

News story: GC team delivers successful annual postgraduate training course

Introduction

The Government Chemist Team organised and delivered, on behalf of the Association of Public Analysts Educational Trust, the annual week-long course 'Analysis and Examination of Foods' at the University of Reading. The course is fully residential and ran between Monday 3rd and Friday 7th April 2017.

This course covers the analysis and examination of food by chemistry, molecular biology, microscopy, microbiology and mycology. It aims, in a two year cycle, to support the syllabus for the Mastership in Chemical Analysis (MChemA) which is the statutory qualification required to practice as a Public Analyst. Hence, as well as food, it addresses drinking water, feedingstuffs, fertilisers, and the underpinning legislation controlling this wide subject matter.

It is the only dedicated formal teaching available to MChemA candidates and is pitched at postgraduate level. It needs to fulfil the following aims:

- provide the novice an opportunity to get to grips with the subject matter of the syllabus
- enable the experienced analyst to discuss finer points of practice with experts
- provide a valuable opportunity for scientists to update their current experience and perhaps consider further study.

The course has been held for many years at the University of Reading. Daytime and evening lectures, interactive sessions and overnight accommodation were in the Cedars Conference Centre. Practical sessions on microscopy, microbiology and mycology were held in laboratories in the Food Biosciences Department.

Who attended the course

Thirteen delegates, all experienced scientists attended the course. While most were from UK Public Analyst Laboratories, there were also two scientists from Gibraltar and one from the Hong Kong Special Administrative Region, China. All delegate feedback was overwhelmingly positive:

Very good lecturers, entertaining, relevant and informative

Always an eye-opener and thoroughly enjoyable

Improved my confidence with a microscope

Brilliant way of learning, very informative, enjoyable and well planned

Interesting for understanding the wider implications of our work

Summary of the course material

The 'Analysis and Examination of Foods' course offers a highly effective learning experience with a good mix of lectures, laboratory practical sessions and interactive exercises delivered by a wide range of experts, not usually available together elsewhere. The topics are up to date, covering safety (chemical and microbiological), authenticity, analysis and the law of food, water, feeding-stuffs and fertilisers.

The course has RSC 'approved training' status and is aligned with the MChemA syllabus. The sessions are delivered in the classroom and include practical training in microscopy and microbiology. There are also interactive exercises including 'expert witness' role play mentored by experienced court going scientists.

The course started with Dr David Owens on practical mycology – fungal classification and identification. Professor Anne-Marie Minihane presented a fascinating insight into nutrition: research, labelling and impact on our personal lives.

Public Analysts need to interpret and communicate their results, often to a court of law. Dr Duncan Campbell MChemA carefully taught delegates best practice in doing so, with regard to forensic probity, brevity and transparency.

Dionisis Theodosios of Eurofins taught a session on the regulation of pesticides residues in food, and analysis with much emphasis on modern techniques and interpretation of results. Jon Griffin MChemA and Kevin Wardle MChemA led the delegates through the law, analytical procedures and exercises in appraising commercial products and results of analysis.

Hazel Gowland, an experienced patient advocate and published researcher, led delegates through the impact of food allergies on patients' lives and allergen risk management. Dr Walker outlined the immunological basis of

allergy and the latest analytical methods for food allergen detection.

In the wake of the horse meat scandal and the Elliott Review, food authenticity, food fraud and food crime continue to have a high salience. Thus four sessions were devoted to these topics. Giles Chapman Strategic Intelligence Manager, National Food Crime Unit, NFCU, Food Standards Agency gave an insightful overview of the operation of the NFCU. Nigel Payne MChemA, Chair of the Authenticity Methods Working Group, covered the authenticity, contaminant and residues aspects of meat and fish. Dr Sophie Rollinson surveyed the history, current approaches and future challenges of the Defra Food Authenticity Programme and Dr Gavin Nixon delivered a thorough and systematic review of advanced DNA and Spectral Imaging techniques for food authenticity.

Gavin Nixon, GC team, delivering a session

A major part of this year's course was microscopic identification of food components and contaminant material. A comprehensive theory session and practical training ensured delegates were comfortable using the microscope, made use of appropriate mounting media and recognised key structural features. The systematic examination of blind mixtures gave the more experienced a foretaste of the MChemA exam 'Part C' scenario questions. The practical sessions were led by Jane White MChemA with teaching from Sue Sherry in Plant Anatomy. This was enhanced by a lecture on consumer complaints from Alastair Low MChemA who presented numerous examples in an interactive session and also assisted as an instructor in the practical sessions.

Dr Alex Kersting and Rachael New MChemA talked delegates through the process of taking the MChemA exam and how to study for this exacting qualification and the Chief Examiner Jon Griffin MChemA was on hand to outline what the examiners are looking for in a good candidate.

Taking advantage of the expertise of the delegates themselves, a mini-symposium was held allowing delegates to learn from each other. Dr Angella Wing-Hoi Yuen described the work of the Hong Kong Government laboratory, Alison Aitken discussed Shiga toxin producing E.coli, Punil Sanatcumar outlined the analysis of PCBs and dioxins, Nikki Molloy gave insights into the preparation of material for proficiency testing schemes and Ratna Dewiyanti spoke entertainingly on the science behind home cooking. Natalie Hernandez and Xenia Duarte discussed medical microbiology and haematology in a busy hospital lab in Gibraltar, Chris Payne and Peter Bowdery described integrated public analyst and police forensic science services and David Finlay and Diane Bryning outlined protection of animal feed supply chain and sustainable entrepreneurial recycling respectively. This mini-symposium worked well to share knowledge and experiences and build professional relationships.

Acknowledgments

The APA Educational Trust is grateful to the Food Standards Agency and the Analytical Chemistry Trust Fund for financial support and to the Government

Chemist team for organising and running the event. Grateful thanks are extended to the speakers and practical session demonstrators for the care and effort they put in to preparing and delivering their material, and to the technical and administrative staff of the University of Reading for their kind assistance in making the course run smoothly.

News story: Government Chemist hosts international food allergy meeting

The Government Chemist hosted a meeting of the University of Manchester Food Allergy Network, MFAN, at LGC on 11 April 2017. The meeting attracted 27 delegates from very relevant organisations in the allergen research and management areas. Chaired by Professor Clare Mills, MFAN coordinates research on the risk management of food allergens with input from the analytical and food industry, academics, regulators and retailers. Attendees from the UK, Europe and Australia were joined electronically by researchers from the University of Nebraska and the US Food and Drug Administration.

The group discussed international research carried out to assess the performance of immunoassay and mass spectrometry techniques in detecting and measuring food allergens. Allergenic compounds can provoke life threatening reactions even when present in food at very low levels. Therefore it is very important to establish whether allergens can be detected accurately and reliably. This work is vital to protect the health of consumers with allergies, improve food labelling and reduce food recalls that impact on the balance sheets and reputations of food companies.

MFAN meeting attendees at work

The group agreed on findings that will be published in scientific peer-reviewed literature later in 2017 and decided on the priorities of a programme of future innovative work.

Dr Michael Walker, Nominated Officer, Government Chemist team, commented on the value of this meeting:

Allergen risk management is both scientifically challenging and important from many different perspectives. By facilitating this international event organised by Prof Clare Mills the Government Chemist is supporting progress in allergen measurement research and therefore better placed to respond to current and future allergen related referee cases.

For any enquiries, contact the Government Chemist team.

Liberal Democrats launch manifesto to change Britain's future

The Liberal Democrats will launch their manifesto for a brighter future on Wednesday. Change Britain's Future is a plan for a fairer Britain where people are decent to each other, with good schools and hospitals, a clean environment and an innovative economy.

Nothing is more important to our children's future than Brexit. A bad Brexit deal, with Britain outside the single market, will wreck the future for our children, our economy and our schools and hospitals. That's why at the heart of the manifesto is a commitment to give the people the final say on the Brexit deal in a referendum.

In advance of the publication of their manifesto, the Liberal Democrats are unveiling a raft of policies to give our children and young people a brighter future. These include:

- Helping people buy their first home for the same cost as renting, with a new model of 'Rent to Own' homes
- Restoring housing benefit for young people
- Creating a discounted bus pass for 16-21 year olds, giving a 66% discount
- Introducing votes at 16 for elections and referendums across the UK

As well as:

- Investing almost £7bn in our schools and colleges
- Doubling the number of businesses that take apprenticeships
- Tripling the early years pupil premium
- Extending free school meals to all primary school students

Liberal Democrat leader Tim Farron said: "Imagine a brighter future. You don't have to accept Theresa May and Nigel Farage's extreme version of Brexit that will wreck the future for you, your family, your schools and hospitals.

"In the biggest fight for the future of our country in a generation, Jeremy Corbyn's Labour has let you down by voting with Theresa May on Brexit – not against her.

"The Liberal Democrats want you to have a choice over your future. You should have your say on the Brexit deal in a referendum. And if you don't like the deal you should be able to reject it and choose to remain in Europe.

"We want to give all our children a brighter future in a fairer Britain where people are decent to each other, with good schools and hospitals, a clean environment and an innovative economy. Not Theresa May's cold, mean-spirited Britain.

"A vote for the Liberal Democrats can change Britain's future."

News story: Government shareholding in Lloyds Banking Group

Lloyds Banking Group has been fully returned to private ownership.

The trading plan announced in October 2016 has ended following the final sale of the government's shares in Lloyds Banking Group (Lloyds). As a result, Lloyds have informed the market this morning (17 May 2017) that the government is no longer a shareholder in the bank.

The government acquired a 43% shareholding in Lloyds in 2009 following a £20.3 billion intervention in the bank. Shares were sold through accelerated bookbuilds (ABBs) in September 2013 and March 2014. ABBs involve selling a large block of shares to institutional investors overnight.

Additional shares were sold through two trading plans which ran from December 2014 to June 2016, and from October 2016 to May 2017. A trading plan involves drip-feeding shares into the market on a daily basis, over an extended period of time. In addition, the government has also received dividend payments in relation to its shareholding.

High growth FinTech firm Delio expands and set to create 30 jobs with Welsh Government support

Delio – founded by Gareth Lewis and David Newman in 2015 – has developed a Configurable, white label platform for financial institutions that helps distribute deal flow and connect high net worth clients with global private market investment opportunities.

The Welsh Government is providing £200,000 repayable business finance that will take the business to the next level, creating 30 new jobs and safeguarding a further seven.

The investment and increase in headcount is essential for Delio to achieve its three-year growth plan and will speed up its expansion plans enabling the business to exploit its IP via a blue chip financial and professional services client base.

Economy Secretary Ken Skates said:

“Financial Technology is a fast-growth areas for the Welsh economy and one which we are keen to support and develop. Our thriving tech ecosystem with its growing supply chain, combined with our entrepreneurial universities, provide a firm foundation for these sectors to thrive.

“Delio has already been noted for its high growth potential and joins a growing number of emerging, smart Welsh companies that are clearly making their mark in this market. I am pleased Welsh Government funding will support Delio’s expansion plans.”

Delio creates private asset platforms for financial services institutions enabling them to appeal to the next generation of high net wealth investors. The bespoke platforms allow their high net worth clients, potential clients and advisors to share, search and access private client opportunities directly using a common platform.

It was born out of the changing needs of today’s wealth creators who are increasingly looking to invest directly in opportunities across private equity and debt, social impact and real estate; both direct and via funds. Previously, the offerings of financial institutions were not evolving to accommodate this shift in needs and this is where Delio steps in.

Delio co-founder Gareth Lewis said:

“Our solution helps everyone – from family offices through to global banks – offer more to those seeking to invest directly in private equity, debt, real estate and other asset classes. It provides markets for a range of uses – platforms can connect together multiple institutions on an individual basis so deal flow can be shared both internally and with external partners.

“It can not only be used to improve distribution to existing networks but also to reach new investors and sources of deal flow by sharing opportunities with total control and flexibility.”

As well as working with clients in the UK and Europe, Delio is currently in discussions with two of the UK’s major financial institutions about rolling out their offering across the banking groups.

In just over a year Delio, which has offices in London, has extended its customer base into Europe – opening an office in Brussels and working on projects across Belgium, Holland and Luxembourg and Australia.

The company was assisted with the grant application process by Mike Fenwick director of grants at professional advisory firm Broomfield & Alexander.

Commenting Mike said:

“Delio is a great example of a financial technology business with significant growth potential and it is great news that the company has decided to grow its operations in Wales with support from the Welsh Government. I wish Gareth and the team every success.”