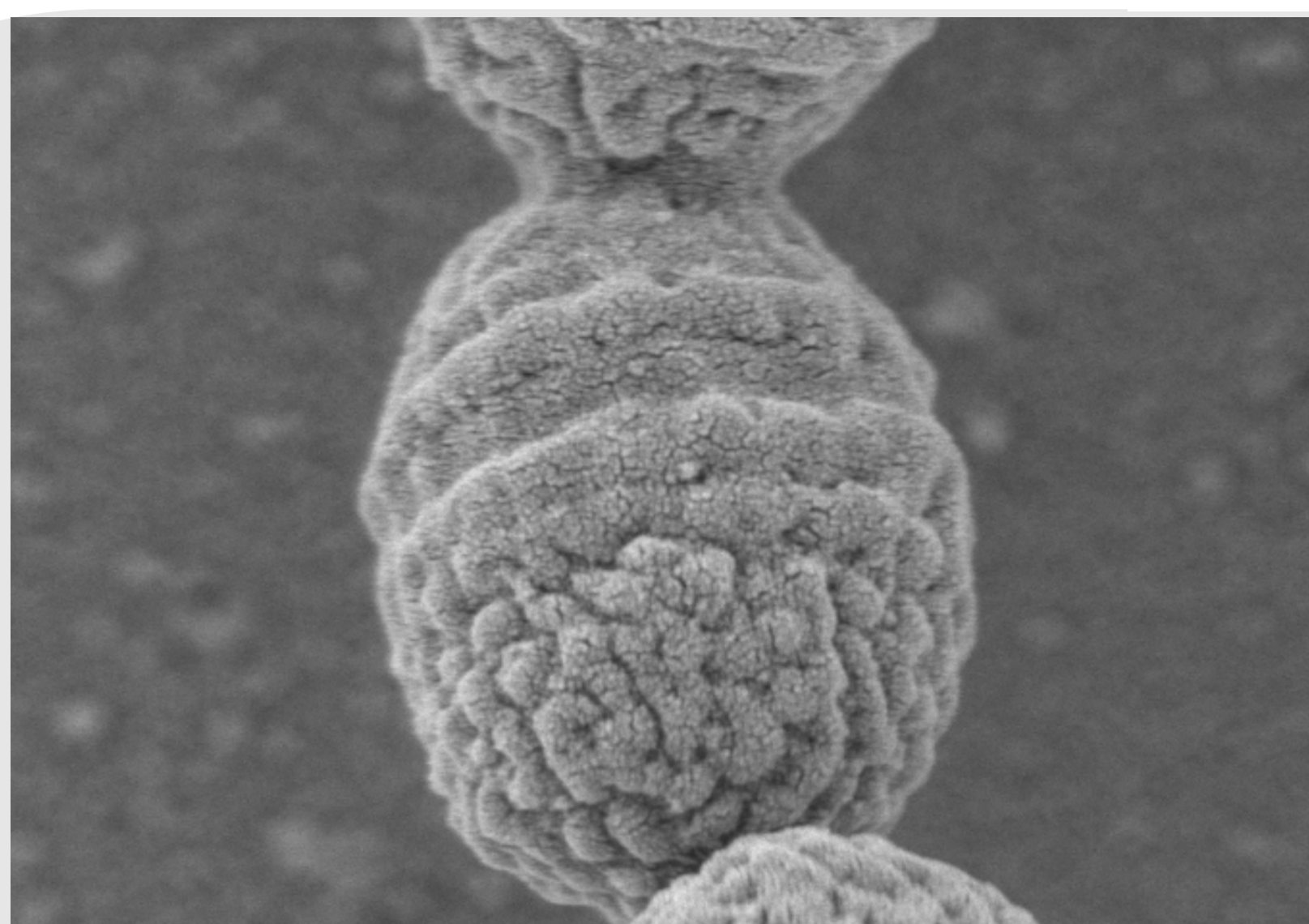


# The use of autogenous vaccines to control *Streptococcus suis* infections

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## *Streptococcus suis*

- Important swine bacterial pathogen during the post-weaning period
- Worldwide distribution
- Emerging pathogen with antibiotic restrictions
- **Serotype 2 is the most important and virulent serotype**



## Alternatives to the use of antibiotics?

### Autogenous vaccine (bacterins) (whole killed bacteria)

- Customized service offered by private companies
- The strain(s) included in the vaccine are those present in the farm
- Each company has its own protocol for vaccine production

→ *S. suis* is a low immunogenic bacteria

**How to  
apply the  
vaccine?**



**Sows** (passive protection through maternal antibodies)?

→ Antibodies do not last long enough...

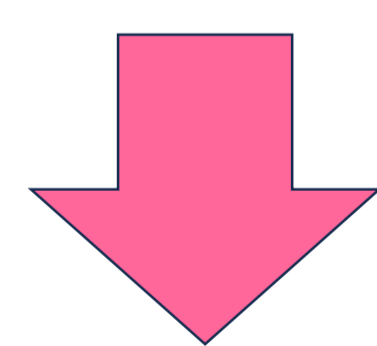
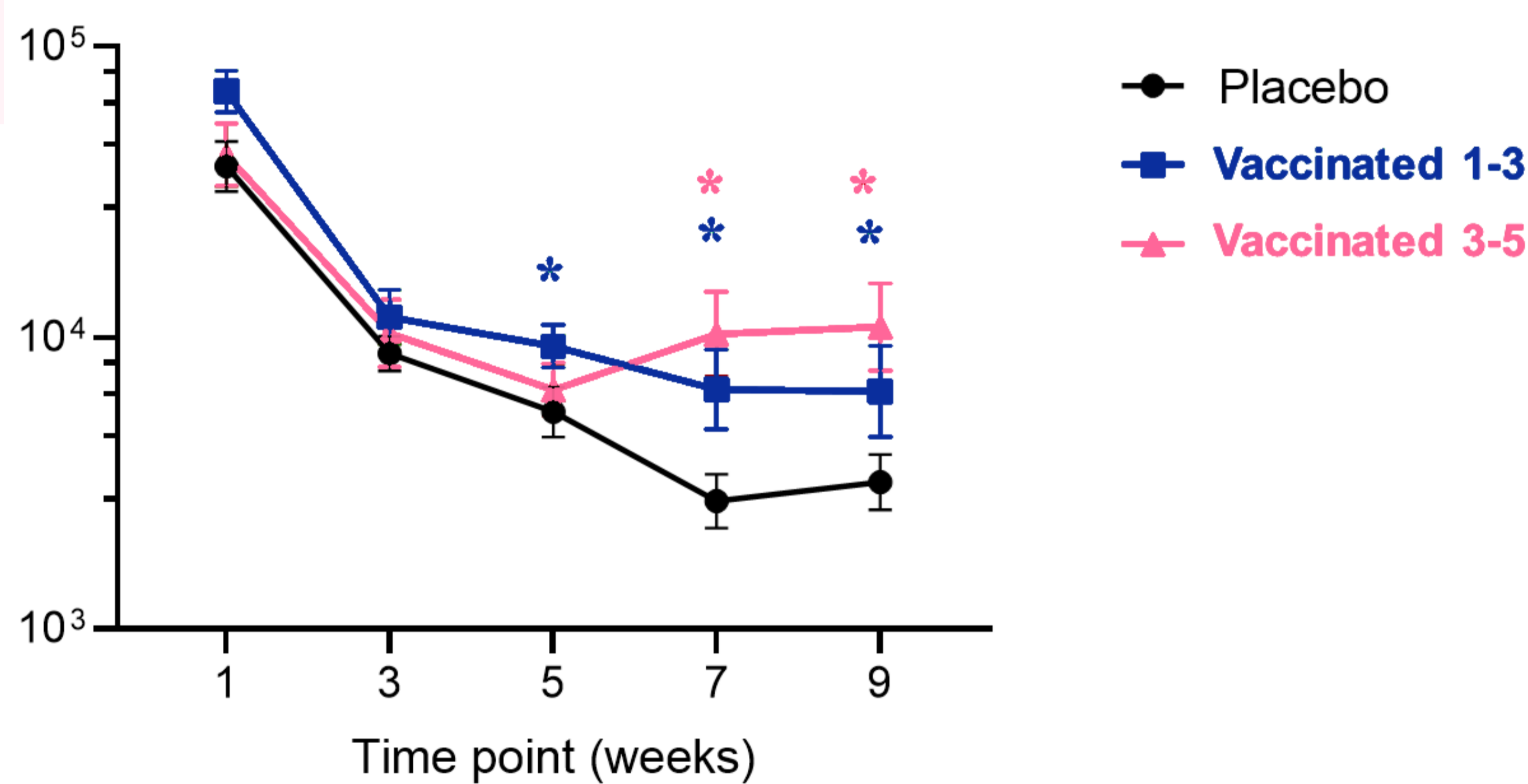
**Piglets:** two doses, but when? Interference with maternal antibodies?

## Piglet vaccination:

**Experimental approach:** Piglets were vaccinated at 1 & 3 weeks of age and compared to vaccination at 3 & 5 weeks of age

**Results:** Apparent absence of interference with maternal antibodies?

**Conclusion:** Vaccination at 1 & 3 weeks of age would be possible?



**To confirm: development of a model of conventional pigs without colostrum**

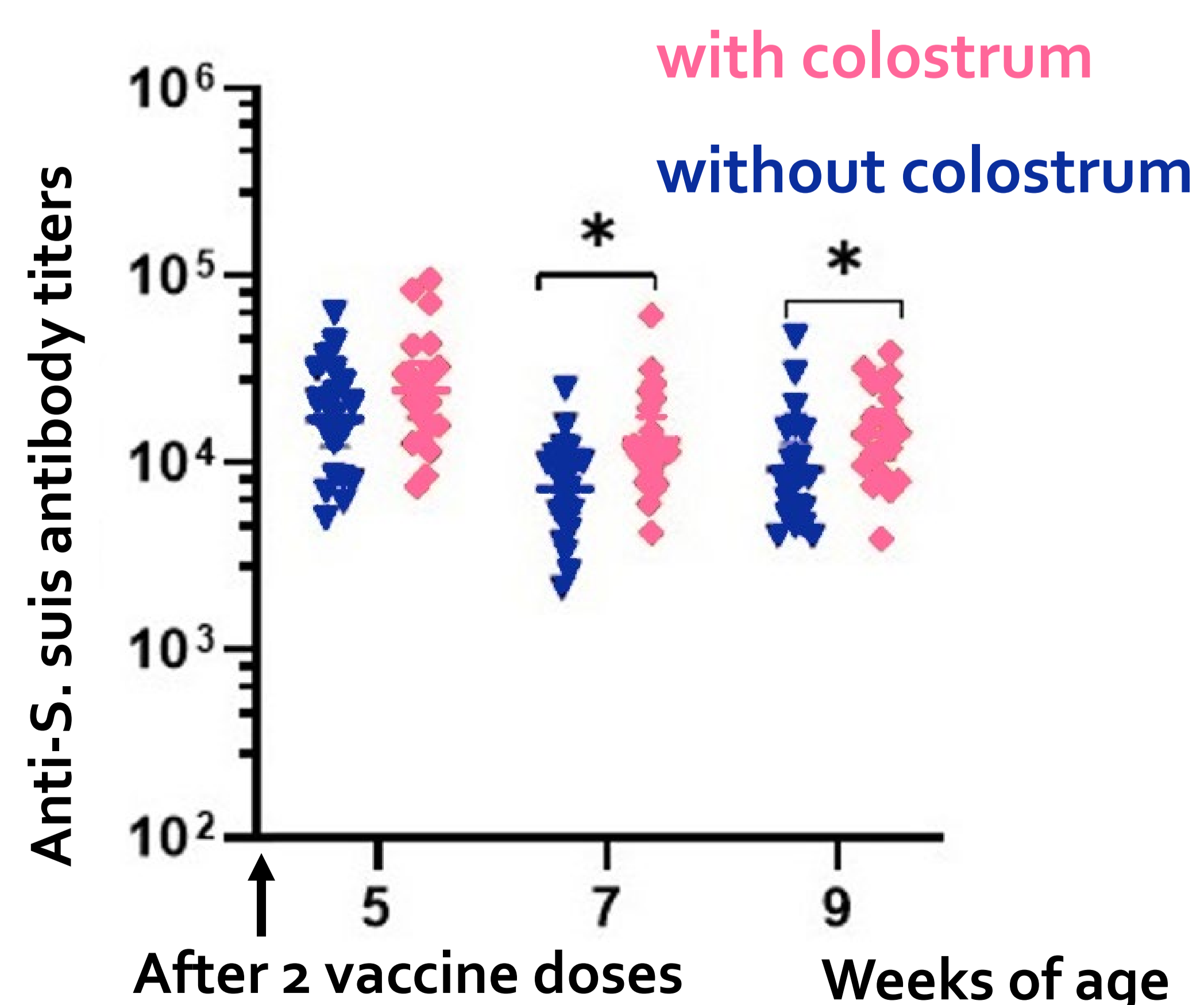
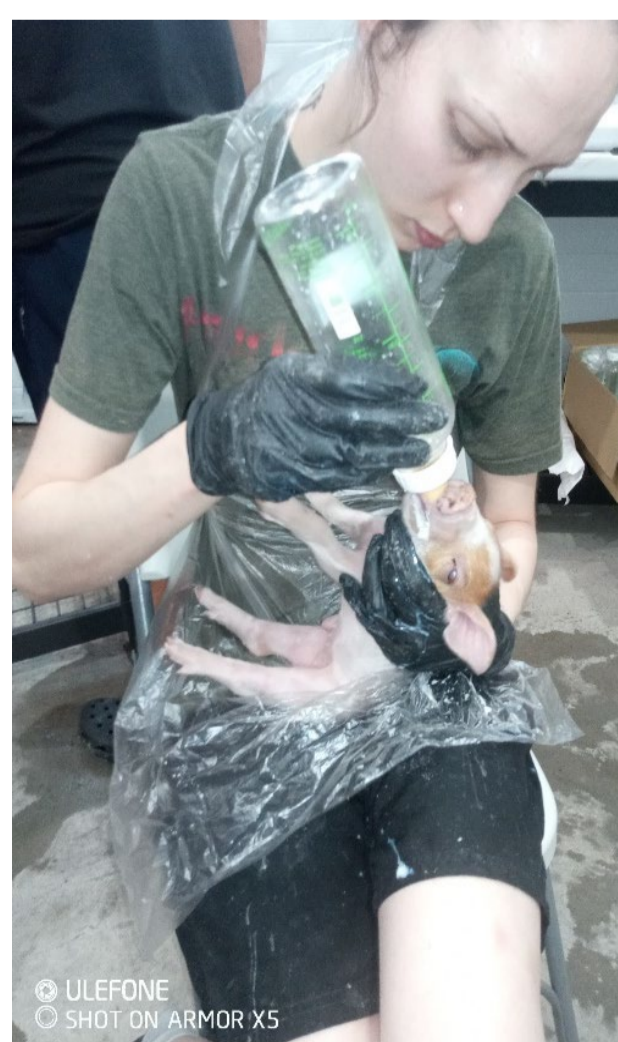
### Experimental approach:

Piglets were raised with and without colostrum:  
Piglets were fed with bovine colostrum for 36 h



Piglets are then brought to an adoptive mother: 100% survival, normal weight gain

Vaccination of piglets at 1 & 3 weeks of age with and without colostrum



✓ No interference with maternal antibodies

✓ Piglets may be vaccinated at 1 and 3 weeks of age