

# THE CHICK PAPERS

*Georgia Poultry Laboratory Network's Monthly Newsletter*



## Histology at GPLN

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### How is histopathology used?

Histopathology is used to broadly investigate the microscopic structure of the submitted organs. Observations may include identification of specific bacteria, viral inclusions, fungal structures, or parasites. Changes within the tissue structure may indicate cancer, degenerative conditions, inflammatory processes, or other disease states. While most abnormalities can be detected with routine staining techniques, additional special stains are also available to target specific features of interest.

### How are samples processed?

The process for histopathology takes several days, beginning with organ pieces from necropsy that have been preserved in formalin for at least 24 hours. These pieces are then hand trimmed into 1/8" slices and placed into cassettes, to undergo various chemical washes for approximately 12 hours. The next day, organ pieces are hand embedded into paraffin blocks which are then cut into thin, 3-5 micrometer slices. The slices are mounted onto glass slides, deparaffinized, stained, cover-slipped, and allowed to dry. These finished glass slides can be directly evaluated via a light microscope or loaded into a high-resolution scanner to be evaluated as a digital image.





Many thanks to those across the industry (both academic and production) who volunteered at Poultry World! Pictured are Cal-Maine Foods' volunteers, Steve and Kristy Sumner with their daughter. Thank you for jumping right into the action with helping and educating those that visited the exhibit!

Elanco brought by their German guests to visit the lab this October. They were such a fun group to have!



CWT International stopped by for a visit with some members of their team! We love getting to show off all the changes to the diorama. Call or email us to schedule a tour!