



## Scientific Programme

### Day 0: Sunday 12<sup>th</sup> August 2018

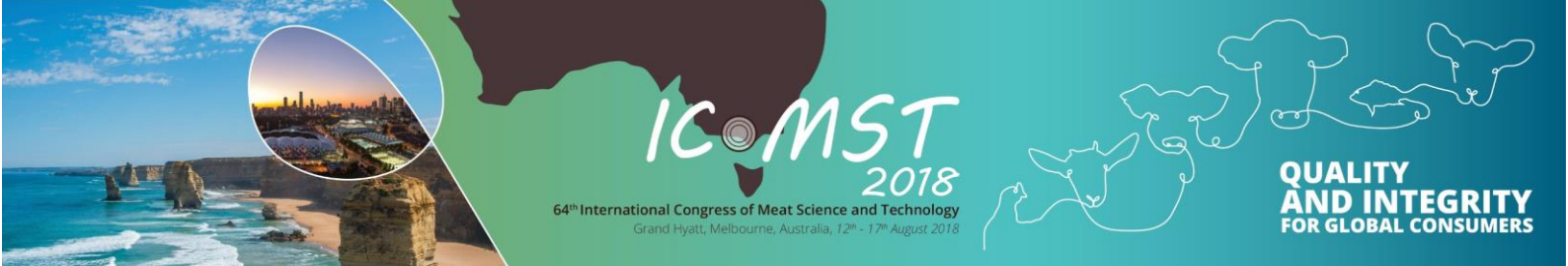
1400	<i>Registration open</i>	Level 8, Grand Hyatt
1500 – 1730	<b>Preconference Symposiums</b>	<b>Savoy Ballroom</b>
1500 – 1600	Corbion Symposium – Food Safety and Microbiology	
1630 – 1730	CHR Hansen Symposium - BioProtection	
1800 – 2000	<b>Welcome Reception</b>	<b>Level 8, Grand Hyatt</b>
	Sponsored by Agriculture Victoria. Meat supplied by Sunpork	

### Day 1: Monday 13<sup>th</sup> August 2018

0730	<i>Registration open</i>	Level 8, Grand Hyatt
0830 – 0855	<b>Official Opening</b>	<b>Savoy Ballroom</b>
	<i>Chair: Robyn Warner &amp; Frank Dunshea</i>	
	<b>Session 1: Provenance and fraud detection</b>	<b>Savoy Ballroom</b>
	Sponsored by APL	
0855 – 0930	Meat provenance: Authentication of geographical origin and dietary background of meat (plenary review)	<b>KEYNOTE:</b> Frank Monahan, Ireland
0930 – 1000	Analyses of drivers in Australian and Chinese markets for Beef and Pork	<b>KEYNOTE:</b> Hollis Ashman, Australia
1000 – 1010	Chinese perceived trust of security elements applied to Australian red-meat packaging	Caroline Francis, Australia
1010 – 1020	Comparison of Laboratory and Human Sensory Analysis of Meat (Beef) Textural Properties	Nelum Pematilleke, Australia
1020 – 1030	Common factor analysis of pork loin quality from chops cooked to 63°C.	Brandon Fields, USA
1030 – 1050	<i>Morning Tea</i>	



	<b>Session 2: Free papers</b>		<b>MSA Forum - How Australia's red meat industry has adopted eating quality science</b> <a href="#">View Program</a>
	<i>Chairs: Roman Buckow &amp; Phillip Strydom</i>		
	<i>Session Sponsor: MPSC Rinse &amp; Chill</i>		
1100 – 1110	Pre-slaughter hide washing affects meat quality in pasture finished cattle	Farrah Preston, Australia*	
1110 – 1120	Carcass chilling method and electrical stimulation effects on meat quality and color in lamb	Maggie Mickelson, USA *	
1120 - 1140	Address from the Minister for Agriculture	The Hon Jaala Pulford MLC	
1140 – 1150	Optimization of the electrical parameters of a new generation medium voltage stimulator in a Chinese abattoir	Yimin Zhang, China*	
1150 - 1200	Understanding of beef tenderness variability based on the continuum data using Chemometrics: A proof-of-concept study	Mohammed Gagaoua, France*	
1200 – 1210	Effects of mitochondrial function on beef color stability during early postmortem	Xin Li, China	
1210 – 1220	New freshness index, method and device to determine freshness status of meat and fish	Tõnu Püssa, Estonia	
1220 – 1230	Betaine ameliorates the impact of heat stress in broilers, improving breast muscle growth and reducing drip loss	Majid Shakeri, Australia*	
1230 - 1330	<i>Lunch and Poster Session</i>	<i>Sponsored by City of Melbourne</i>	
	<b>Session 3: Food Safety and Microbiology</b>		
	<i>Chairs: Heather Channon &amp; Linda Saucier</i>		
	<i>Session Sponsor: Elanco Australia</i>		
1330 – 1400	The role of meat in foodborne disease: Is there a coming revolution in risk assessment and management?	<b>KEYNOTE:</b> Narelle Fegan, Australia	
1400 – 1430	Genetics and microbiology of meat	<b>KEYNOTE:</b> Keith Belk, USA	
1430 – 1440	Validation study to demonstrate the reduction of pathogenic bacteria in a non-heated dry fermented salami	Juergen Schwing, Germany	
1440 - 1450	Control of microbial stability using vegetable ingredients (raddish, onion, garlic) in a processed meat product with reduced sodium levels	Mauricio Redondo –Solano, Costa Rica	
1450 – 1500	Microbiological and sensory evaluation of different types of meat from beef carcasses treated with lactic acid	Brice Minvielle, France	
1500 – 1510	Impact of feeding stage, cattle source, and season on salmonella prevalence in bovine lymph nodes	Ashley Arnold, USA*	
1510 – 1520	Comparing fecal and meat resistomes in USA beef, pork, and broiler production.	Margaret Weinroth, USA*	
1520 - 1620	<i>Poster session and afternoon tea</i>	<i>Sponsored by AMPC</i>	



# ICoMST 2018

64<sup>th</sup> International Congress of Meat Science and Technology  
Grand Hyatt, Melbourne, Australia, 12<sup>th</sup> - 17<sup>th</sup> August 2018

**QUALITY AND INTEGRITY FOR GLOBAL CONSUMERS**

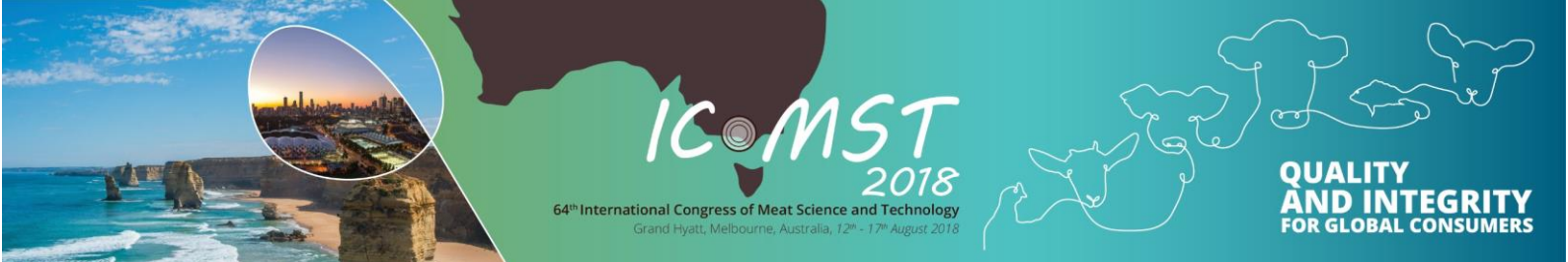
## Session 4: Free Papers

*Session Chairs: Phyllis Shand & Sarah Stewart*

*Session Sponsor: AgResearch*

1620 - 1630	Hydrodynamic shockwave treatment of meat for accelerated tenderisation and aging	Roman Buckow, Australia	
1630 - 1640	Vitamin E concentration in alpaca meat and its impact on oxidative traits during retail display	Melanie Smith, Australia*	
1640 -1650	Biochemical changes in 140-day stored vacuum packaged chilled beef and potential shelf-life markers	Damian Frank, Australia	
1650 - 1700	Investigation of exopolysaccharide-producing strains in fat-reduced spreadable raw fermented sausage	Jonas Hilbig, Germany*	
1700 - 1710	Effect of the addition of <i>Brosimum gaudichaudii</i> and <i>Pyrostegia venusta</i> hydroalcoholic extracts on the oxidative stability of beef burgers	Renata Macedo, Brazil	
1710 - 1720	Antioxidant supplementation is ineffective to reduce the frequency of PSE-like zones in pork hams	Antoine Vautier, France	
1720 - 1730	Exploring snacking behaviour of elderly for development of concept meat products	Behannis Mena-Chalas, Australia*	

**MSA 20<sup>th</sup> Anniversary Celebration, Grand Hyatt**



## Day 2: Tuesday 14<sup>th</sup> August 2018

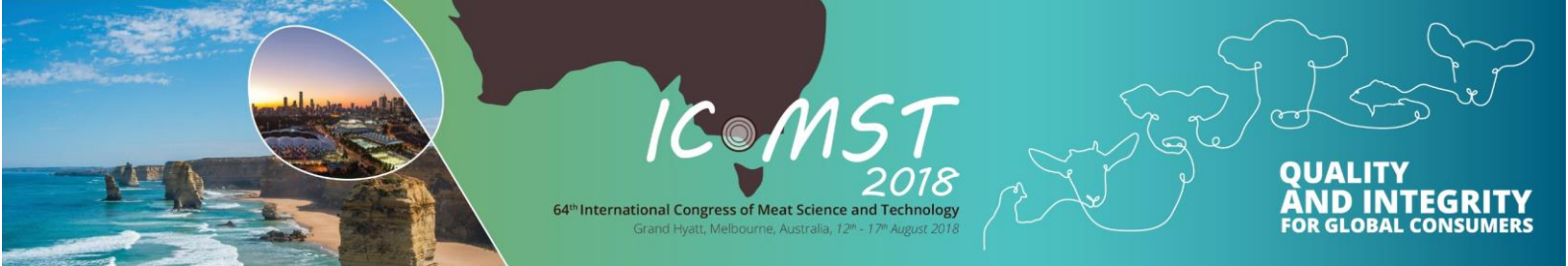
0800	<i>Registration open</i>	
	<b>Session 5: Revolution in biometrics and consumer sensory sciences</b>	
	<i>Session Chair: Evan Bittner &amp; Rhonda Miller</i>	
	<i>Session Sponsor: Pork CRC</i>	
0830 – 0900	Novel approaches to understand sensory and consumer responses toward food products: A review with a focus on meat	<b>KEYNOTE:</b> Damir Torrico, Australia
0900 – 0930	Factors affecting lamb eating quality and the potential for their integration into an MSA sheepmeat grading model	<b>KEYNOTE:</b> Liselotte Pannier, Australia
0930 – 1000	Understanding the effect of healthy trends on the aroma of wet and dry cured meat products	<b>KEYNOTE:</b> Monica Flores, Spain
1000 – 1010	Consumer acceptability of meat from lambs fed different pre-slaughter diets	Rufielyn Gravador, Ireland*
1010 – 1020	Chinese consumer assessment of sheep meat in traditional hotpot: the role of muscularity and intramuscular fat %.	Rachel O'Reilly, Australia*
1020 – 1030	Consumer response to eating quality of ovine and bovine meat and demographic effects	Melindee Hastie, Australia
1030 - 1100	<i>Morning Tea</i>	<i>Sponsored by ??</i>
	<b>Session 6: Value adding to meat and offal</b>	
	<i>Session Chairs: Peter Purslow &amp; Minh Ha</i>	
	<i>Session Sponsor: Marel</i>	
1100 - 1130	Opportunities and perspectives for utilisation of co-products in the meat industry	<b>KEYNOTE:</b> Carlos Alvarez, Ireland
1130 - 1200	Understanding postmortem biochemical processes and post-harvest aging factors to develop novel smart-aging strategies	<b>KEYNOTE:</b> Brad Kim, USA
1200 – 1210	DMHF generated from the maillard reaction in cooked meats promotes appetite.	Issei Yokoyama, Japan*
1210 – 1220	Effects of combining PEF treatment and drying conditions on conjugated linoleic acid and lipid oxidation of NZ venison	Tanyaradzwa Mungure, New Zealand*
1220 – 1230	A novel functional food material prepared from collagen-derived peptides by the maillard reaction	Keizo Arihara, Japan
1230 - 1330	<i>Lunch and Poster session</i>	<i>Sponsored by Pork CRC</i>
	<b>Session 7: Next generation technologies to assess carcass and meat quality</b>	
	<i>Session Chairs: Dagmar Brüggemann &amp; Rozita Vaskoska</i>	
	<i>Session Sponsor: Frontmatec</i>	
1330 – 1400	Calibration of an on-line dual energy X-ray absorptiometer for estimating carcass composition in lamb at abattoir chain-speed	<b>KEYNOTE:</b> Graham Gardner, Australia
1400 – 1430	Chemometrics and hyperspectral imaging applied to assessment of chemical, textural and structural characteristics of meat	<b>KEYNOTE:</b> Marlon dos Reis, New Zealand
1430 – 1440	Marbling score versus intramuscular fat % as predictors of beef eating quality	Sarah Stewart, Australia*
1440 – 1450	Online CT for assessment of meat quality	Lars Bager Christensen, Denmark
1450 – 1500	Quality and consumer acceptability of in-bag dry- and wet-aged lamb	Renyu Zhang, New Zealand



1500 - 1600	<i>Poster session and afternoon tea</i>	<i>Melbourne University</i>
<b>Session 8: Free Papers</b>		
<i>Session Chairs: David Pethick &amp; Koorosh Khodabandehloo</i>		
<i>Session Sponsor: BMC</i>		
1600 – 1610	Assessment of meat eating quality characteristics of beef m. Longissimus thoracis et lumborum by way of raman spectroscopy	Jamie Cafferky, Ireland*
1610 – 1620	Estimation of meat tenderness using visible-near-infrared spectroscopy	Tharcilla Alvarenga, Australia*
1620 – 1630	Analyzing intramuscular fat content in pork longissimus lumborum using Raman spectroscopy	Petter Anderson, Norway*
1630 – 1640	Towards an automated pork belly system based on degree of firmness	Manuel Juarez, Canada
1640 – 1650	Metabolomics profiling of meat exudate to understand the impact of postmortem aging on oxidative stability of beef muscles	Derico Setyabrata, USA*
1650 – 1700	Towards a Pan-European computed tomography procedure for determining the new EU lean meat content of pigs	Gerard Daumas, France
1700 – 1710	Opportunities and Challenges in Food Automation - Shaping the future	Koorosh Khodabandehloo, England

**Meat Automation Networking Function, Grand Hyatt**





**Day 3: Wednesday 15<sup>th</sup> August 2018**

0800 *Technical and Scenic Tours (please refer to the website for further information)*

**Tour 1: Beef – Yea/Kinglake (previously Gippsland)**

**Tour 2: Beef / Sheep- Brooklyn**

**Tour 3: Dry Ageing**

**Tour 4: Food Technology – Mornington Peninsula**

**Tour 5: Food Technology – University of Melbourne**

**Tour 6: Dookie / Sheep**

**Tour 7: Pork / West**

**Tour 8: Melbourne Walking Tour**

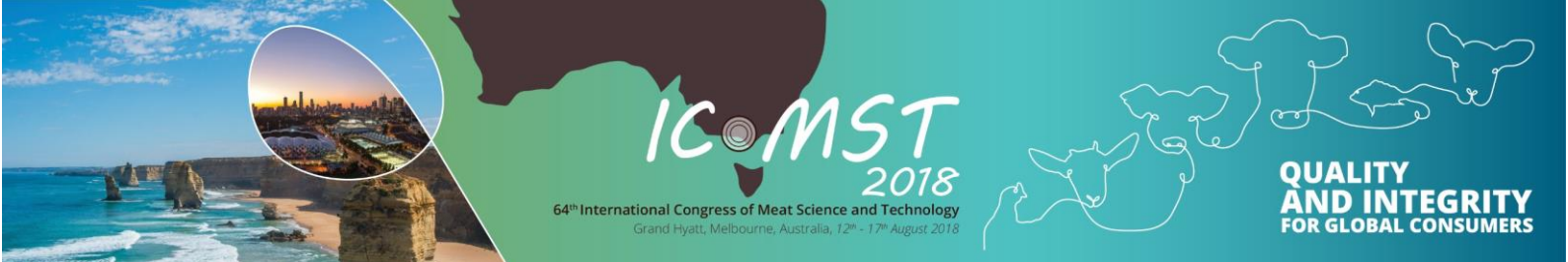
**Free Evening to enjoy some of the local restaurants**

**Please note that you must be pre-registered for the tours. Places are limited.**



## Day 4: Thursday 16<sup>th</sup> August 2018

0800	<i>Registration open</i>	
	<b>Session 9: Glycolytic and proteolytic metabolism across species</b>	
	<i>Session Chairs; David Gerrard &amp; Fiona Anderson</i>	
	<i>Session Sponsor: Rivalea</i>	
0830 – 0900	On farm factors increasing dark cutting in pasture finished beef cattle	<b>KEYNOTE:</b> Peter McGilchrist, Australia
0900 – 0930	Postmortem glycolysis and glycogenolysis: insights from species comparisons	<b>KEYNOTE:</b> Eric England, USA
0930 – 1000	Contribution of collagen and connective tissue to cooked meat toughness; some paradigms reviewed	<b>KEYNOTE:</b> Peter Purslow, Argentina
1000 – 1030	Contribution of nitric oxide and protein S-nitrosylation to variation in fresh meat quality	<b>KEYNOTE:</b> Wangang Zhang, China
1030 - 1100	<i>Morning Tea</i>	
	<b>Session 10: Free papers</b>	
	<i>Session Chairs: Robert Hewitt &amp; Xin Li</i>	
	<i>Session Sponsor: SunPork</i>	
1100 – 1110	Can pre-slaughter stress blood indicators be used to predict dark cutting in lambs?	Thuthuzelwa Stempa, South Africa*
1110 – 1120	Sarcoplasmic protein profile as a predictor of aged pork loin tenderness	Matt Schulte, USA*
1120 – 1130	Inhibition of cathepsins reduces longitudinal shrinkage and prevents transversal swelling during heating of semitendinosus muscle fiber fragments.	Rozita Vaskoska, Australia*
1130 – 1140	Light scattering in beef longissimus muscle is mainly generated by shrinkage of the myofilament lattice, myofibrils & muscle fibres	Joanne Hughes, Australia
1140 – 1150	Metabolomic investigation of tenderness and aging response in beef longissimus steaks	Tommy Wheeler, USA
1150 – 1200	Effect of pulsed electric field on the calpain activity and proteolysis of beef semimembranosus muscle	Zuhaib Bhat, New Zealand
1200 – 1210	Meat metabolome of nellore bulls with divergent genetic potential for growth	Nara Regina Brandão Cônsolo, Brazil*
1210 – 1220	Consumer acceptability of bison steaks treated with oregano and rosemary essential oils	Vipasha Sood, Canada*
1220 – 1230	Effect of electrical stimulation on beef carcass during the maturation period under commercial conditions in Uruguay	Caterina Rufo, Uruguay
1230 - 1330	<i>Lunch and Poster Session</i>	
	<i>Sponsored by University of Melbourne</i>	



**Session 11: Smart packaging for quality, safety and integrity**

*Session Chairs: Hollis Ashman & Steve Lonergan*

*Session Sponsor:-Hassad*

1330 – 1400	Case studies of packaging and processing solutions to improve meat quality and safety	<b>KEYNOTE:</b> Mari Ann Tørngren, Denmark
1400 – 1430	Meat packaging solutions to current industry challenges: A review	<b>KEYNOTE:</b> Benjamin Holman, Australia
1430 – 1440	The potential role of nitrite-embedded film in extending the color stability and shelf life of a cured, cooked meat product	Michael Cropp, USA*
1440 – 1450	The oxygen concentration required in modified atmosphere packaging to maintain meat colour over retail display	Maddison Corlett, Australia*
1450 – 1500	Film-forming properties and structure characterization of edible bones collagen-chitosan blend film	Dequan Zhang, China

1500 - 1600 *Poster session and afternoon tea*

**Session 12: Free Papers**

*Session Chairs: Caroline Kealey & Caroline Francis*

*Session Sponsor: FreshPork NZ*

1600 – 1610	The effect of shockwave processing on muscle protein structure and digestibility in vitro	Feng Ming Chian, New Zealand*
1610 – 1620	Sensory texture analysis of marinated and non-marinated wooden breast fillet portions	Hong Zhuang, USA
1620 – 1630	The role of moisture evaporation on flavor precursors and taste of dry-aged beef	Hyun Jung Lee, Korea*
1630 – 1640	The effect of muscle source on ground beef flavor and texture	Devin Gredell, USA*
1640 – 1650	Consumers assessment of beef steaks of varying hanging methods and ageing times	Jean-François Hocquette, France
1650 – 1700	Effect of inoculation ratio of mold and yeast on beef sirloin during dry ageing	Seonjin Kim, Korea*

***Social Function: Gala Dinner – Plaza Ballroom, Queen Victoria Theatre***

*Pork supplied by Rivalea*





## Day 5: Friday 17<sup>th</sup> August 2018

0830	<i>Registration open</i>	
	<b>Session 13: Dietary muscle proteins for stage of life</b>	
	<i>Session Chairs: Jean-François Hocquette &amp; Jane-Ann Boles</i>	
	<i>Session Sponsor: AMSA</i>	
0900 – 0930	A brief history of meat in the human diet and current health implications	<b>KEYNOTE:</b> Neil Mann, Australia
0930 – 1000	Dietary meat and protection against sarcopenia	<b>KEYNOTE:</b> Gordon Lynch, Australia
1000 – 1010	Feeding camelina for heavy lamb and hogget production: carcass traits, composition and meat quality	Eric Ponnampalam, Australia
1010 – 1020	Effect of caraway ( <i>Carum carvi</i> L.) essential oil addition on masking boar taint in cooked pork sausage	Igor Tomasevic, Serbia
1020 – 1030	Inhibition of heterocyclic aromatic amines with cinnamon and Chinese prickly ash for roasted meat	Zhenyu Wang, China
1030 - 1100	<i>Morning Tea</i>	
	<b>Session 14: Process control in the meat industry</b>	
	<i>Session Chairs: Matthew O'Bryan &amp; Greg Harper</i>	
	<i>Session Sponsor: Zoetis</i>	
1100 – 1130	Guaranteeing the quality and integrity of pork – An Australian case study	<b>KEYNOTE:</b> Heather Channon, Australia
1130 – 1200	Current and future commercial high volume prospects for carcass to cook traceability	<b>KEYNOTE:</b> Sean Starling, Australia
1200 – 1300	<b>Summary / close followed by Lunch</b>	

\* - denotes young scientist who has nominated to be considered for Meat Science Award