



A system is being developed to help members with ingredient selection during formulation and reformulation - to better meet compositional and nutritional targets.

The system brings together competitive and pre-competitive drivers, labelling options, known consumer responses to labelling, and UK and European legislation. Its design aims to improve and speed up the product reformulation process.

## Compositional and nutritional goals

Food and beverage product formulation and ingredient selection is increasingly being targeted to meet a number of compositional and nutritional goals. This process is often technical, due to the large number of variables involved and the wider effects of reformulation, but necessary in the context of nutrition claims and wider corporate social responsibilities.

The system is being developed through member-funded research in direct response to this industrial need.

## Ingredient selection to meet nutritional targets

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[www.campdenbri.co.uk/research/ingredient-selection.php](http://www.campdenbri.co.uk/research/ingredient-selection.php)



# Brands - the emotional response

While functional attributes associated with food and beverage products are important in the purchase decision, consumer choices are also strongly influenced by brand relationships, which are typically acted on at an emotional level. It's therefore important that companies understand the emotional bond they have with consumers so that they can strengthen it to drive customer loyalty and enhance profitability.

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Our senses work together to generate and elicit memories and emotions. Brands that incorporate the senses effectively into a coherent 'brand sensory signature' can enhance consumers' emotional engagement between their brand, product and packaging.

You can read more about sensory branding - and how we can help you develop your brand's sensory signature - on pages 4 and 5.

Steven Walker, Director General

## Campden BRI at BNF 50th Anniversary conference

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Emma Hanby, our Product Innovation Manager will be talking about 'How innovation is helping to deliver the public health and sustainability agendas - reformulation' at the British Nutrition Foundation's 50th anniversary conference. The conference aims to bring together thought leaders in the world of food and nutrition to consider who (and what) is shaping the food choices of the future.

## Switch channel



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[www.youtube.com/campdenbri](http://www.youtube.com/campdenbri)



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## Industry needs

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We would like to thank everyone who has contributed to our triennial review of the scientific and technical needs of industry - through our MIGs, survey or other written submissions. Editorial work is underway to share the first draft with MIGs in the autumn round and publication of the new edition at the end of 2017.

## nabim advanced milling diploma

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We have continued our work to help develop skills across the industry by supporting development and training in the milling sector through nabim's advanced milling diploma. We provide training for the first module of the diploma, along with Bühler, who provide the training for the second module. The diploma is seen by the milling industry as the gold standard training for the head millers of the future.

## Our experts on video - ingredient selection

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

Our experts on video is a series of talking heads covering a wide variety of topics. A new edition this month is Product Innovation Manager, Emma Hanby, discussing *Selecting ingredients to meet nutritional targets*.

## Analysis

## Rapid single grain protein analysis

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Protein content is one of the most important quality factors in wheat as it influences the technological performance in baked products in combination with protein quality, which is determined by varietal choice.

Near-infrared (NIR) spectroscopy is widely used for rapid measurement of protein content. Conventional instruments measure the average value for a bulk sample, but little is known about the distribution of protein content between individual kernels.

Whole-grain applications are attractive to breeding programmes and industry due to the non-destructive scanning of samples and the speed of analysis, with the possibility of on-line or in-line data acquisition.

Our study ([www.sciencedirect.com/science/article/pii/S0308814617311925](http://www.sciencedirect.com/science/article/pii/S0308814617311925)) used hyperspectral imaging (HSI) to make rapid measurements of protein content for individual wheat kernels. HSI combines NIR spectroscopy and digital imaging to give information about the chemical properties of objects and their spatial distribution. Partial least squares (PLS) regression was used to develop a calibration for protein content using reference measurements for 2000 kernels. The study assessed the typical uniformity present in commercial wheat samples and applied the calibration to visualise the protein distribution within single kernels.





## The world of sensory branding

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[www.campdenbri.co.uk/services/sensing-brands.php](http://www.campdenbri.co.uk/services/sensing-brands.php)

A brand is a promise to consumers. 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.

- Gain insight into how well this is aligned with the customer experience
- Extend the brand definition into additional sensory expressions (e.g. sound, smell and touch) for enhanced emotional engagement
- Validate these new sensory expressions to ensure that they deliver the desired brand promise
- Capture all the sensory brand expressions in a Brand In a Box™, to inspire research and development and brand marketing teams as they innovate and implement these sensory signatures in all that you make, say and do

### The 'Sensing brands' approach

The senses are a powerful doorway to the emotions, which is where most decisions and commitments are made, often at a non-conscious level. Sensing brands helps you to understand and enhance these sensory-emotional connections for significantly improved brand performance.

Many organisations will have their various brands well defined in terms of their visual identities, however there is an opportunity to:

- Fully understand the emotional expectation generated by the brand promise

Our Sensing brands framework has been specifically designed to help brands create a distinctive and motivating 'brand sensory signature'.







## Creating a sensory signature

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

- 1 Completion of a brand sensory audit
- 2 Creating the desired sensory brand signature
- 3 Evaluating the effectiveness of the sensory signature through:
  - A-Sense: evaluation of brand communications in terms of creating consumers' expectations aligned to the sensory brand signature and product experience
  - Pac-Sense: an evaluation of the packaging in terms of creating consumers' expectations aligned to the sensory brand signature and product experience
  - Pro-Sense: an evaluation of the product in terms of alignment to the sensory brand signature and consumer acceptability
  - S-Sense: an assessment of consumers' satisfaction of the holistic product and packaging experience in relation to the sensory brand signature
- 4 Assessing the value of the sensory brand signature

We have worked with a number of companies to help them harness consumer engagement with their brand through the senses. If you want to learn how it could work for you please get in touch for an exploratory chat.

## Consumer testing

Successful product innovation relies upon understanding what the consumer wants, how the product fits the brand and, ultimately, whether the product provides consumer satisfaction.

We have a dedicated, state-of-the-art consumer test centre in Leamington Spa. The centre supports innovation and insights in new product development and provides quantitative and qualitative consumer research on food, drink and other products. This includes concept development, prototype assessment and final product evaluation, including product benchmarking.

The centre has been used extensively since it opened in 2015 and, recently, clients have been hiring the facility as a venue to convene consumer focus groups and in-depth interviews. The centre provides an excellent space for activities such as co-creation and ideation sessions, recruitment interviews, team and business meetings, and training.

Services at the centre include consumer recruitment, provision of moderators, full AV recording along with transcription and translation services, office support, and catering.





## Events

### Tackling food fraud seminar 10 October

[www.campdenbri.co.uk/tackling-food-fraud.php](http://www.campdenbri.co.uk/tackling-food-fraud.php)

Ensuring the integrity and authenticity of raw materials and food ingredients is a key part of BRC Global Food Safety Standard 7 and retailer codes of practice. Analytical techniques are used to verify ingredients, help prevent food fraud and resolve supply chain issues. This seminar will cover advances in genomic, proteomic and metabolomic approaches.

### Food contact materials seminar 11 October

[www.campdenbri.co.uk/food-contact-materials.php](http://www.campdenbri.co.uk/food-contact-materials.php)

Meeting and understanding the requirements of food contact materials legislation can sometimes be challenging. This seminar will focus on the challenges associated with the current legislation and how future changes will affect industry.

### Hot topics in microbiology conference

17-18 October

[www.campdenbri.co.uk/microbiology-hot-topics.php](http://www.campdenbri.co.uk/microbiology-hot-topics.php)

Food poisoning and spoilage caused by microbiological issues represent a significant risk to the food and drink industry in terms of time, costs and potential damage to the brand. The conference will look at current areas of concern and emerging issues.

### Safe and effective food pasteurisation

19 October

[www.campdenbri.co.uk/safe-pasteurisation-seminar.php](http://www.campdenbri.co.uk/safe-pasteurisation-seminar.php)

Safe and effective pasteurisation processes are needed for the food industry to deliver safe products at a high quality for consumers. This seminar will update delegates on the current issues and topics related to the safety of pasteurised food and the effectiveness of pasteurisation.

## Training 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 booklet from [training@campdenbri.co.uk](mailto:training@campdenbri.co.uk) +44(0)1386 842104

### October events

- 3-5 FSPCA preventive controls for human food
- 4 Biscuit - practical skills
- 5 Safe cooking: process validation
- 9-13 FSSC 22000 Auditor/Lead Auditor course
- 10 HACCP - refresher
- 10 Meat technology
- 10-12 Brewing - an introduction
- 11 Calculating meat content
- 11-12 HACCP - intermediate (level 3)
- 12 Bread - practical skills
- 16-19 Better Process Control School (BPCS)
- 17 Raw material risk assessment
- 17-19 Bread science and technology
- 18-19 Food and drink labelling
- 30-3 Nov HACCP - advanced (level 4)
- 31 Sugar reduction in foods
- 31-1 Nov Understanding microbiology



# Member zone

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

to access privileged member information and services

## Welcome to new members

We are delighted to welcome the following new members:

Agrii - seed fertilisers and agri chemical supplier

Discovery Flexibles Ltd - flexible packaging printing, lamination and slitting

Grenade UK Ltd - performance and energy brand

Integrated Service Solutions Ltd - fresh produce packager

James White Drinks Ltd - manufacturers of fruit and vegetable drinks

JM & D Quirk t/a Chiddingstone Farm - meat curers

Lantmannen R&D - R&D Centre

McColgan's Quality Foods Ltd - savoury pastry products

Monmouth Coffee Company - importers, roasters and packers of coffee

New World Foods (Europe) Ltd - manufacturers of jerky

Qadex Ltd - IT solutions

Treasury Wine Estates - Australian based global wine company

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.*

## Vote for what you want!

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Your membership fee funds our research programme. Each year, we put forward a range of projects for members to vote on. Electronic voting forms, along with a document describing the research proposals, are currently being sent out to all voting contacts. If you are a voting representative in your company, please make sure you vote. If you aren't, and would like to know who is, then please get in touch.



## Member involvement

Following a review of our governance, our 'Council' (effectively the legal directors of Campden BRI) is now known as the 'Board'. Further information on its activities can be found on the website. We are privileged to receive the active support of so many members through the Board, Scientific and Technical Committee, and the Member Interest Groups. Further information can be found via the 'members menu' on the website - [www.campdenbri.co.uk](http://www.campdenbri.co.uk)

## On-demand webinar - MIGs

[www.campdenbri.co.uk/webinars/member-interest-groups.php](http://www.campdenbri.co.uk/webinars/member-interest-groups.php)

To help you get the most from the Member Interest Groups (MIGs), take a look at the recorded webinar on our website. This gives an overview of the Campden BRI MIG system and summarises what a MIG meeting is, what it aims to achieve, the benefits of attending and how to join. MIGs are a great example of our 'with members, for members' ethos.





## Does waxy wheat improve bread and cake shelf life?

[www.campdenbri.co.uk/research/report2017.php](http://www.campdenbri.co.uk/research/report2017.php)

Recipe plays an important role in product quality and shelf life. Our member funded study investigated the impact of using waxy wheat flour alongside more standard bread flour and found that the inclusion of waxy wheat flour had benefits and limitations for bread and cakes.

Findings published in [Baking trials to investigate the effect of waxy wheat on the shelf-life of bread and cakes \(RD 427\)](#)

## Physics in food manufacturing

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Together, food and drink make up the biggest manufacturing sector in the UK, accounting for 19% of manufacturing turnover. Our members and clients will be aware of the vital role of science and technology in supporting this sector. A recent initiative by the Institute of Physics (IoP) has recognised the importance of the food industry for its members, and as an area where physics can deliver benefits.

The IoP has recently established a subject group ([www.iop.org/activity/groups/subject/pifm](http://www.iop.org/activity/groups/subject/pifm)) for physics in food manufacturing, which we are supporting through Martin Whitworth. It will be holding a launch event on 18 September. The event is open to members and non-members of the IoP and will include an introduction to the group and presentations on Innovate UK funding opportunities and on Physics of Food by renowned speaker, Peter Barham.

## Vitamin D paper

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We have recently contributed to a ground breaking study carried out by the University of Surrey to compare the body's uptake of vitamin D2 and D3 after consumption - dispelling myths that they had the same nutritional value. The findings showed that dietary vitamin D3 was twice as effective in raising vitamin D levels.

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For other sites, see

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