

# tf testing focus

LATEST NEWS AND INDUSTRY TALK FROM EUROFINS UK BASE

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## LEAD STORY

# Further investment in the latest instrumentation

**Eurofins has further expanded its expert contaminants testing capability at Wolverhampton with investment in a second state of the art Triple Quadrupole LC/MS system. Configured with extra column switching options enabling multiple methods to be run within one analytical sequence, the new system will provide additional capacity for pesticide residue testing.**

Already recognised as a leading laboratory in the field of pesticide residue analysis, this further investment will enable Eurofins to accurately analyse hundreds of compounds at an even faster rate. This will give real benefit to customers, particularly in the fresh produce industry, where results are often required within hours.

In addition, the Inorganics department has had further investment in one new ICP-MS and two ICP-OES taking the count in the department up to 10 instruments, making the Wolverhampton laboratory a UK centre for elements analysis.

The ICP-MS increases capacity for the analysis of trace metals at very low concentrations. The improved MassHunter software

makes data capture quicker and easier, and the sample introduction system helps to reduce interference from problematic matrices.

Designed for high throughput analysis, the ICP-OES instruments are especially useful for high frequency tests such as sodium in food and available nutrients in soil, where fast delivery times are required. They will enable Eurofins to complete sodium analysis within a few hours after receipt of samples in the laboratory as well as enabling capacity increase for routine soil analysis to over 750 samples per day.

The Seal-Analytical Quattro segmented flow analyser, situated in Eurofins' agriculture lab, offers very rapid analysis of available phosphorus in soil and can process over 150 samples per hour. 🌱



# Welcome

Welcome to the first issue of Testing Focus for 2014 and one year on from the horse meat crisis there are still concerns on the authenticity and provenance of our food.

In this issue we have part two of Eric Jamin's article on authenticity outlining the potential of Metabolomics as an analytical tool in fighting food fraud.

I am sure that you will join me in congratulating Liz Moran as she is recognised as one of the top 100 practising scientists and we welcome Iain Swinton as the General Manager at Wolverhampton. Iain's previous experience will help to drive the business improvement and enhance the customer experience.

Liz Paterson  
Sales & Marketing Director

## PEOPLE NEWS

### New General Manager for Wolverhampton

**Iain Swinton, former Business Director at ALcontrol Laboratories has joined Eurofins as General Manager Midlands to oversee operations at our Wolverhampton laboratory, managing more than 160 people and responsible for more than 2,000 samples per day.**

Graeme Risdon, Managing Director of Eurofins Food Testing UK said:

"Iain will be responsible for driving forward development and efficiency in all areas of the Wolverhampton site. He has a specific interest in "Lean" thinking and will support the Business Improvement team in utilising and deploying lean techniques to the benefit of the business in reducing waste and improving efficiency. He appreciates the importance of people and created a leadership development programme to drive continuous improvement through

the company. We are delighted that he has joined Eurofins to help drive our business on its expansion programme."

Previously Iain worked at Kingspan Panels as the Manager for £100M/year production facility and at Milliken and Company, a tier 1 automotive supplier, as Lean Manager and formerly Quality and Environment Manager. He has a Masters in Chemical Engineering & Environmental Management at Bath University and is currently studying for an MBA at Manchester Business School. 🌟

## DATES FOR YOUR DIARY

### Focus on Food Packaging Seminar

Due to recent concerns over packaging in contact with food, our European colleagues based at Eurofins Consumer Product Testing in Germany will be hosting a special information session on packaging legislation and issues on 17th June at Wolverhampton.

Led by Dr Anil Jain the session will cover key areas such as:

- Food contact materials
- General European requirements
- Material-specific requirements
- Problem areas (BPA, Photoinitiators, Acrylates)

We will also be hosting regular briefing sessions for customers covering the key 'hot topics' in the food industry as follows:

#### May

Pesticide Residues - 20th  
Nutritional Labelling - 21st  
Basic Microbiology - 22nd

#### July

Basic Microbiology - 15th  
Pesticide Residues - 16th  
Nutritional Labelling - 17th

#### September

Pesticide Residues - 16th  
Nutritional Labelling - 17th  
Basic Microbiology - 18th

For more information and how to book, contact [marketing@eurofins.co.uk](mailto:marketing@eurofins.co.uk)



## Colour coding trial to simplify sample processing

In order to ensure the smooth transition of samples through the laboratory, we are trialling a new coloured-coded bag system. Customers will be asked to put

samples into the correct coloured bag depending on the type of test that is being undertaken - pesticides; allergens; microbiology; chemistry for example. The new system will

mean faster throughput of samples as they will go straight to the right department for analysis. If you would like to participate in this trial please contact your Account Manager. 🌟

## FOOD AUTHENTICITY

# Emerging Issues and Testing Methods

**Eric Jamin, head of the Authenticity Analytical Unit of Eurofins Scientific in Nantes reviews emerging technologies for the analysing food authenticity.**

"Until the last decade, all analytical methods used for testing authenticity were targeted towards defined components or adulterant(s) marker(s).

Metabolomics is a new approach which uses "full scans" of the molecular content in products to build multivariate models. This means that unknown samples can be tested against models based on reference samples of known type and origin for a very wide range of

programmes aiming at developing such new analytical tools.

Proton Nuclear Magnetic Resonance (NMR) is one of the spectroscopic techniques which can be used for such food "profiling". Its key strength is the speed and high capacity (many samples can be analysed in a short term). For trace elements Mass Spectrometry will be the technique of choice.

NMR-Profiling has been used routinely for several years

Liquid milk and milk powders can also be controlled for animal species, fat and sugar type, thermal treatment, and, most importantly for the presence of Nitrogen level enhancers such as melamine, dicyandiamide or amino-acids from foreign proteins hydrolysis. These compounds are sometimes added to increase the apparent protein content of milk (conventionally determined from the total nitrogen content).

## “ NMR-Profiling has been used routinely for several years to screen fruit juice samples for authenticity and quality.

components, including some which are never tested by conventional methods. Using High-Resolution instrumentation then allows to identify the marker peaks found by advanced data analysis. This non targeted screening tool can help customers anticipate any potential food crises. Eurofins is involved in large collaborative research

to screen fruit juice samples for authenticity and quality.

One of the recently developed applications of NMR-profiling is the authenticity testing of honey, which includes sugar addition, botanical and geographical origin check, and miscellaneous quality aspects (overheating, start of fermentation, etc.).

Similarly coffee can be analysed to check the main species (Arabica or Robusta) and estimate the proportions and detect defects.

Finally, a promising application to wine testing has emerged, including the possibility to check the vine varieties. A European database is under construction for this sector. ❁



## EVENTS

# Events update

See us at these events in 2014:

**FPJ Live, National Motorcycle Museum, Birmingham**

Wednesday 30th April

**London Produce Show, Grosvenor House, London**

Wednesday 4th -  
Friday 6th June

**Trading Standards Conference, Harrogate International Centre**

Monday 30th June -  
Thursday 3rd July  
(Public Analyst Scientific Services)

**Food Matters Live, ExCeL, London**

Tuesday 18th -  
Thursday 20th November

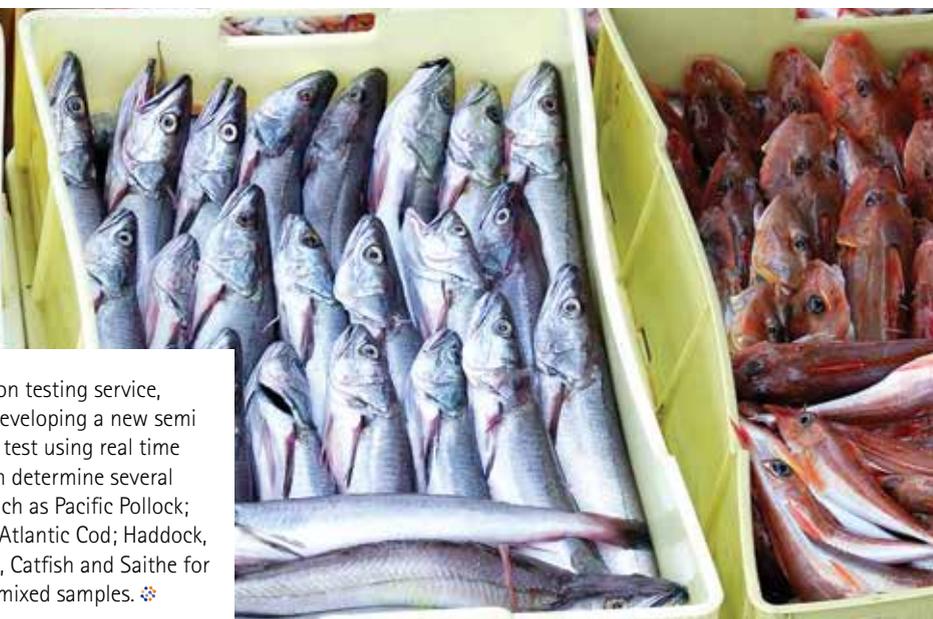


## TESTING

# New mixed seafood speciation test

Identification and determination of different fish species in complex mixed products is challenging due to the widespread diversity of species that are used in food and feed production and therefore might be present as an ingredient. As part of its expanding

fish speciation testing service, Eurofins is developing a new semi quantitative test using real time PCR that can determine several fish types such as Pacific Pollock; Pacific Cod; Atlantic Cod; Haddock, Pink Salmon, Catfish and Saithe for example, in mixed samples. ❁



# PASS food fraud expert named as top UK scientist



**Liz Moran, from Public Analyst Scientific Services and President of the Association of Public Analysts has been recognised for her work in championing consumer protection, particularly in light of the horse meat scandal, by being named as one of the UK's top 100 practising scientists by The Science Council.**

The Science Council's list has been developed to highlight the important work that practising scientists undertake to support industry and to help change attitudes to scientists – consumers often either think of

scientists as being dead or academics and researchers.

Liz is one of the leading scientists in the fight against food fraud and was heavily involved in advising government and industry

during the horse meat scandal.

"I am delighted to be recognised and I hope that this will highlight the important scientific work that public analysts carry out to ensure the safety of the food chain. Food fraud

is on the increase and public analysts need to have access to state of the art analytical technology to check the authenticity of food and stay one step ahead of the fraudsters," comments Liz. 🌟



Newtec Laboratories

## Eurofins Newtec now on-line with EOL

**Newtec Laboratories, the Teeside based nutritional chemistry and microbiology laboratory acquired last year by Eurofins is now known as Eurofins Newtec.**

The laboratory has also moved on to the Eurofins standard laboratory information platform, eLIMS which will permit Newtec clients access to the 100,000 specialist tests offered by Eurofins

worldwide as well as access to Eurofins On-Line (EOL). EOL is the quick, easy and secure web-based system which allows customers to register samples for testing and to receive analytical results. 🌟



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### STOP PRESS

## Dealing with China?

**Customer Event: Technical Insight on Importing and Exporting from China – 15th May 2014**

As part of its programme of briefing sessions for clients, Peter Leedham, Managing Director of Eurofins' Chinese Laboratory – the only commercial laboratory in the country – will be holding a special session in Wolverhampton. Aimed at those involved in importing and exporting from China, the session

will cover information on regulatory and legislative pressures and the implications for UK importers and exporters as well as topics such as manufacturing progress up the value chain and the development of indigenous industries over imports.

To book your place, please contact marketing@eurofins.co.uk. 🌟

