Activf-ET OPU and Transfer Teams

- Transfer Teams
- OPU Centres
- Laboratory

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About Activf-ET

Activf-ET is an exciting and vibrant new organisation; set up to deliver advanced breeding technologies to the UK cattle industry and beyond, with a team that understands the needs of the modern cattle breeder.

With collection teams located in both England and Northern Ireland, Activf-ET is ideally positioned to deliver IVF services throughout the UK.

With the rapid increase in use and understanding of genomics, poor cattle fertility remaining a costly and continual challenge, and an ever-increasing need for sustainable protein production, there is a requirement to amplify and exploit existing knowledge, and improve cattle production efficiencies.

The In-Vitro Fertilisation (IVF) process utilises both the Ovum Pickup (OPU) and In-Vitro Embryo Production (IVP) techniques to create bovine embryos. This process has significant advantages over both traditional breeding programmes and the use of conventional embryo transfer.

Within Activf-ET there is a real commitment to on-going research and development, working with Kevin Sinclair, Professor of Developmental Biology at the University of Nottingham, and Darren Griffin, Professor of Genetics at the University of Kent; both of whom, are world leaders in their fields. This expertise supports the experience and skill of our OPU team vets, transfer team technicians and highly trained embryologists working in our labs.

What Activf-ET offers

After 4 years of research and development, combining the expertise of two universities and a skilled team of OPU vets and embryologists; Activf-ET offers the most experienced Bovine IVF team in the UK, with a track record of proven results.
Are pregnancy rates variable?

As with all advanced breeding techniques, pregnancy rates can be variable and ongoing research is focusing on improving embryo viability and pregnancy rates with both fresh and frozen transfers.

What does the IVF process involve?

It is the process of creating embryos from unfertilised egg cells called oocytes. The oocytes are gently aspirated (sucked) from the ovarian follicles by means of a fine needle which is guided by an ultrasound scanner probe placed in the vagina. This is called Ovum Pickup (OPU). The recovered oocytes are then matured and fertilised in the laboratory. Further maturation and culture takes place in an incubator for approximately eight days resulting in viable embryos which can be transferred into recipient cows.

Long term effects on donor fertility

Extensive OPU on maiden heifers and adult cows has not been shown to reduce subsequent fertility.

"IVF success using Numero Uno and Lyall’s Northscales Talent Kizzy. This was the first calf produced from start to finish by our laboratory manager Charlotte Smith.”
What are the advantages of the IVF procedure?

A larger number of offspring can be generated in a shorter time frame than using conventional methods.

- OPU collections are performed fortnightly using lower doses of FSH over a shorter period of time than conventional MOET.
- Oocytes can be collected from both juvenile heifers and pregnant donors during the first trimester.
- The technique can be used on animals with a range of reproductive disorders.
- Less semen used per fertilisation so multiple donors can be fertilised with a single straw.
- Adds value to semen.
- Wide range of bulls can be used due to frequency of collection.

The welfare of your animals

Infection rates are very low with IVF and do not create a significant risk however. Stringent care is taken at all times to minimise infection.