

Sunday 13th August 2017

3.00 – 6.00pm Registration

7.00 – 9.00pm Welcome Reception in the Atrium of the Rochestown Park Hotel

Monday 14th August 2017

8.15 – 9.00am Official Opening

SESSION 1: Meat Sustainability and the Role of Meat Science in a Challenging Global Environment

Chair: Philip Carroll, Meat Industry Ireland

Sponsored by The Department of Agriculture, Food and the Marine, Ireland



9.00 – 9.30am The role of the meat industry in transformation to a low-carbon, climate resilient, sustainable economy.

Keynote Speaker: Frank Rijsberman, Global Green Growth Institute, Republic of Korea

9.30 – 9.55am Underpinning sustainability through science and innovation

Keynote Speaker: Gerry Boyle, Teagasc, Ireland

9.55 – 10.15am The role of Origin Green in ensuring sustainable beef production in Ireland

Keynote Speaker: Pdraig Brennan, Bord Bia, Ireland

10.15 – 11.00am Tea/coffee break and poster/exhibition viewing

SESSION 2: Genomics and Genetics

Chair: Bucky Gwartney, USDA, United States of America

11.00 – 11.30am Animal breeding strategies can improve meat quality attributes within entire populations

Keynote Speaker: Donagh Berry, Teagasc, Ireland

11.30 – 11.45am Can genetics be associated with the high frequency of dark, firm and dry meat in Brazilian Nelore beef cattle?

Alessandra Rosa, University of São Paulo, Brazil

11.45 – 12.00pm Expression of lipogenic genes and transcription factors measured in subcutaneous fat of heifers and bulls at different time points

Ludek Barton, Institute of Animal Sciences, Czech Republic

12.00 – 12.15pm Incorporating computed tomography based predictors of meat quality into a breeding program - Breeding lambs for more taste less waste

Neil Clelland, Scotland's Rural College, Scotland

Congress Programme

Monday 14th August 2017

12.15 – 1.45pm

Lunch and poster/exhibition viewing
Sponsored by University College Cork



Optional Lunchtime Session: Invited Meat Science Papers 1

Chair: Philip Strydom, Agricultural Research Council of South Africa, South Africa

12.55 – 1.10pm

The role of meat in strategies to achieve a sustainable diet lower in greenhouse gas emissions: A review.
Maeve Henchion, Teagasc, Ireland

1.10 – 1.25pm

Sensory capability of young, middle-aged and elderly assessors to identify beef steaks of varying texture.
Paula Conroy, University College Cork, Ireland

1.25 – 1.40pm

Evaluation of beef eating quality by Irish consumers.
Paul Allen, Teagasc, Ireland

SESSION 3: The Science of Meat Quality

Chair: Véronique Santé-Lhoutellier, INRA, France

1.45 – 2.15pm

Application of hyperspectral imaging to predict the pH, intramuscular fatty acid content and composition of lamb
Keynote Speaker: Cameron Craigie, AgResearch, New Zealand

2.15 – 2.30pm

The effect of tenderstretching and electrical stimulation on the tenderness of two alpaca (*vicugna pacos*) muscles
Tamara Biffin, University of Sydney, Australia

2.30 – 2.45pm

Increasing market weight has minimal effect on pork loin quality
Brandon Fields, PIC, USA

2.45 – 3.00pm

Relationship between dietary fat source and beef display life
Felipe Ribeiro, University of Nebraska, USA

3.00 – 3.45pm

Tea/coffee break and poster/exhibition viewing
Sponsored by Enterprise Ireland



Monday 14th August 2017

SESSION 4: Meat Science and Impact

Chair: Eero Puolanne, University of Helsinki, Finland

Sponsored by Elsevier



3.45 – 4.15pm

Meat Science from 1976: a history of the journal

Keynote Speaker: Dave Ledward, University of Reading, UK

4.15 – 4.45pm

Future critical research areas within meat science and technology

Keynote Speaker: Lars Leopold Hinrichsen, Danish Meat Research Institute, Technological Institute, Denmark

4.45 – 5.00pm

Micronutrients of beef meat from pasture and concentrated based production systems

Maria Cabrera Bascardal, Udelar, Uruguay

Special Symposium: Grass Fed Meat – Nurturing Sustainability

Chairs: Cameron Craigie, AgResearch, New Zealand and Declan Troy, Teagasc, Ireland

Sponsored by AgResearch



5.10 – 5.30pm

Sustainability of grass-fed beef production systems

Paul Crosson, Teagasc, Ireland

5.30 – 5.45pm

Sensory characteristics of grass-fed and concentrate-fed beef: An Irish perspective

Aidan Moloney, Teagasc, Ireland

5.45 – 6.00pm

The fatty acid composition of cooked beef from grass-fed and concentrate-fed heifers reared in Ireland

Cormac McElhinney, Teagasc, Ireland

6.00 – 6.20pm

The challenge: Molecular mapping of meat protein modification through processing

Jolon M Dyer, AgResearch, New Zealand

6.20 – 6.35pm

Proteomic and peptidomic differences and similarities between muscle types from New Zealand raised Angus steers

Santanu Deb-Choudhury, AgResearch, New Zealand

6.35 – 6.50pm

Intramuscular fat levels in New Zealand lamb (*m. longissimus lumborum*): Nutritional and sensory implications

Carolina Realini, AgResearch, New Zealand

Congress Programme

Tuesday 15th August 2017

SESSION 5: Future Challenges in Meat Processing - an Asian Perspective

Chair: Maeve Henchion, Teagasc, Ireland

- 9.00 - 9.30am** Technological demands in meat processing in Asia
Keynote Speaker: Guanghong Zhou, Nanjing Agricultural University, China
- 9.30 - 10.00am** Consumer attitudes to eating highly marbled Hanwoo beef in Korea
Keynote Speaker: Seon-Tea Joo, Gyeongsang National University, South Korea
- 10.00 - 10.15am** Tenderness of sirloin beef affected by sous-vide cooking
Soraya Kerdpi boon, King Mongkut's Institute of Technology, Thailand

10.15 - 11.00am Tea/coffee break and poster/exhibition viewing
Sponsored by The Department of Agriculture, Food and the Marine, Ireland



SESSION 6: International Best Practice in Animal Welfare

Chair: Lars Hinrichsen, DMRI, Denmark

Sponsored by The Department of Agriculture, Food and the Marine, Ireland



- 11.00 - 11.30am** Monitoring on-farm welfare problems at the slaughter plant
Keynote Speaker: Temple Grandin, Colorado State University, USA
- 11.30 - 11.45am** Influence of immunocastration on cutting yield, fatness and meat quality of lamb carcasses
Tersia Needham, University of Stellenbosch, South Africa
- 11.45 - 12.00pm** Temperament on feedlot arrival affects performance efficiency and carcass quality in beef cattle
Gordon Carstens, Texas A & M University, USA
- 12.00 - 12.15pm** Reversible electrical head-to-body pre-slaughter stunning of livestock for halal meat production
Mustafa Farouk, AgResearch, New Zealand

12.15 - 1.45pm Lunch and poster/exhibition viewing
Sponsored by Kerry - The Taste and Nutrition Company



Tuesday 15th August 2017

Optional Lunchtime Session: Invited Meat Science Papers 2

Chair: Dave Ledward, University of Reading, UK

12.55 - 1.10pm

The application of carbon monoxide in meat packaging needs to be re-evaluated within the EU: An Overview.

Lauren Van Rooyen, Dublin Institute of Technology & Teagasc, Ireland

1.10 - 1.25pm

Ultrasonic-assisted incorporation of nano-encapsulated omega-3 fatty acids to enhance the fatty acid profile of pork meat.

Shikha Ojha, University College Cork & Teagasc, Ireland

1.25 - 1.40pm

A meta-analysis of the effects of shockwave and high pressure processing on color and cook loss of fresh meat

Minh Ha, University of Melbourne, Australia

SESSION 7: Scientific Advances Underpinning Meat Safety

Chair: Fredi Schwägele, Max Rubner-Institut, Germany

1.45 - 2.15pm

The diversity of beef safety: A global reason to strengthen our current systems

Keynote Speaker: Mindy Brashears, Texas Tech University, USA

2.15 - 2.30pm

Meat factory cell - a concept for the future?

Ole Alvseike, Animalia - Norwegian Meat & Poultry Research Centre, Norway

2.30 - 2.45pm

In vitro evaluation of the competing effect of *Carnobacterium maltaromaticum* isolated from vacuum packed meat against food pathogens

Pedro Henrique Imazaki, University of Liège, Belgium

2.45 - 3.00pm

Risk factors for shedding of shigatoxigenic *E. coli* O157 and O26 in cattle at slaughter

Geraldine Duffy, Teagasc, Ireland

3.00 - 3.45pm

Tea/coffee break and poster/exhibition viewing

Sponsored by Niacet



Congress Programme

Tuesday 15th August 2017

Hot Topics

Chair: Steven Lonergan, Iowa State University, USA

Sponsored by Kerry - The Taste & Nutrition Company



Leading to Better

3.45 - 4.00pm	Meat tenderisation - What we know, what we don't know and what we should know Keynote Speaker: Declan Troy, Teagasc, Ireland
4.00 - 4.15pm	Meat automation using advancing sensing technologies for grading and classification Keynote Speaker: Clyde Campbell, Scott Automation, Australia
4.15 - 4.30pm	Sustainability of smoking and life cycle analysis of CleanSmoke technology Keynote Speaker: Sergiy Smetana, German Institute of Food Technologies, Germany
4.30 - 4.45pm	Smoking technology in meat processing from a future perspective Keynote Speaker: Ralf H. Lautenschlaeger, Ostwestfalen-Lippe University of Applied Sciences, Germany
4.45 - 5.00pm	Clean label ingredient innovations in meat processing Keynote Speaker: Eoin Desmond, Kerry - The Taste & Nutrition Company, Ireland

Wednesday 16th August 2017

Technical and Scenic Tours (see page 21 for more details)

Thursday 17th August 2017

SESSION 9: Emerging Technologies in Meat Processing

Chair: Sergiy Smetana, DIL, Germany

9.00 – 9.30am	Systematic review of emerging and innovative technologies for meat tenderisation Keynote Speaker: Robyn Warner, University of Melbourne, Australia
9.30 – 10.00am	Alternative uses for co-products: Harnessing the potential of valuable compounds from meat processing chains Keynote Speaker: Anne-Maria Mullen, Teagasc, Ireland
10.00 – 10.15am	Quality properties of ground ham cured by atmospheric pressure plasma treatment Juri Lee, Chungnam National University, Korea
10.15 – 11.00am	Tea/coffee break and poster/exhibition viewing

Thursday 17th August 2017

SESSION 10: Consumer Aspects – Marketing & Perspectives

Chair: Rhonda Miller, Texas A & M University, USA

11.00 – 11.30am	Innovation in hard times – Meat or no meat, this is the question Keynote Speaker: Einar Risvik, Nofima, Norway
11.30 – 12.00pm	Meat flavour in pork and beef – From animal to meal Keynote Speaker: Margit Aaslyng, Danish Meat Research Institute, Technological Institute, Denmark
12.00 – 12.15pm	Humans and meat: a story of love and hate Frédéric Leroy, Vrije Universiteit Brussels, Belgium
12.15 – 1.45pm	Lunch and poster/exhibition viewing <i>Sponsored by Meat Technology Ireland</i>



Congress Programme

Thursday 17th August 2017

Optional Session: Flash Orals

Chair: Cristina Botinestean, Teagasc, Ireland

12.50 - 1.00pm

Effect of myoglobin phosphorylation on meat color stability
Xin Li, Chinese Academy of Agricultural Sciences, China

1.00 - 1.10pm

Preliminary trial of a new beef carcass grading system in Argentina
Peter Purslow, Tandil, Argentina

1.10 - 1.20pm

Investigating the use of visible and near infrared spectroscopy to predict sensory and texture attributes of beef *LTL*
Jamie Cafferky, University College Dublin & Teagasc, Ireland

1.20 - 1.30pm

Quantification of neuraminid acids in meat by HPLC-based fluorescence detection using an enzymatically synthesized internal standard
Li Liu, Nanjing Agricultural University, China

1.30 - 1.40pm

Water footprint of Thai beef meat production
Kalaya Boonyanuwat, Department of Livestock Development, Thailand

SESSION 11: Meat Biochemistry

Chair: Dagmar Adeline Brüggermann, Max Rubner-Institut, Germany

1.45 - 2.15pm

Proteomic approach to characterize biochemistry of meat quality defects
Keynote Speaker: Wes Schilling, Mississippi State University, USA

2.15 - 2.45pm

Muscle structure, sarcomere length and influences on meat quality: A review
Keynote Speaker: Eero Puolanne, University of Helsinki, Finland

2.45 - 3.00pm

Biomarkers of tenderness and intramuscular fat in five muscles from French PDO Maine Anjou 2 - prediction of groups of quality
Brigitte Picard, Université de Lyon, France

3.00 - 3.45pm

Tea/coffee break and poster/exhibition viewing
Sponsored by Kepak

KEPAK

Thursday 17th August 2017

SESSION 12: Advancements in Meat Packaging

Chair: Catherine Cutter, Pennsylvania State University, USA

3.45 – 4.15pm	Scientific advances underpinning developments in meat packaging Keynote Speaker: Ken McMillin, Louisiana State University Agricultural Centre, USA
4.15 – 4.45pm	Development of active, nanoparticle, antimicrobial technologies for muscle-based packaging applications Keynote Speaker: M.A. Morris, Trinity College Dublin, Ireland
4.45 – 5.00pm	Meat preservation by an antimicrobial edible coating Eva Santos, Universidad Autónoma del Estado de Hidalgo, México

Friday 18th August 2017

SESSION 13: Meat and Health – Sustaining Healthy Protein Sources

Chair: Stefaan De Smet, Ghent University, Belgium

9.00 – 9.30am	Red meat's role in addressing 'nutrients of public health concern' Keynote Speaker: Kevin Cashman, University College Cork, Ireland
9.30 – 10.00am	Health controversies versus health connections for red meat Keynote Speaker: Carrie Ruxton, Nutrition Communications, UK
10.00 – 10.30am	Physiological responses to meat consumption Keynote Speaker: Eric Berg, North Dakota State University, USA
10.30 – 11.00am	Tea/coffee break and poster/exhibition viewing

Closing Session

11.00 – 11.25am	Carcass classification and grading – key findings and future perspectives Special Address: Paul Allen, Teagasc, Ireland
11.25 – 1.00pm	Congress Discussion & Concluding Remarks Declan Troy, Congress Chair, Teagasc, Ireland
1.00 – 1.30pm	Official Closing of the Congress

1.30 – 2.30pm
Light Lunch
Sponsored by Teagasc, Ireland