

## SWINE HEALTH

**Title:** Pilot study to develop ante-mortem synovial fluid and synovium sample collection techniques in growing swine and to refine a *Mycoplasma hyosynoviae* (MHS) arthritis case definition (453-23-79) – **NPB #15-143**

**Investigator:** Dr. Locke Karriker and Dr. Paisley Canning

**Institution:** Iowa State University

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### Scientific Abstract:

Arthritis reduces welfare and causes severe pain for growing swine. *Mycoplasma hyosynoviae* is believed to be a prominent cause of infectious arthritis. This proposal serves to build the basic foundation necessary to do further, solution-oriented, applied research on *Mycoplasma hyosynoviae* by building these four resources:

- Generate a standard case definition of *Mycoplasma hyosynoviae* (MHS) arthritis in growing swine based on available information from a systematic literature review and a summary of MHS cases submitted to the Iowa State University (ISU) Veterinary Diagnostic Lab (VDL) from 2010 through 2015.
- Develop, refine and field test joint fluid and joint tissue collection techniques in live pigs
- Create reference ranges for clinical pathology parameters for swine synovial fluid from clinically normal pigs and evaluate the suitability of various anesthetic protocols for ante mortem joint fluid collection.
- Compare and analyze clinical pathology parameter data for clinically lame finisher pigs from commercial operations to reference ranges from normal animals

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These research results were submitted in fulfillment of checkoff-funded research projects. This report is published directly as submitted by the project's principal investigator. This report has not been peer-reviewed.

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