

Publications

Published papers

- L. J. Broom. 2019. Host-microbe interactions and gut health in poultry - focus on innate responses (invited review – under review).
- L. J. Broom and M. H. Kogut. 2019. Deciphering desirable immune responses from disease models with resistant and susceptible chickens. *Poultry Science*, 98: 1634-1642.
- L. J. Broom and M. H. Kogut. 2018. The role of the gut microbiome in shaping the immune system of chickens. *Veterinary Immunology and Immunopathology*, 204: 44-51.
- L. J. Broom and M. H. Kogut. 2018. Gut health in poultry and considerations of additives as alternatives to antibiotics. *CAB Reviews*, 13: 38.
- L. J. Broom and M. H. Kogut. 2018. Inflammatory phenotypes in the intestine of poultry: not all inflammation is created equal. *Poultry Science*, 97: 2339-2346.
- L. J. Broom and M. H. Kogut. 2018. Gut immunity: its development and reasons and opportunities for modulation in monogastric production animals. *Animal Health Research Reviews*, 19: 46-52.
- L. J. Broom. 2018. Gut barrier function: effects of (antibiotic) growth promoters on key barrier components and associations with growth performance. *Poultry Science*, 97: 1572-1578.
- L. J. Broom and M. H. Kogut. 2018. Inflammation: friend or foe for animal production? *Poultry Science*, 97: 510-514.
- M. H. Kogut, X. Yin, J. Yuan, L. J. Broom. 2017. *Gut Health in Poultry*. CAB Reviews, 12: 31.
- L. J. Broom. 2017. The sub-inhibitory theory for antibiotic growth promoters. *Poultry Science*, 96: 3104-3108.
- N. Khodambashi Emami, A. Daneshmand, S. Zafari Naeini, E. N. Graystone, L. J. Broom. 2017. Effects of commercially available acidifiers on male broilers challenged with *E. coli* K88 (I): performance, microbiology, immunology, short chain fatty acids, and digesta pH. *Poultry Science*, 96: 3254-3263.
- L. J. Broom. 2017. Necrotic enteritis; current knowledge and diet-related mitigation. *World's Poultry Science Journal*, 73: 281-292.
- L. J. Broom. 2015. Organic acids for improving intestinal health of poultry. *World's Poultry Science Journal*, 71, 630-642.
- L. J. Broom. 2015. Mycotoxins and the intestine. *Animal Nutrition*, 1, 262-265.

R. D. Slade, I. Kyriazakis, S. M. Carroll, F. H. Reynolds, I. J. Wellock, L. J. Broom, H. M. Miller. 2011. Effect of rearing environment and dietary zinc oxide on the response of group-housed weaned pigs to enterotoxigenic *Escherichia coli* 0149 challenge. *Animal*, 5: 1170-1178.

L. J. Broom, H. M. Miller, K. G. Kerr, J. S. Knapp. 2006. Effects of zinc oxide and *Enterococcus faecium* SF68 dietary supplementation on the performance, intestinal microbiota and immune status of weaned piglets. *Research in Veterinary Science*, 80: 45-54.

L. J. Broom, H. M. Miller, K. G., Kerr, P. Toplis. 2003. Removal of both zinc oxide and avilamycin from the post weaning diet: consequences for performance through to slaughter. *Animal Science*, 77: 79-84.

Conference papers

L. J. Broom, A. Konstanti, D. Harrington, A. A. K. Al-Rubaye, D. Rhoads. 2017. Oregano essential oil product reduces BCO lameness. Proc. 66th Western Poultry Disease Conference, Sacramento, USA.

L. J. Broom, A. Konstanti, T. Cogan, D. Harrington. 2017. Omega 3s reduce *Campylobacter* in broiler chickens. Proc. 66th Western Poultry Disease Conference, Sacramento, USA.

D. Harrington, A. Konstanti, G. Mathis, L. J. Broom. 2017. The effect of an oregano-based feed additive (Orego-Stim) on the development of coccidial immunity and bird performance during *Eimeria* challenge. Proc. 66th Western Poultry Disease Conference, Sacramento, USA.

L. J. Broom, A. Owusu-Asiedu, A. Konstanti, I. Giannenas. 2017. Commercial organic acid blend improves broiler gut health and performance. International Poultry Scientific Forum, Atlanta, USA.

D. Harrington, A. Konstanti, G. Mathis, L. J. Broom. 2017. Efficacy of an oregano-based phytogetic on bird performance during coccidial challenge. International Poultry Scientific Forum, Atlanta, USA.

L. J. Broom, A. Konstanti, D. Harrington, A. A. K. Al-Rubaye, 2017. Organic acid based product reduces BCO lameness in broilers. International Poultry Scientific Forum, Atlanta, USA.

A. Konstanti, D. Harrington, G. Mathis, L. J. Broom. 2016. The effect of oregano essential oil on the immunity of broilers vaccinated against coccidiosis. Poultry Science Association Annual Meeting, New Orleans, USA.

D. Harrington, A. Konstanti, G. Mathis, L. J. Broom, 2016. Oregano essential oil improves performance in coccidiosis-vaccinated broilers. Poultry Science Association Annual Meeting, New Orleans, USA.

A. Konstanti, L. J. Broom, A. Owusu-Asiedu, D. Harrington, I. Giannenas. 2016. Commercial oregano product increases intestinal cell proliferation, antioxidant capability and performance in broilers. Poultry Science Association Annual Meeting, New Orleans, USA.

K. Schuh, A. Owusu-Asiedu, A. Konstanti, E. Graystone, L. J. Broom, G. Dusel. 2016. Effect of an organic acid combination on performance of broiler chickens fed a wheat-maize-soybean meal-based diet. Poultry Science Association Annual Meeting, New Orleans, USA.

A. Owusu-Asiedu, A. Konstanti, L. J. Broom, E. Graystone, M. I. Gracia. 2016. Performance of broilers fed a diet supplemented with a non-starch polysaccharidase and phytase combination. Poultry Science Association Annual Meeting, New Orleans, USA.

N. Khodambashi Emami, E. Graystone, A. Daneshmand, R. A. M. Kakhki, L. J. Broom. 2016. Boosting gut health and nutrient digestibility by feeding organic acid based products to broilers orally challenged with *E. coli* K88. International Poultry Scientific Forum, Atlanta, USA.

L. J. Broom, E. Graystone, N. Khodambashi Emami. 2016. Organic acid based products enhance broiler immune responses. International Poultry Scientific Forum, Atlanta, USA.

E. Graystone, N. Khodambashi Emami, L. J. Broom. 2016. Effects of organic acids on broiler digesta pH and intestinal SCFA concentrations. International Poultry Scientific Forum, Atlanta, USA.

L. J. Broom, N. Khodambashi Emami, E. N. Graystone, 2015. Organic acid products promote broiler gut health and performance. Poultry Science Association Annual Meeting, Kentucky, USA.

L. F. Araujo, C. S. S. Araujo, L. M. Sa, I. Cockshott, E. N. Graystone, L. J. Broom. 2015. Effect of a unique carrier-based organic acid blend (Salkil) on the performance of broiler breeders and their progeny. International Poultry Scientific Forum, Atlanta, USA.

L. J. Broom, E. N. Graystone, L. Faulkner. 2014. A study of the efficacy of Orego-Stim[®], compared with virginiamycin, Zn bacitracin and salinomycin. 3rd International conference on responsible use of antibiotics in animals, Amsterdam, The Netherlands.

L. F. Araujo, C. S. S. Araujo, L. M. Sa, I. Cockshott, E. N. Graystone, L. J. Broom. 2014. Effect of a unique carrier-based organic acid blend (Salkil) on the performance of broiler breeders and their progeny. 4th Mediterranean Poultry Summit, Beirut, Lebanon.

Invited papers

L. J. Broom. 2017. Scientific developments in the fields of eubiotic and phytogetic ingredients. Feed Additives, Frankfurt, Germany.

L. J. Broom. 2015. The use of organic acids and phytogetics to promote intestinal tract health. XXIV Latin American Poultry Congress, Guayaquil, Ecuador.

L. J. Broom. 2015. Mycotoxins and intestinal health. China Mycotoxin Forum, Zhengzhou, China.

L. J. Broom. 2014. Effects of mycotoxins in the intestine. Eurotier, Hannover, Germany.

L. J. Broom. 2014. The gut microbiota - the most important 'organ' in the body? - The role of feed additives. VIV China, Beijing, China.

L. J. Broom. 2014. Organic acids to promote intestinal health in poultry. 13th meeting of AMVEAV Mexico, Veracruz, Mexico.

L. J. Broom. 2014. The intestine: an overlooked aspect of mycotoxin challenge. VIV Europe, Utrecht, The Netherlands.

L. J. Broom. 2014. Feed additives to improve the intestinal health of animals. China Husbandry Exhibition, Qingdao, China.

L. J. Broom. 2014. Organic acids in improving intestinal health of poultry. 2nd Northeastern Poultry Symposium, Joao Pessoa, Brazil.

Industry publications

A. Owusu-Asiedu, L. J. Broom. 2016. Enzymes to combat problems in feed compounds. Feed Compounder.

L. J. Broom. 2016. The use of organic acids and phytogenics to promote intestinal tract health. International Animal Health Journal.

L. J. Broom. 2014. Organic acids to promote a favourable indigenous intestinal microbiota. Pig International.

L. J. Broom. 2014. A further short note on mycotoxins, the intestine and enteric disease. All About Feed.

L. J. Broom. 2014. When can organic acids and probiotics be used together? Pig International.

L. J. Broom, M. Hyden. 2014. The intestine – an overlooked aspect of mycotoxin challenge. All About Feed.