AVIAN INFECTIOUS BRONCHITIS SLIDE STUDY SET

Brian S. Ladman\textsuperscript{A} and Mark W. Jackwood\textsuperscript{B}

\textsuperscript{A}Avian Biosciences Center, University of Delaware, Newark, DE 19716
bladman@udel.edu

\textsuperscript{B}Poultry Diagnostic and Research Center, University of Georgia, Athens, Georgia 30602
mjackwoo@uga.edu

April 2018
Introduction

• Infectious bronchitis is a highly contagious upper-respiratory tract disease caused by the avian coronavirus infectious bronchitis virus (IBV)
  – Some strains of the virus can also cause an interstitial nephritis
• The disease is found worldwide and occurs mainly in chickens but the virus has also been isolated from peafowl, teal, geese, pigeons and ducks.
Introduction Continued

• Multiple types of the virus exist with little or no cross protection
  – Serotype: defined by an antigen-antibody relationship
  – Genotype: defined by genetic similarity among the S1 portion of the spike gene

• Secondary pathogens (avian mycoplasma, *Escherichia coli*, *Ornithobacterium rhinotrachealie*, *Bordetella avium*) can complicate the disease resulting in airsacculitis, pneumonia and peritonitis

• Attenuated live and killed vaccines are used for control
THE DISEASE
IBV Infected Trachea

- Lumen
- Epithelial deciliation
- Inflammatory cell infiltration
- Tracheal mucosa
- Cartilage

University of Delaware
A. Metz and J. Gelb, Jr.
Respiratory Form
Airsacculitis - Chronic Phase