

Infectious Laryngotracheitis

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Slide Study set # 15A

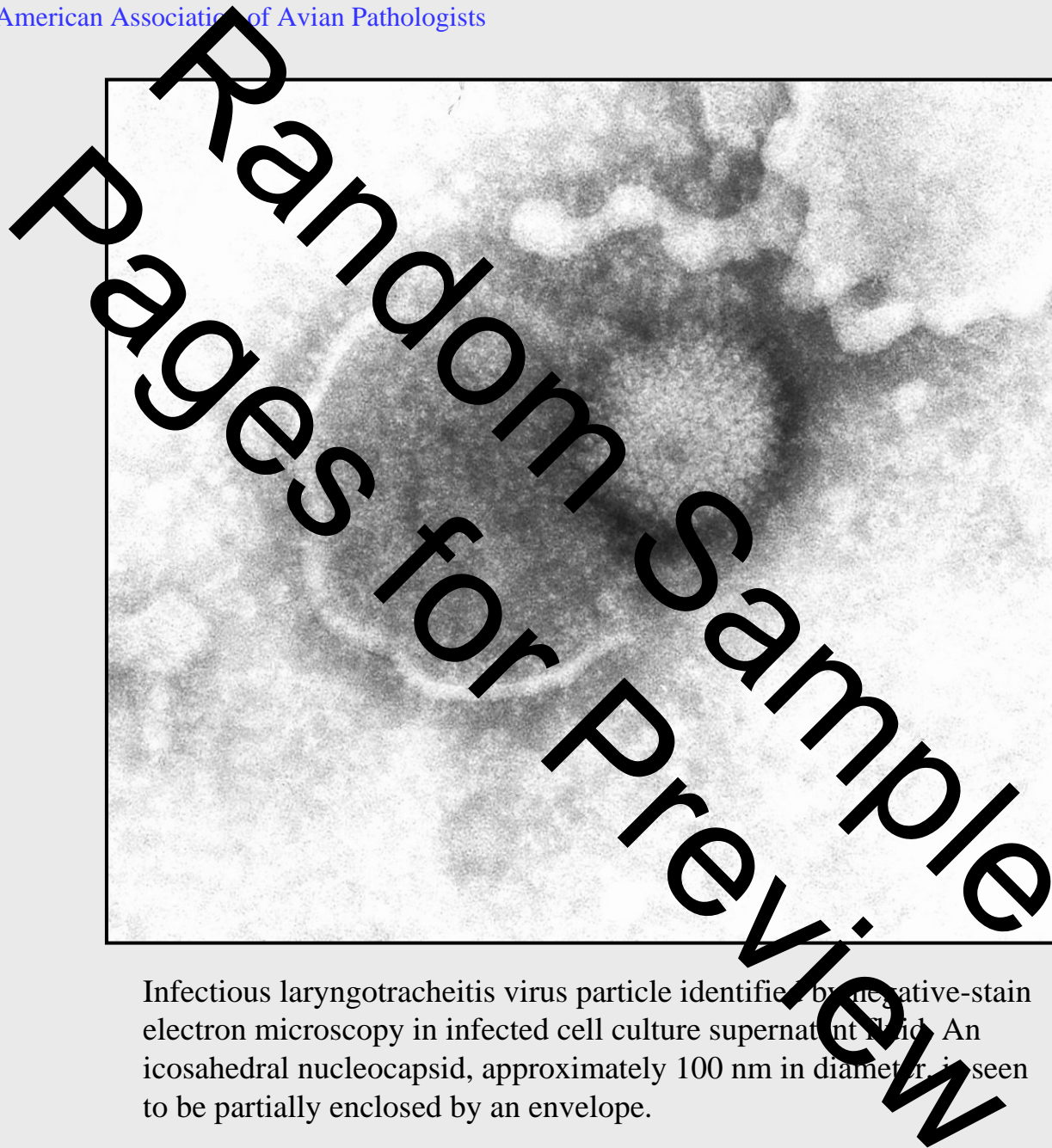
- Infectious laryngotracheitis (ILT) is a highly contagious respiratory viral disease of chickens that has a worldwide distribution and can cause significant financial losses during periodic outbreaks.
- The disease was first described in 1925 in a flock of chickens in Rhode Island in the United States. However, other reports indicate that it likely existed earlier.

Thermostability of virus infectivity

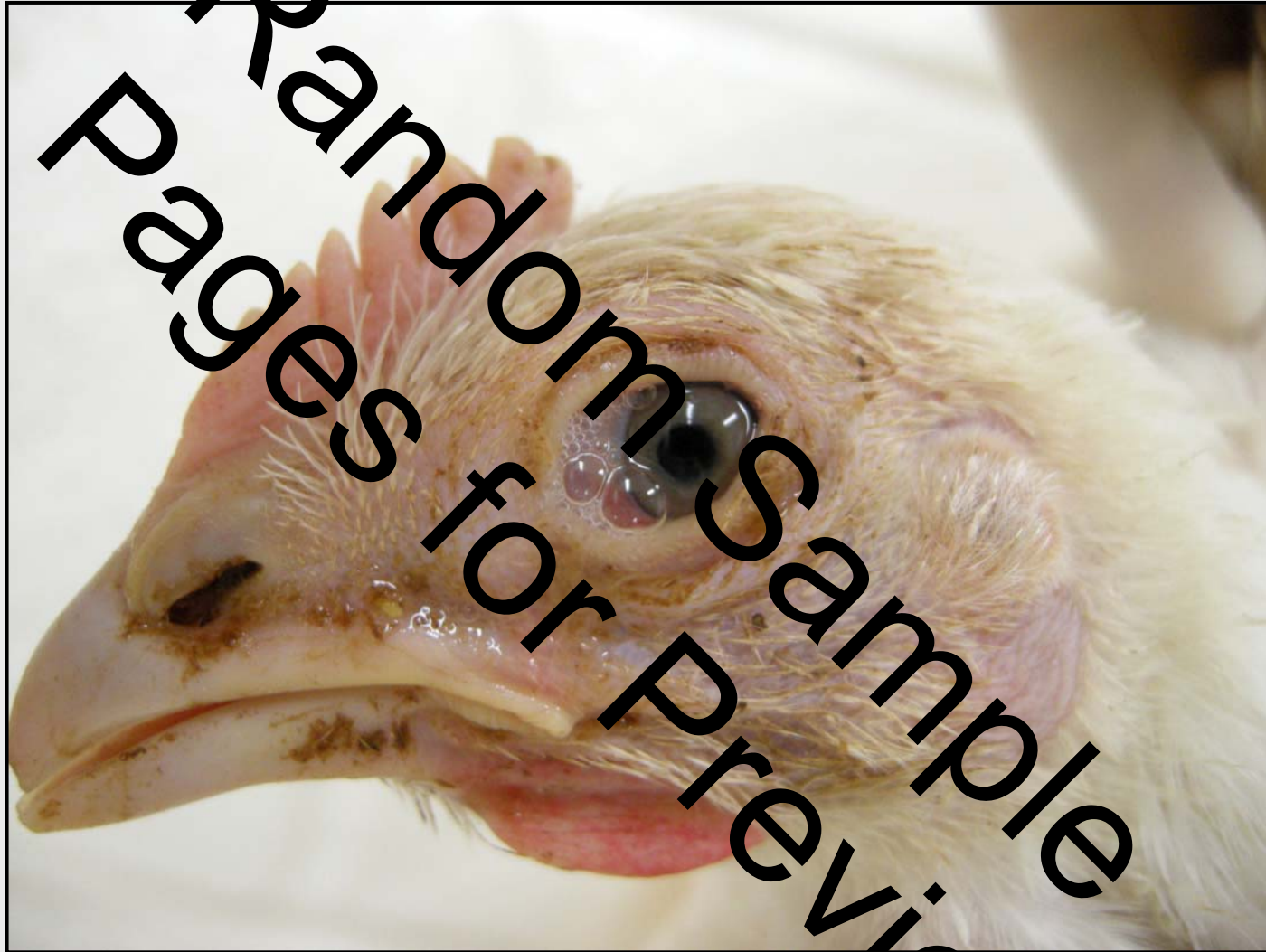
- Considerable variation has been reported regarding thermostability of the virus including:
 - Inactivation in 15 minutes at 55°C or in 48 hr at 38°C.
 - Surviving 1 hr at 56°C.
 - Inactivation in 44 hr at 37°C (in tracheal tissue within chicken carcass).
 - Inactivation in 5 hr at 25°C (in chorioallantoic membranes).
 - Early reports indicated stability of virus in tracheal exudates and chicken carcasses for 10-100 days at ambient temperatures of 13-23°C.

Cause

- DNA virus
 - Order *Herpesvirales*
 - Family *Herpesviridae*
 - Subfamily *Alphanerpesvirinae*
 - Genus *Iltovirus*
 - Species *Gallid Herpesvirus 1*



Infectious laryngotracheitis virus particle identified by negative-stain electron microscopy in infected cell culture supernatant fluid. An icosahedral nucleocapsid, approximately 100 nm in diameter, is seen to be partially enclosed by an envelope.



53-day-old broiler. Excessive lacrimation (so-called "watery eye") is a characteristic early clinical sign of ILT.



53-day-old broiler. There is excessive lacrimation. Eyelids and tissues around them are swollen and slightly reddened.



55-day-old broiler. Swelling of eyelids is evident.



Air sac, 42-day-old broiler breeder pullet. Higher magnification of the epithelial cells with intranuclear inclusion bodies in the previous slide.