



THE FOOD CHAIN

THE *safefood* KNOWLEDGE NETWORK NEWSLETTER

ISSUE
No.5

JULY 2016

ALL-ISLAND COLLABORATION SUPPORTING THE COELIAC CONSUMER



Christina and Derek Thompson

Collaboration between the Coeliac Society of Ireland and Gluten Free Ireland sees an all-island approach to increase awareness of the disease

In April of this year, representatives from the different coeliac support organisations, including the Coeliac Society of Ireland and Gluten Free Ireland, met to discuss the challenges they face in supporting the coeliac consumer. The meeting was convened under the auspices of **safefood** and addressed

the growing need to assist the catering and hospitality sectors in adhering to new legislation, introduced in December 2014. This legislation (www.fsai.ie/faq/allergens.html) sets out new requirements regarding allergen information and how it is displayed.

Grainne Denning, CEO of the Coeliac Society of Ireland, believes there is a body of work to be done around educating those who should be implementing this law on their premises. "Clear labelling is necessary and a book of allergens needs to be on the premises also. The regulatory authorities would like to see the

full implementation of the legislation from a consumer safety perspective."

The Coeliac Society of Ireland is a registered charity and is the primary source of information on coeliac disease in the Republic of Ireland. Grainne notes that approximately one out of every 100 people have coeliac disease, adding that "there has been an explosion in the amount of interest in the gluten free area, with people choosing to eat gluten free because they think it is healthier". "Yet, a lot of gluten free foods have more fats and sugars in them. It has been estimated that 7% of the population have a wheat intolerance but are non coeliac. There is such a low base of understanding of coeliac disease that we, as a Society, need to get the understanding out there that it is an auto immune disease."

Derek Thompson, founder of Gluten Free Ireland in Co. Down, agrees. Derek set up

**THERE IS SUCH A LOW BASE
OF UNDERSTANDING OF
COELIAC DISEASE**



Grainne Denning

Gluten Free Ireland with his wife Christina in 2010 after discovering the lack of understanding at a hospitality level in Northern Ireland about the disease, which Christina suffers from. "We felt there was a gap in the local market and decided to start a simple database of places that my wife and I could eat

we know what it's like to live and travel as a coeliac and that can be invaluable to a visitor coming to the island of Ireland or to a local simply wishing to visit a different part of the area."

Collaborative efforts between the Coeliac Society of Ireland, Gluten Free Ireland and **safe food** ensure an all-island approach to their mission. Derek notes: "We have developed a mutual respect for each other and a level of cooperation." This cooperation will come to fruition in September when **safe food** will

THE GLUTEN FREE IRELAND DATABASE IS ONLINE AND FREELY OPEN TO ALL

out in." This database, which has grown over the years and includes gluten free producers, is online and freely open to all. "We don't give medical or nutritional advice but

host an event with both organisations – one in Dublin and one in Belfast – aimed at driving greater awareness in the catering community regarding allergens. The events will be of interest to those working in the hospitality, tourism and food safety industries, offering practical advice on how to manage allergens on the premises.●

For more information visit
www.coeliac.ie
www.glutenfreeireland.com
www.safe food.eu



We welcome the **safe food** Advisory Committee (SAC)



The first 2016 meeting of the members of the SAC was held at the **safe food** office in Dublin in April. Pictured are new members Mr. Michael Bell, Mr. Dermot Jewell, Mr Martin Roper and Ms Therese Coleman. Also photographed above is the Chair, Prof Margaret Patterson and other SAC members, Mr Robert Huey, Ms Maria Jennings, Ms Amanda McCloat, Mr Kenneth Carroll and Ms Christine Domegan. Absent members include Prof. Martin Caraher and Prof. Moira Dean.

SME Information Seminars

During 2016, **safe food** is hosting eight half-day information seminars throughout the island of Ireland, in partnership with Teagasc and the College of Agriculture, Food and Rural Enterprise (CAFRE). The aim of these seminars is to help small and medium-sized food businesses and provide practical advice on good food safety practices, thus helping to avoid a product recall.

The workshops are providing information on:

1. Avoiding product recall and economic implications;
2. Managing food allergens;
3. Choosing and using hygiene and cleaning products;
4. Controlling bacterial contamination;
5. Traceability and supply chains;
6. Emerging issues.

Six seminars have been held already this year in Fermoy, Kenmare, Carlow, Dublin, Tullamore and Galway with a total of 97 participants representing 72 businesses. Below are a list of upcoming seminars. Workshops are free but places are limited and allocated on a 'first come, first served' basis. To register please visit www.safe food.eu/Professional/Events.aspx

Cookstown: 6th September, 10am-1pm - Innovation Centre, CAFRE

Letterkenny: 7th September, 10am-1pm - Gallaghers Hotel



BUILDING A BRIDGE BETWEEN TOURISM AND FOOD

This year, Good Food Ireland (GFI) celebrates ten years of work linking the agri-food industry with the hospitality/ tourism sector. Founder Margaret Jeffares looks back on its success and stresses the importance of maintaining our reputation as a place of safe, high quality food

When it comes to being at the coalface of an industry, Margaret Jeffares is well placed to discuss her credentials. Living and working on a blackcurrant farm, Margaret also has a background in marketing, so it seems like a natural fit that she would ultimately work in a position that brought a marketing edge to the agri-food industry. Where GFI sits apart is in its pioneering work to link the agri-food scene and the tourism/hospitality sector under the one roof, promoting a 'farm to table' experience. "I wanted to recognise the opportunities that existed based on new consumer requirements by bringing together our two biggest indigenous industries."

The vision behind GFI, she explains, was simply to shine a light on all of the amazing work being done by so many across the sector. "It's not about marketing spin. Restaurants and hotels were using incredible local foods but not telling anyone about it, and they were looking for standout recognition. So GFI was about pulling together the concept of a brand based on the philosophy

of these amazing people."

At the time of GFI's infancy, Margaret says that safety was a big issue for consumers and tourists traveling from abroad. There had been a number of global scares such as foot-and-mouth and SARS, and so food was front of mind for tourists travelling to different places. "The island of Ireland has always been perceived as a safe place for food; we are very fortunate. However, in 2002/2003 tourists travelling to the island of Ireland started to ask about our food. Traditionally, you wouldn't have heard of that. World food safety issues drove this question." This opened up the opportunity to showcase food from the island of Ireland and what it stood for. "We have always stood confidently and proudly over our food safety. Our reputation when it comes to food is very strong, particularly when you start to introduce the strength of the agri-food sector and the scale of our exports." Margaret points to the growth in artisan foods and medium-sized farmers diversifying into added-value products, which

has helped to underpin the development of the food tourism sector, and this availability of product has allowed chefs to experiment more with local and regional food.

Margaret highlights a number of the organisation's achievements over the years, including the Web Summit in Dublin two years ago where 250 food businesses from across the island of Ireland were showcased to an international audience. "We have brought our brand to over 60 different cities around the world. It is always

an honour to be asked by your Government to represent your country internationally in a gastro-diplomacy role."

This year, GFI has set up a tour operating division marketing packages for tourists with a gastronomic angle: "Not every visitor wants an immersive food experience but everyone has to eat". In November, GFI will host a celebratory food tourism and culture event in Croke Park, Dublin, to mark the organisation's anniversary. Visit www.goodfoodireland.ie ●

MARGARET'S LIFE & LIKES:

Lives: On a blackcurrant farm in Co. Wexford.

Hobbies: Anything related to horses - breeding, eventing and showjumping.

Favourite food?: My love of food not only comes from the taste of it, but also the story behind it. I love when people dig deep and work hard to create something special - I will buy that food product based on that passion.

Favourite way to unwind: Watching Game of Thrones - I'm a huge fan.

Interesting fact: Margaret's husband is the only commercial blackcurrant farmer in the Republic of Ireland, producing Mr Jeffares Blackcurrant cordial. "I could never imagine having all the incredible knowledge he has about blackcurrants". Margaret is also a member of the **safe food** Advisory Board.



Professor Andrew Meharg

MY RESEARCH

PROFESSOR ANDREW MEHARG

Professor Andrew Meharg, of the Institute of Global Food Security based in Queen's University Belfast, highlights his research into the high levels of inorganic arsenic in rice sold commercially

Researching how nutrients and other chemicals transfer from environmental media into agronomic, human and wildlife food chains is an integral part of the work that the Institute of Global Food Security undertakes. The Institute is based at Queen's University Belfast within the School of Biological Sciences. It houses a suite of state-of-the-art laboratories, where researchers from around the world conduct cutting-edge research into various topics ranging from nutrition through to food security.

As Prof. Andrew Meharg explains: "We operate on an international scale and collaborate with people across the world. We think about food from the soil all the way to human health and everything in between."

Most of Andrew's research is focused on rice and the levels of inorganic arsenic in rice. Arsenic contamination of rice is due to absorption via soil and water. Arsenic is naturally present in the environment or can result from human activities such as heavy industry. EU Commission Regulation 1006 of 2015 establishes maximum levels of inorganic arsenic in

rice-based foodstuffs. These levels range from 0.2 to 0.3 mg/kg; however for 'rice destined for the production of food for infants and young children', the maximum level is 0.1 mg/kg. "We discovered that rice can be highly elevated in inorganic arsenic, so much of my work involves looking at why the levels can be so elevated, how much of that rice is getting into our food chain,

of projects which are currently in train. "We are currently in the early stages of a large project funded by the Natural Environment Research Council in the UK, which is focused on China and investigating how to improve urban farming and address issues of sustainability. I have just returned from China to visit field sites." Andrew also travelled to Bangladesh recently

WE OPERATE ON AN INTERNATIONAL SCALE AND COLLABORATE WITH PEOPLE ACROSS THE WORLD

and the consequences of ingesting such high levels of inorganic arsenic."

Andrew points out that this EU legislation presents very real challenges for the industry. "However, a lot can be done to remove inorganic arsenic from rice. One solution is to source rice from parts of the world that have naturally lower levels of arsenic; and there are certain ways of cooking rice which can help to remove any arsenic present." Andrew is involved in ongoing work on a global level in this area and points to a couple

as part of a project with the Bangladesh Agricultural University and in collaboration with the Nestle Foundation. "We were looking at commercial large scale par boiling rice plants and small scale rice plants, including a local par-boiling plant which we have made specific alterations to in an effort to reduce the levels of inorganic arsenic in the rice. It is all investigative work, and we will be educated by our findings." ●

For more information visit www.food.gov.uk/science/arsenic-in-rice

RESEARCH PRIORITISATION *a call for feedback*

safefood is currently considering our food safety research prioritisation over the next three years. We would like to invite you to advise on food safety issues of significance that we might focus on and share any observations you might have on the significant issues, gaps and challenges being faced that requires research to elucidate. **safefood** considers the entire food chain in its outlook on research, and welcomes short contributions which might focus on the topic or issue of concern; its significance; and how research will provide the added value in enhancing food safety. All contributions and feedback are welcome and can be sent to research@safefood.eu by 31st July 2016.

UPCOMING EVENTS

25th International ICFMH Conference: Food Micro 2016
Dublin, 19th July - 22nd July 2016

ICFSNPH 2016: 18th International Conference on Food Safety, Nutrition and Public Health, Switzerland, 21st July - 22nd July 2016

2016 International Association of Food Protection (IAFP) Annual Meeting: USA, 31st July - 3rd August 2016

18th IUFOST World Congress of Food Science and Technology: Dublin, 21st August - 25th August 2016

Knowledge Network Event: Molecular Methods Course, Co. Kildare, 13th - 14th September 2016



Pictured at the NHP 'Management of Food Safety and HACCP Programme' Student of the Year Awards 2015 are: finalists (l-r back row) Orlagh Deegan, Aleksandra Kania, and Siobhán Ni Laocha; (l-r front row) Dr Pamela Byrne, award winner Paul Hickey and Clodagh Fitzgerald.

MY WORK: CLODAGH FITZGERALD

Clodagh Fitzgerald is Honorary Chair of the National Hygiene Partnership (NHP). Here, she discusses their work and developments to update training programmes

The National Hygiene Partnership (NHP) was formed in 1995 after the EU Council Directive 93/43/EEC on food safety standards was published. This flagged significant changes in food preparation standards and practices across the hospitality and catering sectors. Today, the voluntary organisation has 13 member organisations, including the Food Safety Authority of Ireland, **safefood**, Teagasc, the Restaurant Association of Ireland and the National Standards Authority of Ireland. "In 1995 a small group of us got together on a voluntary basis to address the fact that there was no organised training in food safety, despite there being a legal obligation to do so. Furthermore, there was no standardisation of trainers, so we created a licensing programme to redress this and provided a management training programme for the hospitality sector. Today, our trainers organise courses for the public and for larger organisations, and this programme has also been integrated in some college courses." The NHP also works closely with **safefood** on an ongoing basis and has a member of **safefood** on the management committee.

Each year, the NHP hosts a large training seminar for their trainers and invited guests (including environmental health officers and university lecturers), and in April 2015 and April 2016 this event was held at the Aviva Stadium to mark the beginning and end of the NHP's 20th anniversary year. "The Minister for Health at the time - Leo Varadkar - officially launched the seminar last year and this year we had the CEO of the Food Safety Authority of Ireland, Dr Pamela Byrne, open the event." A key initiative at this event is the announcement of the Student of the Year Award. "This is awarded to the student who has been the highest achiever in our NHP management of food safety programme within that year," Clodagh explains. "It is a huge honour."

Commenting on recent developments, Clodagh notes: "In the past year we have updated our food safety management and HACCP programme, which is now completely in line with European best practice for food safety training in the catering sector. Making sure our trainers are kept up to date and that they can communicate that knowledge is of critical importance." ●

For more information see www.nhp.ie

STAYING ON TOP OF FOOD TRACEABILITY



Denis O'Brien

The island of Ireland's reputation in food traceability remains strong, however it is crucial that we keep up to date with new global technologies to ensure we maintain our position, says Denis O'Brien, Director of Standards and Solutions GS1 Ireland

from one batch to the next. This information is shared peer to peer."

New technologies coming down the line however are delving deeper into not only the type of information being shared but also the way in which it is shared. Electronic Product Code Information Services (EPCIS) is an open standard which allows businesses to capture and share supply chain information about the movement and status of goods. "This involves a centralised data repository that everyone can submit data to regarding a particular product – for example with fish: it can include information such as where the fish was caught, what vessel was used, where it was landed, the unique batch number, and the

that while this technology is well established, the usage of it is very much in its infancy.

Another technology, which Denis refers to as "the internet of things" may be a little premature, but will be a fundamental shift in traceability in the coming years. This would allow information on products, pallets and containers to be available online, in much the same way that customers can now track packages from courier companies. "In the near future, instead of searching for information, we are going to be bombarded with it. We should be aware of this in relation to setting up new systems."

The biggest change in product traceability, says Denis, is that at the moment it is a 'one step forward, one step back' process. "Currently, all you need to know is that you bought the product from a particular supplier. In the future you will need to know where your supplier bought it from." A huge driver for this is to tackle the ongoing prevalence of counterfeiting.

"The important thing is that people who are involved in traceability educate themselves in what is happening across the globe." ●

“The island of Ireland has an extremely high reputation for food traceability. We are known across the globe for our standards in food production and have been invited to address international authorities on our traceability expertise. The danger however is that we become complacent.” In order to maintain standards, Denis notes that the industry needs to continually educate itself regarding new technologies being introduced and implemented internationally.

“It is important that we invest in new technologies”. These technologies apply to

different areas of data sharing. “Traceability is all about data sharing, whether internally within factories or across the supply chain. For example, product master data is where you share information about a product with a customer

THE DANGER IS THAT WE BECOME COMPLACENT

or supplier in an initial trading relationship – this data can change, but rarely does. Meanwhile, Electronic Data Interchange (EDI) involves sending data that may refer to batches of product and it can vary

customer can publish that they received the product. This records and stores strong transactional information and is permission driven in relation to those that can access and add to the data.” Denis notes



Sally Cudmore

WHERE SCIENCE MEETS INDUSTRY

Sally Cudmore, General Manager at the Alimentary Pharmabiotic Centre (APC) Microbiome Institute in Cork, outlines the key pillars of work undertaken at the Institute and unveils research underway in the area of foodborne pathogens

At the heart of the APC Microbiome* Institute is a spirit of real collaboration and shared knowledge. Founded in 2003, the Institute brings over 270 clinicians, clinician-scientists and basic scientists together to work with industry in a proactive and trans-disciplinary fashion.

As Sally explains: "One of our big remits is to work with industry, and to collaborate with the food, farming and

biotechnology sectors. Our research is on the microbial community, which live on and inside us: we each have more microbial cells than human cells! The real area of focus is on those microbial cells that live in our gut – bacteria, parasites, yeasts, etc. We are interested in understanding how this community affects our overall health balance and how this interplay works."

Sally notes that in an era of growing antibiotic

resistance there is a real interest in developing new antibiotics that are harnessed in the gut, as well as developing new prebiotics. This area of prebiotics is a big focus for food companies looking to develop functional foods for their portfolios. Another key pillar of

debilitating conditions, such as anxiety, stress, depression, autism spectrum disorders, obesity and irritable bowel syndrome.

The final programme Sally highlights is host-microbe dialogue. "This examines how human bacteria and the human host communicate with

NUTRITION FOR INFANTS IS OF HUGE IMPORTANCE

the work undertaken by the Institute is the interaction between diet, the microbiota and health at the extremes of life, i.e. in infants and older people (gut microbiota is the name given to the microbe population living in our intestine). "Nutrition for infants and microbial exposure in children during their first six months is of huge importance. Also, for those in the later stages of life, past the age of 65, the diversity of the microbial community starts to collapse, and this has a knock-on affect on health. We want to try to develop a combination of palatable food ingredients, for example, that would combat this and promote better health in the gut."

What Sally refers to as the 'brain-gut-microbe axis' is also a major theme. "Everyone will be familiar with the expressions such as 'sick with fear' or 'butterflies in your tummy'. There is a three-way communication between the brain, gut and microbiota." The Institute works towards a better understanding of the role of this axis in the stress response, and its links with other

each other: what is the signalling going on? If we try to understand this signalling it may help with tackling disease."

An interesting project currently underway looks at why everyone who eats the same batch of contaminated food does not become ill. "One possible answer," Sally says, "is that a robust and diverse microbiome may protect some individuals against infection, with *Salmonella* or *Listeria* for example." The APC scientists have actually shown this to be the case in some infections and are working to identify the individual bacteria and bacterial products involved in this protection. "In the future we may well be able to design diets, or develop probiotics, which will protect humans from many of the infectious diseases associated with foodborne pathogens. This might be particularly important in developing countries, where it is difficult to maintain high production standards and where good hygiene practices may not be in place." ●

**Microbiome refers to the collection of genomes of microbes in a system.*

Laboratory Training Courses

safefood is running a number of laboratory training courses aimed at upskilling and laboratory collaboration. In May, a Labware LIMS Version 7 training course was carried out in the **safefood** office, Dublin, which was designed for LIMS administrators in public health laboratories that carry out food analysis. The next free training course, held over two days, will focus on an introduction to molecular testing methods in food microbiological testing laboratories. The course, being held on the 13th-14th September 2016 in Co. Kildare, will be available to all public and private food testing laboratories and also food industry laboratory personnel. The course content will include the fundamentals to setting up a molecular lab and the benefits of doing so. Visit www.safefood.ning.com/events. Registration is just one click away for Knowledge Network Members!

Applications for the Training & Mobility Programme

The **safefood** Training and Mobility Programme (TMP) enables Knowledge Network members to enhance their skills, broaden their expertise and create linkages between those involved in food safety on the island of Ireland. Members can visit other laboratories, attend conferences, centres of excellence and other training events that are food safety related. **safefood** strongly promotes cross border & cross-sectoral exchanges and visits, and will fund bursaries up to €1,200 or sterling equivalent (subject to vouched costs). 12 applicants were successful in securing TMP funding in 2015. Application forms are available on the **safefood** Knowledge Network website, or alternatively from the Training & Mobility Coordinator at **safefood**

Tel: + 353 21 230 4100 or email tmp@safefood.eu

Get involved with THE FOOD CHAIN

We'd love to hear from you. Would you like us to feature your research or industry sector? What else would you like us to cover in the world of food safety? Send your article ideas, feedback and suggestions to knowledgenetwork@safefood.eu

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To obtain free membership of the **safefood** Knowledge Network, go to www.safefood.ning.com and click 'Sign Up'. Once your membership is quickly approved, you can follow the latest Knowledge Network news, learn about events and access Knowledge Network videos, conference presentations and lots of other useful resources.

COMPETITION



safefood is delighted to offer one lucky crossword winner a luxury hamper of gourmet food from Arcadia Delicatessen in Belfast, delivered to your door!

Simply find the hidden word in the crossword, made up from the letters highlighted, and send the answer to knowledgenetwork@safefood.eu before 8th August 2016. Good luck!



ACROSS

- 1 Mess, named after a famous school (4)
- 2 Lost, a utopia or Eden (8)
- 3 A type of dessert, made from whipped egg whites and sugar (8)
- 7 A small pickle (7)
- 8 A short piece of writing on a particular subject (5)
- 10 Food cooked in hot oil (5)
- 11 The seventh astrological sign in the Zodiac (5)
- 16 A position in American and Canadian football (11)
- 18 A domesticated bovine animal (2)
- 19 To join something else so as to increase the size, number, or amount (3)
- 20 A pale violet tone, flower species (5)
- 21 A large bird of prey (5)

DOWN

- 1 A yellow, medium-hard Swiss cheese (8)
- 2 Dried plums (6)
- 4 A pattern made of diamonds (6)
- 5 A melody for the human voice (4)
- 6 The activity or occupation of composing text (7)
- 9 A cereal grain, widely consumed across the world (4)
- 10 Flora and ----- (5)
- 12 A fair consisting of rides, sideshows, and other amusements (7)
- 13 A game of chance resembling bingo (5)
- 14 Cooked by dry heat in an oven (5)
- 15 A simple device for calculating (6)
- 16 An unsweetened custard pie with a savoury filling (6)
- 17 Spinach or another leafy vegetable (4)