

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

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.

Possible formats for the final product.

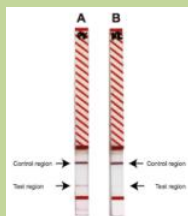
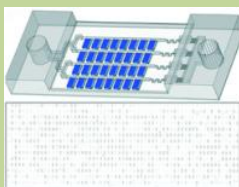


Photo credit and sources: Douglas Weibel, Wang et al., 2018 DOI: 10.1039/c8lc00956b, and Anne Liljander



NUTRITION & FOOD SECURITY

Diagnostics to reduce antimicrobial (mis)use

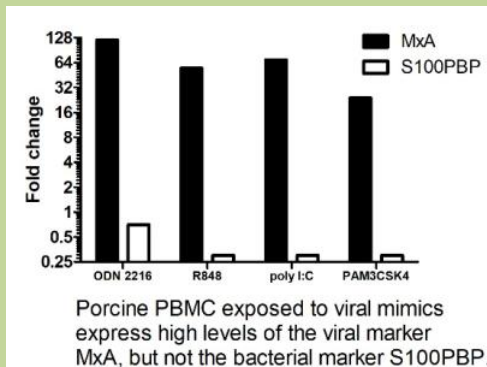
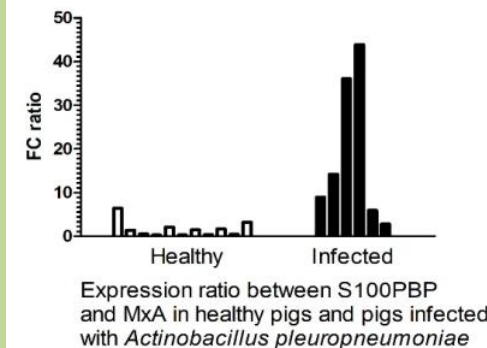
- AMR is an increasing threat
- Antimicrobials are still being used to treat undiagnosed infections
- We are developing a test that can differentiate between viral and bacterial infections to reduce antimicrobial (mis)use



LIVESTOCK HEALTH

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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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