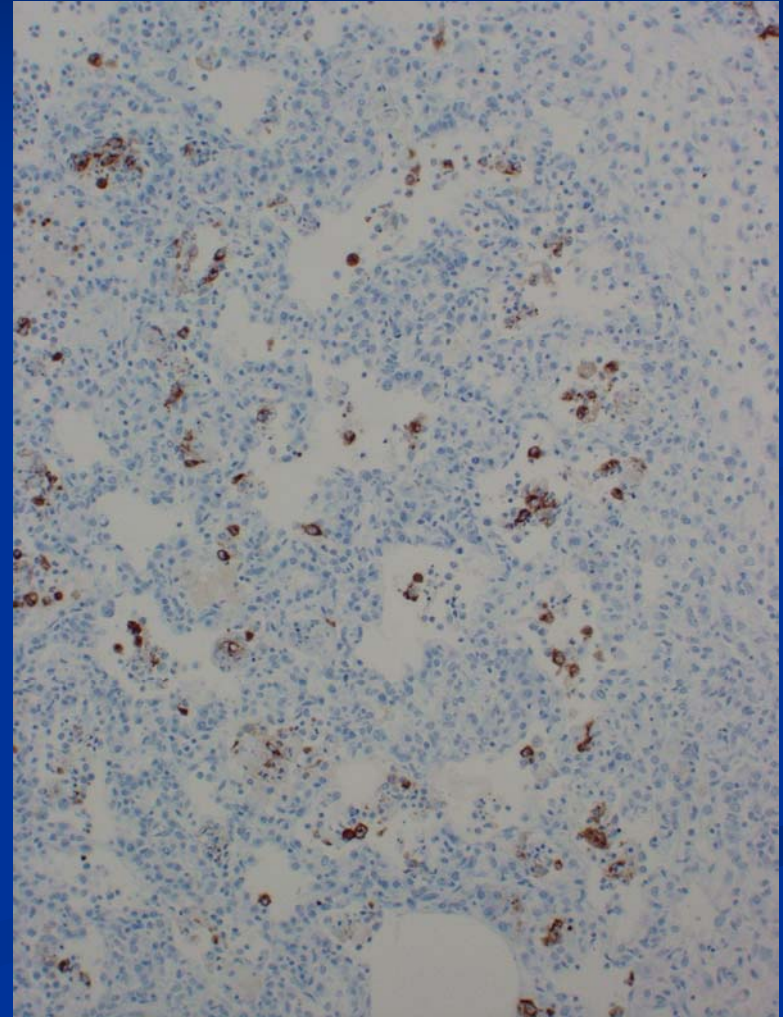
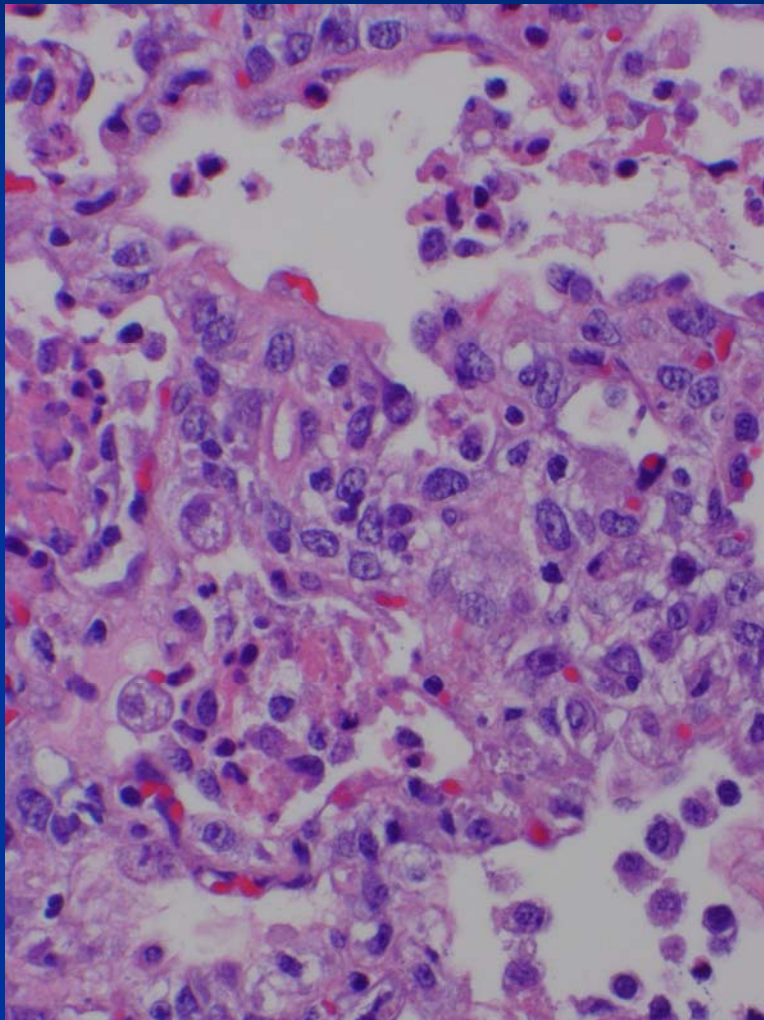


PRRS IHC in Porcine Respiratory Disease Complex



Bacterial Pneumonia in Swine

- *Mycoplasma hyopneumoniae*
- *Pasteurella multocida*
- *Actinobacillus pleuropneumoniae*
- *Bordetella bronchiseptica*
- *Salmonella* spp.
- *Streptococcus suis*
- *Hemophilus parasuis*
- *Mycobacterium* sp
- *Arcanobacterium* (*Corynebacterium*) *pyogenes*
 - secondary invader only

Bronchopneumonia

- Common sequelae
 - Death (hypoxemia, toxemia)
 - Septicemia
 - Pleuritis, pleural adhesions
 - Chronic bronchopneumonia
 - Abscesses
 - Multifocal atelectasis

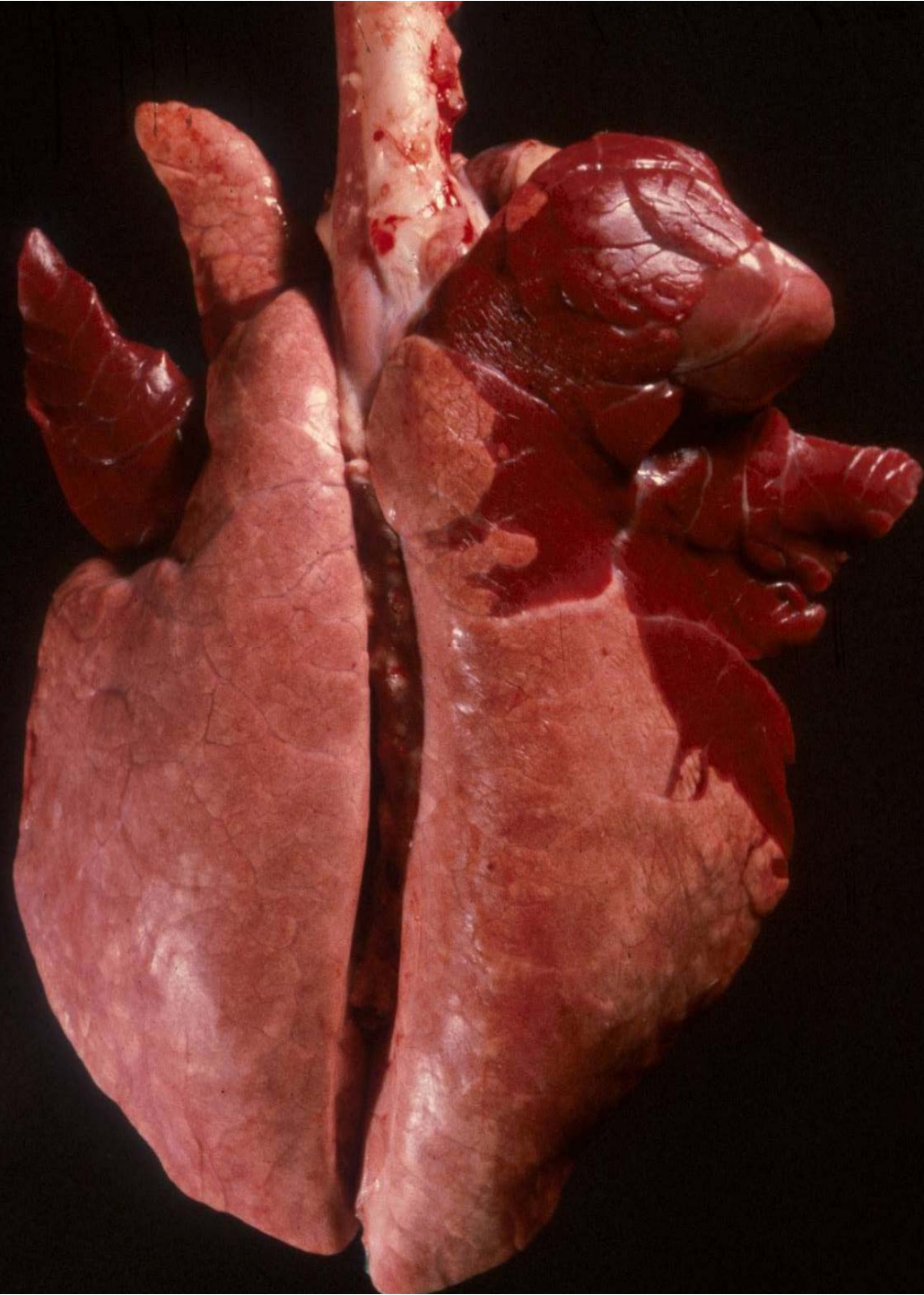
Pleuritis following Bronchopneumonia



Mycoplasma hyopneumoniae

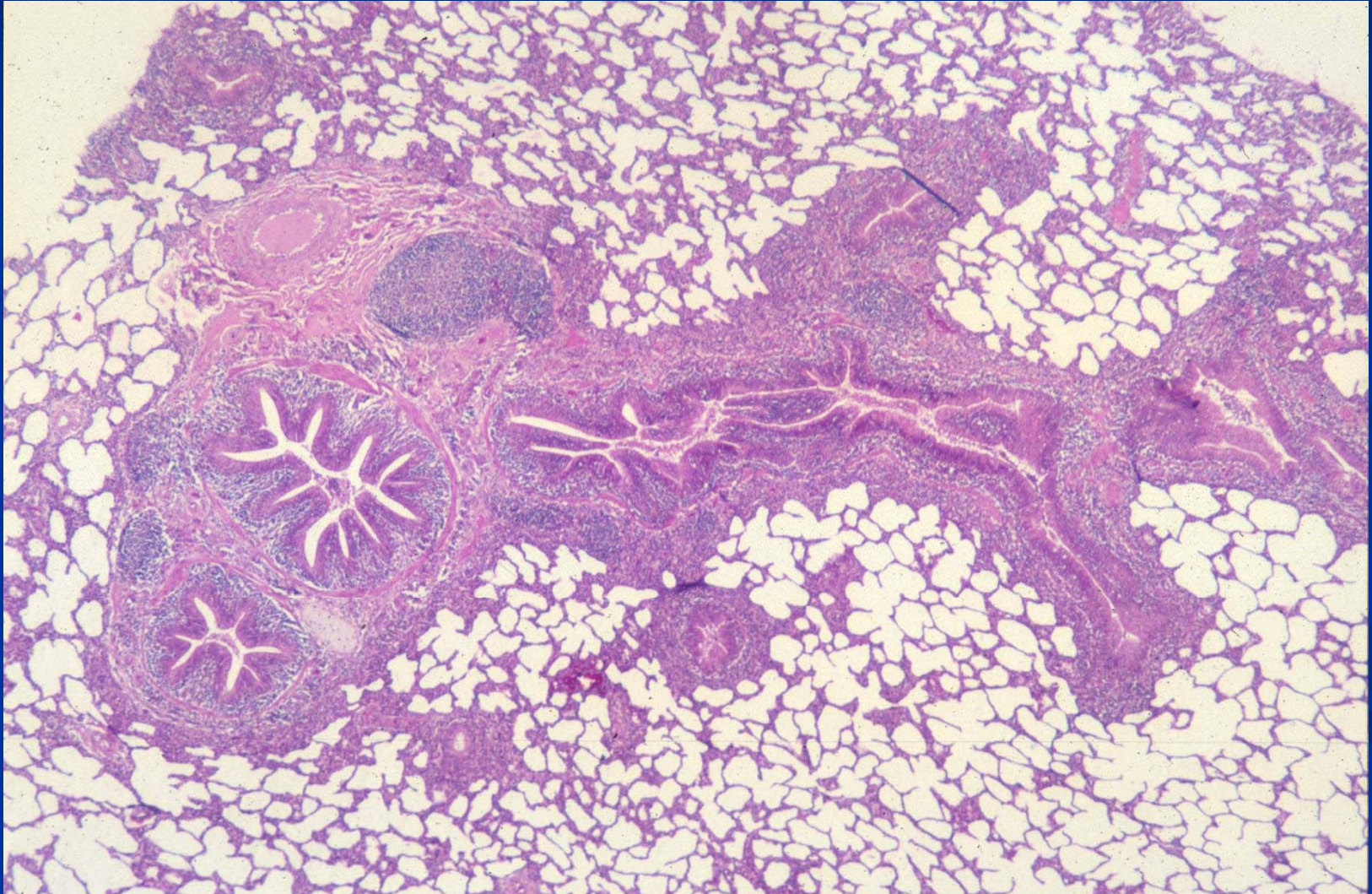
- Porcine enzootic pneumonia
- Most economically significant respiratory disease in swine worldwide
- High morbidity, low mortality, poor doing
- Predisposed by environment and management
- Predisposes to secondary infection by other bacteria by effect on mucociliary clearance

*Mycoplasma
hyopneumoniae*



Mycoplasma hyopneumoniae

Lymphoid hyperplasia and bronchitis



Mycoplasma hyopneumoniae

- Gross Pathology
 - Anteroventral bronchopneumonia
 - Often lobular pattern of consolidation and atelectasis
 - Plum colored to grey (chronic)
- Histopathology
 - Bronchointerstitial pneumonia
 - Multifocal atelectasis
 - Hyperplasia of BALT
- Often secondary bacterial bronchopneumonia

Mycoplasma hyopneumoniae

- Diagnosis
 - Histopathology
 - PCR and IHC
 - Culture difficult

Porcine Pneumonic Pasteurellosis

- *Pasteurella multocida* types A and D are normal porcine nasal flora
- Disease
 - Chronic bronchopneumonia secondary to other infections
 - Fulminating fibrinous bronchopneumonia