

SHIC – FINAL RESEARCH GRANT REPORT

Project Title and SHIC Project Identification Number: Duration of Senecavirus A shedding from clinically affected and non-affected sows and piglets after a breeding herd infection. (SHIC Project # 15-206)

Principal Investigation: Dr. Chris Rademacher (cjrdvm@iastate.edu; 515-294-8792)

Institution: Iowa State University

Date Report Submitted: 12/29/16

Industry Summary: This study was designed to evaluate the length of shedding of Senecavirus A (SVA) from a sow farm undergoing an outbreak of SVA in the fall of 2015. Goals were to evaluate the SVA shedding patterns of sows and piglets by PCR and Virus Isolation. In addition, the information obtained regarding SVA shedding pattern should provide some guidance on how long sow herds should be closed to minimize the risk of transmitting the virus to other herds or end point sow cull markets. Tonsil, rectal swabs, and serum were collected from sows and their piglets for 6 consecutive weeks. In sows, PCR results indicated that SVA RNA was detected at low levels out to 6 weeks post outbreak in tonsil and rectal swabs, while detectable levels of SVA RNA in serum were only observed for 3 weeks post outbreak. There was no viable virus isolated from any sow samples. In piglets, PCR results indicated that Senecavirus RNA was detected at low levels (20-40% positive) out to 3 weeks post outbreak in tonsil, rectal swabs, and serum. SVA was isolated in <10% of piglets during weeks 1 and 2 post outbreak, but all were negative by the third week. These findings may suggest that SVA is most likely a short-term risk to other herds and the risk of transmitting Senecavirus A may be lower after 30 days.