\*Title: Tissue Embedding & Block Banking

\*Centre: IMPC

\*Date\_modified: 6-03-2012

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\*Procedure Id:

## \*1. Purpose:

Collect and fix a standard list of tissues from the complete necropsy (see IMPC Gross Pathology & Tissue Collection SOP)

Trim the fixed tissues into cassettes for processing

Embed the tissues in paraffin in a standard orientation

## \*2. Experimental Design

## Minimum number of mutant animals: 2 mutant males + 2 mutant females

Minimum age of animals: 16 weeks

## \* 3. Equipment

{Includes: *Resources -Equipment* and *Resources - Materials* and *Resources - Other*}

## \*4. Procedure

1. The following 29 tissues are collected and wet fixed at necropsy (according to IMPC Gross Pathology & Tissue Collection SOP)

|  |  |
| --- | --- |
| Brain | Spleen |
| Eye with optic nerve | Kidney |
| Spinal cord | Adrenal gland |
| Thymus | Mammary gland |
| Thyroid | Lymph node |
| Heart | Skin |
| Trachea | Skeletal muscle |
| Esophagus | Urinary bladder |
| Lung | Testes |
| Liver | Epididymis |
| Gall bladder | Prostate |
| Stomach | Seminal vesicles |
| Small intestine | Ovary |
| Large intestine | Uterus |
| Pancreas |  |

1. Trim the fixed tissue into labelled cassettes for processing according to Centre-specific SOP
2. Process the cassettes according to Centre-specific SOP
3. Embed the tissues in paraffin using the orientation below:

|  |  |  |
| --- | --- | --- |
| **Tissue** | **Number of Tissue Pieces** | **Embedding Orientation** |
| Brain | Up to 5 | Transverse or Mid-sagittal |
| Eye with optic nerve | 1 (per eye) | Sagittal (optic nerve parallel to cassette surface) |
|  | 1 (per eye) | Sagittal (within skull) |
| Spinal cord | Up to 6 | Cross |
| Thymus | 1 | Flat |
| Thyroid | 1 (with trachea) | Cross |
| Heart | 1 or 2 | Cross or Sagittal |
| Trachea | 1 (with thyroid) | Cross |
| Esophagus | 1 | Cross |
| Lung | Up to 5 | Cross or Sagittal |
| Liver | Up to 2 | Cross |
| Gall bladder | 1 (with liver) | Cross |
| Stomach | Up to 2 | Cross |
| Small intestine | 1 | Cross |
| Large intestine | 1 | Cross |
| Pancreas | 1 | Flat |
| Spleen | 1 | Flat or Cross |
| Kidney | 1 or 2 | Cross and Sagittal |
| Adrenal gland | At least 1 | Cross or Sagittal |
| Mammary gland | At least 1 | Flat |
| Lymph node | At least 1 | Flat |
| Skin | Up to 5 | Cross on edge |
| Skeletal muscle | At least 1 | Cross |
| Urinary bladder | 1 | Flat |
| Testes | At least 1 | Flat |
| Epididymis | At least 1 | Flat |
| Prostate | 1 | Flat |
| Seminal vesicles | At least 1 | Flat |
| Ovary | At least 1 | Flat |
| Uterus | 1 | Flat or Cross |

## \*5. Notes

*{Includes:* Everything else like *Health & Safety, Cleaning & Maintenance, Appendices, etc.}*

## \*6 . Measured Parameters - list

Brain

Eye 1 with optic nerve (optic nerve parallel to cassette surface)

Eye 2 with optic nerve (within skull)

Spinal cord

Thymus

Thyroid

Heart

Trachea

Esophagus

Lung

Liver

Gall bladder

Stomach

Small intestine

Large intestine

Pancreas

Spleen

Kidney

Adrenal gland

Mammary gland

Lymph node

Skin

Skeletal muscle

Urinary bladder

Testes

Epididymis

Prostate

Seminal vesicles

Ovary

Uterus

Additional tissues

## \*7. MetaData Parameters - list

|  |  |  |  |
| --- | --- | --- | --- |
| **Metadata** | **Levels required** | **Required for data upload** | **Required for data analysis** |
| Number of animals | At least 4 mutant mice | YES | YES |
| Age | At least 16 weeks | YES | YES |
| Experimenter ID | Name | YES | NO |
| Date of experiment | DD/MM/YYYY | YES | NO |
| Fixation | Fixative | YES | NO |
| Cassette ID | ID | YES | NO |
| Embedding media | Paraffin | YES | NO |
| Embedding orientation | Tissue orientation | YES | NO |