Gross Pathology and Tissue Collection IMPC_PAT_001

Purpose

To perform a complete necropsy to detect and record abnormal external findings and macroscopic alterations in internal and external organs, record body and heart weights (see IMPC Heart Weight SOP), and collect a standardized list of tissues for fixation with or without further processing (see non-mandatory IMPC Tissue Embedding & Block Banking SOP).

Experimental Design

- **Minimum number of animals :** 2M + 2F
- **Age at test:** Week 16

Equipment

- Corkplate or wax board
- pins
- jar containing tap water to rinse tools
- labelled container with fixative
- fine scissors
- bigger scissors
- forceps
- small spatula
- scalpel
- laboratory balance

Procedure

1. Sacrifice the mouse
2. Weigh and record total body weight (if not done separately)
3. Place mouse on its back and pin the mouse onto board with extended extremities (inner side of hands and foot)
4. Wipe or spray the mouse with 70% ethanol to control hair and dander
5. Proceed with a complete necropsy and tissue collection according to Center-specific technical SOP but be sure to collect the IMPC 'Tissue Collection List' (below) and remove the heart and record its weight according to the IMPC Heart Weight SOP. Inidividual Centers may collect any additional tissue according to Centre-specific technical SOPs.
6. Capture any images of abnormal findings and save images in Centre-specific database

7. Place all tissue collected in a labelled jar containing a sufficient volume of fixative (minimum of 10:1 fixative to tissue)
8. Record all abnormal findings in a Center-specific database using the standardized IMPC Gross Pathology ontology:
    1. MA ontology terms for location/topography
    2. MP ontology terms for presence/absence/large/small/abnormal
    3. PATO ontology terms for descriptors (size, shape, colour, consistency, distribution of lesions)

Notes

Banking of the fixed tissue for long-term storage is according to Centre-specific SOPs (including storage fixative). Options for long-term storage of the fixed tissue include:

- Store in labelled jar in wet fixative for future use or requests
- Trim, process, and embed fixed tissue in paraffin blocks (store or discard tissue not trimmed in)
- Trim, process, and embed fixed tissue in paraffin blocks followed by microtomy and staining of sections on glass slides (store or discard tissue not trimmed in)

Data QC

Images of significant gross findings will be captured as static image files (.tiff or .jpg) and made available to the DCC. Images will be not be annotated but linked by metadata to the mouse line.

Parameters and Metadata

Brain IMPC_PAT_001_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: brain

Ontology Options: abnormal brain morphology, flat, light yellow, dark yellow, multiple, decreased brain size, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, increased brain size, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical,

pedunculate, inflated, hydrocephaly, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Eye with optic nerve IMPC_PAT_002_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: eye_with_optic_nerve

Ontology Options: abnormal eye morphology, flat, light yellow, dark yellow, abnormal optic nerve morphology, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, microphthalmia, anophthalmia, macrophthalmia, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, phthisis bulbi, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Spinal cord IMPC_PAT_003_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: spinal_cord

Ontology Options: flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige,

localized, sunken, bilateral, unilateral, symmetrical, abnormal spinal cord morphology, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Thymus IMPC_PAT_004_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: thymus

Ontology Options: flat, enlarged thymus, abnormal thymus morphology, athymia, small thymus, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, ectopic thymus, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Thyroid IMPC_PAT_005_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: thyroid

Ontology Options: flat, light yellow, dark yellow, multiple, abnormal thyroid gland morphology, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable,

watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Heart IMPC_PAT_006_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: heart

Ontology Options: flat, abnormal heart morphology, abnormal heart position or orientation, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, enlarged heart atrium, small heart, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, dilated heart atrium, enlarged heart, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, cor triatriatum, abnormal heart shape, dextrocardia, mesocardia, atrial situs inversus, raised, area, diameter, obsolete absolute number value, circular,

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Trachea IMPC_PAT_007_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: trachea

Ontology Options: flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing,

multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, abnormal trachea morphology, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, small trachea, viscous, short trachea, oblong, pink, grey, volume, enlarged trachea, raised, area, diameter, obsolete absolute number value, circular, tracheoesophageal fistula,

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Esophagus IMPC_PAT_008_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: esophagus

Ontology Options: flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green,
no abnormal phenotype detected, linear, random pattern, multifocal to coalescing,
multi-localised, generalized, segmental, friable, watery, fluid-filled,
abnormal esophagus morphology, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, dilated esophagus, enlarged esophagus, viscous, esophageal atresia, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Lung IMPC_PAT_009_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: lung

Ontology Options: abnormal lung morphology, flat, light yellow, dark yellow, multiple, red brown, brown, pulmonary fibrosis, soft, hard, irregular spatial pattern, blue, black, blotchy,

white, red, green, small lung, enlarged lung, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, lung cysts, bilateral, unilateral, symmetrical, left pulmonary isomerism, right pulmonary isomerism, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Liver IMPC_PAT_010_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: liver

Ontology Options: liver fibrosis, abnormal liver morphology, liver abscess, flat, light yellow, dark yellow, multiple, red brown, brown, enlarged liver, soft, hard, irregular spatial pattern, small liver, blue, black, blotchy, white, red, green, liver cirrhosis,
no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated,
sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Gall bladder IMPC_PAT_011_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: gall_bladder

Ontology Options: flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, small gallbladder, abnormal gallbladder morphology, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, enlarged gallbladder, dilated gallbladder, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, absent gallbladder, volume, raised, area, diameter, obsolete absolute number value, circular,

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Stomach IMPC_PAT_012_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: stomach

Ontology Options: flat, distended stomach, enlarged stomach, abnormal stomach morphology, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, gastric ulcer, pink, grey, volume, gastric polyps, raised, area, diameter, obsolete absolute number value, circular, gastrocolic fistula,

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Small intestine IMPC_PAT_013_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: small_intestine

Ontology Options: flat, light yellow, dark yellow, multiple, red brown, brown, abnormal duodenum morphology, soft, hard, irregular spatial pattern, abnormal ileum morphology, duodenal lesions, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, abnormal jejunum morphology, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, absent jejunum, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, duodenum polyps, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, duodenal atresia, oblong, pink, grey, volume, intussusception, raised, distended ileum, enlarged ileum, area, diameter, obsolete absolute number value, circular,

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Large intestine IMPC_PAT_014_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: large_intestine

Ontology Options: flat, abnormal rectum morphology, abnormal large intestine morphology, cecal atresia, abnormal cecum morphology, light yellow, dark yellow, multiple, red brown, brown, abnormal colon morphology, colonic necrosis, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, rectal prolapse, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, cecum polyps, pedunculate, inflated, megacolon, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, colon polyps, volume, microcolon, intussusception, enlarged cecum, small cecum, coiled cecum, raised, absent cecum, rectovaginal fusion, rectourethral fusion, distended cecum, area, diameter, obsolete absolute number value, circular, rectoperineal fistula, gastrocolic fistula, rectovaginal fistula, proctitis, perirectal abscess,

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Pancreas IMPC_PAT_015_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: pancreas

Ontology Options: pancreas cysts, abnormal pancreas morphology, pancreas fibrosis, flat, small pancreas, light yellow, dark yellow, multiple, enlarged pancreas, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Spleen IMPC_PAT_016_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: spleen

Ontology Options: flat, accessory spleen, abnormal spleen morphology, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, pale spleen, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), small spleen, enlarged spleen, length, edematous, ovate, viscous, oblong, pink, grey, volume, absent spleen, raised, area, diameter, obsolete absolute number value, circular,

Kidney IMPC_PAT_017_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: kidney

Ontology Options: flat, yellow, multiple, brown, small kidney, abnormal kidney morphology, soft, hard, irregular spatial pattern, right, left, blue, black, blotchy, white, red, green, no abnormal phenotype detected, enlarged kidney, linear, firm, random pattern, multi-localised, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, inflated, single kidney, length, ovate, pink, orange, grey, polycystic kidney, volume, raised, area, diameter, obsolete absolute number value, circular,

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Adrenal gland IMPC_PAT_018_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: adrenal_gland

Ontology Options: flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, absent adrenal gland, abnormal adrenal gland morphology, pedunculate, inflated, sessile (sensu zoology), small adrenal glands, length, edematous, ovate, viscous, oblong, pink, grey, volume, enlarged adrenal glands, raised, area, diameter, obsolete absolute number value, circular,

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Mammary gland IMPC_PAT_019_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** true

Description: mammary_gland

Ontology Options: flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, ectopic mammary gland, abnormal mammary gland morphology, increased mammary gland number, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, absent mammary gland, raised, area, diameter, obsolete absolute number value, circular,

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Lymph node IMPC_PAT_020_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: lymph_node

Ontology Options: flat, enlarged lymph nodes, abnormal lymph node morphology, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, decreased lymph node number, increased lymph node number, small lymph nodes, bilateral, unilateral, symmetrical,

pedunculate, inflated, absent lymph nodes, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Skin IMPC_PAT_021_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: skin

Ontology Options: flat, abnormal skin morphology, psoriasis, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, epidermal cyst, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, skin edema, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, decreased skin turgor, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Skeletal muscle IMPC_PAT_022_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: skeletal_muscle

Ontology Options: flat, increased skeletal muscle size, abnormal skeletal muscle morphology, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, decreased skeletal muscle size, random pattern,

multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, skeletal muscle degeneration, raised, area, diameter, obsolete absolute number value, circular,

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Urinary bladder IMPC_PAT_023_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Description: urinary_bladder

Ontology Options: flat, light yellow, dark yellow, multiple, urinary bladder obstruction, abnormal urinary bladder morphology, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, absent urinary bladder, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, distended urinary bladder, sessile (sensu zoology), urinary bladder prolapse, urinary bladder diverticulum, length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Testes IMPC_PAT_024_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** true

Description: testes

Ontology Options: flat, absent testes, abnormal testis morphology, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, small testis, enlarged testis, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, cryptorchism, pedunculate, inflated, sessile (sensu zoology), hydrocele, length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Epididymis IMPC_PAT_025_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** true

Description: epididymis

Ontology Options: flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, absent epididymis, abnormal epididymis morphology, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, enlarged epididymis, small epididymis, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Prostate IMPC_PAT_026_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** true

Description: prostate

Ontology Options: absent prostate gland, flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Seminal vesicle IMPC_PAT_027_001 | v1.2

ontologyParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** true

Description: seminal_vesicles

Ontology Options: small seminal vesicle, abnormal seminal vesicle morphology, flat, light yellow, dark yellow, multiple, red brown, brown, enlarged seminal vesicle, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, bilateral, unilateral, symmetrical, pedunculate, inflated, absent seminal vesicle, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Ovary IMPC_PAT_028_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** true

Description: ovary

Ontology Options: ovary cysts, abnormal ovary morphology, flat, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, small ovary, enlarged ovary, distributed, beige, localized, sunken, bilateral, absent ovary, unilateral, symmetrical, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular,

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Uterus IMPC_PAT_029_001 | v1.1

ontologyParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** true

Description: uterus

Ontology Options: flat, uterus prolapse, light yellow, dark yellow, multiple, red brown, brown, soft, hard, irregular spatial pattern, blue, black, blotchy, white, red, green, no abnormal phenotype detected, linear, random pattern, multifocal to coalescing, multi-localised, generalized, segmental, friable, watery, fluid-filled, distributed, beige, localized, sunken, uterus atresia, bilateral, unilateral, symmetrical, uterus rupture, hydrometra, pedunculate, inflated, sessile (sensu zoology), length, edematous, ovate, viscous, oblong, pink, grey, volume, raised, area, diameter, obsolete absolute number value, circular, dilated uterus, thin uterus, uterus cysts, blind uterus, abnormal uterine horn morphology, dilated uterine horn,

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Body Weight IMPC_PAT_049_001 | v1.2

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Unit Measured: g

Description: body_weight

Experimenter ID IMPC_PAT_052_001 | v1.1

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Description: experimenter

Method of sacrifice IMPC_PAT_054_001 | v1.1

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Description: sacrifice

Options: Isoflurane overdose, Exsanguination, Carbon dioxide, Avertin, Ketamine (100mg/kg)/Xylazine (10mg/kg), Ketamine(100mg/kg)/ Xylazine (10mg/kg)/ Antisedan (1mg/kg), Ketamine (110mg/kg)/Xylazine (11mg/kg), Ketamine (110mg/kg)/Xylazine (11mg/kg)/ Antisedan (1mg/kg), Pentobarb (0.1ml), None, Cervical dislocation,

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Method of Blood Collection IMPC_PAT_055_001 | v1.1

procedureMetadata

Req. Analysis: false **Req. Upload:** false **Is Annotated:** false

Description: blood_collection

Options: Cardiac puncture, 1ml EDTA tubes, Braun-Melsungen, GER, Retro-orbital puncture,

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Equipment ID IMPC_PAT_056_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Description: equipment_name

Images IMPC_PAT_057_001 | v1.4

seriesMediaParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** false

Description: images

Fixative IMPC_PAT_058_001 | v1.1

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Description: fixative

Options: 10% buffered formalin phosphate, 4% NBF-24hrs, Neutral buffered formalin, 4% PFA/PBS, 10% neutral buffer formalin, RT, O/N, Formol, Bouin,

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Date equipment last calibrated IMPC_PAT_059_001 | v1.2

procedureMetadata

Req. Analysis: false **Req. Upload:** false **Is Annotated:** false

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Equipment manufacturer IMPC_PAT_060_001 | v1.1

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: Ohaus, Leica, Keyence Co., Ltd, Olympus,

Equipment model IMPC_PAT_061_001 | v1.1

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Options: AV2101, ASP200S, VHX-100, AV213C, SC100, Z6 ApoE, M651,

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Date of sacrifice IMPC_PAT_030_001 | v1.0

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

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ID for sample banking protocol IMPC_PAT_031_001 | v1.3

procedureMetadata

Req. Analysis: false **Req. Upload:** true **Is Annotated:** false

Description: ID for center-specific cassette processing protocol

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Comments (in English) IMPC_PAT_032_001 | v1.1

simpleParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** false

Description: General comments, in English