

Rapid diagnostic test for bovine mastitis on the horizon

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Abingdon Health, a tenant at the University of Birmingham's bio-incubator, is developing a rapid diagnostic test for bovine mastitis, a common and serious health problem in dairy cows, which has an estimated £14-23 billion impact on the global dairy industry.

Mastitis is usually caused by [bacterial infection](#) in the cow's teats or udder, and reduces the quality of milk, rendering it unsaleable – and can be fatal to the cow.

Currently mastitis is detected by visual inspecting the milk, and the type of infection is confirmed by sending it off for laboratory testing – which is both time-consuming and expensive.

The University's relationship with Abingdon Health started in 2010, when a joint venture resulted in a new start-up company called Serascience, who developed Seralite, the world's first rapid test for [multiple myeloma](#). The test is used in human healthcare and is now available in 70 countries worldwide.

Abingdon's diagnostic test for mastitis will be based on a lateral flow technology that can be used on the farm, to identify the type of bacteria that caused the infection.

Test results will ensure that the cow is quickly prescribed the right antibiotic to treat the infection, and it is expected that this will reduce the inappropriate use of antibiotics, and the spread of disease between

cattle in milking herds.

The test will aim to provide sensitive measurements in order to stratify mastitis by bacterial class (gram-negative or gram-positive).

Dr. David Pritchard, Chief Technical Officer of Abingdon Health Ltd, commented: "The pressure to reduce the use of antimicrobials in food production is growing rapidly. To do this, we need to provide farmers with [rapid diagnostic tests](#) that guide the choice of antibiotic, and ensure animals are treated quickly and effectively with the right antibiotic. We also believe this test will provide benefits to the dairy industry in terms of milk quality and yield, and to the cattle in terms of animal welfare."

Provided by University of Birmingham

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