

## SUPPLEMENTARY MATERIALS:

**Figure S1.** Calculated composition of corn/soy starter diets. The total basal diet contained 1,365 kcal/lb.

Ingredients	%
Corn	59.81
SBM 48%	33.84
Monocalcium phosphate 21	1.56
Soy oil	2.09
Choline chloride	0.10
Limestone	1.56
Salt	0.33
L-lysine HCL	0.19
DL-methionine	0.28
Vitamin premix	0.13
Mineral premix	0.05
L-Threonine	0.05
<b>Calculated nutrients, %</b>	<b>99.99</b>
Protein	22.00
Calcium	0.90
Available phosphorus	0.45
AMEn (Kcal/lb)	1,365.00
Digestible methionine	0.59
Digestible total sulfa amino acid	0.88
Digestible threonine	0.77
Digestible lysine	1.18
Choline	1,256.87
Sodium	0.16
Potassium	0.84
Chloride	0.20

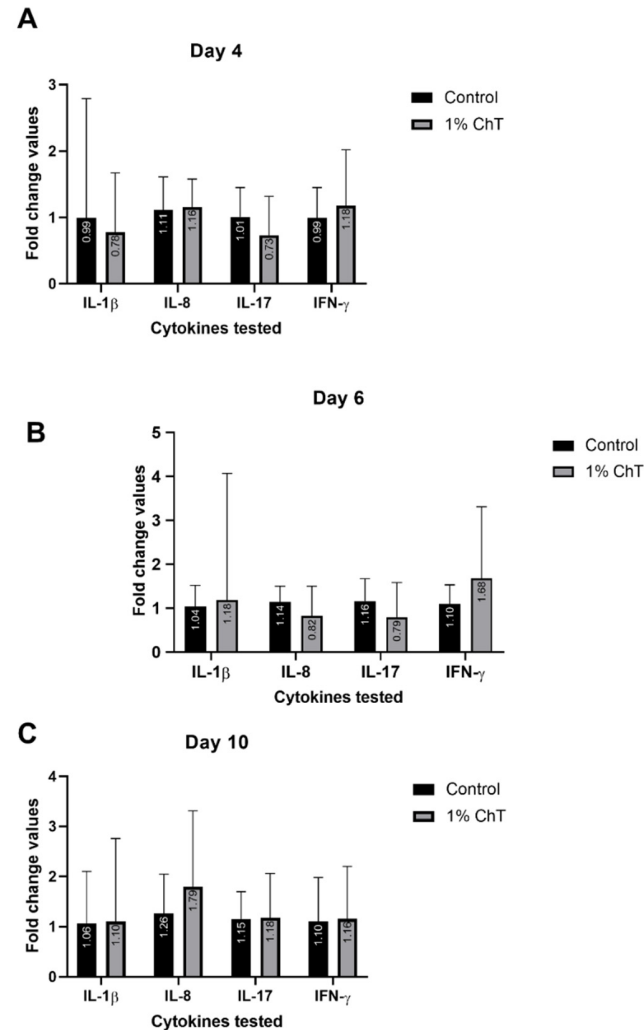
**Figure S2A-C.** STRING-db network of interactions. Purple circles indicate the JAK-STAT peptides affiliated to the pathway; the other colors indicate regulatory pathways affecting the JAK-STAT pathway: (A) Protein-protein interactions between proteins included in the day 4 chicken immune peptide array and metabolic peptide array; (B) Protein-protein interactions between proteins included in the day 6 chicken immune peptide array and metabolic peptide array; (C) Protein-protein interactions between proteins included in the day 10 chicken immune peptide array and metabolic peptide array





[illegible]

**Figure S3A-C.** mRNA expression of cecal mRNA from experimental chicks fed 1% ChT inclusion diet, determined by quantitative RT-PCR. (A) Day 4 fold changes by cytokines tested comparing averaged 1% ChT inclusion group with control group; (B) Day 6 fold changes by cytokines tested comparing averaged 1% ChT inclusion group with control group; (C) Day 10 fold changes by cytokines tested comparing averaged 1% ChT inclusion group with control group. Data represent the median values from two separate experiments. \* = significantly different from the controls ( $p \leq 0.05$ ).



**Figure S4.** The phosphorylation of STAT proteins activates the initiation of gene transcription. The black arrows indicate phosphorylation, and the red arrow indicates inhibitory action.

