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## **The efficacy of CP7\_E2alf: an animal study involving piglets from C–strain vaccinated sows**

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Outbreaks of Classical Swine Fever (CSF) in the European Union have caused enormous economical losses. To facilitate the possibility of free trade with pigs and their products, a chimeric live DIVA vaccine CP7\_E2alf was developed. Most likely, passive immunity against CSF virus in populations previously vaccinated with C-strain interferes with the efficacy of CP7\_E2alf vaccination. To study the interaction with maternal antibodies, the efficacy of CP7\_E2alf in piglets from C-strain vaccinated sows was examined. At 5 or at 8 weeks of age, piglets were vaccinated with CP7\_E2alf. The vaccinated piglets together with mock-vaccinated littermate controls were challenged 2 weeks post vaccination with highly virulent CSFV Kozlov. The results showed that CP7\_E2alf is effective in preventing mortality, severe clinical signs and pathological lesions in piglets vaccinated at 5 or at 8 weeks of age. Interestingly, the antibodies in the mock-vaccinated control piglets partly neutralized the challenge virus. In earlier studies CSFV Koslov has resulted in 100% mortality in naïve piglets, in this study mortality was reduced to 30% in the piglets infected at 7 weeks of age and to 50% in the piglets infected at 10 weeks of age. In the present study optimal time point for vaccination of piglets with passive immunity was found to be 5 weeks of age.

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