

## Sunday 7 August 2011

18:30-19:30 Opening Ceremony

## Monday 8 August 2011

### Parallel Session 1

08:30-10:10 Muscle Biochemistry

- 08:30 001 Differences in myosin heavy chain mRNA expression levels among chicken muscles reflect differences in protein polymerization by transglutaminase**  
Ahmed MA 1,2, Yoshito T 2, Kawahara S 2, Kaneko G 2, Muguruma M 2  
1 Food Technology, Gheran Higher Centre for Agricultural Technologies, Tripoli, Libya; 2 Department of Biochemistry and Applied Biosciences, Faculty of Agriculture, University of Miyazaki, Miyazaki, Japan
- 08:50 002 Phosphoproteomics analysis of postmortem porcine muscle with pH decline rate and time differences**  
Huang H 1, Larsen MR 2, Karlsson AH 1, Lametsch R 1  
1 Department of Food Science, Faculty of Life Sciences, University of Copenhagen, Copenhagen, Denmark; 2 Department of Biochemistry and Molecular Biology, University of Southern Denmark, Odense, Denmark
- 09:10 003 Proteome basis of muscle-specific beef color stability**  
Suman SP 1, Joseph P 1, Li S 1, McClelland KM 1, Rentfrow G 1, Beach CM 2  
1 Department of Animal and Food Sciences, 2 Department of Molecular and Cellular Biochemistry, University of Kentucky, Lexington, Kentucky, USA
- 09:30 004 Adenosine monophosphate-activated protein kinase status modulates kinetics of post-mortem pH decline and meat quality in pig Longissimus muscle**  
Faura J 1,2, Lebret B 1,2, Ecolan P 1,2, Metayer-Coustard S 3, Lefaucheur L 1,2  
1 INRA, UMR1079 Systèmes d'élevage, Nutrition Animale et Humaine, Saint-Gilles, France; 2 Agrocampus Ouest, UMR1079 Systèmes d'élevage, Nutrition Animale et Humaine, Rennes, France; 3 INRA, UR83 Recherches Avicoles, Nouzilly, France
- 09:50 005 Proteolysis may be controlled by postmortem energy metabolism**  
England EM, Scheffler JM, Park S, Kasten SC, Scheffler TL, Zhu H, Fisher KD, Reinholt BM, Van Eyk GR, Stevenson JM, Roberson RC, Gerrard DE  
Department of Animal and Poultry Sciences, Virginia Tech, Blacksburg, USA

### Parallel Session 2

08:30-10:10 Sustainable Meat Production

- 08:30 006 Evaluation of meat quality traits from European pig production systems in relation to sustainability: an approach**  
Gonzalez J 1, Gispert M 1, Gil M 1, Hvid M 2, Dourmad JY 3, de Greef K 4, Fàbrega E 1  
1 IRTA, Spain; 2 Danish Meat Research Institute, Roskilde, Denmark; 3 INRA

Agrocampus Ouest, France; 4 Wageningen UR, Wageningen, the Netherlands

- 08:50 007 Vocalization as a measure of welfare in slaughter pigs at Danish slaughterhouses**  
Støjer S, Sell AM, Christensen LB, Blaabjerg LO, Aaslyng MD  
Danish Meat Research Institute/Danish Technological Institute, Roskilde, Denmark
- 09:10 008 Cattle with more reactive temperaments have lower resting muscle glycogen**  
McGilchrist P 1,2, Cafe LM 1,3, Pethick DW 1,2, Greenwood PL 1,3, Gardner GE 1,2  
1 Australian Cooperative Research Centre for Beef Genetic Technologies, Armidale, NSW, Australia; 2 School of Veterinary & Biomedical Science, Murdoch University, Murdoch, WA, Australia; 3 Industry & Investment NSW, Beef Industry Centre, Armidale, NSW, Australia
- 09:30 009 Differences in Minolta color score and beef tenderness associated with feedlot stress and slaughter method**  
Magolski JD 1, Maddock-Carlin KR 1, Anderson VL 2, Schwartz CA 1, Lepper AN 1, Keller WL 1, Sun X 1, Ilse BR 2, Berg EP 1  
1 Department of Animal Sciences, North Dakota State University, Fargo, ND, USA; 2 Carrington Research Extension Center, North Dakota State University, Carrington, ND, USA
- 09:50 010 Carbon dioxide emissions associated with different post-production beef distribution systems in the United States**  
Raines CR 1, Eurich LN 1, Capper JL 2  
1 The Pennsylvania State University, Department of Dairy and Animal Science, University Park, Pennsylvania, USA; 2 Washington State University, Department of Animal Sciences, Pullman, Washington, USA

**10:10-10:40 Coffee Break**

## **Plenary Session I**

### **10:40-12:10 Muscle Growth & Meat Quality**

- 10:40** Genes influencing muscle development in livestock: past, present and future  
**Charlier Carole, Belgium**
- 11:25** Lessons to learn about postmortem metabolism using the AMPK gamma 3 mutation: the RN pig  
**Gerrard Dave, USA**

**12:10-13:10 Corporate Slot**

**12:30-14:00 Lunch**

#### **Poster Sessions 1-7**

**Poster session 1: Animal Genetics and Meat Quality**

**Poster session 2: Animal Welfare, Slaughter and Meat**

**Poster session 3: Postmortem metabolism and tenderness**

**Poster session 4: Muscle Proteome**

**Poster session 5: Consumer and Sensory Issues**

**Poster session 6: Nutrition and Health Issues**

**Poster session 7: Fish and Seafood**

## Plenary Session II

### 14:00-15:30 Meat Consumption

- 14:00** Consumer behavior and opportunities for new product development  
**Grunert Klaus, Denmark**
- 14:45** Meat and sustainability - What are the key issues and possibilities for improvements  
**Sonesson Ulf, Sweden**

**15:30-16:00 Corporate Slot**

**15:40-16:30 Coffee Break**

**16:00-16:30 Poster Display Sessions 1-7**  
**Poster session 1: Animal Genetics and Meat Quality**  
**Poster session 2: Animal Welfare, Slaughter and Meat**  
**Poster session 3: Postmortem metabolism and tenderness**  
**Poster session 4: Muscle Proteome**  
**Poster session 5: Consumer and Sensory Issues**  
**Poster session 6: Nutrition and Health Issues**  
**Poster session 7: Fish and Seafood**

## Parallel Session 3

### 16:30-17:50 Management of Tenderness

- 16:30 011 Cluster analysis application in research of muscle biochemical determinants for beef tenderness**  
Chriki S 1,2, Garner G 2, Jurie C 1, Picard B 1, Micol D 1, Brun JP 1, Journaux L 3, Hocquette JF 1  
1 INRA UR1213, Saint-Genès-Champanelle, France; 2 Beef CRC Murdoch University, Murdoch, WA, Australia; 3 UNCEIA, Paris Cedex 12, France
- 16:50 012 Prediction equations of beef tenderness: implication of oxidative stress and apoptosis**  
Guillemin N 1, Jurie C 1, Micol D 1, Renand G 2, Hocquette JF 1, Picard B 1  
1 INRA UR1213, Unité de Recherches sur les Herbivores, Theix, Saint-Genès-Champanelle, France; 2 INRA, UR1313 Unité de Génétique Animale et Biologie Intégrative, Jouy-en-Josas, France
- 17:10 013 Small heat shock proteins and tenderness in intermediate pHu beef**  
Lomiwes D 1, Farouk MM 1, Frost DA 1, Dobbie PM 1, Young OA 2  
1 AgResearch Ltd., Ruakura Research Centre, Hamilton, New Zealand; 2 AUT University, Auckland, New Zealand
- 17:30 014 Meat tenderness: aging management of 9 beef muscles**  
Marzin V 1, Tribot Laspiere P 1, Turin F 1, Denoyelle C 2

1 Institut de l'Elevage (French Livestock Institute), Meat quality service, Villers Bocage, France; 2 Institut de l'Elevage (French Livestock Institute), Meat quality service, Paris Cedex 12, France

## Parallel Session 4

### 16:30-17:50 Consumer and Novel Products

- 16:30 015 Canadian consumers' willingness to pay for pork with different attributes**  
Muringai V 1, Moore S 1, Janz J 2, Bruce H 1, Goddard E 1, Anders S 1, Plastow G 1, Ma L 1  
1 Department of Rural Economy, University of Alberta, Alberta, Edmonton, Canada; 2 Department of Agricultural, Food and Nutritional Science, University of Alberta Edmonton, Alberta, Canada
- 16:50 016 The effect of information about beef technologies on consumers' expected and experienced liking of beef**  
Van Wezemael L 1, Verbeke W 1, De Smet S 2, Ueland Ø 3  
1 Ghent University, Department of Agricultural Economics, Ghent, Belgium; 2 Ghent University, Department of Animal Production, Melle, Belgium; 3 Nofima Mat, As, Norway
- 17:10 017 Application of legume flours in low-fat meat product formulations for better consumer acceptance**  
Shand PJ 1, Hong GP 1, Wang H 2, Gerlat M 2, Nickerson M 1, Wanasundara JPD 3  
1 Department of Food and Bioproduct Sciences, University of Saskatchewan, Saskatoon, SK, Canada; 2 Alberta Food Processing Development Centre, Leduc, AB, Canada; 3 Agriculture and Agri-Food Canada, Saskatoon, SK, Canada
- 17:30 018 Effects of lycopene incorporated edible films on oxidative stability of ground beef**  
Ozturk G 1, Candogan K 2  
1 University of California, department of Food Science, Davis, CA, USA; 2 University of Ankara, department of Food Science, Ankara, Turkey

## Tuesday 9 August 2011

### Parallel Session 5

#### 08:30-10:10 Natural antioxidants

- 08:30 019 Dog rose as functional ingredient in ascorbic acid- and nitrite-free porcine Frankfurters**  
Vossen E 1, Utrera M 2, De Smet S 1, Morcuende D 2, Estévez M 2  
1 Department of Animal Production, Faculty of Bioscience Engineering, Ghent University, Belgium; 2 Food Technology Department, Faculty of Veterinary Science, University of Extremadura, Spain
- 08:50 020 Evaluation of the antioxidant potential of artichoke (*Cynara scolymus* L.) extract in raw beef patties**  
Ergezer H, Serdaroglu M, Akcan T  
Ege University, Engineering Faculty, Food Engineering Department, Izmir, Turkey

- 09:10 021 The combination effect of modified atmosphere packaging and the addition of rosemary and organic acids on the storage quality of pre-cooked Hamburg steak refrigerated storage**  
Muhlisin M 1, Kang SM 2, Choi WH 1, Lee KT 3, Cheong SH 4, Lee SK 1  
 1 Department of Animal Products and Food Science, Kangwon National University, South Korea; 2 National Institute of Animal Science, Rural Development Administration, South Korea; 3 Department of Food Processing and Distribution, Gangneung-Wonju National University, South Korea; 4 Geo Food Tech Institute, South Korea
- 09:30 022 Stability of dry fermented sausages enriched in  $\alpha$ -linolenic acid and docosahexanoic acid by a lyophilized antioxidant extract of a *Melissa officinalis* L.**  
García-Íñiguez de Ciriano M, Larequi E, Berasategi I, Astiasarán I, Ansorena D  
 University of Navarra, Dept of Nutrition, Food Science, Physiology and Toxicology, Pamplona, Spain
- 09:50 023 The effect of natural preservatives on the microbial quality, lipid stability and sensory acceptability of boerewors**  
 Mathenjwa SA, Hugo CJ, Bothma C, Hugo A  
 Department of Microbial, Biochemical and Food Biotechnology, University of the

## Parallel Session 6

### 08:30-10:10 Microbiological hazards in meat

- 08:30 024 Occurrence of human enteropathogenic *Yersinia spp.* in pigs and contamination of carcasses during slaughter**  
Van Damme J, De Zutter L  
 Ghent University, Department of Veterinary Public Health and Food Safety, Ghent, Belgium
- 08:50 025 Evaluation of the impact of the refrigerated transport of pig carcasses loaded above 7°C on their microbial quality and safety**  
 Ellouze M 1, Le Roux A 2, Bozec A 2, Garry P 1, Minvielle B 2  
 1 IFIP, Maisons-Alfort, France; 2 IFIP, Le Rheu, France
- 09:10 026 A new tool to control meat products safety: a web based application of predictive microbiology models**  
Delhalle L, Adolphe Y, Crèvecoeur S, Daube G, Clinquart A  
 University of Liège, Faculty of Veterinary Medicine, Department of Food Science, Liège, Belgium
- 09:30 027 Effects of hot water surface pasteurisation on lamb carcasses**  
Hauge SJ 1,2, Wahlgren M 3, Røtterud OJ 1, Nesbakken T 2  
 1 Animalia Norwegian Meat and Poultry Research Centre, Oslo, Norway; 2 Norwegian School of Veterinary Science, Oslo, Norway; 3 Nortura SA, Oslo, Norway
- 09:50 028 Transcriptome analysis of virulence determinants of *Listeria monocytogenes* in vitro and in situ**  
Rantsiou K 1, Greppi A 1, Acquadro A 2, Cocolin L 1  
 1 Agricultural Microbiology and Food Technology Sector, Di.V.A.P.R.A., Faculty of Agriculture, University of Turin, Italy; 2 Agricultural Genetics, Di.V.A.P.R.A., Faculty of Agriculture, University of Turin, Italy

**10:10-10:40 Coffee Break**

## **Plenary Session III**

**10:40-12:10 Meat Proteins**

**10:40** Protein carbonyls in meat systems: a review  
**Estevez Mario, Spain**

**11:25** Peptide biomarkers as a way to determine the origin of meats  
**Sentandreu Miguel, Spain**

## **Corporate Session**

**12:10-13:10 Pfizer Animal Health**



Chairman: de Brabander Hubert, Ghent University, Ghent, Belgium

**12:10 Boart Taint: an update on worldwide results from the use of Improvac®/Improvast®.**  
**Crane John**

**12:25 Meat and Carcass characteristics of Improvac vaccinated pigs**  
**McKeith Floy, University of Illinois, USA**

**12:40 Environmental advantages for the meat sector of producing Improvac pork**  
**Baldo Gian Luca , Life Cycle Engineering, Torino, Italy**

**12:40 Consumer response to pig immunological castration in the EU**  
**Verbeke Wim, Ghent University, Ghent, Belgium**

**12:30-14:00 Lunch**

### **Poster Sessions 8-12**

**Poster session 8: Animal Nutrition effects on Meat Quality**

**Poster session 9: Oxidative Stability of Meat and Meat Products**

**Poster session 10: Microbiological Safety**

**Poster session 11: Boar Taint: Entire Males or Immunocastration**

**Poster session 12: Methods in Meat Science**

## **Plenary Session IV**

**14:00-15:30 Microbiological Meat Safety**

**14:00** Production of safe dry fermented sausages  
**Holck Åskild, Norway**

**14:45** Risk assessment of foodborne pathogens in the meat production chain  
**Messens Winy, Italy**

## Corporate Session

15:30-16:00 Corporate Slot – Purac



15:40-16:30 Coffee Break

16:00-16:30 Poster Display Sessions 8-12

Poster session 8: Animal Nutrition effects on Meat Quality

Poster session 9: Oxidative Stability of Meat and Meat Products

Poster session 10: Microbiological Safety

Poster session 11: Boar Taint: Entire Males or Immunocastration

Poster session 12: Methods in Meat Science

## Parallel Session 7

16:30-17:50 Boar taint: entire males or immunocastration?

- 16:30 029 **Effects of harvest time post-second injection on carcass cutting yields and bacon characteristics of immunologically castrated male pigs**  
Boler DD 1,3, Killefer J 1, Meeuwse DM 2, King VL 2, McKeith FK 1, Dilger AC 1  
1 University of Illinois, Department of Animal Sciences, Urbana, IL, USA; 2 Pfizer Animal Health, Veterinary Medicine Research & Development, Kalamazoo, MI, USA; The Ohio State University, Department of Animal Sciences, Columbus, OH, USA
- 16:50 030 **Effect of androstenone content and information on consumer acceptance of boar meat salami**  
Meier-Dinkel L 1, Frieden L 2, Tholen E 2, Wicke M 1, Mörlein D 1  
1 Department of Animal Sciences, Georg-August University of Göttingen, Göttingen, Germany; 2 Institute of Animal Science, University of Bonn, Bonn, Germany
- 17:10 031 **Comparison of meat quality between barrows, boars and boars vaccinated against gonadotropin-releasing hormone**  
Aluwé M, Millet S, Langendries KCM, Bekaert KM, Tuyttens FAM, De Brabander DL  
Animal Sciences, Institute for Agricultural and Fisheries Research, Melle, Belgium
- 17:30 032 **The use of the hot iron method and U-HPLC-MS/MS analysis for the detection of boar taint**  
Bekaert KM 1,2, Tuyttens FAM 2, De Brabander HF 1, Vandendriessche F 3, Duchateau L 4, Vanhaecke L 1  
1 Research Group of Veterinary Public Health and Zoonoses, Faculty of Veterinary Medicine, Ghent University, Merelbeke, Belgium; 2 Animal Sciences Unit, Institute for Agricultural and Fisheries Research, Melle, Belgium; 3 Imperial Meat Products, Lovendegem, Belgium; 4 Research Group of Physiology and Biometry, Faculty of Veterinary Medicine, Ghent University, Merelbeke, Belgium

## Parallel Session 8

16:30-17:50 Animal Nutrition and Meat Quality

- 16:30 033 **The balance between vitamin E and highly peroxidizable fatty acids in muscle and the oxidative stability of beef from cattle grown on forage- or concentrate-based rations**  
Luciano G 1, Moloney AP 2, Priolo A 1, Röhrle FT 3, Vasta V 1, Biondi L 1, López-

Andrés P 1, Grasso S 1, Monahan F J  
1 DISPA - University of Catania, Catania, Italy; 2 Teagasc, Animal & Grassland Research and Innovation Centre, Grange, Dunsany, Co. Meath, Ireland; 3 School of Agriculture and Food Science, University College Dublin, Dublin 4, Ireland

**16:50 034 Effect of plant extracts combined with vitamin E in polyunsaturated fatty acids-rich diets given to cull cows on lipid oxidation of meats after a 9 month frozen storage**

Gobert M 1,2, Bauchart D 2, Parafita E 3, Durand D 2

1 INRA, Animal Products Quality Unit, Muscle Proteins and Biochemical Group, St-Genès-Champanelle, France; 2 INRA, Herbivore Research Unit, Nutrients and Metabolisms Group, St-Genès-Champanelle, France; 3 ADIV, Process Engineering, Technology and Products Quality Department, Clermont-Ferrand, France

**17:10 035 Natural antioxidants incorporated into Longissimus dorsi muscles of pasture or grain fed steers and their relation to gene expression**

Descalzo AM 1,2, Nanni M 1,2, Gasparovic A 3, Rossetti L 1, Islas-Trejo A 4, Medrano JF 4, Pordomingo A 5

1 Instituto Tecnología de Alimentos, CIA-INTA, Castelar, Argentina; 2 Universidad de Morón, Argentina; 3 Universidad Nacional de Entre Ríos, Argentina; 4 Department of Animal Science, UC-Davis, California, USA; 5 EEA-Anguil, INTA, Argentina

**17:30 036 Volatile compounds of omega-3 enriched Manchego lamb meat stored under modified atmospheres. Effect of supplementing antioxidants**

Rivas-Cañedo A 1, Lauzurica S 2, De la Fuente J 2, López O 1, Pérez C 3, Muiño I 1, Cañeque V 1, Díaz MT 1

1 INIA, department of Food Technology, Madrid, Spain; 2 Complutense University, Faculty of Veterinary Science, Departament of Animal Production, Madrid, Spain; 3 Complutense University, Faculty of Veterinary Science, Departament of Biology, Madrid, Spain

## Thursday 11 August 2011

### Parallel Session 9

#### 08:30-10:10 Nutrition and Health

- 08:30 037 Contents of polycyclic aromatic hydrocarbons (PAH) and phenolic substances in Frankfurter-type sausages in dependence of smoking conditions using glow smoke**  
Pöhlmann M 1, Hitzel A 1, Schwägele F 1, Speer K 2, Jira W 1  
1 Max Rubner-Institut (MRI), Federal Research Institute of Nutrition and Food, Analysis Division, Kulmbach, Germany; 2 Technical University of Dresden, Food Chemistry Department, Dresden, Germany
- 08:50 038 The effects of addition of antioxidants, frying temperature and microwave heating on formation of heterocyclic aromatic amines in pork products**  
Kehlet U, Meinert L, Aaslyng MD  
DMRI, Danish Technological Institute, Department Raw Meat Quality, Roskilde, Denmark
- 09:10 039 Does gastrointestinal digestion affect the (geno)toxic activity of different meats?**  
Vanhaecke L 1, Vanden Bussche J 1, Moore S 2, Pasmans F 3, Van de Wiele T 4, De Brabander H 1  
1 Ghent University, Department of Veterinary Public Health and Food Safety, Laboratory of Chemical Analysis, Merelbeke, Belgium; 2 Liverpool John Moores University, School of Pharmacy and Biomolecular Sciences, Liverpool, United Kingdom; 3 Department of Pathology, Bacteriology and Poultry Diseases, Ghent University, Merelbeke, Belgium; 4 Department of Biochemical and Microbial Technology, Laboratory of Microbial Ecology and Technology, Ghent University, Ghent, Belgium
- 09:30 040 Changes in heme iron content in beef meat during wet heating. Consequences for human nutrition**  
Scislowski V 1, Gandemer G 2,3, Kondjoyan A 4  
1 ADIV, Clermont Ferrand, Cedex 2, France; 2 Inra, Centre de Lille, Péronne, France; 3 Centre d'Information des Viande, Paris cedex 12, France; 4 Inra, UR370 QuaPA, St Genes Champanelle, France
- 09:50 041 Cooked meat calculator; estimating food composition of meat cooked with different types of cooking fat**  
Voogt JA 1, Westenbrink S 2, Verkleij TJ 1  
1 TNO, Functional Ingredients, Zeist, the Netherlands; 2 RIVM, Centre for Nutrition and Health, Bilthoven, the Netherlands

### Parallel Session 10

#### 08:30-10:10 Improved meat Products

- 08:30 042 Functional low fat ground beef patty formulated with a blend of hydrolyzed collagen and beef collagen fibre**  
Michelini RP 1, Lemos ALSC 2, Andrade JC 2, Nadai AC 3, Hagiwara MMH 2  
1 FEA/UNICAMP, Campinas-SP, Brazil; 2 ITAL-Food Technology Institute, CTC-Meat Technology Centre, Brazil; 3 Gelita South America, São Paulo-SP, Brazil
- 08:50 043 The effect of inulin as a prebiotic fibre on organoleptic and technological**

**properties of standard and low fat pork breakfast sausages**

Hayes J, Allen P

Teagasc Food Research Centre, Ashtown, Dublin 15, Ireland

**09:10 044 Strecker aldehydes in dry-cured hams as affected by partial replacement of sodium by potassium, calcium and magnesium**

Armenteros M 1, Toldrá F 2, Aristoy MC 2, Ventanas J 1, Estévez M 1

1 University of Extremadura, Department of Animal Production and Food Science, Cáceres, Spain; 2 Instituto de Agroquímica y Tecnología de Alimentos (CSIC), Paterna, Valencia, Spain

**09:30 045 Effect of the presence or not of nitrate and pH value on colour, Zn-protoporphyrin levels and sensory properties of dry cured ham**

Lorés A 1, Pérez-Beriain T 1, Gratacós M 2, Arnau J 2, Roncalés P 1

1 Department of Animal Production and Food Science, Universidad de Zaragoza, Zaragoza, Spain; 2 Department of Food Technology, IRTA, Monells, Spain

**09:50 046 Spontaneous acidification of fermented sausages is no guarantee for bacterial contribution to the flavour profile**

Janssens M, Myter N, De Vuyst L, Leroy F

Vrije Universiteit Brussel, Research Group of Industrial Microbiology and Food Biotechnology (IMDO), Brussels, Belgium

**10:10-10:40 Coffee Break**

**Plenary Session V**

**10:40-12:10 Meat Fermentation**

10:40 Biodiversity and dynamics of meat fermentations: the contribution of molecular methods for a better comprehension of a complex microbial ecosystem

**Cocolin Luca, Italy**

11:25 Diversity and safety hazards of technological bacteria from traditional fermented products

**Talon Régine, France**

**12:10-13:10 AMSA Slot**

**12:30-14:00 Lunch**

**Poster Sessions 13-17**

**Plenary Session VI**

**14:00-15:30 Meat & Health**

14:00 Intentional & unintentional causes of chemical residues in meat

**Kennedy Glenn, United Kingdom (Northern-Ireland)**

14:45 Red meat and colon cancer: should we all become vegetarians, or can we make meat safer?

**Corpet Denis, France**

**15:30-16:00 ICoMST Contact Persons Meeting**

**15:30-16:30 Coffee Break**

**16:00-16:30 Poster Display Sessions 14-17**

**Poster session 13: Animal Production Effects on Meat quality**

**Poster session 14: Processing and Technology**

**Poster session 15: Enhanced Meat products**

**Poster session 16: Lipids and Fatty Acids**

**Poster session 17: Chemical Safety Issues**

## **Parallel Session 11**

**16:30-17:50 Fatty Acids in Meat**

- 16:30 047 Genetic association of delta-six fatty acid desaturase single nucleotide polymorphic molecular marker and muscle long chain omega-3 fatty acids in Australian lamb**  
Malau-Aduli AEO 1, Bignell CW 1, McCulloch R 2, Kijas JW 2, Nichols PD 3  
1 University of Tasmania, Animal Production & Genetics, School of Agricultural Science/Tasmanian Institute of Agricultural Research, Hobart, Australia; 2 CSIRO Livestock Industries, Brisbane, Queensland, Australia; 3 CSIRO Marine & Atmospheric Research, Omega-3 Food Futures Flagship, Castray Esplanade, Hobart, Australia
- 16:50 048 Effects of DGAT1, FABP4, FASN, PPARGC1A, SCD1, SREBP-1 and STAT5A gene polymorphisms on the fatty acid composition in Fleckvieh bulls**  
Barton L, Bures D, Kott T, Kottova B  
Institute of Animal Science, Prague, Czech Republic
- 17:10 049 The relationship between myofiber type and fatty acid composition in skeletal muscles of Wagyu (Japanese Black) and Holstein cattle**  
Gotoh T 1, Olavanh S 1, Shiota T 2, Shirouchi B 2, Satoh M 2, Albrecht E 3, Maak S 3, Wegner J 3, Etoh K. 1, Shiotsuka Y 1, Hayashi K 1, Ebara F 1, Etoh T 1  
1 Kuju Agricultural Research Center, Faculty of Agriculture, Kyushu University, Japan; 2 Graduate school of Agriculture, Kyushu University, Japan; 3 Leibniz Institute for Farm Animal Biology, Dummerstorf, Germany
- 17:30 050 Trans profile of red blood cells in beef as predictor of trans profile in backfat and muscle tissues**  
Aldai N 1, Rolland DC 2, Dugan MER 2  
1 Instituto de Ganadería de Montaña, CSIC-ULE, León, Spain; 2 Lacombe Research Centre, AAFC, 6000 C&E Trail, Lacombe, Alberta, Canada

## **Parallel Session 12**

**16:30-17:50 Animal Factors and Meat Quality**

- 16:30 051 The role of animal origin and technological factors for the occurrence of destructured zones in cooked ham**  
Müller Richli M 1, Scheeder MRL 1, 2  
1 Swiss college of Agriculture (SHL), department of Animal Science, Zollikofen,

Switzerland; 2 SUISAG, Sempach, Switzerland

**16:50 052 Development of a pork eating quality predictive model for the Australian pork industry**

Channon HA 1,2, Hamilton AJ 2, D'Souza DN 1, Dunshea FR 2

1 Australian Pork Limited, Deakin ACT, Australia; 2 Melbourne School of Land and Environment, The University of Melbourne, Parkville, Australia

**17:10 053 A comparative study of cooked ham volatile compounds of large white and Iberian pig breeds**

Benet I 1,2, Ibañez C 1, Guardia MD 3, Sola J 1, Arnau J 3, Roura E 2

1 LUCTA SA, Barcelona, Spain; 2 CNAFS/QAAFI, University of Queensland, Australia; 3 Tecnologia dels Aliments-IRTA, department of Meat technology, Monells, Spain

**17:30 054 New gourmet pork products by application of the Iberian and Mangalitza breeds**

Straadt IK 1, Aaslyng MD 2, Bertram HC 1

1 Aarhus University, Department of Food Science, Aarslev, Denmark; 2 Danish Meat Research Institute, Roskilde, Denmark

## Friday 12 August 2011

### Parallel Session 13

#### 08:30-10:10 Meat Processing

- 08:30 055 Rheological properties of heat-induced gels of myosin solubilized in a low ionic strength solution containing L-histidine**  
Yoshida Y 1, Hayakawa T 1, Wakamatsh J 1, Iwasaki T 2, Kaneda I 2, Nishimura T 1  
1 Hokkaido University, Graduate school of Agriculture, Hokkaido, Japan; 2 Rakuno Gakuen University, Faculty of Dairy Science, Hokkaido, Japan
- 08:50 056 Effect of sodium replacement on gel strength of heated meat extracts**  
Verkleij TJ, de Jong GAH  
Department of Food Ingredients, TNO Zeist, the Netherlands
- 09:10 057 Influence of HPP conditions on selected lamb quality attributes and their stability during chilled storage**  
McArdle RA, Marcos B, Mullen AM, Kerry JP  
Food Chemistry & Technology Department, Food Research Centre Teagasc, Ashtown, Dublin, Ireland
- 09:30 058 Influence of volume flow rate and knife rotational speeds on the structure of meat emulsions manufactured in a continuous high shear grinder-filler system**  
Irmscher SB, Rühl S, Herrmann K, Gibis M, Weiss J  
Food Physics and Meat Sciences, University of Hohenheim, Stuttgart, Germany
- 09:50 059 A robotic cell for ham deboning**  
Subrin K 1, Alric M 2, Sabourin L 1, Gogu G 1  
1 Clermont Université, IFMA, EA 3867, Laboratoire de Mécanique et Ingénieries, Clermont-Ferrand, France; 2 Association pour le Développement de l'Institut de la Viande, Clermont-Ferrand, France

### Parallel Session 14

#### 08:30-10:10 Spectroscopic and Other Prediction Tools

- 08:30 060 Measuring changes in internal meat colour, colour lightness and colour opacity as predictors of cooking time**  
Pakula C, Stamminger R  
Rheinische Friedrich-Wilhelms-Universität, Household and Appliance Technology Section, Bonn, Germany
- 08:50 061 An accurate and simple computed tomography approach for measuring the lean meat percentage of pig cuts**  
Daumas G, Monziols M  
IFIP Institut du Porc, Le Rheu, France
- 09:10 062 Fourier transform mid infrared spectroscopy as prediction tool for the interaction parameters salt and water activity of meat products**  
Neyrinck E 1, De Smet S 2, Raes K 1  
1 University College West-Flanders, Department of Industrial Engineering and Technology, Research Group EnBiChem, Kortrijk, Belgium; 2 Ghent University,

Faculty of Bioscience Engineering, Laboratory for Animal Nutrition and Animal Product Quality, Ghent, Belgium

**09:30 063 Preliminary investigation on the relationship of Raman spectra of sheep meat with shear force and cooking loss**

Schmidt H 1, Scheier R 1, Hopkins DL 2,3

1 University Bayreuth, Research Centre of Food Quality, Kulmbach, Germany; 2 CRC for Sheep Industry Innovation, Armidale, Australia; 3 Centre for Red Meat and Sheep Development, Industry & Investment (Primary Industries) Cowra, Australia

**09:50 064 Visible spectroscopy and redox potential as alternatives of ultimate pH for cooking yield prediction**

Vautier A 1, Bozec A 1, Gault E 1, Lhommeau T 1, Martin JL 2, Vendevre JL 2

1 IFIP – French institute for pig and pork industry, La motte au Vicomte, Le Rheu Cedex, France; 2 IFIP – French institute for pig and pork industry, Maisons-Alfort Cedex, France

**10:10-10:40 Coffee Break**

**Plenary Session VII**

**10:40-12:10 Innovative Technologies**

**10:40** Rapid spectroscopic techniques for monitoring and control of meat processing and for effective meat science

**Wold Jens Petter, Norway**

**11:25** Automation and meat quality – Global challenges

**Barbut Shai, Canada**

**12:10 -12:40 Closing Ceremony**

# Monday 8 August 2011

## Poster session 1: Animal Genetics and Meat Quality

- P001 Meat quality attributes of Mubende goats and their boar crossbreds**  
Kamatara K 1, Mpairwe D 1, Christensen M 2, Mutetikka D 1, Asizua D 1, Madsen J 2  
Department of Animal Science, Makerere University, Kampala, Uganda; 2 Department of Food Science and Department of Large Animal Sciences, University of Copenhagen, Denmark
- P002 Comparison of venison and beef chemical composition**  
Gramatina I 1, Rakcejeva T 1, Silina L 1, Jemeljanovs A 2  
1 Latvia University of Agriculture, Faculty of Food Technology, Department of Food Technology, Jelgava, Latvia; 2 Agency of Latvian Agricultural Academy, Research Institute of Biotechnology and Veterinary Medicine "Sigra", Sigulda, Rigas region, Latvia
- P003 Assessment of novel pig sire lines for meat quality traits**  
Mitchell CE 1,2, Richardson RI 2, Walling GA 1  
1 JSR Genetics Ltd, Southburn, Driffield, East Yorkshire, UK; 2 School of Clinical Veterinary Science, University of Bristol, Langford, Bristol, UK
- P004 The effects of leptin receptor (LEPR) and melanocortin-4 receptor (MC4R) polymorphisms on fat content, distribution, and composition in a Landrace/Large White x Duroc cross**  
Galve A 1, López MA 2, Burgos C 1, Varona L 1, Rodriguez C 1, López Buesa P 1  
1 Universidad de Zaragoza, Facultad de Veterinaria, Spain; 2 INIA, Departamento de Mejora Genética, Madrid, Spain
- P005 Effect of breed and diet on subcutaneous beef fat fatty acid indices for enzyme activities and nutritional interest**  
Zarlenga M 3, Latimori N 2, Sancho AM 1,3, Pighin DG 1,3,4, Garcia PT 1,3  
1 Instituto Tecnología de Alimentos, Instituto Nacional de Tecnología Agropecuaria - INTA, Buenos Aires, Argentina; 2 Estación Experimental INTA Marcos Juárez, Córdoba, Argentina; 3 Facultad de Agronomía y Ciencias Agroalimentarias, Universidad de Morón, Morón, Argentina; 4 Consejo Nacional de Investigaciones Científica y Técnicas - CONICET, Buenos Aires, Argentina
- P006 Differentiation of Korean native chickens and broilers using volatiles profiling**  
Seo S 1, Jung S 2, Lee JH 2, Park M 3, Ham JS 3, Jo C 2  
1 Chungnam National University, department of Animal Biosystems, Daejeon, Korea; 2 Chungnam National University, department of Animal Science and biotechnology, Daejeon, Korea; 3 National Institute of Animal Science, Suwon, Korea.
- P007 Chemical composition, meat color, Warner-Bratzler shear force, cooking loss, fatty acids composition of Korean Hanwoo beef and Imported Australian Angus and cross beef**  
Cho S  
National Institute of Animal Science, Animal Products Research and Development division, Suwon, South Korea
- P008 Chemical composition, meat color, Warner-Bratzler shear force, total collagen contents, cooking loss and fatty acids composition of Korean Hanwoo beef and Imported New Zealand Angus beef**  
Cho S, Seong P, Kang G, Park B, Jung S, Kim H, Kim Y, Kang S, Kim J, Kim Dh  
National Institute of Animal Science, Animal Products Research and Development division, South Korea
- P009 Possibilities of using rustic pigs to manufacture Salami free of sensory enhancers**  
Bedia M, Serrano R, Bañón S  
Department of Food Science and Technology and Nutrition. Faculty of Veterinary Medicine, University of Murcia, Espinardo, Murcia, Spain
- P010 Influence of genotype on carcass quality of Celta pig breed**  
Lorenzo JM, García-Fontán MC, Carril JA, Cobas N, Purriños L, Franco D  
Meat Technology Center of Galicia, Chromatographic, Ourense, Spain

- P011 Effect of breed and feeding system on fatty acid profile of breast from Mos Corck breed**  
Lorenzo JM, Montes R, Rois D, García-Fontán MC, Purriños L, Franco D  
Meat Technology Center of Galicia, Chromatographic, Ourense, Spain
- P012 Pork quality differences between lines divergently selected for residual feed intake**  
Faure J 1,2, Lefaucheur L 1,2, Bonhomme N 1,2, Brossard L 1,2, Gilbert H 3, Lebret B 1,2  
1 INRA, UMR1079 Systèmes d'élevage, nutrition animale et humaine, Saint-Gilles, France; 2 Agrocampus Ouest, UMR1079 Systèmes d'élevage, nutrition animale et humaine, Rennes, France; 3 INRA, UR0444 Laboratoire de génétique cellulaire, Castanet-Tolosan, France
- P013 Effect of breed cross, production system, aggressive growth implant and feed additive strategies on steer maturity and carcass traits**  
-Campos Ó 1, Juárez M 1, Larsen IL 1, Uttaro B 1, Aalhus JL 1, Basarab JA 2  
1 Meat Research Section, Agriculture & Agri-Food Canada, Lacombe Research Centre, Lacombe, Alberta, Canada; 2 Alberta Agriculture and Rural Development, Lacombe Research Centre, Lacombe, Alberta, Canada
- P014 The study comparison on the quality of Chuncheon Dakgalbi made with Ross broilers, Hy-line brown chicks and white mini broilers meat**  
Lee SK 1, Kim HJ 2, Kang SM 3, Choi WH 1, Muhlisin 1, Ahn BK 4, Kim CJ 4, Kang CW 4  
1 Department of Animal Products and Food Science, Kangwon National University, South Korea; 2 Research Center, Meatbank Co., Ltd., South Korea; 3 National Institute of Animal Science, Rural Development Administration, South Korea; 4 College of Animal Bioscience and Technology, Konkuk University, South Korea
- P015 Meat quality and sensory attributes of two Portuguese bovine breeds, Alentejana and Barrosã, under distinct feeding regimens**  
Costa ASH, Costa P, Alfaia CM, Lopes PA, Lemos JPC, Prates JAM  
Faculdade de Medicina Veterinária, Interdisciplinary Centre of Research in Animal Health, Lisbon, Portugal
- P016 Effects of different chicken breeds as raw materials of Chuncheon Dalkalbi on the quality characteristics and storage quality in combination with modified atmosphere packaging**  
Muhlisin 1, Kang SM 2, Choi WH 1, Lee SK 1  
1 Department of Animal Products and Food Science, Kangwon National University, South Korea; 2 National Institute of Animal Science, Rural Development Administration, South Korea
- P017 Proximate composition of 'Kundi', a Nigeria meat product, from camel meat, compared with 'Kundi' made from 3 breeds of cattle**  
Fakolade PO  
Osun state University, Osogbo, Osun State, Nigeria
- P018 Lipid content of meat and adipose tissue fatty acid composition in Hybro G+ broilers**  
Lilic S 1, Matekalo-Sverak V 1, Baltic ZM 2, Ivanovic S 3  
1 Institute of Meat Hygiene and Technology, Belgrade, Serbia; 2 Faculty of Veterinary Medicine, Belgrade, Serbia; 3 Veterinary Institute of Serbia, Belgrade, Serbia
- P019 Assessment of novel pig sire lines for growth traits**  
Mitchell CE 1, Waite SJ 1, Hopper R 2, Icely S 2, Wallin GA 1  
1 JSR Genetics Ltd, Southburn, Driffield, UK; 2 Harper Adams University College, Newport, Shropshire, UK
- P020 Carcass characteristics of ½ Purunã vs. ½ Canchim bulls finished with 16 or 22 months of age with three different weight**  
Oliveira MG, Pinto AA, Prado IN, Moletta JL  
Universidade Estadual de Maringá, Zootecnia, Maringá, Brazil
- P021 Carcass characteristics of different genetic groups bulls finished in feedlot**  
Pinto AA, Prado IN, Moletta JL, Oliveira MG  
Universidade Estadual de Maringá, Zootecnia, Maringá, Brazil
- P022 Carcass characteristics of Purunã vs. ½ Canchim cattle slaughtered at 16 or 22 months with three different concentrate levels**

- Pinto AA, Prado IN, Moletta JL, Oliveira MG  
Universidade Estadual de Maringá, Zootecnia, Maringá, Brazil
- P023 Effects of IGF-II genotype on chemical characteristics of dry-cured Iberian ham**  
Sánchez del Pulgar J 1, Carrapiso A 2, García C 1  
1 Facultad de Veterinaria de Cáceres, Food Technology, Universidad de Extremadura, Cáceres, Spain; 2 Escuela de Ingeniería Agraria de Badajoz, Food Technology, Universidad de Extremadura, Spain
- P024 Evaluation of molecular marker for meat tenderness in Nellore cattle**  
Balieiro JCC 1, Poleti MD 1, Rosa AF 1, Carita ALG 1, Amaral GO 1, Mattos EC 1, Eler JP 1, Silva SL 2  
1 University of São Paulo (USP), Department of Basic Sciences (ZAB-FZEA), Pirassununga, Brazil; 2 University of São Paulo (USP), Department of Animal Science (ZAZ-FZEA), Pirassununga, Brazil
- P025 The effect of reactivity of Nellore cattle in some meat quality traits**  
Poleti MD 1, Rosa AF 1, Moncau CT 1, Silva VAM 1, Foresti VE 1, Silva SL 2, Balieiro JCC 1  
1 University of São Paulo (USP), Department of Basic Sciences (ZAB-FZEA), Pirassununga, Brazil; 2 University of São Paulo (USP), Department of Animal Science (ZAZ-FZEA), Pirassununga, Brazil
- P026 Live and carcass traits and cut yields from crossbred and purebred Boer whether kid goats**  
McMillin KW 1, Tangkham W 1, Preiss D 2, Cope R 3, Braden K 3  
1 Louisiana State University Agricultural Center, School of Animal Sciences, Baton Rouge, Louisiana, USA; 2 Preiss Family Little Blessings Ranch, Spring Branch, Texas, USA; 3 Angelo State University, Department of Agriculture, San Angelo, Texas, USA
- P027 Amino acid composition analysis of beef, mutton, chevon, chicken and Pork by HPLC method**  
Jorfi R 1, Mustafa S 1,2, Che Man YB 1, 3, Mat Hashim D 1,3, Sazili AQ 4  
1 Halal Products Research Institute, Universiti Putra Malaysia, Selangor, Malaysia; 2 Faculty of Biotechnology and Biomolecular Science, Universiti Putra Malaysia, Selangor, Malaysia; 3 Faculty of Food Science Technology, Universiti Putra Malaysia, Selangor, Malaysia; 4 Department of Animal Science, Faculty of Agriculture, Universiti Putra Malaysia, Selangor, Malaysia
- P028 Effect of double-muscling genotype on animal, carcass and meat quality characteristics from calves of Galician Blond breed**  
González L, Bispo E, Carracedo S, Resch C, Roca A, Moreno T  
Departamento de Producción Animal, Centro de Investigaciones Agrarias de Mabegondo (INGACAL), Coruña, Spain

## **Poster session 2: Animal Welfare, Slaughter and Meat**

- P029 The prevalence of bovine tuberculosis and its economic losses in Rwanda: case study of Saban abattoir at Nyabugogo in the period between 2006-2010**  
Taremwa NK1, Karangwa A 1, Nshimiyimana J 2, Musahara H 3, Kagarama J 4, Mukamisha P 5  
1 Independent Institute of Lay Adventists of Kigali, Department of Rural Development, Kigali, Rwanda; 2 Higher Institute of Agriculture and Animal Husbandry, Department of Veterinary Sciences, Musanze, Rwanda; 3 National University of Rwanda, Economics and Management, Butare, Rwanda; 4 Umutara Polytechnic University, Veterinary Medicine, Nyagatare, Rwanda; 5 Rwanda Animal Resources Development Authority, RARDA, Kigali, Rwanda
- P030 The effect of SmartStretch™ on hot-boned mutton loins**  
Taylor J 1, Hopkins D 1, van de Ven R 2  
1 Industry and Investment NSW, Centre for Red Meat and Sheep Development, Cowra Agricultural Research and Advisory Station, Cowra, New South Wales, Australia; 2 Industry and Investment NSW, Orange Agricultural Institute, Orange, New South Wales, Australia

- P031 Occurrence and aetiology of the ‘wet carcass syndrome’ in sheep in southern Africa**  
Webb EC, Van Niekerk WA  
University of Pretoria, Animal and Wildlife Sciences, Pretoria, South Africa
- P032 Effect of slaughter weight on the quality attributes of meat from Holstein male calf in Argentine**  
Biolatto A 1, Pazos A 2, Vittone S 1, Molto G 3, Monje A 1, Galli I 1, Pighin D 2, Teira G 4, Perlo F 4, Tisocco O 4, Bonato P 4  
1 Estación Experimental Agropecuaria Concepción del Uruguay, Instituto Nacional de Tecnología Agropecuaria (INTA), Entre Ríos, Argentina; 2 Instituto Tecnología de Alimentos, Centro de Investigación de Agroindustria, Instituto Nacional de Tecnología Agropecuaria (INTA), Buenos Aires, Argentina; 3 Laboratorio de Cromatografía, Facultad de Bromatología, Universidad Nacional de Entre Ríos, Entre Ríos - Argentina; 4 Laboratorio de Industrias Cárnicas, Facultad de Ciencias de la Alimentación, Universidad Nacional de Entre Ríos, Concordia, Argentina
- P033 Pre-slaughter handling and slaughtering factors influencing cattle products quality**  
Fakolade PO  
Osun State University, department of Animal Science and Fisheries, Osogbo, Osun state, Nigeria
- P034 The effect of pre-slaughter conditions on creatine kinase levels and the quality of mutton from sheep slaughtered at a low throughput abattoir**  
Chulayo AY, Muchenje V  
Department of Livestock and Pasture Science, Faculty of Science and Agriculture, University of Fort Hare, Alice, South Africa
- P035 Effect of diet and pre-slaughter stress of beef cattle on biochemical profile and physicochemical parameters**  
Pighin D 1,3,4, Davies P 2, Pazos A 1,4, Ceconi I 2, Cunzolo S 3,4, Mendez D 2, Buffarini MA 2, Grigioni G 1,3,4  
1 Instituto Tecnología de Alimentos, Instituto Nacional de Tecnología Agropecuaria - INTA, Morón, Argentina; 2 EEA INTA Gral. Villegas, Buenos Aires, Argentina; 3 Consejo Nacional de Investigaciones Científica y Técnicas - CONICET, Buenos Aires, Argentina; 4 Facultad de Agronomía y Ciencias Agroalimentarias, Universidad de Morón. Morón, Buenos Aires, Argentina
- P036 Meat quality of wild boar (*Sus scrofa*) after live capture by different traps in Sweden**  
Li X 1, Hestvik G 2, Malmsten J 2, Ågren E 2, Felton L 2, Lundström K 1  
1 Swedish University of Agricultural Sciences, Department of Food Science, Uppsala, Sweden; 2 National Veterinary Institute (SVA), Department of Pathology and Wildlife Diseases, Uppsala, Sweden
- P037 Correlations of blood lactate content at exsanguination to objective and subjective tenderness of pork loin**  
Choe JH 1, Choi YM 1, Jung KC 1, Kim JM 2, Hong KC 2, Kim BC 1  
1 Division of Food Bioscience and Technology, College of Life Sciences and Biotechnology, Korea University, Seoul, South Korea; 2 Division of Biotechnology, College of Life Sciences and Biotechnology, Korea University, Seoul, South Korea
- P038 Two new tools for classifying veal meat color in France: the interprofessional 5 classes color scale and the chromameter**  
Evrat Georgel C 1, Ribaud D 2, Normand J 3, Marzin V 4  
1 Institut de l’Elevage (French Livestock Institute), Meat quality department, Paris, France; 2 Institut de l’Elevage (French Livestock Institute), biometrics department, Paris, France; 3 Institut de l’Elevage (French Livestock Institute), Meat quality department, Lyon, France; 4 Institut de l’Elevage (French Livestock Institute), Meat quality department, Villers-Bocage, France
- P039 Some traits of fallow deer and wild boar meat as affected by hunting withdrawal: first results**

- Amici A 1, Contò M 2, Ficco A 2, Primi R 1, Serrani F 1, Failla S 2, Meo Zilio D 2  
1 Tuscia University, department of Animal Production, Viterbo, Italy; 2 Italian Center for Research and Experimentation in Agriculture (CRA), Rome, Italy
- P040 Effect of slaughter weight on sensory meat quality in kids**  
Monge P 1, Lemes J 1,2, Campo MM 1, Guerra V 3, Sañudo C 1  
1 University of Zaragoza, Zaragoza, Spain; 2 Universidade Federal de Pelotas. Campus Universitário, Pelotas, Brasil; 3 Asociación de Criadores de la cabra Bermeya, Cabrales, Asturias, Spain
- P041 Fat cover effects on meat quality attributes of Nellore cattle**  
Silva SL, Gomes RC, Rosa AF, Bonin MN, Leme TMC, Souza JLF, Zoppa LM, Leme PR  
Univesidade de São Paulo, Animal Science, Pirassununga, Brazil
- P042 Phenotypic carcass measurements can explain variance in ultimate pH compliance of beef carcasses**  
McGilchrist P 1,2, Alston CL 3, Thomson KL 4, Gardner GE 1,2, Pethick DW 1,2  
1 Australian Cooperative Research Centre for Beef Genetic Technologies, Armidale, Australia; 2 School of Veterinary & Biomedical Science, Murdoch University, Murdoch, Australia; 3 School of Mathematical Sciences, Queensland University of Technology, Brisbane, Australia; 4 Department of Agriculture & Food of Western Australia, South Perth, Australia
- P043 A new system for sticking control ('vision sticking')**  
Borggaard C, Lykke L, Støier S, Aaslyng MD  
DMRI, Danish Technological Institute, Roskilde, Denmark
- P044 Comparison between computed tomography and dissection for calibrating pig classification methods**  
Daumas G, Monziols M  
IFIP Institut du Porc, Le Rheu, France
- P045 The content of meat – Is there a difference between left and right parts of pig carcasses?**  
Hviid M 1, Erboe S 2, Olsen EV 1,  
1 Danish Meat Research Institute, Measuring Systems and IT, Roskilde, Denmark; 2 Deformalyze ApS, Kgs. Lyngby, Denmark
- P046 Evaluation of ultrasound carcass traits and rump measurements in Nellore cattle**  
Bonin MN 1, Ferraz JBS 1, Silva SL 1, Lanna DPL 2, Manicardi F 1, Gomes RC 1, Santana M 1, Nunes V 1, Novais F 1, Campo JHA 1, Syuffi F 1  
1 College of Animal Science and Food Engineering, Department of Basic Sciences, Brazil; 2 College Agriculture and Animal Science, Department of Animal Science, Brazil
- P047 Blood physiological variables in Piemontese bulls reared under two different management systems**  
Cenci Goga B 1, Moscati L 2, Beghelli D 3, Polidori P 3, Cannizzo FZ 4, Biolatti B 4, Bellino C 4, Barbera S 5  
1 Università degli Studi di Perugia; 2 IZSUM dell'Umbria e delle Marche, Perugia; 3 Università degli Studi di Camerino, Camerino; 4 Dipartimento di Patologia Animale, Università degli studi di Torino, Torino, Italy; 5 Dipartimento di Scienze Zootecniche, Università degli Studi di Torino, Torino, Italy
- P048 Innovations in poultry processing**  
Kranen RW  
Marel Stork Poultry Processing, Research and Development, Boxmeer, the Netherlands
- P049 Physico-chemical characteristics on Sarda suckling lamb meat: effect of sex and weight**  
Manca C, Riu G, Piga C, Scintu MF  
AGRI-Sardegna, Dipartimento per la Ricerca nelle Produzioni Animali, Olmedo, Italy
- P050 Effects of feeding system on PGI "Agnello di Sardegna" heavy lamb meat**  
Acciario M, Manca C, Riu G, Fiori M, Sitzia M, Decandia M  
Agris sardegna, Dipartimento per la Ricerca nelle Produzioni Animali, Sassari, Italy
- P051 Animal welfare and different pre slaughter procedures in Uruguay**  
del Campo M 1, Manteca X 2, Brito G 1, de Lima JM 1, Hernández P 3, Montossi F 1

1 INIA Tacuarembó, Uruguay; 2 Universidad Autónoma de Barcelona, Spain; 3 Universidad Politécnica de Valencia, Spain

**P052 Low voltage electrical stimulation of spent rabbit carcass: physical and structural characteristics**

Apparao V 1, Wilfred Ruban S 2, Kalaikannan A 3

1 Department of Meat Science & Technology, Chennai-7, India; 2 Dept. of Livestock Products Technology, Veterinary College, Hassan-573 201, India; 3 Department of Meat Science & Technology, Veterinary College, Namakkal, India

**Poster session 3: Postmortem metabolism and tenderness**

**Part 1: Energy Metabolism**

**P053 Modelling the decline of pH and temperature during rigor onset**

van de Ven R 1, Pearce KL 2, Hopkins DL 3

1 Industry & Investment NSW (Primary Industries) Orange Agricultural Institute, Orange, Australia; 2 Murdoch University, Division of Veterinary and Biomedical Science, Murdoch, Australia; 3 Industry & Investment NSW (Primary Industries) Centre for Red Meat and Sheep Development, Cowr, Australia

**P054 Assessment of the rate of pH decline of Namibian beef at Meatco Windhoek abattoir**

Karumendu LU 1, Katjivena R 1, Van Den Ven R 2, Hopkins DL 3

1 Meat Corporation of Namibia, Quality Assurance Department, Windhoek, Namibia; 2 New South Wales Department of Primary Industries, Orange Agricultural Institute, Orange, NSW, Australia; 3 Industry & Investment NSW (Primary Industries) Centre for Red Meat and Sheep Development, Cowra, NSW, Australia

**P055 Thigh muscle response of broilers to cold stress in comparison to breast muscle**

Dadgar S 1, Crowe TG 2, Classen HL 3, Shand PJ 1

1 University of Saskatchewan, department of Food and Bioproduct Sciences, Saskatoon, Canada; 2 University of Saskatchewan, department of Agricultural and Bioresource Engineering, Saskatoon, Canada; 3 University of Saskatchewan, department of Animal and Poultry Sciences, Saskatoon, Canada

**P056 Relative contribution of ante- and post-mortem factors to Canadian beef carcass and meat quality**

Juárez M 1, Basarab JA 2, Baron VS 1, López-Campos O 1, Valera M 3, Aalhus JL 1

1 Agriculture and Agri-Food Canada, Lacombe Research Centre, Lacombe, AB, Canada; 2 Alberta Agriculture and Rural Development, Lacombe Research Centre, Lacombe, AB, Canada; 3 Departamento de Ciencias Agroforestales, Universidad de Sevilla, Seville, Spain

**P057 Rapid pre rigor cooling of beef**

Rosenvold K, Kemp R, Taukiri K

AgResearch Ltd, Agri-Foods & Health, New Zealand

**P058 Changes in collagen fractions during PSE meat (Pale, Soft, Exudative) chicken installation**

Marchi DF, Beteto FM, Santos GR, Soares AL, Ida EI, Shimokomaki M

Londrina State University, Departamento de Ciência e Tecnologia de Alimentos, Londrina, Brazil

**P059 The impact of long term grain feeding on glycolytic metabolism of cattle**

Pighin D 2, 3, Warner R 1, Jacob R 4, Beatty D 4, Naththarampatha A 5, Ferguson D 6

1 Food and Nutritional Sciences, CSIRO, Werribee, Australia; 2 Instituto Tecnología de Alimentos, Instituto Nacional de Tecnología, INTA, Morón, Argentina; 3 Consejo Nacional de Investigaciones Científica y Técnicas, CONICET, Buenos Aires, Argentina; 4 Murdoch University, South Street, Murdoch, Western Australia, Australia; 5 Livestock Production Sciences, Department of Primary Industries - DPI, Werribee, Australia; 6 Livestock Welfare, CSIRO Livestock Industries, Armidale, Australia

**P060 Glycolytic –energetical resources as determinants of physico-chemical criteria of pork meat quality**

Zybert A, Koćwin-Podsiadła M, Sieczkowska H, Krzęcio E, Antosik K  
Siedlce University of Natural Sciences and Humanities, Pig Breeding and Meat Science,  
Siedlce, Poland

**P061 Glycolytic –energetical resources as determinants of raw pork meat quality**

Zybert A, Koćwin-Podsiadła M, Sieczkowska H, Krzęcio E, Antosik K  
Siedlce University of Natural Sciences and Humanities, Pig Breeding and Meat Science,  
Siedlce, Poland

## **Part 2: Ageing and Tenderness**

**P062 Colour variation during ageing in Piemontese beef**

Brugiapaglia A, Destefanis G  
Università di Torino, Dipartimento di Scienze Zootecniche, Grugliasco, Torino, Italy

**P063 The superior tenderness of the posterior part of longissimus lumborum from farmed deer was no longer evident after aging**

Craigie CR 1,3, Purchas RW 2, Maltin CA 4, Roehe R 3, Morris ST 1  
1 Institute of Veterinary, Animal and Biomedical Sciences (IVABS) Massey University,  
Palmerston North, New Zealand; 2 Institute of Food, Nutrition and Human Health (IFNHH)  
Massey University, Palmerston North, New Zealand; 3 SAC Sustainable Livestock Systems,  
The Roslin Institute Building, Easter Bush, Midlothian, UK; 4 Quality Meat Scotland, The Rural  
Centre, Inghliston, UK

**P064 Effect of prolonged heat treatments at low temperature on shear force and cooking loss in cows and young bulls**

Christensen L 1, Andersen L 1, Løje H 2, Ertbjerg P 1, Christensen M 1  
1 Faculty of Life Sciences, University of Copenhagen, Frederiksberg C, Denmark; 2 Technical  
University of Denmark, Søtofts Plads, Lyngby, Denmark

**P065 Effect of aging days on tenderness of five muscles from Hanwoo cow with different quality grade**

Park BY, Kang GH, Kim JH, Cho SH, Seong PN, Jeong DW, Jeong SG, Kang SM, Kim HS, Kim DH  
Animal Products Research and Development Division, National Institute of Animal Science,  
Rural Development Administration, Suwon, Korea

**P066 Meat foal colour oxidation during 7 days of ageing**

Sarries MV, Beriain MJ, Insausti K  
Universidad Publica de Navarra, Produccion Agraria, Pamplona, Spain

**P067 Effect of aging time on tenderness and color stability of modified-atmosphere packaged beef from mature cows during shelf life**

Pérez-Juan M 1, Vitale M 2, Lloret E 2, Arnau C 2, Realini CE 2  
1 Carcass and Meat Quality, IRTA, Finca Camps i Armet, Monells, Girona, Spain; 2 Engineering  
and Food Process, IRTA, Finca Camps i Armet, Monells, Girona, Spain

**P068 Beef tenderness could be pH compartmentalised**

Lomiwes D 1, Farouk MM 1, Wu G 1, Young OA 2  
1 AgResearch Ltd., Ruakura Research Centre, East Street, Hamilton, New Zealand; 2 AUT  
University, 34 Saint Paul Street, Auckland, New Zealand

**P069 Meat tenderness of Thai native cattle from different area of Thailand**

Tavitchasri P 1, Uaphattanaphong P 2, Artchawakom C 2, Rakthong M 2, Ngamyeesoon N 3,  
Sethakul J 2  
1 Program in Animal Science, Department of Agricultural Technology, King Mongkut's  
Institute of Technology Ladkrabang, Chumphon Campus, Chumphon, Thailand; 2 Department  
of Animal Production Technology and Fisheries, Faculty of Agricultural Technology, King  
Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand; 3 Department of Plant  
Production Technology, Faculty of Agricultural Technology, King Mongkut's Institute of

Technology Ladkrabang, Bangkok, Thailand.

- P070 Investigation of instrumental tenderness measurements as an indicator of overall pork tenderness**  
Choi MH 1, Choe JH 1, Choi YM 1, Jung KC 1, Lim KS 2, Hong KC 2, Kim BC 1  
1 Division of Food Bioscience and Technology, College of Life Sciences and Biotechnology, Korea University, Seoul, South Korea; 2 Division of Biotechnology, College of Life Sciences and Biotechnology, Korea University, Seoul, South Korea
- P071 Beef meat aged at mild temperature: qualitative and microbiological results**  
Meo Zilio D, Ballico S, Contò M, Chiariotti A, Failla S  
Italian Center for Research and Experimentation in Agriculture, Rome, Italy
- P072 Characterization of antibodies against the connectin/titin 20-kDa fragment increased in chicken sarcoplasm during postmortem aging**  
Yamanoue M, Ueda S, Matsunaga K, Onishi K, Sioyama N  
Kobe University, Graduate School of Agricultural Science, Kobe, Japan
- P073 Biochemical and structural changes promoted by beef meat marination**  
Sharedeh D, Gatellier P, Peyrin F, Astruc T, Daudin JD  
UR370 Qualité des Produits Animaux, INRA, Saint-Genès-Champanelle, France
- P074 Supplementation to improve beta-agonist beef quality - relationship of Vit D3 and 25-hydroxivitamin D3 levels in meat and fat with measured meat tenderness characteristics**  
Frylinck L, Moloto KW, Strydom PE, Modika KY  
Agricultural Research Council-Animal Production Institute, Irene, South Africa

#### Poster session 4: Muscle Proteome

- P075 Calpain and calpastatin activity in porcine longissimus and the red and white portions of the semitendinosus**  
Cruzen SM 1, Paulino PVR 2, Steadham E 1, Huff-Lonergan E 1, Lonergan SM 1  
1 Department of Animal Science, Iowa State University, Ames, Iowa, United States; 2 Department of Animal Science, Universidade Federal de Vicosa, Vicosa, Brazil
- P076 Comparison of biceps femoris muscle proteome in dry-cured Xuanwei ham with different quality grades**  
Wang Z 1, Gao F 1, Wang X 2, Li X 2, Lin Z 2, Ma C 1  
1 College of Food Science and Nutritional Engineering, China Agricultural University, Beijing, China; 2 Dongheng Group, Fuyuan County, Yunnan Province, China
- P077 Proteome changes of beef in Nelore cattle (*Bos indicus*) with different genotypes for tenderness**  
Rosa AF, Eler JP, Silva SL, Gomes RC, Poleti MD, Moncau CC, Carità AG, Oliveira ECM, de Balieiro JC  
College of Animal Science and Food Engineering, University of São Paulo (FZEA/USP), São Paulo- Brazil
- P078 Iron binding ability of phosvitin in ground beef**  
Jung S 1, Jo C 1, Ham JS 2, Ahn DU 3,4, Nam K 5  
1 Chungnam National University, department of Animal Science and Biotechnology, Daejeon, Korea; 2 National Institute of Animal Science, Quality Control and Utilization, Suwon, Korea; 3 Iowa State University, department of Animal Science, Ames, IA, USA; 4 Seoul National University, major in Biomodulation, Seoul, Korea; 5 Suncheon National University, department of Animal Science, Suncheon, Korea
- P079 Muscle characteristics from young bulls of different beef breeds**  
Jurie C, Picard B, Micol D, Lustrat A, Kammoun M, Hocquette J-F  
INRA UR1213, Unité de Recherches sur les Herbivores, Theix, Saint Genès Champanelle, France
- P080 Effects of the inhibitors of calpain MDL-28170 and calpeptin on caspase-3 activity and**

- energy changing of chicken during postmortem ageing**  
Chen L, Chao F, Xu X-L, Zhou G-H  
Key Laboratory of Meat Processing and Quality Control, Ministry of Education, Nanjing Agricultural University, Nanjing, China
- P081 Predicting meat aging using quartz crystal microbalance (QCM)**  
Iwasaki T 1, Taniguti H 1, Tsubota N 1, Kawami S 1, NHotta N 1, Maeda N 2, Yamamoto K 1  
1 Department of Food Science, Rakuno Gakuen University, Japan; 2 Association of Meat Science and Technology Institute, Japan
- P082 Changes in protein composition related to tenderness in bovine longissimus thoracis muscle**  
Hollung K 1, Bjarnadottir SG 1,2, Høy M 1, Færgestad EM 1, Veiseth-Kent E 1  
1 Nofima Mat AS, Ås, Norway; 2 Department of Chemistry, Biotechnology and Food Science, Norwegian University of Life Sciences, Ås, Norway
- P083 The effect of extensive and intensive production systems on the histo-chemical properties of Dohne Merino lamb muscles**  
Hoffman LC 1, Hanekom Y 2, Muller N 2, Brooks N 3, Leygonie C 2  
1 Department of Food Science, 2 Department of Animal Sciences, 3 Department of Physiology, University of Stellenbosch, Stellenbosch, South Africa
- P084 Comparison of connective tissue extracted from bovine Longissimus dorsi and Gluteus medius**  
Slind A, Corno L, Coy D, Chan A, Bruce HL  
University of Alberta, department of Agricultural, Food and Nutritional Science, Edmonton, Alberta, Canada
- P085 Influence of pig breed and slaughter age on cathepsin B + L activity in raw material and dry-cured hams**  
Tessema B 1,2, Storrustløyken L 2,3, Alvseike O 3, Hollung K 1  
1 Nofima Mat AS, Ås, Norway; 2 Norwegian University of Life Sciences, Department of Chemistry, Biotechnology and Food Science, Ås, Norway; 3 Animalia, Oslo, Norway
- P086 High-oxygen modified atmosphere packaging induced a protein polymerization of myosin heavy chain and a decrease in tenderness of ovine M. longissimus during retail display**  
Kim YHB, Bødker S, Rosenvold K  
AgResearch Ltd, AgriFoods & Health, Hamilton, New Zealand
- P087 Correlations between myosin light chain isoforms and glycolytic characteristics in porcine Longissimus Dorsi muscle**  
Choi YM, Choe JH, Jung KC, Kim BC  
Korea University, Division of Food Bioscience and Technology, Seoul, South Korea
- P088 Biochemistry and morphological characterization of intra muscular connective tissue of two contrasting bovine muscles**  
Dubost A, Micol D, Meunier B, Botiaux C, Listrat A  
INRA, UR1213-Herbivores, Theix, Saint-Genès Champanelle, France
- P089 Expression of calpains and calpastatin isoforms, the ratio of calpain/calpastatin in bovine fast and slow type muscles**  
Muroya S 1, Neath KE 2, Nakajima I 1, Oe M 1, Shibata M 3, Ojima K 1, Chikuni K 1  
1 Meat Protein Research Team, National Institute of Livestock and Grassland Science, Tsukuba, Ibaraki, Japan; 2 Meat and Livestock Australia, Hamamatsucho, Minato, Tokyo, Japan; 3 Meat Protein Research Team, National Agricultural Research Center for Western Region, Ohda, Shimane, Japan
- P090 Effect of low voltage electrical stimulation on changes in proteome of bovine longissimus muscle during postmortem aging**  
della Malva A 1, Marino R 1, Grubbs JK 2, Fritch AN 2, Lonergan SM 2, Huff-Lonergan E 2  
1 University of Foggia, Department of Production and Innovation in Mediterranean Agriculture and Food System (PrIME), Foggia, Italy; 2 Iowa State University, Department of Animal Science, Muscle Biology Group, Ames, Iowa, USA

- P091 Age related changes in lipid, collagen and hydroxyppyridinium contents related to bovine Nelore Rhomboideus muscle (*Bos indicus*) texture**  
Pedrão MR 1,2, Yamaguchi MM 1, Coró FAG 1, Alfaro AT 3, Shimokomaki M 1,2  
1 Federal Technological University, Londrina, Paraná, Brazil; 2 Food Science and Technology, Londrina State University, Londrina, Paraná, Brazil; 3 Federal Technological University, Francisco Beltrão, Paraná, Brazil
- P092 Effect of castration on the protein oxidation and colour stability in aged beef**  
Silva AA 1, Melo MP 2, Silva SL 3, Jalbutt TM 1  
1 Engenharia de Alimentos, Faculdade de Zootecnia e Engenharia de Alimentos, Universidade de São Paulo, Pirassununga, SP, Brazil; 2 Departamento de Ciências Básicas, Faculdade de Zootecnia e Engenharia de Alimentos, Universidade de São Paulo, Pirassununga, SP, Brazil; 3 Departamento de Zootecnia, Faculdade de Zootecnia e Engenharia de Alimentos, Universidade de São Paulo, Pirassununga, SP, Brazil
- P093 Muscle protein electrophoretic pattern affected by heating treatment**  
Traoré S 1, Aubry L 1, Kajak-Siemaszko K 2, Gatellier P 1, Przybylski W 2, Jaworska D 2, Santé-Lhoutellier V 1  
1 INRA, UR370 QuaPA, Saint Genes Champanelle, France; 2 Warsaw Agricultural University, Warsaw, Poland
- P094 Myogenic progenitor cells in runt pigs**  
Park S, Zhu H, Kasten SC, England EM, Reinholt BM, Van Eyk GR, Roberson RC, Fisher KD, Scheffler TL, Scheffler JM, Gerrard DE  
Virginia Tech, department of Animal and Poultry Sciences, Blacksburg, VA, USA
- P095 Characterization of porcine satellite cells**  
Zhu H, Park S, Scheffler JM, England EM, Kasten SC, Scheffler TL, Fisher KD, Reinholt BM, Van Eyk GR, Stevenson JM, Roberson RC, Gerrard DE  
Virginia Tech, department of Animal and Poultry Sciences, Blacksburg, VA, US

#### Poster session 5: Consumer and Sensory Issues

- P096 The sensitivity of Flemish citizens to androstenone: fine-tuning the methodology and testing the influence of gender, age, region and smoking habits**  
Bekaert KM 1,2, Tuytens FAM 2, De Brabander HF 1, Vandendriessche F 3, Duchateau L 4, Vanhaecke L 1  
1 Ghent university, Faculty of Veterinary Medicine, Research Group of Veterinary Public Health and Zoonoses, Merelbeke, Belgium; 2 Institute for Agricultural and Fisheries Research, Animal Sciences Unit, Melle, Belgium; 3 Imperial Meat Products, Lovendegem, Belgium; 4 Ghent university, Faculty of Veterinary Medicine, Research Group of Physiology and Biometry, Merelbeke, Belgium
- P097 Electronic tongue applied to beef quality: a first approach**  
Ferraro M, Barbera S  
Dipartimento di Scienze Zootecniche, Università degli studi di Torino, Italy
- P098 Effect of serving temperature on temporal sensory perception of sliced dry-cured ham**  
Fuentes V, Ventanas J, Morcuende D, Estévez M, Ventanas S  
University of Extremadura, Department of Animal Production and Food Science, Cáceres, Spain
- P099 Physico-chemical characteristics and consumer sensory scores of meat from goats supplemented with *Moringa oleifera* lam leaves**  
Moyo B 1, Masika PJ 2, Muchenje V 1  
1 University of Fort Hare, Livestock and Pasture Science, Alice, South Africa; 2 Agricultural and Rural Development Research Institute (ARDRI), University of Fort Hare, Alice, South Africa

- P100 Screening of Japanese sensory descriptors for meat using questionnaire study on Japanese consumers and licensed chefs**  
Sasaki K, Motoyama M  
National Institute of Livestock and Grassland Science, Tsukuba, Japan
- P101 Processed meats and modern life dilemmas**  
Dutra de Barcellos M 1, Grunert KG 2, Scholderer J 2, Perez-Cueto FJA 3  
1 Federal University of Rio Grande do Sul, Post-Graduate Programme in Business Administration (PPGA/UFRGS), Porto Alegre, Brazil; 2 Aarhus University, MAPP Centre for Research on Customer Relations in the Food Sector, Aarhus, Denmark; 3 Ghent University, Department of Agricultural Economics, Ghent, Belgium
- P102 The impact of the technological methods for raw material preliminary preparation on the microstructural and sensory properties formation in canned ready meals**  
Semenova A 1, Kuznetsova T 1, Anisimova I 1, Bogdanova A 1  
V.M. Gorbатов All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Standardization and certification, Moscow, Russia
- P103 Sensory characteristics of dry-cured shoulders: influence of crossbreeding**  
Reina R 1, Ventanas J 1, García-Casco JM 2, López-Buesa P 3, García C 1  
1 University of Extremadura, Department of Food Technology, Caceres, Spain; 2 AECERIBER, Zafra, Spain; 3 University of Zaragoza, department of Animal Production and Food Science, Zaragoza, Spain
- P104 Volatile compounds from Iberian dry-cured shoulders**  
Reina R 1, García C 1, García-Casco JM 2, Silva A 3, Ventanas J 1  
1 University of Extremadura, department of Food Technology, Caceres, Spain; 2 AECERIBER, Zafra, Spain; 3 University of Extremadura, Animal Products Innovation Facility, Caceres, Spain
- P105 Analyzing Tunisian consumer perception towards attributes of meat quality**  
Dhraief MZ, Khaldi R  
Rural Economic Laboratory, INRAT, Tunis, Tunisia
- P106 Consumers' concerns on food safety in France: is it possible to establish a dialogue between citizens and supply chains stakeholders?**  
Sans P 1 3, Verbeke W 2, de Fontguyon G 3, Alessandrin A 4  
1 INP-Ecole Nationale Vétérinaire de Toulouse, Toulouse, France; 2 Ghent University, Ghent, Belgium; 3 INRA-UR1303, Ivry-sur-Seine, France; 4 Agrosémiologue, Ancenis, France
- P107 Why do consumers dislike food additives and what scientists can do? - A study in a Japanese university**  
Miwa M  
Tokyo University of Agriculture, Tokyo, Japan
- P108 The effect of Korean traditional sauces on physicochemical, texture and sensory properties of dry-cured beef ham**  
Pilnam Seong PN, Jeong D, Kang G, Cho S, Park B, Kim J, Jeong S, Kim H, Kim D  
National Institute of Animal Science, Animal Products Research and Development Division, Suwon, South Korea
- P109 Evaluation of dynamic sensory perception of flavour in Iberian pâtés using time-intensity method**  
Lorido L, Fuentes V, Ventanas J, Ventanas S  
University of Extremadura, department of Animal production and food science, Cáceres, Spain
- P110 Effect of *Debaryomyces hansenii* on aroma formation and sensory properties of Turkish dry-fermented sausage "Sucuk"**  
Buyuktas D, Korel F  
Izmir Institute of Technology, Food Engineering Department, Urla, Izmir, Turkey
- P111 Sensory characteristics and chemical composition of Slovenian blood sausage Krvavica**  
Gašperlin L, Skvarča M, Polak T, Lušnic M, Žlender B  
University of Ljubljana, Biotechnical faculty, Food Science and Technology, Ljubljana, Slovenia

- P112 Brazilian citizen an consumer attitudes an preferences regarding broiler breast PSE (Pale, Soft, Exudative) meat**  
Droval AA, Prudencio SH, Benassi VT, Rossa A, Paiao FG, Shimokomaki M  
University State Londrina, Departamento de Ciência e Tecnologia de Alimentos, Londrina, Brazil
- P113 Validation of a photographic tool for assessing consumer perception and acceptability of doneness of beef**  
Chan SH 1, Moss BW 1,2, Farmer LJ 2, Cuskelly GJ 1  
1 School of Biological Sciences, Queens University Belfast, Belfast, Antrim, North Ireland, UK;  
2 Agri-Food and Biosciences institute, Belfast, Antrim, North Ireland, UK
- P114 Sensory characteristics of beef in France and United Kingdom at two cooking temperatures**  
Micol D 1, Chriki S 1, Jurie C 1, Meteau K 2, Juin H 2, Nute GR 3, Richardson RI 3, Hocquette JF 1  
1 INRA-UR1213, Herbivores, Theix, Saint Genès Champanelle, France; 2 INRA-UE1206, EASM, Le Magneraud, Saint Pierre d'Amilly, France; 3 Division of Farm Animal Science, University of Bristol, Langford, UK
- P115 'In vitro' meat – A preliminary examination of Irish consumer acceptance**  
Dillon EJ 1, Greehy G 2, Henchion M 1, McCarthy M 2, McCarthy S 1, Williams G 3  
1 Teagasc Food Research Centre, Ashtown, Dublin 15, Ireland; 2 Department of Food Business and Development, University College Cork, Ireland; 3 School of Biological Sciences, Dublin Institute of Technology, Kevin St., Dublin 2, Ireland
- P116 The role of beef brands for consumers across the Pyrenees**  
Resano H 1, Sanjuán AI 1, Sans P 2, Panella-Riera N 3, Campo MM 4, Khliji S 3, Oliver MA 3, Sañudo C 4, Santolaria P 5  
1 Centre of Agro-food Research and Technology of Aragon, Department of Agro-food Economics and Natural Resources, Zaragoza, Spain; 2 National School of Veterinary, Toulouse, France; 3 IRTA, Product Quality Department, Monells, Spain; 4 Faculty of Veterinary, Department of Animal Production, Zaragoza, Spain; 5 Superior Politechnic School, Department of Animal Production, Huesca, Spain
- P117 Consumers preference for tough chicken meat in Southwestern Nigeria; a review**  
Alabi OM 1, Aderemi FA 1, Ladokun AO 2, Adewumi AA 3  
1 Bowen University, Iwo, Nigeria, Department of Animal Science and Fisheries Management;  
2 University of Agriculture, Abeokuta, Nigeria; 3 Osun-State University, Ejigbo Campus, College of Agric, Nigeria
- P118 Farm animal welfare: citizen attitudes versus consumer behaviour**  
Vanhonacker F, Verbeke W  
Ghent University, Department of Agricultural Economics, Gent, Belgium
- P119 A new methodology on the evaluation of the meat consumption and consumer potential of EU27 and developing countries**  
Hasimoglu S  
Dogtarbesbir, Orhan Serifsoy Cad. Pancar Coop. Binasi, Erzurum, Turkey
- P120 Evaluation of meat taste using taste sensor and sensory evaluation**  
Miki K, Motoni K, Shinobu F  
Graduate school of science & technology, Niigata University, Niigata, Japan

## Poster session 6: Nutrition and Health Issues

- P121 Influence of supplementation organic or mineral Selenium on content Selenium in fresh, cooked, roasted and grilled loin (muscle Longissimus dorsi) and ham**  
Janiszewski P 1, Borzuta K 1, Borys A 1, Grzeškowiak E 1, Strzelecki J 1, Lisiak D 1, Magda F 1, Lisiak B 1, Powatowski K 1, Batorska M 2  
1 Institute of Agricultural and Food Biotechnology, Department of Meat and Fat Research, Warszawa,

- Poland; 2 Department of Pigs Breeding, Faculty of Animal Sciences, Warsaw Agricultural University, Warszawa, Poland
- P122 Effects of cooking and storage on in vitro digestibility of L-carnitine and antioxidant capacity of beef longissimus muscle (*M. Longissimus Dorsi*)**  
Ozge K, Sedef Nehir E  
Ege University, Food Engineering Department, Izmir, Turkey
- P123 Antioxidative and antihypertensive peptides in Iberian dry cured ham**  
Timon ML, Andres AI, Galea EJ, Parra V, Petróñ MJ  
Laboratory of Food Technology, Agricultural Engineering School, University of Extremadura, Spain
- P124 Isolation and purification of angiotensin converting enzyme inhibitory peptidic fractions from freshwater fish muscle protein thermolysin hydrolysate**  
Ghassem M, Babji AS, Said M, Zainon MA  
University Kebangsaan Malaysia, School of Chemical Sciences and Food Technology, Selangor, Malaysia
- P125 Angiotensin converting enzyme inhibitory peptides derived from sarcoplasmic enzymatic hydrolysate of freshwater fish haruan**  
Ghassem M, Babji AS, Said M  
University Kebangsaan Malaysia, School of Chemical Sciences and Food Technology, Selangor, Malaysia
- P126 Analysis and substantiation of cooked sausage formulations for pregnant and nursing women nutrition**  
Aslanova M, Ustinova A, Govor I  
V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Technology of products for children, preventive-curative and specialized products, Moscow, Russia
- P127 Study on the problem of iodine enrichment of food**  
Chernuha I, Vostrikova N, Yushina Y  
V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Standardization and certification, Moscow, Russia
- P128 The direct relationship of processed (cured) meat intake to colon cancer death rates in Europe is limited and involves cooked sausages and minced products rather than raw products**  
Demeyer D, De Smet S  
Ghent University, Department of Animal Production, Ghent, Belgium
- P129 The comparison of meat product's composition "with" and "without" nutritional/health claim available in the Czech Republic market**  
Steinhauserová P 1, Řehůřková I 2, Ruprich J 1,2  
1 University of Veterinary and Pharmaceutical Sciences Brno, Faculty of Veterinary hygiene and Ecology, Department of Milk hygiene and Technology, Brno, Czech Republic; 2 National Institute of Public Health, Brno, Czech Republic
- P130 Nutritive value of emu, *Dromaius novaehollandiae* [Le Souef 1907] managed under tropical conditions**  
Adewumi AA 1, Fakolade PO 2, Alabi OM 3  
1 Osun State University, Ejigbo Campus, Wildlife and Environmental Resources Management, Nigeria; 2 Osun State University, Ejigbo Campus, Animal Science and Fisheries Management, Nigeria; 3 Bowen University, Animal Science and Fisheries Management, Nigeria
- P131 Marketing opportunities for functional meat within the European regulatory framework - Case study: enrichment of meat with Sel-Plex®**  
Kennedy J, Warren H, Nollet L, Thornton J, Thordal Christensen K  
Alltech, Paris, France
- P132 Effect of vegetable oil substituted Wiener consumption on blood lipoproteins levels of rats**  
Kaynakci E 1, Kiliç B 2  
1 Akdeniz University, Serik Higher School of Vocational Education, Antalya, Turkey; 2

- Suleyman Demirel University, Faculty of Engineering and Architecture, Department of Food Engineering, Isparta, Turkey
- P133 Determination and evaluation of bioactive peptides obtained from camel eat treated with Ficin**  
Khatib N, Kadivar M  
Isfahan University of Technology, Department of Food Science, Isfahan, Iran
- P134 Quality grade and degree of doneness effects on nutrient content of beef top loin steaks**  
Smith AM, Harris KB, Haneklaus AN, Savell JW  
Texas A&M University, Meat Science Section, Department of Animal Science, College Station, Texas, USA
- P135 Obtaining nutrient information for beef chuck cuts for a United States database**  
West SE 1, Harris KB 1, Haneklaus AN 1, Savell JW 1, Thompson LD 2, Brooks JC 2, Pool JK 2, Luna AM 2, Engle TE 3, Schutz JS 3, Belk KE 4, Douglass LW 4  
1 Texas A&M University, Meat Science Section, Department of Animal Science, College Station, Texas, USA; 2 Texas Tech University, Department of Animal and Food Sciences, Lubbock, Texas, USA; 3 Colorado State University, Department of Animal Sciences, Fort Collins, Colorado, USA; 4 Consulting Statistician, Longmont, Colorado, USA
- P136 Nutrient analysis of the beef alternative merchandising cuts**  
Desimone TL, Woerner DR, Engle TE, Kendall PA, Belk KE  
Colorado State University, Animal Sciences, Fort Collins, USA
- P137 Isonation and identification of angiotensin I-converting enzyme inhibitory peptide from thermolysin proteolysate of Hanwoo M. longissimus**  
Seol K-H 1, Kim H-J 2, Kwon D-Y 2, Jo C 3, Ham J-S 1, Kim HW 1, Jang A 1, Oh M-H 1, Kim D-H 1, Lee M 4  
1 National Institute of Animal Science, Rural Development Administration, Suwon, Republic of Korea; 2 Korea Food Research Institute; Sungnam, Suwon, Republic of Korea; 3 Department of Animal Science and Biotechnology, Chungnam National University, Daejeon, Republic of Korea; 4 Department of Agricultural Biotechnology & Research Institute for Agriculture and Life Sciences, Seoul National University, Seoul, Republic of Korea
- P138 Isolation and identification of peptide with cancer cell anti-proliferation activity from thermolysin proteolysed Hanwoo M. longissimus**  
Seol K-H 1, Kim H-J 2, Hwang J-T 2, Jo C 3, Ham J-S 1, Kim HW 1, Jang A 1, Oh M-H 1, Kim D-H 1, Lee M 4  
1 National Institute of Animal Science, Rural Development Administration, Suwon, Republic of Korea; 2 Korea Food Research Institute; Sungnam, Suwon, Republic of Korea; 3 Department of Animal Science and Biotechnology, Chungnam National University, Daejeon, Republic of Korea; 4 Department of Agricultural Biotechnology & Research Institute for Agriculture and Life Sciences, Seoul National University, Seoul, Republic of Korea
- P139 Consumer acceptability and preference of cooked ham formulated with soluble fiber**  
Abreu LW 1, Lemos ALCS 1, Silveira ETF 1, Frias BF 2, de Felício PE 3  
1 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil; 2 Corn Products Brasil, São Paulo, Brazil; 3 Department of Food Technology, State University of Campinas, Campinas, SP, Brazil
- P140 Incidence of various process parameters on in vitro protein digestibility of beef meat**  
Hassoun A, Santé-Lhoutellier V, Lebert A, Kondjoyan A, Daudin JD  
UR370 Qualité des Produits Animaux, INRA, Saint-Genès-Champanelle, France
- P141 Consequences of fat trimming in meat cuts on the nutrient supplies for human. Objective information to guide consumer attitudes**  
Gandemer G 1,3, Bauchard D.2, Duchène C 3  
1 Inra, Centre de Lille, 2 chaussée Brunehaut, Estrées Mons, Péronne, France; 2 Inra, Herbivore research unit, St Genes champanelle, France; 3 Centre d'Information des Viande, Tour Mattei, Paris cedex 12, France

## Poster session 7: Fish and Seafood

- P142 Iodine content of raw and processed seafood**  
Erkan N  
Istanbul University, Faculty of Fisheries, Department of Seafood Processing and Quality Control, Istanbul, Turkey
- P143 Mercury levels in muscle tissue of bluefish, anchovy and sardine**  
Özden Ö  
Istanbul University, Department of Seafood Processing and Quality Control, Istanbul, Turkey
- P144 Investigation of chemical, microbiological and sensory properties of ready to eat fish döner kebab manufactured with bluefin tuna**  
Simsek A, Kilic B  
Suleyman Demirel University, Faculty of Engineering and Architecture, Department of Food Engineering, Isparta, Turkey
- P145 2-Peptide bacteriocins of Lactobacillus plantarum NF3 isolated from Nham-pla (traditional Thai indigenous fermented minced fish)**  
Swetwathana A 1, Siripoke S 2, Zendo T 3, Nakayama J 3, Sonomoto K 3  
1 Faculty of Agro-Industry, King Mongkut's Institute of Technology Ladkrabang (KMITL) Bangkok, Thailand; 2 Department of Biology, Faculty of Science, Srinakharinwirot University, Bangkok, Thailand; 3 Laboratory of Microbial Technology, Department of Bioscience and Biotechnology, Faculty of Agricultural Graduate School, Kyushu University, Higashi-ku, Fukuoka, Japan
- P146 Fatty acid profile and cholesterol content in marketable rainbow trout (*Oncorhynchus mykiss*) reared in two aquaculture systems**  
Vranic D 1, Trbovic D 1, Djinic-Stojanovic J 1, Baltic ZM 2, Markovic R 2, Petronijevic R 1, Spiric A 1  
1 Institute of Meat Hygiene and Technology, Belgrade, Serbia; 2 Faculty of Veterinary Medicine, Belgrade, Serbia
- P147 Occurrence of trace elements and organochlorine compounds in farmed rainbow trout (*Oncorhynchus mykiss*)**  
Djinovic-Stojanovic J, Vranic D, Trbovic D, Jankovic S, Petrovic Z, Matekalo-Sverak V, Spiric A  
Institute of Meat Hygiene and Technology, Belgrade, Serbia
- P148 Efficacy of powdered neem (*Azadirachta indica*) leaves as antifungal agent on smoked-dried fillets of African catfish (*Chrysichthys nigrodigitatus*)**  
Ipinmoroti MO 1, Bell JA 2  
1 Osun State University, Department of Animal Science and Fisheries, Osogbo, Nigeria; 2 Olabisi Onabanjo University, Department of Renewable Resources, Ago Iwoye, Nigeria
- P149 Effects of modified atmosphere packaging on the shelf life of gutted rainbow trout (*Oncorhynchus mykiss*) stored at 3 °C**  
Shekarforoush SS, Abbasvali M, Azizi-shirazi A  
School of Veterinary Medicine, Shiraz university, Food Hygiene and Public health, Shiraz, Iran

## Tuesday 9 August 2011

### Poster session 8: Animal Nutrition effects on Meat Quality

- P150 Meat quality of vitamin E enriched beef**  
Nassu RT 1,2, Dugan MER 1, Juárez M 1, Basarab JA 3, Baron VS 1, Aalhus JL 1  
1 Agriculture and Agri-Food Canada, Lacombe Research Centre, C & E Trail, Lacombe, AB, Canada; 2 Embrapa Pecuaria Sudeste, Rodovia Washington Luiz, Sao Carlos, Brazil; 3 Alberta Agriculture and Rural Development, Lacombe Research Centre, Lacombe, AB, Canada
- P151 Effects of fattening methods on the nutrient profile of buffalo in Taiwan**

- Wan TC 1, Lin CY 1, Kuo HY 1, Sakata R 2  
1 Hualien Animal Propagation Station, COA-LRI, Hualien, Taiwan; 2 School of Veterinary Medicine, Azabu University, Sagamihara, Japan
- P152 Effects of phytoterapic diet supplementation on carcass traits and meat quality of Blonde d'Aquitaine steers**  
Tassone S, Fortina R, Cornale P, Battaglini LM, Barbera S  
University of Turin, Dipartimento di Scienze Zootecniche, Grugliasco, Italy
- P153 Effect of feeding management and slaughter weight on carcass and meat quality of finishing bulls**  
Fiems LO, De Boever JL, De Campeneere S, De Brabander DL  
ILVO Animal Sciences Unit, Melle, Belgium
- P154 Meat quality, sensory properties and oxidative stability of pork after dietary supplementation of sage, lemon balm and oregano extract**  
Bahelka I 1, Nuernberg G 2, Kuechenmeister U 2, Nuernberg K 2  
1 Animal Production Research Centre, Luzianky, Slovakia; 2 Research Institute for the Biology of Farm Animals, Dummerstorf, Germany
- P155 Finisher pig diet and sex affect the sensory acceptability of Australian pork for the Japanese market**  
D'Souza DN 1, Dunshea FR 2, Mullan BP 3  
1 Pork Limited, Deakin West, Australia; 2 The University of Melbourne, School of Land and Environment, Parkville, Victoria, Australia; 3 Department of Agriculture and Food, Bentley Delivery Centre, Australia
- P156 Effect of fattening regime on behavior, production and meat quality in lambs**  
Aguayo L 1, Fuchs K 1, Miranda-de la Lama G 1, Lemos D 1, Olleta JL 1, Villaruel M 2, María GA 1  
1 Department of Animal & Food Science, University of Zaragoza, Spain; 2 Department of Animal Science, ETSIA, Polytechnic University of Madrid, Spain
- P157 Dietary rosemary extract extends the shelf life of cooked lamb under retail display conditions**  
Bañón S, Méndez L, Almela E  
University of Murcia, Department of Food Science and Technology and Nutrition, Murcia, Spain
- P158 Meat quality from the cattle raised with organic and conventional diet**  
Imanari M 1, Yonai M 1, Muramoto T 2, Higuchi M 3, Shiba N 1, Watanabe A 1  
1 Grazing and Meat Production Research Team, Tohoku National Agricultural Research Center, Morioka, Japan; 2 Iwate University, department of Animal Science, Morioka, Japan; 3 Functional Food Research Team, National Institute of Livestock and Grassland Science, Nasushiobara, Japan
- P159 Effect of illite addition on growth performance, carcass characteristics and meat quality traits of barrows**  
Choi JS, Jung DS, Park SH, Kim KS, Choi YI  
Department of Animal Science, Chungbuk National University, Cheongju, South Korea
- P160 Supplementation of vitamin d3 to improve texture and oxidative stability of beef loins from steers treated with the beta agonist, zilpaterol hydrochloride**  
Strydom PE 1, Hansen S 2, Frylinck L 1, Moloto KW 1, Hope-Jones M 1  
1 Animal Production Institute, Agricultural Research Council of South Africa, Pretoria, South Africa; 2 Food Chemistry, Department of Food Science, Faculty of Life Sciences, University of Copenhagen, Frederiksberg, Denmark
- P161 Changes in husbandry practices: from browsing based production systems towards intensive systems. Consequences on the nutritional quality of goat kid meat lipid fraction**  
Quaresma MAG, Rodrigues I, Trigo Alves SP, Bessa RJB  
Faculdade de Medicina Veterinária, CIISA, Avenida da Universidade Técnica, Lisbon, Portugal

- P162 Increased beef oxidation from feeding wet distillers grains with solubles is not caused by the solubles fraction**  
Varnold KA, Calkins CR, Haack AL, Hergenreder JE, Pokharel S, Senaratne LS, Pesta AC, Erickson GE  
University of Nebraska-Lincoln, Animal Science, Lincoln, United States
- P163 A comparison of wheat versus corn-based dried distillers' grains plus solubles and their combination on the quality of raw and cooked beef semimembranosus roasts**  
Stoll LC 1, McKinnon JJ 2, Shand PJ 1  
1 Department of Food and Bioproduct Sciences, University of Saskatchewan, Canada; 2 Department of Animal and Poultry Science, University of Saskatchewan, Canada
- P164 Effect of breed and dietary protein and lysine levels on pork quality traits**  
Madeira MS, Costa P, Alfaia CM, Lopes PA, Bessa RJB, Lemos JPC, Prates JAM  
CIISA, Faculdade de Medicina Veterinária, Lisbon, Portugal
- P165 Influence of crude glycerin inclusion in the diet, genetic group and postmortem aging time on color of three bovine muscles**  
Oliveira IM 1, Paulino PVR 1, Monnerat JPIS 1, Serão NVL 2, Couto VRM 1, Duarte MS 1, Mezzomo R 1, Silva LHP 1, Moura LS 1, Teixeira CRV 1  
1 Universidade Federal de Viçosa, Department of Animal Science, Viçosa, Brazil; 2 University of Illinois, Department of Animal Sciences, Urbana-Champaign, USA
- P166 Carcass and meat characteristics of crossbred lambs fed different starch sources**  
Vidal MP 1, Aferrri G 2, Silva SL 1, Felício PE 3, Guizzo MM 3, Corte RRPS 1, Pereira ASC 1  
1 Universidade de São Paulo, Brazil; 2 Agência Paulista de Tecnologia dos Agronegócios, Brazil; 3 Universidade Estadual de Campinas, Brazil
- P167 Quality of omega-3 enriched Manchego lamb meat through refrigerated storage under modified atmospheres. Effect of supplementing antioxidants**  
Cañeque V 1, Muiño I 1, Perez C 2, Díaz MT 1, Lauzurica S 3, López O 1, Rivas-Cañedo A 1, De la Fuente J 3  
1 INIA, department of Food Technology, Madrid, Spain; 2 Complutense University, Faculty of Veterinary Science, department of Animal Production, Madrid, Spain; 3 Complutense University, Faculty of Veterinary Science, department of Biology, Madrid, Spain
- P168 Feed and breed influence on meat quality and shelf life of beef**  
Morales A, García-Valverde R, Gómez-Laguna J, Fernández L, Hernández M  
Centro de Investigación y Calidad Agroalimentaria del Valle de los Pedroches, CICAP, Pozoblanco, Córdoba, Spain
- P169 Effect of dietary antioxidant on meat quality under heat stress condition**  
Yoshinori H, Motoni K, Shinobu F  
Graduate School of Science and Technology, Niigata University, Niigata, Japan
- P170 The use of restricted grain supplementation to promote simultaneously beef production and healthy meat under grazing conditions**  
Montossi F, Luzardo S, Cuadros R, Brito G, San Julián R, Silveira C, del Campo M  
National Institute of Agricultural Research, INIA Tacuarembó, Tacuarembó, Uruguay
- P171 Could supplement type affect lamb performance, carcass and meat quality traits under grazing conditions?**  
Montossi F, Silveira C, Luzardo S, Brito G, De Barbieri I, San Julián R  
National Institute of Agricultural Research, INIA Tacuarembó, Tacuarembó, Uruguay
- P172 Effect of grazing in the latter fattening period on the nutrient content and gene expression in steer muscle**  
Shibata M 1, Matsumoto K 1, Hikino Y 1, Muroya S 2, Oe M 2, Nakajima I 2, Ojima K 2, Chikuni K 2  
1 National Agricultural Research Center for Western Region, Shimane, Japan; 2 National Institute of Livestock and Grassland Science, Tsukuba, Ibaraki, Japan
- P173 Different levels of protein in the first winter may affect the meat quality of Uruguayan steers finished on pastures or grass?**

Brito G 1, San Julián R 1, del Campo M 1, Lagomarsino X 1, La Manna A 2, Tieri M 2, Banchemo G 2, Montossi F 1  
1 INIA Tacuarembó, National Meat and Wool Program, Tacuarembó, Uruguay; 2 INIA La Estanzuela, National Meat and Wool Program, Colonia, Uruguay

## Poster session 9: Oxidative Stability of Meat and Meat Products

### Part 1: Oxidation Phenomena

**P174 Effect of maillard reaction products (MRPs) on lipid oxidative profile of irradiated meat products**

Jayathilakan K, Khudsia Sultana, Radhakrishna K, Bawa AS  
Defense Food Research Laboratory, Defense Research & Development Organization, Mysore, Karnataka, India

**P175 Changes in quality characteristics of ready-to-eat Ginseng chicken porridge during storage at 25°C**

Jang DH, Lee KT  
Gangneung-Wonju National University, Department of Food Processing and Distribution, Gangneung, Rep. of Korea

**P176 Antioxidant status and lipid peroxidation in the muscle of German Simmental and German Holstein bulls fed n-3 and n-6 PUFA-based diets**

Dannenberger D 1, Nuernberg K 1, Mahecha L 2, Nuernberg G 1  
1 Leibniz Institute for Farm Animal Biology Dummerstorf, Dummerstorf, Germany; 2 Grupo Grica, Facultad de Ciencias Agrarias, Universidad de Antioquia, Medellin, Colombia

**P177 Study by RP-HPLC of low molecular weight peptides (3<kDa) in Iberian chorizo, their antioxidative power and effect in oxidative stability of the products**

Timón ML, Broncano JM, Galea EJ, Andrés AI, Petróon MJ  
Laboratory of Food Technology, Agricultural Engineering School, University of Extremadura, Spain

**P178 Conversion of met-myoglobin directly to oxy-myoglobin by mitochondria from pork muscle (M. masseter) and liver**

Slinde E 1,2, Phung V 2, Egelanddsdal B 2  
1 Institute of Marine Research, Nordnes, Bergen, Norway; 2 Department of Chemistry, Biotechnology and Food Science, Norwegian University of Life Sciences, Ås, Norway

**P179 Study on the influence of low temperature treatment of meat raw material on the volatile components composition by multisensor analysis and chromatomassspectrometry**

Semenova A, Kuznetsova T, Bogdanova A, Ivankin A  
V.M. Gorbатов All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Standardization and certification, Moscow, Russia

**P180 Formation of thiol-quinone adducts in myofibrillar proteins - an antioxidative mechanism?**

Jongberg S 1, Lund MN 1, Waterhouse AL 2, Skibsted LH 1  
1 Department of Food Science, University of Copenhagen, Frederiksberg, Denmark; 2 Department of Viticulture and Enology, University of California, Davis, California, USA

**P181 Effect of hot boning on colour stability and antioxidant enzyme activities in beef inner and outer biceps femoris**

Pastsart U, De Boever M, Lescouhier S, Claeys E, De Smet S.  
Ghent University, department of Animal Production, Melle, Belgium

**P182 Composition and antioxidative properties of mechanically deboned chicken meat hydrolysates**

Li M-J, Liu D-C, Tan F-J  
National Chung Hsing University, Department of Animal Science, Taichung, Taiwan

**P183 Oxidative stability of organic pig meat**

- Karwowska M, Dolatowski ZJ  
University of Life Sciences in Lublin, Department of Meat Technology and Food Quality, Lublin, Poland
- P184 Effect of pulsed magnetic field on microbiological quality and lipid oxidation of minced beef meat during refrigerated storage**  
Lins PG 1, Jalbut TM 1, De Mello TBH 1, Silva AA 1, Costa EJX 2, De Melo MP 2  
1 University of Sao Paulo, Faculty of Zootechnology and Food Engineering, Department of Food Engineering, Pirassununga, Brazil; 2 University of Sao Paulo, Faculty of Zootechny and Food Engineering, Department of Basic Science, Pirassununga, Brazil
- P185 Oxidative status, vitamin B12 and sensory characteristic changes of pre-sliced map packaged dry-cured Parma ham**  
Sacconi G 1, Toscani T 2, Virgili R 1  
1 SSICA-Experimental Station for the Food Preservation Industry, Parma, Italy; 2CPP, Consorzio del prosciutto di Parma, Parma, Italy
- P186 Antioxidant enzymes activity in meat of poultry fed selenium supplemented diet**  
Descalzo AM 1,2, Gallinger CI 3, Rossetti L 1, Sancho AM 1,2, Iglesias B 4, Azcona JO 4  
1 Instituto Tecnología de Alimentos, CIA-INTA, Castelar, Argentina; 2 Universidad de Morón, Argentina; 3 EEA-Concepción del Uruguay, INTA, Argentina; 4 EEA-Pergamino, INTA, Argentina
- P187 Role of catechin against collagen oxidation: a NMR approach**  
Lucarini M, D'Evoli L, Sciuba F, Delfini M, Lombardi Boccia G  
INRAN, Food Chemistry, Rome, Italy

## Part 2: Antioxidants

- P188 Avocado as a functional ingredient in porcine patties: effect of protein carbonylation**  
Utrera M 1, Rodriguez-Carpena G 2, Morcuende D 1, Estévez M 1  
1 University of Extremadura, Dep. Animal production and food science, Cáceres, Spain; 2 Autonomous University of Nayarit, Faculty of Veterinary, Mexico
- P189 Avocado phenolics inhibit the oxidation of cholesterol in porcine patties**  
Rodríguez-Carpena J-G 1, Morcuende D 2, Petron MJ 3, Estévez M 2  
1 Faculty of Veterinary, Autonomous University of Nayarit, Mexico; 2 Food Technology, Faculty of Veterinary, University of Extremadura, Spain; 3 Laboratory of Food Technology, Agricultural Engineering School, University of Extremadura, Spain
- P190 Use of a commercial protease to increase oxidative stability of Iberian chorizo**  
Petrón MJ, Broncano JM, Martín L, Parra V, Timon ML  
Laboratory of Food Technology, Agricultural Engineering School, University of Extremadura, Spain
- P191 Stabilization of the colour of modified atmosphere packaged chilled vial by natural antioxidant dihydroquercetin**  
Staykov AS 1, Dragoev SG 2, Vassilev KP 3, Balev DK 2  
1 Bulgarian Agency of Food Safety, District Office of Food Safety, Pazardjik, Bulgaria; 2 University of Food Technologies, Technological Faculty, Department of Meat and Fish Technology, Plovdiv, Bulgaria; 3 University of Food Technologies, Technological Faculty, Department of Food Preservation and Refrigeration, Plovdiv, Bulgaria
- P192 Evaluation of nitrite, colour and rancidity in porcine cooked sausages prepared with rose-hips' extracts**  
Armenteros M 1, Ventanas S 1, Viguera J 2, Morcuende D 1, Estévez M 1  
1 Universidad de Extremadura, Facultad de Veterinaria s/n. 10071 Cáceres, Spain; 2 Imasde Agroalimentaria, Pozuelo de Alarcón, Madrid, Spain
- P193 Effects of *Rhus verniciflua* Stokes extract, gallic acid, and fisetin on the lipid, protein, and myoglobin oxidation in Hanwoo (Korean cattle) beef model system**

- Kang SM 1, Cho S 1, Kim DH 1, Lee SK 2  
1 National Institute of Animal Science, Rural Development Administration, Suwon, Korea; 2 Department of Animal Products and Food Science, Kangwon National University, Chuncheon, Korea
- P194 Effect of addition of *Rhus verniciflua* Stokes extract and Gallic acid on the quality characteristics of Han woo (Korean cattle) beef patties stored in high oxygen-modified atmosphere package**  
Kang SM 1, Muhlisin 2, Choi WH 2, Cho SH 1, Kim DH 1, Lee SK 2  
1 National Institute of Animal Science, Rural Development Administration, Suwon, Korea; 2 Department of Animal Products and Food Science, Kangwon National University, Chuncheon, Korea
- P195 Evaluation of grape seed extract as antioxidant in hamburgers**  
González RM, Temperán S, Lorenzo JM, Montes R, Bermúdez R, Franco D  
Meat Technology Centre of Galicia, Physicochemical Department, Ourense, Spain
- P196 Effect of grape seed extract on colour, sensory properties and oxidative stability of beef**  
Gómez I, Insausti K, Marín R, Mendizábal JA, García S, Sarriés MV, Zudaire G, Beriain, MJ  
Escuela Técnica Superior de Ingenieros Agrónomos, Universidad Pública de Navarra (UPNA), Campus de Arrosadía, Pamplona, Spain
- P197 Effects of goldenrod (*Solidago virgaurea*) leaf and stem extracts on oxidative stability in cooked ground pork during chilled storage**  
Choe JH 1, Choi YS 2, Kim H. Y. 2, Han D. J.1, Kim YJ 1, Jung HK 3, Kim CJ 1  
1 Konkuk University, Department of Food Science and Biotechnology of Animal Resources, Seoul, Republic of Korea; 2 Konkuk University, Research Institute for Meat Science and Culture, Seoul, Republic of Korea; 3 Hoseo University, Department of Food Science and Nutrition, College of Natural Science, Chungnam, Republic of Korea
- P198 Tomato powder in regular-fat pork sausages suppressed lipid oxidation during refrigerated storage**  
Kim HS, Chin KB  
Chonnam National University, department of Animal Science and Functional Foods Research Center, Gwangju, South Korea
- P199 Enhancing quality of pork patties with procyanidin powder during refrigerated storage**  
Jang A, Ham J-S, Seol K-H, Oh M-H, Han K-S, Kim H-W, Jeong S-G, Lee J-M, Kim D-H, Park J-C  
National Institute of Animal Science, Animal Products Research and Development Division, Suwon, South Korea
- P200 Antioxidant properties of onion and onion peel extracts in cooked pork patties during storage period**  
Jung EY, Kim GD, Lim HJ, Joo ST, Yang HS  
Gyeongsang National University, Applied Life Science, Jinju, South Korea
- P201 Effects of dried wheat sprout flour on lipid oxidation and some quality characteristics of beef patties**  
Ozturk I, Yetim H, Sagdic O  
Erciyes University, Food Engineering, Kayseri, Turkey
- P202 The development of functional pork breakfast sausages containing flavonoid rich extracts: sensory and technological impact**  
Hayes J, Allen P  
Teagasc Food Research Centre, Department of Food Chemistry and Technology, Ashtown, Dublin 15, Ireland
- P203 Refrigerated broiler breast meat lipid oxidation inhibition by purified corn germ phytic acid**  
Filgueiras CT, Casagrande R, Baracat M, Paccola PPA, Soares AL, Shimokomaki M, Ida EI  
Londrina State University, Departamento de Ciência e Tecnologia de Alimentos, Londrina, Brazil
- P204 Pink guava pulp enhances oxidative and color stability in raw pork emulsion**  
Serlene J, Chatli MK, Biswas AK, Sahoo J

Department of Livestock Products Technology, College of Veterinary Science, Guru Angad Dev Veterinary & Animal Sciences, Ludhiana, India

- P205 Pâté with added fresh date palm by-products: a preliminary study**  
Martín-Sánchez AM 1, Ciro G 1, Sayas-Barberá E 1, Vilella-Esplá J 2, Ben-Abda J 3, Pérez-Álvarez JA 1  
1 Industrialización de Productos de Origen Animal (IPOA.) Departamento de Tecnología Agroalimentaria, Escuela Politécnica Superior de Orihuela, Universidad Miguel Hernández, Orihuela, Spain; 2 Centro de investigación sobre la Palmera Datilera, Estación Phoenix, Elche, Spain; 3 Institution de Recherche et d'Enseignement Supérieur Agricole, Tunisia
- P206 Color parameters evolution during cooking in a date palm concentrate pâté**  
Martín-Sánchez AM 1, Ciro G 1, Fortuna I 1, Vilella-Esplá J 2, Ben-Abda J 3, Pérez-Álvarez JA 1  
1 Industrialización de Productos de Origen Animal (IPOA), Departamento de Tecnología Agroalimentaria, Escuela Politécnica Superior de Orihuela, Universidad Miguel Hernández, Orihuela, Spain; 2 Centro de investigación sobre la Palmera Datilera. Estación Phoenix, Elche, Spain; 3 Institution de Recherche et d'Enseignement Supérieur Agricole, Tunisia
- P207 Antioxidant effect of tunic onion powder in cooked pork sausages**  
Shimada K 1, Jayawardana Barana C 2, Uchino K 1, Han K-H 1, Fukushima M 1, Sekikawa M 1  
1 Obihiro University of Agriculture and Veterinary Medicine, department of food science, Obihiro, Japan; 2 University of Peradeniya, Department of Animal Science, Peradeniya, Sri-Lanka
- P208 The effects of antioxidants from mango on shelf life of pork sausages**  
Mason SL, Le HM, Bickerstaffe R  
Lincoln University, Department of Wine, Food and Molecular sciences, Llincoln, New Zealand

## Poster session 10: Microbiological Safety

### Part 1: Carcasses

- P209 Comparison of acidified sodium chlorite, chlorine dioxide, peroxyacetic acid and tri-sodium phosphate chemical washes for decontamination of poultry carcasses**  
Purnell G 1, James C 1, James SJ 1, Corry JEL 2  
1 Food Refrigeration and Process Engineering Research Centre (FRPERC), The Grimsby Institute, Grimsby, UK; 2 Department of Clinical Veterinary Science (DCVS), University of Bristol, Langford, UK
- P210 Effect of time before rinsing on the effectiveness of acidified sodium chlorite and peroxyacetic acid chemical washes for decontamination of poultry carcasses**  
Purnell G 1, James C 1, James SJ 1, Corry JEL 2  
1 Food Refrigeration and Process Engineering Research Centre (FRPERC), The Grimsby Institute, Grimsby, UK; 2 Department of Clinical Veterinary Science (DCVS), University of Bristol, Langford, UK
- P211 Comparison of physical systems (atmospheric steam, and different types of water sprays) for decontamination of poultry carcasses**  
Purnell G 1, James C 1, James SJ 1, Corry JEL 2  
1 Food Refrigeration and Process Engineering Research Centre (FRPERC), The Grimsby Institute, Grimsby, UK; 2 Department of Clinical Veterinary Science (DCVS), University of Bristol, Langford, UK.
- P212 Establishing process hygiene microbiological criteria for wild venison carcasses in an Irish game processing unit**  
Kennedy TG  
Veterinary Public Health Inspection Service, Department of Agriculture, Fisheries and Food, Dublin, Ireland

- P213 Establishing processing hygiene microbiological criteria for pheasant carcasses in a Irish processing unit**  
Kennedy TG  
Veterinary Public Health Inspection Service, Department of Agriculture, Fisheries and Food, Dublin, Ireland
- P214 Upward versus downward dehiding of beef carcasses - an observational and microbiological study**  
Kennedy TG 1,2,3, McKeivitt AI 2,3  
1 Veterinary Public Health Inspection Service, Department of Agriculture, Fisheries and Food, Dublin, Ireland; 2 School of Agriculture, Food Science and Veterinary Medicine, University College Dublin, Dublin, Ireland; 3 School of Biomedical Science, University of Ulster, Coleraine, Co. Derry, Northern Ireland
- P215 Microbial contamination of water in industrial poultry abattoirs in Mazandaran province, Iran**  
Radmehr B 1, Naghizade E 1, Golpayegani M 2, Kohdar V 1  
1 Department of Food Hygiene and Quality Control, School of Veterinary Medicine, Islamic Azad University-Karaj Branch, Iran; 2 Central office veterinary medicine, Mazandaran province, Iran
- P216 The effects of a three strain mixture of bacteriophage on *E. coli* O157:H7 inoculated hide squares over a 10 hour period**  
Mies PD 1, Belan Davis MJ 2  
1 Elanco Food Solutions, Overland Park, Kansas, USA; 2 Elanco, Greenfield, Indiana, USA
- P217 Comparison of the *Campylobacter* contamination on different sites of broiler carcasses**  
Baré J 1, Depraetere O 1, Uyttendaele M 2, Habib I 2,3, Houf K 1, De Zutter L 1  
1 Department of Veterinary Public Health and Food Safety, Faculty of Veterinary Sciences, Ghent University, Belgium; 2 Department of Food Safety and Food Quality, Faculty of Bioscience Engineering, Ghent University, Belgium; 3 Division of Food Hygiene and Control, the High Institute of Public Health, Alexandria University, Egypt
- P218 Efficacy of washing and/or trimming beef subprimals as a decontamination method for *Escherichia coli* O157:H7**  
Lemmons JL, Harris KB, Haneklaus AN, Hardin MD, Lucia LM, Savell JW  
Texas A&M University, Meat Science Section, Department of Animal Science, College Station, Texas, USA

## Part 2: Fresh Meat

- P219 Changes in bacterial communities of tray-packaged pork during chilled storage analyzed by terminal restriction fragment length polymorphism**  
Jiang Y 1,2, Gao F 1, Xu X 1, Ye K 1, Zhou G 1  
1 Key Laboratory of Meat Processing and Quality Control, Ministry of Education, Nanjing Agricultural University, Nanjing, China; 2 Ginling College, Nanjing Normal University, Nanjing, PR China
- P220 Shelf-life extension of fresh pork loin treated by E-beam**  
García Márquez I, Cabeza MC, Ordóñez JA, Manzano S, Velasco R, Hoz L, Cambero MI  
Universidad Complutense, Facultad de Veterinaria, departamento de Nutrición, Bromatología y Tecnología de los Alimentos, Madrid, Spain
- P221 Influence of temperature on conservability of chilled vacuum packed beef from different origins**  
Imazaki PH, Maréchal A, Nezer C, Daube G, Clinquart A  
University of Liège, Faculty of Veterinary Medicine, Department of Food Science, Liège, Belgium

- P222 Inactivation of *Campylobacter* by ozone treatment of chicken breast fillets at different concentrations**  
Farag K  
Royal Agricultural College, School of Agriculture, Cirencester, UK
- P223 Shelf-life evaluation of pork meat stored under different packaging atmospheres**  
Bozec A1, Ellouze M 2, Le Roux A 1, Zuliani V 2  
1 IFIP, Le Rheu, France; 2 IFIP, Maisons-Alfort, France
- P224 Inquiry to evaluate meat safety in different production systems of four European countries**  
Klauke T 1, Howers W 2, Cinar MU 1, Brinkmann D 1, Petersen B 1  
1 University of Bonn, Institute of animal science, Bonn, Germany; 2 GIQS e.V.
- P225 Challenges with the application of hop bitter  $\beta$ -acids as natural preservatives in meat and poultry**  
Sander C 1, Vincken J-P 2, van Drunen T 1, Bijlhout E 1, Edelman M 1, Visser D 1, Gruppen H 2  
1 Purac, Innovation Centre Food, Gorinchem, the Netherlands; 2 Wageningen University, Laboratory of Food Chemistry, Wageningen, the Netherlands
- P226 Efficiency of a commercial liquid spice extract mix for the decontamination of *Listeria monocytogenes* and *Escherichia coli* O157:H7 from meat surface**  
Tornuk F, Gokmen S, Bugdayci K, Yetim H  
Erciyes University, Food Engineering, Kayseri, Turkey
- P227 Combined application of modified atmosphere packaging and protective culture in fresh chicken legs against *Campylobacter jejuni***  
Melero B, Vinuesa R, Osés SM, Diez AM, Gómez-Rojo EM, Wilches-Pérez D, Jaime I, Rovira J  
University of Burgos, Department of Biotechnology and Food Science, Burgos, Spain
- P228 Microbial dynamics in suckling lamb “Lechazo de Castilla y León” packaged under different modified atmospheres by DGGE**  
Osés SM, Gómez-Rojo EM, Wilches-Perez D, Melero B, Diez AM, Jaime I, Rovira J  
Burgos University, Department of Biotechnology and Food Science, Burgos, Spain
- P229 Food safety in ready to eat products of suckling lamb “Lechazo de Castilla y León”**  
Diez AM, Osés SM, Melero B, Gómez E, Wilches D, Jaime I, Rovira J  
Universidad de Burgos, Biotecnología y Ciencia de los Alimentos, Burgos, Spain
- P230 The antimicrobial and antioxidant effect of avishan-e shirazi (*Zataria multiflora*) essential oil, Nisin and their combination against *Salmonella typhimurium* in minced sheep during refrigerated storage**  
Hosseini SE 1, Hosseinchi Z 1, Bayat M 2  
1 Islamic Azad University, Science and Research Branch, Department of Food Science and Technology, Tehran, Iran; 2 Islamic Azad University, Science and Research Branch, Department of Medical and Veterinary Mycology, Tehran, Iran

### Part 3: Meat Products

- P231 Comparing the effect of different dry-cured ham drying processes on *Salmonella* fate**  
Stollewerk K, Jofré A, Comaposada J, Ferrini G, Arnau J, Garriga M  
IRTA, Finca Camps i Armet, Monells, Spain
- P232 Development of shelf stable chicken sausages using hurdle technology**  
Rindhe SA 1, Suryawanshi SU 1, Karle SD 2  
1 Department of Livestock Products Technology, College of Veterinary & Animal Sciences, Parbhani (M.S), India; 2 Department of Meat Hygiene, Asmara Agricultural University, South Africa
- P233 Effect of rosemary essential oil on the quality of pork burgers**  
Nieto G 1,2, Patarara L 2, Ros G 1  
1 Department of Food Technology and Science and Human Nutrition, Veterinary Faculty, University of Murcia, Murcia, Spain; 2 Universidad de Trás-os-Montes y Alto Douro, Centre of

- Studies in Animal and Veterinary Science (CECAV), Vila Real, Portugal
- P234 The antimicrobial effect of essentials oils against *Salmonella spp.* in pork burgers during refrigerated storage**  
Nieto G 1,2, Patarara L 2, Ros G 1  
1 Department of Food Technology and Science and Human Nutrition, Veterinary Faculty, University of Murcia, Murcia, Spain; 2 Universidad de Trás-os-Montes y Alto Douro, Centre of Studies in Animal and Veterinary Science (CECAV), Vila Real, Portugal
- P235 Screening and selection of lactic acid bacteria with high antimicrobial activity for fermented sausage production in Vietnam**  
Phan TT 1, Le TBT 2  
1 Hanoi University of Science and Technology, School of Biotechnology and Food Technology, Department of Food Technology, Hanoi, Vietnam; 2 Green Foods Viet Nam Joint Stock Company, Ha Noi, Vietnam
- P236 Use of olive leaf compounds as antimicrobial agents, application in stored Turkey meat**  
Djenane D, Yangüela J, Roncalés P  
University of Tizi-Ouzou, Microbiology, Tizi-Ouzou, Algeria
- P237 Nano-Ag and lactate Na complex as food product protection**  
Ivankin A 1, Yushina Y 1, Gorbunova 1, Evdokimov Y 2  
V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Scientific-methodical work and control-analytical investigations, Moscow, Russia; 2 Moscow Forest State University, Mitishi-5, Moscow region, Russia
- P238 Assessment of microbiological safety of 'Ready to Eat' meat and chicken products prepared in national, local restaurants and street vendors in Assiut city- Egypt**  
El-Khateib T  
Assiut University, Food Hygiene and Safety Center, Department of Food Hygiene, Faculty of Veterinary Medicine, Assiut, Egypt
- P239 Effect of high hydrostatic pressure on inactivation of pathogens inoculated onto beef loin packaged with vegetable oils**  
Kang M 1, Jung S 1, Jung Y 1, Ham JS 2, Kim YJ 3, Jo C 1  
1 Chungnam National University, department of Animal Science and Biotechnology, Daejeon, Korea; 2 National Institute of Animal Science, quality Control and Utilization Division, Suwon, Korea; 3 Korea Food Research Institute, food Safety Research Division, Seongnam, Korea
- P240 Inactivation of *Listeria monocytogenes* inoculated onto sliced chicken breast and ham by a pen-type atmospheric pressure plasma**  
Lee HJ 1, Kang M 1, Jung Y 1, Nam K 2, Ham JS 3, Jo C 1  
1 Chungnam National University, Department of Animal Science and Biotechnology, Daejeon, Korea; 2 Suncheon National University, Department of Animal Science and Technology, Suncheon, Korea; 3 National Institute of Animal Science, division of Quality Control and Utilization, Suwon, Korea
- P241 Shelf-life of E-beam treated hamburgers added with tomato powder as source of lycopene**  
Gámez MC, Garcia ML, Soto AM, Galán I, Selgas MD, Calvo MM  
Complutense de Madrid, Nutricion, Bromatologia y Tecnologia de Los Alimentos, Madrid, Spain
- P242 Inhibitory effect of provian (a co-spray dried mixture of sodium lactate and sodium acetate) on the growth of *Listeria Monocytogenes* in frankfurters stored at 4, 7, or 10° C**  
Kang I, Zhang L, Xu Y, Ryser E, Jeong JY, Harte JB  
Michigan State University, Animal Science/Food Science & Human Nutrition, East Lansing, United States
- P243 Microbiological changes in "Morcilla" preserved in vacuum and modified atmosphere packaging**  
García-Fontán MC, García G, Bermúdez R, Garrido-Bailón E, Franco D, Lorenzo JM  
Meat Technology Centre of Galicia, San Cibrao das Viñas, Ourense, Spain
- P244 Survival of *Salmonella* in dried chicken meat residues on the surface of packaging materials**

Di Ciccio PA 1,2, Geornaras I 1, Nunnally MC 1, Ianieri A 2, Sofos JN 1  
1 Center for Meat Safety & Quality, Department of Animal Sciences, Colorado State University, Fort Collins, Colorado, USA; 2 University of Parma, Dept. of Animal Production, Veterinary Biotechnologies, Food Quality and Safety, Parma, Italy

**P245 Effect of glutathione on bacteriocins of lactic acid bacteria isolated from traditional Thai fermented meat**

Tilokavichai J, Jindaprasert A, Pilasombut K, Sethakul J, Swetwiwathana A  
King Mongkut's Institute of Technology Ladkrabang (KMITL), Agro-Industry, Bangkok, Thailand

**P246 Microbial characteristics and lipid oxidation of thawed pork loin wrapped with gelatin based film with natural food antimicrobial compounds**

Jang A, Kim D-W, Ham J-S, Seol K-H, Oh M-H, Jeong S-G, Han K-S, Lee J-M, Kim D-H  
National Institute of Animal Science, Animal Products Research and Development Division, Suwon, South Korea

**P247 Behaviour of non-stressed and stressed *Listeria monocytogenes* and *Campylobacter jejuni* cells on fresh poultry hamburgers**

Melero B 1, Osés SM 1, Diez AM 1, Gómez-Rojo EM 1, Wilches-Pérez D 1, Jaime I 1, Rajkovic A 2, Rovira J 1

1 University of Burgos, Department of Biotechnology and Food Science, Burgos, Spain; 2 Ghent University, Department of Food Safety and Food Quality, Ghent, Belgium

**P248 *Escherichia coli* O157:H7 and *Salmonella* Typhimurium penetration during vacuum tumbling and survivability during storage in marinated beef**

Muras TM, Harris KB, Mehall LN, Haneklaus AN, Hardin MD, Lucia LM, Savell JW  
Texas A&M University, Meat Science Section, Department of Animal Science, College Station, Texas, USA

**P249 Changes in microbial population numbers during the cooking process of doner kebabs**

Bostan K, Yilmaz F, Muratoglu K, Aydin A  
Istanbul University, Department of Food Hygiene and Technology, Istanbul, Turkey

#### **Part 4: Methodology**

**P250 Evaluation of ISO 10272:2006 standard versus alternative enrichment and plating combinations for enumeration and detection of *Campylobacter* in chicken meat**

Habib I 1,3, Uyttendaele M 1, De Zutter L 2

1 Laboratory of Food Microbiology and Food Preservation, Faculty of Bioscience Engineering, Ghent University, Ghent, Belgium; 2 Department of Veterinary Public Health and Food Safety, Faculty of Veterinary Medicine, Ghent University, Merelbeke, Belgium; 3 Food Hygiene and Control Division, High Institute of Public Health (HIPH), Alexandria University, Alexandria, Egypt

**P251 Food safety regulations in the meat sector of Buryatia (Russian Federation)**

Khachatryan N 1, Rudloff M 2, Malakshinova I 3, Khachatryan A 1

1 Eastern Europe Centre, University of Hohenheim, Stuttgart, Germany; 2 Mahle Industry, Stuttgart, Germany; 3 Ministry of Agriculture and Food of Republic of Buryatia, Russian Federation

**P252 About the redox potential of meat cans**

Lisitsyn A, Krylova V, Gustova T

V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademi, Moscow, Russia

**P253 Development of the reference model for the technological process management and decision-making support in refrigerated semi-product production**

Lysitsyn A, Maslova N

V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Standardization and certification, Moscow, Russia

- P254 Rapid and sensitive real-time PCR quantitative detection of *Listeria monocytogenes* without enrichments in artificially contaminated chilled pork**  
Ye KP 1, Jiang Y 2, Xu XL 1, Zhou GH 1  
1 Nanjing Agricultural University, Key Lab of Meat Processing and Quality Control, Ministry of Education, College of Food Science and Technology, Nanjing, PR China  
2 Nanjing Normal University, Ginling College, Nanjing, PR China
- P255 Different methods to identify yeast population associated with dry cured "Iacón", a traditional meat product from North-west of Spain**  
Garrido-Bailón E, Fernández B, García G, Bermúdez R, Lorenzo JM, García-Fontán MC  
Meat Technology Centre of Galicia, San Cibrao das Viñas, Ourense, Spain
- P256 Physiological state of bacteria growing in meat during cold storage: a molecular approach**  
Guernec A, Robichaud-Rincon P, Saucier L  
University Laval, Animal Sciences, Quebec, Canada
- P257 The use of predictive models for *Listeria monocytogenes* in the meat industry to support compliance with EU regulation 2073/2005 for ready-to-eat products**  
Vermeulen A 1, Cappuyns A 2, Beckers J 1, De Loy-Hendrickx A 1, Paelinck H 3, Uyttendaele M 1, Van Impe J 2, Devlieghere F 1  
1 Ghent University; Food Safety and Food Quality, Ghent, Belgium; 2 KULeuven, Chemical and Biochemical Process Technology and Control, Leuven, Belgium; 3 Katholieke Hogeschool Sint-Lieven, Technology and Quality of Meat Products, Gent, Belgium
- P258 Antimicrobial activity of chosen phenolic compounds against *Escherichia coli* O157:H7**  
Jakubczak A 1, Stachelska MA 1, Świsłocka R 1,2, Kalinowska M 1,2, Lewandowski W 1,2  
State College of Computer Science and Business Administration, Food Technology and Nutrition Institute, Łomza, Poland; 2 Białystok Technical University, Department of Chemistry, Białystok, Poland

#### Poster session 11: Boar Taint: Entire Males or Immunocastration

- P259 Sensory evaluation of boar taint**  
Claudi-Magnussen C, Bejerholm C, Meinert L, Tørrngren MA  
DMRI Danish Technological Institute, DMRI, Roskilde, Denmark
- P260 Identification of boar taint in a triangle tests**  
Riehn K 1, Jäger J 2, Sattler T 2, Kleinhans S 3, Schmoll F 2, Lücker E 1  
1 Institute of Food Hygiene, Faculty of Veterinary Medicine, University of Leipzig, Germany; 2 Large Animal Clinic for Internal Medicine, Faculty of Veterinary Medicine, University of Leipzig, Germany; 3 District office Weimarer Land, veterinary inspection office, Nohra, Germany
- P261 Ractopamine hydrochloride and immunocastration effects on pork carcass traits and lean meat yields**  
Martins A 1, Formighieri R 1, Magenis GB 3, Silveira ETF 2, de Felício PE 1  
1 Department of Food Technology, University of Campinas, Campinas, SP, Brazil; 2 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil; 3 OUROFINO Agronegócios, Cravinhos, SP, Brazil
- P262 Ractopamine hydrochloride and immunocastration effects on fresh pork properties**  
Formighieri R 1, Martins A 1, Silveira ETF 2, Magenis GB 3, de Felício PE 1  
1 Department of Food Technology, University of Campinas, Campinas, SP, Brazil; 2 Meat Technology Centre, Institute of Food technology, Av. Brasil, Campinas, SP, Brazil; 3 OUROFINO Agronegócios, Cravinhos, SP, Brazil
- P263 Validation of "Human nose" method for boar taint detection**  
Meinert L, Bejerholm C, Støier S  
Danish Meat Research Institute (DMRI), Danish Technological Institute, Roskilde, Denmark
- P264 The incidence of sexual odour of male and cryptorchid pigs in the practice of Kapuvári Hús**

- Rt.**  
Keresztény P 1, Roszkos R 2, Szabó I 2  
1 Kapuvar Meat Share Holding Company, Kapuvar, Hungary; 2 Pfizer Kft., Budapest, Hungary
- P265 Usability of meat from immunologically castrated male pigs for packaging under a modified atmosphere**  
Gallas L, Borilova G, Svobodova I, Steinhäuserova I, Steinhäuser L  
University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic
- P266 Boar taint reduction in smoked, cooked ham**  
Tørngren MA 1, Claudi-Magnussen C 2, Støier S 1, Kristensen L 1  
1 Danish Meat Research Institute (DMRI), Center of Meat Quality, Roskilde, Denmark; 2 Danish Meat Research Institute (DMRI), Center of Measuring systems & IT, Roskilde, Denmark
- P267 Usability of meat from immunologically castrated male pigs for the production of dry fermented sausages**  
Gallas L, Borilova G, Svobodova I, Jezek F, Steinhäuserova I, Steinhäuser L  
University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic
- P268 Impact of replacing physical castration with vaccination against GnRF (Improvac®) on carcass grading following the SEUROP system**  
Allison JRD 1, Suarez P 1, Crane JP 2, Hennessy DP 3  
1 Pfizer Animal Health, Madison, NJ, USA; 2 Pfizer Animal Health, Kalamazoo, MI, USA; 3 Consultant, Warrandyte, Victoria, Australia
- P269 Effect of chicory addition on boar taint and meat quality**  
Aluwé M, Millet S, Langendries KCM, Bekaert KM, Tuyttens FAM, De Brabander DL  
ILVO, Animal Sciences, Melle, Belgium
- P270 Incidence of boar taint in entire male pigs in Europe, assessed by chemical assay of androstenone and skatole**  
Allison JRD 1, Suarez P 1, Crane JP 2, Hennessy DP 3  
1 Pfizer Animal Health, Madison, NJ, USA; 2 Pfizer Animal Health, Kalamazoo, MI, USA; 3 Consultant, Warrandyte, Victoria, Australia
- P271 Carcass and meat quality in surgical castrated boars, boars vaccinated with Improvac® and entire boars**  
Sattler T 1, Jäger J 1, Schmoll F 2, 3  
1 Large Animal Clinic for Internal Medicine, University of Leipzig, Germany; 2 Institute for Veterinary Public Health, University of Veterinary Medicine Vienna, Austria; 3 Institute for Veterinary Disease Control, AGES, Mödling, Austria
- P272 Vaccination or surgical castration to prevent boar taint? – Results of a representative consumer study in Germany**  
Schmoll F 1,2,3, Jäger J 1, Sattler T 1  
1 Large Animal Clinic for Internal Medicine, University of Leipzig, Germany; 2 Institute for Veterinary Public Health, University of Veterinary Medicine Vienna, Austria; 3 Institute for Veterinary Disease Control, AGES, Mödling, Austria
- P273 Effect of Improvac™ on carcass and body composition of entire male (EM) pigs fed different nutrition programs**  
Ferguson N 1, McDermid D 2, Vanvloten P 2, McMillan E 1  
Nutreco Canada Agresearch, Guelph, ON, Canada; 2 Pfizer Animal Health, Kirkland, PQ, Canada
- P274 Odor of back fat obtained from of immuno-castrated swine**  
Cipolli KMVAB 1, Guadagnini RA 2, Orlando E 3, Felício PE 4, Silveira ETF 3  
1 Centre of Food Science and Quality, Institute of Food Technology, Campinas, SP, Brazil; 2 IQ-University of Campinas, and CNPq - Institute of Food technology, Campinas, SP, Brazil; 3 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil; 4 Department of Food Engineer, University of Campinas, Campinas, SP, Brazil
- P275 Immunocastration and ractopamine hydrochloride effects on Italian salami quality**

Cervo GD 1, Silva LCC 1, Cipolli KMVAB 2, Silveira NFA 2, Bromberg R 3, Silveira ETF 3  
1 Department of Food Technology and Engineering, State University of São Paulo, São José do Rio Preto, SP, Brazil; 2 Centre of Food Science and Quality, Institute of Food technology, Campinas, SP, Brazil; 3 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil

- P276 Ractopamine hydrochloride and immunocastration effects on Italian Coppa acceptability**  
Lucas DS 1, Silva TJP 1, Cipolli KMVAB 2, Silveira ETF 3  
1 Department of Food Technology, Federal Fluminense University, Niterói, Rio de Janeiro, Brazil; 2 Centre of Food Science and Quality (CCQA), Institute of Food Technology (ITAL), Campinas, SP, Brazil; 3 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil
- P277 Ractopamine hydrochloride and immunocastration effects on sensory characteristics of enhanced pork chops loin**  
Iocca AFS 1, Silveira ETF 2, Romanelli PF 1  
1 Department of Food Technology and Engineering, State University of São Paulo, São José do Rio Preto, SP, Brazil; 2 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil
- P278 Ractopamine hydrochloride and immunocastration effects on belly fatty acid composition**  
Silva LCC 1, Cervo GD 1, Silveira ETF 2  
1 Department of Food Technology and Engineering, São José do Rio Preto, SP, Brazil; 2 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil
- P279 Ractopamine hydrochloride and immunocastration effects on the bacon cooking loss**  
Silva LCC 1, Cervo GD 1, Silveira ETF 2  
1 Department of Food Technology and Engineering, São José do Rio Preto, SP, Brazil; 2 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil
- P280 New culinary uses for pork testicles from immunologically castrated male pigs**  
Pucciarelli DL 1, Deutsch JM 2, Schroeder AL 3  
1 Department of Family and Consumer Sciences, Ball State University, Muncie, Indiana USA; 2 Department of Tourism and Hospitality, Kingsborough Community College, CUNY, Brooklyn, New York USA; 3 Pfizer Animal Health, Madison, New Jersey USA

## **Poster session 12: Methods in Meat Science**

- P281 Online total fat prediction in green hams and loins**  
Fulladosa E 1, Serra X 1, Muñoz I 1, Gou P 1, Olmos A 2, Arnau J 1  
1 IRTA, Finca Camps i Armet, Monells, Girona, Spain; 2 Jamones Segovia S.A., Carbonero el Mayor, Segovia, Spain
- P282 A polymerase chain reaction assay for sex determination of cattle meat by amplification of the DEAD box protein (DDX3X/DDX3Y) gene**  
Kumar RR, Gokulakrishnan P, Sharma BD, Sharma D  
Division of Livestock Products Technology, Indian Veterinary Research Institute, Izzatnagar, India
- P283 A duplex polymerase chain reaction assay for sex determination of cattle meat by simultaneous amplification of the AMELX, AMELY and SRY genes**  
Gokulakrishnan P, Kumar RR, Sharma BD, Sharma D  
Division of Livestock Products Technology, Indian Veterinary Research Institute, Izzatnagar, India
- P284 A new technique for non-destructive measurement of marbling in beef meat using visible and near-infrared imaging**  
Ziadi A 1, Maldague X 1, Saucier L 2  
1 Department of Electrical and Computing Engineering, Université Laval Québec, Canada; 2 Department of Animal Science, Université Laval Québec Canada
- P285 NIRS analysis of different meat sample preparations from veal calves and panel test**

**prediction**

Brugiapaglia A 1, Destefanis G 1, Lussiana C 1, Giomo A, Masoero G 2

1 Università di Torino, Dipartimento di Scienze Zootecniche, Grugliasco, Torino, Italy; 2 CRA-PCM, Torino, Italy

- P286 Use of Raman spectroscopy for the evaluation of structural changes in raw and heated meat batters prepared with different fats**  
Shao J-H, Zhou G-H, Xu X-L  
Key Lab of Meat Processing and Quality Control, College of Food Science and Technology, Nanjing Agricultural University, Nanjing, PR China
- P287 Surface-enhanced laser desorption/ionisation time-of-flight mass spectrometry: a fast method to assess pork quality**  
Marcos B 1, Gou P 1, Guardia MD 1, Colleo M 1, Hortós M 1, Mach N 2, te Pas MFW 2, Keuning E 2, Kruijt L 2, Hoving-Bolink AH 2, Gispert M 1, Arnau J 1  
1 IRTA, Finca Camps i Armet, Monells, Spain; 2 Animal Breeding and Genomics Center, Wageningen UR Livestock Research, Lelystad, the Netherlands
- P288 The development of the system for quantitative assessment of soybean content in meat products by real time PCR**  
Minaev M, Fomina T  
V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Production hygiene and microbiology, Moscow, Russia
- P289 Monitoring of meat raw material with increased heavy metal content according to traceability principles**  
Vostrikova N, Chernuha I  
V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Production hygiene and microbiology, Moscow, Russia
- P290 Detection of myoglobin in somatic muscle tissue and analysis of its content in meat and meat products**  
Hvilya S, Burlakova S, Pchelkina V  
V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademia, Laboratory of Production hygiene and microbiology, Moscow, Russia
- P291 Nuclear magnetic resonance spectroscopy as a tool to predict adipose and muscular tissue content of fresh hams for cured ham processing**  
Galve A, Burgos C, López-Buesa P  
Universidad de Zaragoza, Producción Animal y Ciencia de los Alimentos, Zaragoza, Spain
- P292 NIR spectroscopy of muscle ethanol prepared specimens to differentiate rearing mode and genetic type of Italian heavy pigs**  
Masoero G, Barbera S  
Dipartimento di Scienze Zootecniche, Università degli studi di Torino, Italy
- P293 Discrimination between feeding and rearing systems of Iberian pigs by 1H-HRMAS NMR spectra of dry-cured ham**  
Villa P 1, Herrero A 2, Ordóñez JA 3, de la Hoz L 3, Escudero R 3, Soto E 3, Cabeza MC 3, Cambero MI 3  
2 ICTAN-CSIC, Department of Products, Madrid, Spain; 3 Universidad Complutense de Madrid, Facultad de Veterinaria, Nutrición, Bromatología y Tecnología de Los Alimentos, Madrid, Spain
- P294 Use of near infrared spectroscopy for the prediction of intramuscular fat and fatty acid content in rabbit meat**  
Zomeño C, Juste V, Hernández P  
Institute for Animal Science and Technology, Universidad Politécnica de Valencia, Valencia, Spain
- P295 Vitamin B12 in muscle foods. Comparison of a microbiological assay and a fully automated chemiluminescence system for the determination of vitamin B12 in fresh and processed meat**

- Saccani G  
SSICA - Experimental Station for the Food Processing Industry, Parma, Italy
- P296 Field trial of novel temperature monitoring and information management systems in a German poultry supply chain**  
Raab V 1, Bogason S 2, Haarer D 3, Hafliðason T 2, Hammer I 4, Mielenz M 5, Popov V 6, Reichstein W 3, Reynisson E 7, Zanella L 8, JKreyenschmidt J 1  
1 University of Bonn, Institute of Animal Science, Preventive Health Management Group, Bonn, Germany; 2 University of Iceland, Reykjavik, Iceland; 3 Freshpoint Holding SA, La Chaux de Fonds, Switzerland; 4 Afcon Software and Electronics Ltd., Tel Aviv, Israel; 5 University of Bonn, Institute of Animal Science, Department of Anatomy and Physiology, Bonn, Germany; 6 Wessex Institute of Technology, Southampton, UK; 7 MATÍS, Reykjavik, Iceland; 8 ActValue Consulting&Solutions, Milan, Italy
- P297 Detection of seagull meat in meat mixtures using real-time PCR assay**  
Kesmen Z 1, Celebi Y 2, Yetim H 1  
1 Erciyes University, Department of Food Engineering, Kayseri, Turkey; 2 Korku Ata University, Department of Food Engineering, Osmaniye, Turkey
- P298 Separation characteristics of beef lipid methylation products using a new ionic column (SLB-IL111)**  
Aldai N 1, Kramer JKG 2, Dugan MER 3, Mantecón AR 1  
1 Instituto de Ganadería de Montaña, CSIC-ULE, Finca Marzanas, León, Spain; 2 Guelph Food Research Centre, AAFC, Guelph, Ontario, Canada; 3 Lacombe Research Centre, AAFC, Lacombe, Alberta, Canada
- P299 Practical interpretations of changes in lamb meat colour during simulated retail display**  
Jacob RH, Thomson KL  
Department of Agriculture and Food WA, South Perth, Australia
- P300 Prediction of the fatty acid composition of meat products using mid infrared attenuated total reflectance spectroscopy**  
Neyrinck E 1, De Smet S 2 and Raes K 1  
1 University College West-Flanders, Department of Industrial Engineering and Technology, Research Group EnBiChem, Kortrijk, Belgium; 2 Ghent University, Faculty of Bioscience Engineering, Laboratory for Animal Nutrition and Animal Product Quality, Ghent, Belgium
- P301 Authentication of meat from sheep (*Ovis aries*) and goat (*Capra hircus*) by species specific polymerase chain reaction**  
Girish PS, Sen AR, Vaithyanathan S, Rajitha R, Ramakrishna C  
National Research Centre on Meat, Indian Council of Agricultural Research, Hyderabad, India
- P302 Multiplex polymerase chain reaction for differentiation of cattle and buffalo meat**  
Karabasanavar NS, Singh SP  
Maharashtra Animal & Fishery Sciences University, Bombay Veterinary College, Mumbai, India

## Thursday 11 August 2011

### Poster session 13: Animal Production Effects on Meat quality

- P303 Effects of dexamethasone on meat quality of Friesian steers**  
Barbera S  
Dipartimento di Scienze Zootecniche, Dipartimento Produzioni Animali - Epidemiologia ed Ecologia and Dipartimento di Patologia Animale, Università degli studi di Torino, Torino, Italy
- P304 Change of general element, mineral, nucleic acid and meat color of chicken according to breeding days**  
Chae HS, Na JC, Bang HT, Yu DJ, Kim MJ, Kim DU, Choi HC, Suh OS, Kang HK, Jang AR, Jo SH

- Rural development administration National institute of animal science, Poultry science division poultry feed and nutrition, South Korea
- P305 Change of fatty acid, amino acid and free amino acid of chicken according to breeding**  
Chae HS, Na JC, Bang HT, Yu DJ, Kim MJ, Kim DU, Choi HC, Suh OS, Kang HK, Jang AR, Jo SH  
Rural development administration National institute of animal science, Poultry science division poultry feed and nutrition, South Korea
- P306 Effect of environment, feed, management, load, transport, unloading and slaughter on meat quality of veal calves**  
Torchio M, Botta M, Biolatti B, Barbera S  
Università degli studi di Torino Facoltà di Agraria, Dipartimento di Scienze Zootecniche, Tigliole, Italy
- P307 Broiler carcass and meat quality as affected by egg yolk/albumen ratio determined by means of computer tomography**  
Cullere M 1, Dalle Zotte A 1, Contiero B 1, Sütő Z 2, Donkó T 2, Milisits G 2  
1 Department of Animal Science, Padova University, Legnaro, Italy; 2 Faculty of Animal Science, Kaposvár University, Kaposvár, Hungary
- P308 Influence of pre-harvest withdrawal period at zilpaterol hydrochloride supplementation on carcass traits, fall pH and water holding capacity of feedlot heifers**  
Torretera ON, Carrasco JR, Arrizón GA, Álvarez AE, Plascencia JA, Figueroa F  
Universidad Autonoma de Baja California, Instituto de Ciencias Agrícolas, Mexicali, Mexico
- P309 Effects of castration and high pressure reaction on fatty acid compositions and volatile compounds in Korean native goat meat**  
Kang GH 1, Kim SW 1, Choi SH 1, Kim YJ 2, Cho SH 1, Seong PN 1, Park BY 1, Jeong SG 1, Kang SM 1, Kim HS 1, Kim DH 1  
1 National Institute of Animal Science, Rural Development Administration, Suwon, Korea; 2 Department of Food and Biotechnology, Korea University, Chungnam, South Korea
- P310 Bopriva®: a bovine anti-gonadotropin releasing factor vaccine that improves meat and carcass quality in feedlot heifers**  
Jackson JA 1, Charman N 2, Hodge A 3, Davis K 2, Howard R 4, Amatayakul-Chantler S 5  
1 Pfizer Animal Health, VMRD Global Clinical Development, Zaventem, Belgium; 2 Pfizer Animal Health, VMRD Clinical Development, Parkville, Australia; 3 Pfizer Animal Health, VMRD Biometrics, Parkville, Australia; 4 Pfizer Animal Health, VMRD Bios Development, Parkville, Australia; 5 Pfizer Animal Health, VMRD Biological Science Group, Parkville, Australia
- P311 Effect of the use of straw on animal welfare and meat quality during fattening in light lambs**  
Teixeira DL, Miranda-de la Lama GC, Olleta JL, Sañudo C, Villarroel M, María GA  
University of Zaragoza, Department of Animal Production, Zaragoza, Spain
- P312 Production and characterization of 6-month-old calves, 8-month-old calves and older animals produced in France**  
Legrand I 1, Martineau C 2, Lefebvre T 2, Bertrand G 2, Evrat-Georgel C 3, Normand J 4  
1 Institut de l'Élevage, Maison Régionale d'Agriculture du Limousin, Limoges Cedex 2, France; 2 Institut de l'Élevage, Le Rheu Cedex, France; 3 Institut de l'Élevage, Paris Cedex 12, France; 4 Institut de l'Élevage, Agrapole, Lyon Cedex 07, France
- P313 Bopriva®: a bovine anti-gonadotropin releasing factor vaccine that improves meat and carcass quality in feedlot male cattle**  
Jackson JA 1, Stegner J 2, Salud Rubio M 3, Zambrano Gaytan R 4, Nava Gaspar R 4, King V 5, Howard R 6, Amatayakul-Chantler S 7  
1 Pfizer Animal Health, VMRD Global Clinical Development, Zaventem Belgium; 2 Pfizer Animal Health, VMRD Global Development, Kalamazoo, Michigan USA; 3 Universidad Nacional Autónoma de México, México City, México; 4 Rancho El 17 SA de CV., Hermosillo, Sonora, México; 5 Pfizer Animal Health, VMRD Biometrics, Kalamazoo, Michigan USA; 6 Pfizer Animal Health, VMRD Bios Development, Parkville, Australia; 7 Pfizer Animal Health,

- VMRD Biological Science Group, Parkville, Australia
- P314 Bopriva®: it's effect on meat and carcass quality in male cattle on pasture**  
de Roça RO 1, Jackson JA 2, Hoe F 3, Stegner J 4, de Carvalho FSR 5, da Silva CR 5, Lopez E 6, King V 7, Amatayakul-Chantler S 8  
1 F.C.A. UNESP - Campus de Botucatu, Botucatu, Sao Paulo, Brazil; 2 Pfizer Animal Health, VMRD Global Clinical Development, Zaventem, Belgium; 3 Pfizer Saude Animal, Sao Paulo, Brazil; 4 Pfizer Animal Health, VMRD Global Development, Kalamazoo, Michigan USA; 5 GAIA Pesq e Desenvolv Saude Animal, Uberlandia, Minas Gerais, Brazil; 6 Pfizer Animal Health, VMRD Bios Development, Parkville, Australia; 7 Pfizer Animal Health, VMRD Biometrics, Kalamazoo, Michigan USA; 8 Pfizer Animal Health, VMRD Biological Science Group, Parkville, Austalia
- P315 The contribution of conventional and organic production systems to the nutritional quality of Turkey breast meat**  
Quaresma MAG, Jerónimo E, Bessa RJB, Lemos JPC  
Faculdade de Medicina Veterinária, CIISA, Avenida da Universidade Técnica, Lisbon, Portugal
- P316 Commercial pre slaughter blue light ambience for controlling stress and broiler chicken PSE meat**  
Barbosa CF, Soares AL, Rossa A, Shimokomaki M, Ida EI  
University State Londrina, Londrina, Brazil
- P317 Factors underlying tenderness of beef from Nellore cattle classified by dental maturity**  
Duarte MS 1, Serão NVL 2, Paulino PVR 1  
1 Universidade Federal de Viçosa, Department of Animal Science, Viçosa, Brazil; 2 University of Illinois, Department of Animal Science, Urbana-Champaign, USA
- P318 Influence of production system on the physico-chemical and sensory quality of beef from the Northeast of Argentina**  
Cossu ME 1, Picallo AB 1, Rebak G 2, Grigera Naón JJ 1, Rozen FMB 3, Lamanna ML 1, Schor A 1, Colombatto D 1,4, von Bernard H 1, Ynsaurralde Rivolta E 5  
1 Department of Animal Production, Faculty of Agronomy, Buenos Aires University, Bs. As., Argentina; 2 Department of Food Technology, Faculty of Veterinary, northeast University, Sargento Cabral Corrientes, Argentina; 3 Department of Animal Production, Faculty of Veterinary, Buenos Aires University, Bs. As., Argentina; 4 CONICET, Argentin; 5 Science and Technology, Northeast University, Sargento Cabral, Corrientes, Argentina
- P319 Meat characteristics of African antelope (*Antilope cervicapra*) found in Ago-Iwoye area of Ogun state, Nigeria**  
Apata ES 1, Eniolorunda OO 1, Okubanjo AO 2, Omojola AB 3, Adeyemi KO 4  
1 Meat Science Laboratory; Department of Animal Production; 2 Department of Agricultural and Industrial Technology Babcock University, Ilishan, Remo, Ogun State, Nigeria; 3 Meat Science Laboratory, Department of Animal Science University of Ibadan, Nigeria; 4 National Productivity Centre, Sokoto, Nigeria
- P320 A technical and economical analysis of the constraints facing the quality enhancement of the red meat sector in Tunisia**  
Brahmi A, Khaldi R  
1 ESA Kef, Department of Animal Production, Le Kef, Tunisia; 2 INRAT Tunis, Department of Rural Economy, Tunis, Tunisia

## Poster session 14: Processing and Technology

### Part 1: Cooling and Freezing

- P321 Elucidation of the ice crystal formation along the freezing gradient generated under five different rates of freezing in ostrich *M. femorotibialis medius***  
Leygonie C 1, Hoffman LC 2

- 1 University of Stellenbosch, Department of Food Science, Stellenbosch, South Africa; 2 University of Stellenbosch, Department of Animal Sciences, Stellenbosch, South Africa
- P322 Effect of magnetic fields freezing on pork quality traits**  
Ko KB, Kim GH, Kagn DG, Ryu YC  
Jeju National University, Division of Biotechnology, Jeju, South Korea
- P323 Elucidation of the ice crystal formation along the freezing gradient generated under five different rates of freezing in ostrich *M. femorotibialis medius***  
Leygonie C 1, Hoffman LC 2  
1 University of Stellenbosch, Department of Food Science, Stellenbosch, South Africa; 2 University of Stellenbosch, Department of Animal Sciences, Stellenbosch, South Africa
- P324 Effect of magnetic fields freezing on pork quality traits**  
Ko KB, Kim GH, Kagn DG, Ryu YC  
Jeju National University, Division of Biotechnology, Jeju, South Korea
- P325 Effect of prolonged freezer storage on physico-chemical and sensory quality of *Serratus ventralis* muscle ("presa") from Iberian pig**  
Martín MJ, Sanabria C, Gutierrez JI, Andrés AI  
Ciencia y Tecnología de los Alimentos, Escuela de Ingenierías Agrarias, Universidad de Extremadura, Ctra. Cáceres, Badajoz, Spain
- P326 Discrimination of fresh vs. frozen-then-thawed pig meat by percent reflectance values using SIMCA (Soft Independent Modelling of Class Analogy)**  
Martín MJ, Sanabria C, Gutierrez JI, Andrés AI  
Ciencia y Tecnología de los Alimentos, Escuela de Ingenierías Agrarias, Universidad de Extremadura, Ctra. Cáceres, Badajoz, Spain
- P327 Pre-freezing affects texture of cooked hams: potential influence of protein oxidation**  
Armenteros M 1, Ventanas S 1, Morcuende D 1, Solano F 2, Estéve M 1  
1 Universidad de Extremadura, Facultad de Veterinaria, Cáceres, Spain  
2 I+D+i 'Consortio de Jabugo S.A, Sevilla, Spain

## Part 2: Packaging

- P328 Effect of packaging on the colour of beef with different  $\alpha$ -tocopherol tissue levels**  
Nassu RN 1,2, Uttaro B 1, Aalhus JL 1, Zawadski S 1, Juárez M 1, Dugan MER 1  
1 Lacombe Research Centre, 6000 C & E Trail, Lacombe, Canada; 2 Embrapa Pecuaria Sudeste, Rod. Washington Luiz, Sao Carlos, Brazil
- P329 Effect of modified atmosphere packaging systems on lamb meat appearance during refrigerated storage**  
Fernandes RPP 1, Freire MTA 1, Balieiro JCC 2, Rosa AF 2, Catunda FAP 1, Trindade, MA 1  
1 University of São Paulo, College of Animal Science and Food Engineering, Department of Food Science, Pirassununga, Brazil; 2 University of São Paulo, College of Animal Science and Food Engineering, Department of Basic Sciences, Pirassununga, Brazil
- P330 Microbiological and physicochemical characteristics of fresh meat and meat ball as affected by edible soy protein isolated films and coatings containing lactic acid-induced egg white powder**  
Chen SL 1, Weng YM 2, Huang JJ 2, Lin KJ 3  
1 Program of Agriculture Science, National Chiayi University, Chiayi, Taiwan, R.O.C.; 2 Department of Food Science, National Chiayi University, Chiayi, Taiwan, R.O.C.; 3 Department of Animal Science, National Chiayi University, Chiayi, Taiwan, R.O.C.
- P331 The influence of post-mortem ageing time and packaging conditions on the quality of fresh beef**  
Owczarek-Fendor A 1, De Meulenaer B 1, De Smet S 2, Van Bree I 1, Vermeulen A 1, Eriksson M 1, Lescouhier S 2, Vandersteene M 1, Devlieghere F 1  
1 Ghent University, Department of Food Safety and Food Quality, Ghent, Belgium; 2 Ghent University, Department of Animal Production, Ghent, Belgium

- P332 Early alteration of beef colour packaged in a modified atmosphere: investigation of indicators implicated in the phenomenon appearance**  
Parafita-Thomas E, Picgirard L  
Adiv, process engineering, technology and products quality department, Clermont-Ferrand, France
- P333 Combined effects of Nisin and modified atmosphere packaging on chemical, microbial and sensory properties of emulsion-type sausages**  
Khajehali E, Shekarforoush SS, Nazer AHK, Hoseinzadeh S  
Department of Food Hygiene and Public health, School of Veterinary Medicine, Shiraz university, Shiraz, Iran
- P334 Effect of argon on the quality loss of fresh poultry**  
List U 1, Rossaint S 1, Kreyenschmidt J 2  
1 University of Bonn, Institute of Animal Science, Preventive Health Management, Bonn, Germany; 2 University of Applied Science Münster, IKFM, Münster, Germany
- P335 Comparative effects of packaging and ageing on shelf life of chicken and rabbit hamburgers**  
Cossu ME, Picallo AB, Lamanna ML, Lazzari G, Cumini ML, Vello V, Raffaeli F  
Dto. Prod. Animal, Facultad de Agronomía, Univ. de Buenos Aires, Ciudad de Buenos Aires, Argentina

### **Part 3: Processing**

- P336 Preliminary Studies on the traditional processing of 'Kundi', an intermediate moisture meat**  
Fakolade PO  
Osun State University, College of Agriculture, Ejigbo Campus, Department of Animal Science and Fisheries, Osun State, Nigeria
- P337 Evaluation of storage condition and phosphate addition on the physicochemical properties and textural characteristics of model sausages manufactured with lamb**  
Chin KB 1, Kim YB 2, Rosenvold K 2  
1 Chonnam National University, department of Animal Science, Gwangju, South Korea; 2 AgResearch Limited, Agri-Food & Health Section, New Zealand
- P338 Droplets/particles distribution characterization of lean and back fat batters under controlled shear conditions**  
Zhang YW, Gao FF, Peng ZQ, Wang ZG, Zhu Y  
Nanjing Agricultural University, National Center of Meat Quality and Safety Control, Nanjing, China
- P339 Modelling of mincing processes by determination of meat cutting properties through the analysis of Warner Bratzler curve**  
Schnaeckel W, Krickmeier J, Oktaviani, Pongjjanyanukul W, Schnaeckel D  
Anhalt University of Applied Sciences, Faculty of Agriculture, Nutrition and Landscape Architecture, Department Food Technology, Bernburg, Germany
- P340 Rubber to glass transitions in model fermented salami as impacted by degree of drying**  
Herrmann K, Tommasi K, Gibis M, Weiss J  
University Hohenheim, Department of Food Physics and Meat Sciences, Institute of Food Science and Biotechnology, Stuttgart, Germany
- P341 Pearson's correlations between moisture content, drip loss, expressible fluid and salt-induced water gain of broiler pectoralis major muscle**  
Zhuang H, Savage Em  
ARS-USDA, Quality and Safety Assessment Research Unit, Athens, GA, United States
- P342 Influence of fat temperature on the energy consumption and product quality of fermented coarse meat emulsions manufactured in a continuous high shear Grinder-filler system**  
Armenteros M 1, Ventanas S 1, Morcuende D 1, Solano F 2, Estéve M 1  
1 Universidad de Extremadura, Facultad de Veterinaria, Cáceres, Spain

- 2 I+D+i 'Consortio de Jabugo S.A, Sevilla, Spain
- P343 Stabilizing co-extruded collagen casings with antimicrobial microemulsions**  
Mader K, Herrmann K, Gibis M, Weiss J  
University of Hohenheim, Institute of Food Science and Biotechnology, Department of Food physics and Meat Science, Stuttgart, Germany
- P344 Influence of drying method of microcrystalline cellulose (MCC) on fat reduction in emulsified meat systems**  
Schuh V, Hivincev A, Herrmann K, Gibis M, Weiss J  
University of Hohenheim, Institute of Food Science and Biotechnology, Department of Food Physics and Meat Sciences, Stuttgart, Germany
- P345 Tensile test and texture profile analysis for monitoring textural properties of commercial cooked ham**  
Herrero AM 1, Ordonez JA 2, Romero de Avila MD 2, de la Hoz L 2, Cabeza MC 2, Cambero MI 2  
1 Consejo Superior de Investigaciones Científicas.Instituto de Ciencia y Tecnología de Alimentos y Nutrición, Madrid, Spain; 2 Universidad Complutense, Facultad de Veterinaria, departamento de Nutrición, Bromatología y Tecnología de los Alimentos, Madrid, Spain
- P346 Optimization of sample preparation condition for meat laver production using response surface methodology**  
Kim GD 1, Jeong JY 2, Jung EY 1, Yang HS 1, Hur SJ 3, Joo ST 1  
1 Division of Applied Life Science (BK21 Program), Graduate School of Gyeongsang National University, Jinj, Republic of Korea; 2 Swine Scientific and Technology Center, Gyeongnam National University of Science and Technology, Jinju, Republic of Korea; 3 College of Biomedical and Health Science, Department of Applied Biochemistry, Konkuk University, Chungju, Republic of Korea
- P347 Quality of semi-dried chicken jerky incorporated with skin**  
Han DJ 1, Choi YS 1,2, Kim HY 1,2, Choe JH 1, Kim HW 1, Hwang KE 1, Lee ES 3, Kim CJ 1  
1 Konkuk University, Department of Food Science and Biotechnology of Animal Resources, Seoul, Korea; 2 Konkuk University, Research Institute for Meat Science and Culture, Seoul, Korea; 3 Genesis BBQ, Icheon, Korea
- P348 Influence of the addition of chemical modified glyceraldehyde 3-phosphate dehydrogenase on the gelling properties of porcine myofibril**  
Miyaguchi Y 1, Sakamoto T 1, Sasaki S 1, Nakade K 2, Ichinoseki S 2, Tanabe M 2, Numata M 2, Higashikuni N 2, Kosai K 2  
1 College of Agriculture, Ibaraki University, Ibaraki, Japan; 2 Central Research Institute, Itoham Foods Inc., Ibaraki, Japan
- P349 Modification of muscle structure in poultry meat caused by different meat recovery systems**  
Branscheid W, Bauer A, Troeger K  
Max Rubner Institut, Department of Safety and Quality of Meat, Kulmbach, Germany
- P350 Utilization of beer and brewer's grains to tenderize a sausage casing**  
Sakata R 1, Oshida T 1, Nishiumi T 2, Yoon H 3, Waga M 1  
1 School of Veterinary Medicine, Azabu University, Sagamihara, Japan; 2 Faculty of Agriculture, Niigata University, Niigata, Japan; 3 New-Asia Trading, Osaka, Japan
- P351 Quality of traits of cooked press hams manufactured with different muscles on pig**  
Seong P, Jeong D, Kang G, Cho S, Park B, Kim J, Jeong S, Kim H, Kim D  
National Institute of Animal Science, Animal Products Research and Development Division, Suwon, South Korea
- P352 The effect of salt and liver/fat ratio on the rheological properties of liver paste and its intermediates**  
Steen L 1,2, Goemaere O 1, Paelinck H 1, Foubert I 2  
1 Research Group for Technology and Quality of Animal Products, Catholic University College Ghent, Belgium; 2 Foods & Lipids, K.U.Leuven, KULAK, Kortrijk, Belgium

- P353 Comparison between natural and collagen synthetic casings in “Morcilla de Burgos” blood sausage**  
Gómez-Rojo EM, González J, Wilches-Perez D, Melero B, Osés SM, Diez AM, Jaime I, Rovira J  
Burgos University, Department of Biotechnology and Food Science, Burgos, Spain
- P354 Relationship between the collagen composition and instrumental and sensory texture of Italian cooked meat products prepared with high collagen raw meat**  
Barbieri G, Barbagallo G, Franceschini M, Pizza A, Rivaldi P  
Experimenta Station of Food Preserving Industry-SSICA, Meat Products, Parma, Italy
- P355 A pragmatic approach to avoid destructured zones in cooked ham**  
Scheeder M 1,2, Hugenschmidt G 1  
1 Swiss college of Agriculture (SHL), Department of animal science, Zollikofen, Switzerland; 2 SUISAG, Allmend, Sempach, Switzerland
- P356 Effect of the drying method on textural, colour and sensory attributes of Petrovská klobása (traditional dry-fermented sausage)**  
Tomović V 1, Jokanović M 1, Savatić S 1, Petrović Lj 1, Džinić N 1, Tasić T 2, Ikonić P 2  
1 Faculty of Technology, University of Novi Sad, Novi Sad, Serbia; 2 Institute for Food Technology, University of Novi Sad, Novi Sad, Serbia
- P357 Improving characteristics of beef nuggets by using different types of flour as coating materials**  
Serdaroğlu M, Yıldız-Turp G, Uzun P, Kara A  
Ege University, Food Engineering, İzmir, Turkey
- P358 Broiler chicken Charqui meat-like processing by applying hurdle technology**  
Coró FAG 1, Pedrão MR 1,2, Yamaguchi MM 1, Alfaro AR 3, Shimokomaki M 1,2  
1 Federal Technological University, Londrina, Paraná, Brazil; 2 Food Science and Technology, Londrina State University, Londrina, Paraná, Brazil; 3 Federal Technological University, Francisco Beltrão, Paraná, Brazil
- P359 Texture sensory and instrumental analysis: do they correlate?**  
Monteiro ACG, Fontes MA, Costa P, Lemos JP  
CIISA, FMV, Technical University of Lisbon, Lisbon, Portugal
- P360 The effect of brine concentration on diffusion and water distribution in pork muscles: a low-field nuclear magnetic resonance study**  
McDonnell C 1,2, Allen P 1, Duggan E 2, Cronin DA 2, Lyng JG 2  
1 Teagasc Food Research Centre, Ashtown, Dublin 15, Ireland; 2 University College Dublin, Belfield, Dublin 4, Ireland
- P361 Meat. Structural aspect of cooking**  
Brumfeld V  
The Weizmann Institute of Science, Chemical Research Support, Rehovot, Israel
- P362 Effect of L-cystein and method of cooking on rheological properties of sausage**  
Hosseini SE, Abbasi M, Mizani M, Khodabandeh M, Abbasi M  
Islamic Azad University, Science and Research Branch, Department of Food Science and Technology, Tehran, Iran
- P363 Monitoring the effects of salt and temperature on myofibrillar proteins in beef**  
McArdle R, Kerry JP, Hamill RM  
Teagasc Food Research Centre, Food Chemistry & Technology Department, Dublin, Ireland
- P364 Effects of adding microbial transglutaminase on hydration and textural properties of mechanically deboned chicken meat sausage**  
Ch'ng SE, Wolyna P, Murshidi A, Aminah A, Babji AS  
National University of Malaysia, School of Chemical science and Food Technology, Ukm Bangi, Malaysia

#### **Part 4: Technology**

- P365 Effects of injecting whole or slices of muscles concerning beef palatability**

- Patissier E, Picgirard L, Parafita-Thomas E  
Adiv, process engineering, technology and products quality department, Clermont-Ferrand, France
- P366 Impact of waiting time with or without vacuum packaging between injection and cooking on technological qualities of semimembranosus roasts from heifers**  
Patissier E, Picgirard L, Parafita-Thomas E  
Adiv, process engineering, technology and products quality department, Clermont-Ferrand, France
- P367 Effect of high pressure treatment on microbial and sensory quality of sliced dry-cured Iberian ham**  
Sánchez M, Viguera J, Espárrago Q, Martín MJ, Sanabria C  
Ciencia y Tecnología de los Alimentos, Escuela de Ingenierías Agrarias, Universidad de Extremadura, Ctra. Cáceres, Badajoz, Spain
- P368 High pressure processing of beef patties: effect on myofibrillar proteins and textural properties**  
Szerman N 1,2, Speroni F 2,3, Vaudagna S 1,2,4,5  
1 Instituto Tecnología de Alimentos, CIA, INTA, Argentina; 2 Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina; 3 Centro de Investigación y Desarrollo en Criotecnología de Alimentos (CIDCA), CONICET-UNLP, Argentina; 4 Facultad de Ingeniería y Ciencias Exactas, Universidad Argentina de la Empresa, Argentina; 5 Facultad de Agronomía y Ciencias Agroalimentarias, Universidad de Morón, Argentina
- P369 Monitoring the effects of high pressure processing, salt levels and refrigerated storage on sensory and technological properties of pork sausages**  
Hayes J, Allen P  
Teagasc Food Research Centre, Ashtown, Dublin 15, Ireland
- P370 Hygienic improvement of a traditional fermented and dry meat product by the application of high pressure technology**  
Mendonça J 1, Alfai AJ 2, Ribeiro MHL 2, Barreto AS 1, Fraqueza MJ 1  
1 Faculty of Veterinary Medicine, UT Lisbon, Centro de Investigação Interdisciplinar em Sanidade Animal (CIISA), Lisbon, Portugal; 2 Faculty of Pharmacy, University of Lisbon, Institute for Medicines and Pharmaceutical Sciences (iMed), Lisbon, Portugal
- P371 Effect of ultrasound-assisted curing on some quality characteristics of Semi-tendinosus beef meat**  
Asadi G 1, Sedighi M 1, Abbasi S 2, Behmadi H 3  
1 Islamic Azad University, Science and Research Branch, Department of Food Science and Technology, Tehran, Iran; 2 Tarbiat Modares University, Department of Food Science and Technology, Tehran, Iran; 3 Agricultural Engineering Research Institute, Karaj, Iran

## Poster session 15: Enhanced Meat Products

### Part 1: Fat, Salt and Nitrate Reduction

- P372 Effect of fat and sodium reduction on instrumental and sensory characteristics of liver paste**  
Van Leuven I 1, Goemare O 2, Steen L 2, Dirinck P 1, Paelinck H 2  
1 Catholic University College Ghent, K.U.Leuven Association, Laboratory for Flavour Research, Gent, Belgium; 2 Catholic University College Ghent, K.U.Leuven Association, Laboratory for Food Chemistry and Meat Technology, Gent, Belgium
- P373 Reducing sodium levels in frankfurters by using naturally brewed soy sauce**  
McGough MM 1, Sato T 3, Rankin SA 2, Borchert LL 1, Sindelar JJ 1

- 1 University of Wisconsin - Madison, Department of Animal Sciences, Madison, WI, USA; 2 University of Wisconsin - Madison, Department of Food Science, Madison, WI, USA; 3 Kikkoman R&D USA Laboratory, Inc., Madison, WI, USA
- P374 Researches concerning the influence of decreasing of sodium level in chicken breast emulsion**  
Mihociu ET 1, Belc N 1, Zachia M 1, Iorga E 1, Ionescu V 1, Stefan G 2  
1 R&D National Institute for Food Bioresources - IBA Bucharest, Departament interdisciplinary Research Dept., Bucharest, Romania; 2 ANGST SA, Buftea, Romania
- P375 A new processing method to reduce sodium in sausages without potassium chloride and phosphates**  
Aota K 1, Ichinoseki S 1, Numata M 1, Kosai K 1, Miyaguchi Y 2, Hayashi T 3, Haga S 3  
1 Central Research Institute, Itoham Foods Inc., Ibaraki, Japan; 2 College of Agriculture, Ibaraki University, Ibaraki, Japan; 3 Faculty of Agriculture, Meijo University, Nagoya, Japan
- P376 Effect of konjac gel as fat replacer in the characteristic of dry fermented sausages**  
Ruiz-Capillas C, Triki M, Herrero AM, Rodríguez L, Jiménez-Colmenero F  
ICTAN-CSIC, Department of Products, Madrid, Spain
- P377 Effect of the type of fat on the sensory attributes and instrumental texture parameters of reduced-fat non-acid fermented sausages**  
Mora-Gallego H 1, Serra X 1, Guàrdia MD 1, Miklos R 2, Lametsch R 2, Arnau J 1  
1 IRTA, Food Technology, Monells, Spain; 2 Department of Food Science, Faculty of Life Sciences, University of Copenhagen, Copenhagen, Denmark
- P378 Effect of replacing of animal fats with black cumin seed oil on the quality characteristics of weiner style sausages**  
Kaynakci E 1, Kiliç B 2  
1 Akdeniz University, Serik Higher School of Vocational Education, Antalya, Turkey; 2 Süleyman Demirel University, Faculty of Engineering and Architecture, Department of Food Engineering, Isparta, Turkey
- P379 Effect of replacing tallow with rice bran and olive oils on the quality properties restructured beef patties**  
Seo HW 1, Kim GD 1, Jung EY 1, Park JY 2, Eo SS 2, Joo ST 1, Yang HS 1  
1 Division of Applied Life Science (BK21), Graduate School of Gyeongsang National University, Jinju, South Korea; 2 Division of Animal Science, Graduate School of Gyeongsang National University, Jinju, South Korea
- P380 Kinetics of sodium nitrite degradation, nitrate and nitric oxide-haem pigment development during mortadella Bologna type sausage cooking**  
Bergamaschi M, Barbieri Ge, Franceschini M, Barbieri G  
Experimental Station for the Food Preservation Industry SSICA, Meat Products, Parma, Italy
- P381 The effects of salt concentration and the addition of phosphate on the quality characteristics of ohmic heated ground pork patties**  
Song M-S, Choi J-H, Kang K-M, Park J-S, Kwon S-H, Kim J-M, Kim C-J, Ku S-M, Seo W-D, Han J-W, Sagong H-G  
CJ CheilJedang, Foods Research Center, Seoul, South Korea
- P382 Salt and sodium content in dry fermented sausages and dried meat in Serbia**  
Lilic S, Saicic S, Vranic D, Trbovic D, Borovic B, Velebit B, Lakicevic B  
Institute of Meat Hygiene and Technology, Belgrade, Serbia
- P383 Estimation of NaCl apparent diffusivity of beef connective tissue sheets**  
Mirade PS, Portangen S, Daudin JD  
UR370 Qualité des Produits Animaux, INRA, Saint-Genès-Champanelle, France
- P384 Color changes in frankfurters manufactured with or without sodium nitrite and sodium ascorbate**  
Viguera J 1, Solano F 2, Armenteros M 3, Morcuende D 3, Estévez M 3  
1 Imasde Agroalimentaria, S.L., Spain; 2 Consorcio de Jabugo, S.A., Spain; 3 Food Technology Department, Faculty of Veterinary, University of Extremadura, Spain

- P385 Evaluation of technological and sensory properties of dry-fermented sausages with no added sodium chloride and enriched with probiotics, phytosterols, flavonoids and fructo-**  
Ferrini G, Guàrdia MD, Sárrag, C, Rubio R, Díaz I, Comaposada J, Arnau J  
IRTA, Food Technology, Finca Camps i Armet, Monells, Girona, Spain
- P386 Salt (NaCl) diffusion and distribution in rat skeletal muscle**  
Filgueras RS 1, Venien A 1, Peyrin F 1, Labas R 1, Henot JM 2, Astruc T 1  
1 INRA French Institute for Agricultural and Food Research, Clermont-Ferrand, Theix, France;  
2 University Blaise Pascal, Laboratory Magmas Volcanos, Clermont-Ferrand, France
- P387 Effect of steamed rice flour addition on quality characteristics of dried meat laver**  
Lim HJ, Park JY, Eo SS, Kim MJ, Joo ST, Yang HS  
Gyeongsang National University, Animal Science, Jinju, South Korea
- P388 Clean label shelf life extension in sausages: a challenge for the meat and meat processing industry**  
Impens S, Gyselinck C  
Kerry Ingredients and Flavours, R&D, Bornem, Belgium
- P389 Reduced nitrite in organic meat products**  
Verkleij TJ, Oostrom WHM  
TNO, Department of Food Ingredients, Zeist, the Netherlands
- P390 Effects of temperature and NaCl percentage on lipid oxidation in pork muscle and exploration of the controlling method using response surface methodology**  
Zhang JH, Jin GF, He LC, Wang JM  
Nanjing Agricultural University, College of Food Science and Technology, Nanjing, PRChina

## Part 2: Fat, Salt and Nitrate Reduction

- P391 Effects of addition of collagen and different degrees of comminution in the physical, chemical and sensory characteristics on chicken cooked ham**  
Prestes RC 1, Di Luccio M 2, Toniazzo G 2, Geremias R3  
1 Santa Catarina State University, Department of Food Engineering, Pinhalzinho, Brazil; 2 Universidade Regional do Alto Uruguai e das Missões, Graduate Program in Food Engineering, Erechim, Brazil; 3 Brasil Foods (BRF), Research and Product Development (IEF), Videira, Brazil
- P392 Properties and application of dietary fibers in meat technologies**  
Pryanishnikov V 1, Iltyakov A 2  
1 Saratov State University of Agriculture, technological Department, Saratov, Russia; 2 Veles Meat Plant, General Executive of Production, Kurgan City, Russia
- P393 Effect of the use of proteases on the characteristics of fermented sausages**  
Petrón MJ, Broncano JM, Carrapiso AI, Parra V, Timon ML  
Laboratory of Food Technology, Agricultural Engineering School, University of Extremadura, Spain
- P394 Effects of bacterial cellulose (nata) on the quality of frankfurter**  
Lin KW 1, Yu SY 2  
1 Providence University, Department of Food and Nutrition, Taiwan, ROC; 2 OmniHealth Group, Inc., New Taipei City, Taiwan, ROC
- P395 Evaluation of the functional properties in pork meat fermented by psychrotrophic lactic acid bacteria**  
Hayashi T, Washio S, Arakawa M, Taguchi M, Toyoda N, Haga S  
Faculty of Agriculture, Meijo University, Department of Applied Biological Chemistry, Nagoya, Japan
- P396 Cooked meat products enriched with calcium**  
Soto AM, Galán I, Gámez MC, García ML, Selgas MD  
Complutense de Madrid, Nutricion, Bromatologia y Tecnologia de Los Alimentos, Madrid,

Spain

**P397 Development and application of dietary fibers' and Soya protein complex in meat product technologies**

Ilyakov A 1, Pryanishnikov V 2

1 Veles Meat Plant, Kurgan city, Russia; 2 Saratov State University of Agriculture, Technological Department, Saratov, Russia

**P398 Effects of kimchi powder on quality characteristics of frankfurter sausages prepared with irradiated pork meat**

Kim HW 1, Choi JH 1, Choi YS 2, Kim HY 2, Choe JH 1, Choi SM 1, Lee MA 3, Lee JW 4, Kim CJ 1, 2

1 Department of Food science and Biotechnology of Animal Resources, Konkuk University, Seoul, South Korea; 2 Research Institute for Meat Science and Culture, Konkuk University, Seoul, South Korea; 3 World Institute of Kimchi, An Annex of Korea Food Research Institute, Seongnam, South Korea; 4 Team for Radiation Food Science and Biotechnology, Advanced Radiation Technology Institute, Korea Atomic Energy Research Institute, Jeongseup, South Korea

**P399 Evaluation of storage condition and phosphate addition on the physicochemical properties and textural characteristics of model lamb sausages**

Chin KB 1, Kim YHB 2, Rosenvold K 2

1 Chonnam National University, Department of Animal Science, South Korea; 2 AgResearch Ltd., Agri-Food & Health Section, New Zealand

**P400 Effects of chicken skin and wheat fiber mixture on quality properties of chicken frankfurter**

Kim HY 1, Choi YS 1, Han DJ 2, Choe JH 2, Kim HW 2, Park JH 2, Lee ES 3, Ju SJ 3, Lee SK 4, Kim CJ 1,2

1 Research Institute for Meat Science and Culture, Konkuk University, Seoul, Republic of Korea; 2 Department of Food Science and Biotechnology of Animal Resources, Konkuk University, Gwangjin-gu, Seoul, Republic of Korea; 3 R&D Center, Chicken University, Icheon, Republic of Korea; 4 Department of Animal Products and Food Science, Kangwon National University, Chuncheon, Korea

**P401 Characterization and detection of subsp. *Lactis* Sb 2 as probiotic starter in beef Nham**

Pilasombut K 1, Ngamyeesoon N 2, Sethakul J 1

1 Department of Animal Production Technology and Fisheries, Faculty of Agricultural Technology, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand; 2 Department of Plant Production Technology, Faculty of Agricultural Technology, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand

**P402 In vitro studied of Lactic acid bacteria as probiotic starter for fermented meat product**

Sitthigripong R 1, Pilsombut K 1, Ngamyeesoon N 2

1 Department of Animal Production Technology and Fisheries, Faculty of Agricultural Technology, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand; 2 Department of Plant Production Technology, Faculty of Agricultural Technology, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand

**P403 Effect of steamed rice flour addition on quality characteristics of dried meat laver**

Lim HJ, Park JY, Eo SS, Kim MJ, Joo ST, Yang HS

Gyeongsang National University, Animal Science, Jinju, South Korea

**P404 Functional properties of emulsion-type pork sausages by addition of natural shell calcium powder**

Jung DS 1, Choi JS 1, Park SH 1, Kim JH 2, Lee SH 3, Choi SH 4, Choi YI 1

1 Department of Animal Science, Chungbuk National University, Cheongju, South Korea; 2 Goesan Doora Food Incorporated, Goesan-gun, South Korea; 3 Department of Food and Nutrition, Seowon University, Cheongju, South Korea; 4 Department of Food Service Industry, Seowon University, Cheongju, South Korea

**P405 Sensory quality of the burger fermented with *Lactobacillus acidophilus* CRL 1014 mixed chicken and soybean residue**

- Bomdespacho LQ 1, Cavallini DCU 1, Pinto RA 1, Locca AFS 2, Silveira ETF 3, Rossi EA 1  
1 Department of Food and Nutrition, State University of São Paulo, Araraquara, SP, Brazil; 2 Department of Food Technology and Engineering, State University of São Paulo, São José do Rio Preto, SP, Brazil; 3 Meat Technology Centre, Institute of Food Technology, Campinas, SP, Brazil
- P406 The effect of adding rye bran, oat bran and barley fiber in low-fat sausages and meatballs**  
Pettersson K, Godard O, Eliasson A-C, Tornberg E  
Department of Food Technology, Engineering and Nutrition, Lund University, Lund, Sweden
- P407 Quality characteristics of highly extended cook-in ham as affected by replacement of sucrose by hydrolyzed corn starch or sorbitol**  
Lemos ALSC 1, Andrade JC 1, Hagiwara MMH 1, Bromberg R 1, Yamada EA 1, Abreu L 1, Frias B 2  
1 ITAL, Food Technology Institute, CTC-Meat Technology Centre, Campinas-SP, Brazil; 2 Corn Products Brasil, São Paulo-SP, Brazil
- P408 Starter cultures effects on proteolytic changes and amino acid content in fermented sausage**  
Aro AJM 1, Chaiña SA 2  
1 Department of Agro-industries, Faculty of Agricultural Sciences Altiplano, National University, Puno, Peru; 2 Department of Animal and Food Hygiene, Obihiro University of Agriculture and Veterinary Medicine, Inada, Obihiro, Hokkaido, Japan
- P409 Effect of chemically modified soy proteins and ficin-tenderized meat on the quality attributes of sausage**  
Aminlari M 1,2, Fallahi H 2, Ramezani R 2  
1 Department of Biochemistry, School of Veterinary Medicine; 2 Department of Food Science and Technology, Agricultural School, Shiraz University, Shiraz, Iran
- P410 Quality evaluation of beef parties extended with Cowpea flour**  
Apata ES 1, Akinjute OF 1, Apata OC 2, Okubanjo AO 3, Omojola AB 4, Adeyemi KO 5  
1 Meat Science Laboratory; Department of Animal Production; 2 Department of Home and Hotel Management, Olabisi Onabanjo University, Yewa Campus, Ayetoro Ogun State, Nigeria; 3 Department of Agricultural and Industrial Technology Babcock University, Ilishan, Remo, Ogun State, Nigeria; 4 Meat Science Laboratory, Department of Animal Science University of Ibadan, Nigeria; 5 National Productivity Centre, Sokoto, Nigeria
- P411 Effect of modified potato starch on physicochemical and sensory properties of sausage**  
Hosseini SE, Abbasi M  
Islamic Azad University, Science and Research Branch, Department of Food Science and Technology, Tehran, Iran

## Poster session 16: Lipids and Fatty Acids

- P412 Optimisation of rabbit meat sample preparation for fatty acid profile analysis**  
Dalle Zotte A 1, Szabó A 2, Tenti S 1, Szendrő Zs 2  
1 Department of Animal Science, University of Padova, Agripolis, Legnaro, Italy; 2 Kaposvár University, Kaposvár, Hungary
- P413 Fatty acid composition of chevon from goats supplemented with *Moringa oleifera* leaf meal**  
Moyo B 1, Masika PJ 2, Hugo A 3, Muchenje V 1  
1 Department of Livestock and Pasture Science, 2 Agricultural and Rural Development Research Institute (ARDRI), University of Fort Hare, Alice, South Africa; 3 Department of Microbial Biochemical and Food Biotechnology, University of Free the State, Bloemfontein, South Africa
- P414 Changes in the lipid content during the refrigerated storage of animal raw material**  
Ivankin A, Kuznetsova T, Bogdanova A, Gorbunova N

V.M. Gorbatov All-Russian Meat Research Institute of Rosselkhozacademia, Moscow, Germany

**P415 Improving the fat content of frankfurters and pâtés using a healthier oil combination as animal fat replacer**

Delgado-Pando G, Jiménez-Colmenero F, Ruiz-Capillas C  
ICTAN-CSIC, Department of Products, Madrid, Spain

**P416 Effects of lipid supplementation, method of preservation and cooking on nutritional and sensorial qualities of minced beef**

Normand J 1, Bertout A 1,2, Le Pichon D 3, Ribaud D 4, Evrat-Georgel C 5, Marzin V 6  
1 Institut de l'Elevage (French Livestock Institute), Meat Quality Department, Lyon, France; 2 ENSAIA (Engineering School in Agriculture), Nancy, France; 3 Chambres d'Agriculture de Bretagne, Cattle Experimental Unit of Maunon, Maunon, France; 4 Institut de l'Elevage, Biometrics Department, Paris, France; 5 Institut de l'Elevage, Meat Quality Department, Paris, France; 6 Institut de l'Elevage, Meat Quality Department, Villers-Bocage, France

**P417 Effect of whole linseed and protected-CLA enriched diet on beef sensory**

Barahona M 1, Sañudo C 1, Olleta JL 1, Alberti P 2, Realini CE 3, Campo MM 1  
1 Department of Animal Production and Food Science, University of Zaragoza, Zaragoza, Spain; 2 CITA de Aragón, , Zaragoza, Spain; 3 IRTA, Finca Camps i Arnet, Monells, Spain

**P418 Effects of sex and age on the expression of stearoyl-CoA desaturase in bovine muscle and adipose tissue**

Bureš D, Bartoň L, Kott T  
Institute of Animal Science, Prague, Czech Republic

**P419 Eating quality of lamb and broiler meat fed on linseed**

Zudaire G, Sarries MV, Insausti K, Beriain MJ, Gómez I, Arana A  
Escuela Técnica Superior de Ingenieros Agrónomos, Universidad Pública de Navarra, Campus de Arrosadia, Pamplona, Spain

**P420 Beef quality attributes as affected by increasing the intramuscular levels of vitamin E and omega-3 fatty acids**

Juárez M 1, Dugan MER 1, Aldai N 1, Basarab JA 2, Baron VS 1, McAllister TA 3, Aalhus JL 1  
1 Agriculture and Agri-Food Canada, Lacombe Research Centre, Lacombe, AB, Canada; 2 Alberta Agriculture and Rural Development, Lacombe Research Centre, Lacombe, AB, Canada; 3 Agriculture and Agri-Food Canada, Research Centre, Lethbridge, AB, Canada

**P421 Effect of substituting pork fat with sunflower seed oil and makgeolli lees fiber on quality characteristics of reduced-fat emulsion sausage**

Choi YS 1, Han DJ 2, Kim HY 2, Kim HW 2, Song DH 2, Choe JH 2, Park KS 2, Kim CJ 1  
1 Konkuk University, Research Institute for Meat Science and Culture, Republic of Korea; 2 Konkuk University, Department of Food Science and Biotechnology of Animal Resources, Republic of Korea

**P422 Fatty acids modulate adipocyte growth and development in pig: an approach from cell culture study**

Nakajima I, Oe M, Ojima K, Muroya S, Shibata M, Chikuni K  
National Institute of Livestock and Grassland Science, Tsukuba, Japan

**P423 Lipid characteristics of commercial lamb cuts**

Campo MM 1, Barahona M 1, Muela E 1, Perez P 2, Sañudo C 1  
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**P424 Cis-trans isomerization of unsaturated fatty acids in pork lipids by nitrite**

Kawahara S 1, Shibata K 2, Matsuoka Y 1, Muguruma M 1  
1 University of Miyazaki, department of Biochemistry and Applied Biosciences, Miyazaki, Japan; 2 Association of Meat Science and Technology Institute, Tokyo, Japan

**P425 Relationship between meat quality measurements in pigs fed with different dietary fat sources**

Alonso V, Provincial L, Najes LM, Guillén E, Gil M, Campo MM, Roncalés P, Beltrán JA

- Zaragoza University, Departement of Animal Production and Food Science, Zaragoza, Spain
- P426 Effect of mustard seed on fatty acids composition and lipid oxidation of cooked meat products**  
Karwowska M, Dolatowski ZJ  
Department of Meat Technology and Food Quality, University of Life Sciences in Lublin, Lublin, Poland
- P427 Intramuscular fat is reduced in lambs from sires selected for leanness**  
Pannier L 1,2, Gardner GE 1,2, Geesink GH 1,3, Ball AJ 1,4, Jacob RH 1,5, Pearce KL 1,2, Pethick DW 1,2  
1 Australian Cooperative Research Centre for Sheep Industry Innovation, Australia; 2 Murdoch University, School of Veterinary & Biomedical Sciences, Western Australia, Australia; 3 University of New England, Meat Science - Environmental and Rural Science, New South Wales, Australia; 4 University of New England, Meat & Livestock Australia, New South Wales, Australia; 5 Department of Agriculture and Food, Western Australia, Australia.
- P428 Differential cellularity and fatty acid profile in subcutaneous and mesenteric fat depots from Portuguese bovine breeds**  
Costa ASH 1, Lopes PA 1, Estevão M 1, Martins SV 1, Alves SP 2,3, Pinto RMA 4, Pissarra H 1, Correia JJ 1, Pinho M 1, Fontes CMGA 1, Prates JAM 1  
1 Universidade Técnica de Lisboa, Faculdade de Medicina Veterinária, CIISA, Lisboa, Portugal; 2 Unidade de Produção Animal, L-INIA, INRB, I.P., Vale de Santarém, Portugal; 3 Universidade do Porto, Instituto de Ciências Biomédicas de Abel Salazar, REQUIMTE, Vairão VC, Portugal; 4 Universidade de Lisboa, Faculdade de Farmácia, iMed.UL, Lisboa, Portugal
- P429 Effect of breed and diet on pork fat content and fatty acid composition**  
Madeira MS 1, Nascimento M 1, Alfaia CM 1, Alves SP 2, Bessa RJB 1, Prates  
1 CIISA, Faculdade de Medicina Veterinária, Lisbon, Portugal; 2 REQUIMTE, Unidade de Produção Animal, L-INIA, Instituto Nacional dos Recursos Biológicos, Vale de Santarém, Portugal
- P430 The effect of omega-3 rich oils on functionality, quality and consumer acceptance of low- and high-fat Bologna**  
Pietrasik Z, Wang H, Janz J  
Alberta Agriculture and Rural Development, Food Processing Development Centre, Leduc, Canada
- P431 Rhomboideus muscle fatty acid profile in advancing age of zebu cattle (*Bos indicus*)**  
Pedrão MR 1,3, Souza NE 1,2, Matsushita M 2, Coró FAG 1, Telles P 4, Shimokomaki M 1,3  
1 Federal Technological University, Paraná, Londrina, Paraná, Brazil; 2 Department of Chemistry, Maringá State University, Maringá, Paraná Brazil; 3 Food Science and Technology, Londrina State University, Londrina, Paraná, Brazil; 4 Frigorífico Rainha da Paz - Jataizinho, Paraná, Brazil
- P432 Effect of fat content on beef quality attributes in Nellore bulls**  
Bonin MN 1, Ferraz JBS 1, Silva SL 1, Rennó FP 2, Gomes RC 1, Nunes A 1, Nunes V 1, Syuffi F 1, Campo JHA 1, Novais F 1, Torralvo P 1, Figueiredo A 1  
1 College of Animal Science and Food Engineering, Department of Basic Sciences, Brazil; 2 College of Veterinary Medicine and Animal Science, Department of Animal Science, Brazil
- P433 Transfer of different exogenous fatty acids into milk and muscle in dairy cows**  
Nuernberg K 1, Angulo, J 2, Olivera M 2, Mahecha L 3, Nuernberg G 4, Dannenberger D 1  
1 Research Unit of Muscle Biology and Growth, FBN Leibniz Institute for Farm Animal Biology, Dummerstorf, German; 2 Group Biogenesis, Faculty of Agricultural Science, University of Antioquia, Medellin, Colombia; 3 Research group of Agricultural Science, Faculty of Agricultural Science, University of Antioquia, Medellin, Colombia; 4 Research Unit of Genetics and Biometry, FBN Leibniz Institute for Farm Animal Biology, Dummerstorf, Germany

- P434 Expression of SCD and LPL genes and fatty acid composition in subcutaneous adipose tissue of two Portuguese cattle breeds**  
Pires VMR, Costa ASH, Fontes CMGA, Prates JAM  
Faculdade de Medicina Veterinária, Bioquímica, Lisboa, Portugal
- P435 Effect of different dietary fat sources on fatty acid composition, fat stability and sensory acceptability of chicken breast meat**  
Hugo A 1, Els SP 2, Bothma C 1, De Witt FH 2, Van der Merwe HJ 2  
1 Food Science Division, Department of Microbial, Biochemical and Food Biotechnology, University of the Free State, Bloemfontein, South Africa; 2 Department of Animal, Wildlife and Grassland Science, University of the Free State, Bloemfontein, South Africa
- P436 Effects of cooking methods on fatty acids, trans fatty acid and conjugated linoleic acid in the Longissimus dorsi muscles of goats**  
Ebrahimi M 1, Rajion MA 1, Sazili AQ 2, Schonewille JT 3, Goh YM 1  
1 Department of Veterinary Preclinical Sciences, Faculty of Veterinary Medicine; 2 Department of Animal Science, Faculty of Agriculture, Universiti Putra Malaysia, UPM Serdang, Selangor, Malaysia; 3 Department of Nutrition, Faculty of Veterinary Medicine, Utrecht University, Utrecht, the Netherlands

### Poster session 17: Chemical Safety Issues

- P438 3-Monochloropropane-1,2-diol in smoked meat products**  
Jira W 1, Schallschmidt K 1, Hitzel A 1, Speer K 2, Schwägele F 1  
1 Max Rubner-Institut (MRI), Federal Research Institute of Nutrition and Food, Analysis Division, Kulmbach, Germany;  
2 Technical University of Dresden, Food Chemistry Department, Dresden, Germany
- P439 Ultra-high performance liquid chromatography tandem mass spectrometry in high-throughput confirmation and quantification of 34 anabolic steroids in bovine muscle**  
Vanhaecke L, Vanden Bussche J, Wille K, Bekaert K, De Brabander HF  
Ghent University, Department of Veterinary Public Health and Food Safety, Laboratory of Chemical Analysis, Merelbeke, Belgium
- P440 Effects of illegal treatments on meat quality of Charolaise bulls**  
Barbera S 1, Cannizzo FT 2, Biolatti B 2  
1 Università degli studi di Torino, Dipartimento di Scienze Zootecniche, Torino, Italy; 2 Università degli studi di Torino, Dipartimento di Patologia Animale, Torino, Italy
- P441 Effect of roasting, boiling and microwaving cooking method on doxycycline residues in edible tissues of poultry by microbial method**  
Javadi A  
Veterinary Science Faculty, Islamic Azad University, Tabriz Branch, Food Hygiene Department, Meat Inspection Division, Tabriz, Iran
- P442 Residues of aflatoxins in the meat of chicken and duck in Iran**  
Radmehr B 1, Malakzadeh R 1, Saemi M 1, Dallal Abbollahi N 2  
1 Department of Food Hygiene and Quality Control, School of Veterinary Medicine, Islamic Azad University-Karaj Branch, Iran; 2 School of biomedical engineering, Islamic Azad University-Science and Research Branch, Iran
- P443 Nuclear magnetic resonance spectroscopy as a tool to distinguish between irradiated and non-irradiated meat**  
Zanardi E, Caligiani A, Mariani M, Ghidini S, Palla G, Ianieri A  
University of Parma, Animal Production, Veterinary Biotechnology, Food Quality and Safety, Parma, Italy
- P444 Effects of alpha-tocopherol on the formation of lactones in beef rendered fat**  
Watanabe A, Imanari M, Yonai M, Shiba N  
Tohoku National Agricultural Research Center, Animal Production and Grassland Farming, Morioka, Japan

- P445 Polycyclic aromatic hydrocarbons contamination in dry-fermented sausage influenced by manufacturing options**  
Gomes A 1, Roseiro C 1, Almeida J 1, Elias M 2, Santos C 1  
1 Instituto Nacional de Recursos Biológicos, I. P., L-INIA - Unidade de Investigação de Tecnologia Alimentar (UITA), Lisboa, Portugal; 2 Universidade de Évora, Departamento de Fitotecnia, Évora, Portugal
- P446 Effect of lycopene addition on the formation of heterocyclic amines in fried beef patties**  
Gibis M, Irmscher S, Weiss J  
University of Hohenheim, Institute of Food Science, Department of Food Physics and Meat Science, Stuttgart, Germany
- P447 Impact of high pressure processing on the quality and safety of ready-to-eat Iberian chorizo and dry-cured loin**  
Bover-Cid S 1, Guàrdia MD 2, Claret A 2, Aymerich T 1, Arnau J 2  
1 IRTA, Food Safety Programme, Monells, Spain; 2 IRTA, Food Technology Programme, Monells, Spain
- P448 Biogenic amines in commercial dry fermented sausages as possible precursors of N-nitrosamines?**  
De Mey E 1, Dewulf L 1, Drabik-Markiewicz G 1,2, Derdelinckx G 3, Peeters M-C 3, Paelinck H 2  
1 Research Group for Technology and Quality of Animal Products, Catholic University College Ghent, Belgium; 2 University of Silesia, Institute of Chemistry, Katowice, Poland; 3 Department Microbial and Molecular Systems, Catholic University Leuven, Belgium
- P449 Development of analytical methods for multi-residue screening of penicillins in bovine muscle, chicken and milk**  
Song JY, Hu SJ, Cho DH, Joo HJ, Kim MO  
Korea Food and drug administration, Hazardous Substances Analysis Division, Incheon, South Korea
- P450 Vitamin D3 metabolism after ultra-high supplementation to beef animals to alleviate the effects of beta-agonist supplementation in feedlot cattle**  
Moloto KW, Frylinck L, Strydom PE, Modika KY  
Agricultural Research Council, Private Bag X2, Irene, South Africa
- P451 Liquid chromatography for the screening of antibiotic residues in feed and meat**  
Reig M 1, Aristoy MC 2, Toldrá F 2  
1 Instituto de Ingeniería de Alimentos para el Desarrollo, Universidad Politécnica de Valencia, Camino de Vera s/n, Valencia, Spain; 2 Instituto de Agroquímica y Tecnología de Alimentos (CSIC), Paterna, Valencia, Spain
- P452 Differences in biogenic amines content of dry-fermented sausage Petrovská klobása produced in traditional manner from hot deboned and cold meat**  
Tomović V 1, Petrović Lj 1, Tasić T 2, Mandić A 2, Jakanović M 1, Ikončić P 2, Šojić B 1  
1 Faculty of Technology, University of Novi Sad, Novi Sad, Serbia; 2 Institute for Food Technology, University of Novi Sad, Novi Sad, Serbia
- P453 Effect of the inclusion of smoking step in Iberian sausage processing on levels of polycyclic aromatic hydrocarbons**  
Martín-Cabello L 1, Carrapiso AI 1, Sánchez del Pulgar J 2, Torrado C 1, García C 2, Martín L 1  
1 Extremadura University, Animal Production and Food Science Dept., Agricultural Engineering School, Badajoz, Spain; 2 Extremadura University, Animal Production and Food Science Dept., Faculty of Veterinary, Cáceres, Spain
- P454 Development of a LC-UV-MS analytical method for malondialdehyde**  
Douny C, Dure R, Brose F, Degand G, Clinquart A, Scippo ML  
University of Liège, Departement of food sciences, Liège, Belgium
- P455 Effect of high pressure processing and storage temperature on *Listeria monocytogenes* counts, color and lipid oxidation in Iberian "chorizo"**

Cantero VJ 1, Ladero L 1, Ramírez MR 2, Cava R 1

1 Research Group Tradinnoval, Faculty of Veterinary Science, University of Extremadura, Cáceres, Spain; 2 Instituto Tecnológico Agroalimentario (INTAEX) (Technological Agri-food Institute), Badajoz, Spain

**P456 Effect of animal proteins of pork origin on biogenic amine formation in dry fermented sausage**

Kamenik J, Standarova E, Steinhauser L

University of Veterinary and Pharmaceutical Sciences Brno, Faculty of Veterinary Hygiene and Ecology, Brno, Czech Republic