**Rederivation Via IVF Using Fresh Sperm**

*In vitro* fertilisation methodology has progressed significantly over the past decade. The technique now offers a quick, efficient and robust method to recover genetically altered mouse colonies on a variety of genetic backgrounds using a minimal number of mice.

Harvesting fresh sperm from 1-2 males >10 weeks of age for use in IVF provides an efficient method to generate embryos for archiving or rederivation.

If donors of an appropriate genetic background are not commercially available, are from mixed/unknown background that needs to be maintained or if there are homozygous and/or multiple mutations which need to be maintained then 5 donor females should be provided. If donor females are provided they should be between 3-12 weeks old.

We are now offering the option to check the genetic background of your line at the point of rederivation using Transnetyx's miniMUGA snp array based genetic monitoring service. One mouse from the rederivation process will be sent for testing unless users request additional mice. The introductory price for this service is £40/animal tested. Please contact geec@kcl.ac.uk for more information.

The price for rederivation via fresh sperm harvest is **£970.00** per line.

**Note:** Where rederivation is being completed in the interest of the College for animal welfare reasons then there is no fee.

Please contact Tolga Oralman ([tolga.oralman@kcl.ac.uk](mailto:tolga.oralman@kcl.ac.uk) Ext: 6578) if you need any further information about sperm cryopreservation or if you would like to discuss the application of any cryopreservation or assisted reproductive techniques (ART).

**General Information**

|  |  |  |
| --- | --- | --- |
| Requester’s Name |  | |
| Requester’s Contact Details | Email: |  |
| Phone: |
| Department |  | |
| Budget Holder |  | |
| Budget Code |  | |

**Colony Information**

|  |  |  |
| --- | --- | --- |
| Colony Name |  | |
| Animal Prefix |  | |
| PPL |  | |
| Colony Comments |  | |
| Colony Location | BSU: | Room: |

**Sperm Harvest Male Check List**

|  |  |  |  |
| --- | --- | --- | --- |
| Comments | Requirement | ID #1 | ID #2 |
| Freezing sperm from two males significantly improves the likelihood of recovering the line, increasing the density of sperm whilst avoiding any unexpected issues associated with one particular male. | 2 males |  |  |
| Preferably both males designated for sperm harvest will have proven reproductive capability *in vivo*. Avoiding any issues associated with infertility. | Proven males? Y/N |  |  |
| Males should be separated from any mating’s for at least 5 days prior to sperm being harvested. | Separated (date) |  |  |
| Males should be between 8 and 16 weeks of age for optimum harvest. | Age |  |  |
| Confirming the genotype of the males allocated for sperm freezing will prevent the recovery of unexpected genotypes during the QC process. | Genotype confirmed? |  |  |
| It is important to know the genetic background of the sperm harvest males to ensure the correct integrity is maintained upon recovery. (e.g., C57BL6/**J**, C57BL6/**N**, C57BL6/**Ola-Hsd** etc.) | Genetic background |  |  |

**In order to assess the benefit in conducting the rederivation process please also complete a Project License Information Form (PLIF) – You will need a valid PPL to move the mice onto once rederived.**

**Please note that sperm harvest males will be culled using a schedule 1 method immediately prior to sperm harvest. If you require any tissue post mortem, please arrange this in advance.**