Does egg storage affect embryo cell survival?
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OBJECTIVES
• Develop procedures to study apoptosis & necrosis.
• Determine if cell death increases with egg storage time.

OUR APPROACH
Fig 1. Harvesting white leghorn chicken embryo (blastoderm) from yolk surface.

Fig. 2: Cleaning embryo under light microscope.

Fig. 3: Photomicrograph of the embryo (60X).
The chicken embryo contains up to 60,000 cells.

Fig. 4. Embryo separated into single cells.

Fig. 5: Cells separated into live, early apoptotic, late apoptotic or necrotic & necrotic cells. 10,000 cells collected per experiment. Each dot represents one cell.

OUR OBSERVATIONS
Fig. 6: Effect of egg storage on percentage of live and dead cells in leghorn chicken embryo cells.

WHAT DO THE RESULTS MEAN?
• Storing eggs for 4 vs. 14 d reduced live embryo cells from 84% to 71%.
• Increased percentage of dead embryo cells from 14 d stored eggs may have relationship with hatchability problems.

REFERENCES