

Demonstrating control of *Listeria*

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Food business operators (FBOs) must be able to demonstrate their ready-to-eat foods are safe in terms of *Listeria monocytogenes* (*Lm*). This is a legal requirement under Regulation (EC) No. 2073/2005 on microbiological criteria for foodstuffs. Evidence of controlling *Lm* can come from many different sources, from challenge tests to historical data, but each approach will not necessarily provide the same evidence of *Lm* control. Understandably, this can be confusing for FBOs.

One of our new member-funded research projects will create a structured, transparent system to help businesses demonstrate effective control of the organism. It will work like a scoring system; FBOs will receive points from these different approaches and when a threshold is reached, they will have assurance that they can demonstrate effective control of *Lm*.

The project will take a number of approaches over its two-year duration including the formation of a steering group, the selection of manufacturing sites and products for case studies, and ultimately the production of a guidance document.

Would you like to be a part of the project? Getting involved will allow you to make the scoring system relevant to you and will provide you with the opportunity to have your products and facilities tested as one of the case studies. ■





100 years round off - thank you

We would like to thank our members, clients and all those who have joined us in celebrating our centenary; it has been a great year. We kicked it off with our successful winter MIGs where we welcomed returning (and new!) members who initiated plenty of highly engaging discussions. Many returned for our spring and autumn MIGs to further their (and our) industry knowledge.

We'd like to thank those members who help fund, shape, select and steer our research projects - without you they wouldn't be possible. This appreciation is extended to our working groups which ensure both our projects and

guidelines remain relevant to the industry and for their help with drafting the guidelines to ensure that they can be practically applied.

Our annual Campden BRI day was one of our largest to date. We were delighted to welcome speakers Sarah Bradbury, Group Quality Director from Tesco and John Carter, Vice President Quality EDP from Danone, whose companies also celebrated their 100th year.

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' as the partner of choice for the food and drink sector. Here's to another successful 100 years! ■

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For other sites, see
www.campdenbri.co.uk/campdenbri/contact.php

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New members

We are delighted to welcome the following new members:

Baumer Ltd - manufacturer of sensors

Brands Direct Ltd - importer and trader of foods and drinks

I and E Trading Ltd t/a Tahini Royal - producer of tahini

Mars Chocolate Drinks & Treats - manufacturer of chocolate drinks and snacks

Signature Flavors LLC - developer of food and drink flavours

Sipsmith Distillery - gin distiller

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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.



Save the date

Campden BRI Day 2020

Campden BRI Day 2020 will be on Wednesday 3 June. Attendance is free. The day will allow you to explore how science and technology is being used to tackle industry needs. You will have the opportunity to network with industry peers, view scientific and technical exhibits, attend briefings, take the pilot plant tour and hear the annual Campden Lecture. Registration will open soon. ■

In the meantime, please save the date



Sign up to our free newsfeed emails

The modern food and drink industry is a dynamic and fast evolving sector, so it's vital to keep up to date with the latest developments and advances.

By signing up to our newsfeeds you'll receive topical updates on analysis and testing, food safety assurance, product development and much more - you control which topics. Members also benefit from free access to food law alerts, regulatory updates for beer, cereals and wine, and various research reports. ■

To sign up, just visit the opt-in page and tick the topics of interest. You can also log in at any time to review your preferences: campdenbri.co.uk/optin.php

Blockchain

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Blockchain is a continuously growing list of records that, by design, is inherently resistant to data modification. In a new white paper, food safety management systems lead Richard Leathers covers the advances, perceived benefits and potential limitations of blockchain for the food industry. ■

The white paper is free for members. Find it at campdenbri.co.uk or get in touch to learn about our blockchain project.

Blogs

Search 'blogs' at campdenbri.co.uk.

BRCGS - environmental monitoring clause

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When BRCGS published the Packaging and Packaging Materials Standard Issue 6, it included a clause on environmental monitoring. This means manufacturers of food packaging materials are now required to implement a microbiological environmental monitoring program, where appropriate, based on risk. It will ensure that cleaning operations are effective in minimising the risk of microbial contamination from a packaging manufacturer's packaging when it subsequently comes into contact with the food products it will contain.

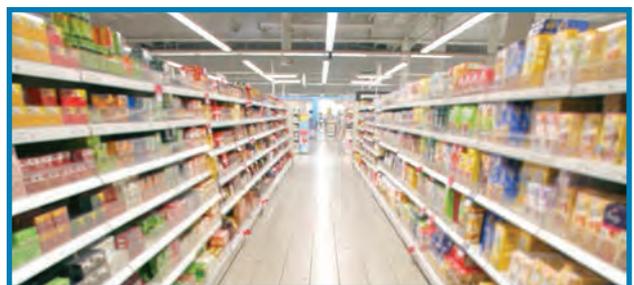
In a new blog, our food safety management systems hygiene specialist Nigel Blitz covers what you need to know about the new clause, including how to build a well-designed environmental monitoring program to ensure you conform to the standard. ■

Shelf-life assessment - new research

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It's easy to assume that headline grabbing bacteria, such as *Listeria* and *Salmonella*, are independently responsible for causing foodborne illness. However, new analysis is revealing the effect naturally occurring microflora have on the growth of these pathogens in foods - potentially determining their likelihood to cause illness.

In a new blog, senior microbiologist Greg Jones covers how he's using advanced microbial profiling (a powerful DNA technique) to better understand microorganism relationships which may, in turn, change how we store a product or determine its shelf-life. ■



New member-funded research projects

Search 'research projects' at campdenbri.co.uk

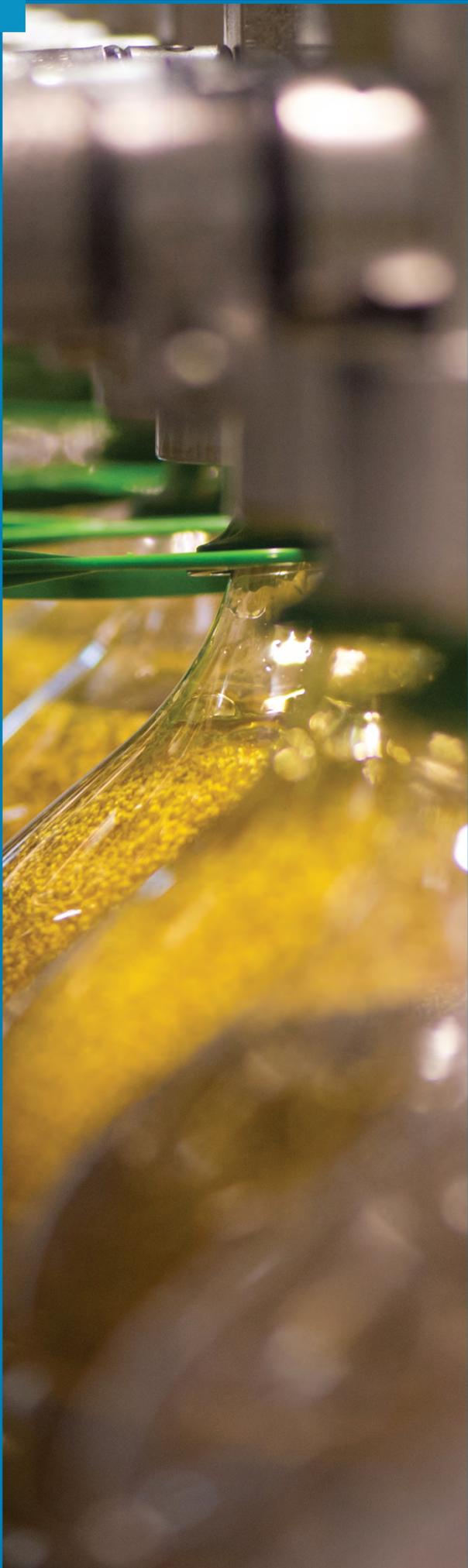
Each year our members decide how we should invest over £2m of their membership fees in research to help their companies, and the food industry in general, to develop and prosper. This year they have selected the following projects to complement another 40 or so current ones. They are organised across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

Safety

- Demonstrating control of *Listeria* within ready-to-eat foods
This project will evaluate the growth potential of *Listeria monocytogenes* in ready-to-eat foods with the use of challenge tests and durability studies, and develop a scoring system for showing effective control of this organism (see front page).
- Better factory hygiene: microbial population dynamics in food factories
The microflora of factories making different product categories will be investigated, along with the changes in microbial populations over the course of a year during normal operation.
- Technologies for detection of foreign bodies and internal defects
New technologies will be reviewed and practical trials of their capabilities will be conducted for foreign body and defect detection.

Quality and value

- Quality and safety of cereal-based products and ingredients for the food and brewing industry
This project will develop and maintain industry-agreed methods to measure and therefore control the quality and safety of cereal-based ingredients. It will also investigate new instrumentation and testing methods



to assess the physical characteristics of grains and cereals including the cereals' functionality. Finally, the project will develop and/or evaluate methods to assess end-product quality.

- Bridging the gap between objective measurements and sensory perception

The effectiveness of tribological measurements in characterising complex textural properties of selected drinks of varying sugar content will be assessed and compared with evaluations performed by sensory and consumer panels.

Nutrition, health and wellbeing

- Consumer acceptance of new and emerging ingredients

A better understanding of both the industry's and consumers' perceptions of 'novel' ingredients will be derived, with a focus on consumer acceptance when these ingredients are included in products.

Sustainability, resilience and food security

- Reuse of packaging

The effect that the reuse of food and drink containers has on both the safety and longevity of the packaging will be investigated, including the impact on the quality of the stored products.

Skills and knowledge

- Vegan/vegetarian foods - help with the challenges
This project will assist the industry with the various challenges posed by the growing trend for vegan/vegetarian foods and beverages, including a focus on associated packaging. ■

Members will have the opportunity to help shape and direct these projects at the winter Member Interest Group meetings. Why not pop along to get involved and steer the projects towards your needs? See page 6 for more information. ■



Research Programme 2020

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Read about our latest research programme which covers more than 50 research and development projects, including those funded by our members and collaborations with academic and industrial partners.

The projects are grouped around industry needs: safety; quality and value; nutrition, health and wellbeing; sustainability, resilience and food security; and skills and knowledge.

You'll find the contact details of the relevant project managers in the programme, should you want to find out more or get involved.

As part of his new role*, Craig Leadley looks after our member-funded research projects. He has experience in both internally- and externally-funded projects and his new role will make our current and future research even more commercially relevant to the food and drink industry. ■

*See page 7 for more information about this and other new appointments.

Member zone

to access privileged member information and services

R&D reports

Assessing a product's 'open life'

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The shelf-life of a product changes once it has been opened. We call this its 'open life'. We study it to determine how long a product will remain acceptable for consumption. Influencing factors include the microorganisms present in the local environment, such as in a fridge.

A recently published R&D report produced by microbiologist Linda Everis covers how a product changes after opening. Samples of an opened cooked-chicken product were stored in consumers' fridges and the species and levels of microorganisms were investigated over time. The results will allow our members to more accurately determine their products' lives once they have been opened. ■

The report is free for members - search 'RD459' at campdenbri.co.uk.

Modelling and simulation of food

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Modelling and simulation are useful tools that can reduce the need for time-consuming and costly practical trials. The finite element method (FEM) is a computational method that allows simulations to be made from complex systems. However, most of the food industry is unaware of this technique, including its ability to solve problems, optimise processes and study food materials. A new R&D report introduces FEM, including how it can be applied to food applications. ■

Read the full report at campdenbri.co.uk - search 'RD460'.



MIGs winter round

All 12 of our member interest groups will be meeting through January and February. If you haven't been to one before, please get in touch. They cover topics from packaging to microbiology and enable you to:

- discuss topical industrial issues
- meet with industry peers
- consider the impact of emerging legislation
- select and steer research
- enjoy early access to research results
- fulfil continuing professional development

What do current attendees think? Ashleigh Moore from Greggs, the current chair of our Food Service MIG, said: *"I love the networking and the open discussion we have in our [Food Service] group - from both the familiar and new faces - we are all addressing similar issues and there is no better forum for informal support and discussion."* ■

Want to get involved?

To join a MIG, host a meeting, or for more information, just email migs@campdenbri.co.uk. Alternatively visit our MIG web pages by searching 'MIGs' at campdenbri.co.uk

People changes

In our centenary year, 2019, we were busy planning how we can continue to best meet the needs of members and other clients. We have now implemented a new structure to achieve this. With Chris Huscroft assuming the role of chief executive (as announced in December), we are delighted to welcome Peter Headridge who, in succeeding Chris as chief operating officer, will lead our science and technology work that lies at the heart of all we do for clients.

Peter started his career at Kellogg's as quality coordinator of food safety, progressing to vice president of R&D, quality, nutrition and regulatory, as well as director EMEA and, in the US as director of R&D. Most recently he was managing director at Peak Food Solutions, from where he joins us.

He will be supported by three associate directors - each leading a major business unit. Barbara Lunnon joins us as associate director consulting (science). Barbara brings a wealth of industry experience with companies such as Unilever and CSM, and will be responsible for our science-led consultancy activities. Emma Hanby has been appointed associate director consulting (technology), drawing on her extensive experience in both technical and commercial roles at Campden BRI. As associate director analytical services, Nick Byrd brings 30 years' experience of working with members and clients, to lead and deliver integrated analytical and testing services that meets their diverse needs across all sectors.

Our research, skills and knowledge base that under-pins all these activities will be overseen by Craig Leadley in the newly created role of head of strategic knowledge development. Craig's team will focus on extracting maximum value - for both members and Campden BRI - from our member-funded research programme and collaborative relationships with government, the research community and funding bodies. See the centre pages to find out more. ■

They all look forward to meeting you and working closely with you in their new roles as the business continues to evolve.



Chris Huscroft



Peter Headridge



Barbara Lunnon



Emma Hanby



Nick Byrd



Craig Leadley

Listeria control - how much evidence?

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Challenge tests, durability studies, predictive microbiology and historical data are all effective approaches that provide evidence of *Listeria* control in foods. However, the strength of that evidence varies between approaches, so how can manufacturers know when they have demonstrated proper control?

In a recent video, microbiologist Gail Betts discusses how her new member-funded research project will look to uncover the answer to this question. She details how collaborating with a working party will establish how much evidence retailers require from manufacturers to demonstrate control of this pathogen. ■

To watch the video, search 'talking head' at campdenbri.co.uk
See also front page article

Training and events

A full list of scheduled courses is available on our website www.campdenbri.co.uk/training.php or you can contact us to request a brochure or discuss tailored training options: training@campdenbri.co.uk +44(0)1386 842104

Training

February 2020 courses

- 3-7 FSSC 22000 auditor/lead auditor course
- 4-5 Understanding microbiology
- 6 Sugar reduction in foods
- 11-12 Food and drink labelling
- 25-27 Food processing hygiene management (course in 2 modules)
- 25-27 FSPCA preventive controls for human food

Upcoming seminar

E. coli STEC and *Salmonella* 27 February

This seminar will look at the importance of keeping up to date with the latest detection methods and technologies for these virulent species. Delegates will hear from industry experts including Prof. Roberto La Ragione from the University of Surrey who will cover the latest diagnostics and control strategies for *E. coli* STEC. The event will also include:

- experts discussing the recent outbreaks of these pathogens, and
- the opportunity to network with attendees from the industry.

The seminar is most suitable for microbiologists, food safety managers, scientific equipment and media manufacturers, hygiene teams, technical managers, retailers and foodservice professionals. ■



Skills and knowledge

Future events

Campylobacter 21 April

Why is *Campylobacter* such a challenge to manage? And which recent outbreaks should you be aware of? Book a place on this seminar to find out the answers, including the latest measures taken to control this pathogen. It is ideal for microbiologists, food safety managers, scientific equipment and media manufacturers, hygiene teams, technical managers, retailers and food service professionals.

International bakery technology conference

19 May - 20 May

Attend this conference to hear about a range of bakery topics and issues including the new technologies used to reduce waste during processing and how we can use fibre to reduce calories in baked products. Anyone involved in the bakery chain will find this conference highly interesting, informative and relevant. ■

For more information, contact Sian Twining: sian.twinning@campdenbri.co.uk or search 'training and events' at campdenbri.co.uk.

www.campdenbri.co.uk/training.php