



## News

The following news items illustrate some of our activities during the last 3 months. To keep up to date with our activities, please take a look at our news pages at:

<http://www.food.rdg.ac.uk/news.htm>

### 26 June 2006: University seeks to appoint new Professor and Lecturer to the School

The University has agreed to two new appointments in Food Biosciences:

#### Chair in Human Nutrition

Applications are invited for the post of Chair in Human Nutrition from candidates with an international reputation in a field of nutrition related to human health. This post has arisen from the recent move of the present post holder, **Professor Christine Williams**, to become Dean of Life Sciences at the University of Reading. The original establishment of this chair in 1995, along with five other academic posts in nutrition, was the result of the award of an endowment from the International Nutrition Foundation from the estate of the late Dr Hugh Sinclair.

The successful candidate will lead research and teaching in nutrition in the Hugh Sinclair Unit of Human Nutrition at the University of Reading. We wish to attract an outstanding individual, with an international research track record and possessing excellent leadership skills. The ability to sustain the international reputation of the unit and further develop the considerable potential of the academic staff of the unit is a priority. The successful candidate will be expected to contribute to the teaching of undergraduate and postgraduate courses in the areas of food, nutrition and biomolecular health sciences.

Interested applicants are invited to discuss the post informally with the Head of School, Professor Christine Williams via email in the first instance ([c.m.williams@reading.ac.uk](mailto:c.m.williams@reading.ac.uk)). The closing date for applications is 4 August 2006.

#### Lectureship in Food Chain and Health

Applications are invited for a lectureship (Grade A) in Food Biosciences (Food Chain and Health). This is primarily a research driven post.

At Reading, we have instigated a number of research themes that are multidisciplinary in nature. These exploit existing skills across various Schools and capitalise on areas where we believe we have leading expertise and infrastructure. One of these is Food Chain and Health, which was formally launched in March 2006. The 21st century health model will comprise of both preventative life style and therapeutic entities, with diet playing a central role. Exploiting the University's international expertise across a wide-range of its Schools, this programme is focused on a long term vision that will also generate short-to-medium term benefits for this crucial area of public health.

Harnessing well over £10 million of ongoing funding, the programme investigates how diseases such as heart disease, Type II diabetes, gastroenteritis and cancers can be prevented by changes in lifestyle, food production and diet. Successful outputs will have major societal and scientific impact. Researchers are investigating

whether particular food ingredients can exert beneficial properties, underpinning their investigations by exploring their mechanistic effects and production characteristics.

Interested applicants are invited to discuss the post informally with **Professors Glenn Gibson** (g.r.gibson@reading.ac.uk Tel: 0118 3788715) or **Bob Rastall** (r.a.rastall@reading.ac.uk Tel: 0118 3786726). Closing date for applications is 14 July 2006.

Further details on both these vacancies are provided on the University web site at: <http://www.rdg.ac.uk/jobs/>

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### 16 June 2006: School chosen to undertake major research into role of fruit and vegetables in reducing the risk of cardiovascular disease

The School is delighted to report that we have been chosen to undertake a major nutrition study funded by the UK Food Standards Agency. Final discussions will now take place on the details of the contract but this is not expected to raise any significant issues. The research will be led by **Dr Julie Lovegrove** from the School and supported by many of the nutrition specialists within the School. The total funding for the research is likely to be in the region of £700,000 with the work taking place from January 2007 to December 2009.

#### *Background to the research:*

Studies have indicated that consumption of fruit and vegetables is associated with reduced risk of cardiovascular diseases (CVD). However, at present the quantity of fruit and vegetables which is associated with maximum risk reduction is unclear. There is also accumulating evidence that dietary flavonoids, which are non-nutrient components of fruits and vegetables may, in a large part, explain the CVD benefits of increased fruit and vegetable intake. However this hypothesis has not been tested in an adequately powered dietary intervention study.

This study entitled 'Impact of increasing doses of flavonoid-rich and flavonoid-poor fruit and vegetables on cardiovascular risk factors in an 'at risk' group (URFAVS)' aims to determine whether there is a dose-response relationship between levels of dietary fruit and vegetable and whether those fruits and vegetables high in flavonoids have an additional benefit over fruits and vegetables low in flavonoids.

This large 3 year human dietary intervention study aims to recruit 180 volunteers, who will be provided

with fruit and vegetables for 18 weeks. The response of a range of CVD risk factors, including endothelium function (reactivity of blood vessels), blood lipids and blood pressure will be investigated. This study is designed to provide a sound basis for dietary advice on the types and levels of fruit and vegetable consumption required to reduce risk of CVD in the general UK population.

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### 6 June 2006: Vice-Chancellor opens new link bridge to join Food Biosciences, Pharmacy and Chemistry

The Vice-Chancellor today performed the official opening ceremony for a short link corridor which joins the Food Biosciences Building to the adjacent Chemistry Building. In construction terms, the link might appear relatively insignificant - a short 'bridge' from the Level 1 mezzanine in Food Biosciences to the Ground floor of Chemistry. However, with the forthcoming merger of the three Schools into a single larger School, the event was very symbolic and was a significant occasion.

The Vice-Chancellor spoke briefly of the important contribution that the three Schools make to the University and the great potential for the staff in the larger School to achieve even more through collaboration.



Key University staff attended the opening and enjoyed a buffet lunch. The photograph shows (from left to right) **Professor Tony Downes** (Senior Pro-Vice-Chancellor), the Vice-Chancellor, **Professor Gordon Marshall**, **Professor Carl Stychin** (Pro-Vice-Chancellor (Enterprise)), **Professor Glenn Gibson** (Food Biosciences Director of Research) and **Professor Christine Williams** (Head of School of

Food Biosciences and future Dean of the Faculty of Life Sciences), **Professor Rob Robson** (current Dean of the Faculty of Life Sciences), **Professor Howard Colquhoun** (Head of the School of Chemistry) and **Dr George Marston** (Head designate for the School of Chemistry, Food Biosciences and Pharmacy).



The above photograph shows the external view of the new bridge linking Food Biosciences (on the right) with Chemistry (on the left).

### 6 June 2006: Pilot Plant Open Day attracts food industry to School facilities



Based in the School of Food Biosciences at the University of Reading, the Process Research Centre (PRC) has a pilot plant facility with 2000m<sup>2</sup> of floor space and over £3.5 million worth of equipment. RSSL manages the commercial operation of the facility on behalf of the School.

RSSL today hosted an Open Day focused on the development of allergen-free food products. Nearly 100 people registered for the event and heard a panel of expert speakers gave brief presentations on key issues concerning the launch of products into the free-from market. Presentation topics covered consumer issues (Nicky Mendoza - Coeliac UK), product development challenges (Martin Hopkins - Safetoeat), allergen control in the food chain (Simon Flanagan - RSSL) and information sources (Clare Mills - IFR).

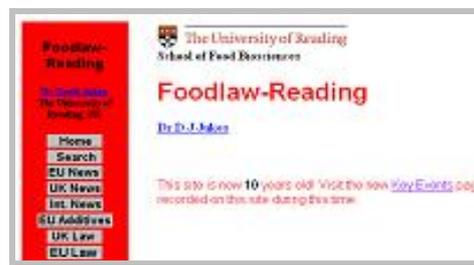
The pilot plant provides a superb facility for processing food and pharmaceutical materials at pilot

scale without the financial burdens of maintaining a full time pilot plant, expensive production downtime or tying up key operatives. It is a facility that is ideal for developing new products, testing out new recipes and investigating new or novel processing methods.

The photograph shows a few of the delegates enjoying a buffet lunch after the presentations. For more details on how to hire the Pilot Plant, go to:

<http://www.rssl.com/OurServices/PilotPlantFacilities/>

### 20 May 2006: Successful internet site on food law reaches its 10th birthday



On the 20th May 1996, **Dr David Jukes**, Senior Lecturer in Food Regulation in the School, created his first web page devoted to food law - many more have followed. The site was designed to provide access to key food law information and to provide educational material on food law topics. One of the earliest pages to be included was a full list of E-numbers - the first such list to be available on the web.

Despite a few changes over the years, the overall layout of the site has been retained. A major part of the site is the news pages - United Kingdom, European Union and International (mainly reports of Codex Alimentarius meetings). There are now over 2100 news items included providing a major record of changing approaches to food law. The decade has seen the establishment of the UK Food Standards Agency, the adoption of key EU Regulations and the increasing involvement of the World Trade Organisation in food trade disputes. On this 10th anniversary, Dr Jukes has provided a new page to highlight some of the decade's key events.

The site includes a separate section devoted to describing the main requirements of food labelling legislation in the UK. These pages are designed to be particularly helpful to small food businesses who often find food legislation complex. Supported by Waitrose, the key requirements are illustrated with examples of actual labels.

The site is now widely used by students and professionals based in the UK and from all over the world.

To see the site, go to Foodlaw-Reading at: <http://www.foodlaw.rdg.ac.uk/index.htm>

### 19 May 2006: Flavourists course attracts students from around the world

The School of Food Biosciences has just completed hosting the fourth annual training course for flavourists. The courses are organised in conjunction with the British Society of Flavourists (BSF) with support from the International Federation of Essential Oil and Aroma Trades. This year there were delegates from the Netherlands, Russia, Slovenia and USA, as well as the UK.

The aim of the three-week course is to provide an understanding of the flavour characteristics of a wide range of flavour compounds and to learn how to prepare flavourings for use in foods. The course includes extensive practical sessions and seminars with emphasis on practical participation in flavour creation. The principal lecturer is Mr Jack Knights, a highly experienced flavourist with wide international reputation. Other members of the BSF contribute to the programme as well as members of the School's Flavour Chemistry Research Group led by **Professor Don Mottram**.



The photograph above shows Jack Knights on the left and Don Mottram in the rear row, third from the right.

The course aimed to provide a basis for a career as a food flavourist. Topics covered included:

- Properties of compounds used in flavourings
- Flavour Chemistry and Biochemistry
- Solvents, delivery systems, encapsulation and flavour release

- Flavour legislation
- Reaction flavours
- Practical creation of flavourings

More details of the course can be seen on our Flavourists Training Course page at: <http://www.food.rdg.ac.uk/Shortcourses/Flavourist.htm>

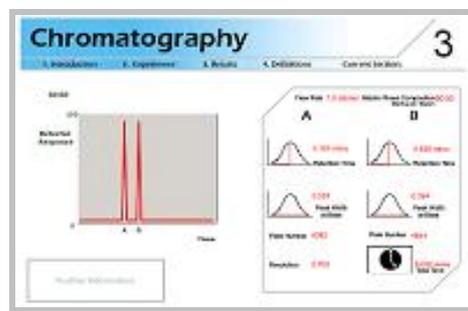
### 16 May 2006: University recognises outstanding contribution to teaching and learning provided by School staff

The University has set aside funds from its HEFCE allocation of the Teaching Quality Enhancement Fund (Supporting Professional Standards) to support an Award for Outstanding Contribution to Teaching and Learning Support. Each School is eligible to receive up to three awards.

The aim of this awards scheme is to recognise and reward individuals who have made significant, ongoing contributions to teaching and learning support, either through direct interactions with students or through their support of teaching staff within the School.

For 2005/2006, the University has made the following awards to School staff:

- **Dr Richard Frazier** (in the 'Experienced Staff Category') for his work, in particular, on developing a computer simulation of chromatography experiments. This has enabled students to undertake a much greater number of 'experiments' than would have been possible using normal laboratory equipment. Dr Frazier was supported in the development by a Computer Science degree student.



The image shows a page from Dr Richard Frazier's on-line chromatography module.

- **Dr Anne McCartney** (in the 'New Staff Category') for modernizing some microbiology modules, including developing new practical classes for undergraduate and MSc taught courses.

This work resulted from Anne taking over teaching due to recent retirements and some rationalization of teaching.

- **Mrs Vina Gilham** (in the 'Teaching and Learning Support Staff Category') for her support and commitment to the industrial training programme operated by the School. The School frequently arranges meetings where students can hear about industrial opportunities from companies offering placements and these are often in the evenings leading to a long day for Vina.

In a separate category, the University has this year made awards to teams involved in both the development of existing teaching practices and/or new teaching initiatives to support student learning. Only a limited number have been made across the University but one has been given to our nutrition teaching team led by **Dr Parveen Yaqoob** who have been working hard to successfully introduce our new BSc Nutrition and Food Science degree programme.

Congratulations to all of the School winners!

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### 10 May 2006: Key appointments made for the new School of Chemistry, Food and Pharmacy

From the 1st August 2006, the School of Food Biosciences will become part of the School of Chemistry, Food and Pharmacy. Work on this change has been progressing for some time but key decisions could not be taken until appointments to key posts had been made.

With the current Head of School, **Professor Christine Williams**, being made Dean of the Faculty of Life Sciences, the Vice-Chancellor has appointed **Dr George Marston** to be the Head of the new School. Dr Marston, a specialist in atmospheric chemistry, has been Director of Teaching and Learning in the School of Chemistry.

The new School will retain an internal structure based on three Departments. The present School of Food Biosciences will therefore revert to a Department of Food Biosciences along with a Department of Chemistry and a Department of Pharmacy. The Department of Food Biosciences will be led by Professor Glenn Gibson.

Although the creation of a larger School is intended to provide more stream-lined administration and increase collaboration between the current 3 schools, each component part will retain its focus. Food Biosciences

will maintain its key role in teaching and research in all aspects of food biosciences.

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### 8 May 2006: Young researcher gains invitation to House of Commons reception to present work to MPs

2006 is the second year for a new initiative whereby Britain's younger researchers present posters at Westminster on "leading-edge" research and R&D in UK Bioscience and compete for the newly-established GJ Mendel Medal and the associated Prizes. The event is organised by SET for Britain (where 'SET' stands for Science, Engineering and Technology).

In the competition for an opportunity to present their research, **Dr Kim Jackson**, a post-doctoral researcher in the School, was successful. She was able to present her work at a held in the House of Commons in London.

Kim provided a poster on her work entitled "Saturated fat-induced changes in Sf 60-400 triacylglycerol-rich lipoprotein composition reduces uptake of LDL by HepG2 cells". She has explained the importance of this work as follows:

"Many studies in human populations have shown that diets rich in saturated fat (as in the UK diet) increase the level of LDL cholesterol (bad cholesterol) in the bloodstream, a major risk factor for the development of coronary heart disease. However, the ways in which saturated fat increase LDL cholesterol levels are not fully known. Our current research has shown that following a meal containing saturated fat, the particles which carry fat around the body, have a different composition. We have shown that this makes them more likely to compete with LDL for uptake by the liver, reducing the removal of LDL cholesterol and contributing to raised blood levels of LDL cholesterol."

The event attracted a huge response proving very popular not only with younger researchers but also with MPs, Peers and others. The SET events take real research - especially by the people acting doing it - to Parliament and help to engender increased dialogue between MPs, early-stage researchers and Britain's research communities.

## 10 April 2006: Two researchers gain awards following presentations of their work



Two of our PhD students undertaking research in the School of Food Biosciences, have won prizes at recent events.

**Mei Yin Low** (shown on the left), a PhD student working with Professor Don Mottram in the Flavour Research Group, has been awarded one of the two prizes given at the recent Graduate Symposium organised by the Agricultural and Food Chemistry Division of the American Chemical Society. The prize was for her talk entitled "Relationship between acrylamide formation and flavour generation in heated foods" presented at the symposium, which was part of the ACS Spring Meeting held in Atlanta.

Mei was one of six final-year PhD students selected by the Division to attend the Symposium, which is an annual event that has been running for 16 years. Mei is the only the second student from outside North America who has ever been invited to attend, so it is particularly pleasing that she has brought one of the prizes over this side of the Atlantic. It is particularly noteworthy that the previous UK participant in this symposium was Marie Friend, also from the Reading Flavour Group, who was also awarded a prize at the 2004 symposium held in Anaheim.

**Delphine Saulnier** (shown on the right), a PhD student in the School, won the Institute of Food Research Science Communication Prize at the recent meeting of the Society of General Microbiology meeting at the University of Warwick. The judges were very impressed with Delphine's professional manner, the clarity of her presentation and her command of her subject. Her paper was entitled: "Identification of prebiotic fructooligosaccharide metabolism in *Lactobacillus plantarum* WCFS1 using microarray".

Our congratulations to both of them!

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### Our Degree Programmes

The **School of Food Biosciences** offers the following programmes

- BSc Food Science;
- BSc Nutrition and Food Science;
- BSc Food Technology;
- BSc Biotechnology;
- BSc Food Science with Business
  
- MSc Food Science;
- MSc Food Technology Quality Assurance;
- MSc Nutrition and Food Science
  
- PhD, MPhil - Research degrees

For full details, visit our web site at:  
<http://www.food.rdg.ac.uk/index.htm>