



## The next 100 years

steven.walker@campdenbri.co.uk  
 +44(0)1386 842001

This year marks 100 years since we were founded. Campden BRI is now the world's largest independent membership-based food and drink research organisation, serving food and drinks companies across the world. We are proud to have over 2,400 member companies in 80 countries. Our facilities include three fully-equipped food processing halls, product and process development facilities, a sensory analysis suite, consumer testing centre, and extensive research and analytical laboratories covering microbiology, hygiene, chemistry, biochemistry and microscopy.

We opened in 1919 as the Campden Experimental Factory, run by the UK Ministry of Agriculture and Fisheries to research food preservation. Gradually we began to work more closely with industry and held our first Members Day in 1931. Through mergers and growth (including with BRI at Nutfield) we expanded to provide research, technical and advisory services to the whole food supply chain to ensure product safety and quality, process efficiency and product and process innovation. This now includes analysis and testing, operational support, research and innovation, and knowledge management.

Our members are at the core of what we do - and we very much look forward to building on our ethos of 'with industry, for industry'.



# Newsletter





## European initiative

### Low environmental impact packaging group

a.sebok@campdenkht.com +3614331470

A European Horizon 2020 initiative, GLOPACK (Granting society with LOw environmental impact innovative PACKaging), is investigating food packaging with no environmental footprint and the ability to extend the shelf life of food products.

GLOPACK is focusing on three food packaging areas:

- biodegradable materials made from agro-food residues
- active packaging to improve food preservation and shelf life without additives
- RFID enabled wireless food spoilage indicators linked to food date labels

We are inviting companies to join the GLOPACK stakeholder platform. Members will have exclusive access to GLOPACK research results, can influence the project's research, and will be invited to project workshops. ■

The project is coordinated by the University of Montpellier and a consortium of 16 partners from research organisations, universities and private companies. Project funded by the European Union's Horizon 2020 research programme under grant agreement No. 773375

To find out more about the stakeholder group, get in touch or visit [www.glopack2020.eu](http://www.glopack2020.eu)

## Contact us

Campden BRI (Chipping Campden site)  
Station Road, Chipping Campden,  
Gloucestershire, GL55 6LD, UK

+44(0)1386 842000 Fax: +44(0)1386 842100

Campden BRI (Nutfield site)  
Centenary Hall, Coopers Hill Road,  
Nutfield, Surrey, RH1 4HY, UK

+44(0)1737 822272 Fax: +44(0)1737 822747

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

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

## New members

We are delighted to welcome the following new members:

All Market Europe (Vita Coco) - marketing of coconut milk/water/oil

bio-bean Limited - production of fuel from spent coffee grounds

Cargill R&D Center Europe BVBA - R&D Centre

Cintech Agroalimentaire - applied research innovation centre

Mico BioMed Co Ltd - molecular diagnostics

Plympack Ltd - UHT milk production and packing

PRL Enterprises Ltd - importer of dried food

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.*



## Society of Food Hygiene and Technology award



Roy Betts, our head of microbiology, has been awarded The Dorothy Cullinane Award. The award is the Society of Food Hygiene and

Technology (SOFHT) top award and is presented to a company or person that has made an outstanding contribution to the food industry, with emphasis on food safety and/or food hygiene and/or food technology.

Congratulations, Roy!

## New for 2019

### BRC Issue 8 compliant cooking/heating instruction development training

28 March 2019

This one-day course will enable attendees to be fully competent in meeting clause 5.2.5 on instruction validation in the new BRC (British Retail Consortium) Global Standard for Food Safety Issue 8 document. The course covers instruction validation, equipment calibration, data recording and reporting, and optimising product quality. Attendees will learn through a series of practical sessions and lectures. ■

[campdenbri.co.uk/training/BRC8-cooking-heating](http://campdenbri.co.uk/training/BRC8-cooking-heating)

## Cross modal sensory testing

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

We are currently conducting research to see if different packaging sounds impact on how crisps taste and, in particular, how crunchy they are perceived to be. Our consumers have been listening to different packaging sounds, and then later eating crisps while listening to the sounds as they rate the crunchiness of the crisps. ■

## “Goodbye” to cochineal

[karen.bird@campdenbri.co.uk](mailto:karen.bird@campdenbri.co.uk) +44(0)1386 842294

A recent amendment to the Food Additives Regulation 1333/2008 means that we will no longer see the use of 'cochineal' on food labels in the EU and UK.

From 23 October 2019, food and drink manufacturers using the additive E120 in their products must use either of the terms 'carminic acid' or 'carmines'; or the E number, E120 on their product labels. The term 'cochineal' must not be used and food labels will have to be updated. The Regulation also establishes new specifications for E120, including setting a maximum level for 4-aminocarminic acid at 3%, amending the Annex to Regulation (EU) No 231/2012. All products made after 23 October 2019 must comply. ■

The Food Additives Regulation is constantly evolving and being updated. To support industry Campden BRI Food Law Advisors offer regulatory training, get in touch to find out more.

In response to demands from food and drink manufacturers based in Ireland and Northern Ireland we are running a three-day 'pick'n'mix' programme in Malahide, County Dublin in February - see page 8 for more information.



Pasteurisation of beer achieved using significantly fewer pasteurisation units than recommended by EBC

blog by Greg Rachon ■

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

## New member funded research projects

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

Each year, our members decide how we should invest over £2m of their membership fees in research to help their companies, and the food industry in general, to prosper. This year they have selected the following projects to complement 40 or so current ones. They are divided between five themes based on industry needs:

### Safety

- **Effective control of viruses in the food manufacturing industry**  
Will provide data on the effects of product composition, processing and storage on the survival and inactivation of various surrogates.
- **Cleaning and disinfection of food factories: a revised practical guide**  
Guidance on cleaning and disinfection in the manufacturing process will be updated, based on practical case studies.

### Quality and value

- **New technologies for food and drink manufacturing**  
The focus will be emerging technologies for improving quality and value with feasibility studies on commercially relevant technologies
- **Understanding the safe shelf life of foods using advanced microbial profiling**  
Microbial specifications will be re-evaluated for a range of chilled products, and the effect that naturally occurring microflora has on the growth of pathogenic microflora will be analysed.
- **The impact of sensory substantiation claims on consumers' purchase decisions**  
Will provide insights into if/why sensory claims are seen to be credible, meaningful and valuable, and explore their impact on consumer behaviour.



## Nutrition, health and wellbeing

- **Calorie reduction and fibre enhancement**  
Will provide an understanding of the functionality of fibres, potential new sources of fibre and which fibres perform best in certain products to allow the development of products that appeal.
- **Pre-processing to improve natural nutrition and functionality of ingredients**  
Will build knowledge of nutrient bioaccessibility and bioavailability to optimise the nutritional value and technical function of food products. It will investigate the effects of processing techniques and demonstrate the benefits of different processes.
- **Potential of plant proteins for ingredient and product development**  
Techniques to produce protein rich ingredients efficiently (cost and time) will be developed, and their nutritional value and technical performance improved.

## Sustainability, resilience and food security

- **Technical challenges associated with reducing or replacing single-use plastic packaging within the food and drink industry**  
Will explore alternative packaging materials and the technical challenges to reducing/removing packaging, and provide a better understanding of the UK's recycling infrastructure for single-use plastic packaging.

## Skills and knowledge

- **Practical control of *Listeria* during food production**  
Sets out to produce an up to date one-stop-shop guideline document on controlling *Listeria* during food production.
- **Blockchain and emerging approaches supporting food safety management systems**  
Will investigate different tools, including blockchain, to decide if they are relevant to food safety management, and how they could be used.



## How and why do we measure the chilli heat of food?

josefine.hammerby@campdenbri.co.uk +44(0)1386 842297  
 Search 'blogs' at campdenbri.co.uk

### Why are chillies spicy?

Capsaicin, and related compounds known as capsaicinoids, give chilli peppers their heat when they are eaten. The capsaicin in chilli peppers excites pain receptors on your tongues, making chilli taste 'hot'.

### Why does chilli heat need measuring?

Spices and chillies affect people differently. To allow consumers to make informed choices many manufacturers use graphics on their product's which display a different number of chillies according to the spiciness of the food. However, it can be difficult to get consistent results across a range of products.

### A new method to measure chilli heat

A new method has been developed to give manufacturers and retailers confidence that they are providing consumers with accurate and consistent information about the chilli strength of their products. The calibrated method uses a highly-trained panel of taste testers to provide retailers and manufacturers with a consistent way to rate their products as mild, medium, hot or very hot. The new method can be used to rate the heat of complex products, such as ready meals and cooking sauces. ■

Get in touch to find out about our new method

## Member zone

to access privileged member information and services

## Latest R&D reports

Search 'RDs 2018' at [campdenbri.co.uk](http://campdenbri.co.uk)

### Exploring the feasibility of applications for PEF to improve the functionality of fresh produce

[danny.bayliss@campdenbri.co.uk](mailto:danny.bayliss@campdenbri.co.uk) +44(0)1386 842130  
[www.campdenbri.co.uk/new-technologies.php](http://www.campdenbri.co.uk/new-technologies.php)

We investigated the effect of pulsed electric field treatment (PEF) on the quality of four products: potatoes, meat, coffee and hops. Research showed that low field strength applications of PEF can lead to functional changes in selected products. Potatoes and meat products showed a greater change than products which were dry and suspended in liquids, such as the coffee granules and dried hops. The research (published in RD444) was conducted as part of a member funded research project into new technologies for food and drink manufacturing.

### Investigation into the incorporation of ancient grains into extruded snacks

[eugenie.wiart@campdenbri.co.uk](mailto:eugenie.wiart@campdenbri.co.uk) +44(0)1386 842545  
[www.campdenbri.co.uk/research/emerging-ingredients.php](http://www.campdenbri.co.uk/research/emerging-ingredients.php)

The research (published in RD445) was conducted as part of a member funded research project into emerging ingredients. Demand for healthier savoury snacks, with lower fat, salt and sugar content, has grown. We conducted a series of trials to investigate the use of two ancient grains, quinoa and buckwheat, in extruded snacks. Results showed that it is possible to make nutritionally enhanced snacks by using ancient grains with similar, if not improved, characteristics compared to extruded corn snacks. ■



## Research Programme 2019

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

Read our latest research programme to find out about over 50 research and development projects, including our member funded research projects and collaborations with universities and research councils. The projects are grouped around industry needs - safety; quality and value; nutrition, health and wellbeing; sustainability, resilience and food security; and skills and knowledge.

Find out more or become involved. You'll find the contact details of the relevant project managers on the web page. ■

## Member Interest Groups

Members help shape and direct projects in our research programme. Please come along and have your say. ■

If you're not a member and are interested in projects listed on pages 4 and 5 please call +44(0)1386 842291 or email [support@campdenbri.co.uk](mailto:support@campdenbri.co.uk)

# Allergens - testing, labelling and legal requirements

[helen.brown@campdenbri.co.uk](mailto:helen.brown@campdenbri.co.uk) +44(0)1386 842016

Food allergies and food intolerances are estimated to affect over three million people in the UK alone. Current EU legislation requires food businesses to declare the intentional presence (as ingredients or processing aids) of 14 substances or products considered to be allergens. For prepacked foods, this information is communicated through labelling, in most cases in the ingredients list. For non-prepacked foods, national legislation permits allergen information to be provided as part of a conversation between the food business operator and the consumer, but this needs to be backed up by information in writing to ensure that it is verifiable, accurate and consistent.



Situations where allergenic foods are unintentionally present, due to cross-contamination, are not covered specifically by labelling legislation. Allergen management requires assessment of the potential risks of cross-contamination at every step of the food production process.

Analysis remains an integral part of allergen management and it is critical that food businesses have confidence in the results of allergen tests. When testing for allergens it is important to conduct the correct test for the allergen of interest. For example, when testing whether a product has been cross-contaminated with milk, the most relevant test would be for casein. Whereas if the potential cross-contaminant is whey powder, the most relevant test would be for beta-lactoglobulin. ■

Please get in touch to find out more about managing allergens, testing for allergens or allergen labelling.

To find out more about allergen labelling and allergen testing, view our recent webinar on allergen labelling of prepacked food [www.campdenbri.co.uk/webinars.php](http://www.campdenbri.co.uk/webinars.php)

## New white paper

### Rapid methods for hygiene determination

[anna.falowska@campdenbri.co.uk](mailto:anna.falowska@campdenbri.co.uk) +44(0)1386 842271

This white paper highlights the advantages and disadvantages of commercially available rapid methods to determine hygiene. In the food and drink industry it is important that all production equipment is kept clean.

Food and drink manufacturers have a legal obligation to demonstrate the efficacy of their hygiene procedures for equipment washers, manual cleaning practices and cleaning in place. Manufacturers need to ensure the methods they use are appropriately validated and meet verification requirements that demonstrate the effectiveness of the cleaning regime.

The white paper was part of a member funded research project. The research will look mostly at rapid hygiene test systems for identifying hazards present and compare these with known and validated methods that are currently used but take longer. ■

Get in touch to find out about the project



### How well do different rapid methods for testing cleanliness work in real industrial situations?

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

# 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

### February 2019 courses

- 4-8 FSSC 22000 auditor/lead auditor course now full
- 5-6 Food and drink labelling
- 7 Sugar reduction in foods
- 12-14 FSPCA preventive controls for human food
- 27-28 HACCP - intermediate (level 3)
- 27-28 TACCP/VACCP (food defence and food fraud) - intermediate

## Pick 'n' mix regulatory training programme - Ireland

26-28 February 2019

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

Our experts in EU Harmonised Legislation will be offering a programme of courses in Malahide, County Dublin, Ireland designed to suit the needs of the food and drink industry.

- 26 Nutrition and health claims
- 26 Food additives, flavourings and enzymes: food improvement agents package
- 27 Food and drink labelling
- 27 Food additives, flavourings and enzymes: food improvement agents package
- 28 Nutrition and health claims
- 28 Food and drink labelling



Skills and knowledge

## Bakery and snacks innovation - tailored training

[gary.tucker@campdenbri.co.uk](mailto:gary.tucker@campdenbri.co.uk) + 44(0)1386 842035

The bakery and snacks sector is a major contributor to agri-food in Northern Ireland. The sector remains very competitive, and businesses need to continually invest in innovation and skills to remain profitable.

We are working with Invest Northern Ireland (its regional economic development agency) and the College of Agriculture, Food and Rural Enterprise (CAFRE) at Loughry, to deliver specialist bakery training to businesses in Northern Ireland. The focus is on innovation in bread and sweetened bakery products. The training programme combines theory, practical baking, drop-in consultancy sessions at Loughry and bakery visits, where potential projects are discussed.

The innovation programme follows on from a well received series of practical workshops in 2018 that focused on bakery skills, knowledge and innovation. ■

Get in touch to find out more about our tailored bakery training

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