

## Novel preservatives for drinks and sauces

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Globally, there are strong demands from consumers for less artificial preservatives in food and drink.

The aim of a new member funded project is to develop knowledge to help companies identify clean label options.

The project will:

- Increase the understanding of the natural preservatives currently available and how they can be used
- Create a toolbox of natural preservatives - suggested applications and their effects on microbial stability, flavour, labile nutrient protection and shelf life
- Look at the potential regulatory issues around the use of natural preservatives

A literature review has already been carried out and a summary of the results has been published in RSS 2017-29. It focused on the most common natural antimicrobial components derived from animals, plants and microbial sources. The review included mechanisms of action, recommended concentrations and applications in food and drinks. ■

To find out more about the project visit:  
[www.campdenbri.co.uk/research/novel-natural-preservative-systems.php](http://www.campdenbri.co.uk/research/novel-natural-preservative-systems.php)





## New regulation

### Are you aware of the new regulation relating to acrylamide in foods?

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Commission Regulation (EU) 2017/2158 applicable from the 11 April, will establish best practice measures to reduce acrylamide in food and outline benchmark levels for food business operators (FBO) to adhere to. When the benchmark levels are exceeded, FBOs should review the mitigation measures applied with the aim to achieve levels of acrylamide as low as reasonably achievable below the levels set out in Annex IV.

Campden BRI provides UKAS accredited testing for acrylamide levels in various products. All the foodstuffs referred to in Article 1 of the new regulation are included within the UKAS scope of our method. The method complies with the performance criteria set out in Annex III. The analysis is carried out using cutting-edge LC-MS/MS technology with a limit of detection of 10µg/kg. ■

Watch the video of our LC-MS which reports results down to 10µg/kg. [www.campdenbri.co.uk/videos/lc-ms.php](http://www.campdenbri.co.uk/videos/lc-ms.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:

- Cobrey Farms - growers of potatoes and vegetables for crisps, and asparagus, beans, blueberries and rhubarb
- Cooked Meat Company Ltd - sous vide meat products producer
- CO-RO A/S - manufacturers of fruit based still drinks
- Exigence Technologies UK Ltd - developer of smart coatings and specialty chemicals
- Gaia Pulses - Hackney Catering Ltd - organic pulse-based ready meals
- Glanbia Performance Nutrition UK - manufacturers of sports nutrition powders and bars
- Global Pacific UK Ltd - produce supplier to retailers
- Lorien Engineering Solutions - specialists in capital projects
- Lottie Shaws Bakery - manufacturers of biscuits and cakes
- Sealed Air - knowledge-based company focused on packaging solutions
- Sean Loughnane Ltd, Galway - producer of pudding, sausages and cooked meat products
- Survivor Drinks - producers of a hangover relief revitalising drink
- Trinidad Distillers Limited - rum distillery
- Clare Brett +44(0)1386 842125 [membership@campdenbri.co.uk](mailto:membership@campdenbri.co.uk)

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.



# Meet our experts

[www.campdenbri.co.uk/news/out-about.php](http://www.campdenbri.co.uk/news/out-about.php)

## Our experts at events

### Food and Drink Expo

The NEC Birmingham, 16-18 April

How new technology is driving processes and innovation

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Danny Bayliss, will discuss how innovation can help improve product quality, extend shelf-life and reduce the use of water while boosting profitability through efficiency.

### Reformulate to innovate

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Consumers want food and drink that's better for their health. Rachel Gwinn will talk about the current challenges, explain why industry needs to reformulate and discuss how innovation helps brands achieve their health aims.

### Food Law in the US

Rome, 17 April

#### Export of alcoholic beverages to the US

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Jon Coleman will talk through the sector specific issues regarding exporting alcoholic beverages to the USA, including certain pre-import procedures on labelling.

### IAFP Europe

25-27 April

The Brewery Conference Centre, Stockholm, Sweden

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Roy Betts will be presenting on validation and verification - successes, pitfalls and disasters. He will also be discussing the assessment of microbial risk for fresh produce.

Food and Drink Expo  
visit us on Stand G218  
at the NEC, Birmingham

## Regulation changes

### Changes in approval of novel foods

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The new Novel Foods Regulation (2015/2283) applied from 1 January 2018 and revoked the previous legislation that had been in force for 20 years. So what changes does this bring to the definition of a novel food and its authorisation process?

- The general criteria for the definition of a novel food remains unchanged - a 'novel food' is a food or food ingredient which had not been consumed to a significant degree prior to 15 May 1997.
- The categories of novel food have been reviewed and updated, including, for example, nanomaterials and whole insects. If you are unsure whether a food or ingredient is novel, you should consult the Member State where you first intend to market the novel food.
- Deadlines for the safety evaluation and authorisation procedure have been laid down to encourage innovation and improve the efficiency of the authorisation process.
- The approval procedure has been centralised - safety evaluations will now be carried out by the European Food Safety Authority instead of Member States.
- A faster and structured notification system for traditional foods from third countries has been introduced on the basis of a history of safe use.



The Union list of novel foods has been published in Regulation (2017/2470) and includes the details of possible conditions of use, additional specific labelling requirements and relevant specifications. Any newly approved novel foods will be added to this list.

Read the blog in full at:  
[www.campdenbri.co.uk/blogs/approval-novel-foods.php](http://www.campdenbri.co.uk/blogs/approval-novel-foods.php)

## The importance of innovation

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### Why innovate?

Innovation helps to develop more effective products, processes and services, as well as generate new areas of business. There are many reasons why a business may want to innovate. External drivers include competition, lower costs, demand, economic forces, social change and demographics. Equally important are the internal drivers, which include improved product quality and improved profitability.

In a 2017 survey of our members, 55% said that innovation was one of their company's priorities and 80% said they reviewed their innovation pipeline on a regular basis. However, time and resource were common barriers to innovation, as were facilities and generating ideas and only 28% said innovation was a top priority.

### Top three criteria for successful innovation

In many companies, more than half of revenue comes from products that were not in the product line five years earlier, so it's important that new product development is done right.

Innovation can only be successful if it meets all three of these criteria:

- 1 Desirability - a new product has to be desirable for a consumer to buy it
- 2 Feasibility - a product has to be producible at a commercial scale
- 3 Viability - to be a success the product has to make money

### The innovation process

Innovation is important for the entire food and drink chain from ingredient and packaging suppliers, food manufacturers





and retail and food service to providers of analysis and testing equipment.

Innovation isn't a linear process and combines consumer insight with strategy. Initially an understanding of the market and competitors is needed before coming up with ideas that can be turned into prototypes and be tested. The prototype is then scaled up to a manufacturing scale and the product's quality and safety must be assessed. The regulatory requirements and shelf life must also be considered.

A scientific and technical understanding is needed for all aspects of innovation. We've helped hundreds of business - from small companies to giant multinationals - to develop successful new products. ■

## More innovation

### Emerging ingredients - technical challenges for innovation

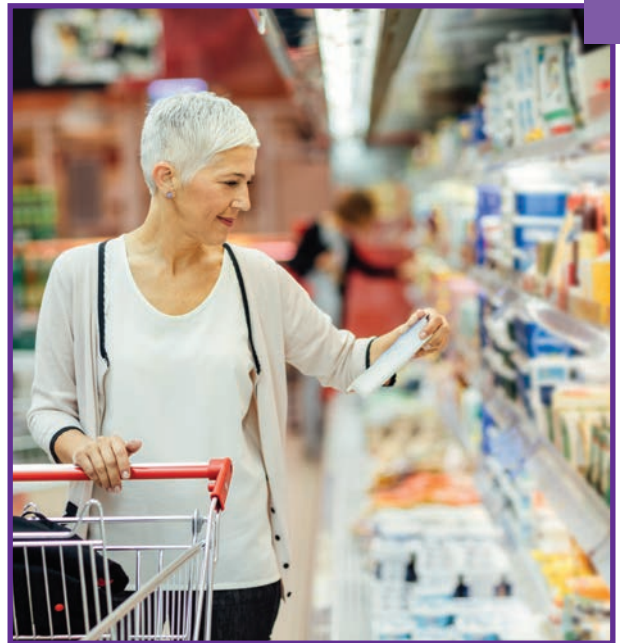
It's essential to keep up to date with emerging ingredients in order to differentiate your food and drink products from those of your competitors. Understanding the technical challenges can also help to prevent issues arising during product development. In this webinar, Rachel Gwinn identifies the latest on-trend ingredients and discusses the practical considerations for their use ■

View the webinar  
[www.campdenbri.co.uk/webinars/emerging-ingredients.php](http://www.campdenbri.co.uk/webinars/emerging-ingredients.php)

### White paper - technical challenges with novel alcoholic beverages

There has been an explosion in new product development of sweet, single serve, fruity alcoholic drinks. This white paper highlights some of the technical issues associated with these types of products and outlines approaches that may help you as you develop them. ■

Read the white paper: [www.campdenbri.co.uk/white-papers/novel-alcoholic-beverages.php](http://www.campdenbri.co.uk/white-papers/novel-alcoholic-beverages.php)



## Using Sensing brands to aid successful innovation

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A brand is a promise to customers. This creates expectations. For the best brands, these expectations are supported and re-enforced by the total sensory experience in the product, packaging, and communications at all points in the customer journey.

Our Sensing brands framework has been specifically designed to help brands create a distinctive and motivating 'brand sensory signature'. It helps your company to understand and enhance these sensory-emotional connections for a significantly improved brand performance.

Sensing brands is based on four key stages that can be undertaken as discrete steps or as a complete package.

- 1 A sensory brand audit
- 2 Creation of the desired sensory brand signature
- 3 Evaluation of the effectiveness of the sensory signature
- 4 Assessment of the value of the sensory brand signature. ■

If you want to learn how Sensing brands could work for you please get in touch for an exploratory chat.

## Member zone

to access privileged member information and services

Top three industry hot topics

### Plastics, sugar and Brexit

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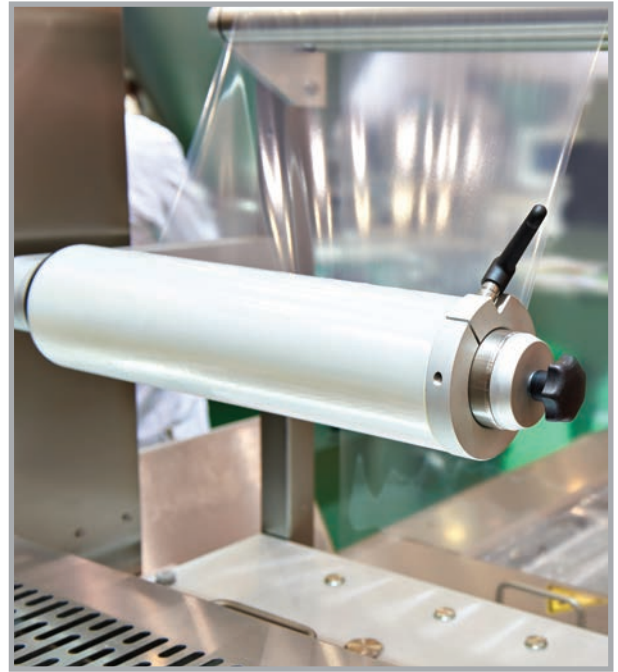
Most Member Interest Group (MIG) meetings start with a hot topic discussion session so members can raise the latest issues that are affecting them and their companies.

The main hot topic raised during the winter MIG round was the reduction of plastics in packaging and the supply chain. There was discussion around how plastic alternatives might affect food quality, food safety and shelf life, and influence consumer purchasing trends and end use. There was also discussion on the implications this will have for modified atmosphere packaging and whether it would increase food waste. Other issues raised included risks of contamination through the use of refillable containers, how recycling can be improved and finding a value for used plastic.

Sugar reduction was another common focus of discussion, including the safety of sugar alternatives (e.g. sweeteners), the impact on shelf life, the cost of reformulation and the challenges of meeting regulatory requirements for differing markets (e.g. UK vs. USA).

Brexit was also discussed, particularly the affect it may have on access to labour, the implications of new trade deals on product specifications and regulation, and the uncertainty surrounding the negotiations. ■

If you would like to join a MIG (open to full members), receive an agenda, suggest an agenda item or join our MIGs LinkedIn group please contact us.



## Plastics in food and drink manufacturing

### A sustainable future

[www.fdf.org.uk/events/sustainability-2018](http://www.fdf.org.uk/events/sustainability-2018)

Seminar: Tuesday 8 May 2018

Venue: Food and Drink Federation, London

Join Campden BRI and the Food and Drink Federation for a one day event on plastics in food and drink manufacturing

## Campden BRI Day 2018

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

Campden BRI Day will be on Wednesday 6 June. Come and explore how science and technology is being used to tackle industry needs with a focus on innovation, assurance and compliance, and productivity and cost management.

- Chat with our experts
- Network with others from industry
- Attend briefing sessions on hot topics
- Learn about the practical solutions offered by science and technology
- Tour our extensive pilot plant. ■

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

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

## Latest R&D reports available to members

Output from our member funded research programme is published through a series of R&D reports for members only.

### New research on accelerated shelf life testing (RD435)

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[www.campdenbri.co.uk/research/accelerated-shelf-life-testing.php](http://www.campdenbri.co.uk/research/accelerated-shelf-life-testing.php)

All sectors of the food and drink industry are under increasing pressure to rapidly develop and launch new and innovative products to maintain market share. Our research has shown that it is possible to develop accelerated shelf life (ASL) testing protocols for some chilled, ready-to-eat meat products. The method was developed as part of a member-funded project that aims to validate the 'comparison approach' as a method for accelerated shelf life testing. ■



### Consumer methods to support product development (RD430)

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[www.campdenbri.co.uk/research/product-characterisation.php](http://www.campdenbri.co.uk/research/product-characterisation.php)

Rapid and cost effective product evaluation approaches are required to get products to market quicker. This study evaluated sensory and consumer methods to support the product development process.

Nine test approaches were assessed and compared for the sensory and hedonic characterisation of five cheese samples. Despite small differences, most consumer approaches provided similar results in terms of hedonic characterisation, sensory characterisation and sensory drivers of liking. ■

## Research

### Extending shelf life using superchilling

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Our member funded research has shown that superchilling can safely extend the shelf life of products by as much as 300% without any loss of sensory quality.

Superchilling reduces the temperature of food products to around -2°C so they become partially frozen. The products are stored at that temperature until released into the chill chain. The superchilling had no impact on the chilled shelf life once the products were released into the chilled distribution and retail chain.

#### Using metagenomics to understand shelf life

The products were tested using Advanced Microbial Profiling (AMP) throughout their shelf life. This showed that the microflora of the superchilled products changed over time despite the organisms being held at temperatures that were too cold for them to grow. This raises the intriguing question of whether microbiologists must now consider setting a minimum temperature for bacterial adaptation as well as a minimum temperature for growth. ■

Find out more about the research at:  
[www.campdenbri.co.uk/research/shelf-life-super-chilling.php](http://www.campdenbri.co.uk/research/shelf-life-super-chilling.php)



### More member funded research projects

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

# 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

## May 2018 courses

- 1-2 Internal auditing - principles and practices
- 10 HACCP for craft brewers
- 14-18 HACCP - advanced (level 4)
- 15-17 Thermal processing validation
- 15 Documentation and design of quality systems
- 16-18 Practical microbiology - intermediate
- 21-25 FSSC 22000 auditor/lead auditor course
- 23 Safe cooking: process validation

Did you know that many of our most popular courses can also be delivered at your own business premises?

## Mailing preferences

We want to make sure that we only send you information that interests you. To update your preferences, visit the opt-in page on our website ([campdenbri.co.uk/optin.php](http://campdenbri.co.uk/optin.php)). Simply sign-in and select your topics of interest (you can easily register if you haven't already got a sign-in). You can also choose whether to receive our newsletter by e-mail or post. ■

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



Skills and knowledge

## Seminars

### Bacterial identification and typing: current status and future trends

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

Seminar: Thursday 21 June 2018

Explore approaches to separating microorganisms from each-other to facilitate investigative microbiology. The identification of microorganisms is a fundamental part of microbiology. Today it is possible to go beyond the traditional 'genus' and 'species' naming of isolates to differentiate between 'strains' of the same species.

### Cyber security

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

Seminar: Friday 22 June 2018

This seminar will help inform the food industry about the threats and risks posed by cyber attacks. High profile cyber attacks occurred across a variety of sectors in 2017. The day will explore, explain and define the increasing threats and challenges to cyber security faced by the food industry. It will also identify industry's potential vulnerabilities.

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