



THE FOOD CHAIN

THE **safefood** KNOWLEDGE NETWORKS MICROBIOLOGYISSUE
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NEWSLETTER



AFTER THIEVES IN Liechtenstein made off with 236 five-kilogram wheels of cheese contaminated with listeria monocytogenes, the Office of Food Inspection there had to issue a warning to the public. The 236 five-kilogram wheels of the semi-hard Alp Sücka cheese were stolen prior to their planned destruction in September.

Education and information key to food safety

EDUCATING CONSUMERS and food operators on proper food-hygiene practices is the most pressing food safety issue across the island of Ireland. This is according to Ger Cadogan, Head of Quality and Technical Control at Glanbia, who says this education should focus on both storage and cross-contamination risks.

Ger manages the quality assurance (QA) and technical teams at Glanbia. They manage process and product safety and quality across Glanbia's production units and the distribution chain. "This entails monitoring for a range of microbiological, chemical and physical parameters, which vary depending on the specific risks of the product type involved," he says.

He says the risk from raw plant materials, in particular, is sometimes overlooked. "Plant materials are regularly transported vast distances and can have a short shelf life. It's challenging to ensure their hygiene status before they arrive to the marketplace," he says.

"We also work with our operations and engineering teams to design new installations and modify existing plants,

and drive routine good manufacturing practices (GMP) and system auditing processes so we can deliver safe, legal and consistent products."

FORESIGHT IS KEY

Their main challenge, he says, lies in anticipating new issues before they turn into problems. "This can range from working to improve standards of GMP at a plant to minimise the risk of particular microbiological threats, to tailoring our monitoring programmes to provide safeguards and customer confidence in light of a developing food scare on the other side of the world."

Having access to the most up-to-date information on threats to our food supply is

crucial, Ger says. This includes both scientific knowledge of how specific threats can arise and be controlled, and updates through a system of global food alerts such as the Rapid Alert System for Food and Feed (RASSF) and through food network groups such as **safefood** Knowledge Networks.

"The food industry today operates with a global reach, so we must be aware of developing threats to both our raw materials and our finished products."

GER
CADOGAN

Welcome to the first issue of The Food Chain, a newsletter for members of the Campylobacter, Listeria, Salmonella and VTEC Networks. We hope you find it interesting and useful, and we'd love to hear from you! See the back page for how to get in touch.

Thanks from the safefood Knowledge Networks team!

NEWS

Food skills vital for consumers

CHANGING LIFESTYLE HABITS mean our diets have changed radically and not necessarily for the better. An insightful new **safefood** report assesses food skills on the island of Ireland and asks how they might affect our diet. Read more: safefood.ning.com.

EU leads the way in food traceability

THE EUROPEAN UNION and European Free Trade Association (EFTA) countries lead the way in food traceability. The Comprehensive Reviews in Food Science and Food Safety journal ranked EU and EFTA countries as 'superior', with Australia, Brazil, Canada, Japan, New Zealand and the US ranking 'average', and China scoring 'poor'. Read more: safefood.ning.com.

New live vaccines against Salmonella

VACCINES AGAINST SALMONELLA that use a live form of the bacteria are more effective than those that use only dead fragments, according to recent University of Cambridge research. This is due to how they stimulate the immune system, said the researchers, who believe the research could be relevant for both animals and humans. Read more: safefood.ning.com

OPPORTUNITIES

safefood Training & Mobility Programme 2014

ENHANCE YOUR SKILLS and broaden your expertise by spending time working in another organisation. Collaborate and connect with other food safety professionals on the island of Ireland and overseas. Past participants have attended conferences and courses, and visited labs in the UK, US and Australia. See safefood.ning.com.

Free supply chain integrity course

PROF CHRIS ELLIOTT of Queen's University, Belfast (see facing page) is giving a free online training course, Tackling the Global Food Crisis: Supply Chain Integrity, from Nov 17th for five weeks. See futurelearn.com.

Agri-Tech Catalyst

UK BUSINESSES AND researchers in agri-tech, listen in: The Agri-Tech Catalyst has £70m to invest. It is looking for innovative submissions in primary crop and livestock production, non-food uses of crops, food security and nutrition challenges in international development, and challenges in downstream food processing. Registration closes on Dec 31, 2014. Find out more at agritechuk.org.

British Council travel grants

IF YOU'RE A UK-BASED researcher who wants to travel, check out the Researcher Links – Newton Fund grants. You can spend three to six months in any of a range of research institutions in Egypt, Kazakhstan, Mexico, South Africa, Thailand, Turkey and Vietnam. britishcouncil.org

What is a typical day at work like for you?

I do predominantly food work, so food hygiene inspections, fluoride water testing, pest control, dealing with complaints and food alerts. It varies so much.

What is your favourite part of the day?

If I were to be very honest with you, it's having a nice lunch! One of the perks of the job is knowing where all the best restaurants are.

What is the most challenging aspect of your work?

It's very challenging having to know all the legislation. You have to think on your feet a lot. You're assessing the structure of the premises,

selected as the first to get external accreditation for the ISEN ISO 9002 standard for environmental food control services. We brought a more consistent approach to assessments to make it easier for food businesses to comply with regulations. That was back in the 2000s, but it sticks with me because it was something a lot of people believed in, worked on and achieved.

What's the worst breach you ever found?

A thumbnail in some stir-fried rice. That was probably the most disgusting thing I've seen. The most interesting thing I've seen was a large blade lodged in a perfectly packaged loaf of bread.



A DAY IN THE LIFE

ANNE DWAN IS AN ENVIRONMENTAL HEALTH OFFICER. SHE'S BEEN WITH THE CARLOW/KILKENNY HSE SOUTH DEPARTMENT FOR 17 YEARS.

the operation, the meat labelling, beef labelling, country of origin, animal by-products, general labelling, oil labelling, labelling for chocolate and so on. If you went to assess a supermarket's butcher counter, you could be there all day.

Any highlights or particularly proud moments?

The biggest highlight for me was when our area was

How do you benefit from being a Knowledge Networks member?

It's great for gaining access to recent research, recent knowledge, and dealing with industry colleagues. You can keep up to date with what's going on, the education, the findings, the food business officers and work together from the same pool of knowledge.

Time for food labs to adopt PCR testing

MORE LABS ARE looking into using PCR in testing for Verocytotoxigenic *E.coli* (VTEC) in food, says Dr Anne Carroll of the VTEC Reference Laboratory.

VTEC is a type of *E. coli* that produces a powerful toxin and can cause severe illness. "VTEC causes a spectrum of disease from diarrhoea all the way up to haemolytic uraemic syndrome, which can be life-threatening", says Anne.

VTEC became known as the 'burger bug' as it was first identified in cattle and undercooked burgers. We know now that products which come directly from animals or secondary products such as milk and crops exposed to potentially contaminated water can all contain VTEC.

"There's been a big change in clinical labs," says Anne, who adds that food labs may be slightly behind. "A lot of food labs don't have the capabilities to carry out ISO 13136 testing because they don't have PCR capabilities."

The standard for the microbiological examination of food and animal feed is ISO 13136:2012. It includes a real-time polymerase chain reaction (PCR)-based method for the detection of food-borne pathogens. The VTEC reference lab has been using PCR for food testing in recent years, but many labs around Ireland still use older plate-based methods.



**DR ANNE
CARROLL**

Regulators are keen to use the most modern methods such as PCR in testing for VTEC. Dr Kaye Burgess from the Teagasc Food Research Centre says: "Using PCR-based methods can increase the sensitivity in comparison to culture-based methods. This is important because VTEC have a very low infectious dose".

VTEC testing methodologies have some limitations. Kaye explains: "There can be difficulties in obtaining an isolate from a PCR-positive sample. Also, improvements are needed in growth media to differentiate VTEC sufficiently. This is particularly the case for non-O157 VTEC."

In recent years, PCR has become much more routine and affordable. It has many potential advantages and would benefit food testing laboratories.



**VTEC
WAS FIRST
IDENTIFIED
IN CATTLE AND
UNDERCOOKED
BURGERS**



PROF CHRIS ELLIOTT

FOOD CRIME PREVENTION CRITICAL, SAYS ELLIOTT

In early September, the UK government published the final report of the Elliott review into the integrity and assurance of food supply networks. Chris Elliott, Professor of Food Safety and Director of the Institute for Global Food Security at Queen's University, Belfast conducted the independent review.

He laid out a national food-crime-prevention framework in the report and described eight pillars of food integrity: Consumers First; Zero Tolerance; Intelligence Gathering; Laboratory Services; Audit; Government Support; Leadership; and Crisis Management.

Following the report's publication, the UK government accepted all its recommendations and said it would set up a new Food Crime Unit. It also plans to introduce improved labelling and traceability guidelines.

Improving public procurement of food and catering services, and introducing a new national food curriculum are also now priorities, said the government.

Download the report here:
<https://www.gov.uk/government/publications>

THE UNKNOWN UNKNOWNS

In a recent Knowledge Networks blog post, Chris called for untargeted testing for adulterants to be introduced on the island of Ireland, particularly given our increasing importance in the world's milk

supply, especially in manufacturing infant formula.

In food safety, he says, the "known knowns" are those compounds that are well-regulated through European directives, such as many veterinary drugs, pesticides, dioxins and polychlorinated biphenyls (PCBs).

'Known unknowns' include chemicals that are included in monitoring programmes, but rarely turn up in samples, such as unlicensed pesticides, illegal beta-agonist drugs or anabolic steroids.

The 'unknown unknowns', however, are not included in monitoring programmes. Searching for these is changing the face of chemical contaminant monitoring, says Chris, and untargeted analysis is gaining in popularity to try to deter the cheats.

In the murky world of food fraud, cheating often involves adding chemicals to food to make it seem of higher quality. Prime examples include Sudan dyes added to spices and melamine added to milk. While these are now 'knowns', the next adulterants the fraudsters will use are still 'unknown'.

Untargeted testing recently found chemical residues in milk exported to Asia. When dicyandiamide was found in New Zealand milk in India, Fonterra, the world's biggest dairy company, described it as "unexpected". The issue hit both Fonterra's bottom line and its reputation.

Read blog post: safefood.ning.com

NANOTECHNOLOGY AN ISSUE FOR CONSUMERS

NANOTECHNOLOGY HOLDS POTENTIAL FOR FOOD PROCESSING AND PACKAGING – INCLUDING DEVELOPMENTS TO FIGHT FOODBORNE PATHOGENS – BUT WILL CONSUMERS BUY INTO IT?



A 2014 REPORT funded by **safe food** highlights the need for more research and engagement with consumers about the use of nanotechnology in food.

Research for the report, 'Nanotechnology in the Agri-food industry on the island of Ireland: applications, opportunities and challenges', was carried out by Queen's University Belfast and Teagasc.

One of its findings was that consumers are more likely to accept nanotechnology in food or packaging when the benefits they value are apparent.

"There has been much investment into nano for food and packaging, but there are still many unknowns," says study co-author Dr Maeve Henchion, Head of the Department of Agri-food Business and Spatial Analysis at Teagasc in Ashtown.

"We did the study because we recognised the importance of engaging with consumers when bringing such technology through the commercialisation stage."

GETTING CONSUMERS' VIEWS

The report included analysis of face-to-face surveys with consumers to examine how they view the use of nanotechnology inside and outside food. [The surveys were originally carried out as part of a Food Institutional Research Measure (FIRM)-funded study on consumer attitudes to novel foods, including nanotechnology.]

The findings suggest that choices about nanotechnology in food or packaging are influenced by how the consumer sees the benefit, explains Maeve.

"In general, given a choice, a consumer would select a product that was produced traditionally rather than with nanotechnology," she says. "But if you explain benefits that a nanotech application could offer to the consumer in terms of health, taste or price, some were willing to trade off the perceived negatives of nanotech for the benefits."

"We want to help consumers make informed decisions," she says. "The food industry needs to take on board what consumers are worried about and use insights from consumers to build trust and transparency."

Read the report: safe food.eu/Publications



MY RESEARCH:

DR MARTA MARTINS, UCD

MARTA IS A RESEARCH FELLOW AT THE UCD CENTRE FOR FOOD SAFETY

CAN YOU BRIEFLY SUM UP YOUR RESEARCH?

I study the way bacteria adapt to stresses along the food chain – how they adapt, why they become resistant and what we could do to avoid that type of adaptation.

ANYTHING NOTABLE ABOUT YOUR METHODOLOGY?

In UCD our molecular microbiology research looks at targeting specific markers in real time. We are moving towards whole genome sequencing, which gives us much more information. Food safety is applying improved technology to identify infections and outbreaks.

DO YOU COLLABORATE WITH OTHER RESEARCHERS?

We work with the University of Edinburgh, Food and Drug Administration in the United States, food industry on the island of Ireland and overseas. We are also collaborating with a food company to understand the microbiome of its production plant.

WHAT ARE THE POTENTIAL PRACTICAL APPLICATIONS OF YOUR RESEARCH?

These involve understanding how bacteria become resistant to the antibiotics and how they are able to adapt and survive to different stress conditions. Based on this, we can possibly identify biomarkers (for example, genes related with efflux systems or specific mutations in target genes) that can be used in the development of strategies to control these bacteria.

I'm also using non-antibiotic adjuvant compounds that can enhance the activity of known antibiotics to overcome resistance. Ultimately, these will allow us to improve safety in the food chain and the community.

WHAT ARE THE BIGGEST CHALLENGES YOU'VE FACED IN DOING THIS RESEARCH?

Research funding in the area of antibiotic resistance doesn't seem to be a priority for major funding agencies in the Republic of Ireland when compared with the UK, despite being a critical issue.

In more practical terms, infrastructure for bioinformatics analysis of "omics data", and relevant industrial and clinical models are also lacking. The models we have available in the laboratory can't always mimic the conditions we have in the environment, veterinary, or human settings.

MARGARET'S LIFE AND LIKES

LIVES: On a farm outside Belfast

HOBBIES: Travelling (Hawaii is a favourite), gardening, walking, Sudoku on the iPad

PETS: Three cats (Sam, Ella and Ernie) and a parrot called Jimmy

FAVORITE TYPE OF BOOK: Crime novels

FAVORITE RADIO SHOW: *The Archers*

INTERESTING FACT: Margaret recently helped to achieve a new Guinness World Record for the longest line of food cans (44,966 cans stretching more than 3.2km!) while attending the International Union of Food Science and Technology 2014 conference in Canada. The food was donated to charity.



“OUR FOOD SUPPLY HERE IS EXTREMELY SAFE IN TERMS OF MICROBIOLOGY”

SURVEYS PREDICT THAT there will be a shortage of talent in the next generation of food scientists and technologists coming through at all levels throughout the food industry,” she says.

A microbiologist with an interest in using hydrostatic pressure to control microbes in food, Margaret is currently business manager for the Sustainable Agri-Food Science Division at the Agri-Food and Biosciences Institute (AFBI) in Belfast, and she is an honorary professor at the School of Biological Sciences at Queen's University Belfast.

IFST (UK) is on the case. Now in its jubilee year, it is putting the focus on the “fantastic future of food” and has just launched Food-Start, which encourages students aged 16 or over to get experience on placement in the food industry. Chef Jamie Oliver has thrown his weight behind the initiative, notes Margaret, who predicts that Food-Start will be a long-lasting legacy.

Another legacy will be IFST (UK)'s newly launched Register for Food Safety Professionals, which Margaret believes will help to ensure the integrity of the food-supply network.

“The register is for all levels in a company, and to be on it you have to go through quite a rigorous assessment,” she says. “This delivers the confidence that the person has the correct qualifications to do the job.”

OFF TO THE PALACE

Earlier this year she was named in the UK Science Council's top 100 list of practising scientists, and, to her delight, was also on Queen Elizabeth's birthday honours list. In January, she will go to Buckingham Palace to receive her OBE for services to the food industry, especially relating to food safety and quality. “That was such a big surprise, I still can't quite believe it,” she says.

Margaret has also provided expert advice to **safefood** from its earliest days, and she currently sits on the **safefood** Scientific Advisory Committee, where she sees the importance of all-island co-operation.

“We are an island, we have a body of sea around us, which gives us some protection against incoming diseases for animal health,” she says.

NO BORDERS FOR BACTERIA

“But within this island, bacteria don't recognise borders, and we need good communication – if an outbreak happened in Newry, people in Dundalk need to know too. I think the all-island dimension has worked well at a scientific level. From the very start, people seemed keen to share information and work together.”

LOOKING TO THE FUTURE

THE FOOD INDUSTRY IS FACING A SHORTAGE OF FUTURE TALENT, ACCORDING TO **PROF MARGARET PATTERSON**, PRESIDENT OF THE INSTITUTE OF FOOD SCIENCE & TECHNOLOGY (IFST) (UK), WHO IS TACKLING THE ISSUE HEAD ON.

So what does she see for the future of the food industry on the island of Ireland? “I think our food supply here is extremely safe in terms of microbiology – though you can never be complacent, of

course,” she says. “And I think the emerging challenges now are obesity, poor nutrition and the need to build up our self-sufficiency and have less complexity in our food supply.”

LISTERIA NETWORK DISCUSSES PRIORITIES

HOW DO YOU ensure that the right people know about the perils of *Listeria monocytogenes*, a tough, hardy bacterium that can cause a form of food poisoning called listeriosis in vulnerable people?

The recent **safefood** Listeria Knowledge Network conference in Dublin highlighted the importance of knowing where and how we need to monitor for *Listeria*, and which consumers and foods are most at risk.

This was the fourth annual conference and it had a strong focus on issues of interest to industry, explains Dr Kieran Jordan, **safefood**'s Listeria Knowledge Network facilitator.

The conference heard how the incidence of reported *Listeria* infections has been rising in Europe, and that, over the past decade, between seven and 13 cases have been notified annually in Ireland, with a spike of 21 in 2007.

Meanwhile, genome analysis of *L. monocytogenes* in a current outbreak in Denmark showed that all 20 people were infected with the same bacterium, the conference heard.

Samples from 40 food processors in the Republic of Ireland showed a general *L. monocytogenes* prevalence of 4.6% (though not all food processors yielded positive samples), the conference learned. Delegates discussed 'challenge trials' to find out how different foods support the growth of *Listeria* as well as the effect of light, sanitisers and cold plasma on *Listeria* survival.

Kieran, a researcher at Teagasc Food Research Centre, Moorepark, Co Cork, hopes the findings highlighted at the conference can now feed into workshops with the food production and processing industry, and that they will ultimately help to inform and protect consumers.

"At the conference, we discussed the need to target particular groups within industry and the population for more education and awareness about *Listeria*," he says. "We will be looking at ways to meet that challenge."



NEW DEVELOPMENTS IN THE CONTROL OF CAMPYLOBACTER



CONFERENCE ATTENDEES ENJOYING THE VISIT TO A BROILER FARM

A NUMBER OF EMERGING OPPORTUNITIES WERE IDENTIFIED AT THE **safe-** **food** CAMPYLOBACTER KNOWLEDGE NETWORKS ANNUAL CONFERENCE EARLIER THIS YEAR

DR DECLAN BOLTON, Principal Research Officer at Teagasc in Ashtown, chaired the conference. He points out that lactic acid was recently approved for use on beef carcasses. "There may be changes to EC legislation permitting chemical decontamination of poultry carcasses in the future."

Campylobacter bacteria are a major cause of foodborne diarrhoeal illness in humans. The infections caused it causes are generally mild, but can be more severe among young children, or elderly and immunosuppressed people.

The European Food Safety Authority (EFSA) estimates that 20 to 30 per cent of these infections result from contaminated broiler meat and 50 to 80 per cent result from the entire chicken reservoir of broilers and laying hens. *Campylobacter* control along the poultry chain, freezing as a critical

control point and training were all discussed on the day.

Consumer acceptance of chicken carcass treatments to reduce *Campylobacter* contamination is an area that requires research. A survey filled out by delegates showed that consumers would accept poultry treated with "clean-label ingredients, citric acid or lactic acid", but were against other treatments.

One of the conference highlights, says Declan, was a visit to Alo Mohan's broiler farm in Co. Cavan. "This was arranged to educate as many stakeholders as possible on broiler production and the limitations of some of the control options."

The delegates suggested that culture-based testing of flocks to determine *Campylobacter* status should cease and be replaced by real-time testing of flocks as close as possible to slaughter. Declan says these proposals haven't been implemented yet, but **safefood**, Teagasc, FSAI and FSA NI hosted a conference in Dublin on Nov 10th, which they hoped would prove a driver for change.

At the conference, those present worked together to progress some issues that were not solved at the event earlier this year, including problems with training and motivation of catching teams, and transport-crate hygiene.

ENSURING READY MEALS ARE PATHOGEN-FREE AND SAFE TO EAT

AS CONVENIENCE TRUMPS the culinary arts in many homes, ready meals are ever more popular. Fortunately, most ready meal producers are extremely alert when it comes to the risk posed by pathogens.

"Awareness of food safety has been a constant for us, particularly as we have grown as a business," says Cullen Allen of Cully and Sully, which outsources the production of its soups, hot pots and pies. "We've never had a food scare and obviously see safety as extremely important to our business."

He says it can be difficult to balance safety concerns with the desire to make great-tasting ready meals. "Safety cooks often take away from the quality, particularly if you're working with sensitive vegetables such as peas, but they are essential," he says.

According to Ita White, who works in food industry development at Teagasc, ready meals producers have the same safety obligations as any food business. "What has made them more newsworthy," she says "is that there have been some recalls in that sector because of pathogens such as *Listeria* being found."

In October 2013, for example, thousands of cases of ready meals made by Reser's in the US had to be recalled due to a *Listeria* scare.

HOW READY MEALS ARE MADE

Ready meal manufacturing operations typically fall into one of three process types, explains Aaron Whiteside, Senior Meat & Fish Technologist at the Loughry campus of the College of Agriculture, Food and Rural Enterprise in Cookstown, Co Tyrone.

The first involves cooking and chilling of components (such as the sauce and carbohydrate) followed by the high care assembly of these along with bought-in precooked meat pieces. A typical example would be a sweet and sour chicken dish with rice.

In the second, the meat is cooked on site, either

as part of the sauce, or separately. This is followed by high care assembly and packing into the primary pack. Spaghetti Bolognese is a good example.

For the third, some products such as lasagnes are assembled from cooked and uncooked components and then go through a final cooking process.

"Across these types of operations the destruction of pathogens through the cooking process, control over the chilling process to minimise opportunities for spore germination and outgrowth, and the prevention of post-cook re-contamination represent the major areas for the management of food safety," says Aaron.

THE RISKS FOR READY MEAL MAKERS

Unsurprisingly, the survival of pathogens such as *Salmonella* and *Listeria* due to inadequate cooking is the primary safety risk Aaron mentions. "Thermal processes are usually designed to reduce *Listeria*, which is the most heat-resistant vegetative pathogen of concern," he says.

Aoife McGowan, Quality Control Manager at Blue Haven Foods, says *Listeria* is the pathogen they focus on above all. "It's the hardest one to kill so we focus on heat treating to make sure our products are kept hot enough for long enough."

Aaron adds that producers must be extremely cautious in ensuring there is no post-cook contamination. "Processing facilities typically include a segregated high care assembly area, with dedicated staffing resources, intensive cleaning and disinfection regimes, and environmental swabbing regimes to verify cleaning effectiveness."

Sound operational procedures are crucial. "Overall, a sound site HACCP plan with good hazard identification and a strong risk assessment is key to managing potential hazards and adopting preventative measures to eliminate or reduce them," he said.



AARON WHITESIDE



UPCOMING EVENTS

safefood Listeria network meeting

Ramada Plaza, Belfast
Nov 26th, 2014

Learn more:
<http://safefood.ning.com/events/listeria-network-meeting>

How secure is our food?

The Mount Business & Conference Centre, Belfast
Nov 28th, 2014

Learn more: safefood.ning.com/events/how-secure-is-our-food

Agriculture and food conference: Implementing Going for Growth

Dunadry Hotel, Co Antrim
Dec 4th, 2014

AgendaNI's annual agriculture and food conference

Find out more: <http://safefood.ning.com/events/agriculture-and-food-conference-implementing-going-for-growth>

43rd Annual Food Research Conference

UCD O'Brien Science Centre, UCD, Dublin 4

Dec 10th-11th, 2014

Learn more: <http://safefood.ning.com/events/43rd-annual-food-research-conference>

Chemical Residues Network 2014 Conference

Wellington Park Hotel, Belfast
Dec 17th, 2014

Recent Advances In Targeted and Untargeted Analysis of Food

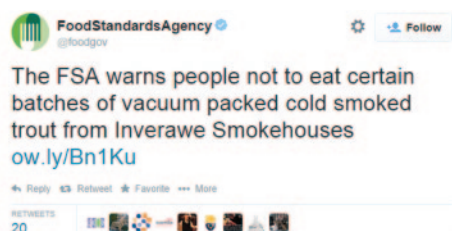
Learn more:
<http://safefood.ning.com/events/chemical-residues-network-2014-conference>

PREDICT OUTBREAKS EARLY WITH SOCIAL MEDIA

Social media is not just for celebrity news and funny pictures of cats. It's also a powerful way for food safety professionals to distribute information on possible risks and identify the spread of outbreaks at an early stage.

Providing accurate and timely information is, of course, crucial in helping to contain disease, protect consumers and avoid losses in food-chain sectors.

The EU-funded FoodRisC project recently published a study that highlighted the value of using social media.



TWEET EARLY AND OFTEN

It was carried out by researchers from Ghent University and University College Dublin, and was co-ordinated by Prof Pat Wall of UCD. It advised that platforms such as Twitter and Facebook were useful for the quick and effective dissemination of information. (Learn more at foodrisc.org.)

Some food safety organisations have already been proactive in this area. Last year, the UK's Food Standards Agency embarked on a listening project on Twitter that it hopes could enable it to predict outbreaks of diseases, such as the winter vomiting bug, earlier than usual.

It found significant correlations between spikes in the number of lab reports of confirmed norovirus cases and spikes in conversations on Twitter that mentioned #winterbug, #norovirus and other keywords.

It also found that spikes in the use of symptom keywords, such as "puke", strongly correlated to future lab cases.

#FOODSAFETY

safefood uses social media to educate consumers, and to engage with scientists and researchers.

Dr Aileen McGloin, Communication Manager, Digital and Health for **safefood**, said, "**safefood** aims to positively affect health-related knowledge, skills, self-efficacy and ultimately consumer behaviour change around food safety.

"The increase in digital, social and mobile media consumption gives us an unprecedented opportunity to connect with individuals on food safety issues.

"Digital gives us the potential to build credibility, trust, collaboration and advocacy, and helps us to encourage behaviour change."

"Engaging in social media is not without risks, but these can be managed. Important first steps include the development of a social media policy and staff guidelines."

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 letters, article ideas, feedback and suggestions to networks@safefood.eu or contact our facilitators:

VTEC Network

Dr Geraldine Duffy, Teagasc Food Research Centre (Ashtown), Dublin
Geraldine.Duffy@teagasc.ie

Campylobacter Network

Dr Declan Bolton, Teagasc Food Research Centre (Ashtown), Dublin
Declan.Bolton@teagasc.ie

Listeria Network

Dr Kieran Jordan, Teagasc Food Research Centre (Moorepark), Co. Cork,
Kieran.Jordan@teagasc.ie

Salmonella Network

Professor Francis Butler, School of Agriculture, University College Dublin.
F.Butler@ucd.ie

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COMPETITION



Answer our trivia questions to win a luxury hamper of gourmet food from the Arcadia Delicatessen in Belfast!

- 1 What type of meat is traditionally used in osso buco?
- 2 What luxury delicacy can be Beluga, Ossetra, Sevruga or Sterlet?
- 3 What is calvados made from?

Send your answers to networks@safefood.eu before **Nov 28th, 2014**. Good luck!