conferenceseries.com

Steven C Ricke, J Food Process Technol 2018, Volume 9
DOI: 10.4172/2157-7110-C1-077

21st Euro-Global Summit on

Food and Beverages

March 08-10, 2018 | Berlin, Germany

Steven C Ricke

University of Arkansas, USA

Accuracy of *Campylobacter* isolate cultural identification based on microbiome sequencing

The foodborne pathogen *Campylobacter* continues to be an ongoing problem for public health on a worldwide basis. It has been particularly associated with poultry and a number of intervention approaches are currently being explored to develop better ways to reduce contamination both in live bird production as well as processing. While some research successes have been reported over the years the ultimate limitation of *Campylobacter* dissemination still remains elusive. Part of this is due to lack of understanding of the physiology and ecology of *Campylobacter* in the avian gastrointestinal tract. This makes the cultivation of *Campylobacter* also somewhat difficult and can cause problems for culture-based enumeration of *Campylobacter* from these types of environments. In our studies we have examined the selectivity of various *Campylobacter* selective media using 16S ribosomal DNA based microbiome sequencing to identify bacterial populations in samples from these sources. In this talk the outcomes of these analyses will be discussed and the implications for estimating *Campylobacter* in poultry samples.

Recent publications

1. Park S H, S I Lee and S C Ricke (2016) Microbial populations in naked neck chicken ceca raised on pasture flock fed with commercial yeast cell wall prebiotics via an Illumina MiSeq platform. PloS ONE 11(3):e0151944.
2. Park S H, A Perrotta, I Hanning, S Diaz Sanchez, S Pendleton, E Alm and S C Ricke (2017) The chicken gut microbiome changes in response to prebiotics and plum fibers. Poultry Sci. 96:1820-1830.
3. Kim S A, Si H Park, S In Lee, C Owens Hanning and S C Ricke (2017) Assessment of chicken carcass microbiome responses during processing in the presence of commercial antimicrobials using a next generation sequencing approach. Scientific Reports 7:43354.
4. Kim S A, S H Park, S I Lee and S C Ricke (2017) Development of a rapid method to quantify *Salmonella* typhimurium using a combination of MPN with qPCR and a shortened time incubation. Food Microbiology 65:7-18.
5. Park S H, S A Kim, P M Rubinelli, S M Roto and S C Ricke (2017) Microbial compositional changes in broiler chicken cecal contents from birds challenged with different *Salmonella* vaccine candidate strains. Vaccine 35:3204-3208.

Biography

Steven C Ricke is the holder of the Donald "Buddy" Wray Endowed Chair in Food Safety and Director of the Center for Food Safety at the University of Arkansas. He is also a Faculty Member of the Department of Food Science and the Cellular and Molecular Graduate program. He served as Co-Founder and former President of the Arkansas Association of Food Protection (AAFP). He was named an AAFP Fellow in 2015 and a Poultry Science Association Fellow in 2017. His research program is primarily focused on virulence and pathogenic characteristics of foodborne *Salmonella* and *Campylobacter*. His research projects have emphasized studies on the growth, survival and pathogenesis of these organisms under conditions encountered during food animal production and processing.

sricke@uark.edu