

Novel Bovine Pregnancy Test

Fast and early bovine pregnancy detection

By analysing a series of key biomarkers in parallel, this technology reliably detects of bovine pregnancy one week in advance of competitor tests. This in turn reduces the duration between inseminations and the economic loss to farmers and breeders of a missed cycle.

Animal Health, Cattle Breeding, Animal Breeding, Veterinary

Opportunity

Efficient livestock production and reproductive performance requires accurate, early pregnancy detection. Current methods of pregnancy detection only allows for detection from 28 days post-insemination. In the case of non-pregnancy this may be too late to enable re-insemination within the same cycle. Based on analysis by Teagasc the economic costs associated with a missed heat, coupled with an increased likelihood of cows not being in calf at the end of a breeding season is over €100 per heat.

The Solution

Researchers at University College Dublin and Teagasc have developed a new method of reliably detecting bovine pregnancy at 21 days post-insemination through the early detection of a specific genetic signature expressed in pregnant cows. This enables farmers to identify non-pregnancy at the earliest opportunity and reduces the duration between inseminations.



Funding:

This research was funded by Science Foundation Ireland.

Advantages of Technology

- Early, reliable detection of pregnancy at 21 days post-insemination compared to 28 days using competitor tests allows opportunity to rebreed immediately.
- Detection based on a panel of genes that are highly expressed during early pregnancy in cows.

Intellectual Property Status

Patent application filed jointly with UCD and Teagasc in 2020, claiming a novel method of early detection of bovine pregnancy via multiplexed detection of key indicative biomarkers.

Stage of Development

The technology has been extensively validated in a laboratory environment in blood/serum and with early results in milk.

This is ready to be further developed for commercial exploitation.

Opportunity

Teagasc and UCD are interested in partnering with a company/companies (existing and start-ups) to commercialise this technology.

How to Proceed:

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