



Members have voted for a new project on superchilling for improved product shelf-life and quality. Previous work has demonstrated its considerable potential. 'Superchill' is used to define the temperature at which a product starts to freeze, generally around  $-2^{\circ}\text{C}$ , when it contains some ice and some liquid water. This partial freezing dramatically reduces the rate of microbiological and chemical spoilage, and extends the shelf-life compared to a conventionally chilled product.

A previous collaborative research project into storage of food at 'superchill' temperatures showed that some foods can be stored at approximately  $-2^{\circ}\text{C}$  for extended periods before release into the chill chain, with minimal impact on either microbiological or sensory shelf-life. It can also help supply chain management and reduce wastage.

Project Manager Greg Jones would be delighted to hear from members who would like to discuss opportunities for use with their products. The product range will be expanded significantly beyond that explored previously, to include more seafood, fish, meat and ready meals.

The project will provide manufacturers and retailers with clear evidence of which products could benefit most from use of superchilling. The project will also examine superchilling as a single hurdle in a multiple hurdle system, to establish if longer life extensions could be obtained within such systems.

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## Superchilling to improve quality and shelf-life

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[campdenbri.co.uk/news/superchilling.php](http://campdenbri.co.uk/news/superchilling.php)

## Quality

Many quality considerations have to be addressed in the manufacture of food and drink. These range from the quality of the raw ingredients, to microbial spoilage and chemical or physical deterioration of the product through shelf-life, and whether the appearance, taste and texture of the final product appeal to the consumer.

Understanding and setting ingredient specifications and knowing how raw materials can be modified are also essential to improving product quality. Likewise, knowledge of how ingredients function in different food systems is also critical. New product development, reformulation, and new packaging or processes can all change the quality of the finished product. Any requirement to reduce costs as part of product development adds an additional layer of complexity to the challenge.

Over the next two months we will put product quality in the spotlight and show how understanding the chemical and physical characteristics of ingredients can help you manage quality-related issues. Please get in touch with the contacts listed, if you'd like to spend some 'quality time' with our experts.

Steven Walker, Director General

## More on superchilling

You can also see our video interview on the topic by searching [superchilling](#) at [campdenbri.co.uk](#)

If you are interested in helping to steer the project through the Chilled and Frozen Foods Member Interest Group, email [harry.williams@campdenbri.co.uk](mailto:harry.williams@campdenbri.co.uk)

## Switch channel



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## Midlands consumer test centre opened

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The new Campden BRI consumer centre significantly extends our ability to support members through consumer studies.

Peter Burgess, Head of Consumer and Sensory Sciences, said: "We're experiencing continued growth in demand from businesses across the food chain looking to include consumer input into various stages of product development. These include identification of consumer needs through to concept development, prototype evaluation, product positioning and post-launch evaluation.

There is a growing focus on a structured approach to NPD to optimise appeal and the chances of success in a competitive market, especially given the squeeze on product launch timelines. Reliable insight into what consumers want from products - derived from a rigorous, structured approach - is essential.

We are regularly asked to help define what consumer need the product is trying to address, identifying what target consumer segments the product is most relevant for, understanding what the compelling and credible features of the product are, and critically how much will people pay for the product. We can help ensure that



precious resources are focused on products with the most potential - to maximise return on investment."

If you are interested in how our consumer testing works, visit [tastingfood.co.uk/video.php](http://tastingfood.co.uk/video.php)

## Market Research Society affiliation

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Having worked for many years with the Market Research Society we are now Company Partners. This strengthens our offering to clients looking for consumer and market research agencies. This confirms our place as the leading UK company for consumer research for food and drink.





## Nutrition and health research and services

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Driven by member needs, nutrition and health has become a major and expanding activity for us, so here is an overview to keep you up-to-date.

As well as our long-standing expertise in nutrient analysis - proteins, fats, carbohydrates, fibre, vitamins and minerals - we also determine other nutritional properties, such as antioxidant capacity. Reformulation services are also established in helping you to make a nutritional or health claim on the label.

Our regulatory affairs team can advise on what you can and can't say regarding claims such as 'reduced fat', 'source of omega-3' and 'rich in calcium', and our product developers can guide you on how ingredient formulation, packaging and processing conditions might affect the nutritional content of your product. Our consumer and sensory evaluation experts can help you find out what your customers actually think about the product and describe its taste and flavour properties.

### Innovation...

Member-funded research includes reformulation and manipulation of food structure and composition, to provide options to offer consumers 'healthier' alternatives.

In a just completed 3-year project on *Sweeteners and fat replacers for reducing calorie content*, we have investigated alternatives for reducing the fat and sugar content of products. The use of steviol glycosides and monk fruit extracts has been explored in fruit juice-based and carbonated beverages, and recently we looked at replacing sucrose in cakes with inulin. To find recently issued Research Summary Sheets at [campdenbri.co.uk](http://campdenbri.co.uk) search RSSs.





Message

Another project is looking at the manipulation of food structure and protein content to produce satiating, energy-reduced foods and beverages. The aim of this is to help members produce products that assist in weight management by exploring the manipulation of food structure and protein content to modify consumer perceptions of, and satiety responses to, energy reduced products.

A new project voted for by members for 2016 is 'Improving the nutritional status of crops'. We will be investigating the potential for enhancing the vitamin, mineral and phytochemical content of commonly consumed food crops using agronomic approaches and/or targeted crop nutrient supplementation, to optimise raw material quality.

### ... on the shoulders of giants

We are involved in projects with many other organisations - such as the BBSRC DRINC projects looking at the impact of food processing on the blood cholesterol-lowering effect of cereal beta-glucan, a CASE studentship on the protective effects of coffee and diabetes, and Innovate UK research into bakery products for non-coeliac gluten-sensitive consumers. These and other projects demonstrate our collaborative commitment to helping the industry in all aspects of providing the nutritious food that consumers will buy.



## Quality in baking and cereals technology

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Companies often want to determine the effect of a new ingredient when it is combined into the full recipe, with processing and interaction with other ingredients.

From the authenticity and classification of the raw material and the milling and grain processing of the flour, through the whole range of wheat and flour research services to the testing of the physical properties of the ingredients and the development of the final products, we can offer help with ingredient suitability, product formulation and processing conditions, to ensure that your products meet the highest possible standards.

Our grain processing facilities, suitable for wheat and other cereals, in quantities of a few grams up to many kilograms, are available for hire by clients or can be used by our technologists to process samples for you. We have a range of analytical techniques for assessing the impact of bakery ingredients on the finished product.

Wheat is one of the world's great staple foods and, as the back page article illustrates, we are one of the leading authorities on wheat and its products. Do get in touch if you'd like us to help.





## New - Sensory discrimination testing

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15 March at Campden BRI, Chipping Campden

Efficiency in food production, without any compromise on quality, is an important area for all companies. Sensory discrimination testing can support the realisation of cost-reductions; however, there are many methods to choose from, depending on your requirements. This new course will describe the variety of discrimination methods available, how they can be applied, the benefit of one method over another and how to analyse the data collected in order to support operational improvements.

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

### February 2016

- 1-5 HACCP - advanced (level 4)
- 9-10 Understanding microbiology - foundation
- 22-26 FSSC 22000 Auditor/Lead Auditor course
- 23-24 Food and drink labelling
- 29 Feb-4 Mar Food safety - advanced (level 4)

## Seminars

### Meat and poultry

[www.campdenbri.co.uk/meat-industry-challenges.php](http://www.campdenbri.co.uk/meat-industry-challenges.php)

26 February at Campden BRI, Chipping Campden

Addresses some key issues facing the sector.

### Innovation in soft and alcoholic drinks

[www.campdenbri.co.uk/drinks-innovation-seminar.php](http://www.campdenbri.co.uk/drinks-innovation-seminar.php)

1 March at Excel, Docklands, London

The latest information on current issues in the development of soft and low alcohol drinks.

## Auditing - the client's view

Training is not just about teaching people the right way to do things, it is also about motivating them to do so. This is what **Charlotte Tollefson**, Product Integrity Specialist at **Wm Morrison Supermarkets plc**, had to say about the Campden BRI FSSC lead auditor course:

*"Lead auditor is a highly interactive five day course which I can honestly say has instilled a passion in me for auditing. The initial part of the course helps you get to grips with the standards and how an audit should be conducted. The latter part of the course involved actually conducting an audit based on information learnt from a case study from the previous three days. This for me was the most valuable part of the course, as you not only got to be the auditor yourself but you also got to watch other audits taking place and see some very different styles of auditing. After you conducted an audit you then received feedback from your peers to help you improve for following audits. It was quite nerve racking to begin with but this experience has made me confident in my auditing ability and I have now happily conducted audits of our supply base."*

## Member zone

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

to access privileged member information and services

## Date for your diary

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Campden BRI Day will be held on Wednesday 8 June 2016. You can see last year's exhibitions, listen to the lecture podcast and register for this free event by visiting [campdenbri.co.uk](http://campdenbri.co.uk) and searching [Campden BRI Day](#).

## Access our research in one place

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



**Latest research programme**  
Details all R&D projects currently being undertaken



**Member funded research**  
Each year you, our members, decide how we should invest over £2m of your subscriptions in research



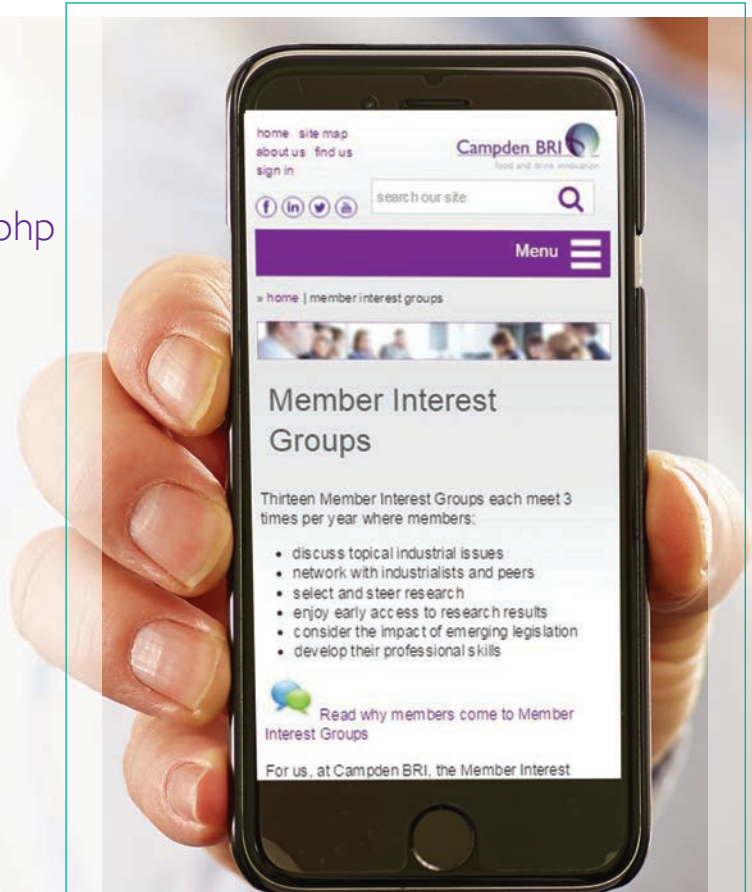
**Project summaries**  
Research Summary Sheets (RSSs) provide concise overviews of individual Research and development projects



**Project websites**  
The core of our research is funded by member subscriptions, mini websites keep members up-to-date with ongoing research programmes



**R&D reports**  
The output from our research programme is published through a series of R&D reports, with archive reports back to 2010



## Dates for the first round of MIGs 2016

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Did you know that you can now access information about MIG meetings, and download agendas and minutes from our mobile friendly website?

Member Interest Groups are open to all full members of Campden BRI. Take the opportunity to discuss the topics of importance to you, guide our member funded research, and catch up with colleagues.

### Winter 2016 MIG diary

7 January	Food and Drink Science
12 January	Microbiology
13 January <sup>1</sup>	Quality and Food Safety Management
19 January	Manufacturing Technologies
21 January <sup>2</sup>	Chilled and Frozen Foods
21 January <sup>2</sup>	Meat and Poultry
26 January <sup>1</sup>	Food Service
28 January	Heat Preserved Foods
2 February	Packaging
3 February	Cereals, Milling and Baking
4 February	Sensory and Consumer
9 February	Agri-Food
11 February <sup>1</sup>	Brewing and Fermented Alcoholic Beverages

<sup>1</sup> Held in London    <sup>2</sup> Joint meeting



## Advanced training for millers

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We are delighted to help run the prestigious Advanced Milling Diploma programme organised by nabim (National Association of British and Irish Millers). The programme was developed to provide a practical and technical training programme beyond the level of existing correspondence courses, to help produce the 'leading millers' of the future. It involves two 5-day residential sessions and an extensive research/dissertation project.

Nigel Bennett, nabim secretary, comments: *"We are pleased to be associated with Campden BRI in the running of the Diploma. Their training and pilot plant facilities, and technical know-how and experience in milling and baking activities mean that they are perfect partners for delivering the objectives of the programme."*

Prof. Sam Millar, Director of Technology at Campden BRI adds: *"We pride ourselves on our close working relationship with the entire cereals supply chain, and on our ability to meet their scientific and technical needs. Our strong programme of R&D enables us to deliver the innovation and high quality services that our clients expect from our practical application of technical excellence."*

## Welcome to new members

Campden BRI is delighted to welcome the following new members who joined recently:

- A Taste of the Season Ltd - producer of a low calorie pizza bases
- Autumn Brewing Company Limited - gluten free brewery
- Cleone Foods Ltd - manufacturer of Jamaican patties
- Food Forensics Ltd - specialists in stable isotope analytics
- LFI (UK) Ltd - food powder blender
- Little and Cull - manufacturer of frozen ready meals
- Mettler Toledo Safeline Ltd - manufacturer of industrial metal detection systems
- Venus Enterprises Ltd - importer of spices

**Clare Brett** +44(0)1386 842125 [membership@campdenbri.co.uk](mailto:membership@campdenbri.co.uk)

Please notify one of our membership team of any name or address changes to allow us to keep our records up to date.

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