



14th International Symposium Digestive Physiology of Pigs

Brisbane, Australia ◀ August 21–24, 2018

Scientific program as at 16 August 2018

Tuesday 21 August 2018

Satellite Symposia – Boulevard Level, Brisbane Convention and Exhibition Centre, South Bank, Brisbane

08:30–12:00	Satellite Symposium – Boulevard Auditorium : COST Action FA1401 – PiGutNet: <i>Factors affecting the gastro-intestinal microbial balance and the impact on the health status of pigs</i>
08:30–12:00	Satellite Symposium – Room B1&B2 : Evonik: <i>Trends in Feeding Concepts for Optimal Swine Production</i>
13:00–16:30	Satellite Symposium – Boulevard Auditorium : DSM Nutritional Products: <i>Gastro-Intestinal Functionality and Health</i>
13:00–16:30	Satellite Symposium – Room B1&B2 : Riddet Institute: <i>The Pig as a Nutritional Model for the Human</i>
16:30–18:30	Welcome reception , Boulevard Auditorium Foyer, Brisbane Convention and Exhibition Centre
18:30–19:30	ISC meeting, Room B1 (invitation only)

Wednesday 22 August 2018

	Boulevard Auditorium, Brisbane Convention and Exhibition Centre, South Bank, Brisbane
08:00–08:15	Opening remarks
08:15–08:55	Keynote presentation: Nutrient-specific appetites and the ecology of diet balance – 100 Prof Stephen Simpson, The University of Sydney
08:55–09:30	Asia-Pacific Nutrition Award presentation and Keynote presentation: Nutritional regulation of porcine intestinal development and weaning stress – 101 Prof Yulong Yin, Institute of Subtropical Agriculture, Chinese Academy Of Sciences
	Session 1 – GIT nutrient sensing and the enteroendocrine system
09:30–10:30	Main presentation: Chemosensing of nutrients and non-nutrients in the human and porcine guts – 102 Prof Inge Depoortere, KU Leuven and Assoc Prof Eugeni Roura, University of Queensland, Australia
10:30–11:00	Morning break and exhibition viewing
11:00–12:30	S1 – Short oral presentations
11:00–11:15	L-arginine modulates gut hormone release through the calcium sensing receptor in vitro and in vivo – 103 Suqin Hang, Nanjing Agricultural University, China
11:15–11:30	Duodenum and ileum respond to amino acids with increased CCK and GLP-1 release using an ex-vivo model in weaned pigs – 104 Maximiliano Müller, The University of Queensland, Australia
11:30–11:45	Minor dietary supplementation with a protein hydrolysate improves ileal mucosal integrity and nutrient transport, potentially mediated by increased GLP-1/GLP-2 secretion – 105 Gemma Tedo, Lucta SAUAB Research Park, Spain
11:45–12:00	Maternal conditioning with monosodium glutamate increases innate umami and sweet taste sensitivity in piglets – 106 Sergio A. Guzmán-Pino, Universidad de Chile, Chile
12:00–12:15	Upregulation of the GPR84 medium-chain fatty acid sensor in porcine ileum in pigs fed a high soluble fibre (inulin) diet – 107 Nadia De Jager, The University of Queensland, Australia
12:15–12:30	Acceptability and palatability of garlic flavoured feed after social learning in nursery pigs – 108 Jaime Figueroa, Pontificia Universidad Católica De Chile, Chile

12:30–14:30	Lunch and poster session 1
	Session 2 – Gut health and intestinal immunity (challenges to gut health)
14:30–15:30	Main presentation: Linking intestinal immunity to applied approaches in pig nutrition – 109 Dr Brooke Humphrey, Cargill, United States of America
15:30–16:00	Afternoon break and exhibition viewing
16:00–17:30	S2 – Short oral presentations
16:00–16:15	Impact of Porcine Reproductive and Respiratory Syndrome virus and reduced feed intake on jejunum function and integrity in pigs – 110 Shelby Curry, Iowa State University, United States of America
16:15–16:30	Post-weaning diarrhoea in piglets in practice is associated with protein fermentation, but specific protein fermentation metabolites contribute differently – 111 M. S. Gilbert, Wageningen University and Research, Netherlands
16:30–16:45	FeedOmics, an approach towards understanding gut-health influenced by dietary protein source in pigs – 112 Soumya Kar, Wageningen University and Research, Netherlands
16:45–17:00	Early-life Lactoferrin intervention alleviates the diarrhea by modulating intestinal permeability and changing the microbiota in suckling piglets – 113 Ping Hu, Wang Jing, National Center for International Research on Animal Gut Nutrition, Jiangsu Key Laboratory of Gastrointestinal Nutrition, China
17:00–17:15	Late gestation diet supplementation of resin acid-enriched composition increases sow colostrum IgG, piglet colostrum intake and modulates sow gut microbiota – 114 Shah Hasan, University of Helsinki, Finland
17:15–17:30	Laminarin improves performance and intestinal health in post weaned pigs – 115 Ruth Rattigan, University College Dublin, Ireland
19:00–22:00	DPP2018 Barbecue dinner Southbeach Social, South Bank

Thursday 23 August 2108

	Boulevard Auditorium, Brisbane Convention and Exhibition Centre, South Bank, Brisbane
09:00	Opening remarks
	Session 3 – Rate and extent of ingredient digestion in the small intestine
09:00–09:45	Main presentation: Rate and extent of macronutrient digestion in the small intestine: multiple mechanisms and consequences – 116 Prof Mike Gidley, The University of Queensland, Australia
09:45–10:15	Morning break and exhibition viewing

10:15–11:45	S3 – Short oral presentations
10:15–10:30	In vitro and in vivo starch digestion kinetics of diets varying in dietary fibre content and composition – 117 Knud E. Bach Knudsen, Aarhus University, Denmark
10:30–10:45	Adaptation of feed intake behaviour of pigs to diets differing in resistant starch – 118 Rik van Erp, Wageningen University, Netherlands
10:45–11:00	Branched isomalto-oligosaccharides increase nutrient digestibility enhancing microbial activity in ileal-cannulated pigs – 119 Charlotte Maria Elisabeth Heyer, University of Alberta, Canada
11:00–11:15	Crystalline amino acids in diets do not influence calculated values for amino acid digestibility in feed ingredients fed to pigs - 120 Maryane Oliveira S. F., University of Illinois at Urbana-Champaign, United States of America
11:15–11:30	Apparent amylase diffusion coefficient of milled grains determined in vitro is related to digestibility and the growth of pigs - 121 Vishal Ratanpaul, The University of Queensland, Australia
11:30–11:45	The influence of physical properties of feed and digesta on gastric emptying in pigs – 122 Bianca Martens, Wageningen University and Research Centre, Netherlands
11:45–12:15	International travel grant presentations
12:15–14:00	Lunch and poster session 2
	Session 4 - Metabolic health and brain activity modulated by the gut
14:00–15:00	Main presentation: Impact of food, gut-brain signals, and metabolic status on brain activity in the pig model: 10 years of nutrition research using in vivo brain imaging - 123 Dr David Val-Laillet, Institut National de la Recherche Agronomique, France,
15:00–15:30	Afternoon break and exhibition viewing
15:30–17:00	S4 - Short oral presentations
15:30–15:45	Insulin resistant pig as a model for type 2 diabetes (T2D) in humans - 124 Romuald Zabielski, Warsaw University of Life Sciences, Poland
15:45–16:00	Plasma metabolites related to nitrogen efficiency in low and high birth weight pigs - 125 Lisanne Verschuren, Wageningen University and Research, Netherlands
16:00–16:15	FTO protein expression in gastrointestinal tract as a marker of nutritional status - 126 Maria Sady, Warsaw University of Life Sciences, Poland
16:15–16:30	Relation between farm health status, immune stimulation, amino acid metabolism, and N-efficiency in growing pigs - 127 Sonja de Vries, Animal Nutrition Group, Wageningen University and Research, Netherlands
16:30–16:45	Antibiotics-induced modulations of large intestinal microbiota altered bile acid profile and host lipid metabolism of piglets - 128 Yu Pi, Nanjing Agriculture University, China
16:45–17:00	Carryover effect of prior fiber type consumed on metabolic markers and fecal microbiome in Ossabaw pigs - 129 Kolapo Ajuwon, Purdue University, United States of America
19:00–23:00	Symposium gala dinner, UQ Customs House

Friday 24 August 2018

	Boulevard Auditorium, Brisbane Convention and Exhibition Centre, South Bank, Brisbane
9:00	Opening remarks
	Session 5 - Microbiome development and barrier function
9:00–10:00	Main presentation: Microbial endocrinology: Why the integration of microbiology, neurobiology and nutrition matters to overall health and behavior in pigs - 130 Prof Mark Lyte, Iowa State University, United States of America
10:00–10:30	Morning break and exhibition viewing
10:30–12:00	S5 - Short oral presentations
10:30–10:45	The effect of environmental challenge on gut microbiota composition in growing pigs - 131 Xiaonan Guan, Schothorst Feed Research / HMI Wageningen UR, Netherlands
10:45–11:00	Associations between birthweight, performance and faecal microbiota of piglets pre and post-weaning - 132 Clare Gaukroger, Newcastle University, United Kingdom
11:00–11:15	Early-life feeding accelerates gut microbiota colonisation patterns in piglets - 133 Raka Choudhury, Wageningen University and Research, Netherlands
11:15–11:30	Impacts of dietary fiber and carbohydrases on intestinal microbiota in ETEC challenged pigs - 134 Qingyun Li, Iowa State University, United States
11:30–11:45	Effect of dietary carbohydrase supplementation and soaking of cereals on intestinal microbiota in grow-finishing pigs - 135 Alberto Torres-Pitarch, Teagasc, Ireland
11:45–12:00	Dietary zinc oxide or Zn-Lysinate differentially modulate the colon microbiome, microbial activity and antibiotic resistance genes in weaned piglets – 136 Jürgen Zentek, Freie Universität Berlin, Germany
12:00–12:15	Announcement of best student papers and posters DPP2018 closing remarks
12:15–14:00	Lunch and farewell