

## Getting the most from your workforce

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Investing in your staff through training and development can help your business to remain competitive and improve quality.

Those leaving or retiring from the industry often leave significant skills and knowledge gaps - by 2020 it is predicted the UK food and drink industry will need more than 170,000 new employees to meet demand and replace retiring workers.

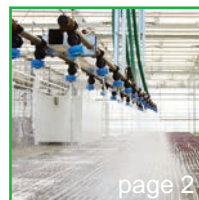
Training and development must address the specific requirements of different job roles, to optimise the ability of your workforce, meet business needs and maintain a competitive edge.

To achieve this we can help your company to develop your own training academy and capability framework - in addition to bespoke and scheduled training - to support your workforce with continuing professional development. ■

Find out more about our training academies on our website - [www.campdenbri.co.uk/training/training-academies.php](http://www.campdenbri.co.uk/training/training-academies.php)



# Newsletter



June 2018

[www.campdenbri.co.uk](http://www.campdenbri.co.uk)



## New club

# Reduce chlorate levels in agriculture

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The levels of chlorates in crops will soon be subject to legal limits being introduced through EU legislation. We are inviting companies to join a club project to investigate approaches to reduce chlorate levels in agricultural production and processing.

The project will begin in June 2018. It will:

- Establish the effects of varying chlorinating agents on the chlorate levels of crop types both pre-harvest and post-harvest
- Identify the use of alternative post-harvest washes that can be used to reduce chlorate levels
- Compare the effects of novel/alternative produce washes and rinses that can reduce chlorate levels in leafy salads and other ready-to-eat products ■

Find out more at [www.campdenbri.co.uk/pr/chlorate-levels-agriculture.php](http://www.campdenbri.co.uk/pr/chlorate-levels-agriculture.php)

## Contact us

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For other sites, see  
[www.campdenbri.co.uk/campdenbri/contact.php](http://www.campdenbri.co.uk/campdenbri/contact.php)

[information@campdenbri.co.uk](mailto:information@campdenbri.co.uk)  
[www.campdenbri.co.uk](http://www.campdenbri.co.uk)

## New members

We are delighted to welcome the following new members:

Applied Nutritional Research Ltd - manufacturer of high protein baked foods

Bakeart (UK) Ltd - producers of cake decorations

East Lothian Council - local authority

FSSI Group (UK) Ltd - risk and quality management consultants

Glebe Farm Foods Ltd - producer of gluten free oats and cereals, cake and bread mixes

Haldiram Overseas Limited - manufacturers of Indian sweets

K Hughes & Co Ltd - grower and producer of mushroom products

Lane Farm Country Foods - farmers and processors

Lossie Seafoods Ltd - producers of salmon and shellfish products

Natural Balance Foods - distributors of healthy snack bars

Popchips - producers of healthy crisps

Sopura - producers of industrial detergents and disinfectants for the brewing and food industry

Strange Hill - drinks, developments, training and bar building company

Univer Product Zrt - manufacturers of condiments and other food products

Wolfe's Drinks - manufacturer of fruit based non alcoholic cocktails

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Please notify the Membership Department of any changes to your company's name or address to allow us to keep our records up to date.



## News

### Bertrand Emond appointed IFT section chair

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Bertrand Emond, head of membership and training, has been elected as the chair of the IFT British Section. His appointment builds on our long association with the IFT (Institute of Food Technologists) - we support the IFTSA Thesis Video competition and Bertrand is a 'Go With Purpose' global challenge mentor.

Bertrand is looking forward to working with the committee to carry on building the section to ensure a vibrant and engaged community. ■



### Avoid the pitfalls of nutritional analysis - white paper

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Different methods of nutritional analysis can yield varying results, so it's important that you use the correct approach for your product. Understanding the potential pitfalls and merits of each method can help in obtaining an accurate result. This white paper will aid you in choosing the appropriate method to get the right result and make an informed decision. ■

Read the white paper here:  
[www.campdenbri.co.uk/white-papers/nutritional-analysis.php](http://www.campdenbri.co.uk/white-papers/nutritional-analysis.php)

## For our latest news

Search 'news' at [campdenbri.co.uk](http://campdenbri.co.uk)

## Latest on the website

### Blogs

[www.campdenbri.co.uk/blogs/campdenbri-blogs.php](http://www.campdenbri.co.uk/blogs/campdenbri-blogs.php)

#### Hepatitis E

##### - your common questions answered

By Martin D'Agostino

What is hepatitis E? Hepatitis E produces inflammation of the liver, which is caused by infection with the Hepatitis E Virus (HEV). HEV is an important, yet extremely under-studied pathogen. In recent years there has been a rise in the number of non-travel related infections in the UK. New data suggests that almost all food categories can pose a risk of infection. ■

#### Save money without compromising your product

By Martin Whitworth

Increasing competition, rising ingredient prices and value-conscious shoppers are squeezing profits in food manufacturing. But it can be challenging to cut costs while maintaining quality and ensuring the texture, flavour and appearance of your product remain the same. Manufacturers need to find innovative ways to reduce costs and find savings in their supply chain. Ingredients and processing are two areas where manufacturers can do this. ■







## Improve food safety, shelf life and product quality - with new technologies

[www.campdenbri.co.uk/new-technologies.php](http://www.campdenbri.co.uk/new-technologies.php)  
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Working closely with members for nearly 30 years, we have carried out practical 'proof of principle' evaluations of many different pieces of specialist equipment - through our 'new technologies' member funded project. Here are some recent examples.

### Continuous cold plasma - extending shelf life of fresh fruit

Cold plasma generates a rich abundance of highly reactive chemical species which are capable of inactivating a wide range of microorganisms, including food borne pathogens and spoilage organisms.

We demonstrated that plasma treatment was capable of delaying mould growth on strawberries and extending shelf life by up to three days compared with control samples. Our study also showed that when using cold plasma there is a balance between surface damage, log reductions and mould spore stress that impact on the shelf life of the product.

### High pressure processing (HPP) - clean label preservation

Novel technologies, such as HPP, could help manufacturers to develop the 'clean label' products sought by some consumers.

We've shown that HPP can inactivate microorganisms and preserve nutritional and eating quality. The effectiveness of the process is governed by many factors and our lab facility enables us to assess what effect processing changes have on the inactivation of target food pathogens via challenge testing.

## Microwave - less energy, enhanced quality

We have an AMT continuous flow microwave heating unit. We are using this rapid heating method to find ways to reduce energy use and enhance product quality. Rapid thermal processing technology which delivers microwave energy directly to the product limits potential fouling due to hot surfaces. We are also exploring this rapid heating to reduce energy and enhance quality. ■

## Pulsed electric field processing – changing the functionality of ingredients

Pulsed Electric Field (PEF) processing is a low temperature, non-thermal, non-chemical process which can induce pores/holes in microbial, animal and plant cells. We looked at the impact of pulsed electric fields (PEF) on potatoes. When cutting the potatoes into chips, for example, prior PEF treatment reduced the cutting force needed and when fried, as chips, the PEF treated potato did not absorb more fat, but did taste sweeter.

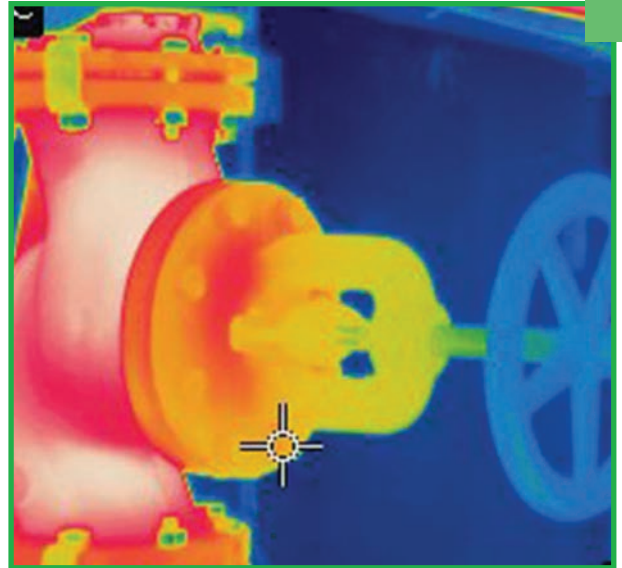
## Revtech system - pasteurisation of dry particles

Particulate residence time is critical to the safe thermal processing of products, including dry materials. We established a method to measure the residence times of particulates in the Revtech for different process conditions. Motor speed and motor angle have a significant impact on the residence time.

## UV tunnel - inactivating viruses

Ultraviolet (UV) light treatment is a non-thermal, non-chemical technology used to inactivate microorganisms. Food borne viruses pose unique challenges to industry due to their reliance on a host for replication and the limited data available on viral inactivation during food processing. Our research shows that UV treatments have potential to reduce levels of viruses in a food (blueberries) and surfaces (stainless steel). ■

Please get in touch if you'd like to discuss any of the above or if you've got a new preservation technology you're trying to bring to market. Many of these systems are available for contract trials.



## White paper

### The application of validation principles to continuous thermal and non-thermal processing

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This white paper describes how validation principles are applied in continuous thermal processing (such as heat exchangers, hot filling and pasteurisation tunnels) and in continuous non-thermal processing (such as high pressure processing, pulsed electric fields and ultraviolet light).

It is paramount that food manufacturers are able to confidently prove that their food production is safe. A validation study helps to provide scientifically robust evidence to support such claims.

The validation principle ensures that, from a product safety point of view, in the worst case scenario, the process is proven to be sufficient to reduce a given target microorganism to an acceptable level, should it be present. This is dependent on:

- The target microorganism
- What the worst case test conditions are
- The process itself
- Any chemical changes to the food as a result of the process. ■

The free white paper is available [www.campdenbri.co.uk/white-papers/pdfs/Validationofcontinuousprocesses.pdf](http://www.campdenbri.co.uk/white-papers/pdfs/Validationofcontinuousprocesses.pdf). For a more in-depth analysis on any specific process please contact us. We can provide technical support, advice and training.

## Member zone

to access privileged member information and services

## New technologies bulletins and updates

[www.campdenbri.co.uk/membersonly/new/newtechmenu.php](http://www.campdenbri.co.uk/membersonly/new/newtechmenu.php)

The new technologies bulletins, free and exclusive to members, will keep you up to date with developments in novel and emerging technologies which offer potential to the food and drink industry. ■

See article on pages 4 and 5  
Search 'new technologies' at [www.campdenbri.co.uk](http://www.campdenbri.co.uk)

## Health cues on packaging - research

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Packaging design was the focus of two reports which were published as part of a member funded research project:

- RD436 demonstrates how consumers use visual and written cues on packaging to make associations regarding the intended message and overall product experience. We surveyed consumers to understand how elements of packaging influenced how healthy they perceived a product to be.
- RD437 demonstrates the importance of aligning the product with the packaging to ensure that consumers develop accurate expectations regarding product experience. The study evaluated the use of Triadic-PSP with CATA style questions in relation to health cues on product packaging. ■

Read the reports online or download them from:  
[www.campdenbri.co.uk/research/packaging-design.php](http://www.campdenbri.co.uk/research/packaging-design.php)



## Member benefit - free fortnightly EU/UK food law update

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Food Law Alert provides Campden BRI members with prompt and succinct news of developments in UK and harmonised EU food law, including changes to legislation, EFSA opinions and Government reports. Past editions of Food Law Alert can be accessed through a searchable archive. ■

To sign up visit our opt-in page ([www.campdenbri.co.uk/optin.php](http://www.campdenbri.co.uk/optin.php)), tick the Food Law Alert box and add your details or search preferences

## Sign-up to receive newsfeeds and updates

[www.campdenbri.co.uk/optin.php](http://www.campdenbri.co.uk/optin.php)

Choose the information you want to receive from free-to-all newsfeeds, free member-only products and updates, and paid subscription products.



## Q&A

### What's it like to be a placement student at Campden BRI?

Every year we offer placements to undergraduate students studying food-related subjects to provide them with practical experience of working in the food industry. We asked some of our current placement students about their experiences.

#### Q: Why did you choose to spend your placement year at Campden BRI?

Abi, biochemistry placement student: I thought the placement would provide me with an opportunity to learn about an exciting sector that I previously didn't know much about. I knew that I would get practical experience in a working lab which is what I was looking for.

David, placement student in microscopy: Campden BRI seemed like the sort of lab environment that would really suit me, and it seemed to offer experiences that I could use in my later career.



#### Q: What did a typical day at Campden BRI involve?

Peter, placement student in processing support: My main role is developing and testing back of pack cooking instructions. It's important work as recently there has been a food poisoning outbreak caused by incorrect cooking instructions. I have also had the opportunity to get involved with member funded research, member interest groups and offsite factory trials.

#### Q: What were your initial thoughts about Campden BRI?

Konrad, chemistry and biochemistry placement student: The workplace is friendly and supportive and everyone made me feel welcome. I was happy that I received an induction for every aspect of my job which helped to ease me into the role.

#### Q: What have been your greatest achievements?

Olivera, Erasmus placement student working in virology: The confidence I developed related to research oriented thinking as well as the practical performance. That included contributing to Campden BRI gaining UKAS accreditation for virus testing, a project I was involved in almost since the beginning.

Ellie, placement student working in food manufacturing technologies: Developing a tool which helped companies to improve their products to make them healthier and more nutritious for the consumer. As part of this project I also developed a reduced calorie ice cream and reduced sugar cheesecake to demonstrate how the tool can be used.

#### Q: In what way has your placement year surprised you the most?

Kieran, placement student in microbiology: This placement has surprised me at how much my confidence has developed over the past 12 months - not only in myself but in my scientific ability in the lab. I now feel that the placement has fully prepared me for my final year at university and my research project.



# Training and events

A full list of scheduled courses is available on our website [www.campdenbri.co.uk/training.php](http://www.campdenbri.co.uk/training.php) or request a brochure from [training@campdenbri.co.uk](mailto:training@campdenbri.co.uk) +44(0)1386 842104

## Training

### July 2018 courses

- 3 Root cause analysis
- 4-5 Threat assessment critical control point (TACCP) - intermediate level
- 5 Nutrition and health claims
- 9-13 Food safety - advanced (level 4)
- 9-13 FSSC 22000 auditor/lead auditor course
- 10-11 HACCP - intermediate (level 3)
- 10-11 Principles of pasteurisation



Skills and knowledge

## Seminars

**ISO/IEC 17025:2017 technical update and implications to food and drink laboratories**  
[www.campdenbri.co.uk/food-safety-seminar.php](http://www.campdenbri.co.uk/food-safety-seminar.php)

Seminar: Tuesday 26 June 2018

The international standard against which laboratories are assessed and accredited, ISO 17025, has been updated. To remain accredited, laboratories will need to demonstrate compliance with the new requirements in the updated standard. This seminar will provide information on the new requirements to help laboratories transition to the revised standard, ISO 17025:2017.

We offer a large range of books, guideline and research reports for every area of the food and drink sector

## Tailored training: surprising benefits

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Many clients value the convenience of us coming to them to deliver courses exclusively for their own staff and tailored specifically to their needs. But there are sometimes unexpected benefits. In one case, for example, the open discussion between colleagues in a training session highlighted a production problem leading to waste, that wasn't part of the course. Subsequent discussions identified a solution and eliminated a significant waste of raw materials.

As well as being a more cost- and time-efficient, and a great team-building exercise, it can bring a new perspective to wider problems. Many of our courses can be tailored to address company-specific issues and problems.

[www.campdenbri.co.uk/training.php](http://www.campdenbri.co.uk/training.php)