

When an animal is sick, the cause of disease is often unknown. Yet the farmer or the vet needs to decide: Treat with antimicrobials or not.  
 Photo credit and sources: Viktor Ahlberg, Joerg Jores and Elise Schieck



## NUTRITION & FOOD SECURITY

### Diagnostics to reduce antimicrobial (mis)use

#### Context

- Overuse of antimicrobials is widespread today
- Antimicrobial resistance is one of our biggest health challenges
- We intend to develop a cheap, quick, easy-to-use diagnostic that can differentiate viral from bacterial infections
- We hypothesize that this may reduce the use of antibiotics in animals infected with viruses.

#### Our innovative approach

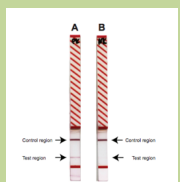
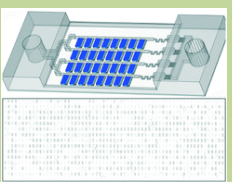
Bacterial and viral infections typically induce slightly different responses in the hosts, and we will use these host markers to develop a quick and easy-to-use field test.

- AMR is an increasing threat
- Antimicrobials are still being used to treat undiagnosed infections
- We are developing a test that can differentiate between viral and bacterial infections to reduce antimicrobial (mis)use



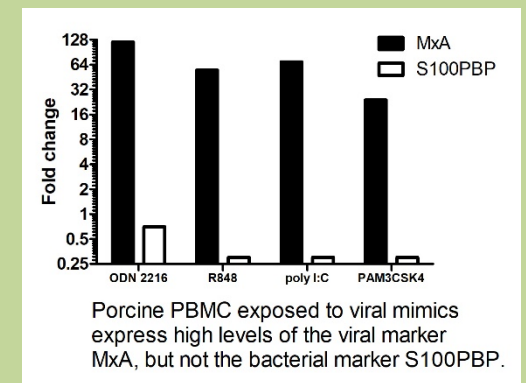
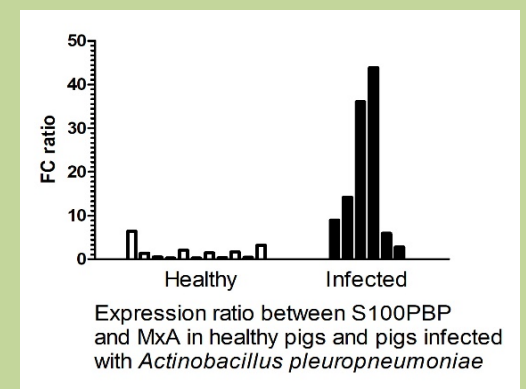
LIVESTOCK HEALTH

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Possible formats for the final product.  
 Photo credit and sources: Douglas Weibel, Wang et al., 2018 DOI: 10.1039/c8lc00956b, and Anne Liljander

**Outcomes:** Our initial lab results indicate that it will be possible to develop a test that discriminates between bacterial and viral infections.



#### Future steps

- Marker validation on a variety of clinical samples.
- Suitable technology for the final product will be developed.



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