



Prepared Consumer Foods Innovation Gateways

Teagasc Food Research Centre,
Ashtown, Dublin 15

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Welcome to Prepared Consumer Foods Innovation Gateways

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Stand 1

Technology Transfer

Teagasc Technology Transfer

Presenters: Miriam Walsh and Sharon Sheahan

Teagasc Technology Transfer Office aims to be a major conduit for effective technology transfer of research outputs to end users, especially through partnering with industry and joint research and licensing opportunities. In implementation of Teagasc technology transfer strategy, the TTO serves to facilitate and support the transfer of IP and research outputs between Teagasc and end users, with benefits of social and economic importance. For further information, or enquiries on how to partner with Teagasc research, contact techtransfer@teagasc.ie or visit www.teagasc.ie/research/collaboration/

Stand 2

Alliance

UCC/Teagasc Food Innovation Alliance

Presenters: Lance O'Brien and Alan Kelly

Teagasc and UCC have formed a strategic alliance in food research to build greater scientific critical mass to enhance the efficiency and effectiveness of the two organisations in underpinning innovation in the food industry. Food Innovation Alliance Ireland deliver scientific expertise and support to industry in the areas of Food & Health, Food Science & Technology and Food and the Consumer.

Stand 3

Expertise

Market Research to Support Innovation

Presenters: Maeve Henchion, Sinead McCarthy and Mary McCarthy

Knowledge and insights regarding consumers' wants, needs and perceptions are essential for focusing innovation efforts as well as developing and marketing new products. Linked with an understanding of innovation and technology transfer processes, organisations can significantly improve their innovation performance. Based on strategic research in these key areas, the research teams at Teagasc and UCC provide advice on consumer behaviour, innovation management, market development and food policy. This provides direction for a range of stakeholders from food science researchers and support agencies to industry at all stages of the innovation process.



Stand
4

Expertise

Sensory Food Network Ireland

Presenters: Emily Crofton, Eimear Gallagher, Sinead McCarthy and Maurice O’Sullivan

Teagasc is currently co-ordinating a national network of excellence in the area of sensory food science. This network brings together experts in all areas of sensory food science from 10 research institutions throughout the island of Ireland, including UCC. The network combines all existing sensory services, expertise and capabilities in the country, which will work as a sustainable unit to address documented needs/gaps by the food industry in relation to sensory science. It will also ensure that good practice and the highest level of service will be assured to industry. The network will actively encourage and facilitate collaboration between industry and research groups. Sensory Food Network Ireland will form an integral part of food and beverage industry to support new product development, product matching, flavour development and enhancing understanding of consumer behaviour within specific market segments. As well as a first class service to industry, an ultimate goal of the network is to aspire to the highest level of scientific excellence in sensory food science research.



Stand
5

Expertise

Cereal and Bakery

Presenters: Eimear Gallagher, Norah O’Shea and Elke Arendt

Teagasc and UCC conduct fundamental and applied research in the cereal and bakery area. This involves the research of novel flours and ingredients in wheat and gluten-free bakery formulations, flour chemistry and rheology techniques, with a particular focus on healthy ingredients. Due to the increasing demand for gluten-free products, our studies in the area of gluten-free science have focused on the use of appropriate ingredients (such alternative protein sources, alternative grains) and mathematical modelling techniques to improve the quality of gluten-free products. We are able to offer extensive advice in the area of ingredient selection, mixing and baking practices for bakery formulations. Our combined facilities include a mill room, test bakeries, dough rheology labs and sensory units.





Stand 6

Expertise

Dairy Products Technology

Presenters: Eddie O’Neill and Seamus O’Mahony

In an increasingly competitive global market, Ireland needs to produce high quality, dairy products to capitalise on growing international markets. Teagasc and UCC are committed to assisting the prepared foods sector in the development of high quality and safe dairy products. Their collective resources combine considerable technological expertise and state-of-the-art facilities to offer companies a range of innovative ingredients and processing solutions.



Stand 7

Service

Technology Development Supports for SMEs

Presenters: Carol Griffin, Ita White and Kevin Brennan

A key requirement for successful food businesses is the capacity to produce high quality, safe and innovative food products. Teagasc is committed to assisting the food sector by providing access to applied research knowledge, product development facilities and training programmes. Teagasc’s team of highly skilled food technologists, microbiologists, chemists, sensory practitioners, trainers and consultants can work alongside food companies to develop new and innovative products and provide technical solutions to in-company problems. Both Teagasc and UCC (through the Food Industry Training Unit) develop and deliver continuing professional development programmes and training courses / workshops including bespoke training to assist in skills development.



Stand 8

Expertise

Nutritious and Healthy Prepared Consumer Foods

Presenter: Kevin Cashman

Prepared consumer foods represent a major contribution to the diet of the population, young and old. Nutrition research at UCC is quantifying the role of specific food products in the provision of key nutrients (iron, zinc, vitamin K and others) to the Irish population, young and old. Enhancing the intake of nutritional metabolites and bioactives, either naturally present or added to food products is an active area of research at UCC and spans from research in model systems right up to testing products in human dietary intervention studies.

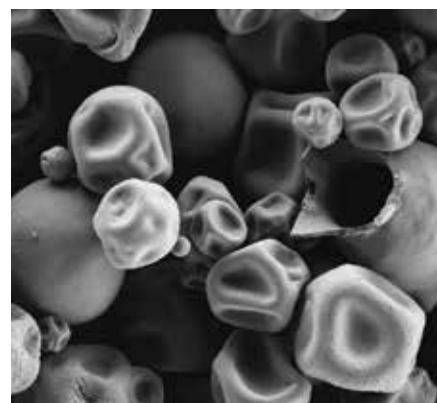
Stand
9

Service

National Food Imaging Centre

Presenter: Mark Auty

The National Food Imaging Centre (NFIC) comprises unique state-of-the-art microscopes for characterising food structure. Understanding the structure of food materials at the nano- and micro-levels gives unique insights into food behaviour. Examples include the effects of processing on creaminess perception, food nanotechnology, dairy, meat and cereal applications. These tools are now used regularly by the prepared consumer foods industry, both to product troubleshoot and to develop new products. The NFIC includes atomic force, light, confocal and electron microscopes.



Stand
10

Expertise

Food Safety Capacity

Presenters: Geraldine Duffy and Martin Danaher

We undertake research and development, focusing on microbial and chemical contaminants in the “farm to fork” chain. We offer expertise in food pathogens, particularly verocytotoxigenic *E. coli*, *Salmonella*, *Listeria monocytogenes*, and *Campylobacter*. Chemical contaminant laboratories are equipped with four UHPLC-MS/MS systems and one GC-MS/MS system. We provide specialist ISO17025 accredited testing services for a range of contaminants including veterinary drugs, feed additives and pesticides. Current research on prepared consumer foods includes the application of high pressure processing (HPP), for enhanced microbial safety and extended shelf life.



Stand
11

Service

Novel Processing Technologies

Presenters: Malco Cruz and Brijesh Tiwari

The prepared consumer foods sector has always been at the forefront in assessing the potential that new processes or processing technologies might bring to enhancing the quality and safety of products whilst increasing productivity. Teagasc and UCC have significant expertise in novel food processing technologies including high pressure processing, ultrasound processing and novel thermal processing technologies. These processing technologies can be used to manufacture innovative, safe, sustainable and of the highest-quality food products and shape the future of the prepared consumer foods sector.





Stand
12

Expertise

Packaging Solutions

Presenter: Joe Kerry

Prepared consumer foods are a diverse group of goods with a wide value range. The application of appropriate packaging systems and materials to address issues such as shelf life, quality and distribution is vitally important but challenging. Developments in packaging of products include reduced packaging material usage and the development of retail-friendly or consumer-friendly pack formats. As in the case of all other consumer goods, exciting packaging technologies continually emerge. In the face of new challenges from retailers and consumers and from emerging markets it is imperative that the Irish prepared consumer foods sector embraces the potential benefits that new packaging materials and systems may have to offer.



Stand
13

Expertise

Fruit and Vegetable Processing

Presenters: Dilip Rai, Helen Grogan and Michael Gaffney

We offer advice on the selection of varieties and agronomic approaches for the optimisation and retention of bioactive molecules from fruit and vegetables. This includes pre- and post-harvest optimisation for the retention of bioactive compounds, in non-processed and minimally processed products. Testing for important traits such as the antioxidant, anti-hypertensive, anti-diabetic and anti-inflammatory status of processed and/or unprocessed fruits and vegetable products is available to companies. We can also provide advice on the use of processing wastes. In addition to this Teagasc conduct research and work closely with the mushroom industry.



Stand
14

Expertise

Meat Product Technologies

Presenters: Ruth Hamill and Michael O'Grady

We offer technologies for optimising meat products for particular goals and consumer groups. This includes reduced salt and low fat versions of traditional meat products with excellent sensory performance and meat products targeted for the particular needs of elderly consumers. We also develop (e.g. from beef fifth quarter) and assess novel functional ingredients for their ability to enhance the quality, shelf life, emulsion stability, gelation properties etc. in meat products. Through research we aim to increase understanding of the impact of interactions between the food matrix, ingredients and novel processing on technological and sensory performance and thus streamline product development strategies.

Stand
15

Expertise

Adding Value with Functional Ingredients

Presenters: Maria Hayes, Liana Drummond and Anne Maria Mullen

We offer the expertise and facilities to generate functional ingredients, with applications across a range of consumer food products. Our state-of-the-art laboratories are equipped for the extraction and purification of bioactive and functional compounds including high resolution NMR and mass spectrometry suites. Coupled with our bio-processing equipment we have the resources to recover proteins with good techno-functional properties e.g. gelation, emulsification etc. from animal sources such as meat fifth quarter. These proteins can be used for a variety of applications (food, beverage, medical etc.). Testing is available for assessing the biological activities of extracted compounds for heart and mental health, obesity, diabetes, antimicrobial and antioxidant activities.



Stand
16

Expertise

Marine Ingredients and Seafood Products

Presenter: Maria Hayes

At Teagasc we can provide expert advice and technologies in relation to marine food preservation, marine ingredient development for human and animal use, marine and seafood product processing. Knowledge on relevant European Food Safety Authority (EFSA) legislation and protocols are available, as well as methods required for the screening of bioactivities and sensory attributes. In addition we can offer product development support to companies in the prepared foods sector using marine ingredients or producing seafood products. Advice is also available on processing needs and technologies for marine ingredient generation and bioassay testing of functional food development for different consumer sectors i.e., the elderly, sports enthusiasts and persons with heart health problems.



Bord Iascaigh Mhara (BIM)

Presenter: John Fagan

BIM, established under the Sea Fisheries Act 1952, is the Irish State agency responsible for developing the Irish seafood industry. BIM's mission is to grow a thriving Irish seafood industry; expand the raw material base, add value and develop efficient supply chains that together deliver on the Government's Food Harvest 2020 targets for seafood and create sustainable jobs. Our range of innovative supports and services include the provision of technical expertise, business support, funding and training and we actively support responsible environmental practices.





Department of Agriculture, Food and the Marine

Presenter: James Conway

The Department of Agriculture, Food & the Marine's mission is to lead the sustainable development of the agri-food and marine sectors and to optimise its contribution to national economic development and the natural environment. The Department, its staff and State Agencies, play a vital leadership role in providing and encouraging an environment in which enterprise can flourish. The effective implementation of Food Harvest 2020 – a Vision for Irish Agri-Food and Fisheries is core to the future development of the sector. The compelling vision of this report is the belief in the underlying growth potential of the sector and the need to realise the targets set through a coordinated and collaborative response from Government and State Agencies and a parallel commercial commitment from industry.

Research in the areas of both food production and processing and food for health have been deemed a priority in the Report of the National Research Prioritisation Steering Group. The strategic research and innovation priorities for these areas have now been set in the new agenda document, "SHARP"; developed in consultation with an industry led stakeholder group and sister research funders with an interest in this space. To implement this and previous agendas, along with further developing agri-food research capability, DAFM fund basic and applied research across the agri-food spectrum under its three competitive funding programmes, FIRM, Stimulus and CoFoRD.

DAFM also provide the National Delegate and National Contact Point for Societal Challenge 2 of Horizon 2020 and are active in a number of other European transnational initiatives such as Joint Programming Initiatives and ERANETs as well as other research forums like the Standing Committee on Agricultural Research (SCAR), the Bioeconomy Panel and the Agri EIP.



Enterprise Ireland

Presenter: Mairead Dunne

Enterprise Ireland is the government organisation responsible for the development and growth of Irish enterprises in world markets. In this way, we support sustainable economic growth, regional development and secure employment. We have over 30 international locations facilitating access to more than 60 countries worldwide and all of our services are geared toward helping Irish companies build an international business. We work in partnership with Irish food entrepreneurs and food companies to help them to develop an export led business, expand, innovate, become more competitive and develop their management capability so they are well placed to win export sales on global markets and in turn create new jobs in Ireland. Enterprise Ireland will present a number of supports available to companies to develop their business, including collaborative R&D with Teagasc and third-level institutes.



Bord Bia

Presenter: Karen Tyner

The role of Bord Bia, the Irish Food Board, is to act as a link between Irish Food, Drink & Horticulture suppliers and existing and potential customers throughout the world. Bord Bia works in partnership with the industry to promote Irish food, drink and amenity horticulture and to develop markets for commercial advantage. Our aim is to increase the sales of Irish food, drink and amenity horticulture by developing long-term relationships between Irish companies and trade buyers. Bord Bia aspires to be the top-of-mind source of authoritative market research and analysis for the Irish food industry. We publish reports which our team of Business Analysts have commissioned that are typically rooted in original research conducted amongst consumers and/or trade as appropriate. At this event, we will share a selection of this recent research with visiting companies.

