

Cold challenge test for mice

1. Temperature transponder implantation: Mice will be transplanted with a sterile IPTT-300 temperature measuring transponder (BMDS inc).

These transponders are designed for harmless subcutaneous implantation and allow measurement of the mouse temperature in a non invasive fashion.

The transponder are prepacked in a special needle assembly and the transplantation is conducted under Isoflurane anesthesia and tissue glue is applied on the insertion site. Injection site and the mice well being will be monitored in the days following the implantation.

2. Cold challenge test:

The test is conducted in a cold environment (4-6C) for singly housed mice.

During the test the temperature of the mice will be monitored every 20-30 minutes using the temperature measuring system during a period of up to 8h. Body temperature is expected to be kept or decline in 2-6 C (for example see Bal N.C. et al, Nat Med, 2012).

Mice will be taken out of the cold environment if their temp will decline in more than 6C.

Following the test, the mice will be scarified and their tissues may be used for assessment of gene expression following cold exposure.

In any case, the mice will not return to the animal facility following the test.

Mice will be monitored for any sickness after the implantation and their body temp and body weight will be measured.

During the test, the mice well being will be monitored every 30 minutes.

Pain killers will be give following the implantation