.gov.uk/aboutus/ourboard/boardmeetings/>

The Scientific Advisory Committee on Nutrition website is at <http://www.sacn.gov.uk/>

