

## PhD/MSc opportunity in animal breeding strategies to reduce environmental hoofprint in cattle

Do you want to be part of a dynamic, young, world-class animal genetics, genomics and analytics group at Teagasc, the Irish cattle Breeding Federation and University College Dublin? Previous PhDs from this collaboration have all developed novel technologies, now readily used by industry:

- Development and deployment of the EBI, beef indexes and sheep indexes
- Development of the COW index and sire advice system run by the ICBF
- Development of the national dairy, beef and sheep genetic evaluations run by the ICBF on the trait suites:
  - Fertility
  - Health
  - Milk production
  - Feed intake
  - Carcass traits
  - Management traits
  - Calving performance
- Development of the national DNA-based evaluations in dairy and beef cattle
- Generation of low cost DNA technology solutions now used globally in cattle and sheep
- The algorithms underpinning the national dairy breeding program operated by the Irish AI stations to identify genetically elite young bulls
- Cutting edge novel strategies for measuring performance traits at low cost in cattle and sheep
- ... and more.....

Several of the PhD graduates now work for industry implementing their PhD research

Teagasc and University College Dublin, in collaboration with the Irish Cattle Breeding Federation (ICBF) are seeking an enthusiastic and ambitious student in the area of animal breeding in cattle. Research results, if promising will be implemented by the ICBF.

Research questions include

1. Factors associated with protein utilization efficiency in dairy cows
2. Genetic contribution to differences in protein utilization efficiency in dairy cows
3. Impact of current breeding strategies on protein utilisation efficiency
4. Impact of selection on protein utilisation efficiency in genetic gain in other traits

Current employment status of recent graduates include Teagasc research geneticists, ICBF, Kerry Group, AbacusBio Consultancy Ltd., Wellcome Trust, Italian Holstein-Friesian breed society, Munster AI, Department of Agriculture, Identigen Ltd., and ABP

**For more information on this PhD/MSc above or for expression of interest please contact:**  
Donagh Berry, Moorepark, Fermoy, Co. Cork. 087-6955714 [donagh.berry@teagasc.ie](mailto:donagh.berry@teagasc.ie)

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