

Soutenance de thèse de doctorat



Éric Parent

Faculté de médecine vétérinaire

Mercredi 15 décembre 2021 à 8h00

Conférence Zoom et / ou Salle 1134
3200, rue Sicotte
(Le port du masque est obligatoire)

Joindre la réunion Zoom :

<https://umontreal.zoom.us/j/87293560376?pwd=M1ZkRkoyVEExdEVUci9lWnpUSkFZZz09>

Meeting ID: 872 9356 0376

Code secret : 677903

JURY

Marcio Carvalho Costa	Président rapporteur
Martine Boulianne	Directrice de recherche
Robert J. Moore	Codirecteur de recherche
Marie Archambault	Codirectrice de recherche
Julie Arsenault	Membre du jury
Xin Zhao	Examinateur externe
John M. Fairbrother	Représentant de la doyenne de la Faculté

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Université 
de Montréal

« STRATEGIES TO REDUCE THE USE OF ANTIBIOTICS IN COMMERCIAL BROILER CHICKENS: IMPACTS ON GROWTH PERFORMANCE, INTESTINAL HEALTH AND MICROBIOTA »

Chicken Farmers of Canada are examining the possibility to responsibly reduce antimicrobial use (AMU) by discontinuing medically important antibiotics (MIAs) from disease prevention programs of broiler chicken flocks. The objective of this project was to investigate the impacts of two AMU strategies eliminating MIAs compared to conventional AMU on zootechnical performance, intestinal health and cecal microbiota in seven commercial broiler chicken flocks. There were no statistical differences between the antibiotic reduction treatments and the conventional use of antibiotics on performance and intestinal health. The type of antibiotic program had a minor impact on the cecal microbiota composition, while environmental factors showed the strongest correlations with the microbiota. Chickens' growth rate was significantly correlated to bacterial Richness and Lachnospiraceae, while numerous bacterial families forming a large network were correlated with decreased growth rate. The findings in this work are contributing to improve the sustainability of the modern poultry industry by providing feasible alternatives to the practice of using MIAs in broiler chickens. An important paradigm was also challenged as in-feed antibiotics may only influence marginally chickens' microbiota. The key to develop a beneficial cecal microbiota in broiler chickens may reside in the ability to influence environmental factors such as farm-specific microbiota.

Mots-clés: chicken, antibiotic, intestinal health, performance, microbiota, coccidiosis.