Cryopreservation and Cryorecovery

With cryopreservation, you can maintain your research materials over the long term without having to maintain an active colony. This service enables you to ensure the safety of your valuable research models and avoid genetic drift within your lines. The reproductive life of your colony is also extended, and the risk of contamination due to disease transmission is eliminated.

Embryo Cryopreservation

Methodology: The female will be mated with the target male after superovulation, and embryos of 2-cell stage will be taken for slow freezing and stored in liquid nitrogen the next day.

Advantage: The survival rate of slowly frozen embryos after resuscitation is high (□80%), and the pregnancy rate and farrowing rate in transplanted rats and mice are high.

Disadvantage: The operation is difficult and requires a high-cost controlled rate freezer with an operation time of 6 hours.

Sperm Cryopreservation

Methodology: Kill the male and take out sperms and store them in liquid nitrogen by rapid cryopreservation.

Advantage: Fast operation and high volume of sperm preservation.

Disadvantage: In vitro fertilization is required for resuscitation, and the fertilization rate is low (generally 15%-25%)

Embryo Resuscitation

Purpose: Resuscitate cryopreserved embryos and then transfer to obtain the desired rats or mice.

Methodology: Remove the cryopreserved embryos from liquid nitrogen, thawed at room temperature and place into the appropriate resuscitation solution for resuscitation. Transfer the surviving eggs into the pseudopregnant female mice to obtain the desired rats and mice.

Sperm Resuscitation

Purpose: Resuscitate cryopreserved sperms to obtain the desired rats or mice.

Methodology: Remove the cryopreserved sperms from liquid nitrogen,place at 37℃ for 10 min, and then transfer into TYH for sperm capacitation. The capacitated sperm will be fertilized by in vitro fertilization to

obtain fertilized eggs and transfer into pseudopregnant females to obtain the desired rats or mice.