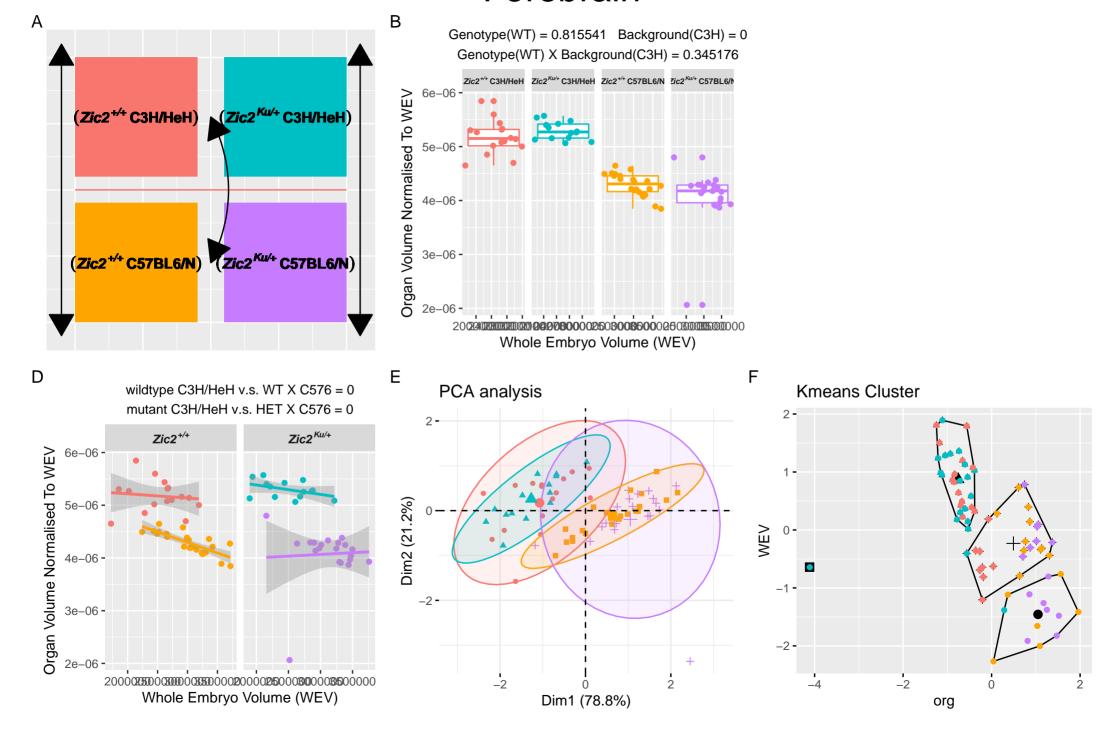
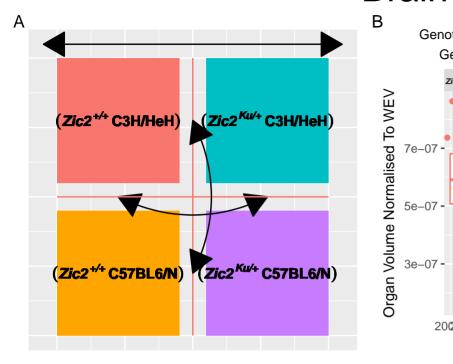
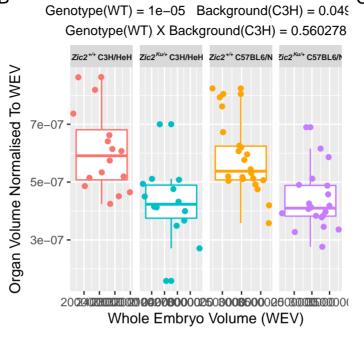
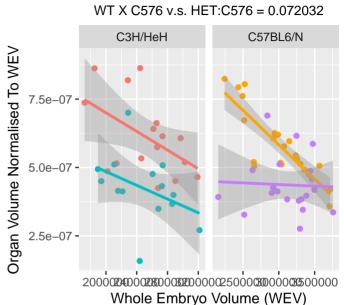
Forebrain



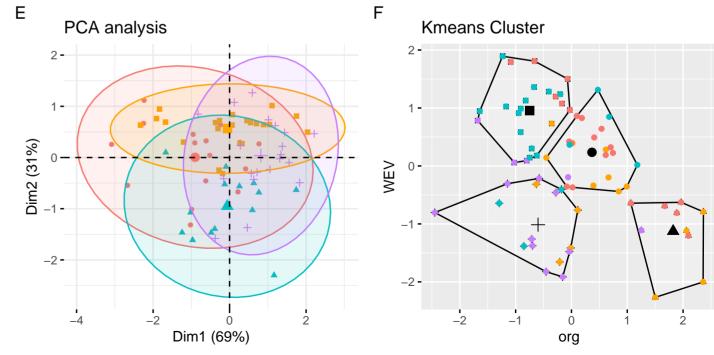
Brain Lateral Ventricle



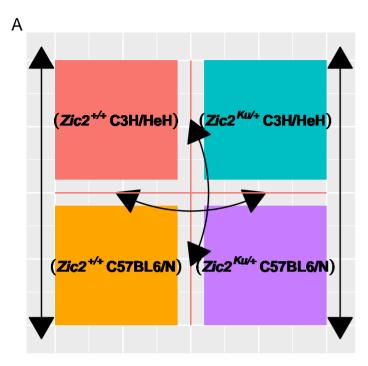


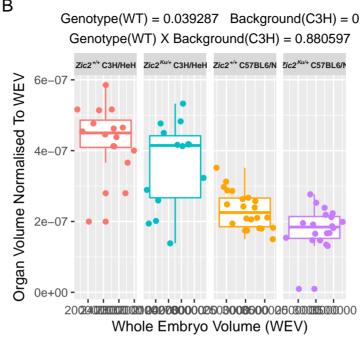


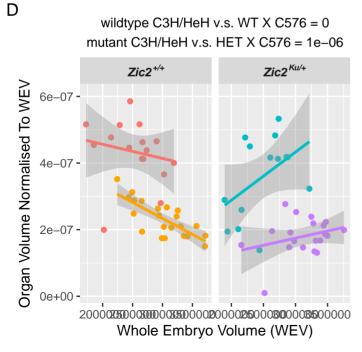
wildtype C3H/HeH v.s. mutant C3H/HeH = 0.0018

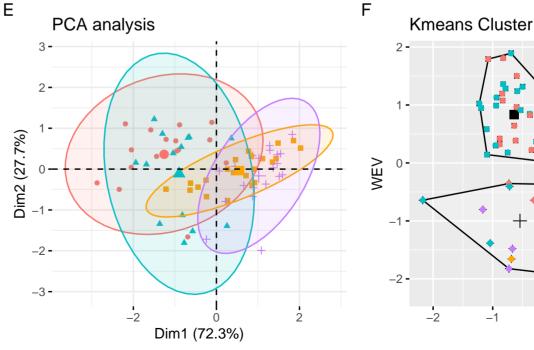


Brain Third Ventricle



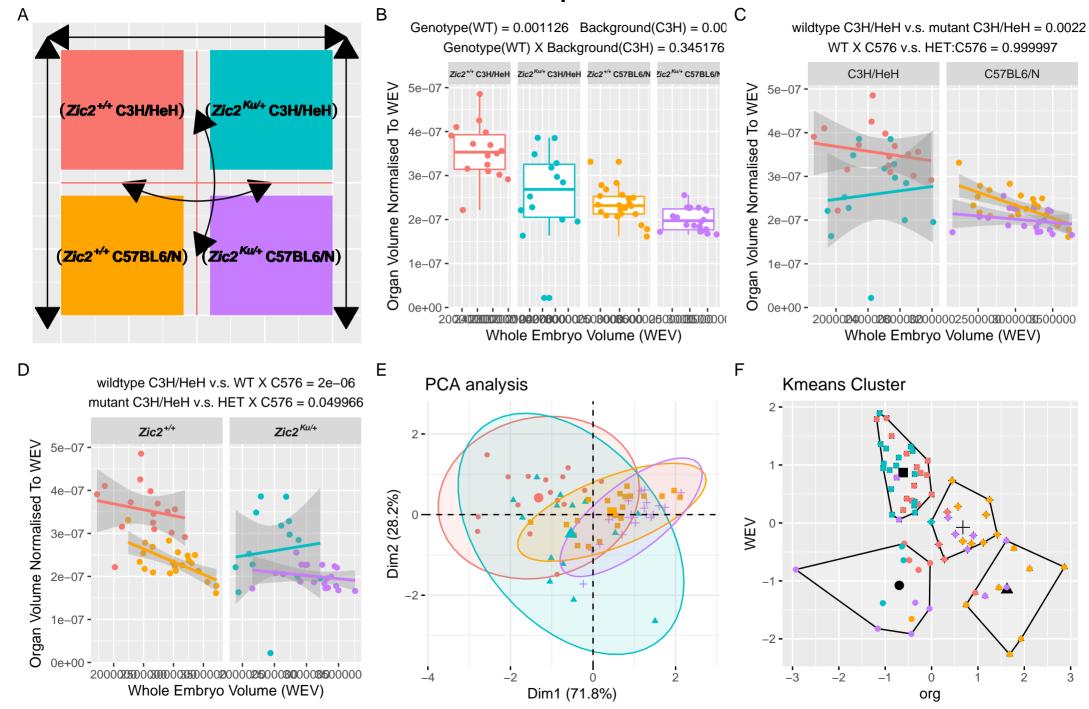




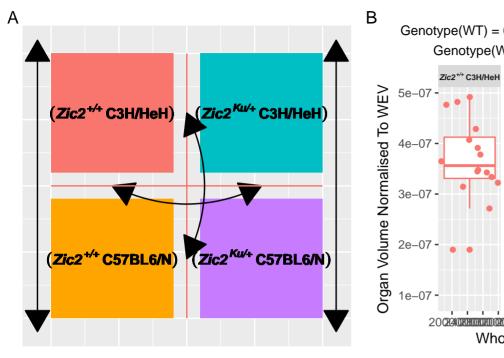


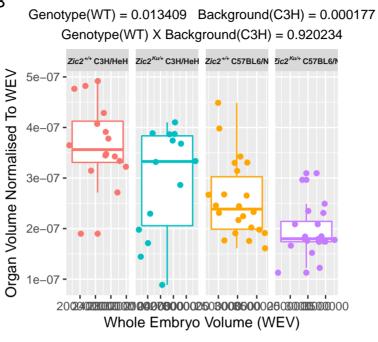
org

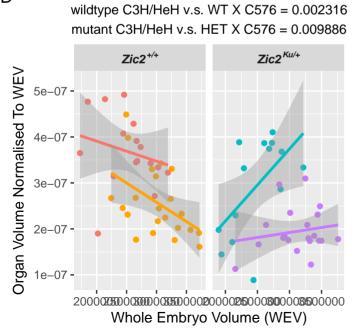
Brain Mesencephalic Vesicle



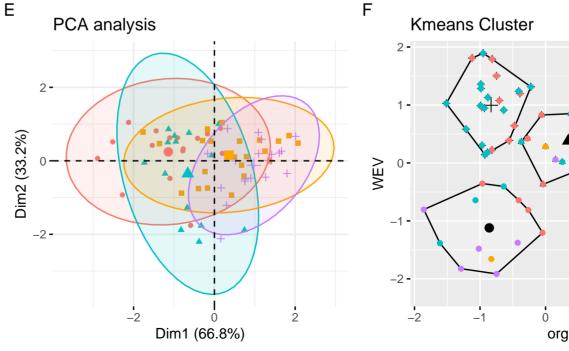
Brain Fourth Ventricle



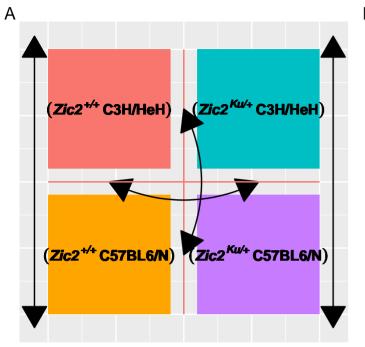


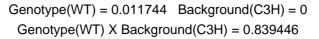


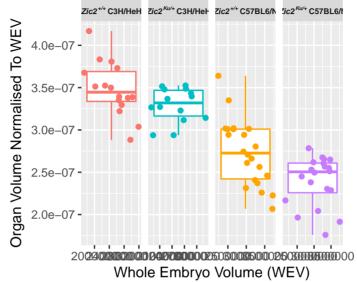
D

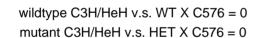


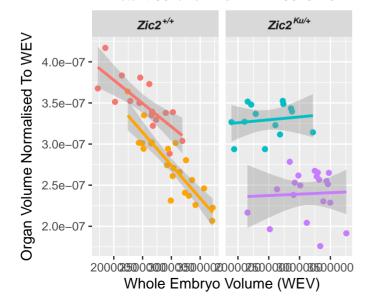
Cerebellar Primordium







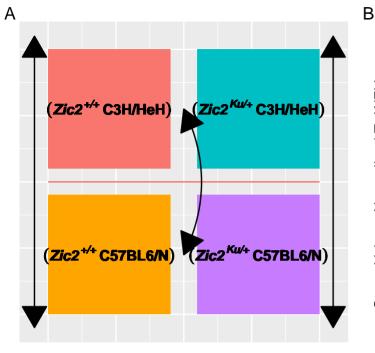


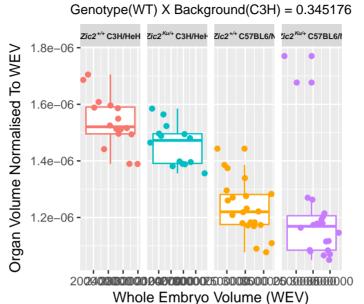


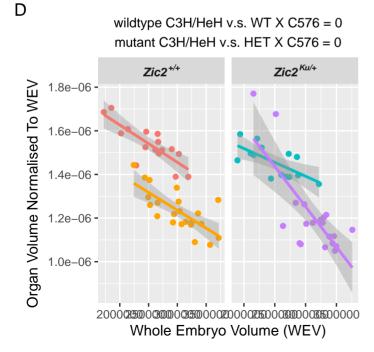
D

Midbrain

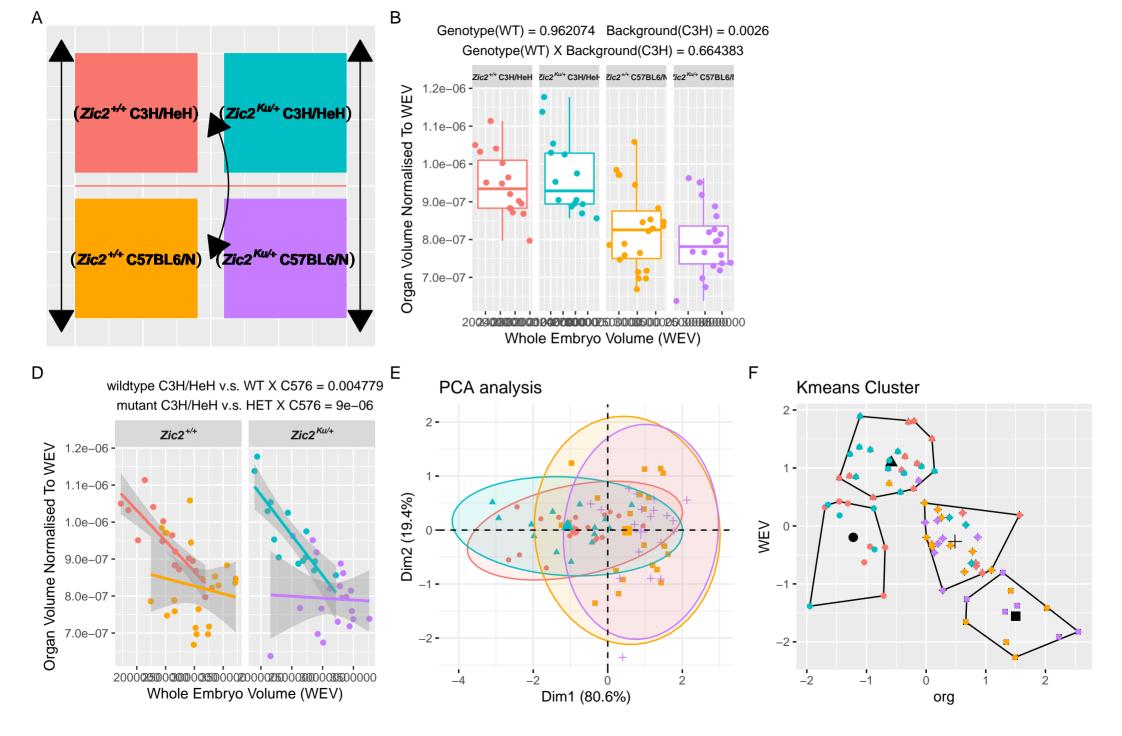
Genotype(WT) = 0.202306 Background(C3H) = 1e-06



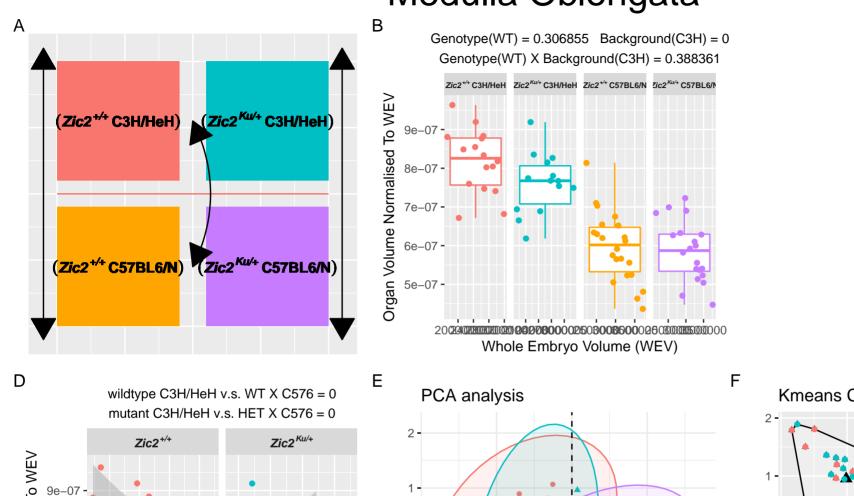


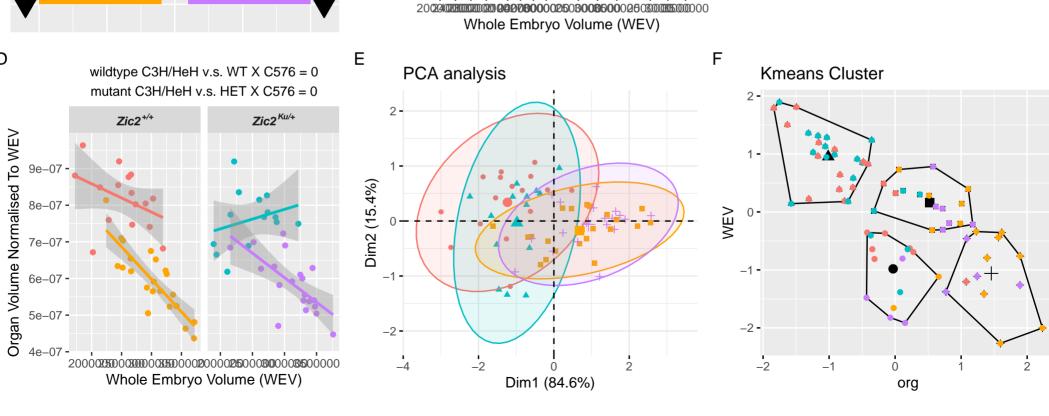


Pons

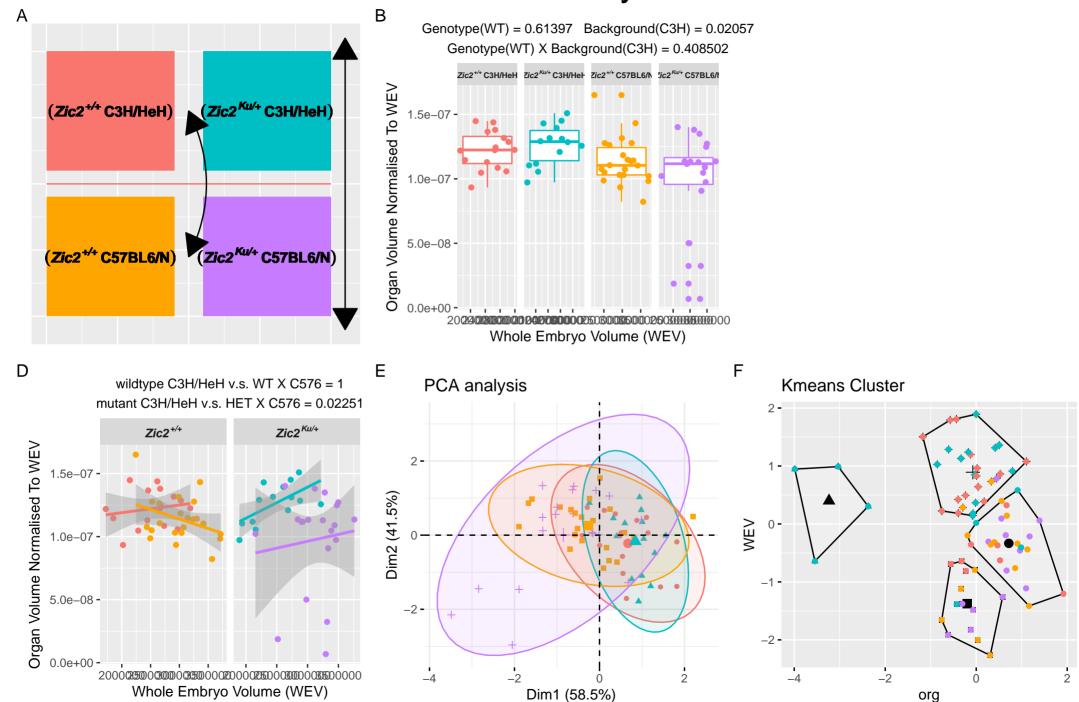


Medulla Oblongata

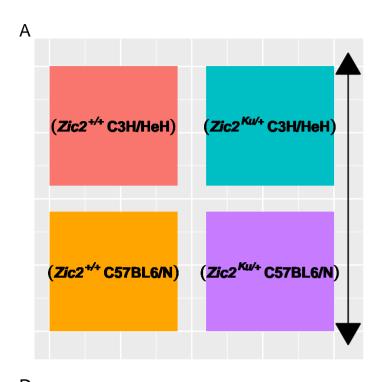


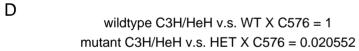


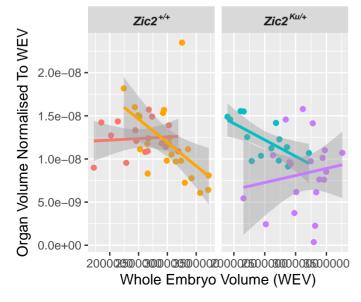
Retina And Other Eye Tissues



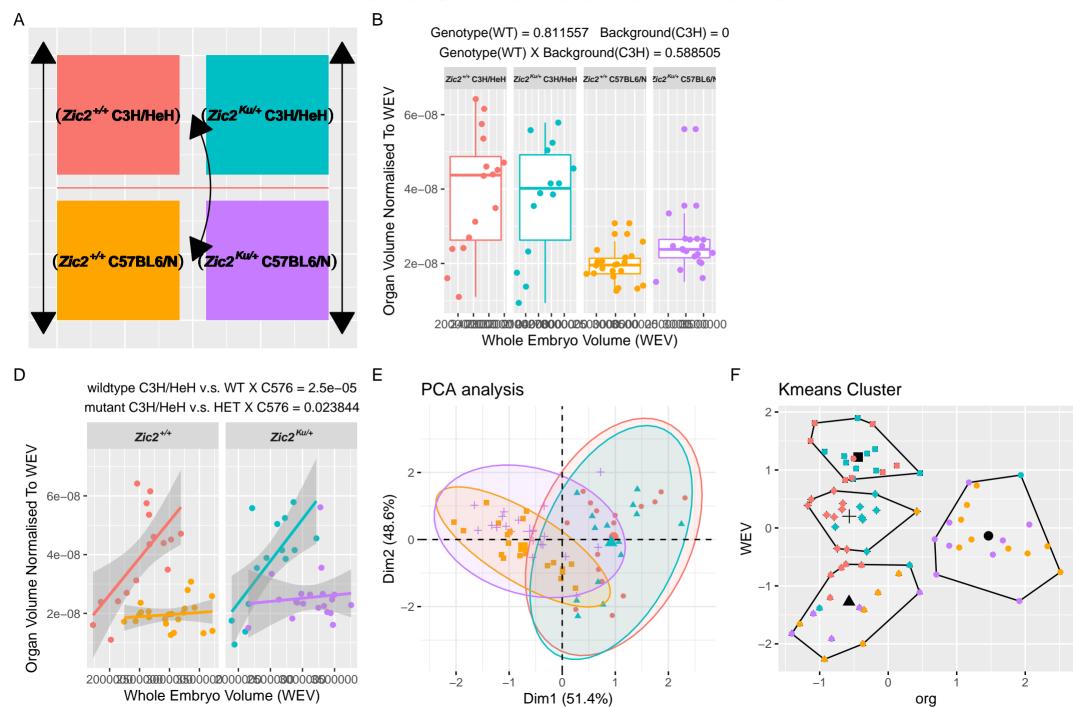
Lens Of The Eye



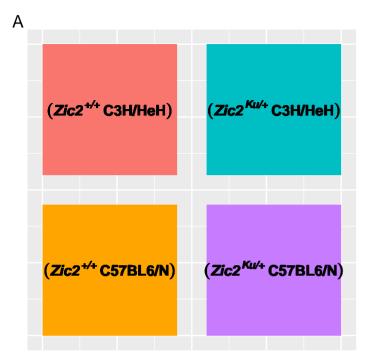


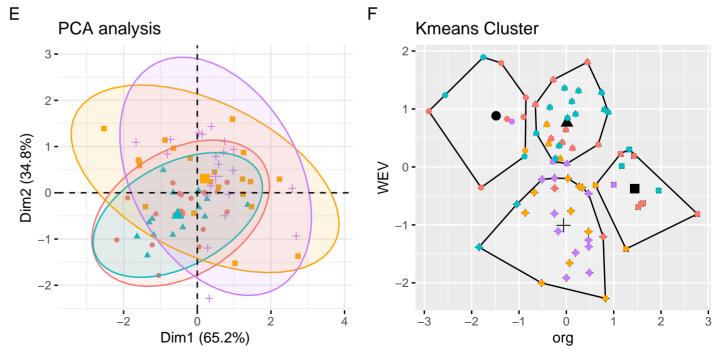


Whiskers And Tactile Follicles

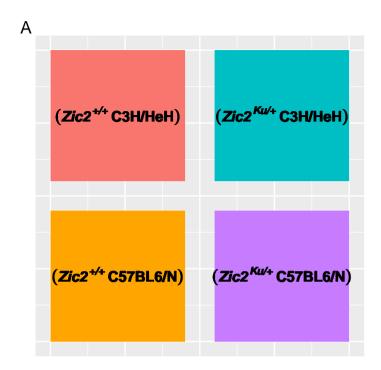


Cochlea

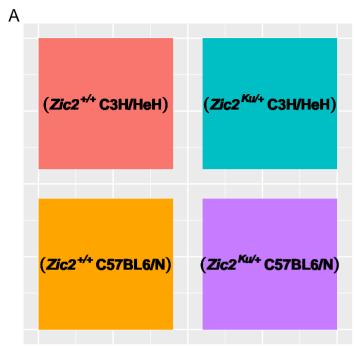




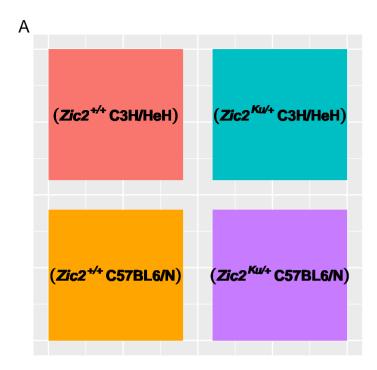
Semicircular Canal

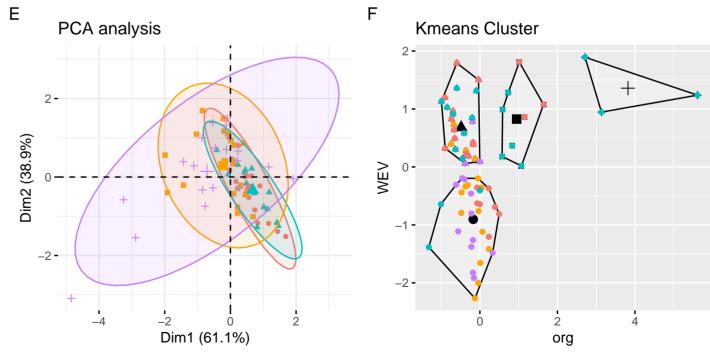


Endolymphatic Ducts

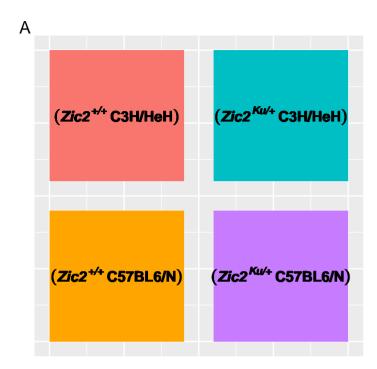


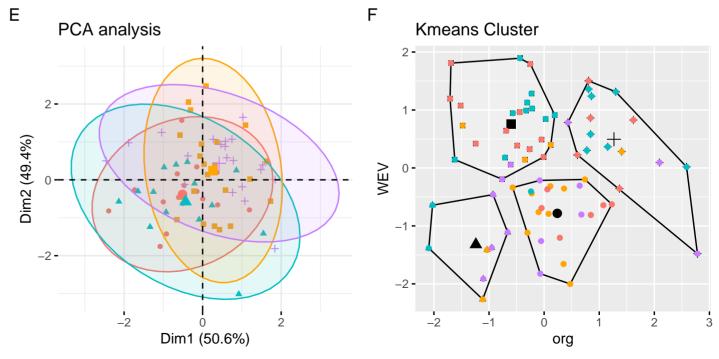
Sublingual Duct



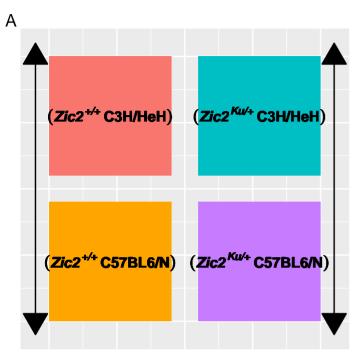


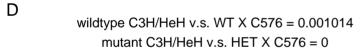
Submandibular Duct

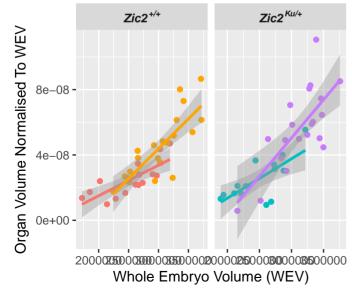




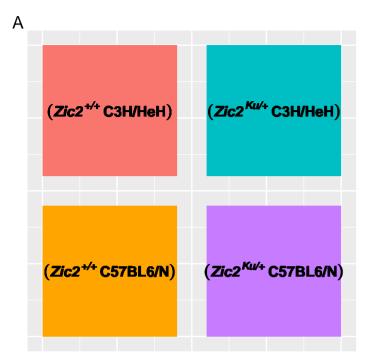
Submandibular Gland

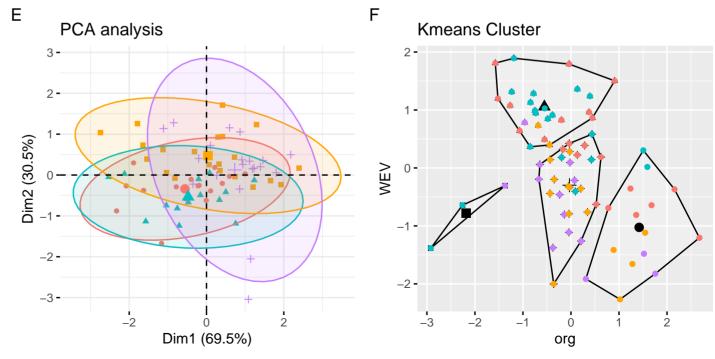




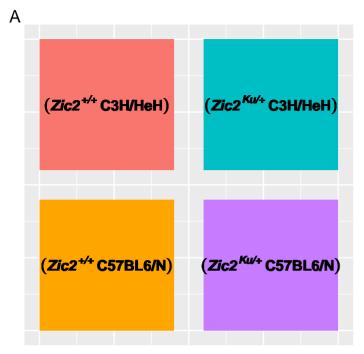


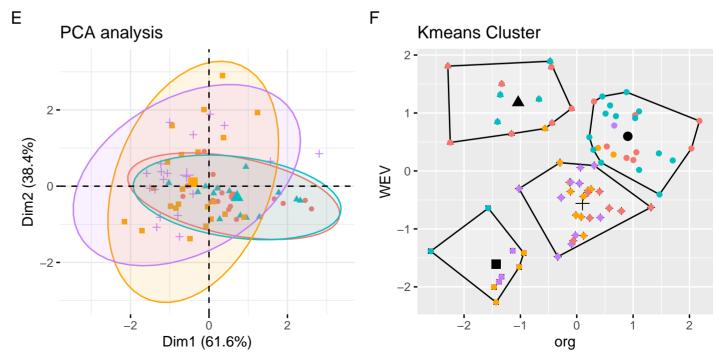
Meckel S Cartilage



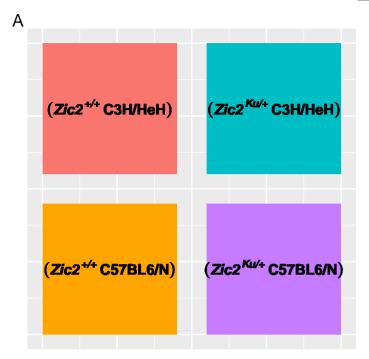


Mandible

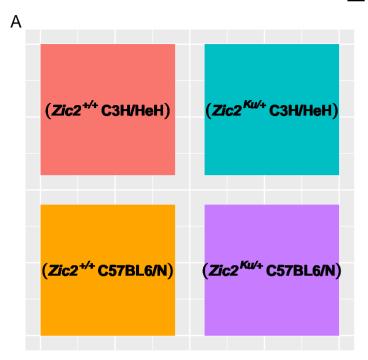




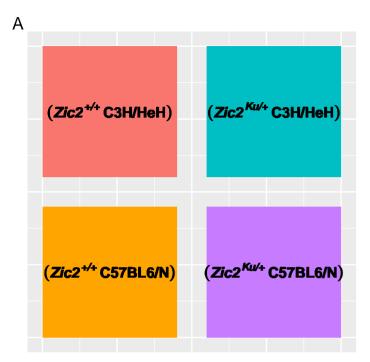
Lower Molar Primordia

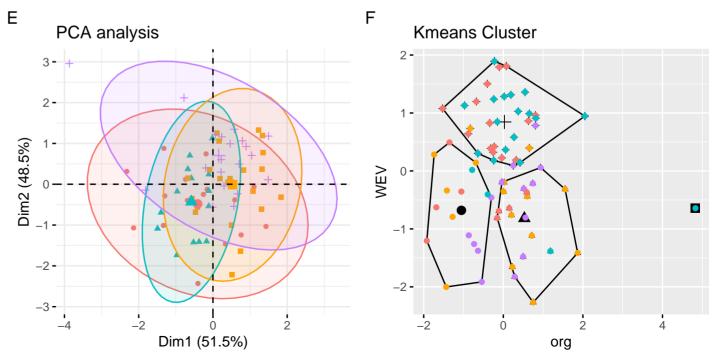


Lower Incisor Primordia

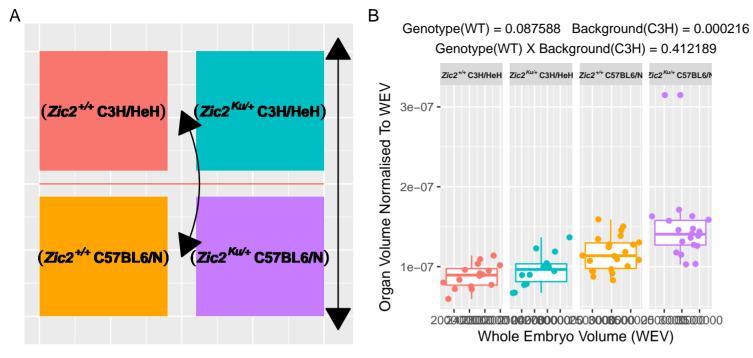


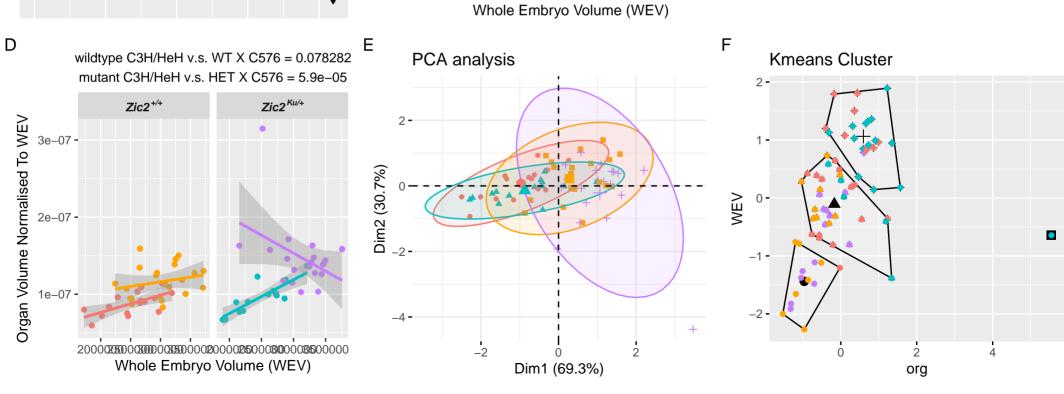
Stomach Wall



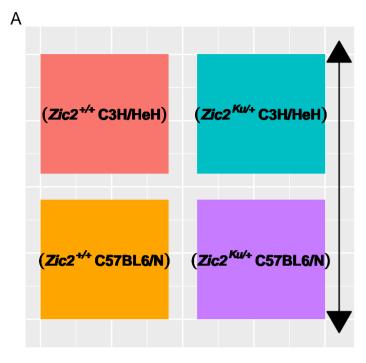


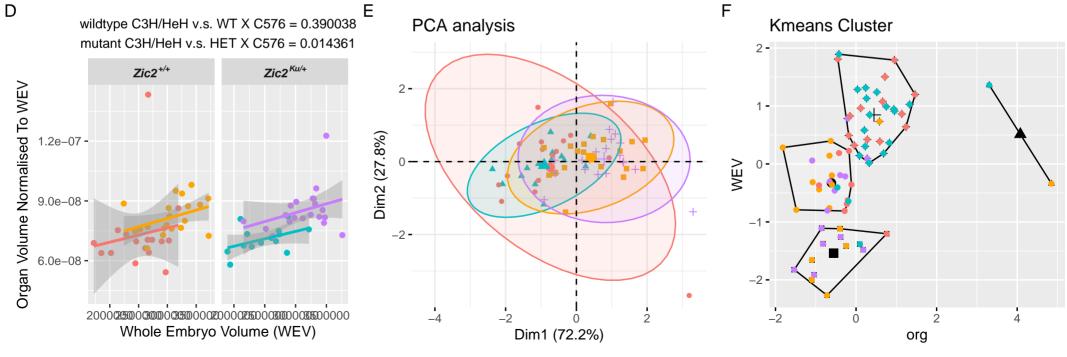
Stomach Lumen



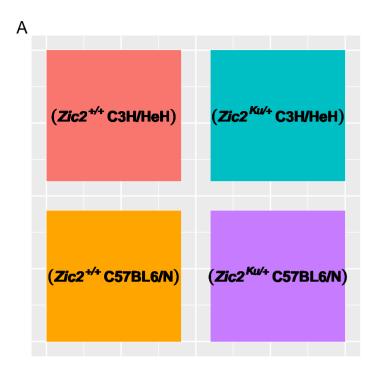


Foregut

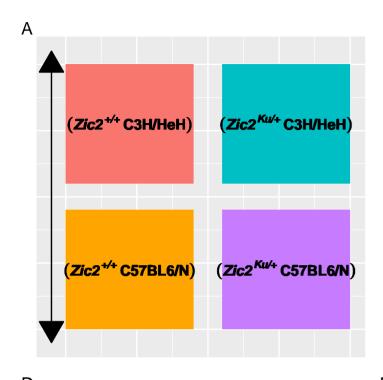


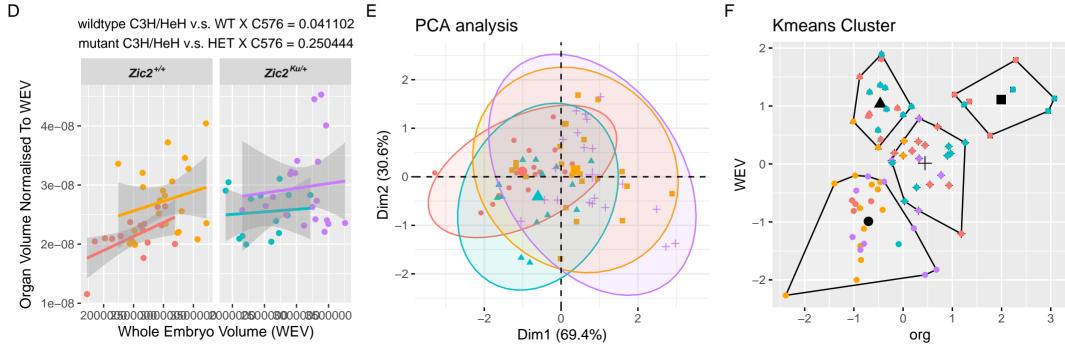


Mid Hindgut

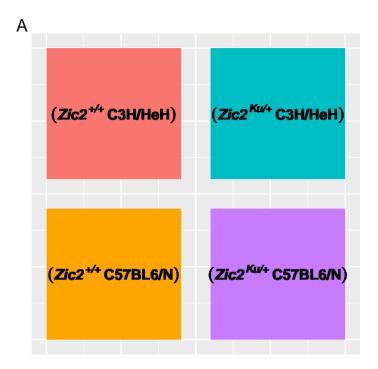


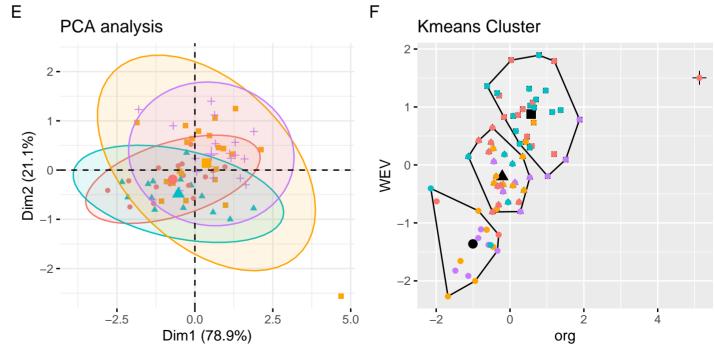
Rectum



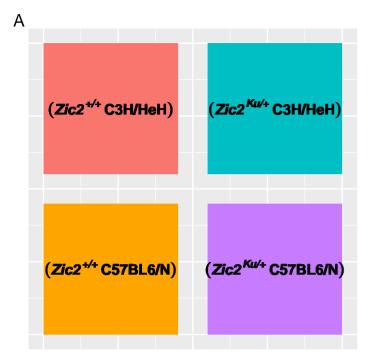


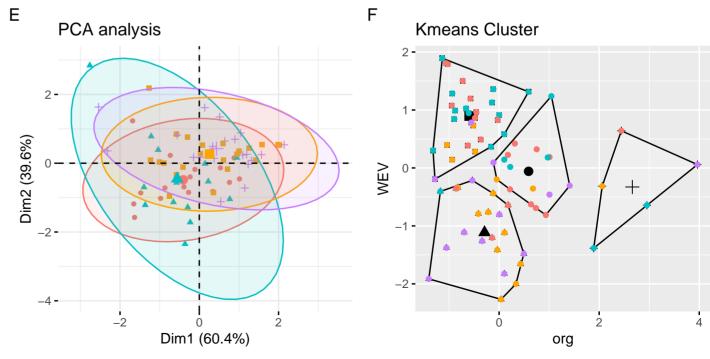
Pancreas



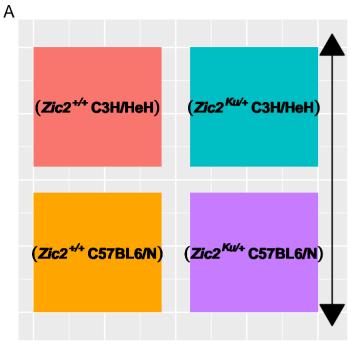


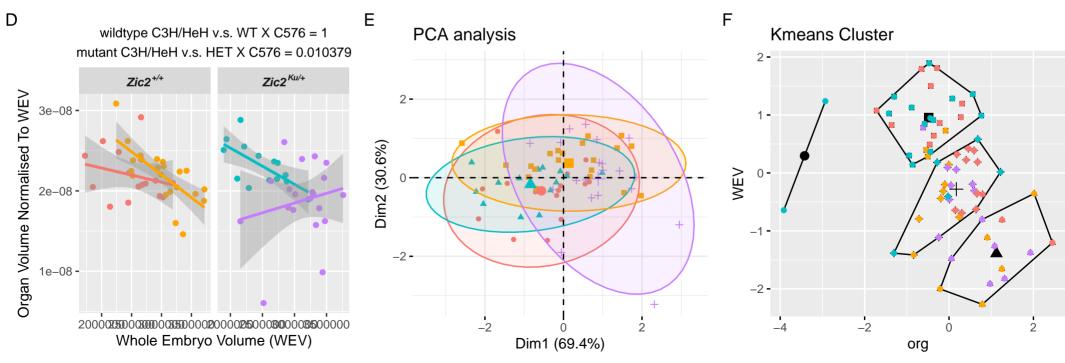
Thyroid





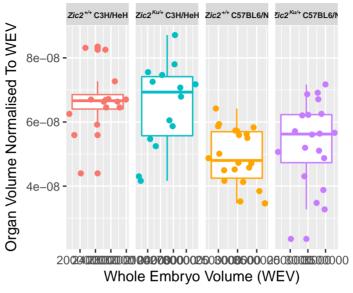
Medial Pterygoid Muscle

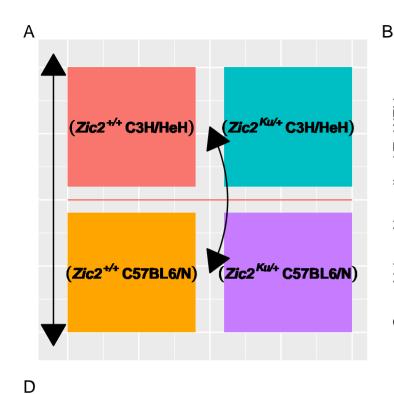




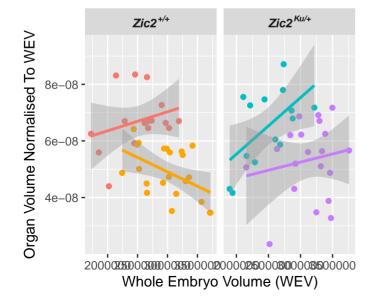
Masseter Muscle

Genotype(WT) = 0.873086 Background(C3H) = 3.2e-05
Genotype(WT) X Background(C3H) = 0.632193

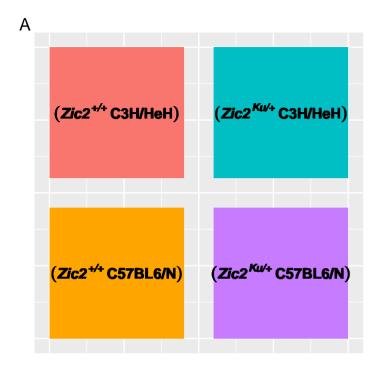




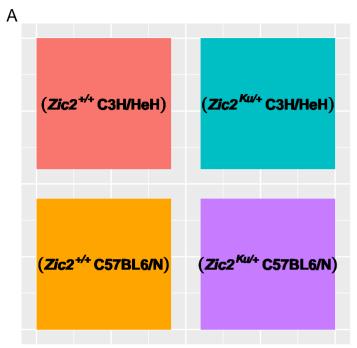
wildtype C3H/HeH v.s. WT X C576 = 0.000545 mutant C3H/HeH v.s. HET X C576 = 0.052279

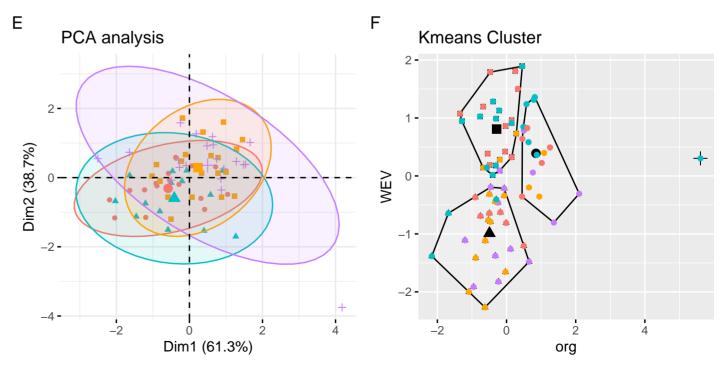


Tongue

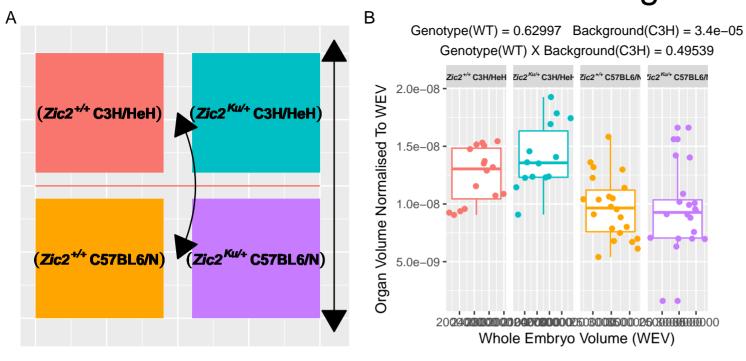


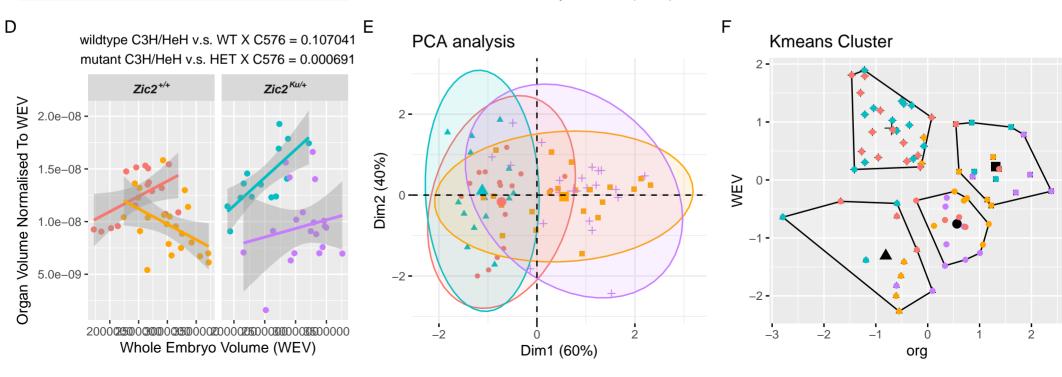
Genioglossus Muscle





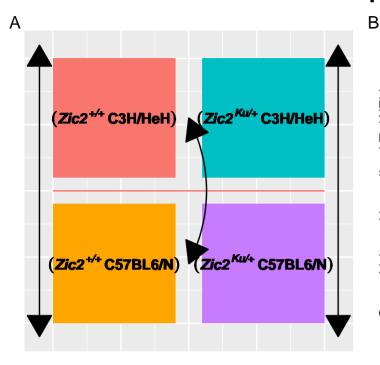
Vomeronasal Organ

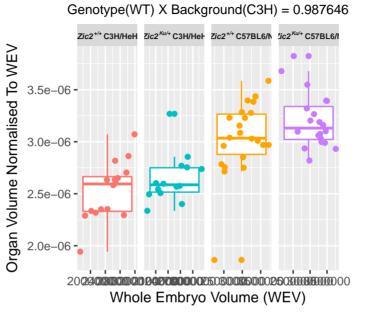


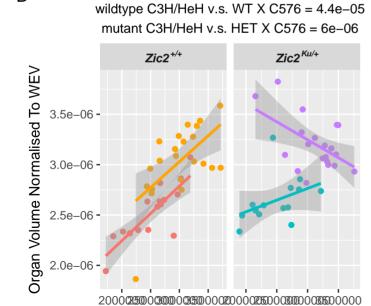


Medial Lobe Of Liver

Genotype(WT) = 0.223772 Background(C3H) = 5.2e-05



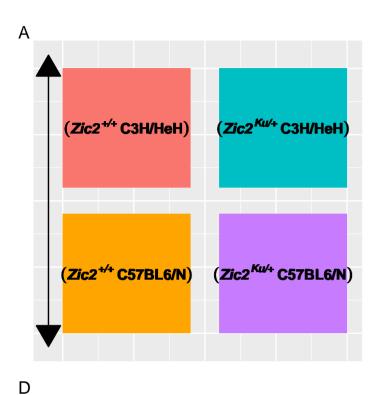




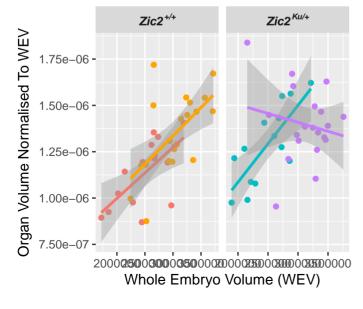
Whole Embryo Volume (WEV)

D

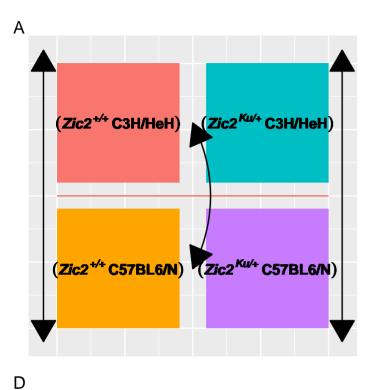
Left Lobe Of Liver

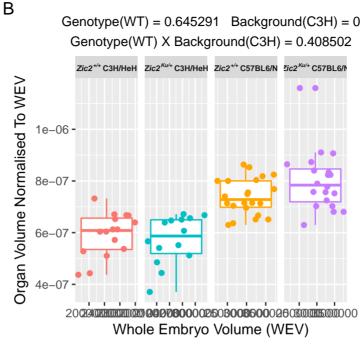


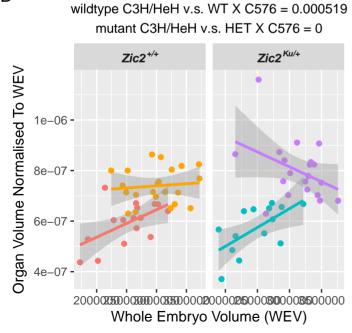
wildtype C3H/HeH v.s. WT X C576 = 0.038936 mutant C3H/HeH v.s. HET X C576 = 0.52429

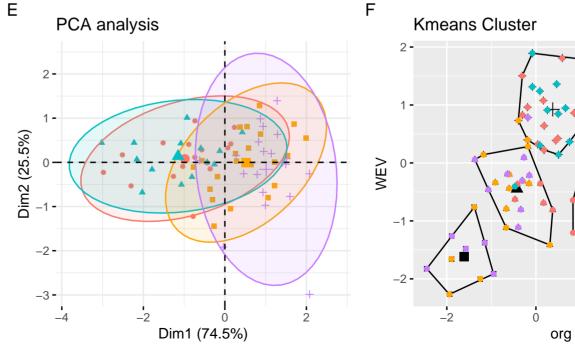


Right Lobe Of Liver



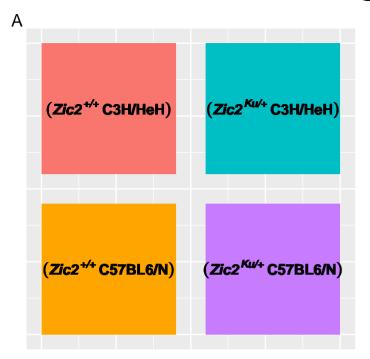




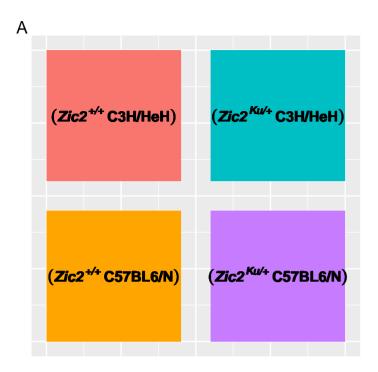


2

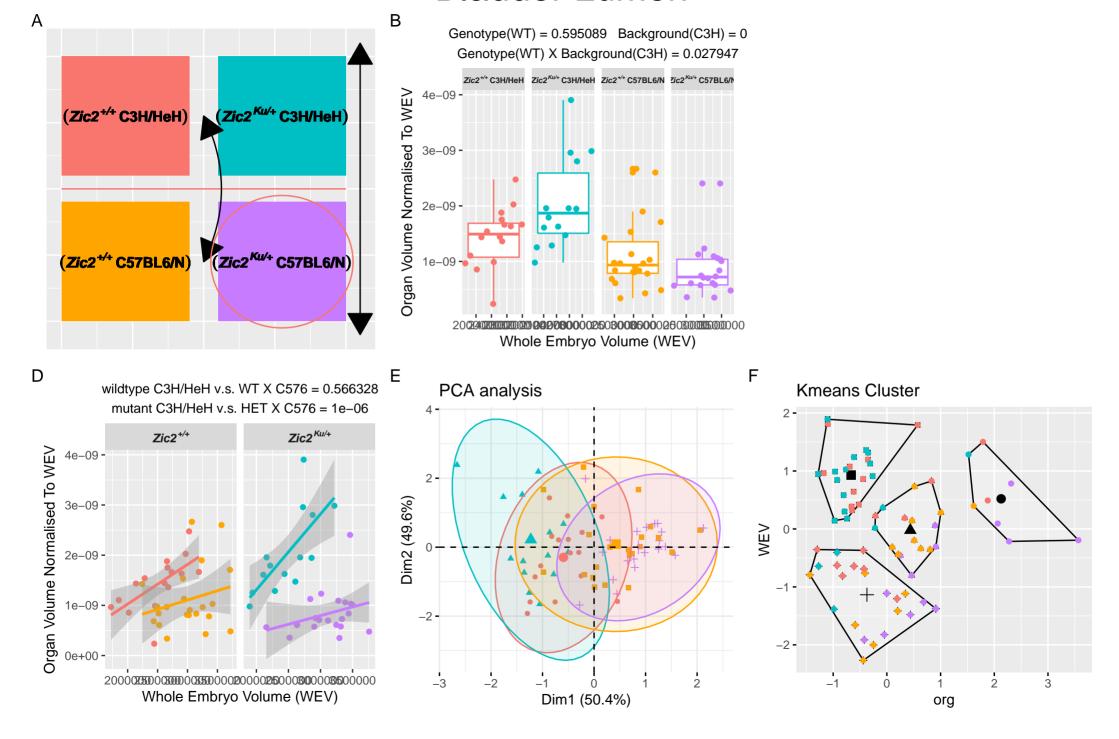
Caudate Lobe Of Liver



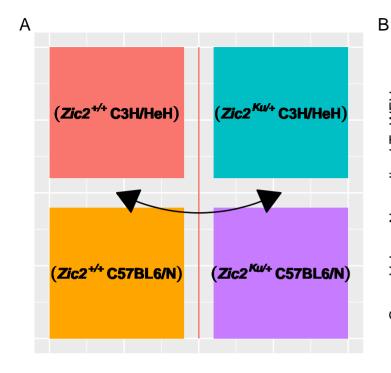
Bladder Wall



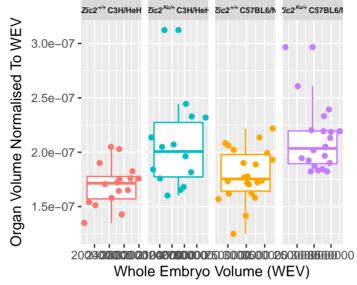
Bladder Lumen



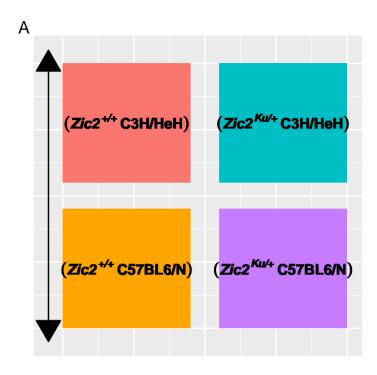
Metanephros

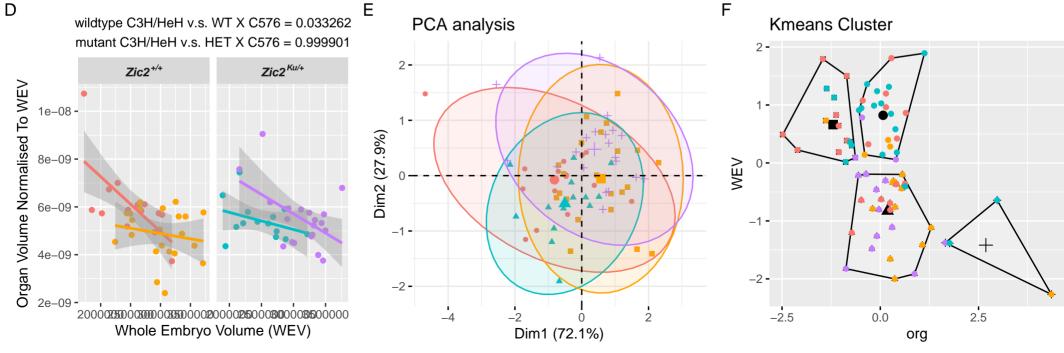


Genotype(WT) = 0.000715 Background(C3H) = 0.63939 Genotype(WT) X Background(C3H) = 0.942073

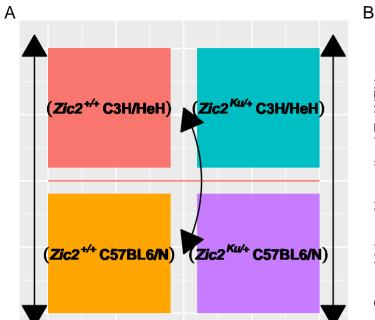


Ureteric Trunk

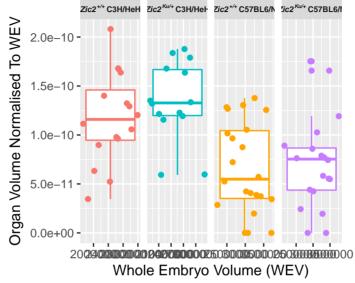




Nephric Ducts

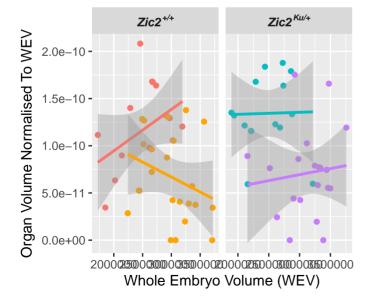


Genotype(WT) = 0.635776 Background(C3H) = 0.00018 Genotype(WT) X Background(C3H) = 0.884222

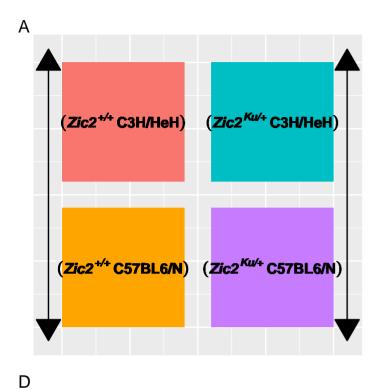


wildtype C3H/HeH v.s. WT X C576 = 0.032797 mutant C3H/HeH v.s. HET X C576 = 0.002933

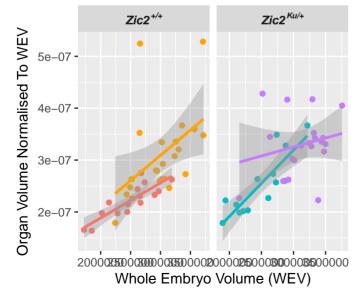
D



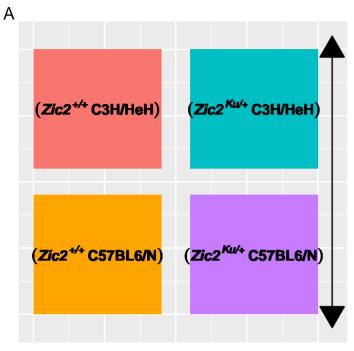
Left Lung



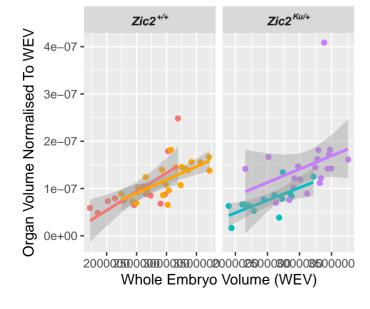
wildtype C3H/HeH v.s. WT X C576 = 0.000716 mutant C3H/HeH v.s. HET X C576 = 0.003112



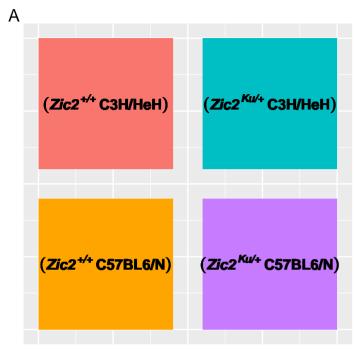
Right Lung Cranial Lobe



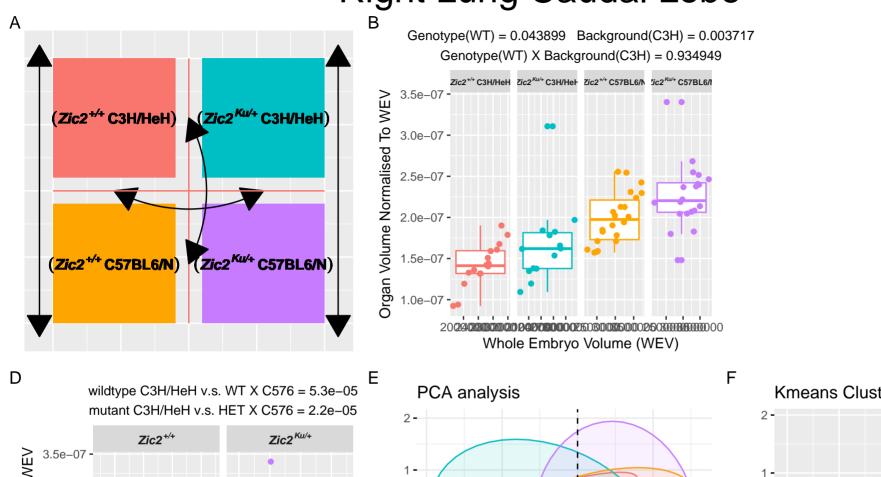
D wildtype C3H/HeH v.s. WT X C576 = 0.654086 mutant C3H/HeH v.s. HET X C576 = 0.000117

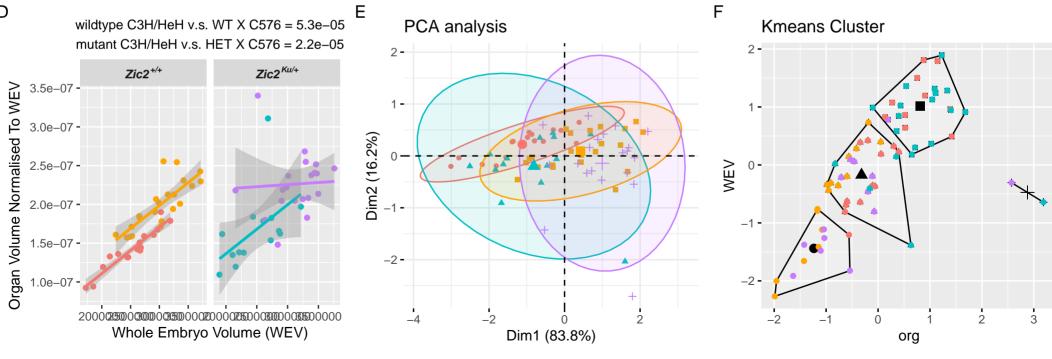


Right Lung Middle Lobe

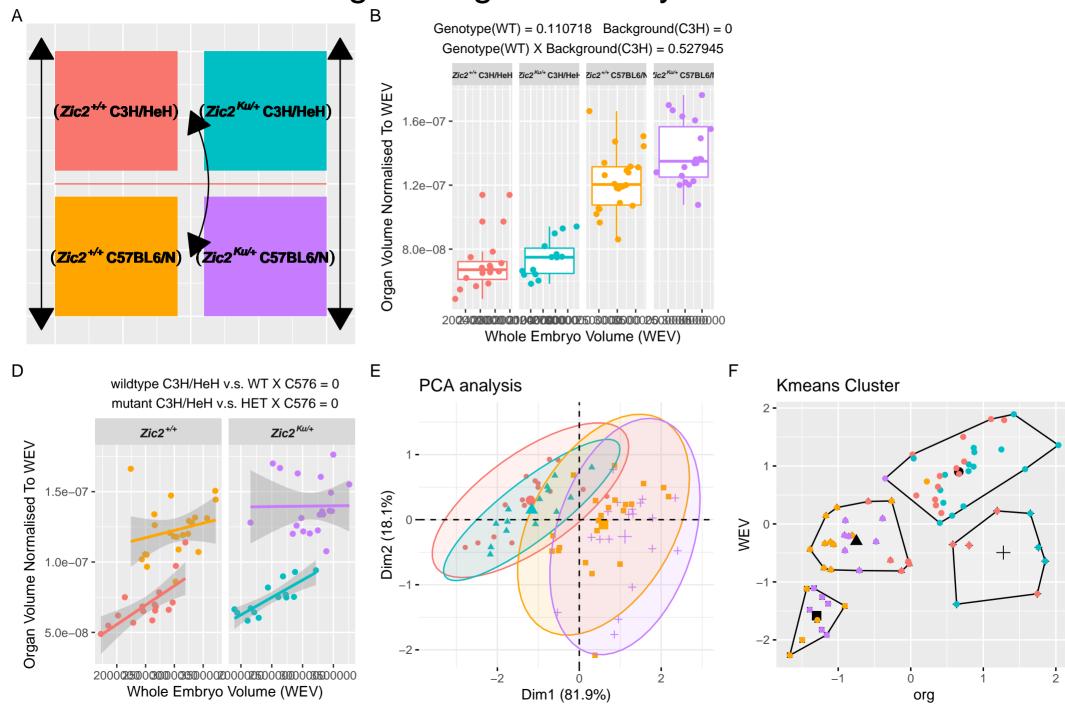


Right Lung Caudal Lobe

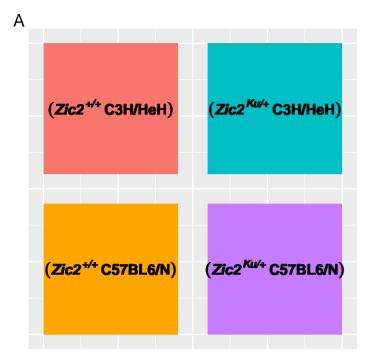


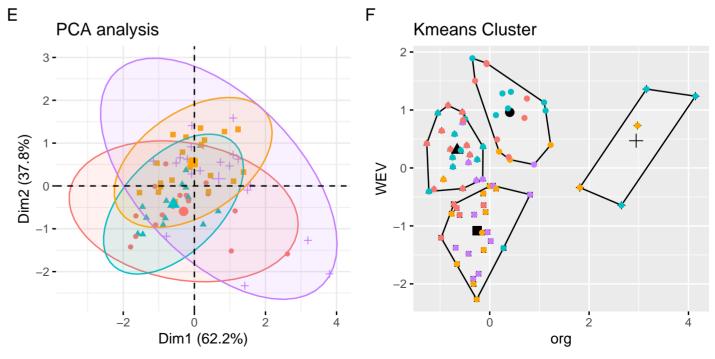


Right Lung Accessory Lobe

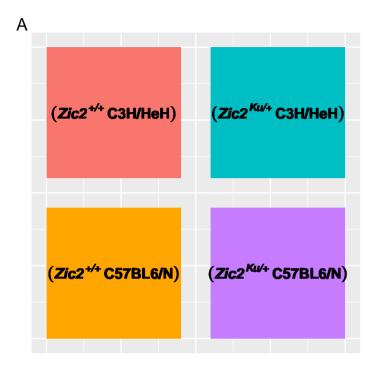


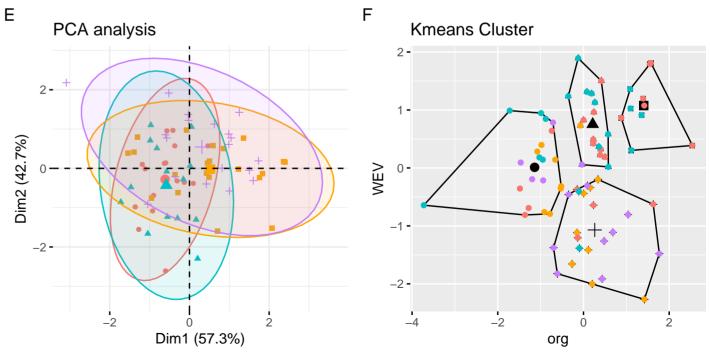
Bronchii



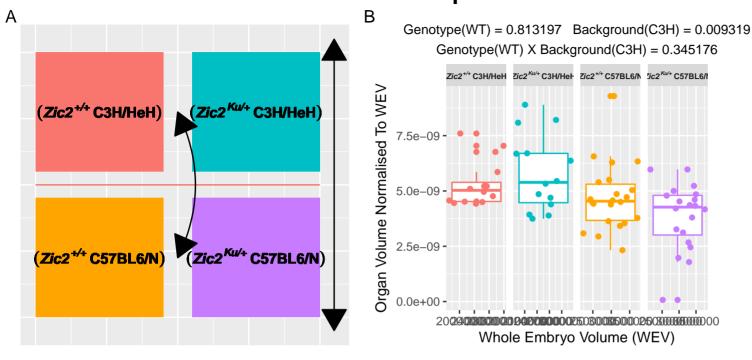


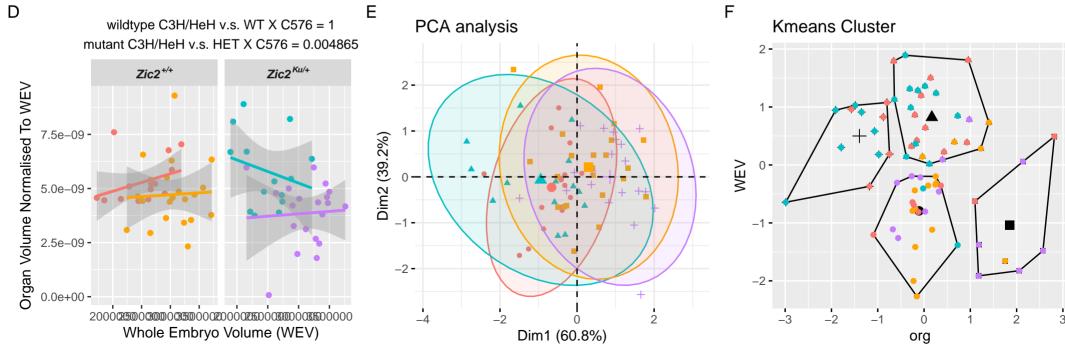
Trachea



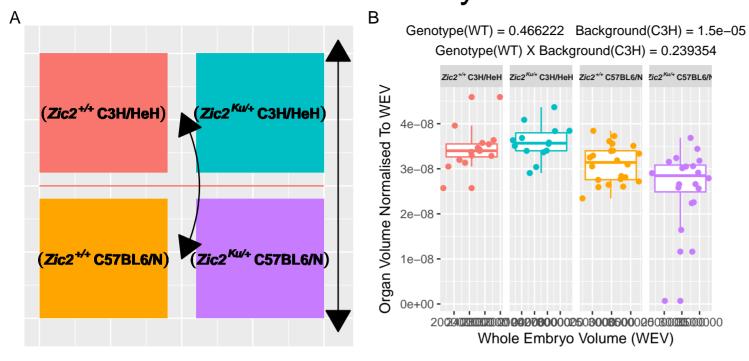


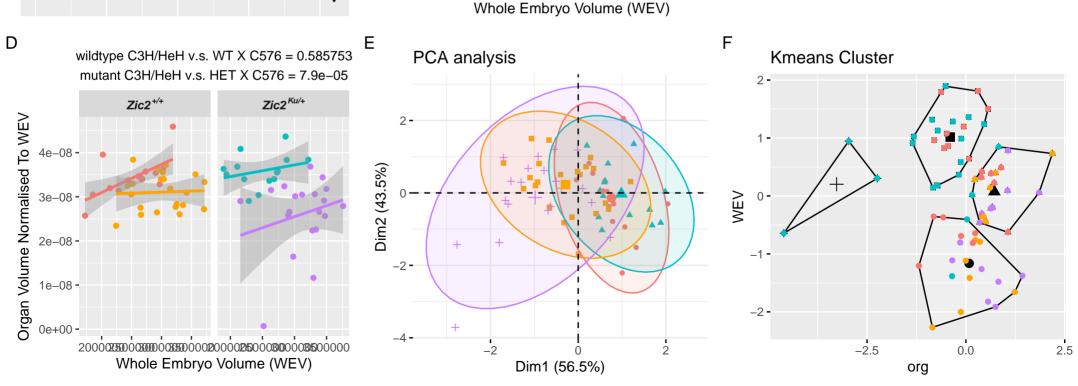
Optic Ii Nerve



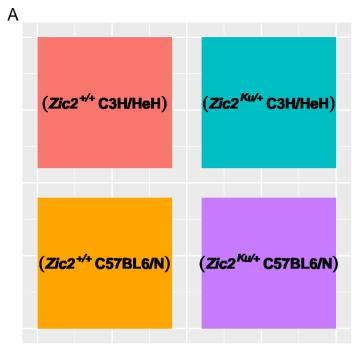


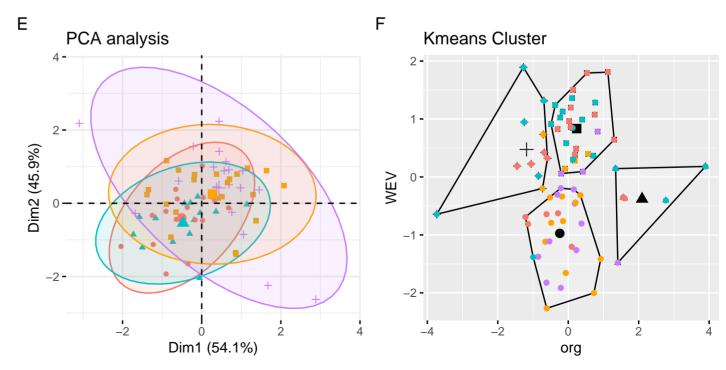
Eye Muscles



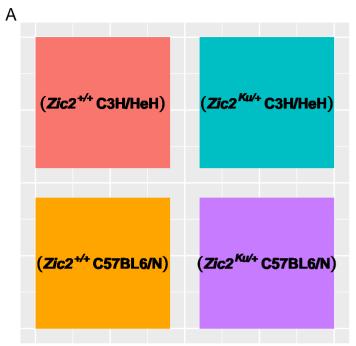


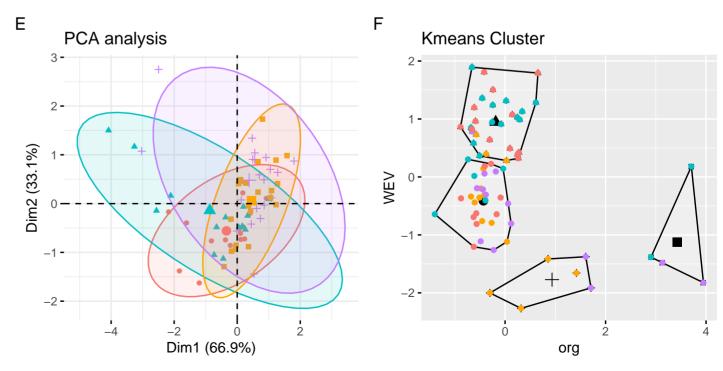
Nasal Cavity Epithelium



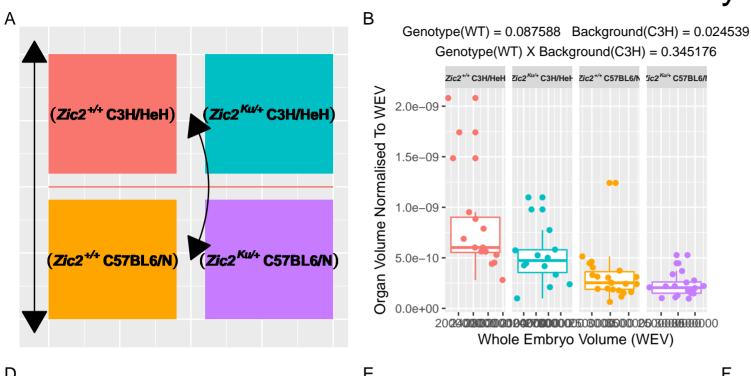


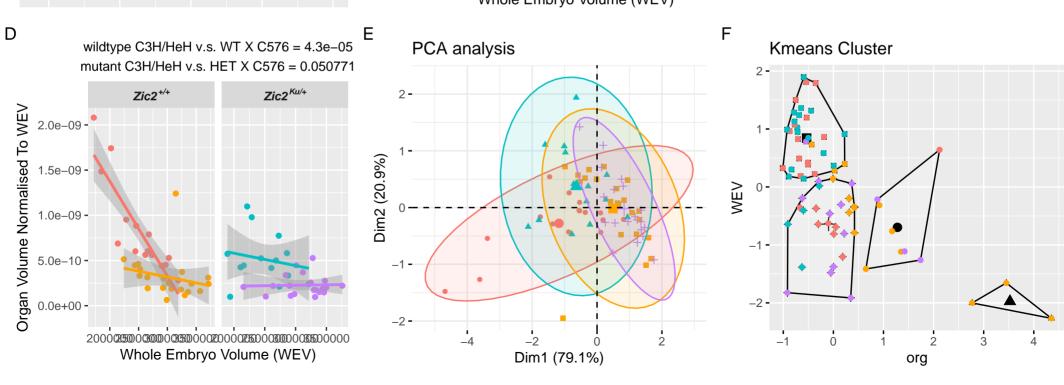
Future Anterior Pituitary



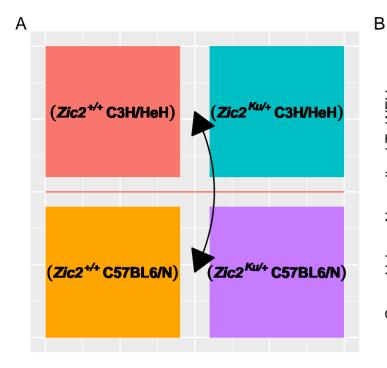


Infundibulum Of Pituitary

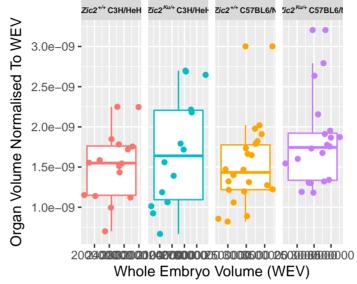




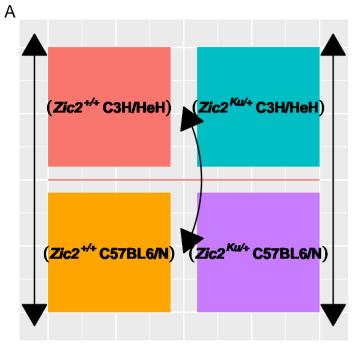
Facial Vii Ganglia



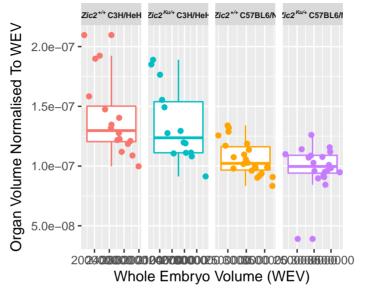
Genotype(WT) = 0.232787 Background(C3H) = 0.02057 Genotype(WT) X Background(C3H) = 0.987646



Trigeminal V Ganglia

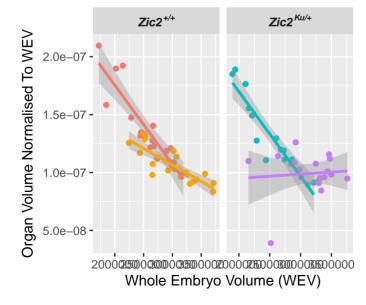


Genotype(WT) = 0.57078 Background(C3H) = 0.042378 Genotype(WT) X Background(C3H) = 0.911571

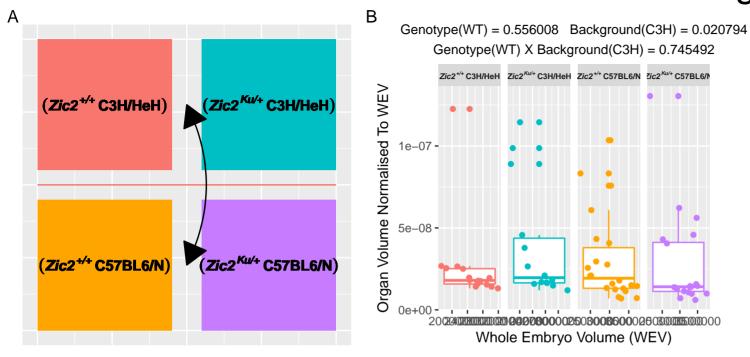


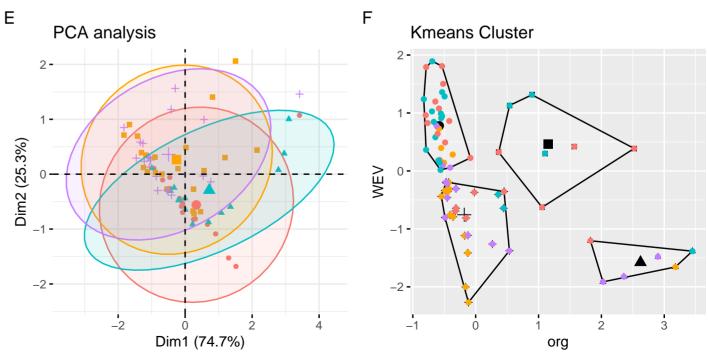
wildtype C3H/HeH v.s. WT X C576 = 4.3e-05 mutant C3H/HeH v.s. HET X C576 = 1.2e-05

D

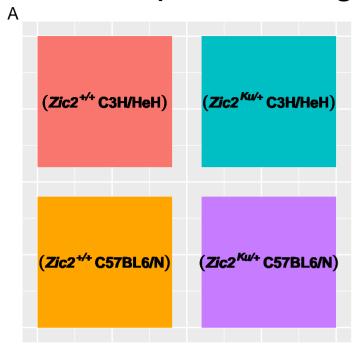


Vestibulocochlear Viii Ganglia

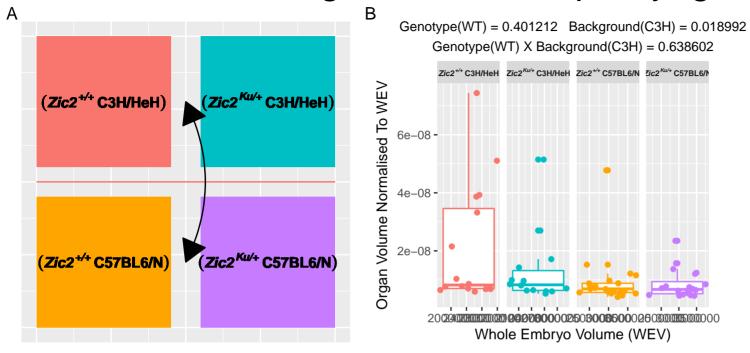




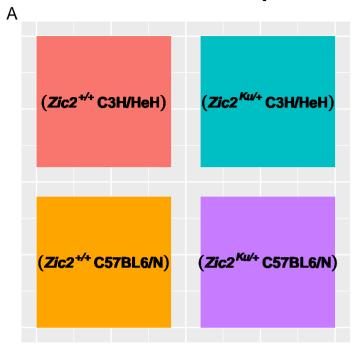
Superior Ganglion Of Glossopharyngeal Ix Nerves

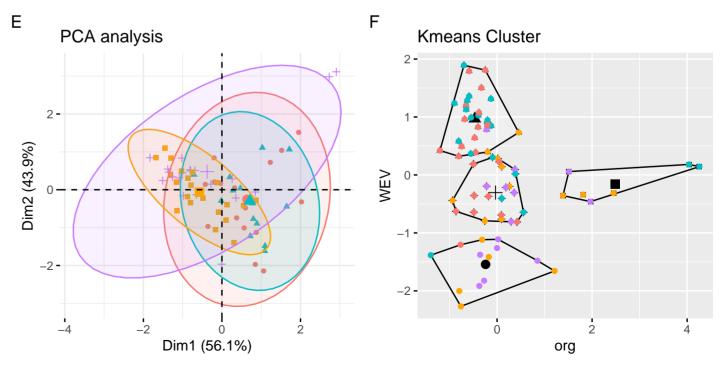


Inferior Ganglion Of Glossopharyngeal Ix Nerves

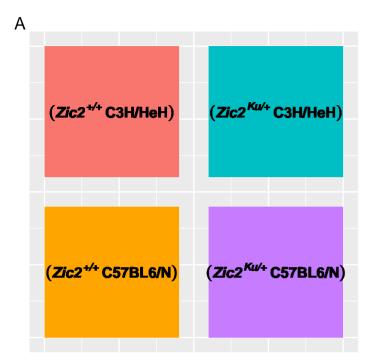


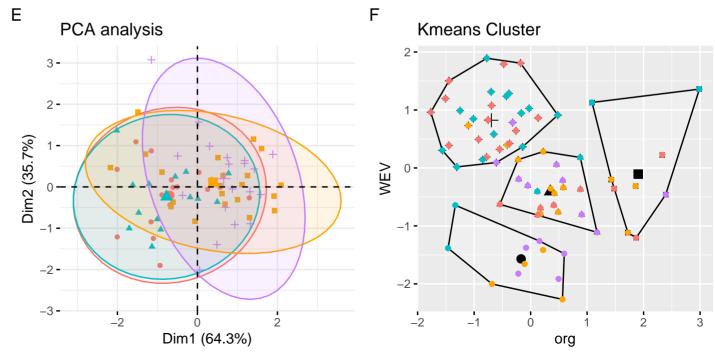
Superior Cervical Sympathetic Ganglia



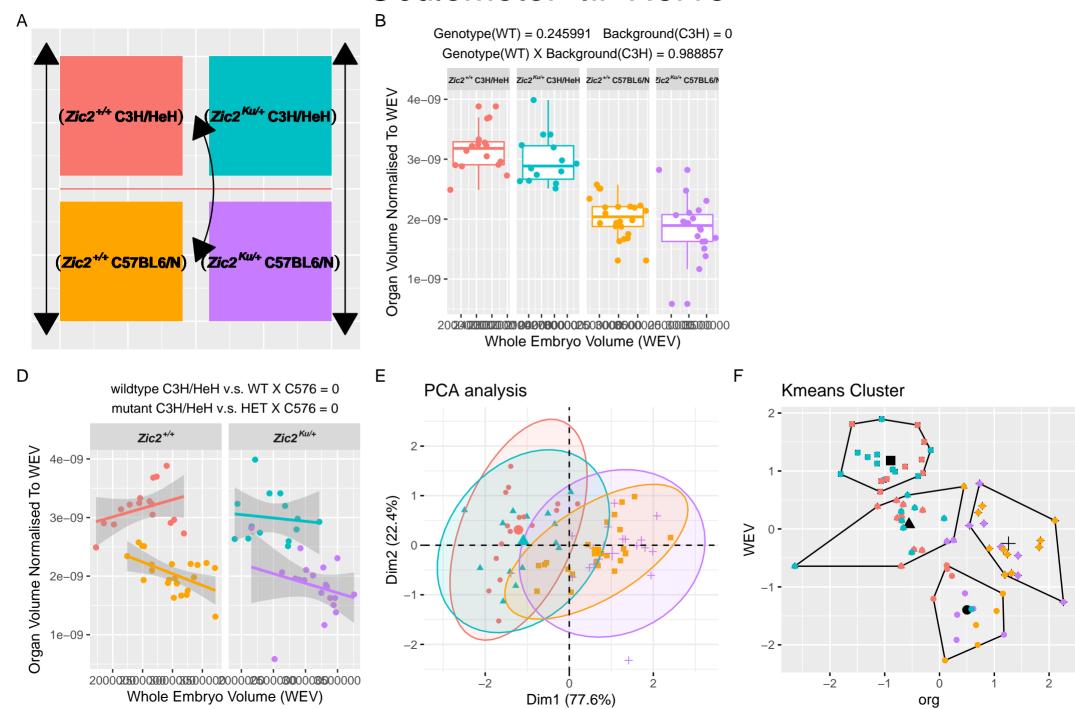


Sympathetic Ganglia

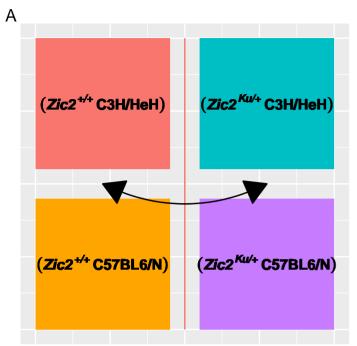


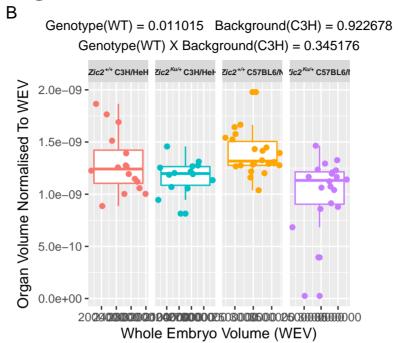


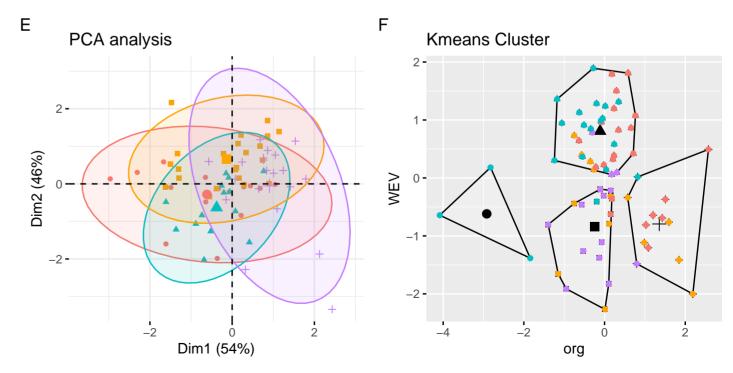
Oculomotor Iii Nerve



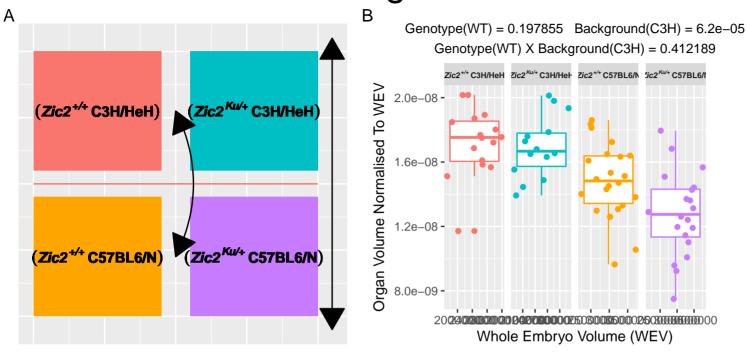
Trigeminal V1 Nerves

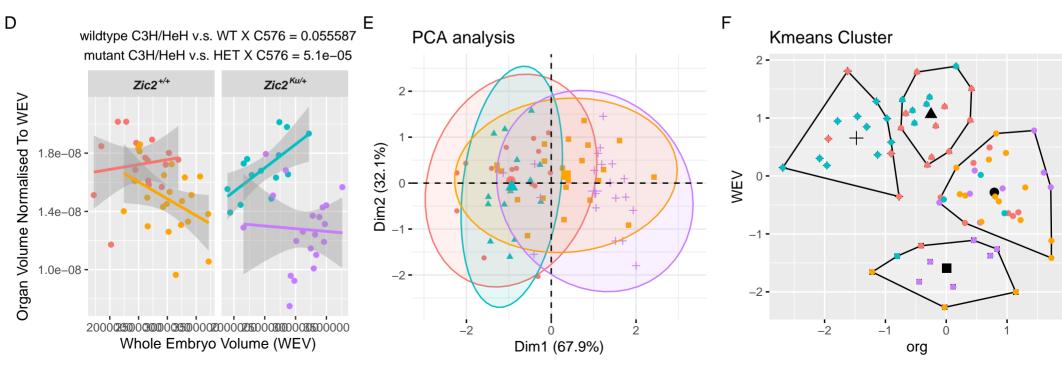




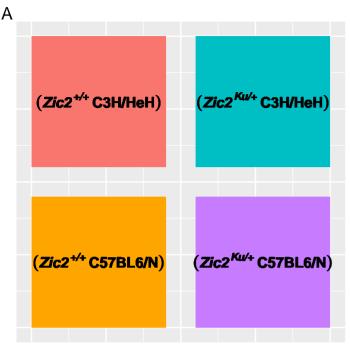


Trigeminal V2 Nerves

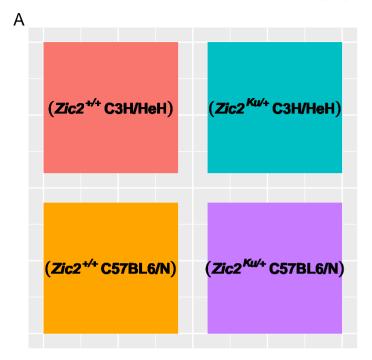


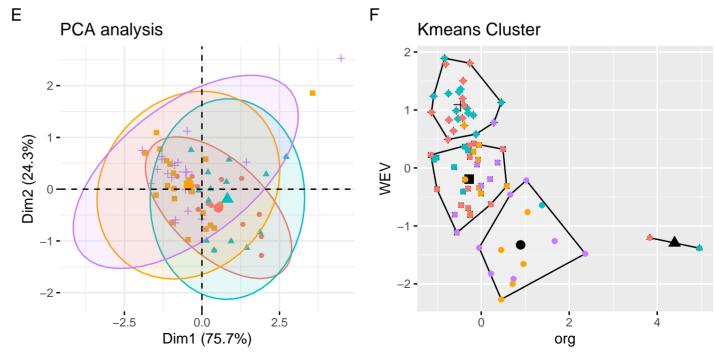


Trigeminal V3 Nerves

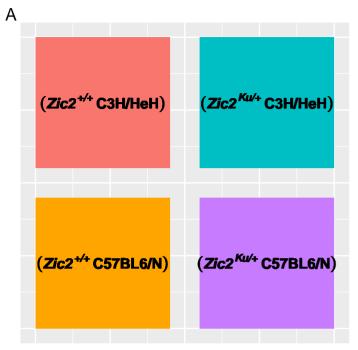


Vestibulocochlear Viii Nerves

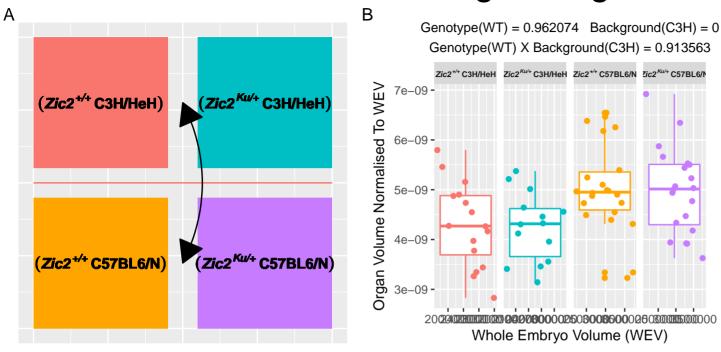




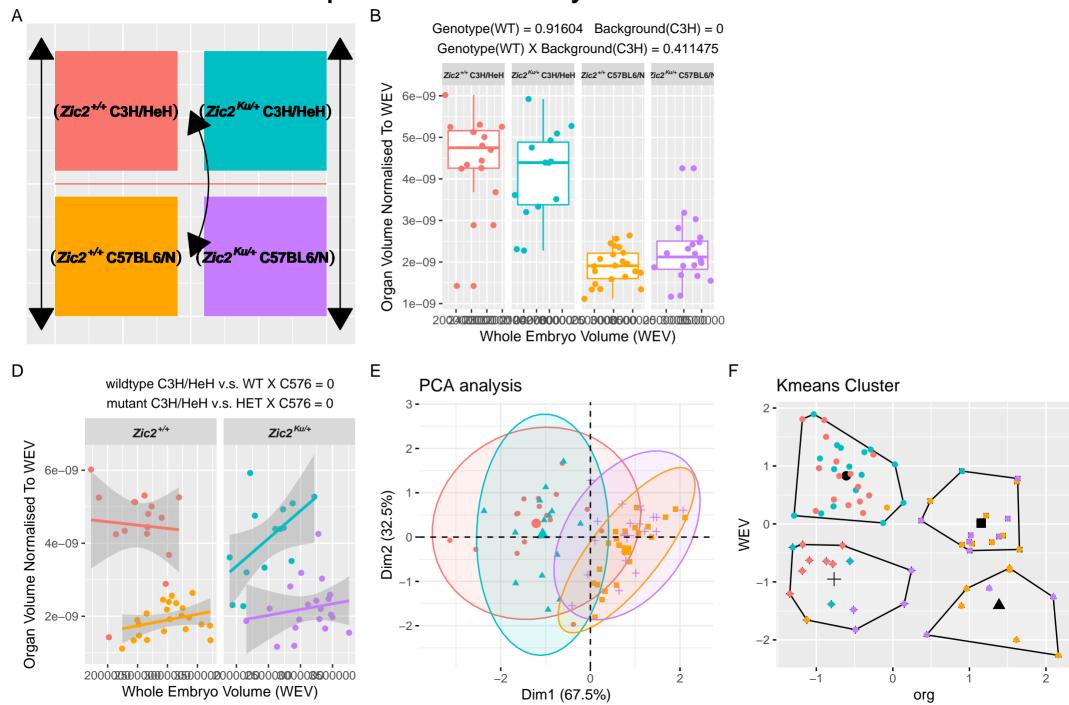
Anterior Left Vagal X Trunk



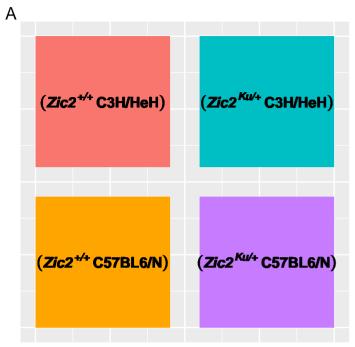
Posterior Right Vagal X Trunk

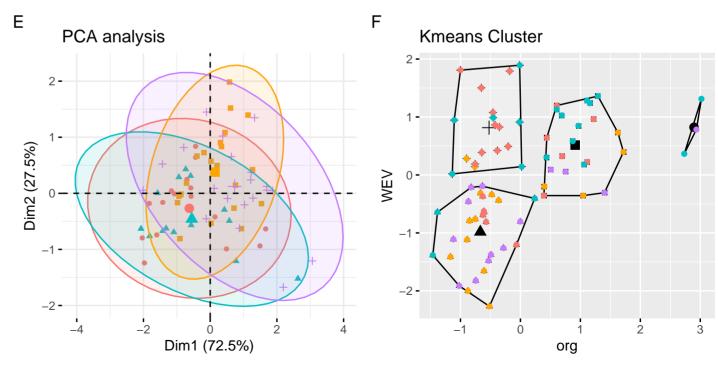


Spinal Accessory Xi Nerves

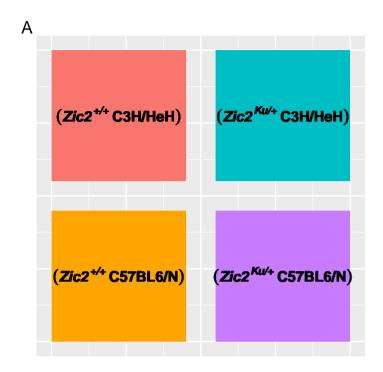


Hypoglossal Xii Nerves

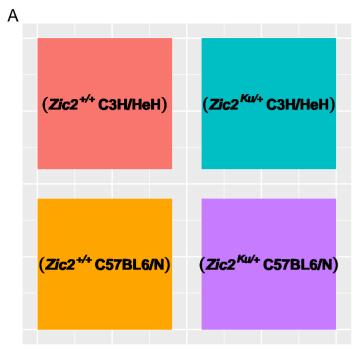


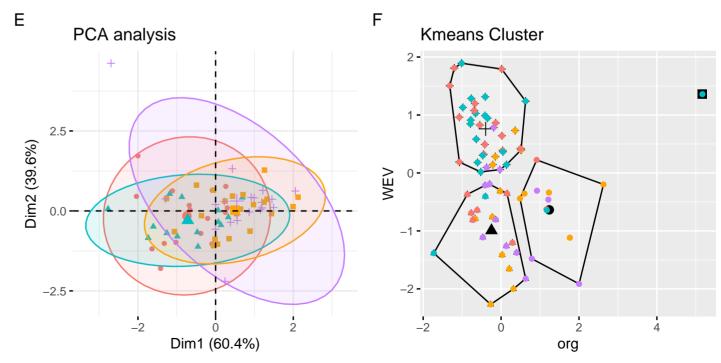


Spinal Nerves

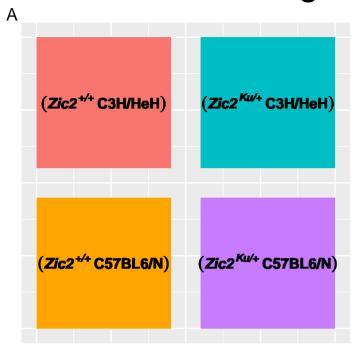


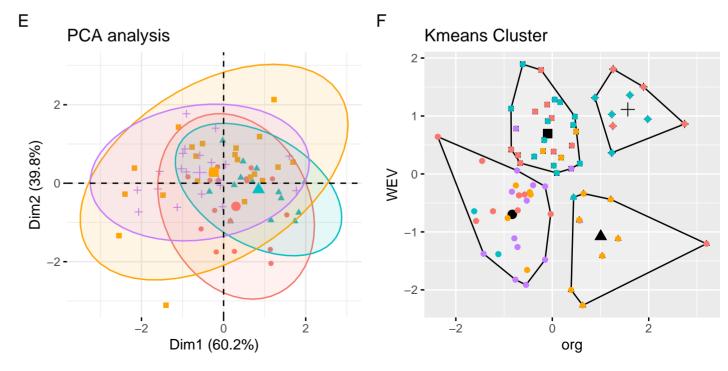
Left Recurrent Laryngeal Nerve



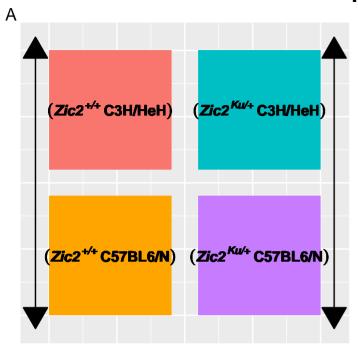


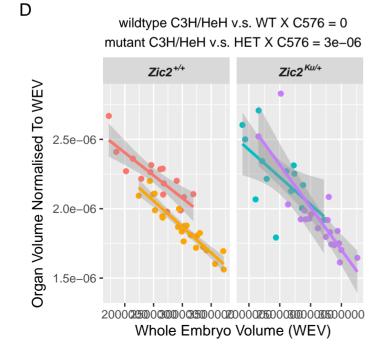
Right Recurrent Laryngeal Nerve



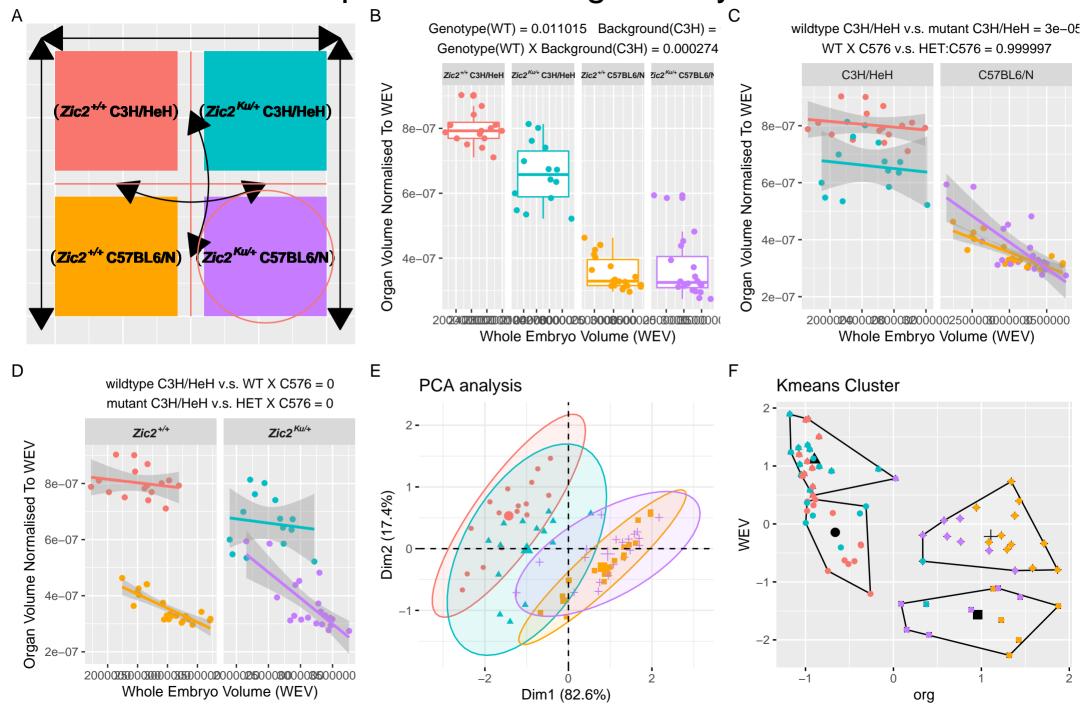


Spinal Cord Mantle Layer

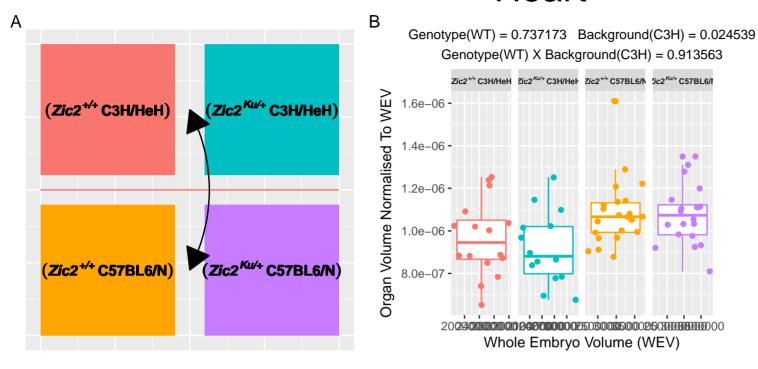




Spinal Cord Marginal Layer



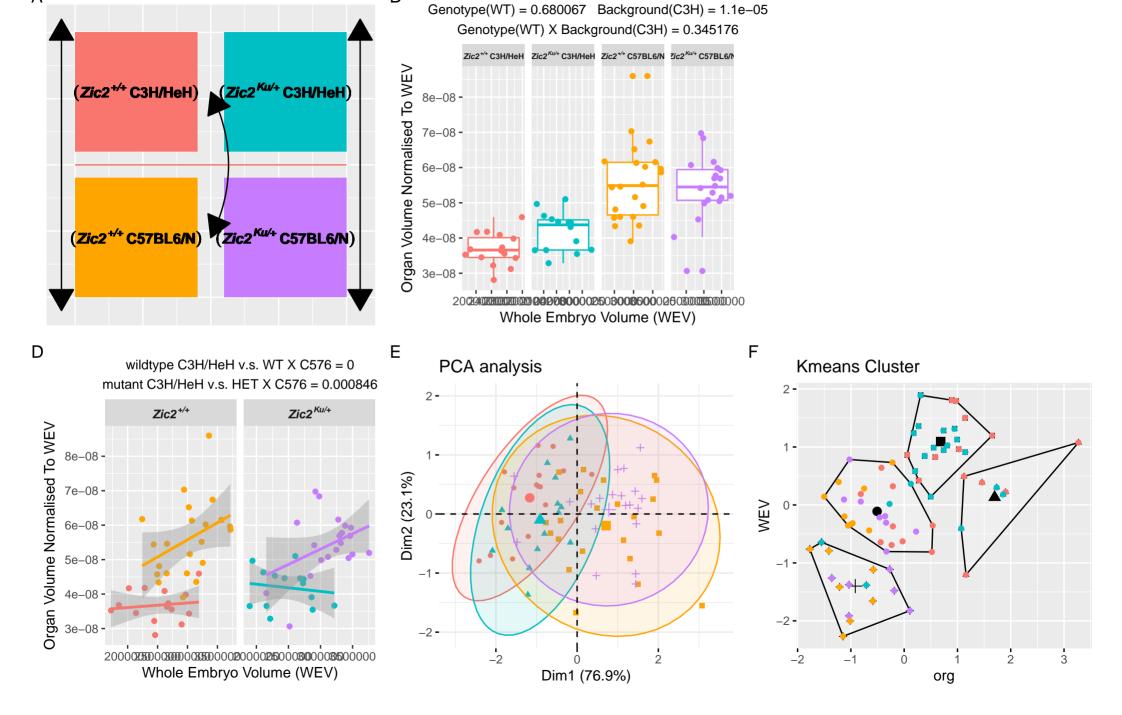
Heart



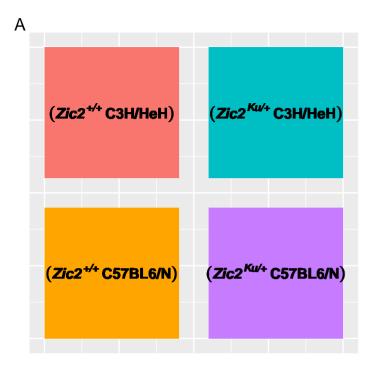
Aorta

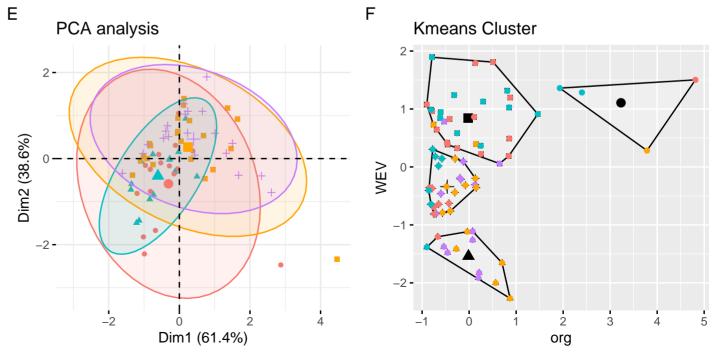
В

Α

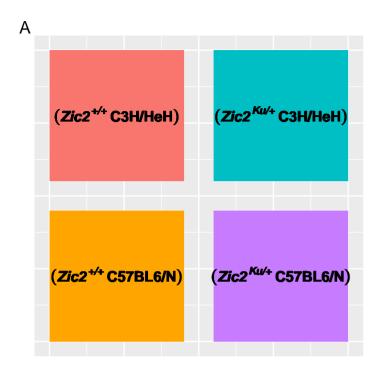


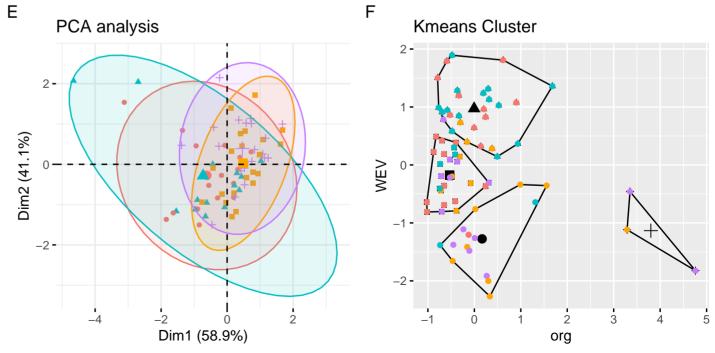
Ascending Aorta



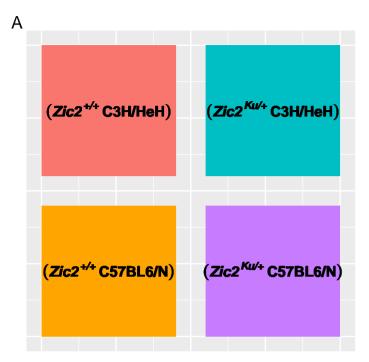


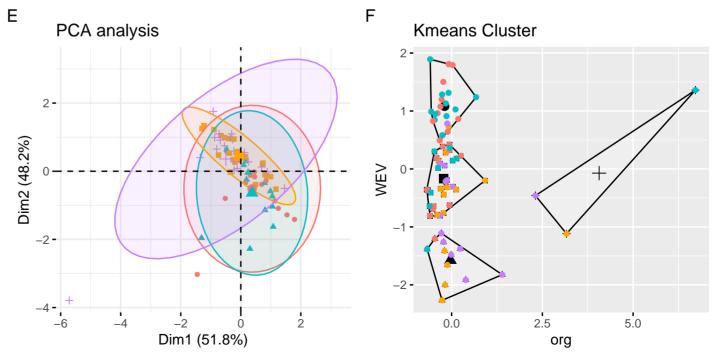
Descending Aorta



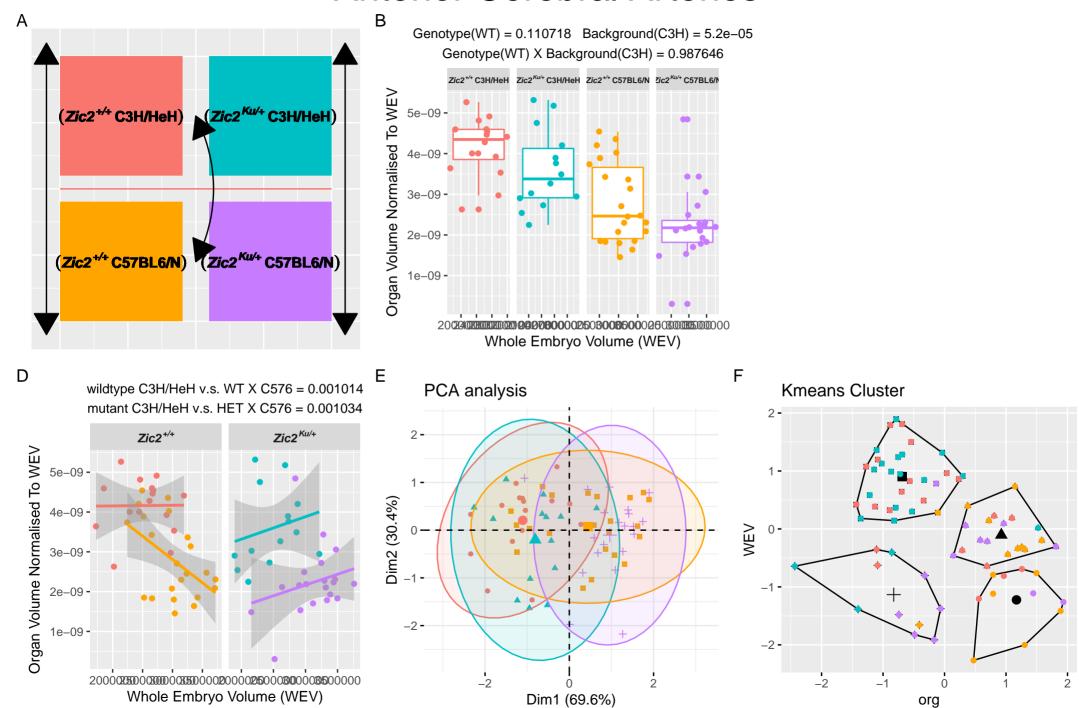


Aortic Arch

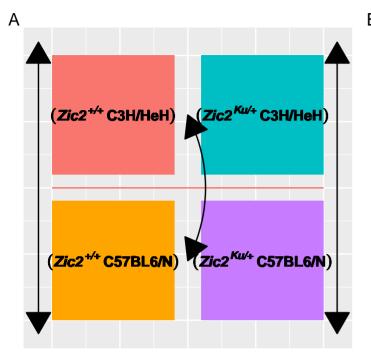




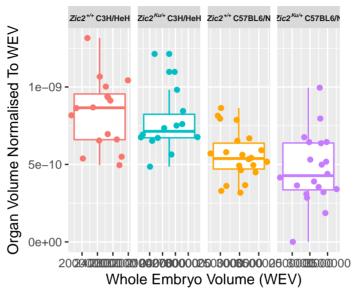
Anterior Cerebral Arteries



Middle Cerebral Arteries

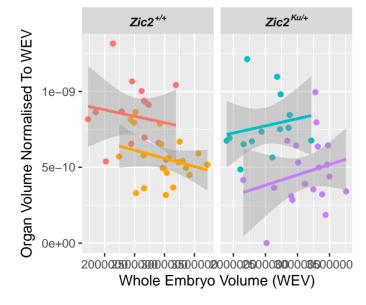


Genotype(WT) = 0.364436 Background(C3H) = 4.8e-05 Genotype(WT) X Background(C3H) = 0.942073

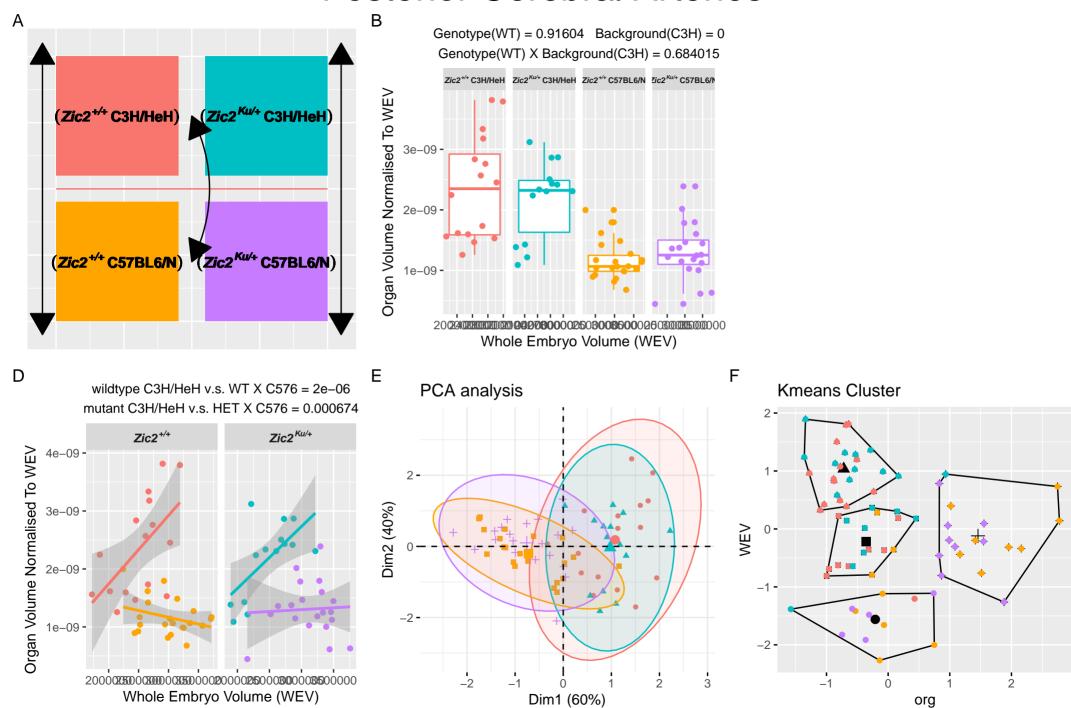


wildtype C3H/HeH v.s. WT X C576 = 0.003608 mutant C3H/HeH v.s. HET X C576 = 0.001007

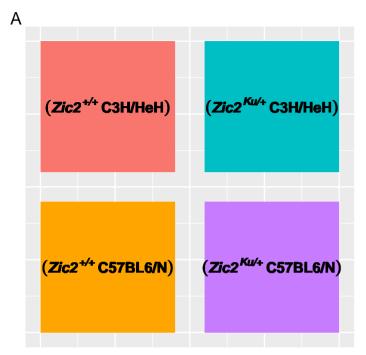
D

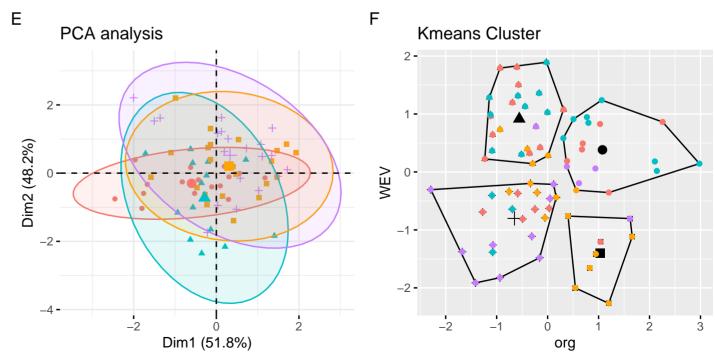


Posterior Cerebral Arteries

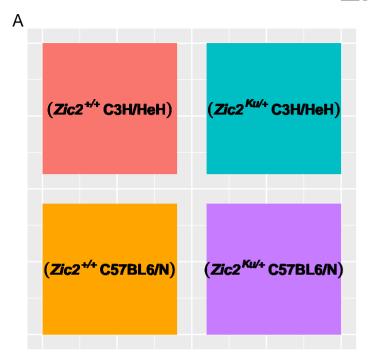


Common Carotid Arteries

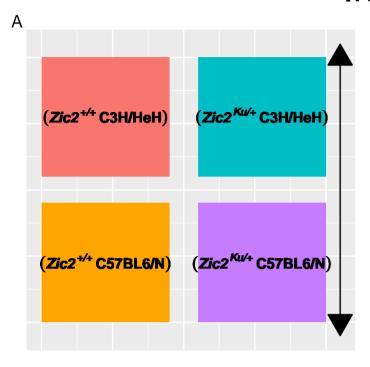


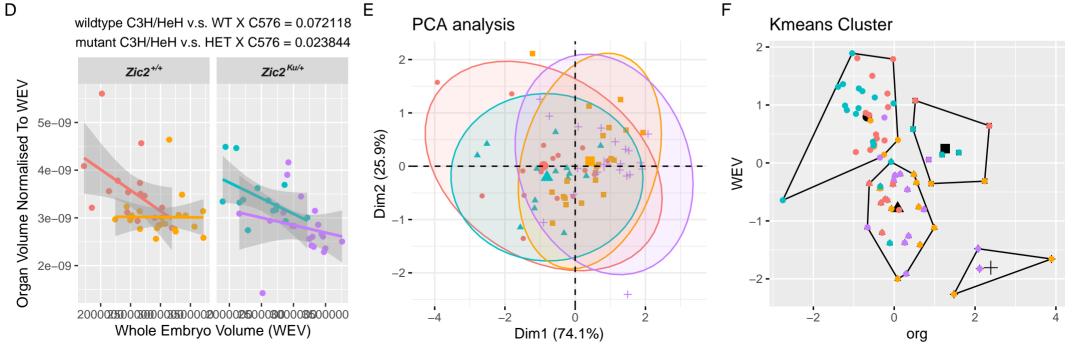


External Carotid Arteries

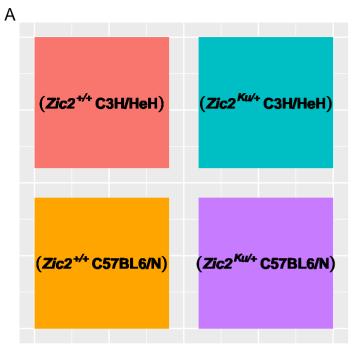


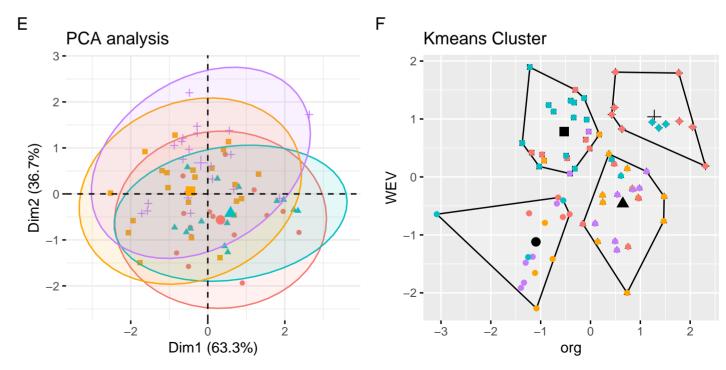
Internal Carotid Arteries



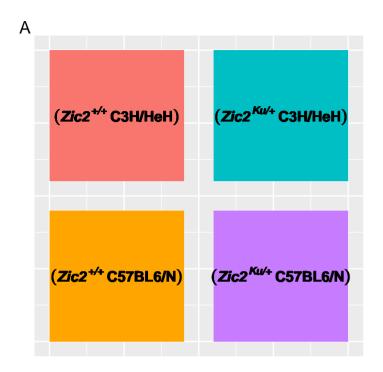


Communicating Arteries

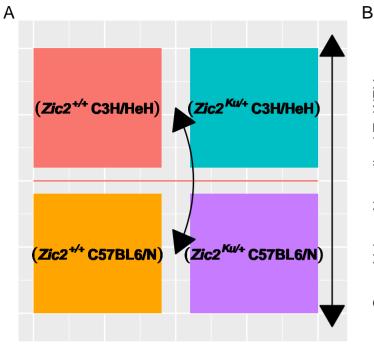




Pulmonary Arteries



Umbilical Arteries



Genotype(WT) X Background(C3H) = 0.345176 Zic2*/+ C3H/HeH Zic2*/+ C3H/HeF Zic2*/+ C57BL6/N Zic2*/+ C57BL6/N Organ Volume Normalised To WEV 2.5e-08 2.0e-08 **-**1.5e-08 1.0e-08

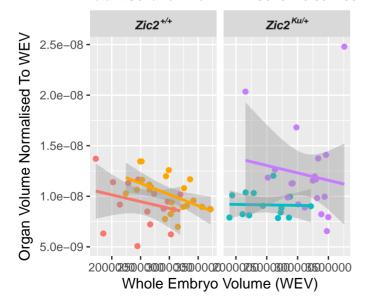
> 20**2400000002927200000**2608000050002503111HH11111000 Whole Embryo Volume (WEV)

5.0e-09

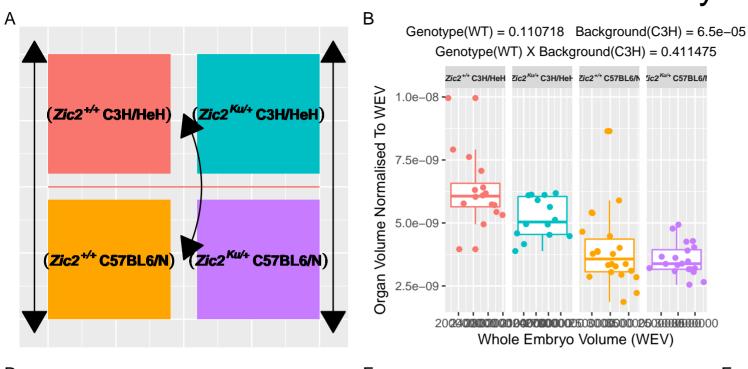
Genotype(WT) = 0.466222 Background(C3H) = 0.005499

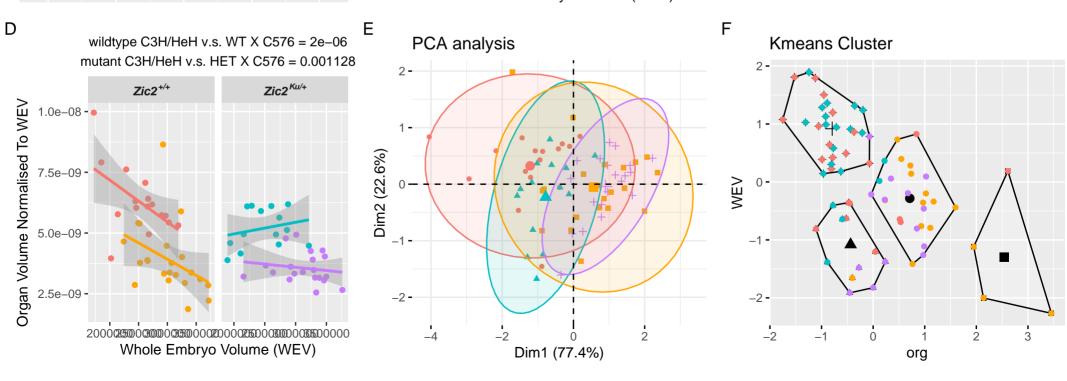
wildtype C3H/HeH v.s. WT X C576 = 1 mutant C3H/HeH v.s. HET X C576 = 0.034406

D

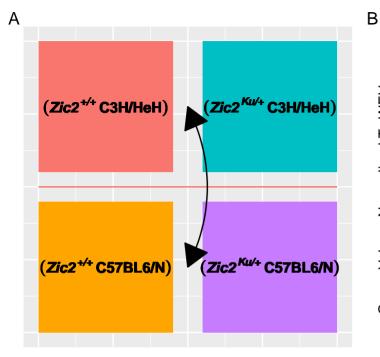


Vertebrobasilar Artery

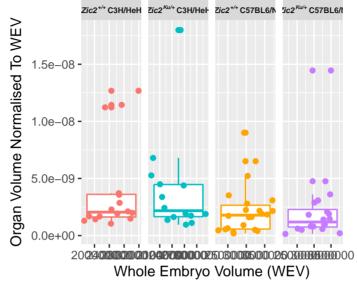




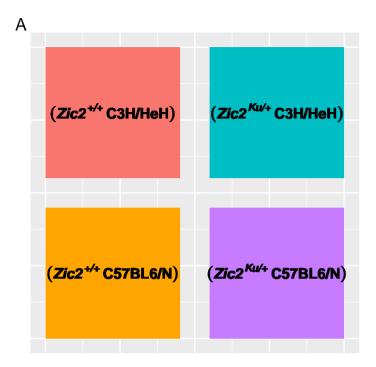
Ductus Arteriosus

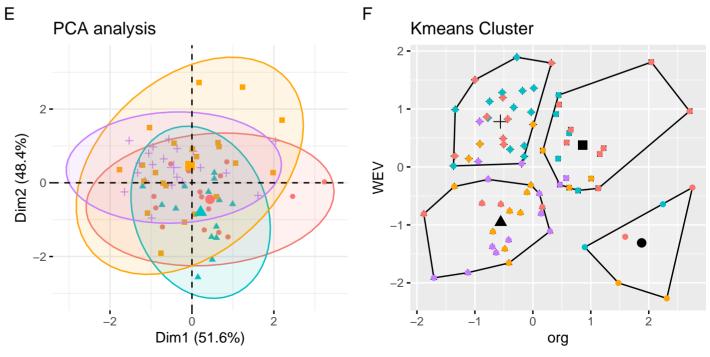


Genotype(WT) = 0.962074 Background(C3H) = 0.032311 Genotype(WT) X Background(C3H) = 0.954214

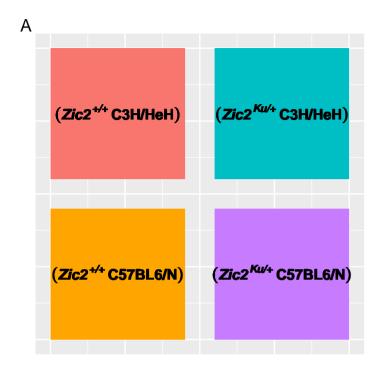


Ductus Venosus

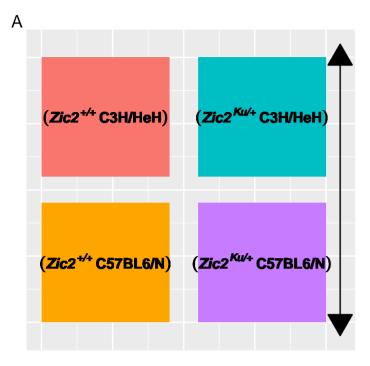


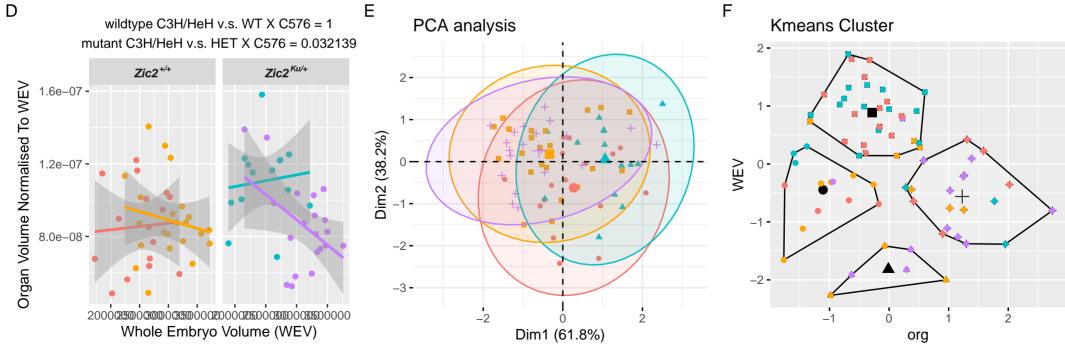


Jugular Veins

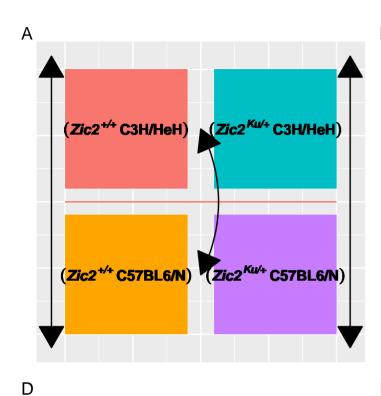


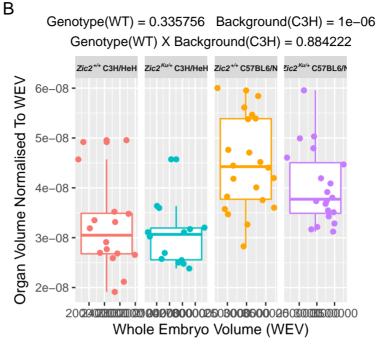
Jugular Lymph Sacs

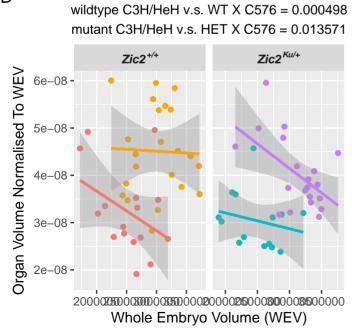


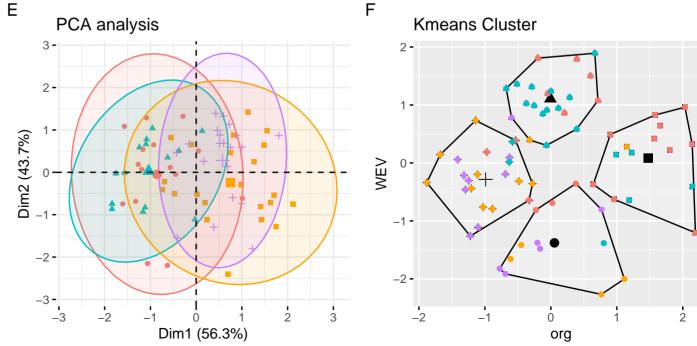


Inferior Vena Cava

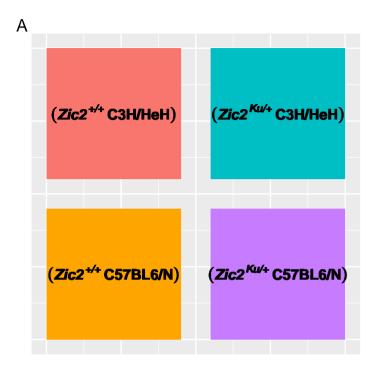






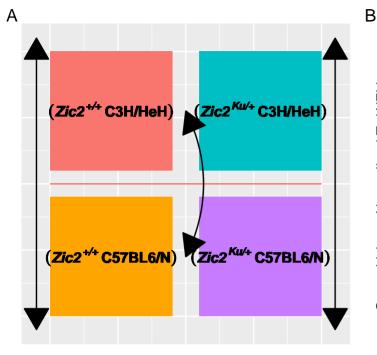


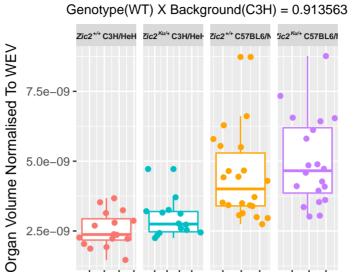
Superior Vena Cava



Pulmonary Veins

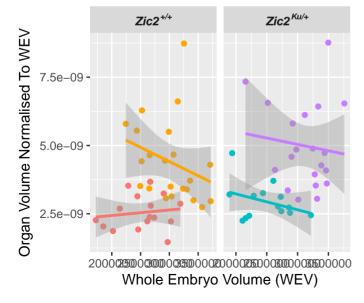
Genotype(WT) = 0.306855 Background(C3H) = 0



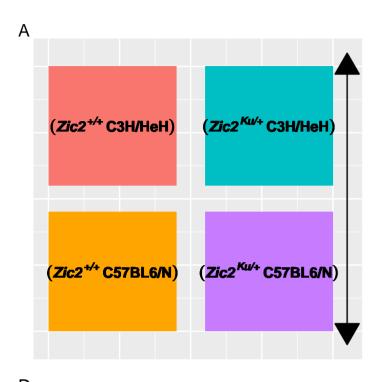


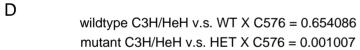
Whole Embryo Volume (WEV)

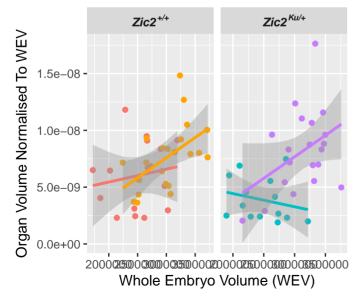
D wildtype C3H/HeH v.s. WT X C576 = 0.001014 mutant C3H/HeH v.s. HET X C576 = 0.000266



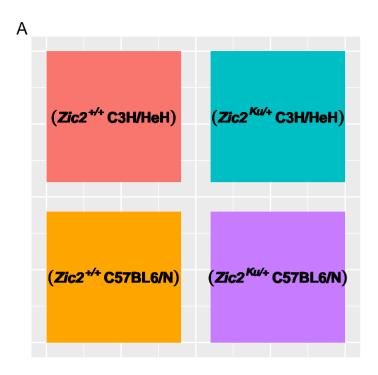
Subclavian Veins



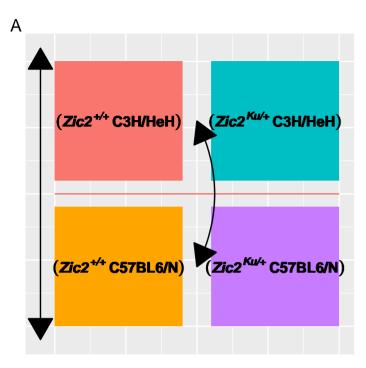


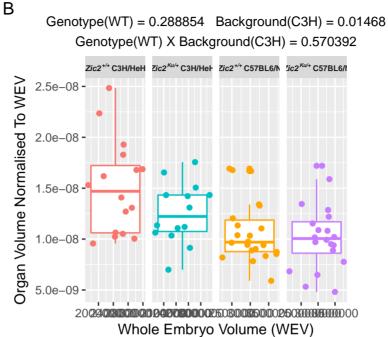


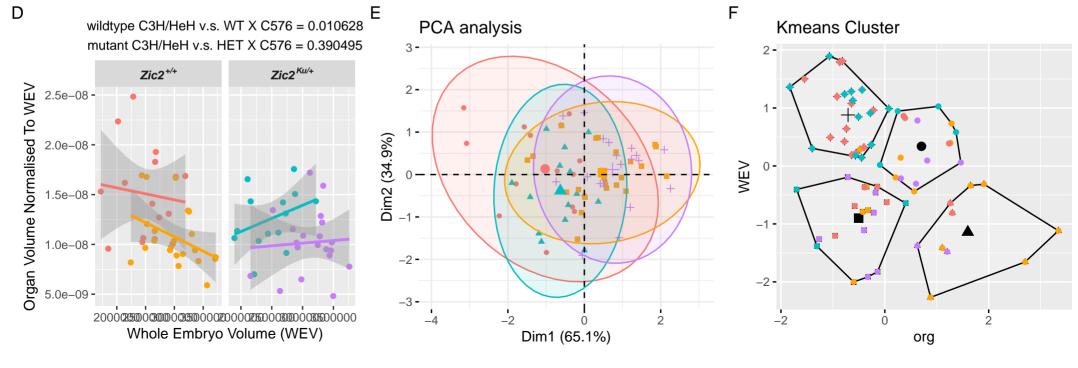
Adrenals



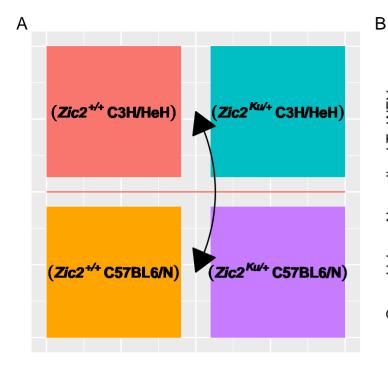
Spleen Primordium



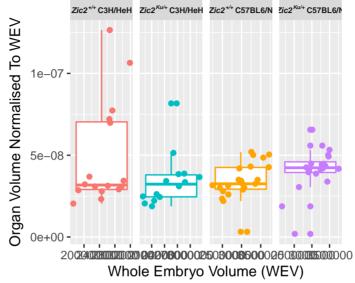




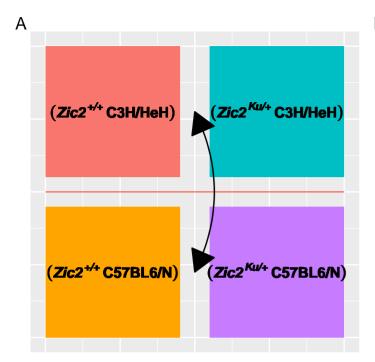
Thymus Primordium

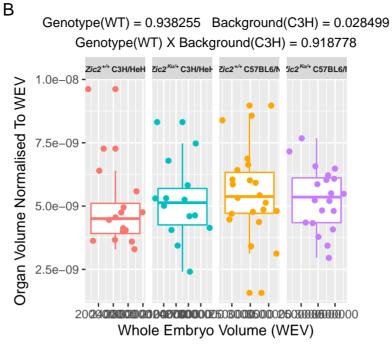


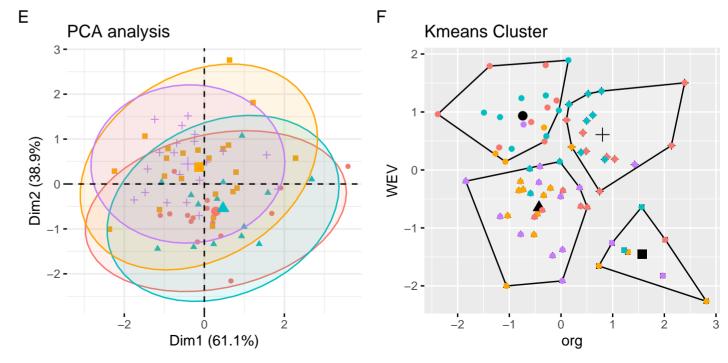
Genotype(WT) = 0.57078 Background(C3H) = 0.005689 Genotype(WT) X Background(C3H) = 0.345176



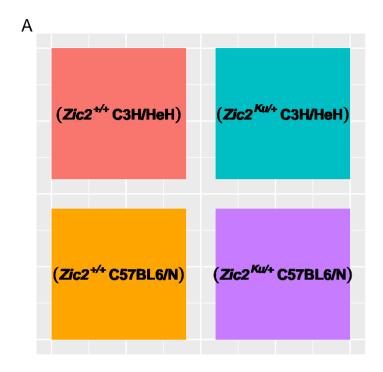
Forelimb Phalanges



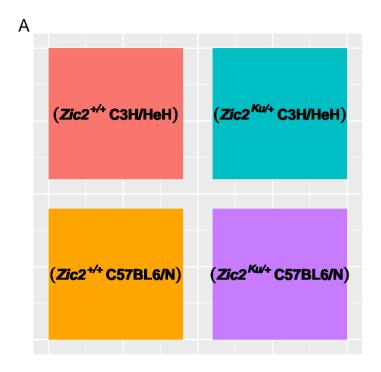




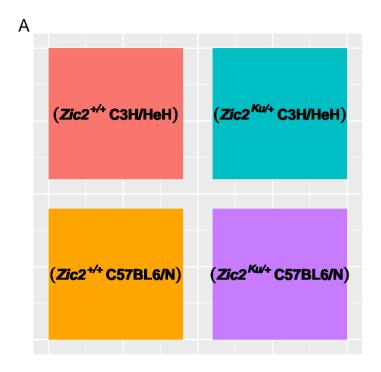
Metacarpals



Carpals

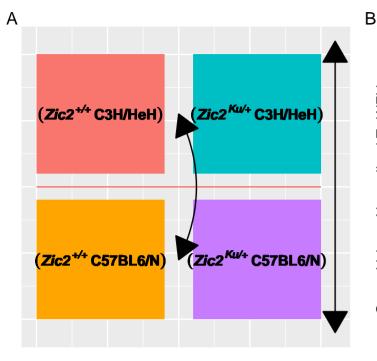


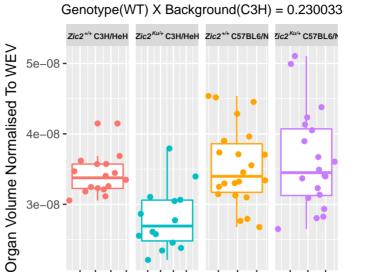
Radius

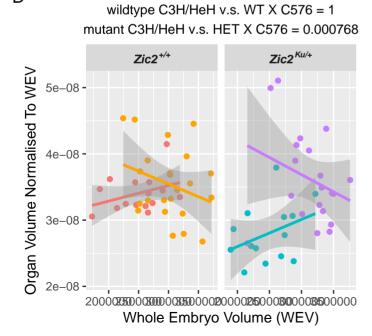


Ulna

Genotype(WT) = 0.221809 Background(C3H) = 0.003201

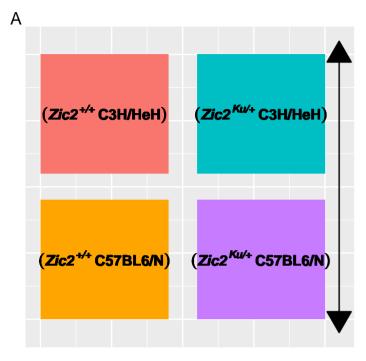


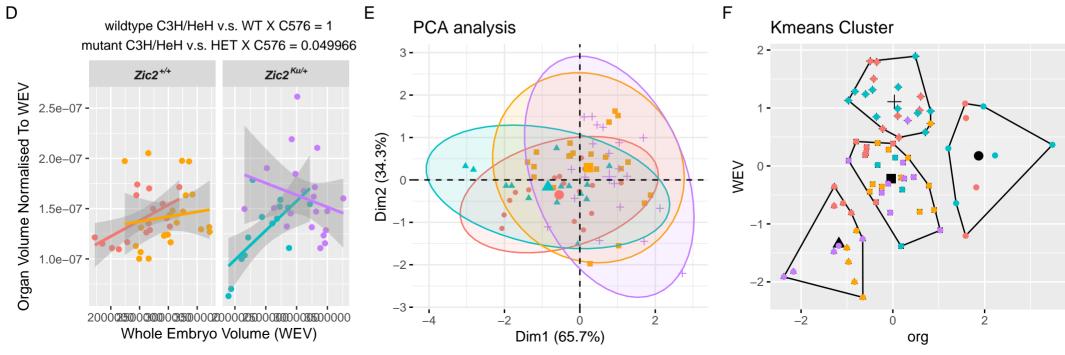




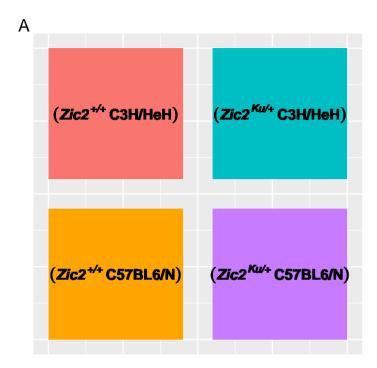
D

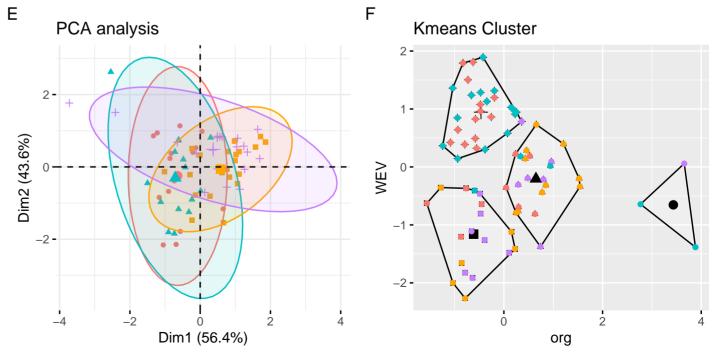
Humerus



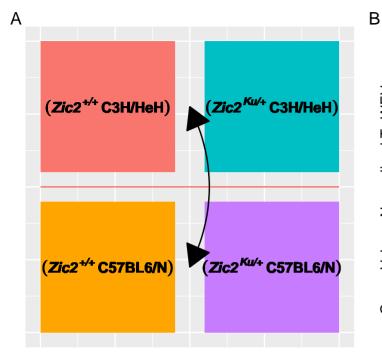


Triceps Brachii

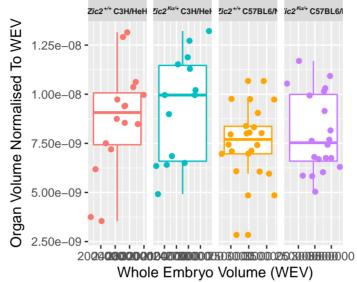




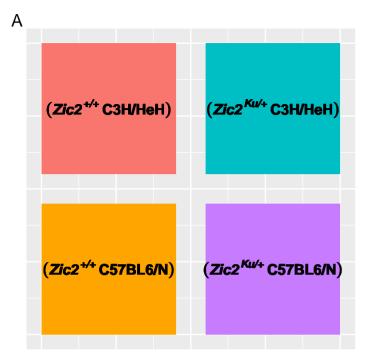
Biceps Brachii



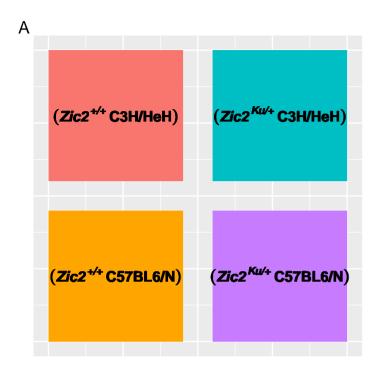
Genotype(WT) = 0.639438 Background(C3H) = 0.001765 Genotype(WT) X Background(C3H) = 0.911571



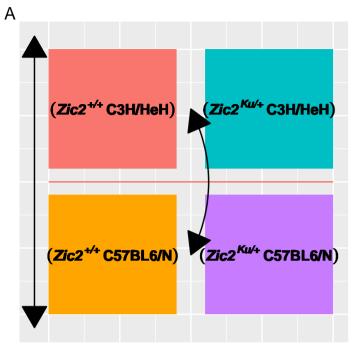
Flexor Carpi Radialis



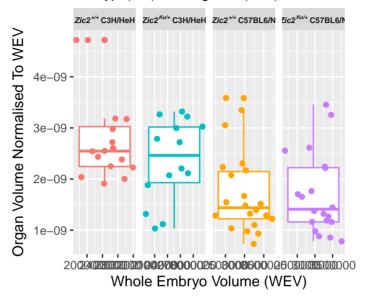
Flexor Carpi Ulnaris



Flexor Digitorum Superficial Tendon

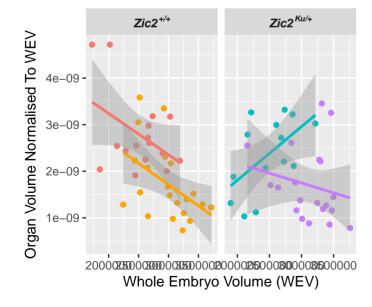


Genotype(WT) = 0.59814 Background(C3H) = 0.023542 Genotype(WT) X Background(C3H) = 0.570392

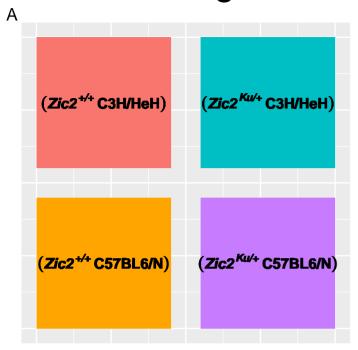


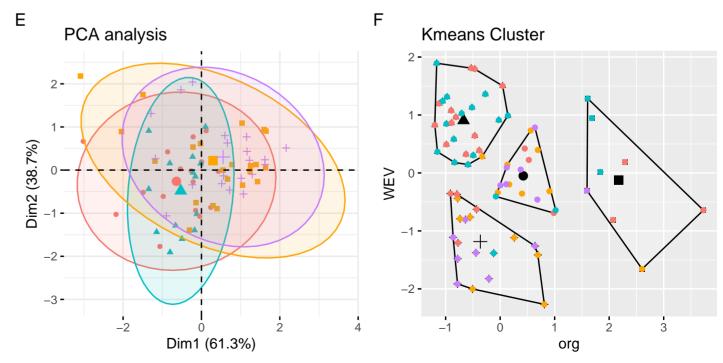
wildtype C3H/HeH v.s. WT X C576 = 0.004001 mutant C3H/HeH v.s. HET X C576 = 0.170518

D

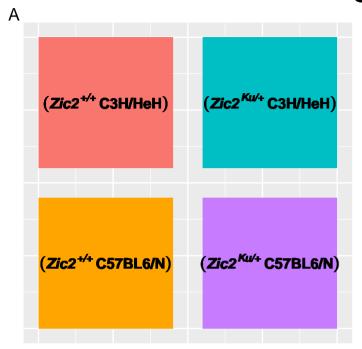


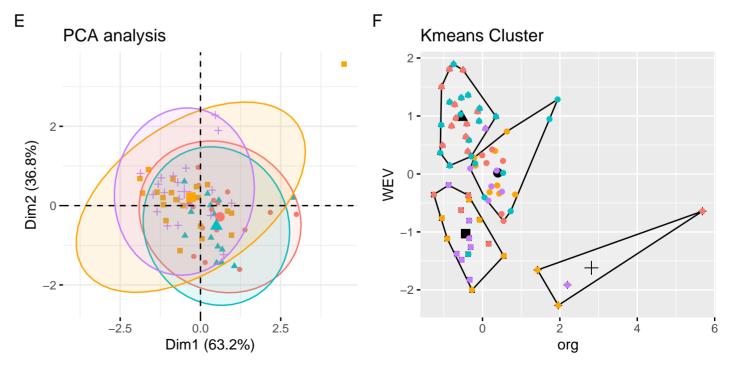
Flexor Digitorum Profundus Humeral Or Superficial Head



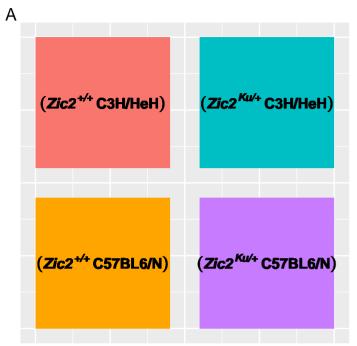


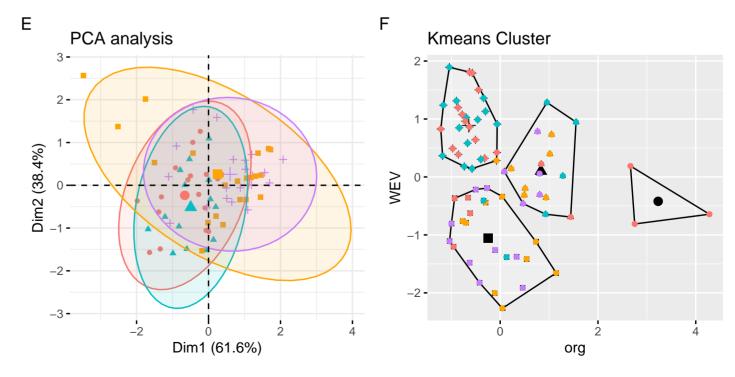
Flexor Digitorum Profundus Radial Head



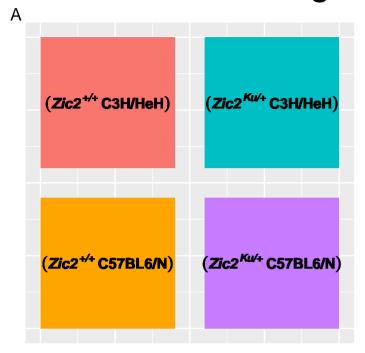


Flexor Digitorum Profundus Ulnar Head

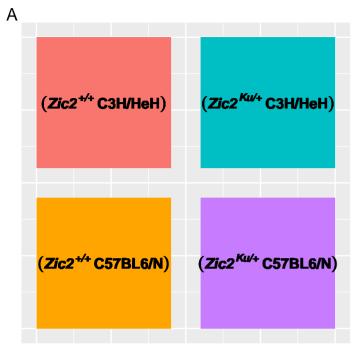


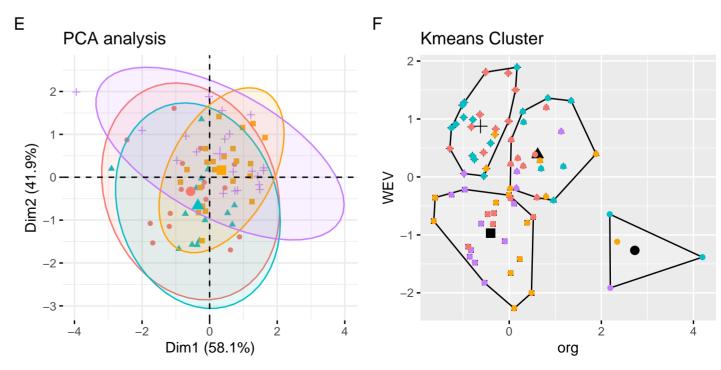


Flexor Digitorum Superficial Tendon Branches

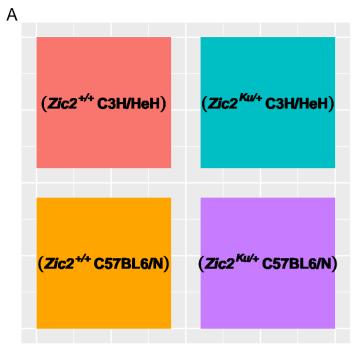


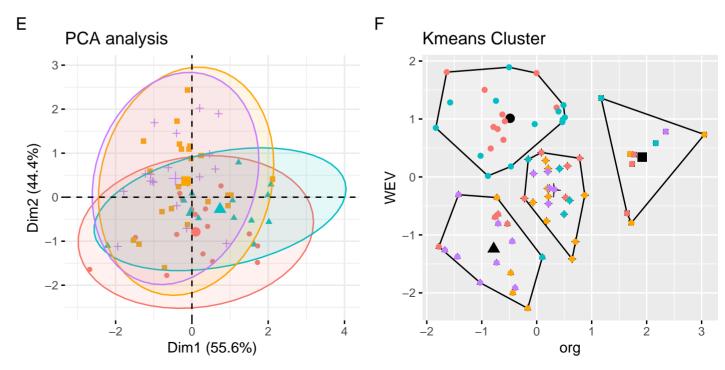
Extensor Carpi Ulnaris



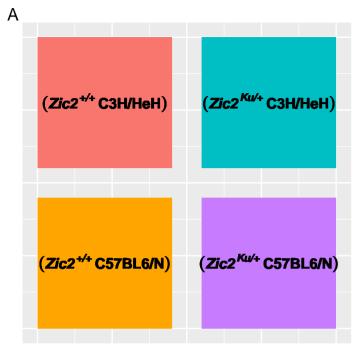


Extensor Digitorum Lateralis

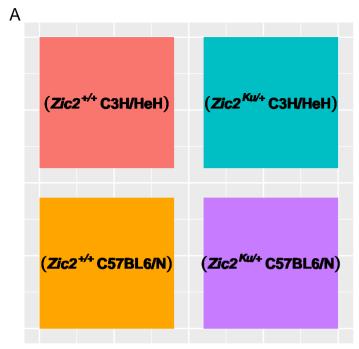




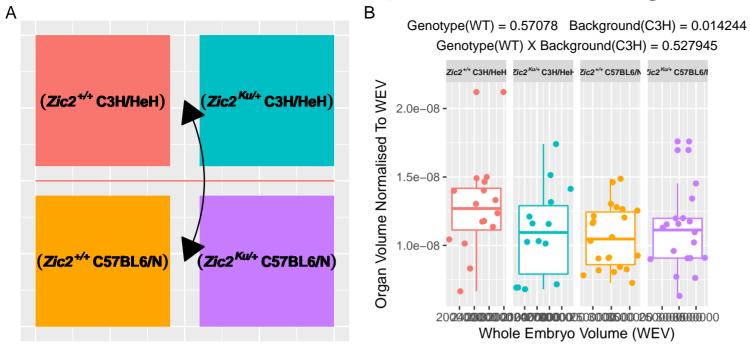
Extensor Digitorum Communis



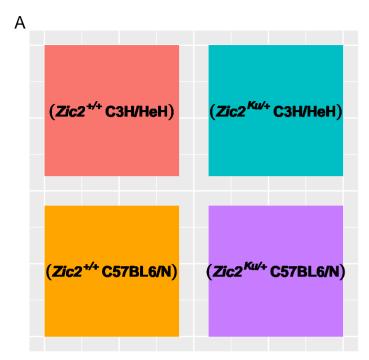
Extensor Pollicis Longus And Brevis

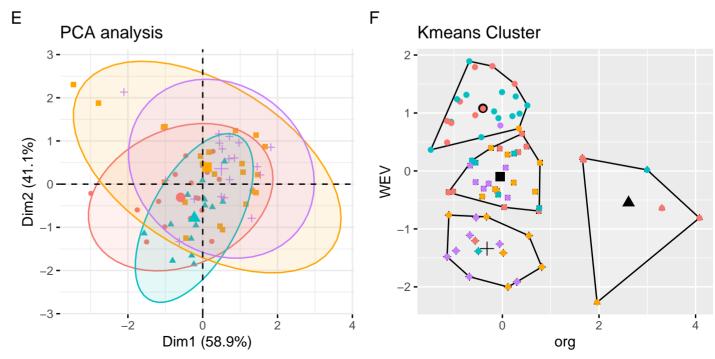


Extensor Carpi Radialis Longus And Brevis

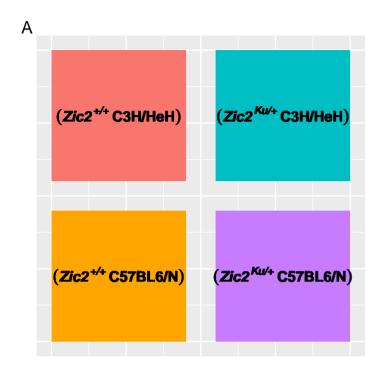


Pronator Quadratus

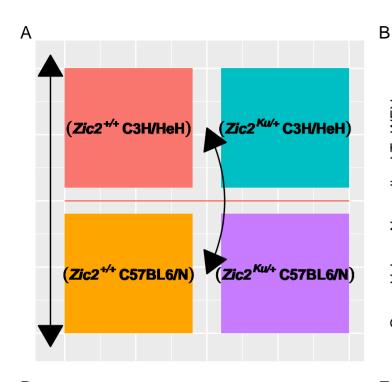




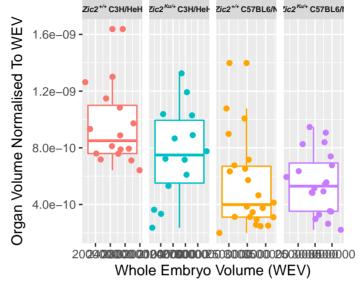
Pronator Teres

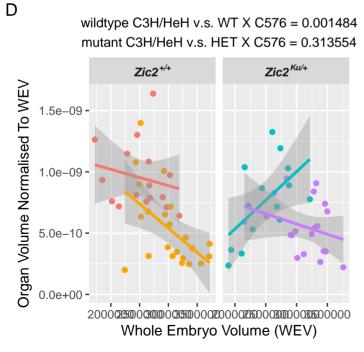


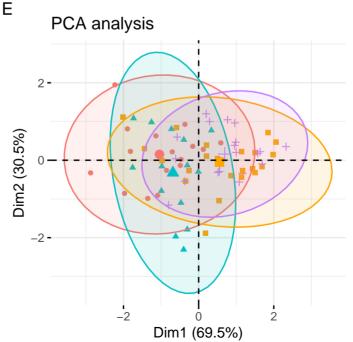
Palmaris Longus

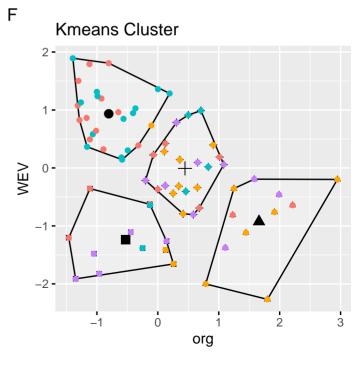


 $Genotype(WT) = 0.541509 \quad Background(C3H) = 0.015324$ $Genotype(WT) \times Background(C3H) = 0.411475$







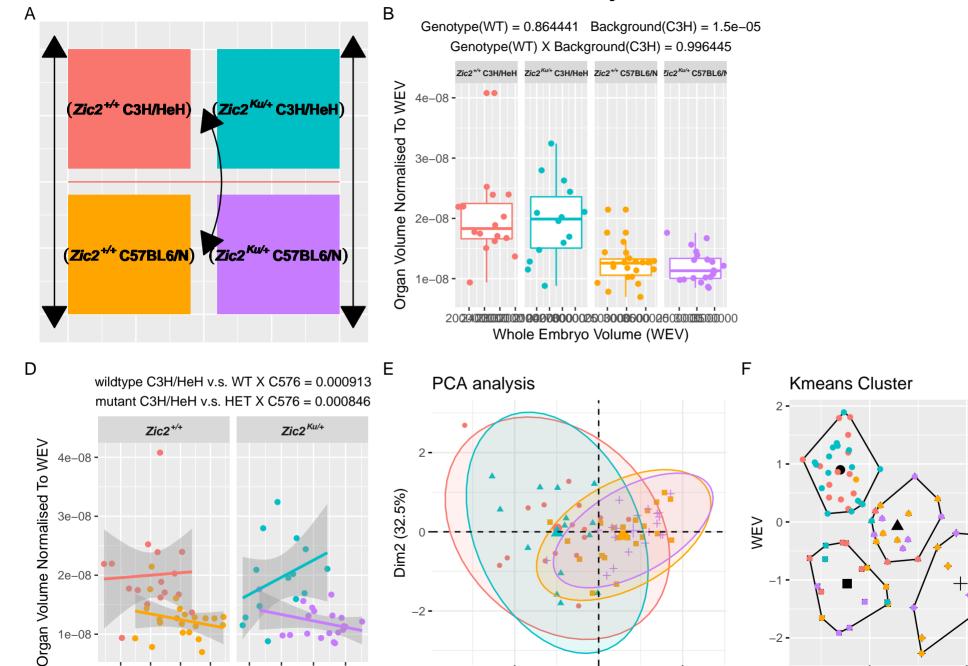


Teres Major

-2 **-**

0

org



-2 **-**

-2

Dim1 (67.5%)

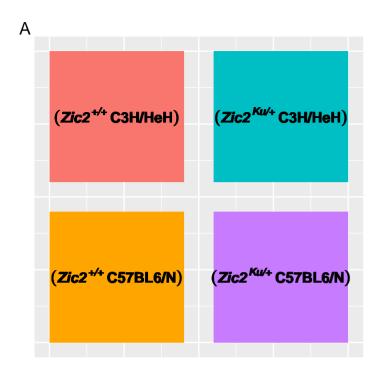
2e-08 -

1e-08 **-**

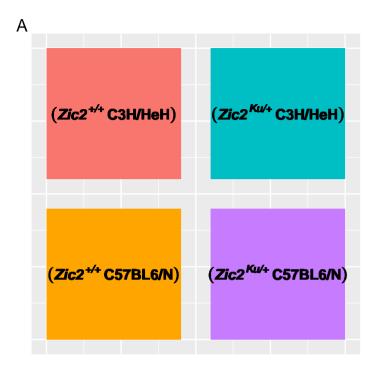
2000(2350)0(3300)0(3350)00(200)0(250)0(300)0(350)0000

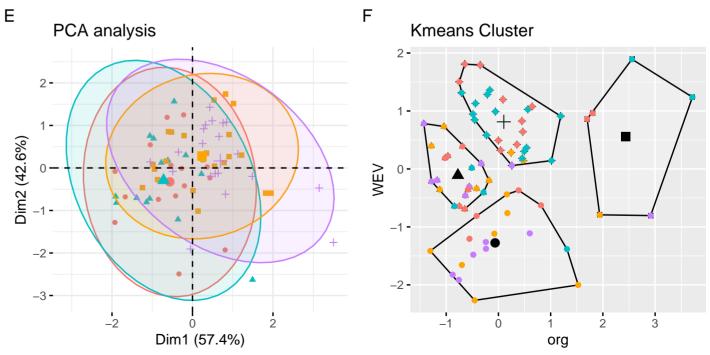
Whole Embryo Volume (WEV)

Latissimus Dorsi

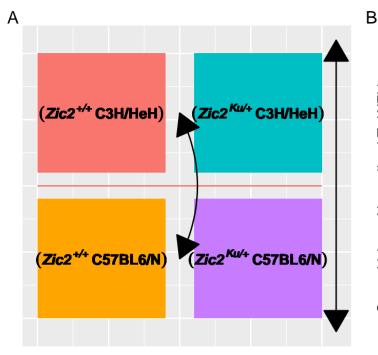


Hindlimb Phalanges

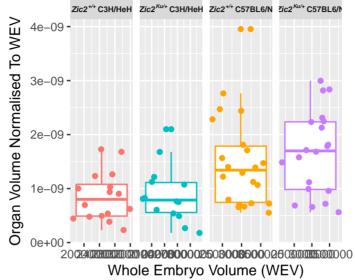




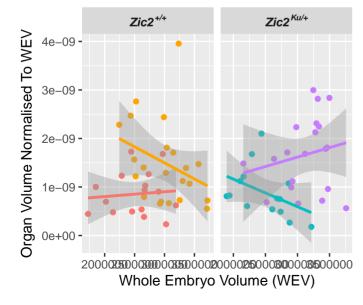
Metatarsals



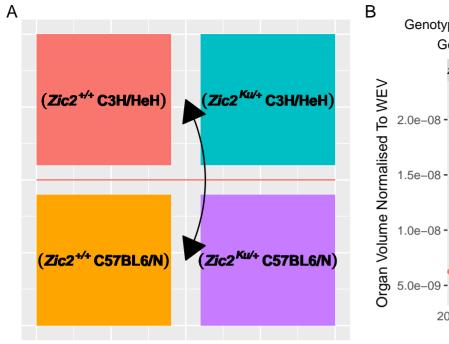
Genotype(WT) = 0.737173 Background(C3H) = 0.000697 Genotype(WT) X Background(C3H) = 0.906093



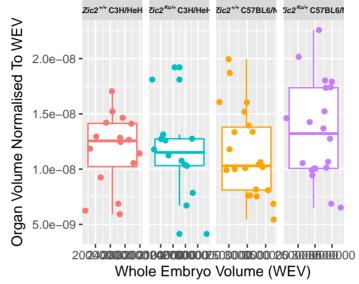
D wildtype C3H/HeH v.s. WT X C576 = 0.126022 mutant C3H/HeH v.s. HET X C576 = 0.027713



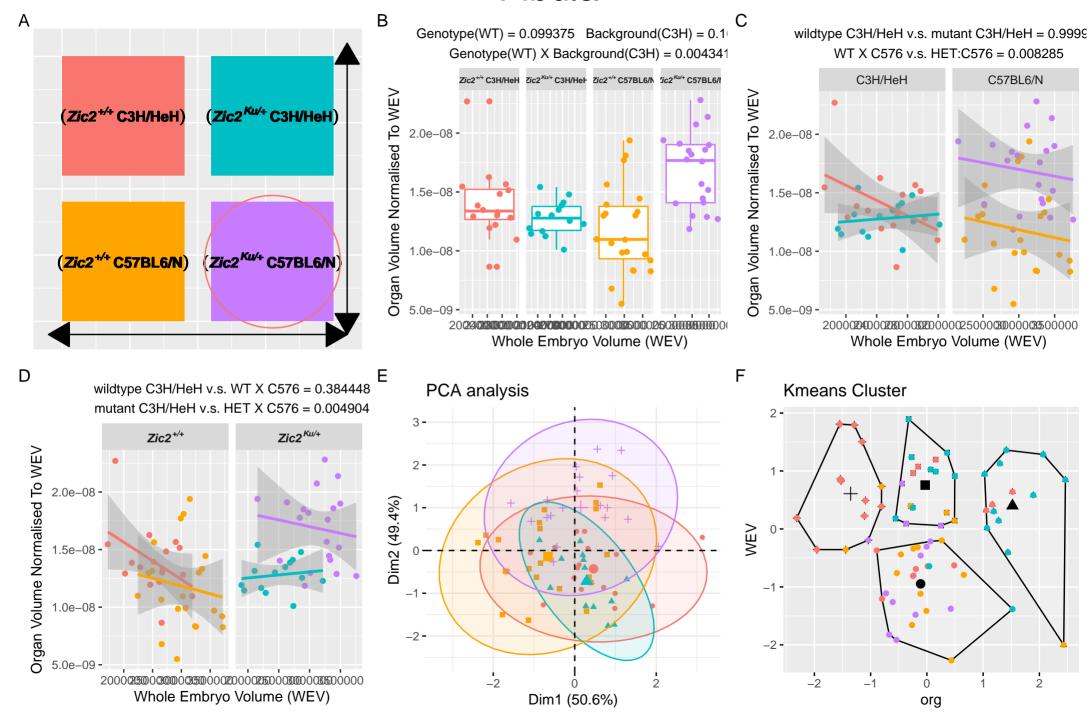
Tarsals



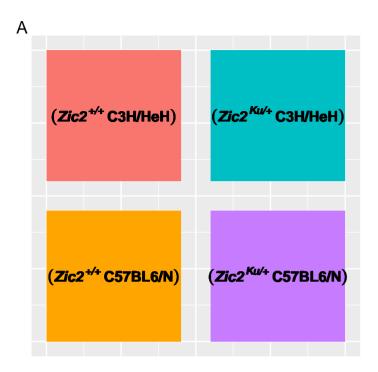
Genotype(WT) = 0.557928 Background(C3H) = 0.042378 Genotype(WT) X Background(C3H) = 0.424308



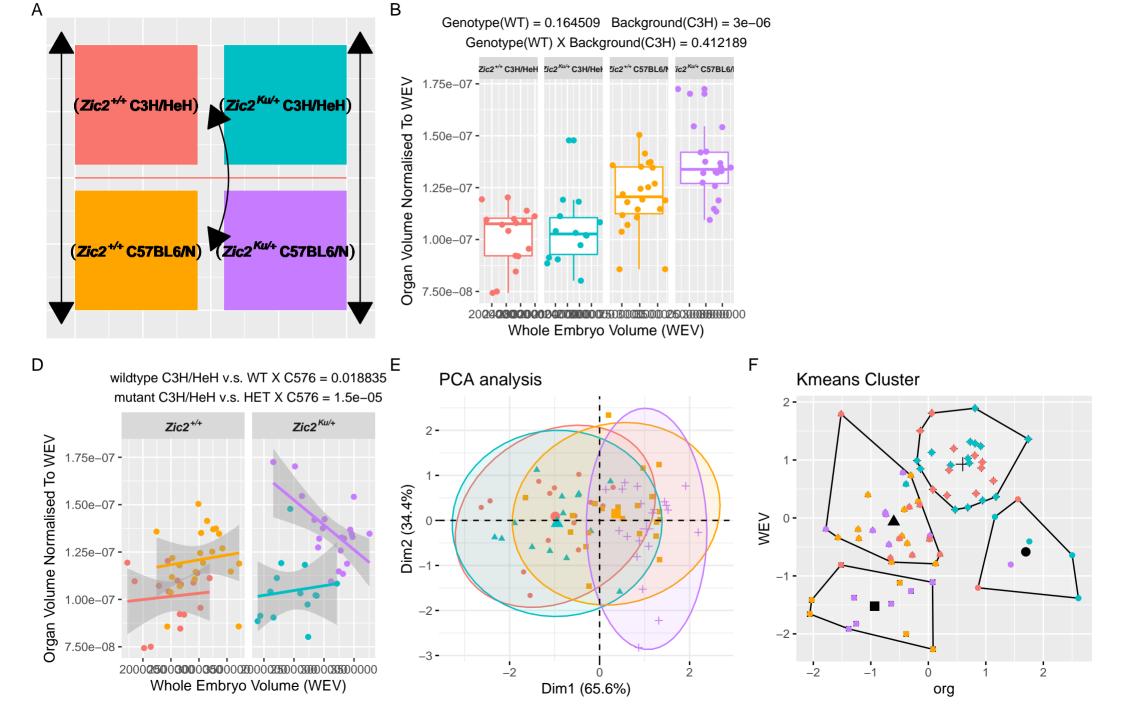
Fibula



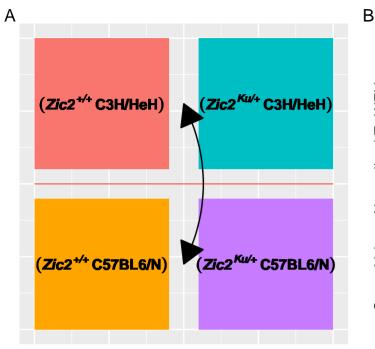
Tibia

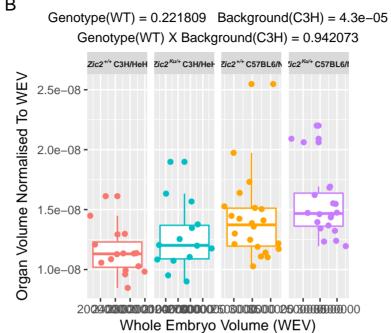


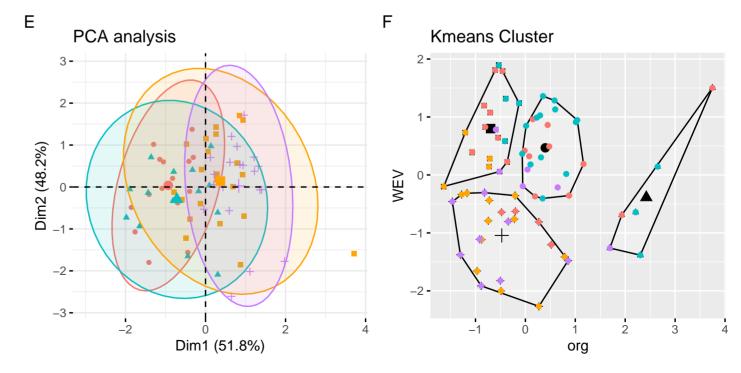
Femur



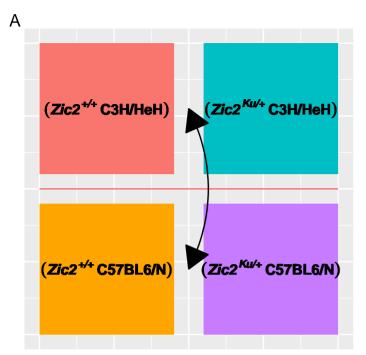
Iliacus

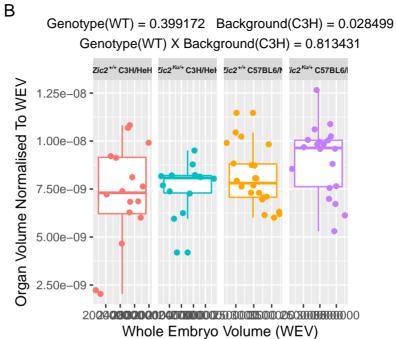


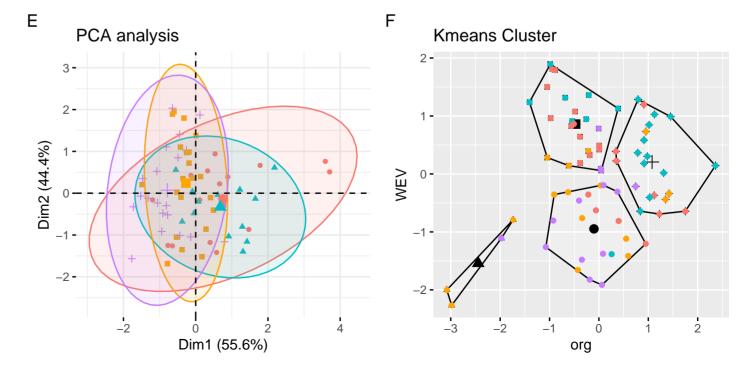




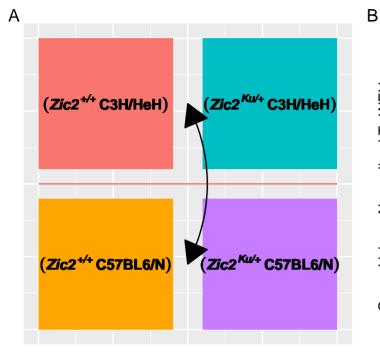
Quadratus Femoris



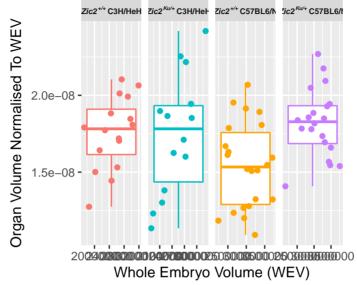




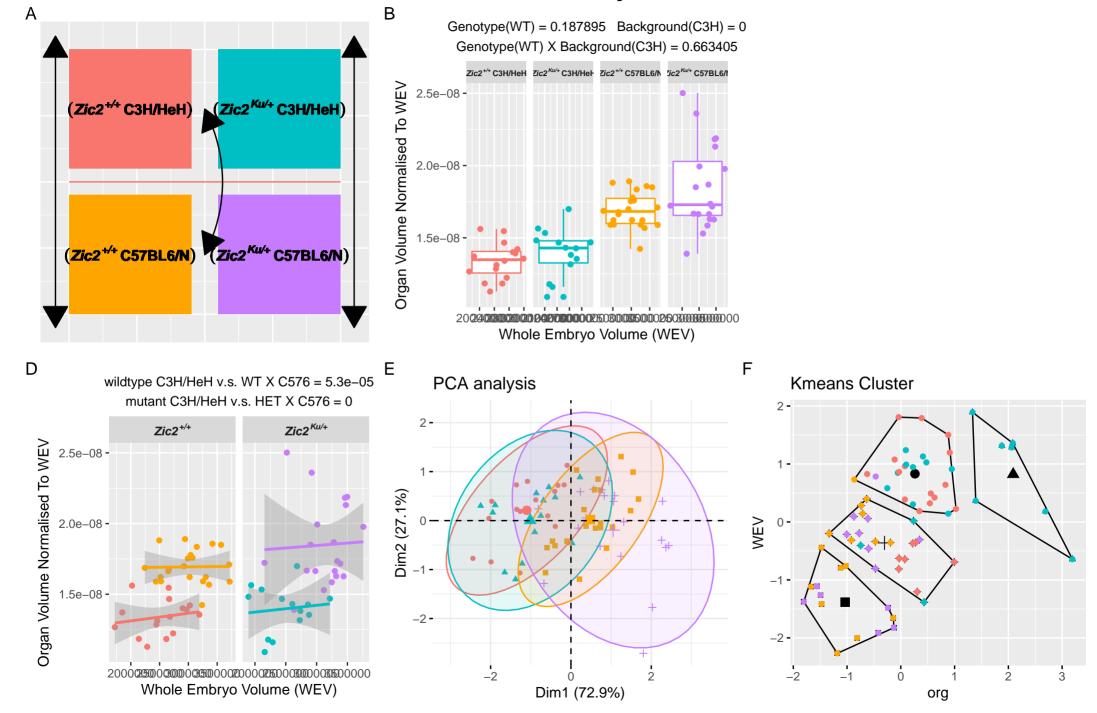
Biceps Femoris



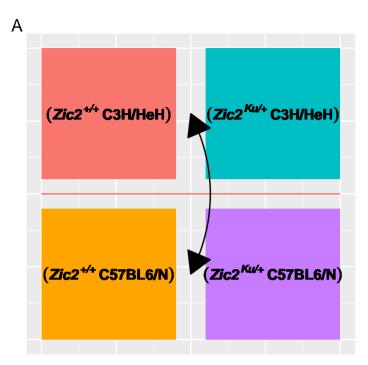
Genotype(WT) = 0.232787 Background(C3H) = 0.042016 Genotype(WT) X Background(C3H) = 0.345176

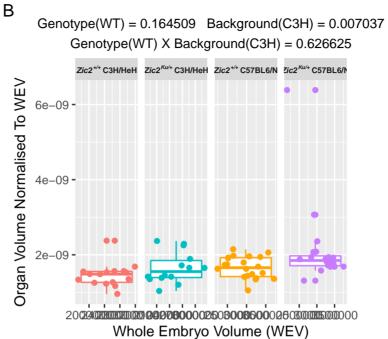


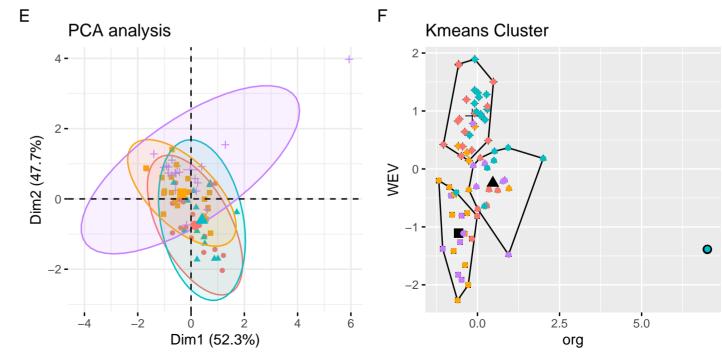
Psoas Major



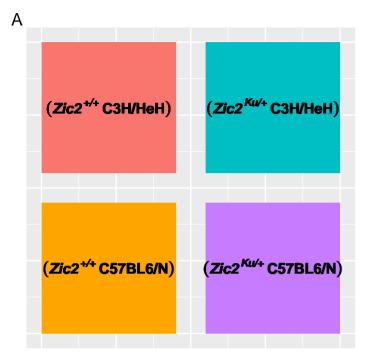
Psoas Minor



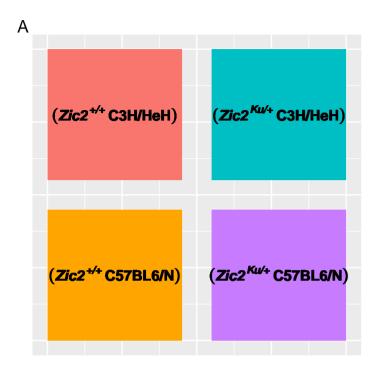


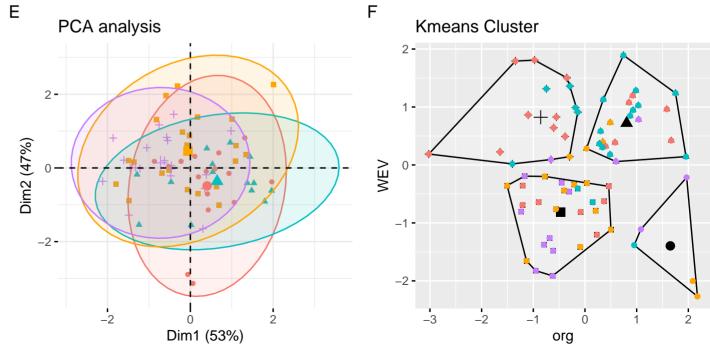


Ligamentum Patellae

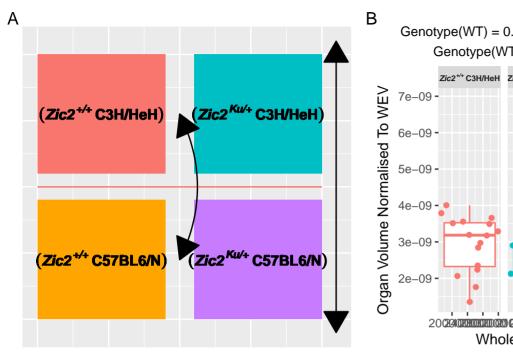


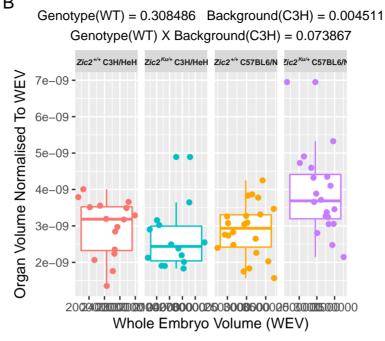
Peroneus Longus

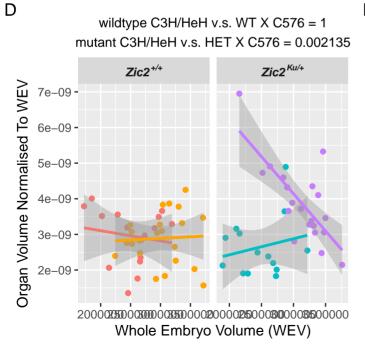


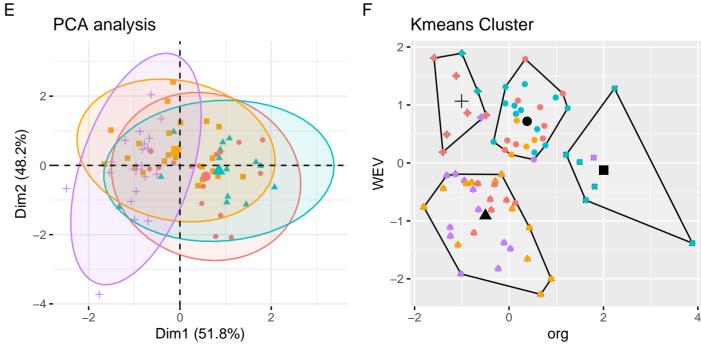


Peroneus Digiti Quarti

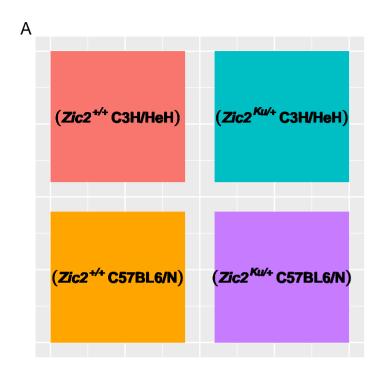




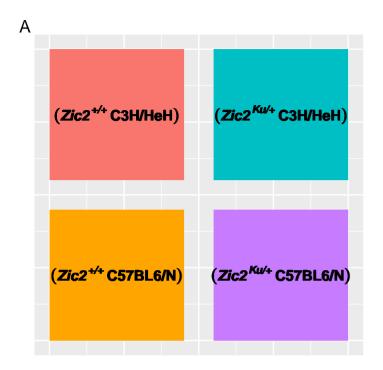




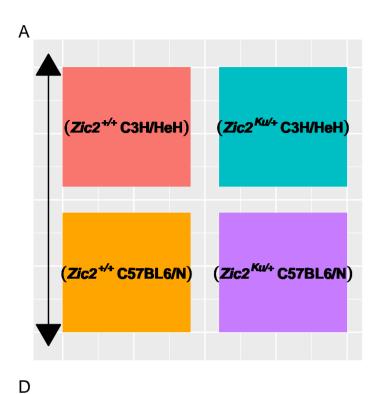
Caudofemoralis



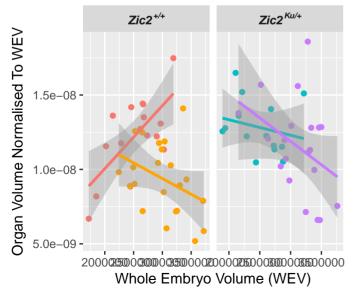
Semimembranosus



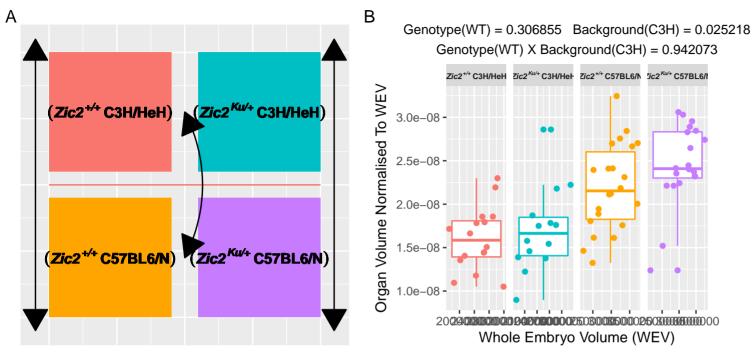
Semitendinosus

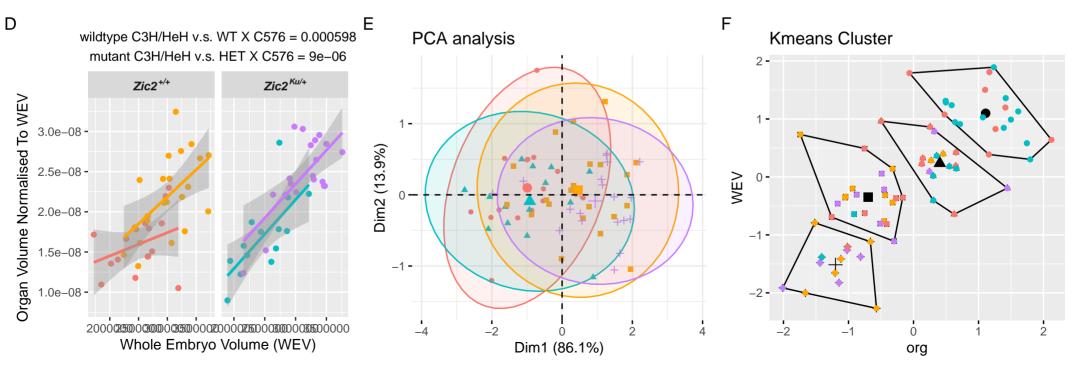


wildtype C3H/HeH v.s. WT X C576 = 0.032797 mutant C3H/HeH v.s. HET X C576 = 0.723552

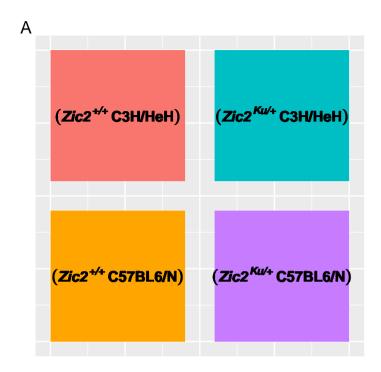


Gluteus Maximus

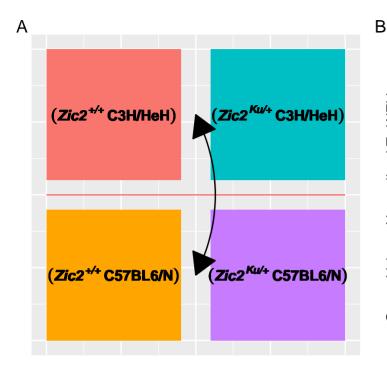




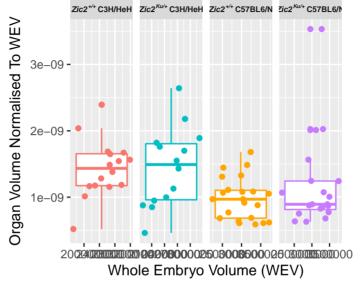
Tibialis Anterior

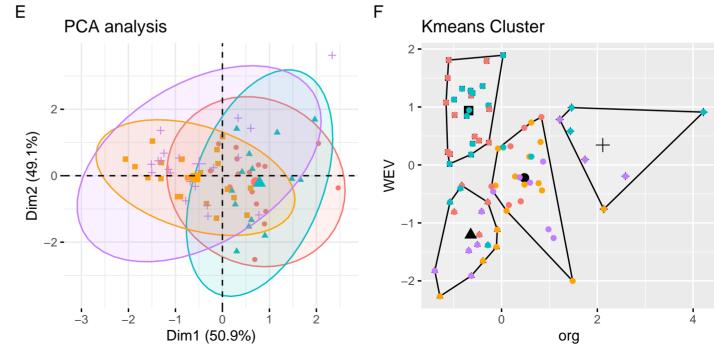


Tibialis Posterior

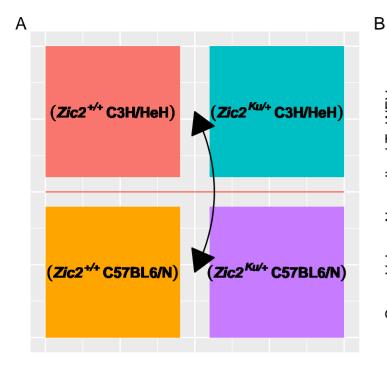


Genotype(WT) = 0.688219 Background(C3H) = 0.004229 Genotype(WT) X Background(C3H) = 0.889734

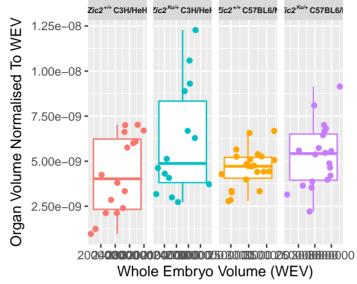




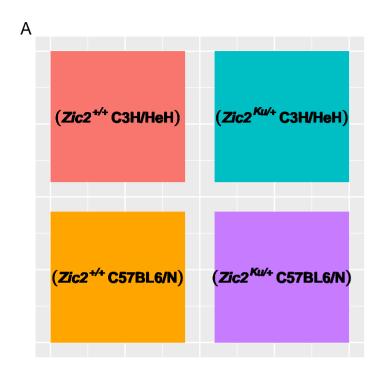
Gracilis Anticus



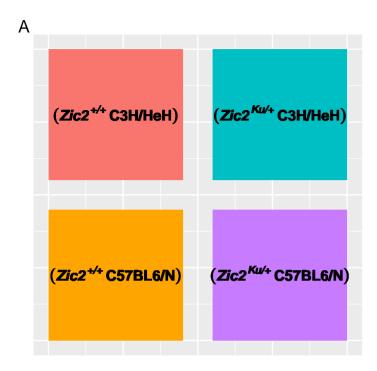
Genotype(WT) = 0.087588 Background(C3H) = 0.003717 Genotype(WT) X Background(C3H) = 0.36348

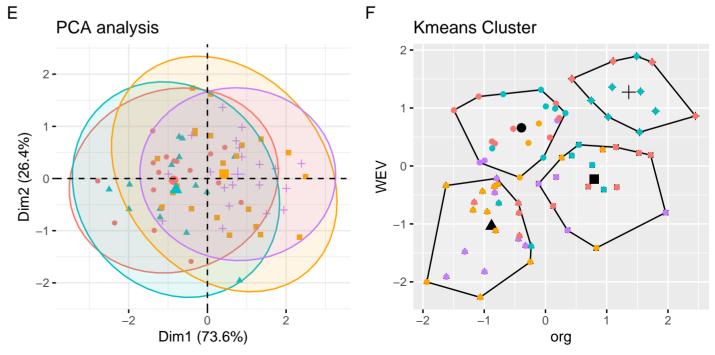


Gracilis Posticus

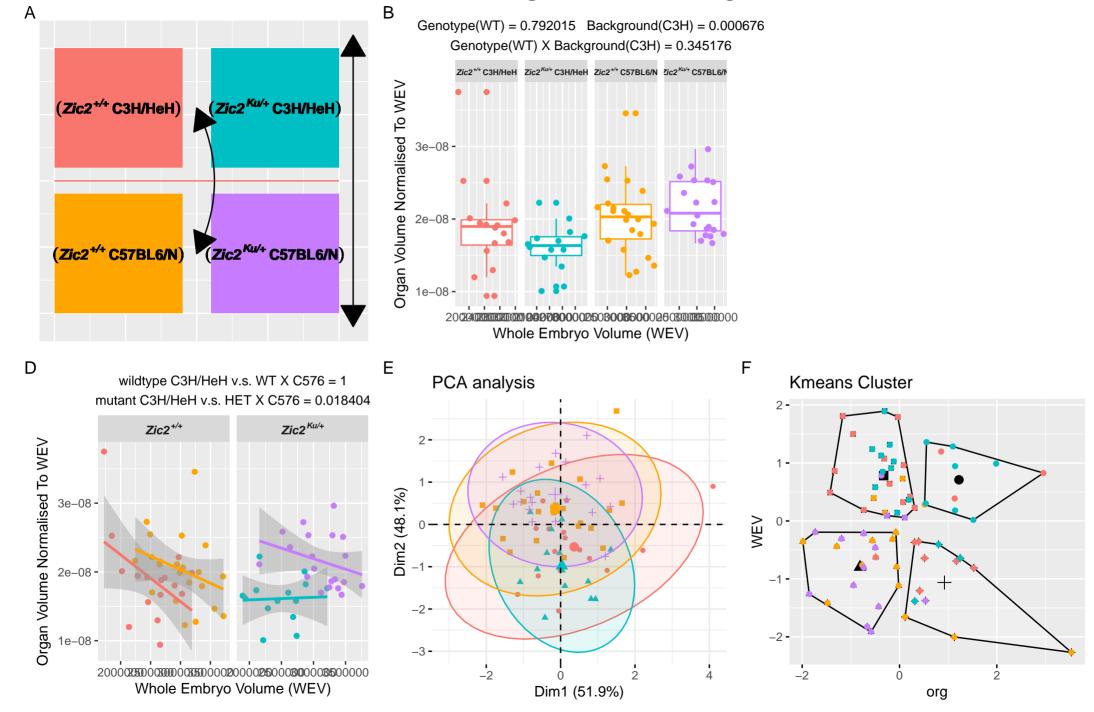


Pectineus

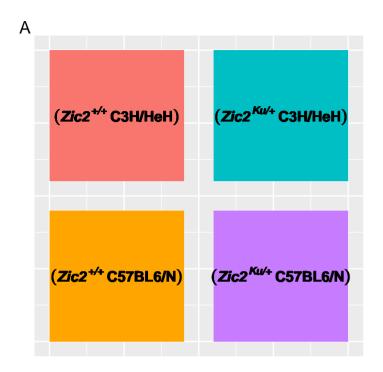




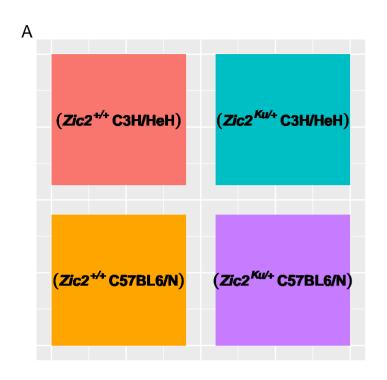
Extensor Digitorum Longus

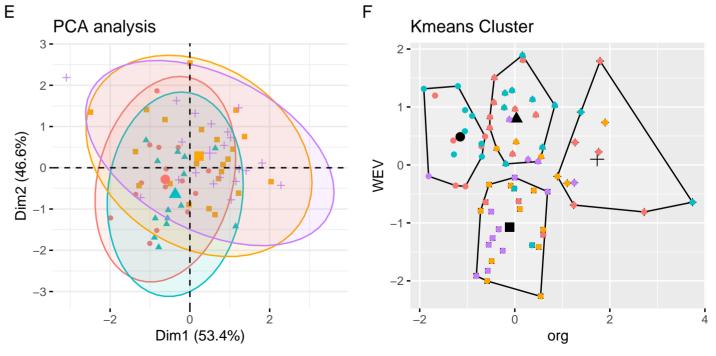


Vastus Intermedius

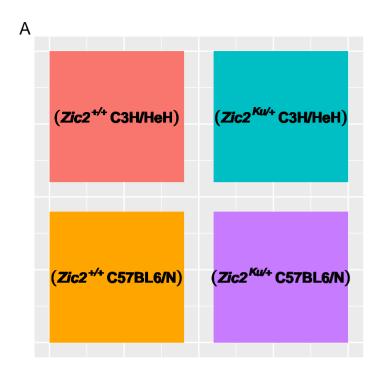


Vastus Medialis

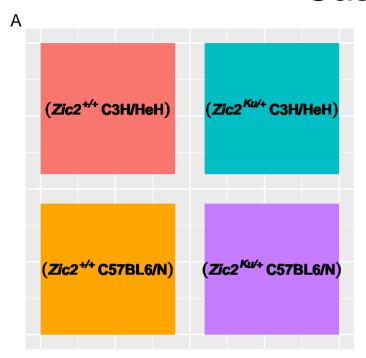




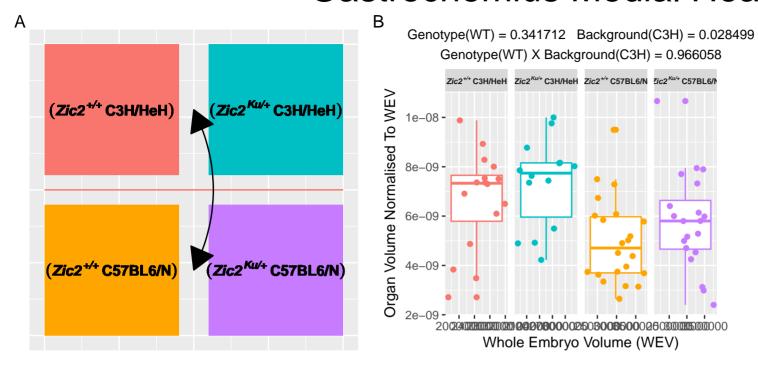
Vastus Lateralis



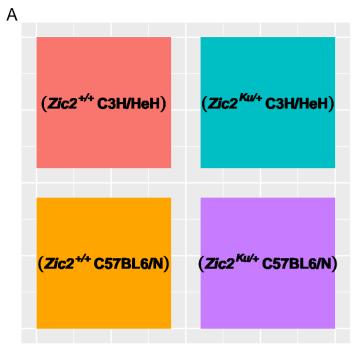
Gastrocnemius Lateral Head



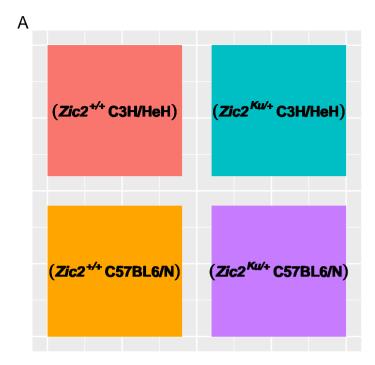
Gastrocnemius Medial Head

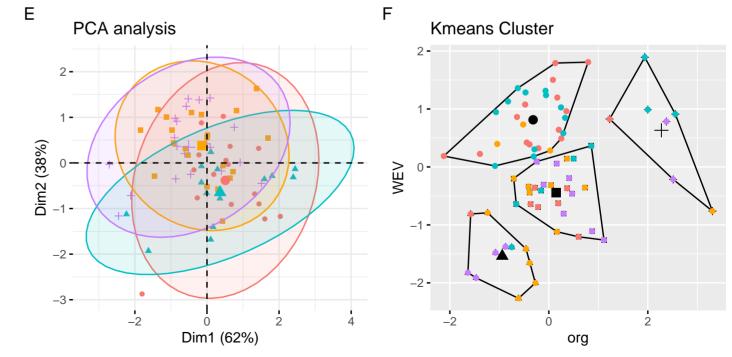


Flexor Digitorum Longus

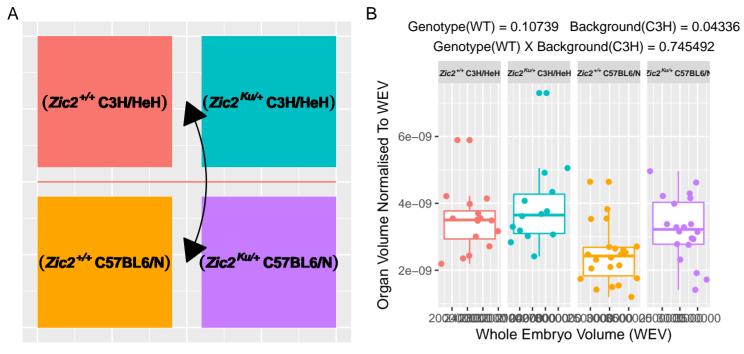


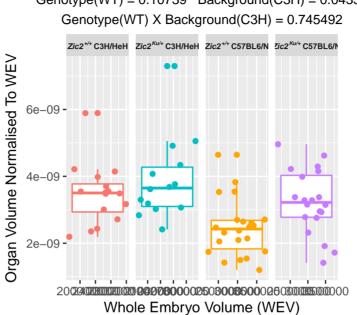
Popliteus



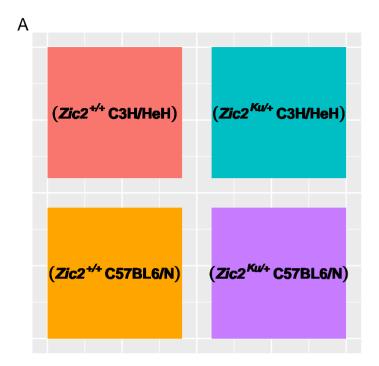


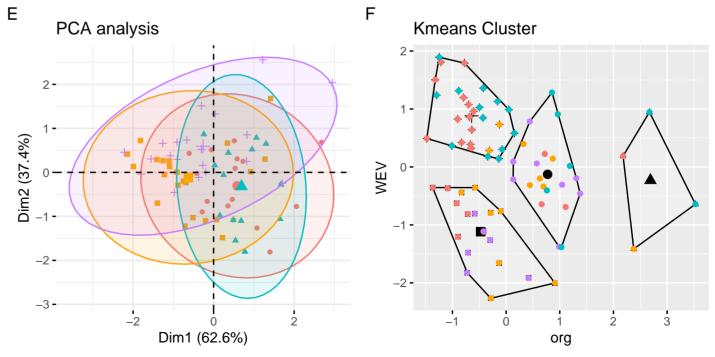
Plantaris



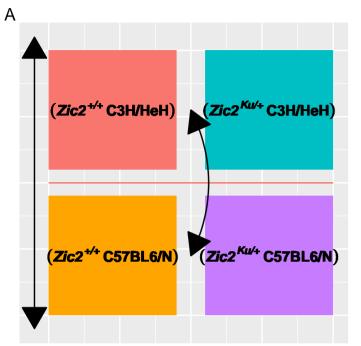


Soleus

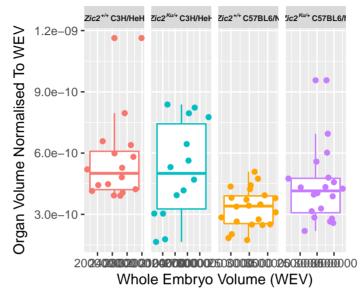




Tensor Aponeurosis Plantaris

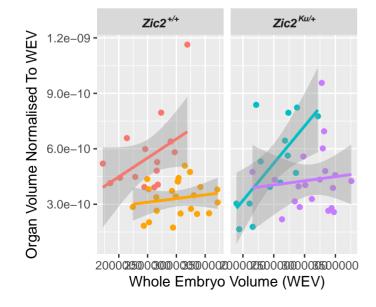


Genotype(WT) = 0.767721 Background(C3H) = 4.8e-05 Genotype(WT) X Background(C3H) = 0.424308

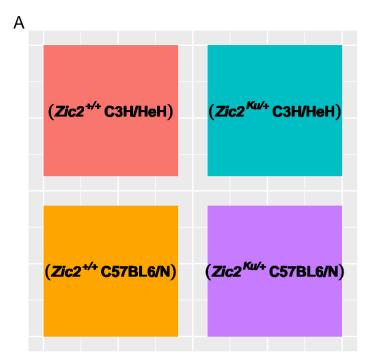


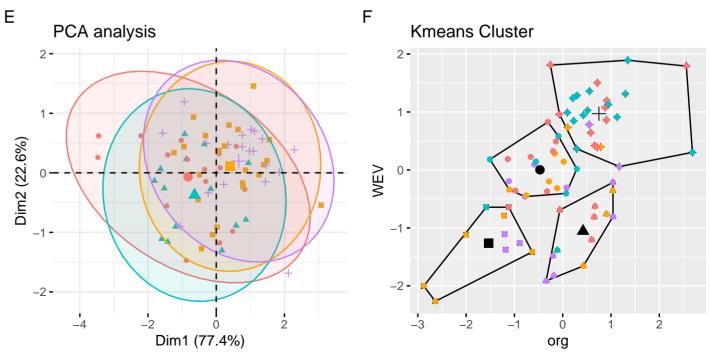
wildtype C3H/HeH v.s. WT X C576 = 0.003939 mutant C3H/HeH v.s. HET X C576 = 0.758757

D

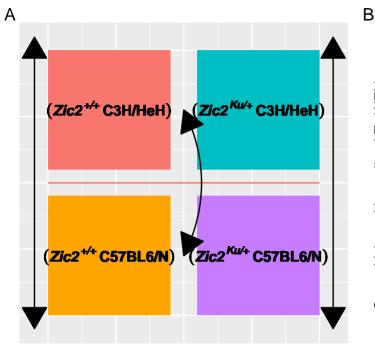


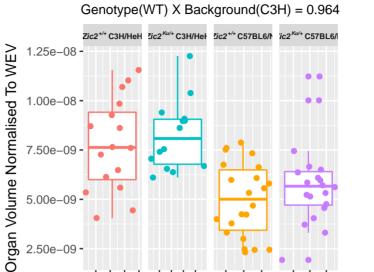
Pectoralis





Trapezius





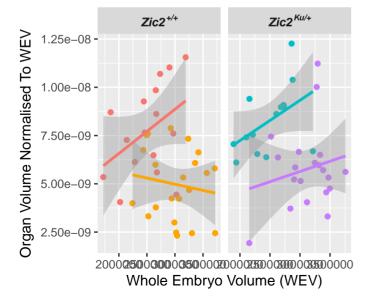
Whole Embryo Volume (WEV)

2.50e-09 **-**

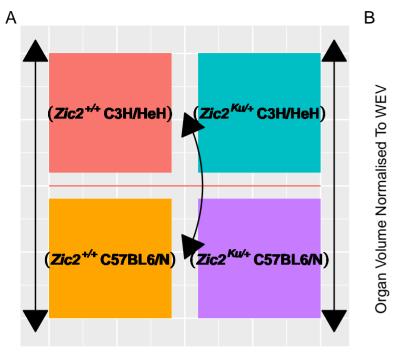
Genotype(WT) = 0.527535 Background(C3H) = 7e-06

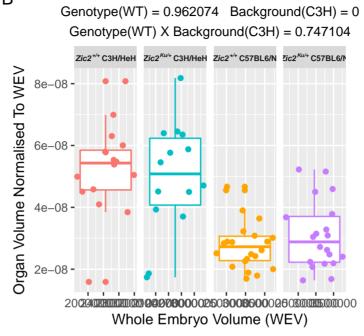
wildtype C3H/HeH v.s. WT X C576 = 0.002806 mutant C3H/HeH v.s. HET X C576 = 0.011041

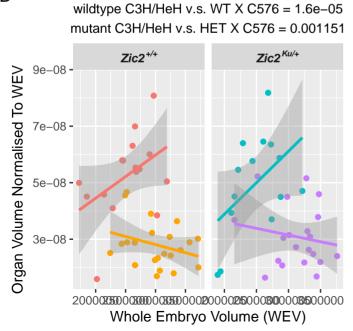
D



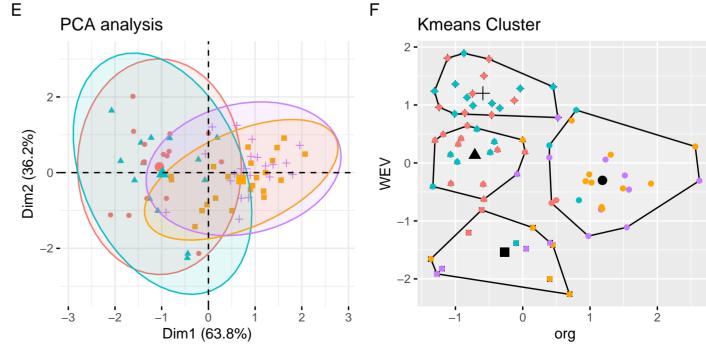
Serratus Anterior



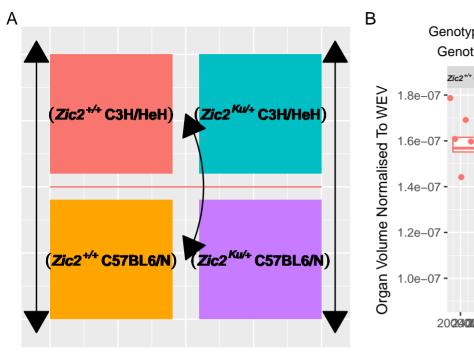


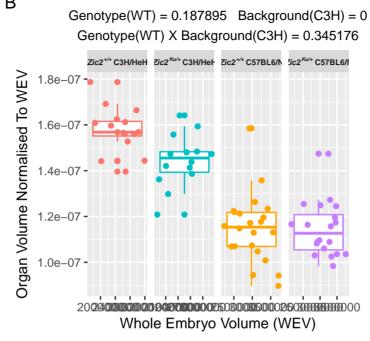


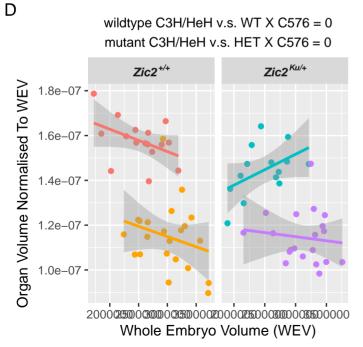
D

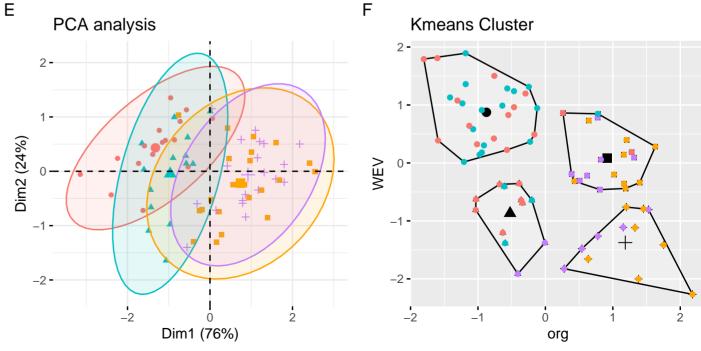


Cervical Vertebrae

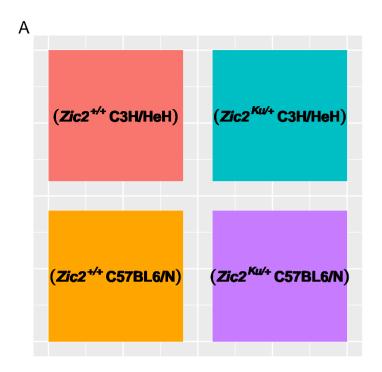


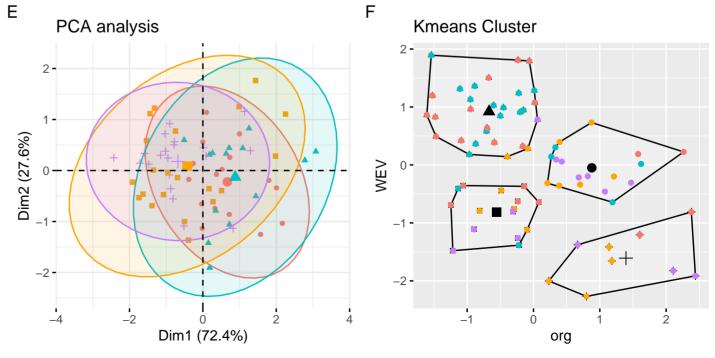




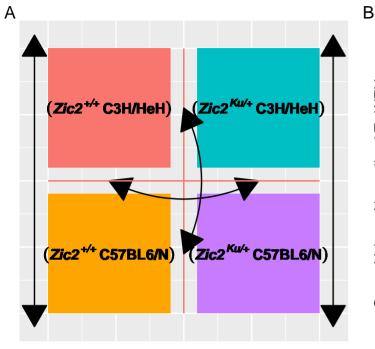


Thoracic Vertebrae

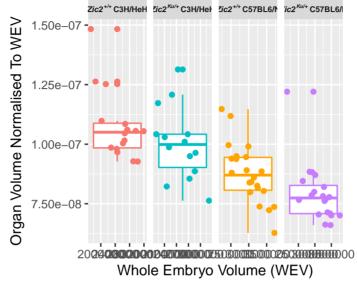


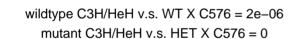


Lumbar Vertebrae

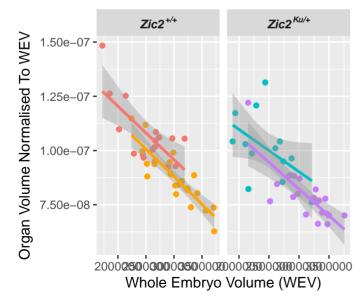




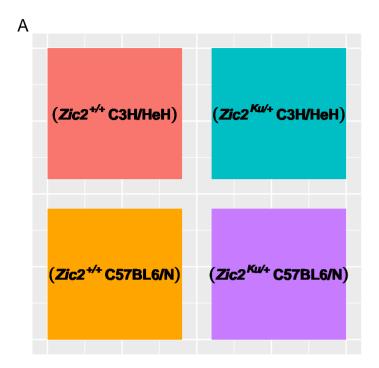


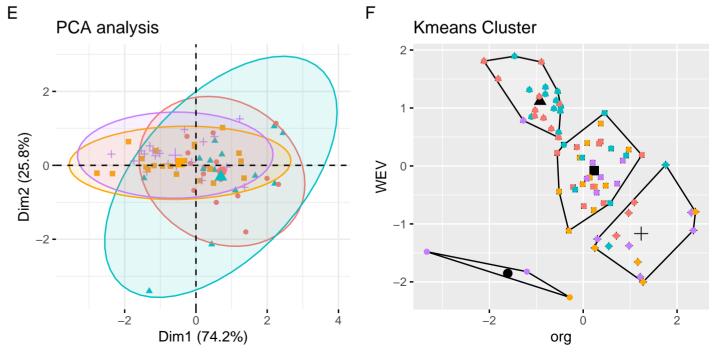


D

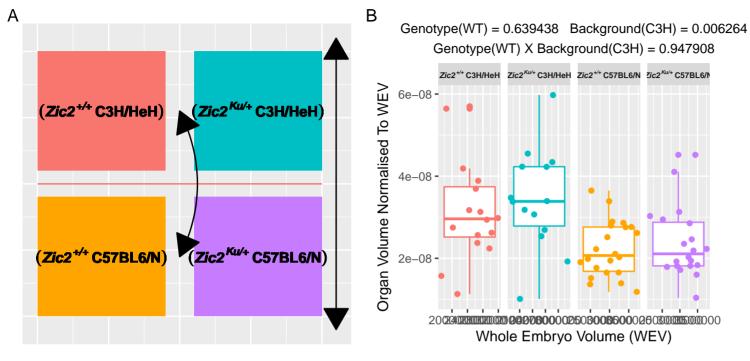


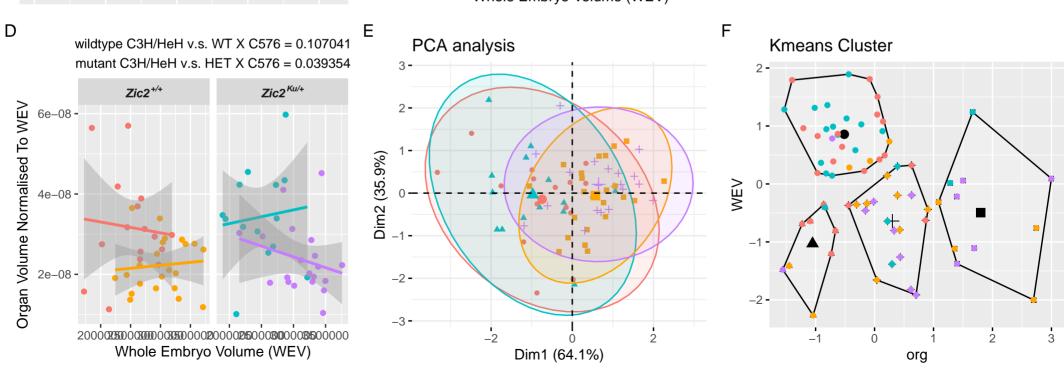
Sacral Vertebrae



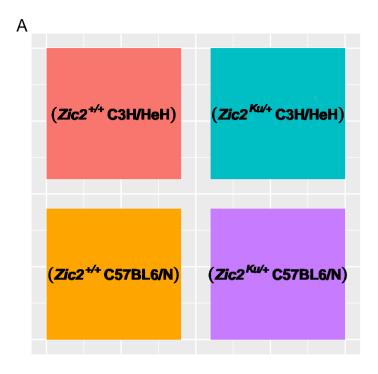


Tail Vertebrae

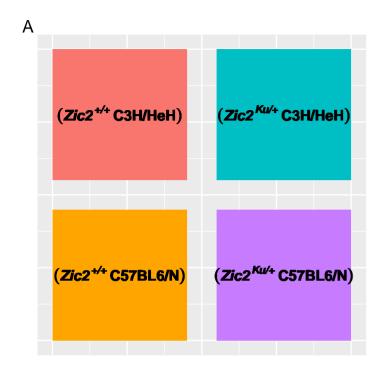




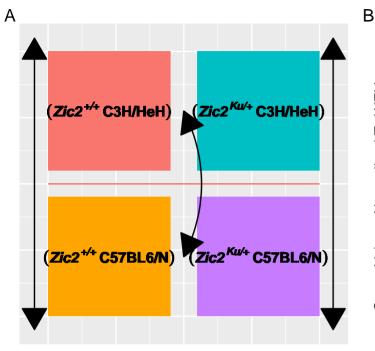
Ribs



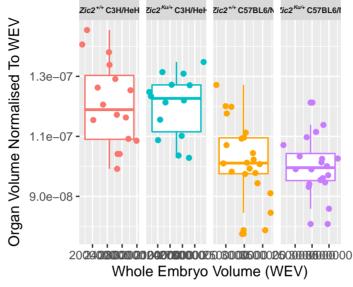
Basisphenoid Bone



Exoccipital Bone

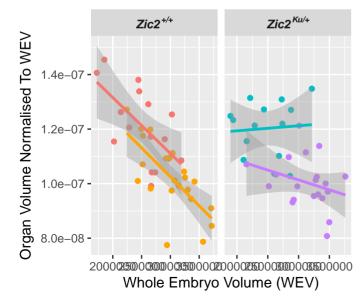




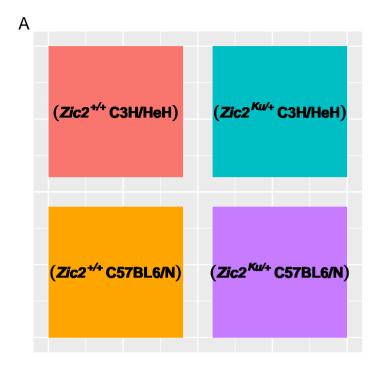


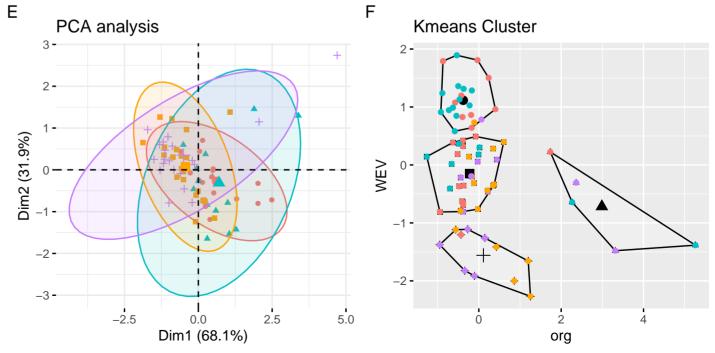


D

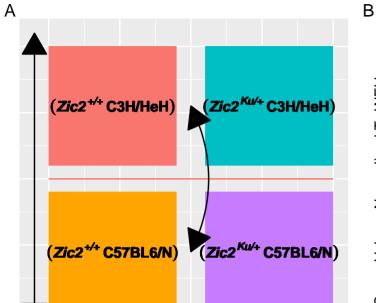


Hyoid Bone

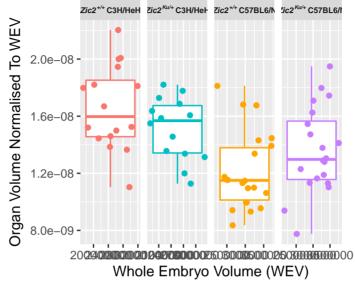




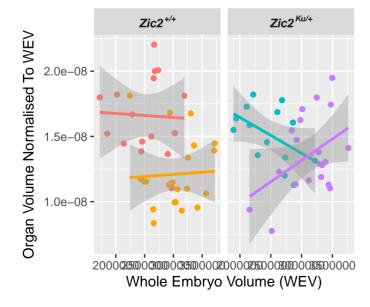
Thyroid Cartilage



Genotype(WT) = 0.996691 Background(C3H) = 0.000697 Genotype(WT) X Background(C3H) = 0.345176

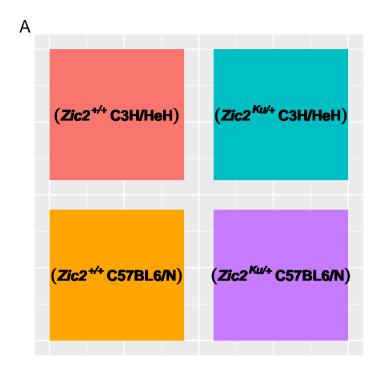


wildtype C3H/HeH v.s. WT X C576 = 0.000354 mutant C3H/HeH v.s. HET X C576 = 0.644793

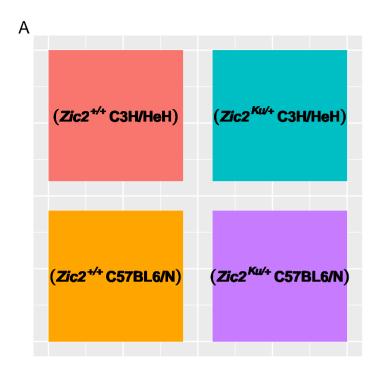


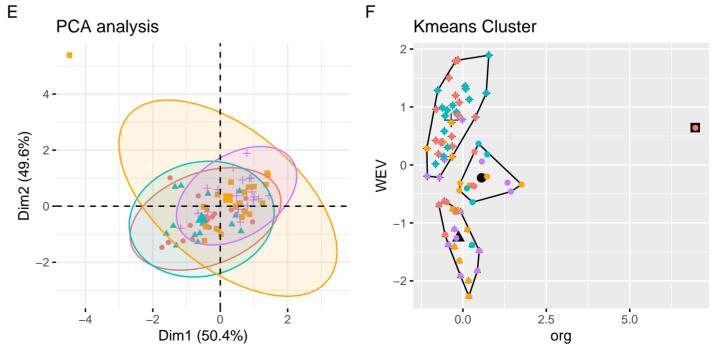
D

Cricoid Cartilage

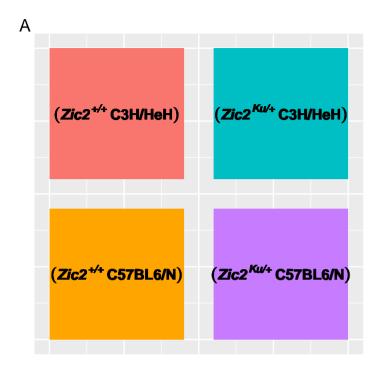


Arytenoid Cartilage

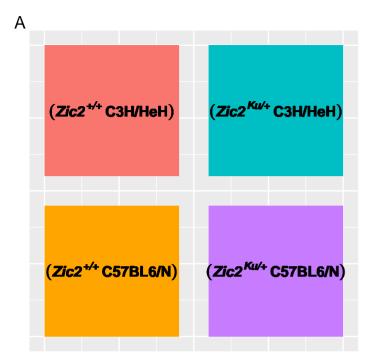


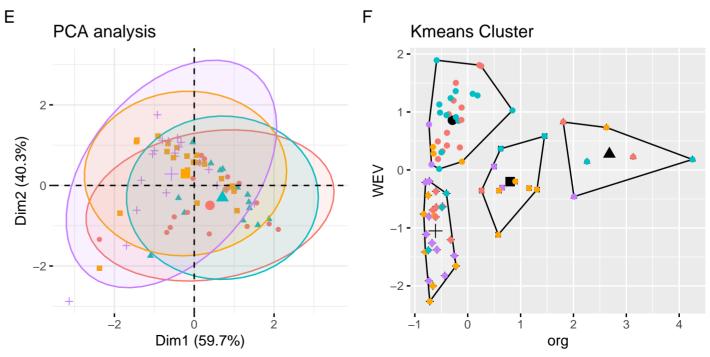


Epiglottis

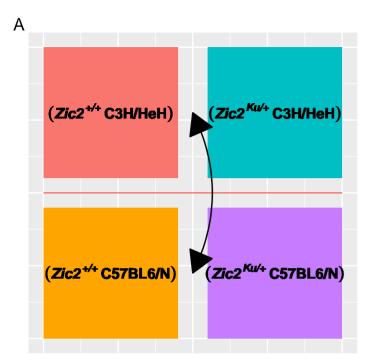


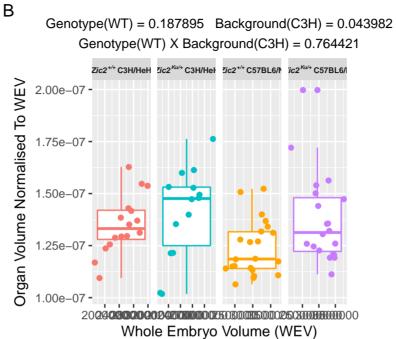
Clavicle

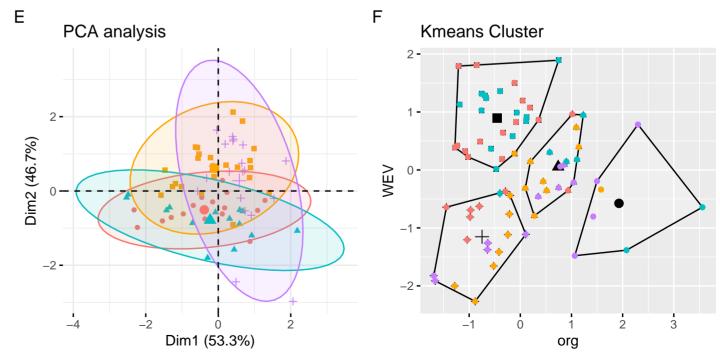




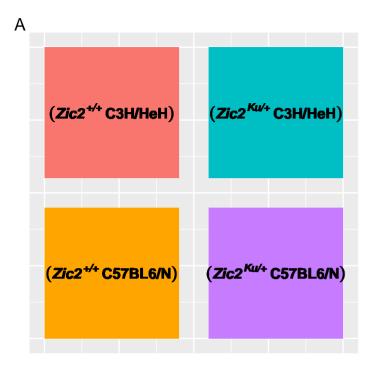
Scapula

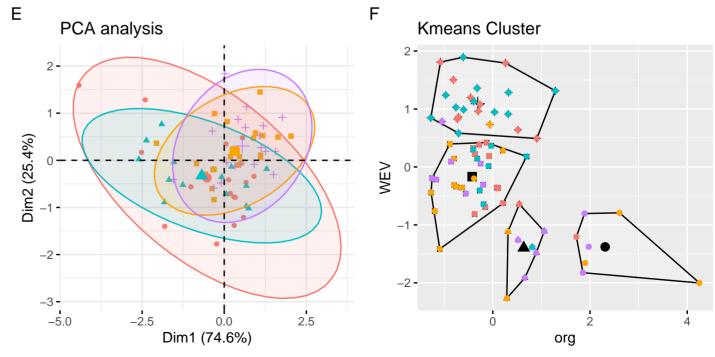




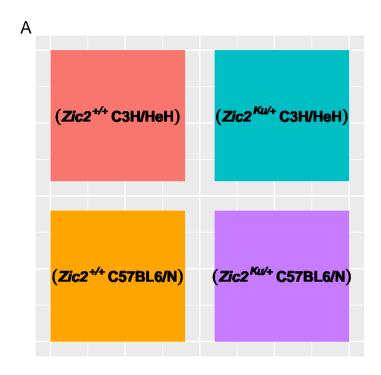


Pelvic Girdle

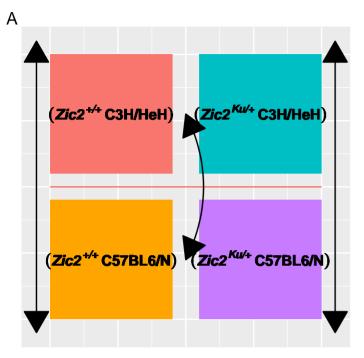


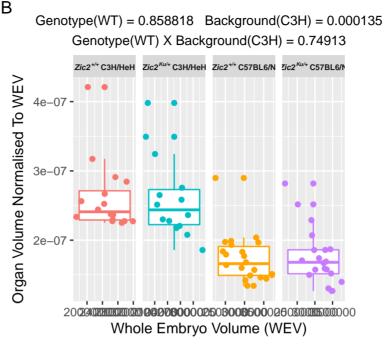


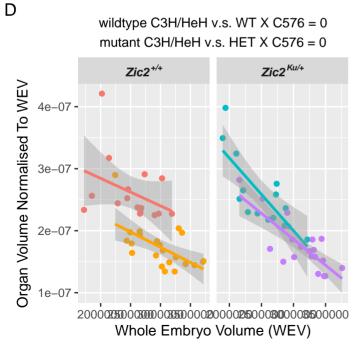
Diaphragm

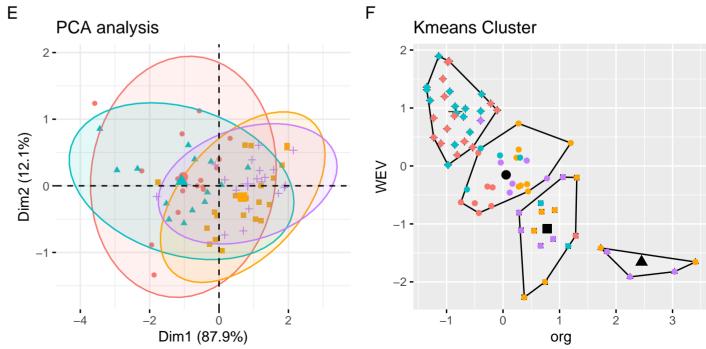


Dorsal Root Ganglion



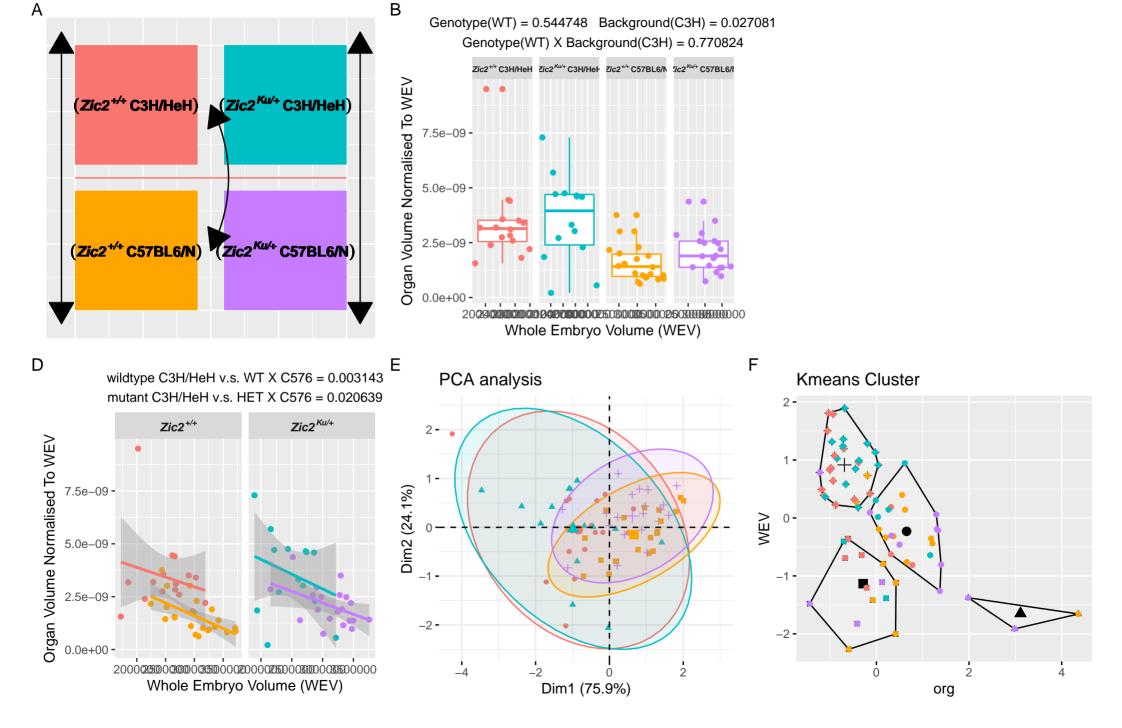




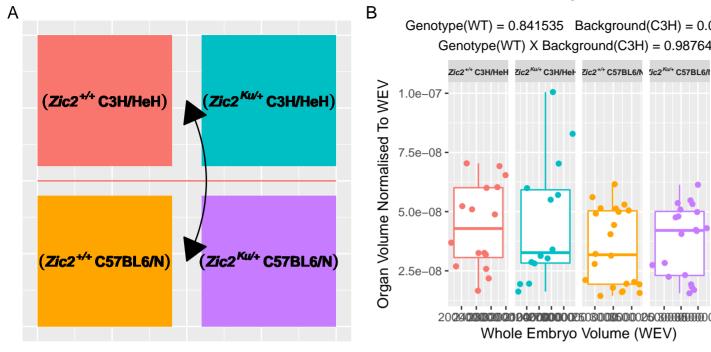


Tail Drg

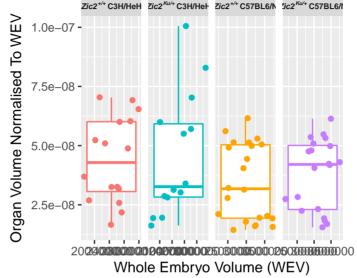
В



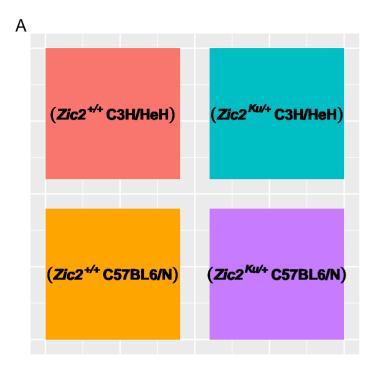
Ovary

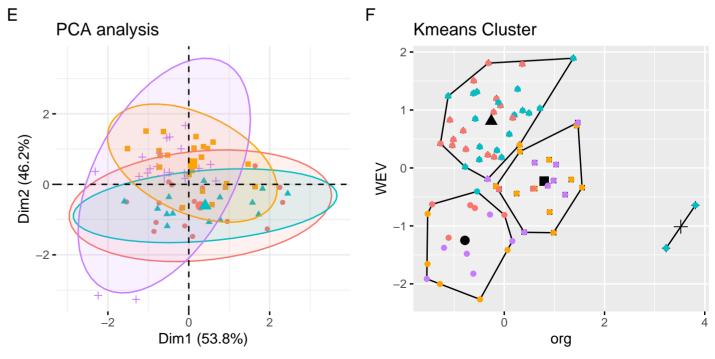


Genotype(WT) = 0.841535 Background(C3H) = 0.026155Genotype(WT) X Background(C3H) = 0.987646

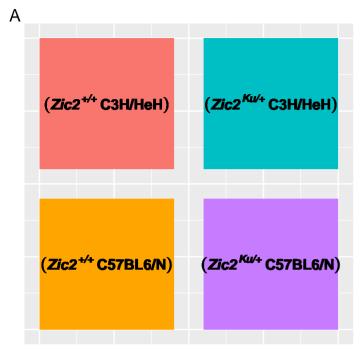


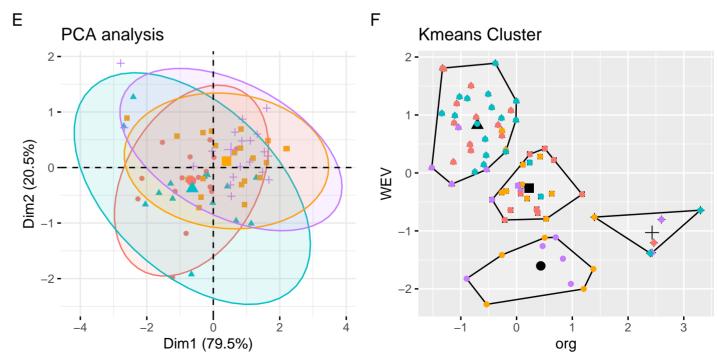
Peritoneal Cavity



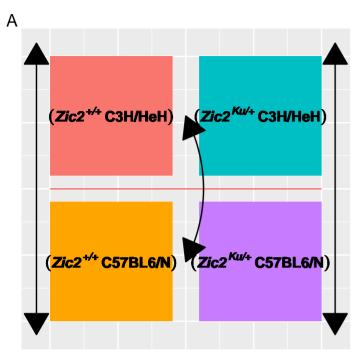


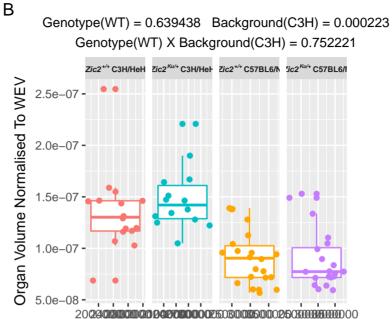
Pleural And Pericardial Components





Vomeronasal Cavity





Whole Embryo Volume (WEV)

