

Host responses to *Clostridium perfringens* challenge in a chicken model of chronic stress

Sarah J.M. Zaytsoff,^{a,b} Sarah M. Lyons,^c Alexander M. Garner,^d Richard R.E. Uwiera,^b Wesley F. Zandberg,^{c,e} D. Wade Abbott,^a G. Douglas Inglis^{a#}

^aAgriculture and Agri-Food Canada, Lethbridge, Alberta, Canada

^bDepartment of Agricultural, Food, and Nutritional Science, University of Alberta, Edmonton, Alberta, Canada

^cDepartment of Biology, University of British Columbia (Okanagan Campus), Kelowna, British Columbia, Canada

^dDepartment of Biochemistry, University of British Columbia (Okanagan Campus), Kelowna, British Columbia, Canada

^eDepartment of Chemistry, University of British Columbia (Okanagan Campus), Kelowna, British Columbia, Canada

SUPPLEMENTAL MATERIAL

Table S1. Feed ingredients for 21% poultry starter diet

Ingredient List	Minerals	Vitamins
Wheat	Copper Sulfate	Vitamin A
Soybean meal	Ethylenediamine dihydroiodide	Vitamin D
Canola meal	Manganese Sulfate	Vitamin E
Corn distillers	Sodium Selenite	Vitamin K
Faba beans	Zinc Oxide	Thiamine monohydrate
L-Lysine HCl	Copper Proteinate	Pyridoxine
Enzyme	Manganese Proteinate	Calcium pantothenate
Choline chloride	Selenium Yeast	Niacin
ALIMET	Zinc Proteinate	Riboflavin
Limestone		Biotin
		Folic acid
		Vitamin B12
		Ethoxyquin

Table S2. List of primers used for qPCR and mRNA gene expression

Name	Abbreviation	Sequence 5' to 3'		Product Size	Reference Sequence	Source
<i>C. perfringens</i> (16S)	CP1.2	Forward	AAAGATGGCATCATCATTCAAC	283		PMID: 12399288
		Reverse	TACCGTCATTATCTTCCCAAA			
NetB Toxin	NetB	Forward	AAATATACTTCTAGTGATACCGCTTCACA	78		PMID: 20457789
		Reverse	GAGGATCTTCAATAAATGTTCCACTTAA			
Toll-like receptor 2A	TLR2A	Forward	CAGCACAAGAGGCGTTCA	100	NM_204278.1	This Study
		Reverse	AACATTTTGGTGTAGCTGAGATG			
Toll-like receptor 15	TLR15	Forward	ACTAGAACCTGCCTGCCAAC	102	NM_001037835.1	This Study
		Reverse	AGCATCAGGAGAGATTGCC			
Claudin 3	CLDN3	Forward	GGGATTCTACAACCCGCTG	200	NM_204202.1	This Study
		Reverse	CTGTCTGAGCTGGTAAACGG			
Claudin 5	CLDN5	Forward	GGGACTAAATGCAGAGACC	128	NM_204201.1	This Study
		Reverse	ATAGCCTAAGCATCACGAGC			
Occludin	OCLN	Forward	TGAATGCACCCACTGAGTGTT	99	NM_205128.1	This Study
		Reverse	CCAGAGGTGTGGCCTTAC			
Mucin 2B	MUC2B	Forward	ATTGTGTAACACCAACATTCATC	135		PMID: 23349743
		Reverse	CTTTATAATGTCAGCACCAACTTCTC			
Mucin 5AC	MUC5AC	Forward	TCCACCAGTTCCTCAATCCC	79	XM_015286693.1	This Study
		Reverse	GGGGTTGCCAGCCTTTACTT			
Interleukin 1 β	IL1 β	Forward	TGCCTGCAGAAGAAGCCTCG	137	NM_204524.1	This Study
		Reverse	CTCCGCAGCAGTTTGTCAT			
Interleukin 2	IL2	Forward	TAACTGGGACACTGCCATGA	93	NM_204153.1	This Study
		Reverse	GATAGAGATGCTCCATAAGCTGT			
Interleukin 18	IL18	Forward	GTGAAGAGATCGCTGTGTGT	80	NM_204608.1	This Study
		Reverse	ATCGCATTCCAGCTCATCATC			
Interferon γ	IFN γ	Forward	GCTCCCGATGAACGACTTGA	121	NM_205149.1	This Study
		Reverse	GCATCTCTCTGAGACTGGC			
Interleukin 6	IL6	Forward	AGGACGAGATGTGCAAGAAG	176	NM_204628.1	This Study
		Reverse	CATTTCTCTCGTCGAAGCC			
Transforming Growth Factor β 2	TGF β	Forward	CCATCTACAACAGCACCAGGG	157	NM_001031045.3	This Study
		Reverse	TAGCTTGGTGGGATGGCATTTC			
Colony Stimulating Factor 3	G-CSF	Forward	AACTTATTTGTGCCCCACG	84	NM_205279.1	This Study
		Reverse	ATACAGTACAAAACGCCGCC			
β -Actin	BA	Forward	CTCTGACTGACCGCTTACT	172	NM_205518.1	This Study
		Reverse	TACCAACCATCACACCCTGAT			
Tata-Box Binding Protein	TBP	Forward	GTTCCCTGTGTCGCTTGC	147		PMID: 27685470
		Reverse	TAGCCCGATGATGCCGAT			