

NSET

Non-Surgical Embryo Transfer Device



Helping you to achieve the 3R's

Reduction: NSET has the potential to reduce the number of animals as the recipient mother can be re-used

Refinement: NSET, as a refinement helps enhance animal welfare by minimising the potential pain, suffering and distress of surgery



The NSET device is revolutionising the procedure for implanting embryos into the uterus of rodents when producing transgenic or knock-out mice.

NSET Uses

NSET-mediated transfer is as equally efficient as standard oviduct transfer for the production of transgenic mice via microinjection.

The NSET device has been successfully used to transfer blastocysts generated by the aggregation of morulas with gene-targeted R1 ES cells.

The NSET device has successfully transferred cryopreserved embryos

Advantages

Reduces costs of embryo transfer up to 75%

Eliminates the pain and distress of surgery

No anaesthesia required

Eliminates need for post-surgical monitoring of animals

Eliminates surgical instruments and time consuming pre and post surgical processes

Greatly reduces time required to become proficient in embryo transfer

NSET can be used for:

Embryo transfer after DNA microinjection

Transfer of ES cell chimeric blastocysts

Transfer of cryopreserved embryos

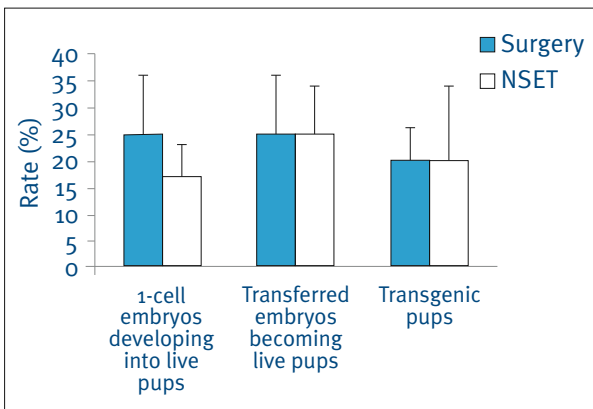
Transfer of cells after *in vitro* fertilisation

Embryo transfer for rederivation

Successful artificial insemination protocol now available



NSET of Microinjected Embryos



- B6C3F1 e0.5 embryos
- 5 transgenes
- Surgical transfer to oviduct after microinjection
- Non-surgical transfer to uterus at e3.5 in 2.5dcp pseudopregnant recipients

NSET Cost Analysis

| | Surgical Procedure | NSET Procedure |
|-----------------------------------|--------------------|----------------|
| Minutes Per Procedure* | 60 | 2 |
| Labour & Overhead/Minute** | 60 x £1.04 | 2 x £1.04 |
| Labour & Overhead Cost /Procedure | = £62.40 | = £2.08 |
| Consumable Cost of NSET*** | N/A | £17.63 |
| TOTAL COST OF PROCEDURE | £62.40 | £19.71 |
| NSET PRICE REDUCTION | | 68.4% |

* Includes pre and postoperative care. **Overhead cost per facility will vary. *** Cost analysis does not include reduction of surgical consumables.

NSET Cost

10 devices per box

£176.34 /box

Don't take our word for it.

This is what the users of NSET are saying:

“ NSET devices have greatly reduced our procedure times and we have achieved the same results as we did with our surgical procedure ”

“ We believe that NSET may be a more refined technique that groups should seriously consider and, where possible, move towards adopting ”

“ This device has to be one of the best advancements towards the 3R's that I've seen for many years ”

“ We have found that NSET transfers produce the same birth rates as uterine transfers, but with the benefits of improved animal welfare, time efficiency and ease of training ”

NSET Training

Working in partnership with a world leading animal breeder, Datesand are proud to be able to offer a ½ day training course to enable participants to become competent in the techniques required for NSET.

During the course, each person will have the opportunity to watch the technique being carried out with live animals, practice on cadavers and have a Q&A session with experienced NSET users. They will be provided with a box of 10 NSET devices and a full set of course notes.

- 1/2 day course at a central UK venue
- Includes 1 box of NSET Devices
- Opportunity to tour a premier UK breeding site

Courses can be scheduled to suit and can be carried out with groups of 1 to 6 people. The training session will also provide the opportunity to tour a premier UK breeding site. For further details on training, please call, email, visit our website or scan the QR code to take you straight there.

www.nset-device.co.uk/nset-training.htm

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Scan this QR code with
your smartphone to book
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