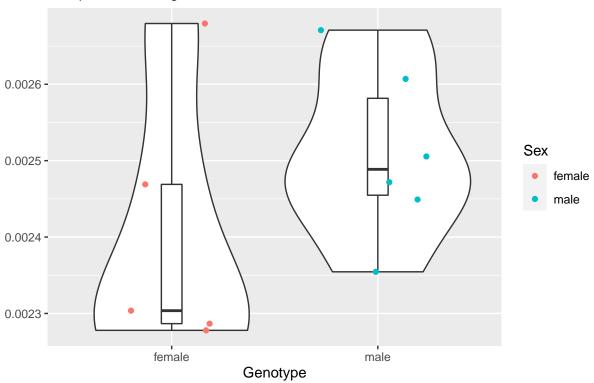
## Right APOE2 Disaggregated by Sex

#### Anna MacFarlane

3/25/2021

## Interpeduncular Nucleus Red points denoting outliers

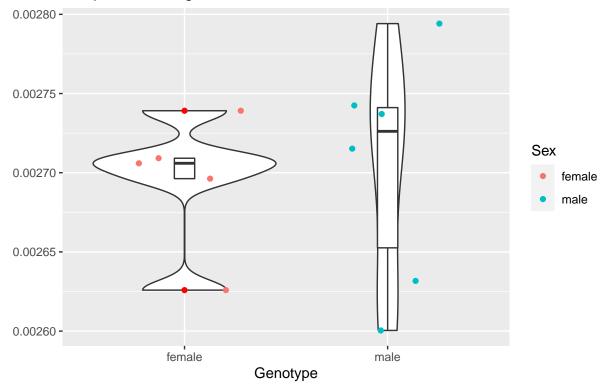


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.091e-08 3.091e-08 1.507 0.251

## Residuals 9 1.845e-07 2.050e-08

#### **Cerebellar Cortex**

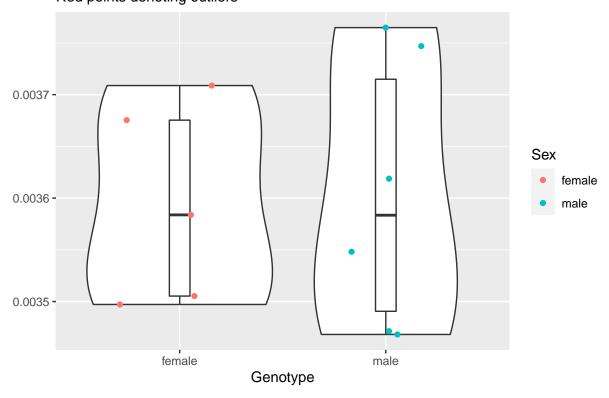
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.800e-10 1.840e-10 0.049 0.83

## Residuals 9 3.383e-08 3.759e-09

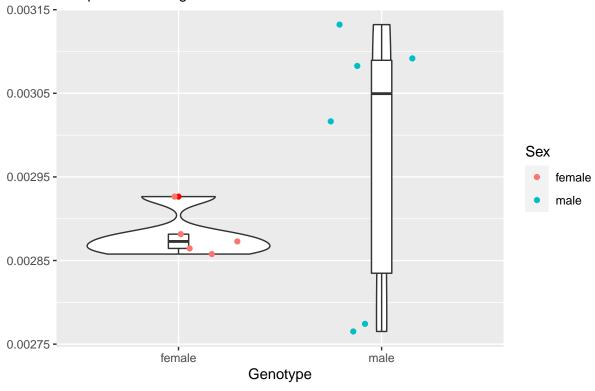
# Dentate (Lateral) Nucleus of Cerebellum Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.200e-10 2.190e-10 0.016 0.902
## Residuals 9 1.228e-07 1.365e-08

## Interposed Nucleus of Cerebellum

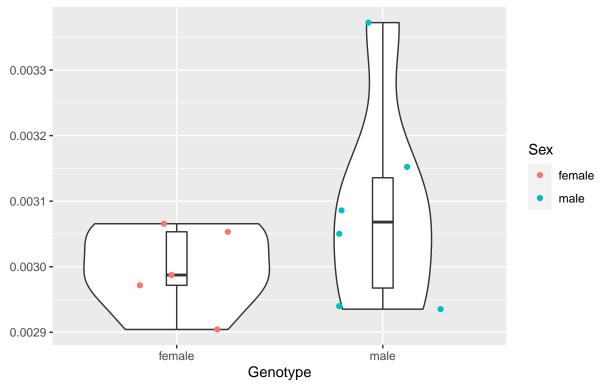
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.539e-08 2.538e-08 1.645 0.232

## Residuals 9 1.389e-07 1.543e-08

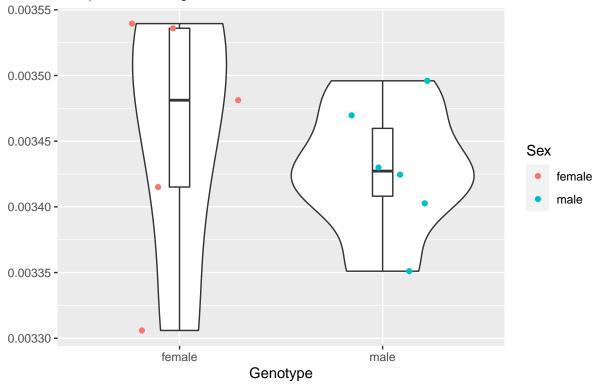
### Fastigial Medial Dorsolateral Nucleus of Cerebellum Red points denoting outliers



Mean Sq F value Pr(>F) ## Sum Sq 1 2.354e-08 2.354e-08 1.423 0.263 ## Sex ## Residuals 9 1.489e-07 1.654e-08

## Fastigial Medial Nucleus of Cerebellum

#### Red points denoting outliers

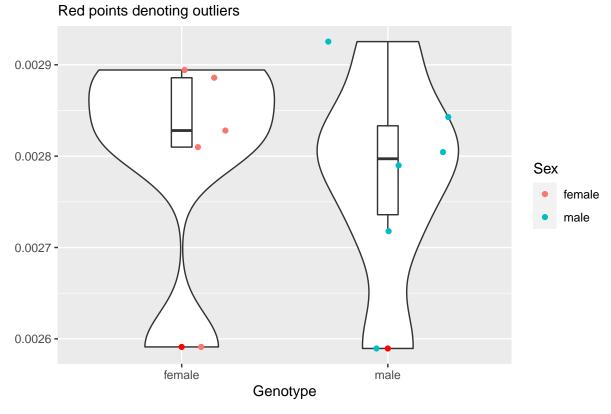


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.920e-09 1.924e-09 0.339 0.575
## Residuals 9 5.111e-08 5.679e-09

#"' $\{r\ VII,\ echo=FALSE\}\ \#ggplot(data=apoe2,\ aes(factor(Sex),\ VII)) + \#geom\_violin() + \#geom\_boxplot(width=0.1,\ outlier.color="red") + \#geom\_jitter(height=0,\ width=0.3) + \#labs(x="Genotype",\ \#y="",\ \#title="Ventral Lateral Lemniscus Nucleus",\ \#subtitle="Red points denoting outliers")$ 

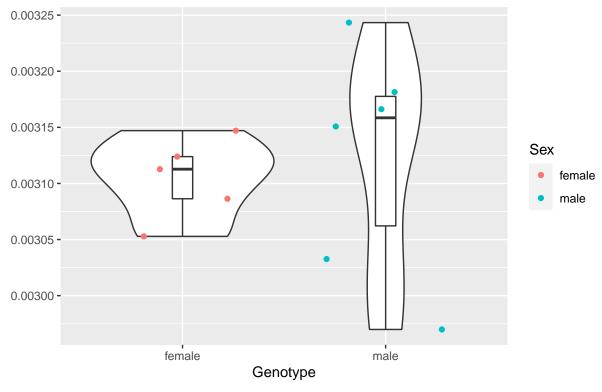
 $\#res.aov \leftarrow aov(VII \sim Sex, data = apoe2) \#summary(res.aov) #"'$ 

## Parabrachial Nucleus



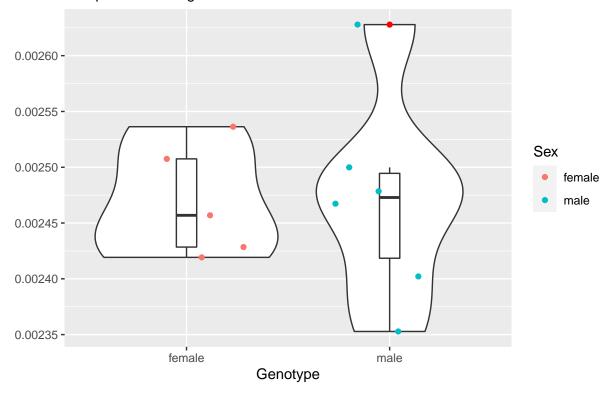
Sum Sq Mean Sq F value Pr(>F) ## ## Sex 1 1.510e-09 1.511e-09 0.107 0.751 9 1.267e-07 1.408e-08 ## Residuals

## Parabrachial Medial Nucleus and Koelliker Fuse Nucleus Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.030e-09 1.033e-09 0.162 0.697
## Residuals 9 5.738e-08 6.376e-09

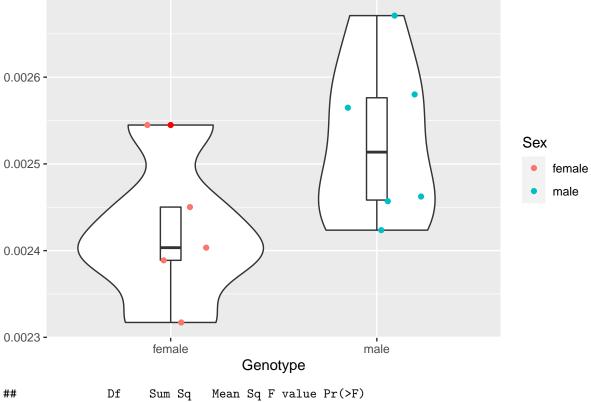
### Parvicellular Reticular Nucleus and Principal Sensory Trigeminal Nucleu Red points denoting outliers



Mean Sq F value Pr(>F) ## Sum Sq 1 1.000e-11 8.000e-12 0.001 0.972 ## Sex ## Residuals 9 5.449e-08 6.054e-09

### Central Gray

#### Red points denoting outliers



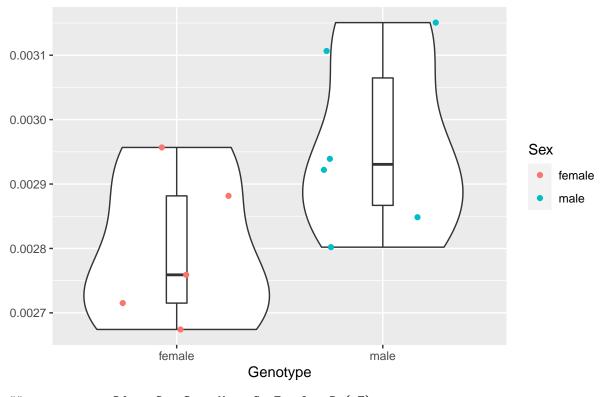
```
## Sex 1 3.040e-08 3.040e-08 3.745 0.085 .

## Residuals 9 7.307e-08 8.119e-09

## ---

## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

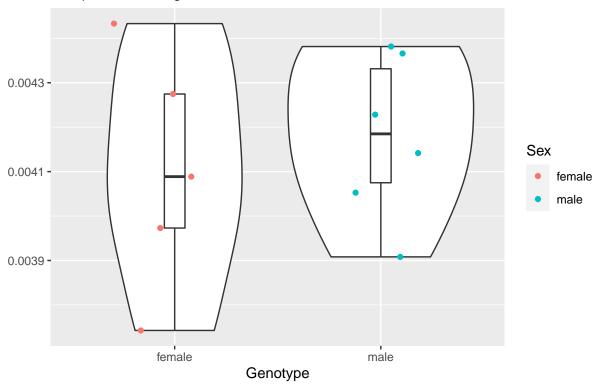
## Pedunculotegmental Medial Paralemniscial and Supratrigemnial Nuclei Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 7.344e-08 7.344e-08 4.32 0.0674 .
## Residuals 9 1.530e-07 1.700e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

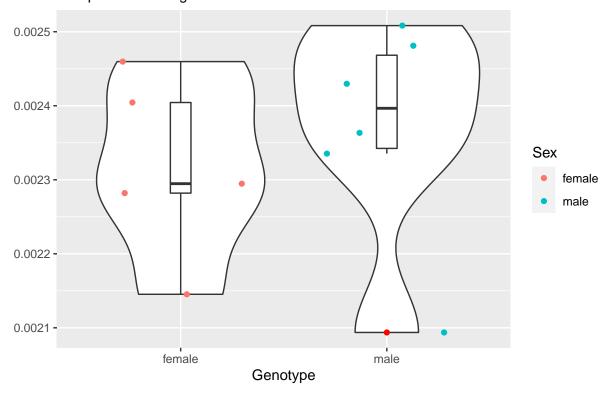
## Motor Root of Trigeminal Nerve

#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.630e-08 1.630e-08 0.323 0.584
## Residuals 9 4.547e-07 5.052e-08

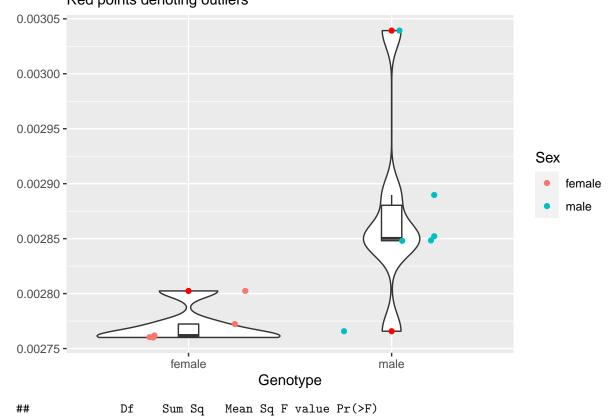
# Trigeminal Motor Nucleus Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 7.200e-09 7.204e-09 0.377 0.554

## Residuals 9 1.718e-07 1.909e-08

## Pontine Reticular Nucleus Red points denoting outliers



```
## Sex 1 2.863e-08 2.864e-08 6.08 0.0358 *

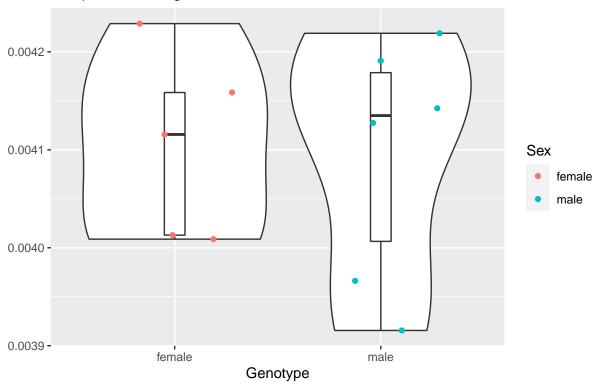
## Residuals 9 4.238e-08 4.709e-09

## ---

## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

## Raphe Nucleus

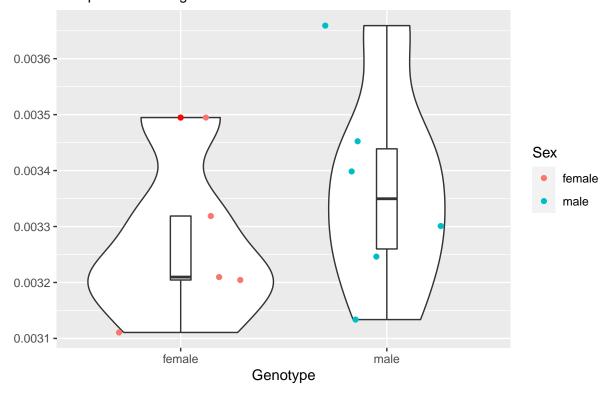
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 3.500e-10 3.510e-10 0.028 0.871

**##** Residuals 9 1.127e-07 1.252e-08

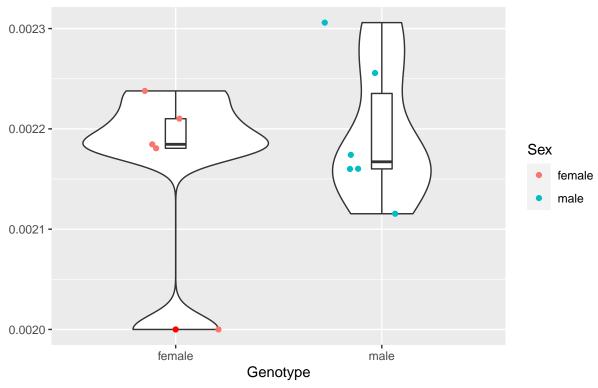
# Trigeminal Sensory Nucleus Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.591e-08 2.591e-08 0.921 0.362
## Residuals 9 2.532e-07 2.813e-08

## **Dorsal Tegmentum**

## Red points denoting outliers

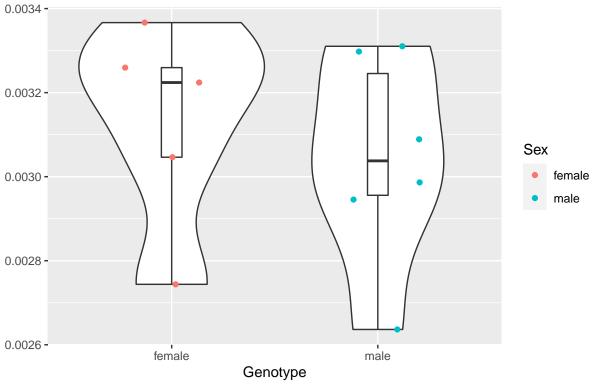


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.900e-09 2.898e-09 0.432 0.528

## Residuals 9 6.038e-08 6.709e-09

## **Tegmental Nucleus**

#### Red points denoting outliers

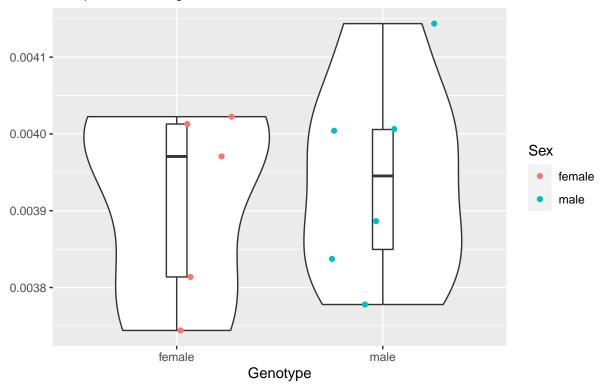


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.920e-08 1.918e-08 0.312 0.59

**##** Residuals 9 5.542e-07 6.157e-08

### **Cochlear Nucleus**

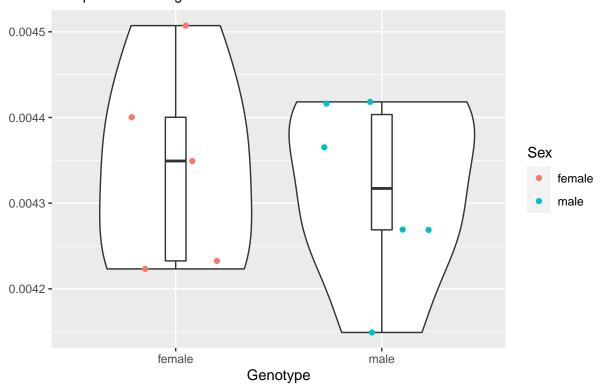
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.430e-09 2.430e-09 0.143 0.714

## Residuals 9 1.533e-07 1.704e-08

### Pontine Nucleus Red points denoting outliers

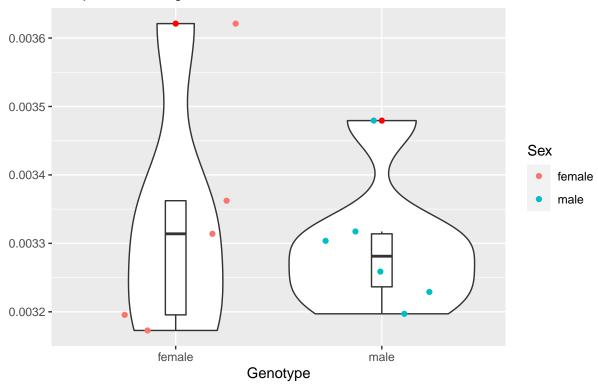


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.15e-09 2.150e-09 0.173 0.687

## Residuals 9 1.12e-07 1.244e-08

## Reticulotegmental Nucleus of Pons

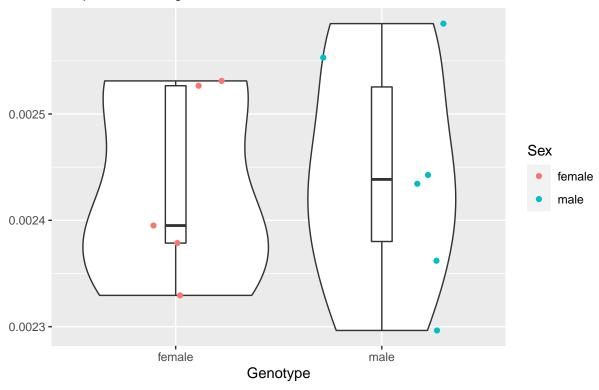
#### Red points denoting outliers



Mean Sq F value Pr(>F) ## Sum Sq 1 3.450e-09 3.452e-09 0.174 0.686 ## Sex ## Residuals 9 1.786e-07 1.984e-08

#### **Olivary Complex**

#### Red points denoting outliers

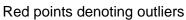


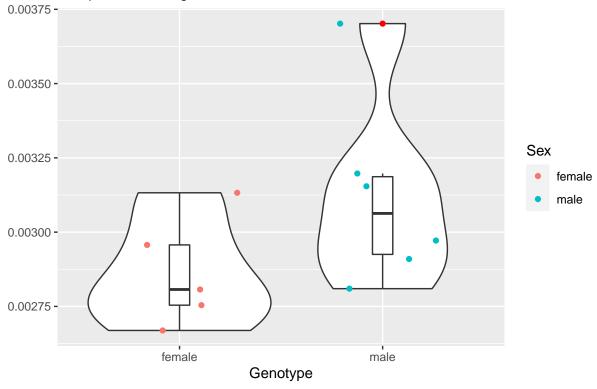
```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 4.900e-10 4.910e-10 0.047 0.833
## Residuals 9 9.385e-08 1.043e-08
```

#"' $\{r PnRt, echo = FALSE\} \#ggplot(data = apoe2, aes(factor(Sex), PnRt)) + \# geom\_violin() + \# geom\_boxplot(width = 0.1, outlier.color = "red") + # geom_jitter(height = 0, width = 0.3) + # labs(x = "Genotype", # y = "", # title = "Pontine Reticular Nucleus", # subtitle = "Red points denoting outliers")$ 

#res.aov <- aov(PnRt ~ Sex, data = apoe2) #summary(res.aov) #"

## Spinal Trigeminal Nucleus

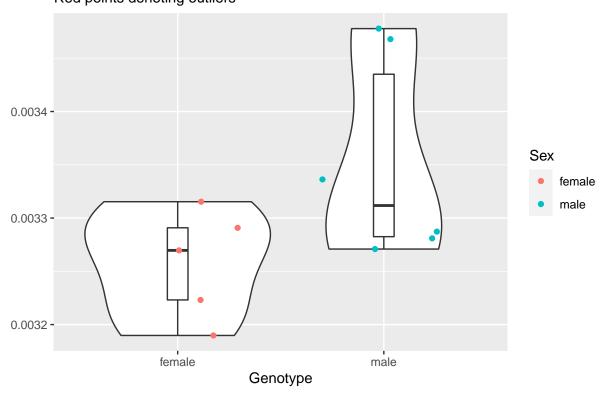




## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.846e-07 1.846e-07 2.587 0.142

**##** Residuals 9 6.422e-07 7.136e-08

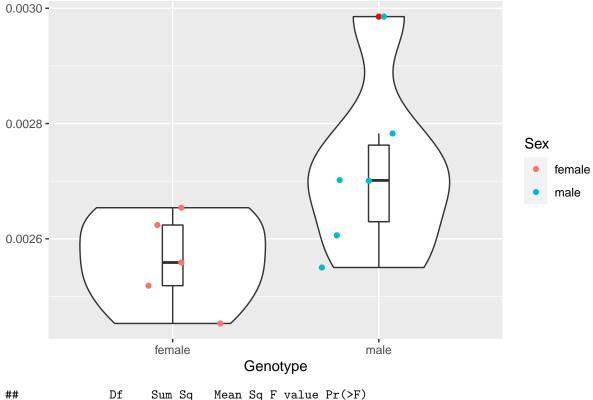
#### Vestibular Nuclei Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.501e-08 2.501e-08 4.043 0.0753 .
## Residuals 9 5.568e-08 6.187e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

#### Gigantocellular Reticular Nucleus

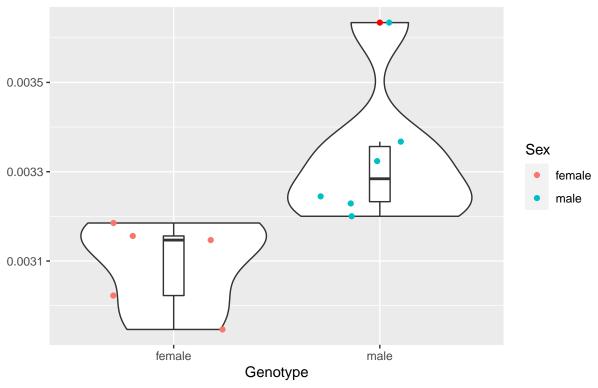
#### Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 6.934e-08 6.934e-08 4.365 0.0663 .
## Residuals 9 1.430e-07 1.588e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

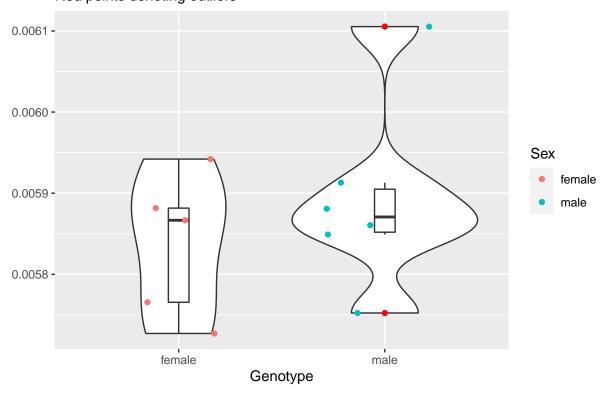
#### **Cuneate Nucleus**

#### Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.593e-07 1.593e-07 8.441 0.0174 *
## Residuals 9 1.698e-07 1.887e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

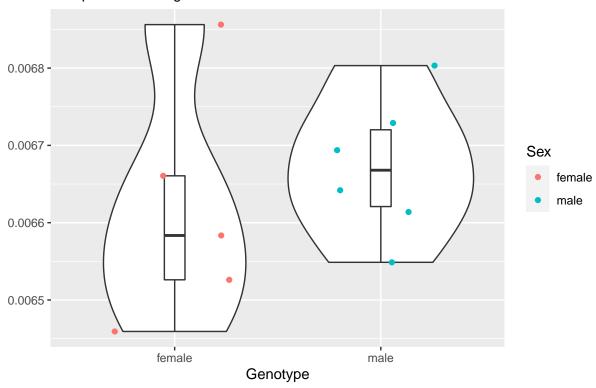
#### Anterior Commisure Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 8.840e-09 8.837e-09 0.8 0.394

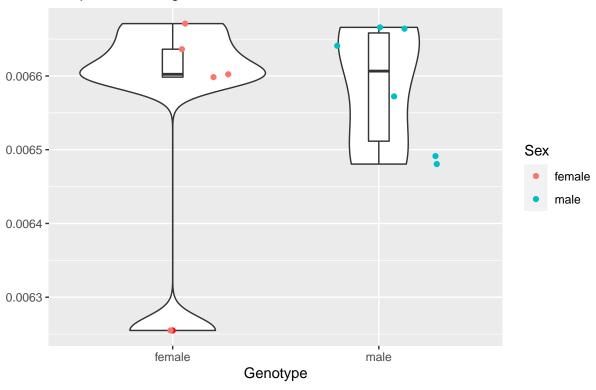
## Residuals 9 9.945e-08 1.105e-08

**Optic Tracts** Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## ## Sex 1 8.130e-09 8.134e-09 0.547 0.478 ## Residuals 9 1.338e-07 1.487e-08

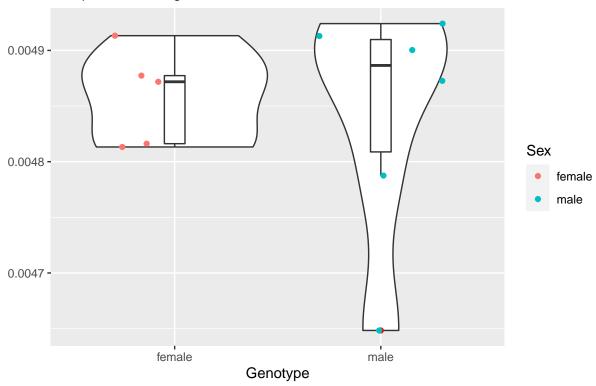
Fimbria Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## 1 3.02e-09 3.020e-09 0.181 0.68 ## Sex ## Residuals 9 1.50e-07 1.667e-08

## Corpus Callosum

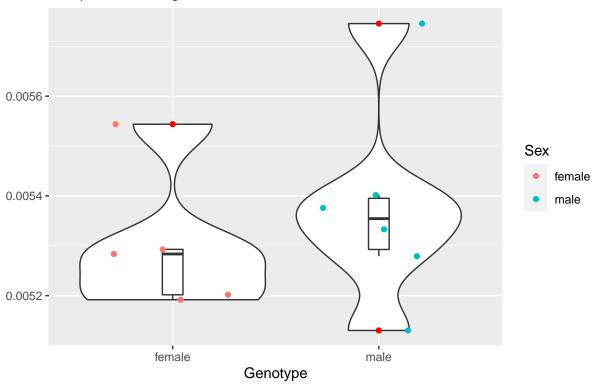
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 8.200e-10 8.240e-10 0.116 0.741

**##** Residuals 9 6.395e-08 7.105e-09

Fornix
Red points denoting outliers

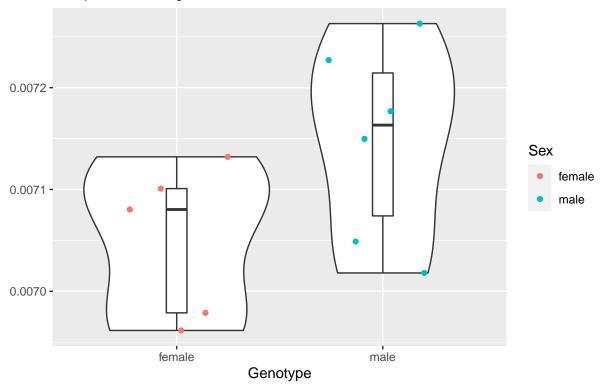


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.527e-08 1.527e-08 0.474 0.509

## Residuals 9 2.900e-07 3.222e-08

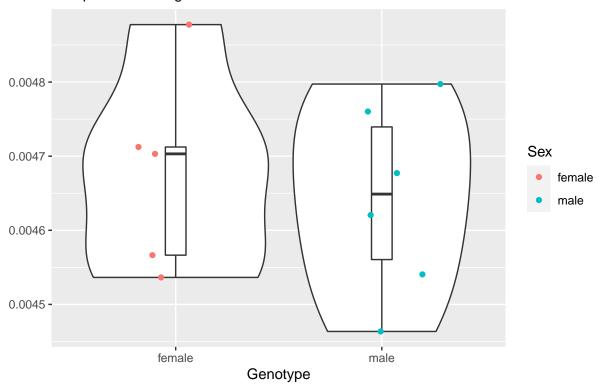
#### Stria Terminalis

#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.540e-08 2.540e-08 3.257 0.105
## Residuals 9 7.017e-08 7.797e-09

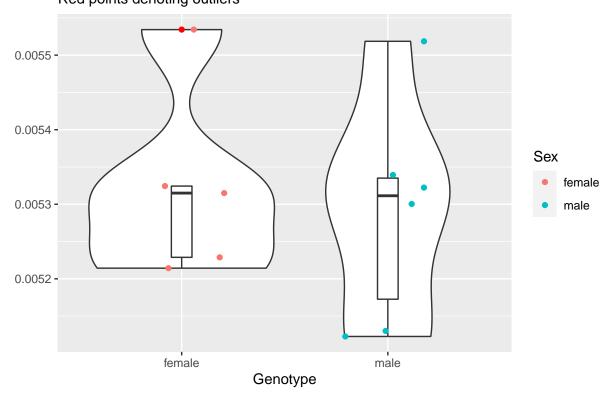
Cingulum
Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.530e-09 3.530e-09 0.204 0.663

## Residuals 9 1.561e-07 1.734e-08

## Lateral Olfactory Tract Red points denoting outliers

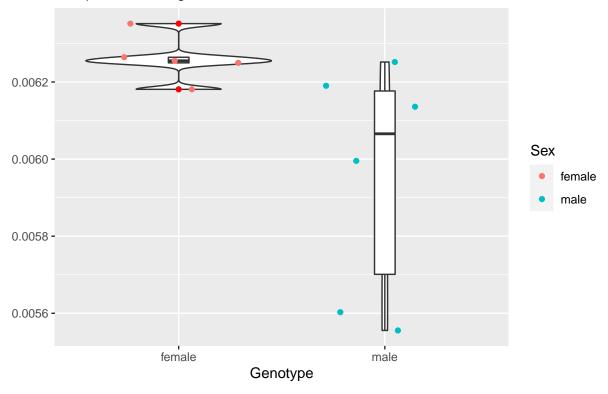


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.240e-09 3.236e-09 0.167 0.693

## Residuals 9 1.748e-07 1.942e-08

### Ventral Hippocampal Commissure

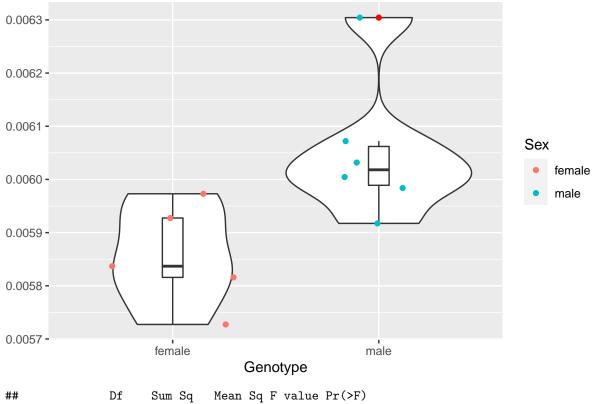
#### Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.538e-07 2.538e-07 4.794 0.0563 .
## Residuals 9 4.764e-07 5.293e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

### Internal Capsule

#### Red points denoting outliers



```
## Sex 1 1.050e-07 1.050e-07 7.45 0.0232 *

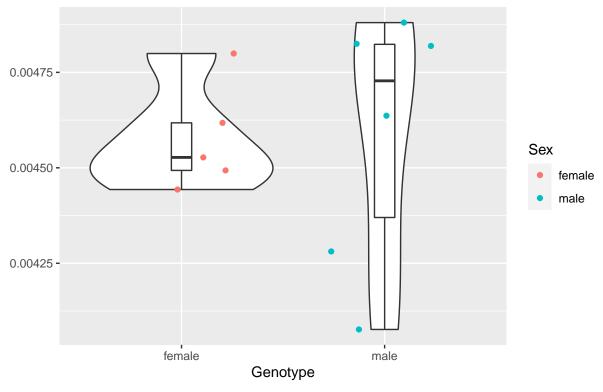
## Residuals 9 1.268e-07 1.409e-08

## ---

## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

#### Fasciculus Retroflexus

#### Red points denoting outliers

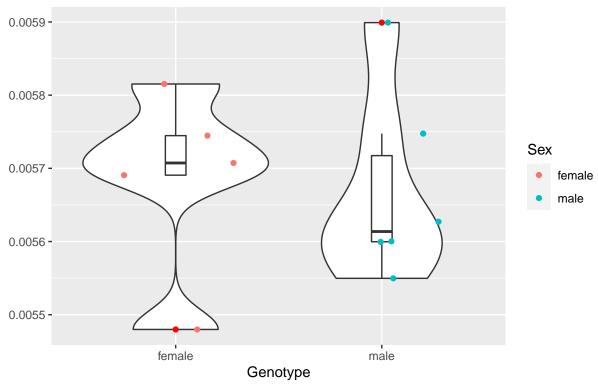


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 3.000e-10 2.900e-10 0.004 0.95

**##** Residuals 9 6.316e-07 7.018e-08

# Stria Medularis

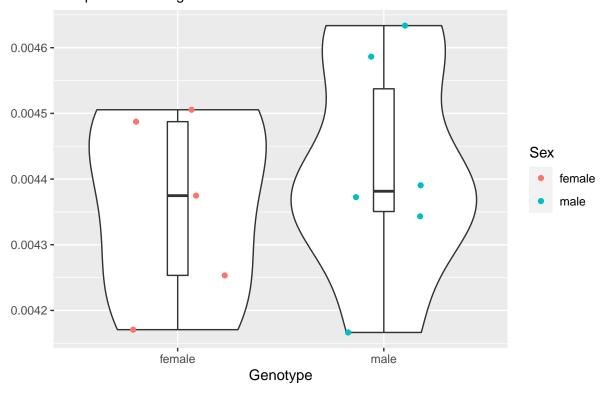
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 7.900e-10 7.920e-10 0.048 0.831

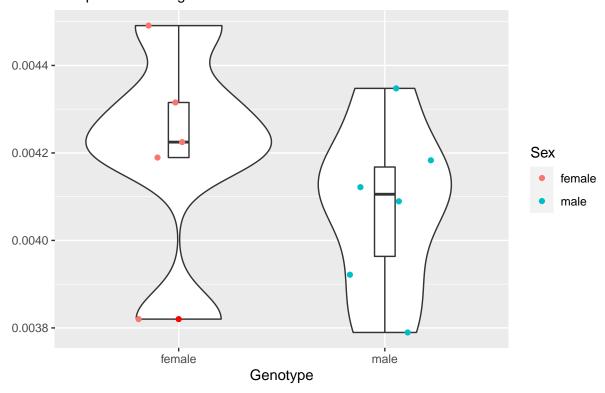
**##** Residuals 9 1.478e-07 1.642e-08

# **Mammillothalamic Tract** Red points denoting outliers



Mean Sq F value Pr(>F) ## Sum Sq 1 8.900e-09 8.896e-09 0.346 0.571 ## Sex ## Residuals 9 2.313e-07 2.570e-08

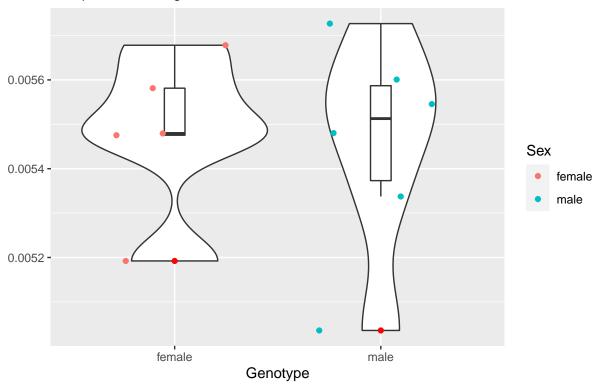
# Posterior Commissure Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## 1 4.80e-08 4.796e-08 0.99 0.346 ## Sex ## Residuals 9 4.36e-07 4.845e-08

# Brachium of Superior Colliculus

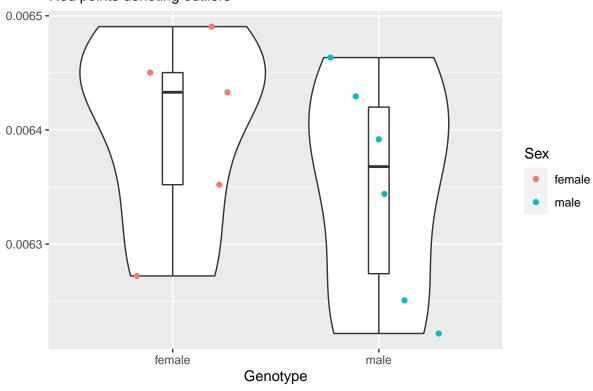
### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.000e-09 1.980e-09 0.042 0.843

**##** Residuals 9 4.261e-07 4.734e-08

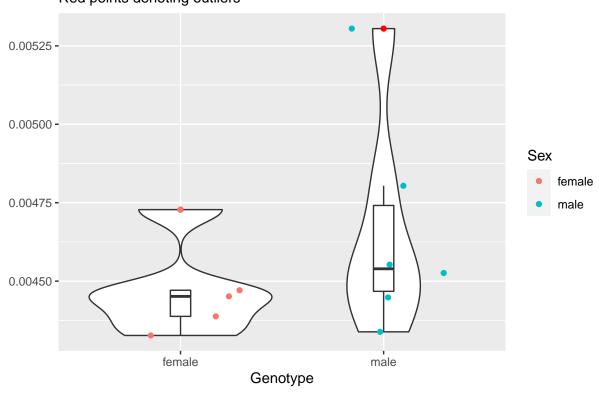
# Cerebral Peduncle Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 6.660e-09 6.655e-09 0.771 0.403

## Residuals 9 7.769e-08 8.632e-09

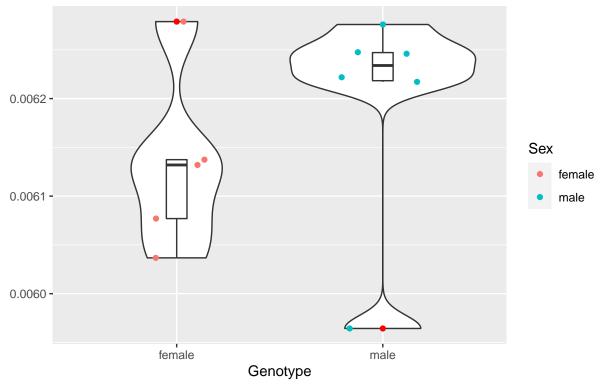
# Lateral Lemniscus Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 9.780e-08 9.783e-08 1.242 0.294

## Residuals 9 7.088e-07 7.875e-08

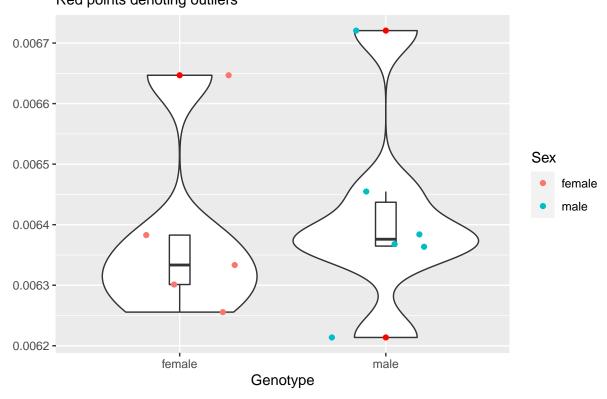
# Spinal Trigeminal Nerve Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.085e-08 1.085e-08 0.976 0.349

## Residuals 9 1.000e-07 1.112e-08

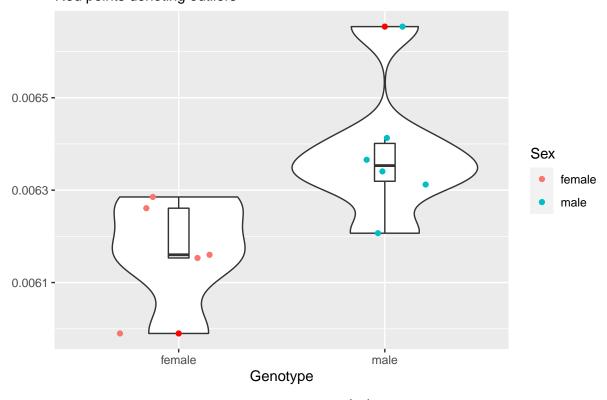
# Pyramidal Tract Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 3.050e-09 3.054e-09 0.116 0.741

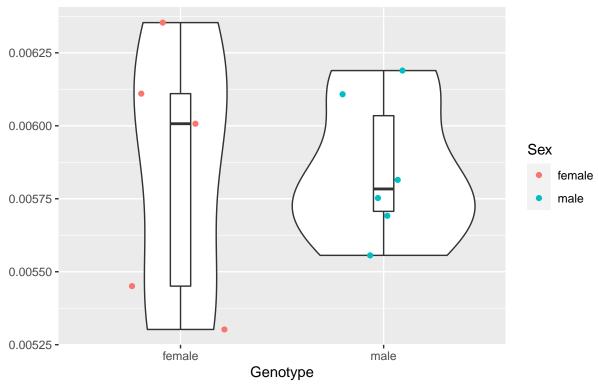
## Residuals 9 2.362e-07 2.625e-08

### Vestibulocochlear Nerve Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.228e-07 1.228e-07 6.621 0.03 *
## Residuals 9 1.669e-07 1.854e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

Facial Nerve Red points denoting outliers

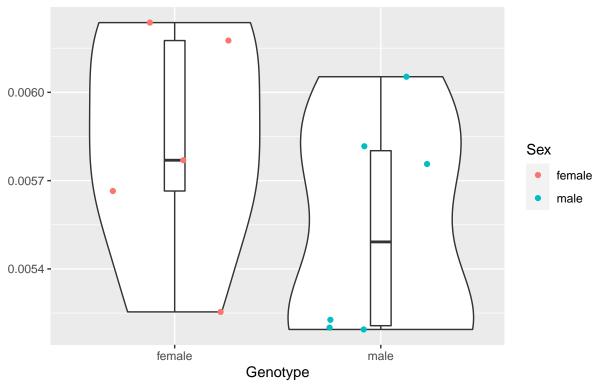


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.000e-10 1.400e-10 0.001 0.973

## Residuals 9 1.109e-06 1.232e-07

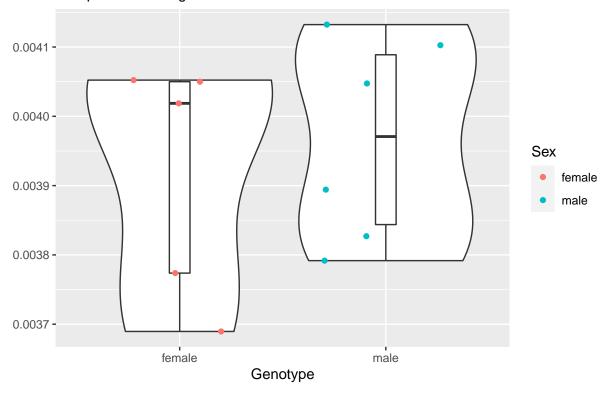
# Longitudinal Fasciculus of Pons

#### Red points denoting outliers



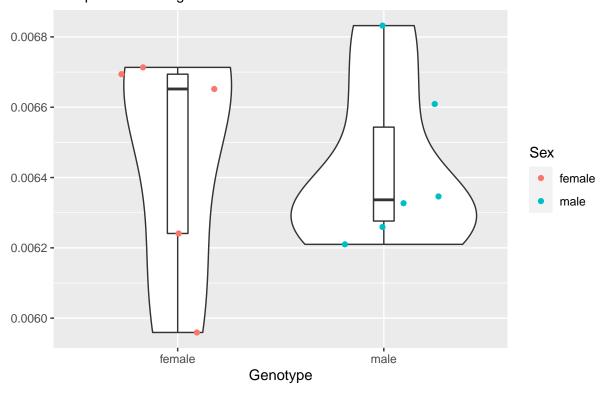
Mean Sq F value Pr(>F) ## Sum Sq 1 2.120e-07 2.120e-07 1.396 0.268 ## Sex ## Residuals 9 1.367e-06 1.519e-07

# Medial Longitudinal Fasciculus and Tectospinal Tract Red points denoting outliers



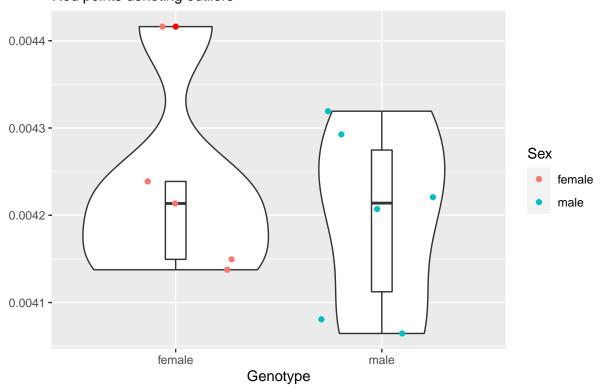
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 6.560e-09 6.556e-09 0.261 0.622
## Residuals 9 2.264e-07 2.516e-08

# Spinocerebellar Tract Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## ## Sex 1 1.200e-09 1.230e-09 0.015 0.905 9 7.432e-07 8.258e-08 ## Residuals

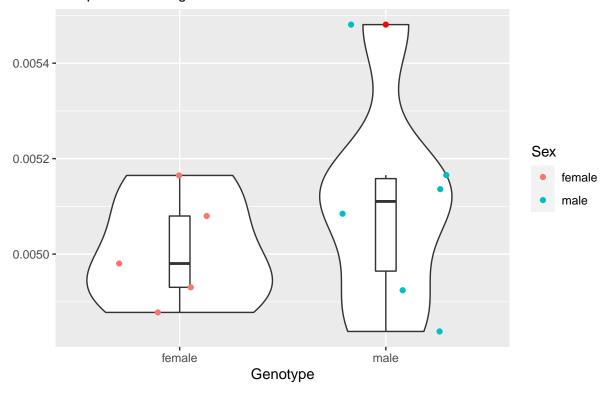
# Medial Lemniscus Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 3.080e-09 3.077e-09 0.262 0.621

**##** Residuals 9 1.058e-07 1.176e-08

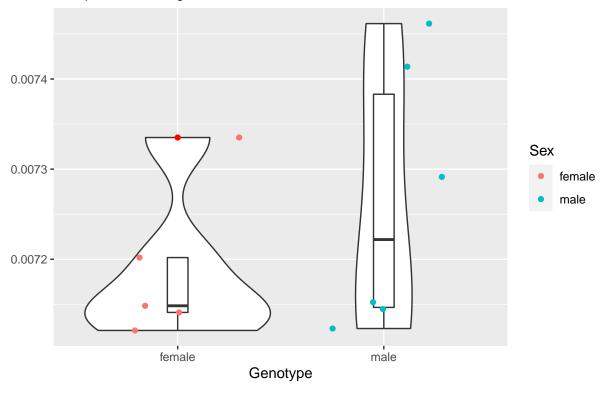
# Ventral Spinocerebellar Tract Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.633e-08 2.633e-08 0.78 0.4
## Residuals 9 3.038e-07 3.376e-08

#### Middle Cerebellar Peduncle

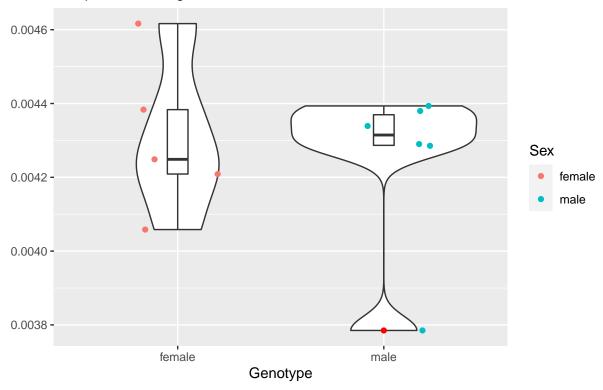
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.533e-08 1.533e-08 0.994 0.345
## Residuals 9 1.387e-07 1.541e-08

# Superior Cerebellar Peduncle

### Red points denoting outliers

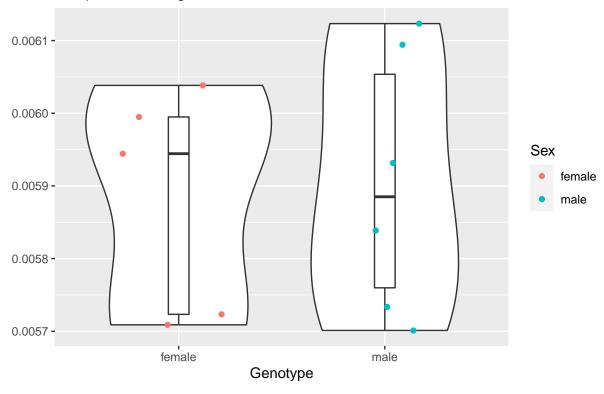


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 9.100e-09 9.090e-09 0.186 0.677

**##** Residuals 9 4.407e-07 4.897e-08

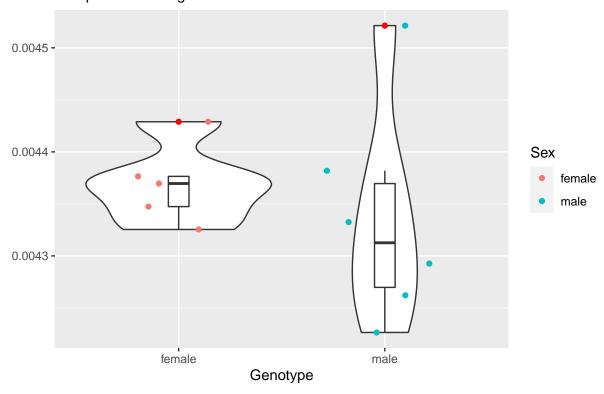
# Inferior Cerebellar Peduncle

#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.300e-09 1.295e-09 0.046 0.836
## Residuals 9 2.558e-07 2.843e-08

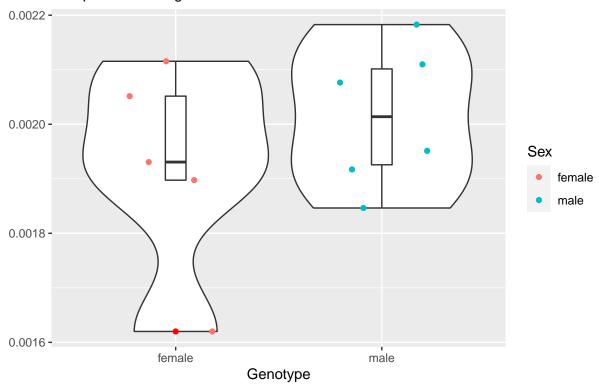
# Cerebellar White Matter Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.040e-09 3.044e-09 0.443 0.522

## Residuals 9 6.185e-08 6.873e-09

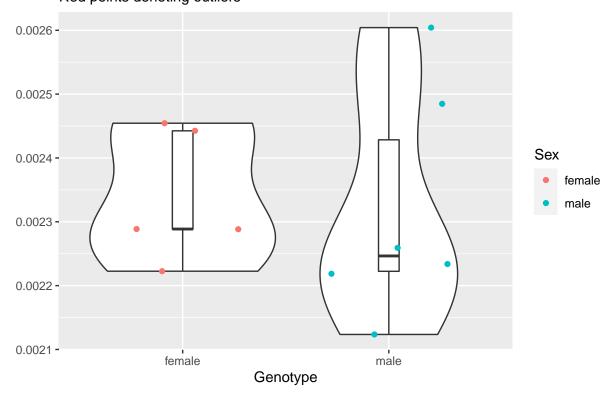
Lateral Ventricle Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.256e-08 2.256e-08 0.886 0.371

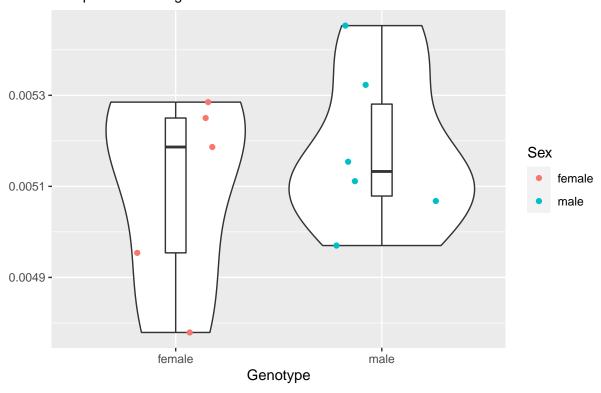
**##** Residuals 9 2.291e-07 2.545e-08

# Cingulate Cortex Area 25 Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 9.500e-10 9.460e-10 0.04 0.845
## Residuals 9 2.106e-07 2.341e-08

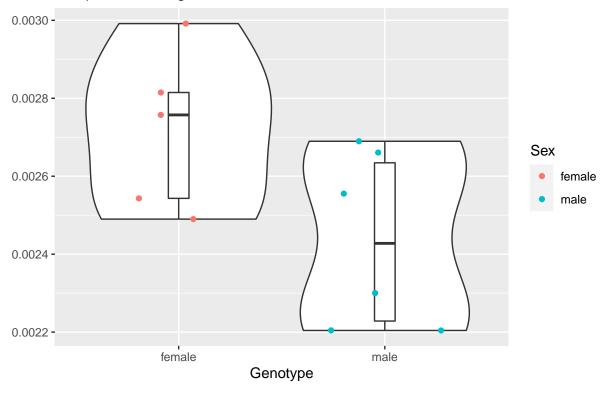
# **Dorsal Acustic Stria** Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## ## Sex 1 2.160e-08 2.159e-08 0.563 0.472 9 3.453e-07 3.837e-08 ## Residuals

### Postsubiculum

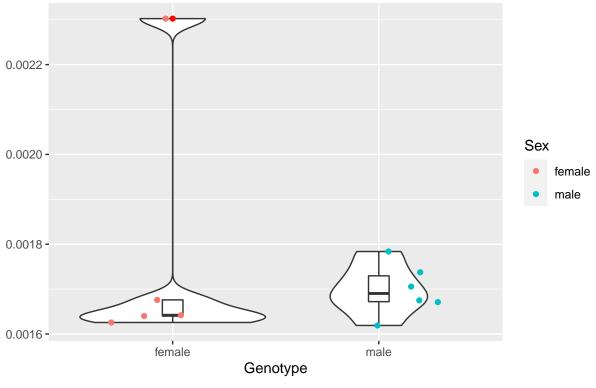
#### Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.193e-07 2.193e-07 4.665 0.0591 .
## Residuals 9 4.232e-07 4.702e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

# Ventricular System 4th Ventricle

### Red points denoting outliers

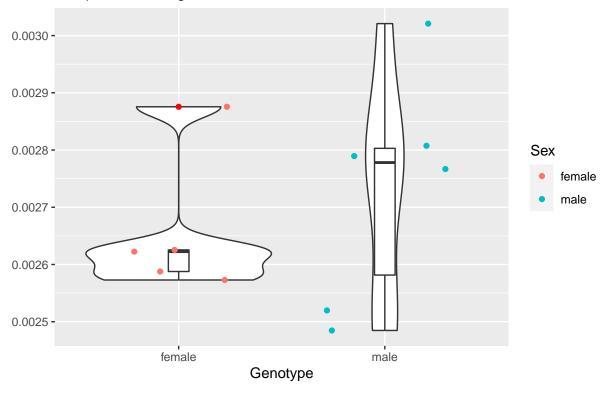


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.680e-08 1.681e-08 0.417 0.534

## Residuals 9 3.627e-07 4.030e-08

# Microcellular Tegmental Nucleus

### Red points denoting outliers

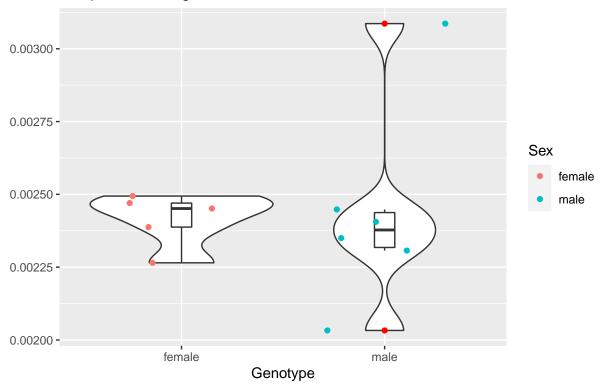


Mean Sq F value Pr(>F) ## Sum Sq 1 1.521e-08 1.522e-08 0.523 0.488 ## Sex

## Residuals 9 2.618e-07 2.908e-08

#### **Pretectal Nucleus**

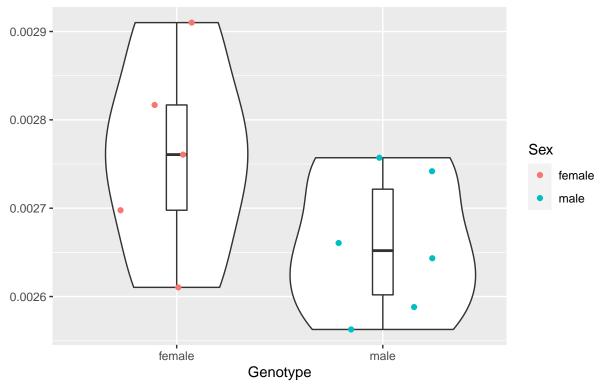
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.700e-09 1.650e-09 0.023 0.883

**##** Residuals 9 6.447e-07 7.164e-08

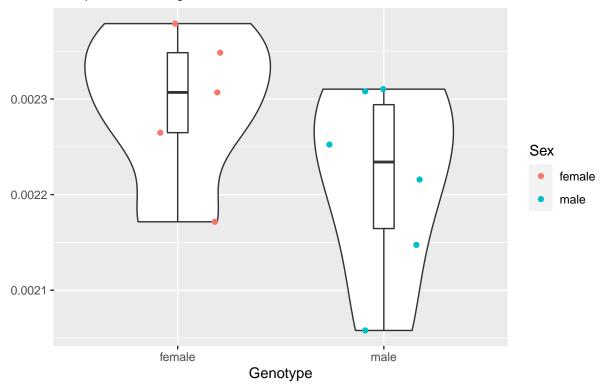
# Latero Dorsal Thalamic Nucleus Ventro Lateral Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.738e-08 2.738e-08 2.967 0.119
## Residuals 9 8.304e-08 9.227e-09

#### Latero Posterior Nuclei of Thalamus

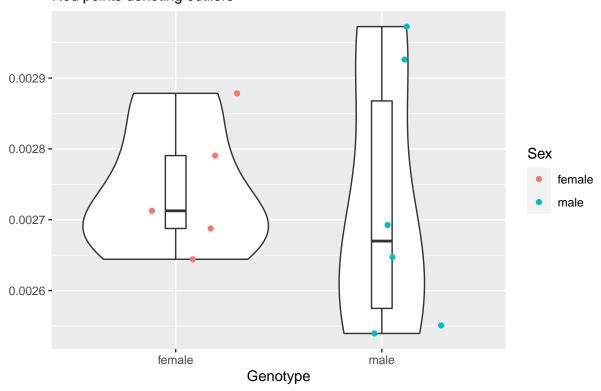
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.695e-08 1.695e-08 2.046 0.186

**##** Residuals 9 7.456e-08 8.285e-09

# Anterior Thalamic Nuclei Red points denoting outliers

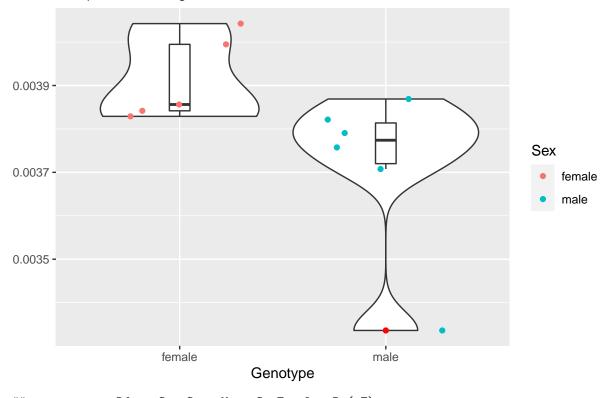


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.230e-09 1.231e-09 0.053 0.823

**##** Residuals 9 2.079e-07 2.310e-08

# Red Nucleus Magnocellular

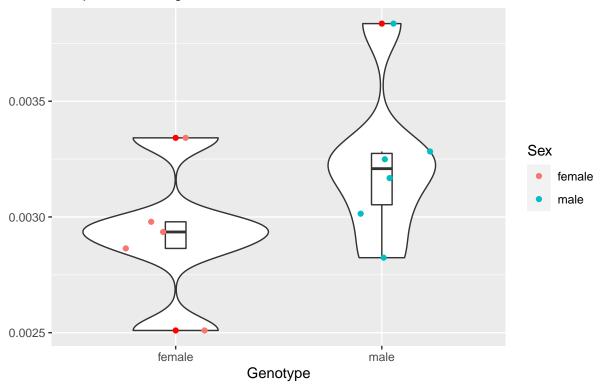
### Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.082e-07 1.082e-07 4.327 0.0672 .
## Residuals 9 2.251e-07 2.501e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

#### Pararubral Nucleus

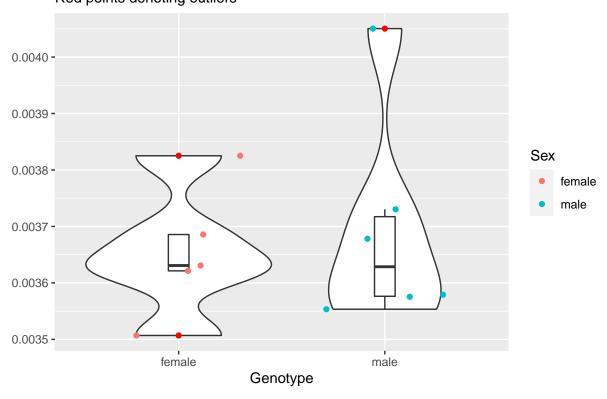
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.504e-07 2.504e-07 2.404 0.155

## Residuals 9 9.378e-07 1.042e-07

# Retro Rubral Fluid Red points denoting outliers

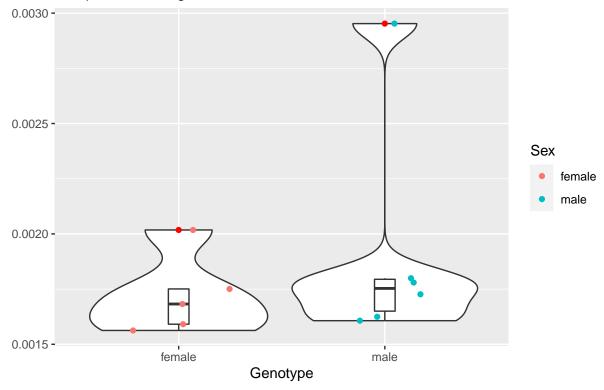


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 4.460e-09 4.465e-09 0.175 0.685

**##** Residuals 9 2.292e-07 2.546e-08

# Cerebrospinal Fluid

### Red points denoting outliers

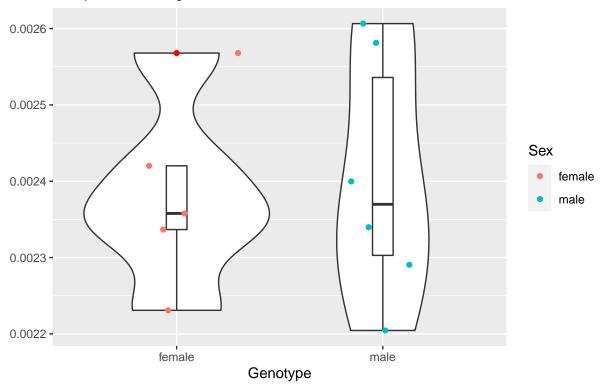


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.027e-07 1.027e-07 0.635 0.446

## Residuals 9 1.455e-06 1.617e-07

#### Intermediate Reticular Nucleus

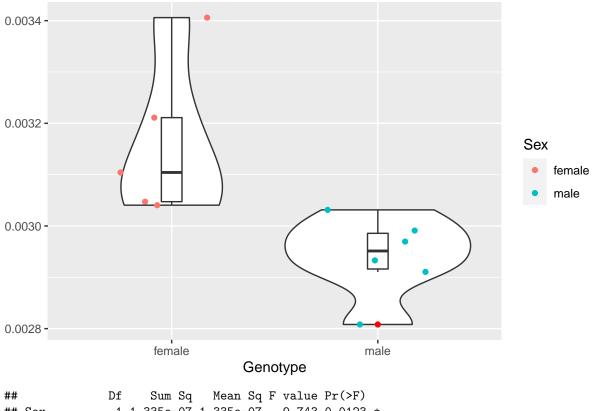
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.210e-09 1.208e-09 0.057 0.817

## Residuals 9 1.908e-07 2.120e-08

# Posterior Dorsal Paraventricular Medial Parvicellular Posterior Lateral Hy Red points denoting outliers



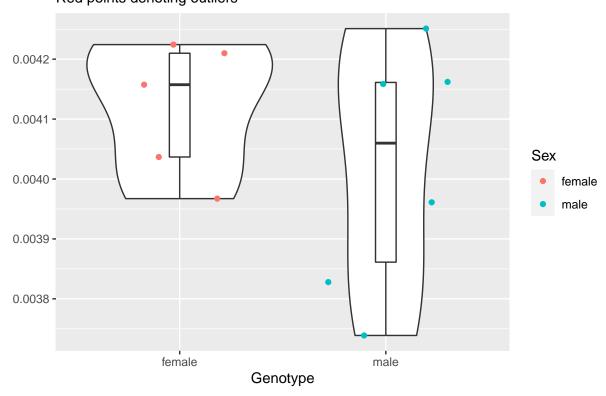
```
## Sex 1 1.335e-07 1.335e-07 9.743 0.0123 *

## Residuals 9 1.233e-07 1.370e-08

## ---

## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

# Prerubral Forel Red points denoting outliers

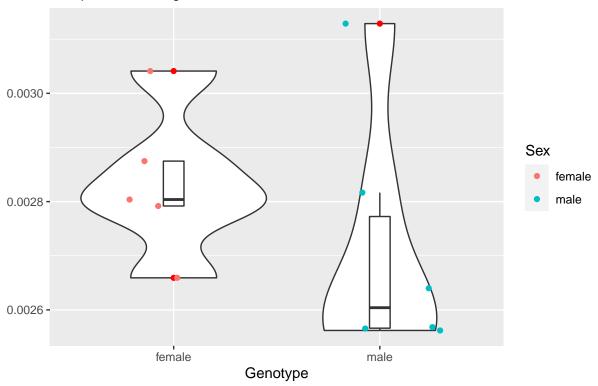


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.867e-08 2.867e-08 0.982 0.348

## Residuals 9 2.627e-07 2.919e-08

# PVG of Hypothalamus

#### Red points denoting outliers

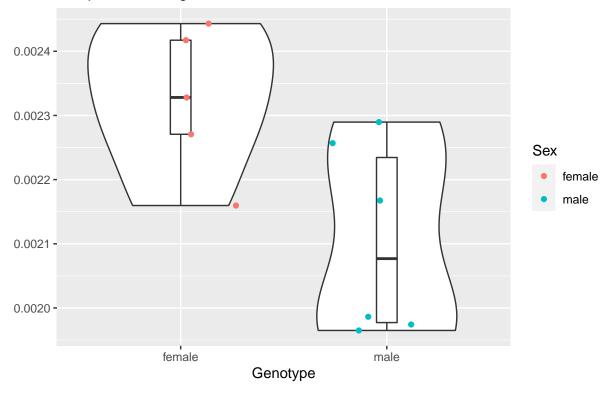


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.970e-08 3.971e-08 1.076 0.327

**##** Residuals 9 3.323e-07 3.692e-08

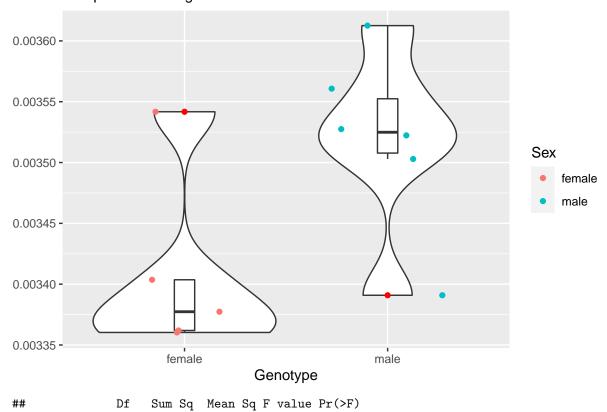
# Basal Lateral Amygdala

#### Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.287e-07 1.287e-07 7.034 0.0264 *
## Residuals 9 1.646e-07 1.829e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

#### Brain Stem Rest Red points denoting outliers



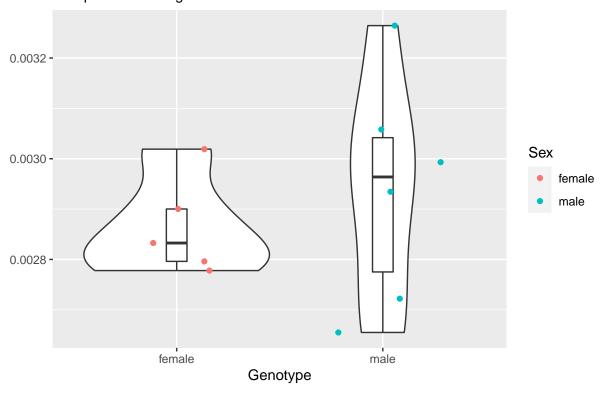
```
## Sex 1 3.33e-08 3.33e-08 5.936 0.0376 *

## Residuals 9 5.05e-08 5.61e-09

## ---

## Signif. codes: 0 '*** 0.001 '** 0.05 '.' 0.1 ' ' 1
```

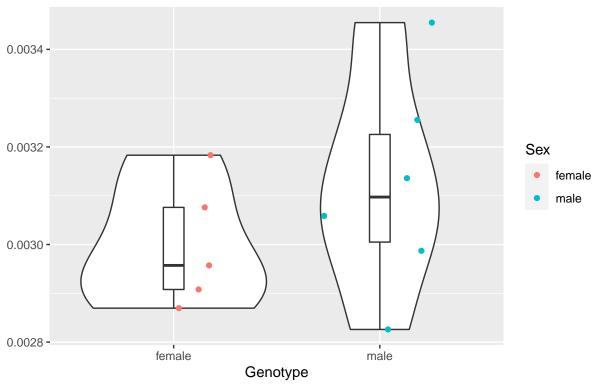
### Precuneiform Nucleus Red points denoting outliers



## Sex 1 1.440e-08 1.44e-08 0.449 0.52 ## Residuals 9 2.889e-07 3.21e-08

### **Cuneiform Nucleus**

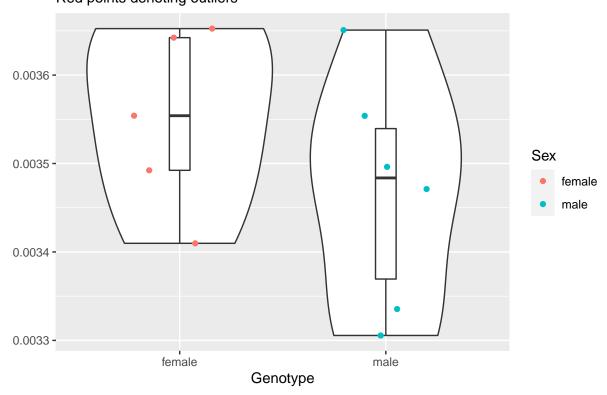
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.986e-08 3.986e-08 1.175 0.307

**##** Residuals 9 3.053e-07 3.393e-08

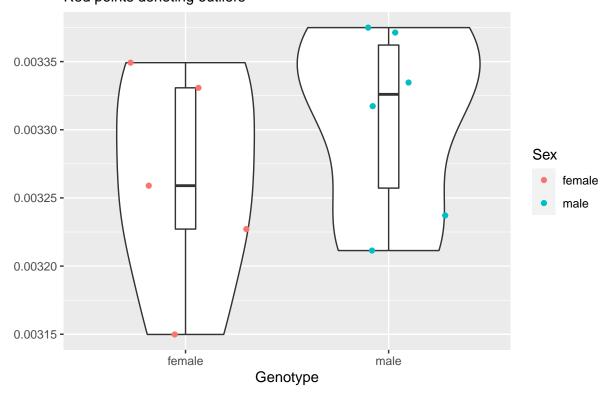
# Midbrain Linear Nucleus Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.804e-08 1.804e-08 1.272 0.289

**##** Residuals 9 1.276e-07 1.418e-08

# Midbrain Reticular Nucleus Red points denoting outliers

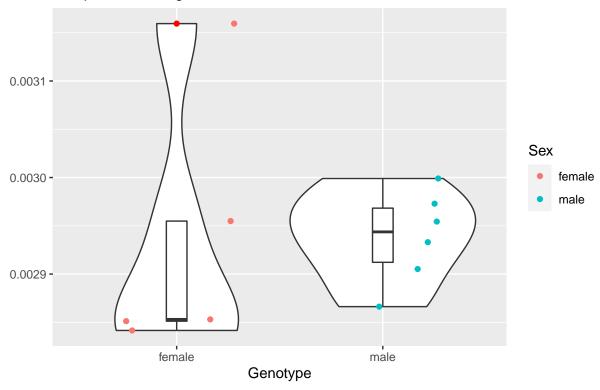


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 5.420e-09 5.425e-09 0.981 0.348

## Residuals 9 4.977e-08 5.530e-09

#### Red Nucleus Parvicellular

#### Red points denoting outliers

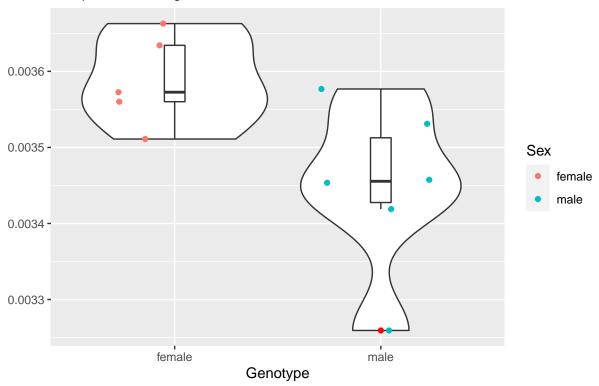


81

## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.100e-10 1.130e-10 0.012 0.915
## Residuals 9 8.462e-08 9.403e-09

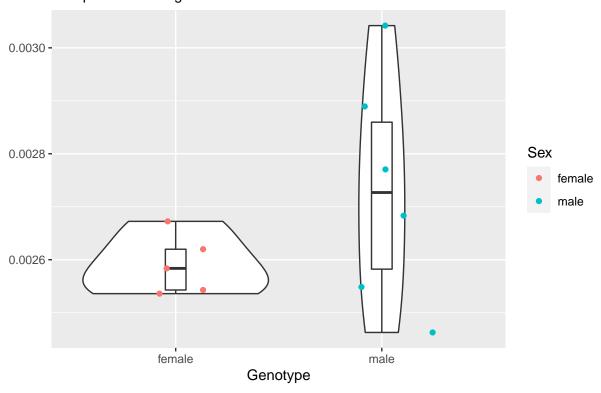
### Substania Nigra

#### Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 5.241e-08 5.241e-08 6.314 0.0332 *
## Residuals 9 7.471e-08 8.300e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

# Inferior Colliculus Red points denoting outliers

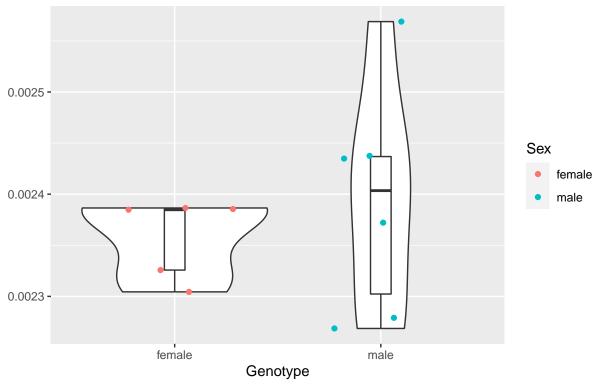


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 5.482e-08 5.482e-08 2.024 0.189

**##** Residuals 9 2.438e-07 2.708e-08

# Superior Colliculus

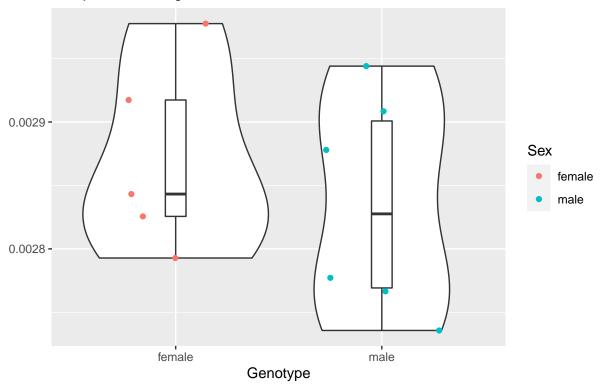
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 3.560e-09 3.556e-09 0.459 0.515
## Residuals 9 6.976e-08 7.751e-09

# Deep Mesencephalic Nuclei

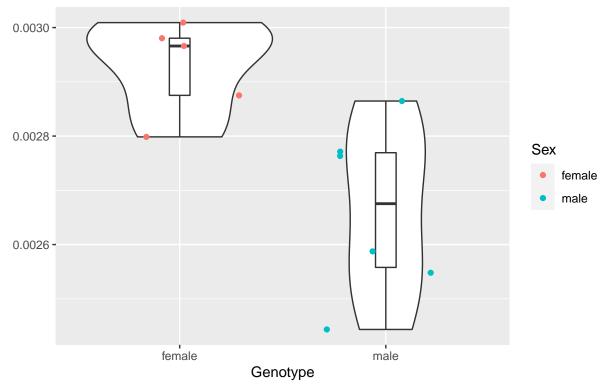
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.600e-09 3.597e-09 0.544 0.479

**##** Residuals 9 5.947e-08 6.608e-09

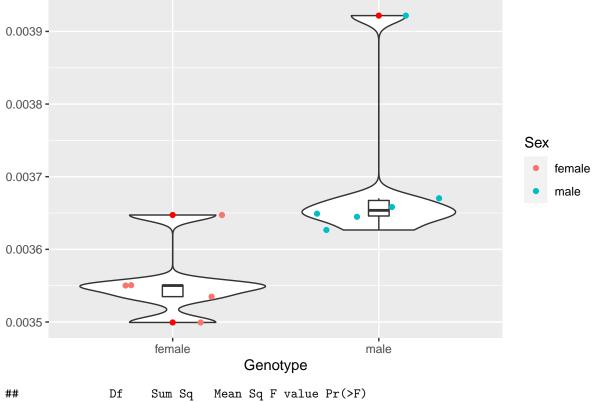
# Subbrachial Nucleus and Peripeduncular Nucleus Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.883e-07 1.883e-07 10.6 0.0099 **
## Residuals 9 1.599e-07 1.776e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

#### Reticular Nucleus of Thalamus

#### Red points denoting outliers



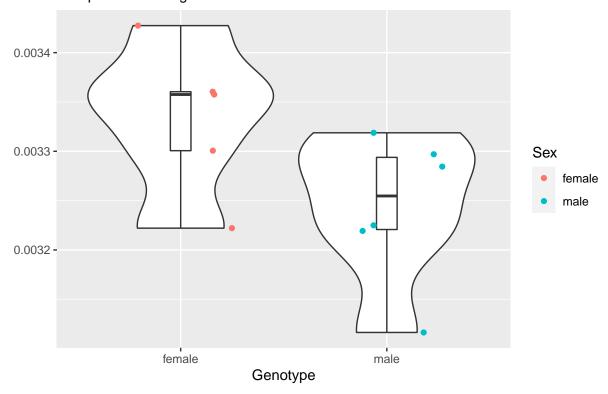
```
## Sex 1 5.246e-08 5.246e-08 6.318 0.0331 *

## Residuals 9 7.473e-08 8.300e-09

## ---

## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

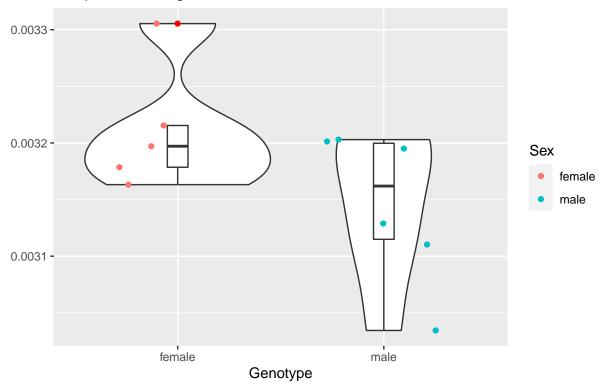
Zona Incerta Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.217e-08 2.217e-08 3.918 0.0791 .
## Residuals 9 5.092e-08 5.658e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

#### Lateral Geniculate Nucleus

#### Red points denoting outliers

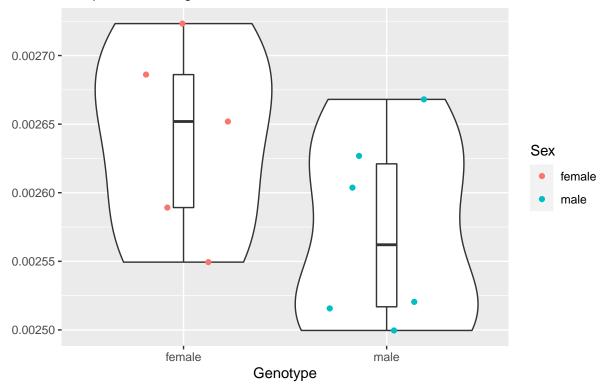


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.205e-08 1.205e-08 3.082 0.113

## Residuals 9 3.519e-08 3.910e-09

### Medial Geniculate Nucleus

#### Red points denoting outliers

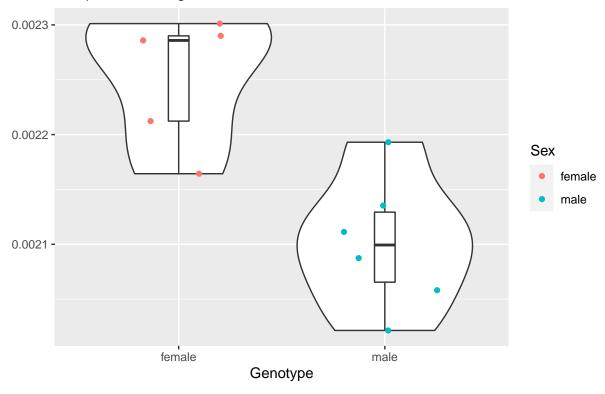


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.246e-08 1.246e-08 2.532 0.146

## Residuals 9 4.429e-08 4.922e-09

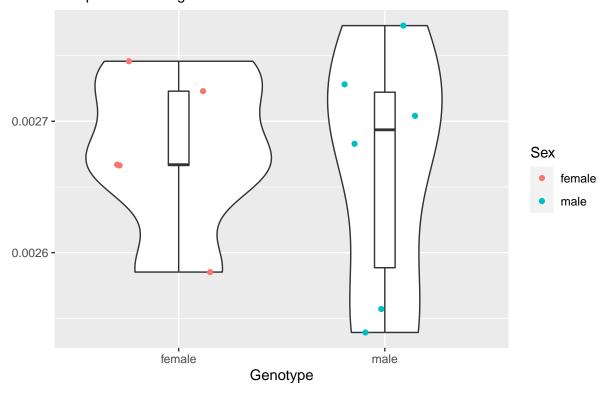
#### Latero Dorsal Nucleus of Thalamus

#### Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 6.107e-08 6.107e-08 16.98 0.0026 **
## Residuals 9 3.238e-08 3.600e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

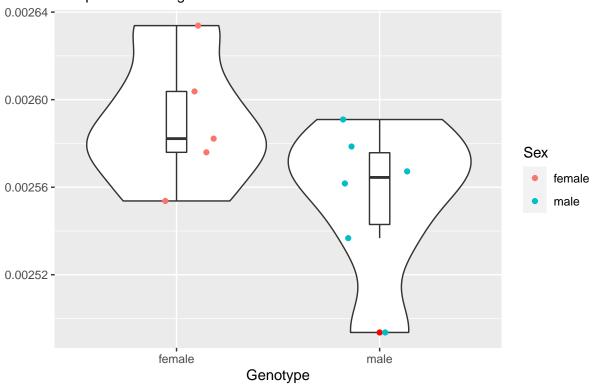
### Ventral Thalamic Nuclei Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 4.900e-10 4.890e-10 0.073 0.793

## Residuals 9 6.037e-08 6.708e-09

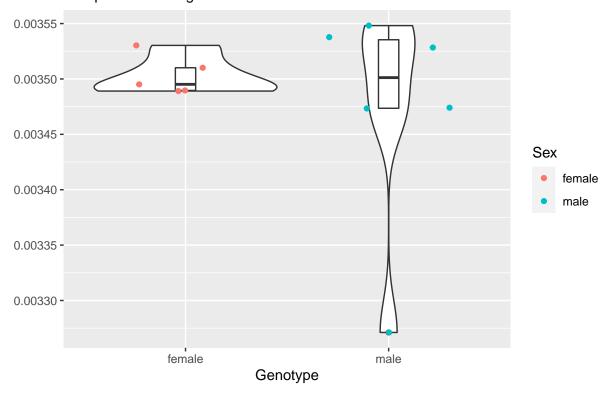
Thalamus Rest Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 3.358e-09 3.358e-09 3.075 0.113

## Residuals 9 9.829e-09 1.092e-09

### Ventral Tegmental Area Red points denoting outliers

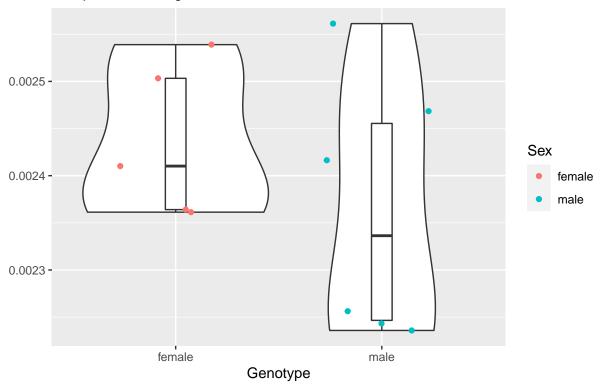


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.570e-09 2.573e-09 0.422 0.532

## Residuals 9 5.489e-08 6.098e-09

#### **Anterior Pretectal Nucleus**

#### Red points denoting outliers

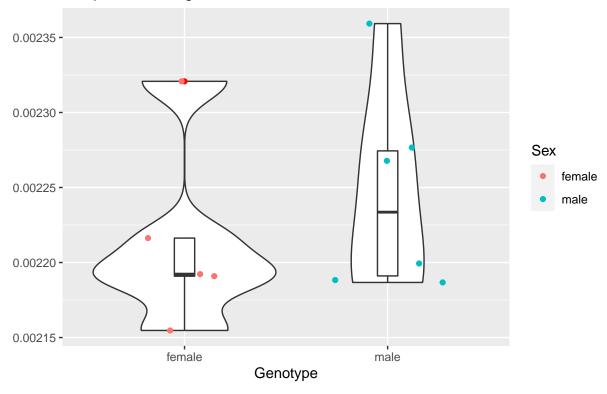


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.412e-08 1.412e-08 1.044 0.334

**##** Residuals 9 1.217e-07 1.353e-08

# Periaquaductal Grey

#### Red points denoting outliers

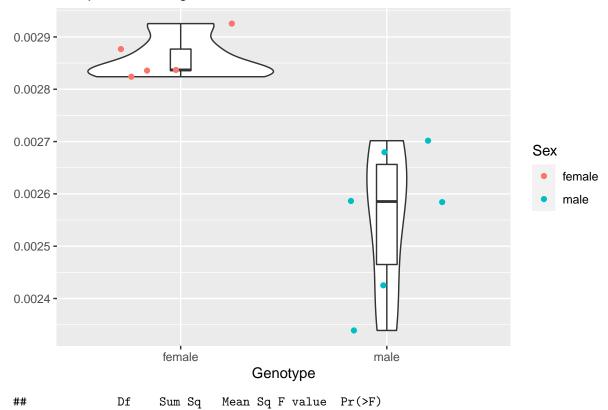


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.680e-09 2.681e-09 0.616 0.453

## Residuals 9 3.917e-08 4.352e-09

#### Ventral Pallidum

#### Red points denoting outliers



```
## Sex 1 2.571e-07 2.571e-07 21.16 0.00129 **

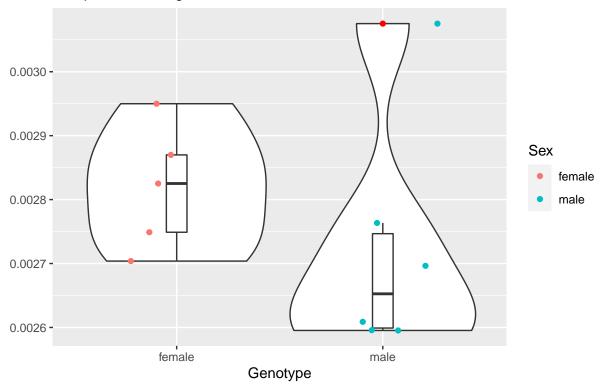
## Residuals 9 1.094e-07 1.215e-08

## ---

## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

#### Bed Nucleus of the Stria Terminalis

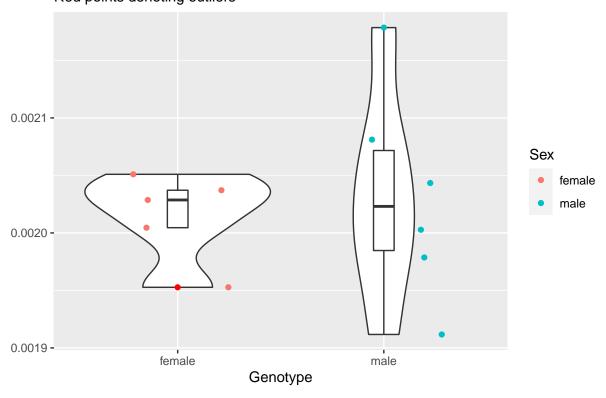
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.570e-08 2.570e-08 1.102 0.321

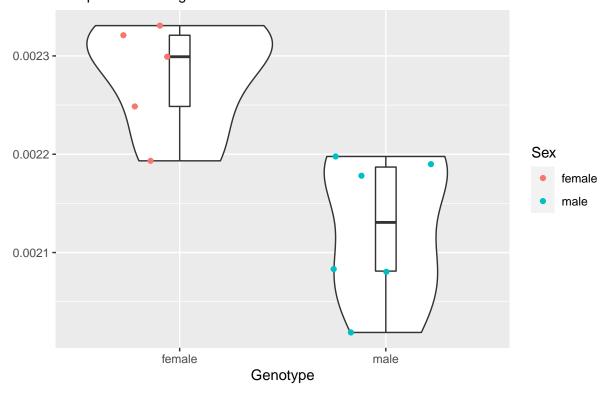
**##** Residuals 9 2.099e-07 2.333e-08

# Acumbens Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 8.700e-10 8.720e-10 0.163 0.696
## Residuals 9 4.814e-08 5.349e-09

Amygdala Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)

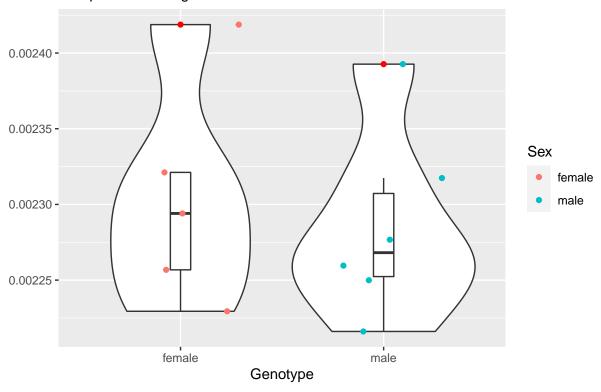
## Sex 1 6.462e-08 6.462e-08 14.37 0.00428 **

## Residuals 9 4.048e-08 4.500e-09

## ---

## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

Striatum
Red points denoting outliers

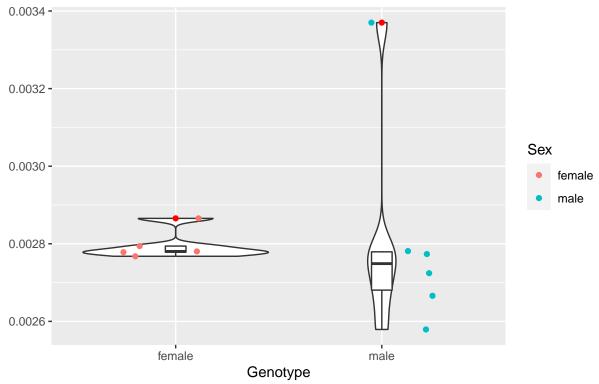


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 9.50e-10 9.480e-10 0.21 0.658

## Residuals 9 4.07e-08 4.522e-09

#### Globus Pallidus

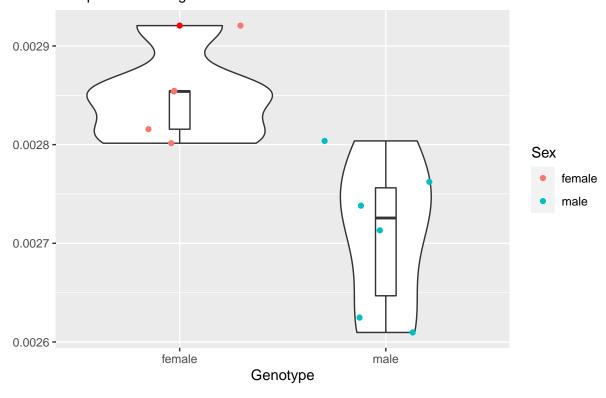
#### Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## 1 9.000e-10 9.30e-10 0.021 0.889 ## Sex

## Residuals 9 4.032e-07 4.48e-08

Septum Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)

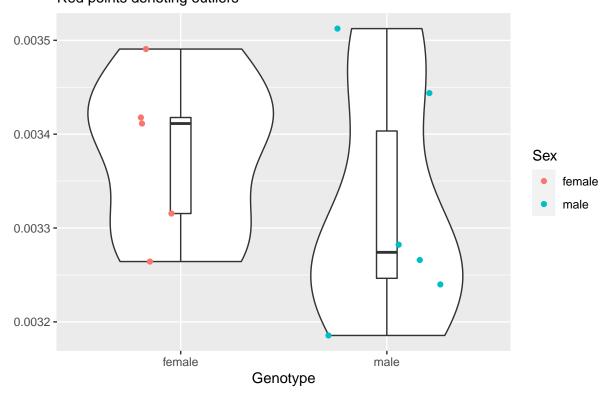
## Sex 1 5.394e-08 5.394e-08 12.7 0.00608 **

## Residuals 9 3.822e-08 4.250e-09

## ---

## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

#### Subthalamic Nucleus Red points denoting outliers



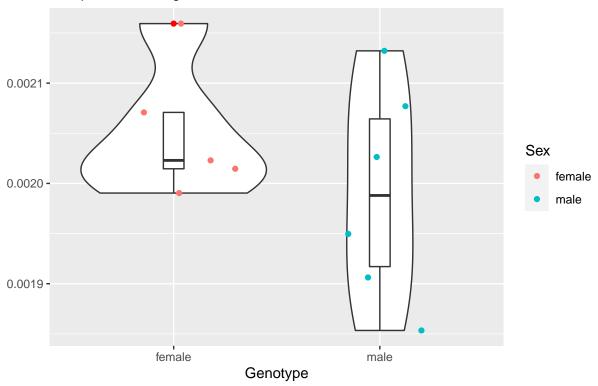
```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 9.260e-09 9.256e-09 0.734 0.414
## Residuals 9 1.134e-07 1.260e-08
```

#"' $\{r \text{ Preopt, echo} = \text{FALSE}\}\ \#\text{ggplot}(\text{data} = \text{apoe2, aes}(\text{factor}(\text{Sex}), \text{ Preopt})) + \#\text{geom\_violin}() + \#\text{geom\_boxplot}(\text{width} = 0.1, \text{ outlier.color} = \text{"red"}) + \#\text{geom\_jitter}(\text{height} = 0, \text{ width} = 0.3, \text{ aes}(\text{color} = \text{Sex})) + \#\text{labs}(x = \text{"Genotype"}, \#y = \text{""}, \#\text{title} = \text{"Preoptic Telencephalon"}, \#\text{subtitle} = \text{"Red points denoting outliers"})$ 

 $\#res.aov \leftarrow aov(Preopt \sim Sex, data = apoe2) \#summary(res.aov) #"`$ 

# Hypothalamus

#### Red points denoting outliers

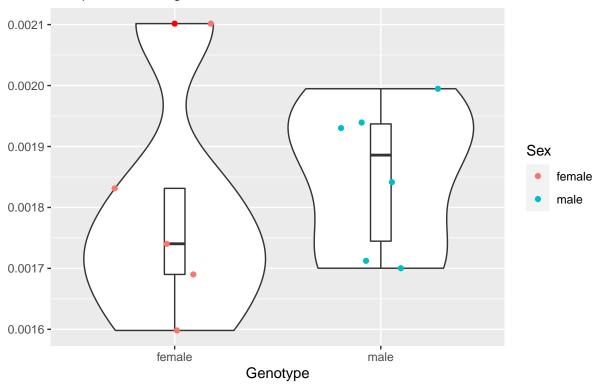


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.009e-08 1.009e-08 1.221 0.298

**##** Residuals 9 7.433e-08 8.258e-09

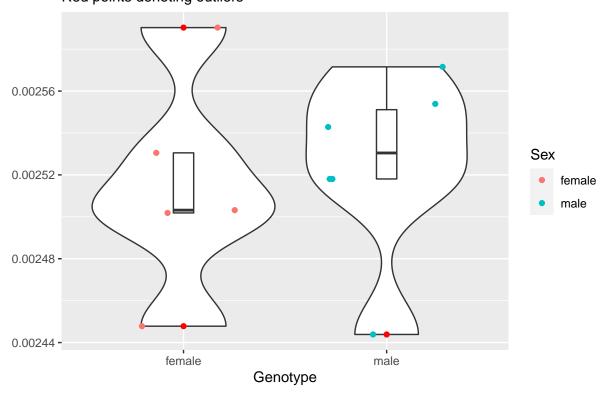
# Amygdalopiriform Transition Area

#### Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## 1 1.007e-08 1.007e-08 0.403 0.541 ## Sex ## Residuals 9 2.248e-07 2.498e-08

# Periform Cortex Red points denoting outliers

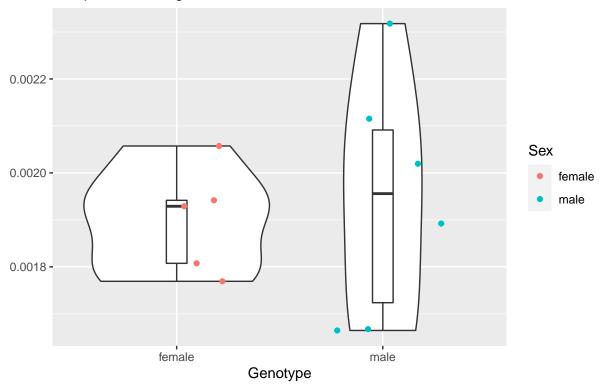


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.720e-10 2.718e-10 0.118 0.739

## Residuals 9 2.073e-08 2.303e-09

#### Presubiculum

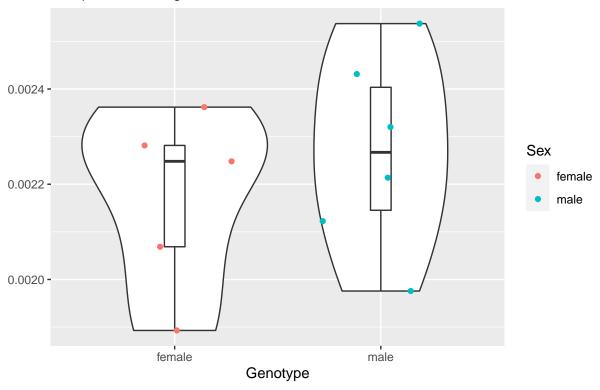
#### Red points denoting outliers



## Sex 1 5.60e-09 5.580e-09 0.13 0.726 ## Residuals 9 3.85e-07 4.278e-08

#### **Perirhinal Cortex**

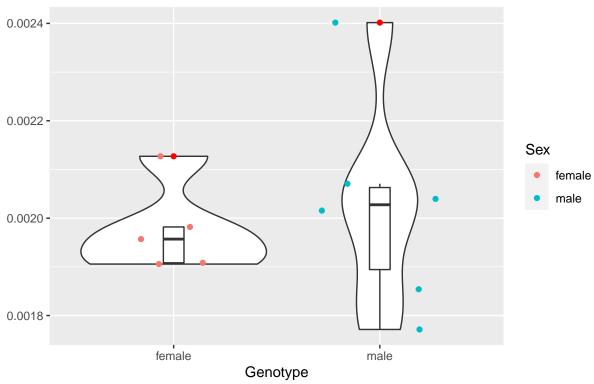
## Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## 1 2.520e-08 2.523e-08 0.642 0.444 ## Sex ## Residuals 9 3.539e-07 3.932e-08

## Parasubiculum

## Red points denoting outliers

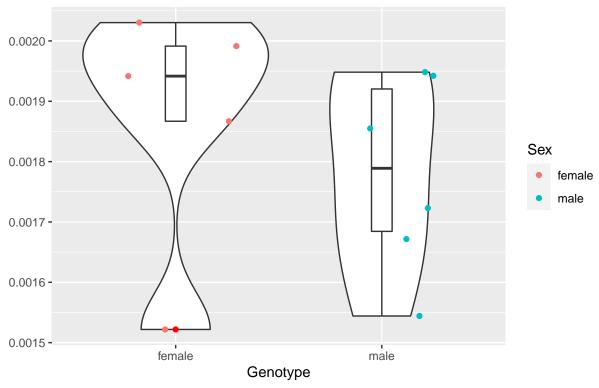


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 6.670e-09 6.671e-09 0.222 0.649

## Residuals 9 2.705e-07 3.005e-08

## **Ectorhinal Cortex**

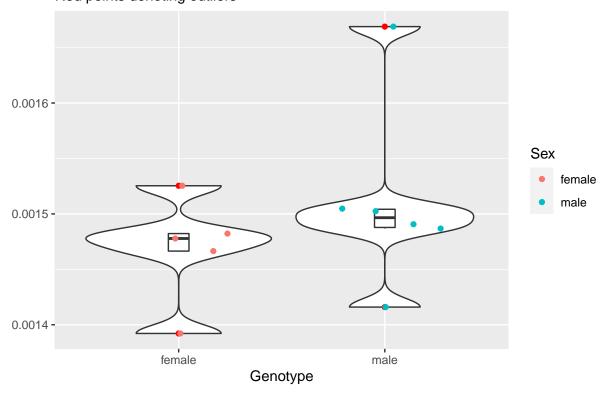
## Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.198e-08 2.198e-08 0.664 0.436

**##** Residuals 9 2.977e-07 3.308e-08

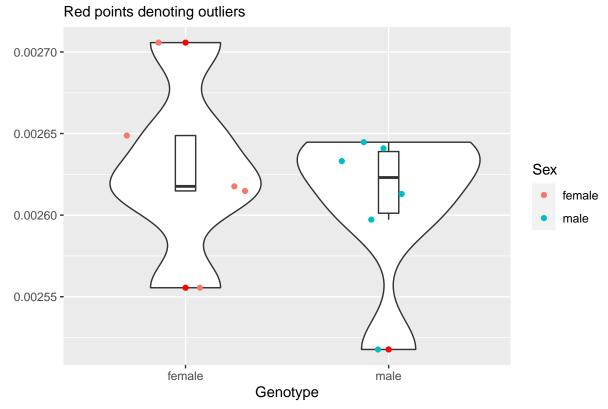
## Dorsal Tenia Tecta Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 4.990e-09 4.992e-09 1.012 0.341

**##** Residuals 9 4.442e-08 4.935e-09

## Hippocampus

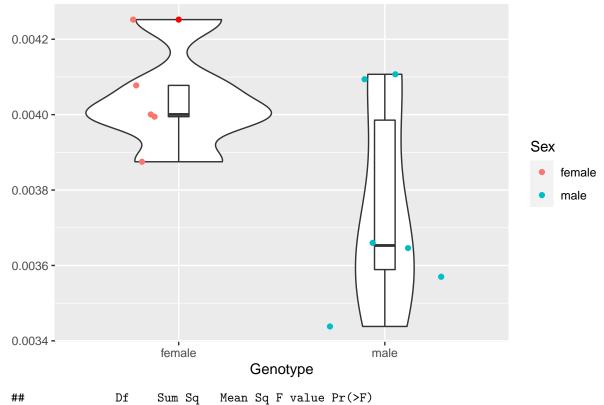


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.171e-09 1.171e-09 0.451 0.519

## Residuals 9 2.336e-08 2.596e-09

#### Ventral Claustrum

## Red points denoting outliers



```
## Sex 1 2.254e-07 2.254e-07 4.302 0.0679 .

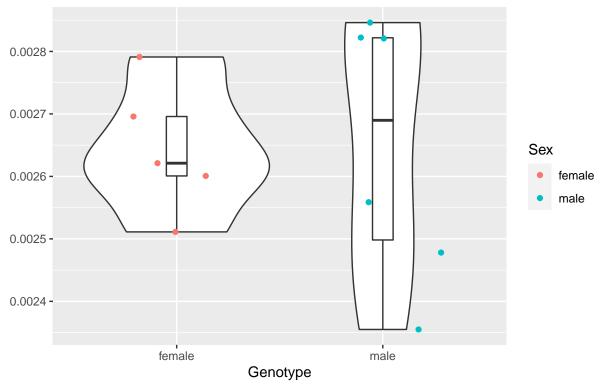
## Residuals 9 4.715e-07 5.238e-08

## ---

## Signif. codes: 0 '*** 0.001 '** 0.05 '.' 0.1 ' ' 1
```

## Posterolateral Cortical Amygdaloid Area

## Red points denoting outliers

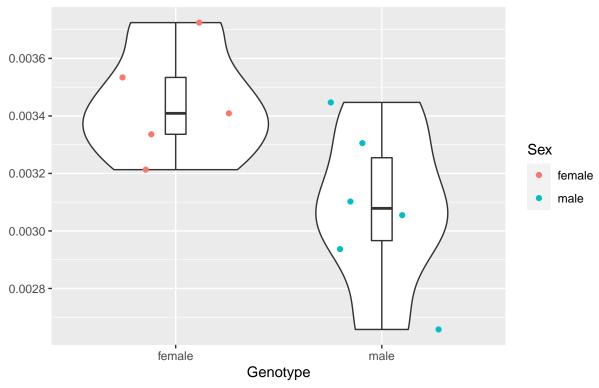


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.000e-11 2.200e-11 0.001 0.979

**##** Residuals 9 2.666e-07 2.962e-08

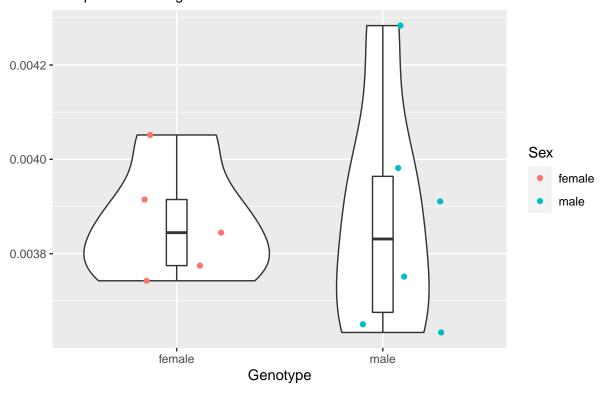
#### **Dorsal Claustrum**

## Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 3.523e-07 3.523e-07 5.886 0.0382 *
## Residuals 9 5.387e-07 5.990e-08
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

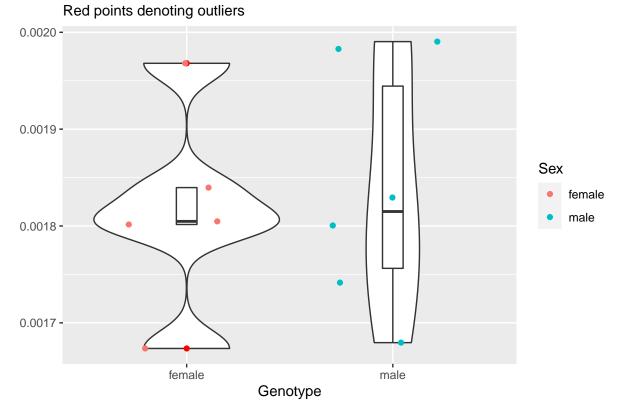
Claustrum
Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 0.000e+00 2.000e-11 0.001 0.982

## Residuals 9 3.644e-07 4.049e-08

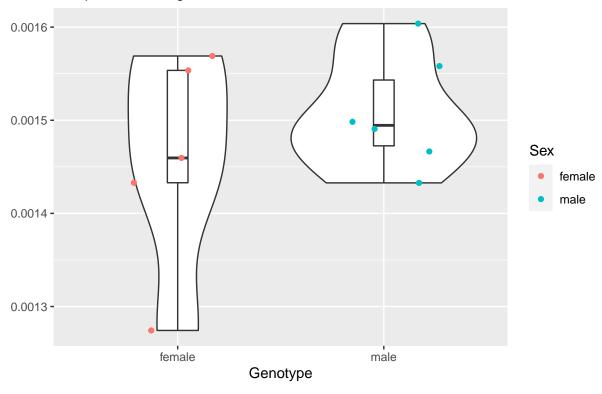
## Ventral Intermediate Entorhinal Cortex



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.080e-09 1.076e-09 0.078 0.787
## Residuals 9 1.243e-07 1.382e-08

## Left Caudomedial Entorhinal Cortex

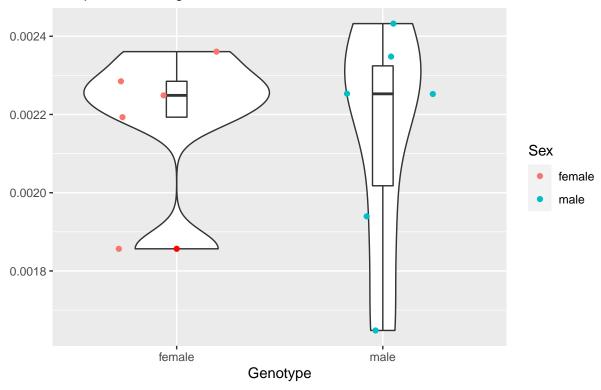
## Red points denoting outliers



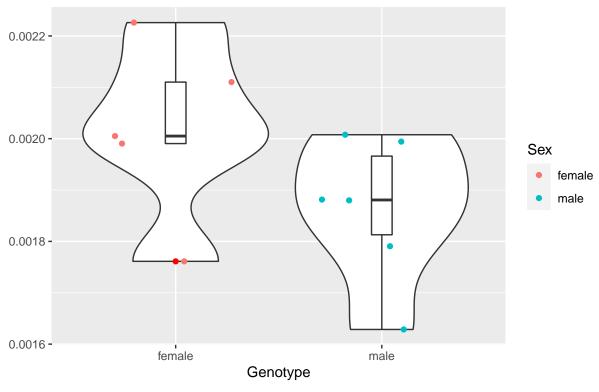
Sum Sq Mean Sq F value Pr(>F) ## 1 6.960e-09 6.960e-09 0.832 0.385 ## Sex ## Residuals 9 7.529e-08 8.365e-09

## Left Dorsolateral Entorhinal Cortex

## Red points denoting outliers



## Left Dorsal Intermediate Entorhinal Cortex Red points denoting outliers

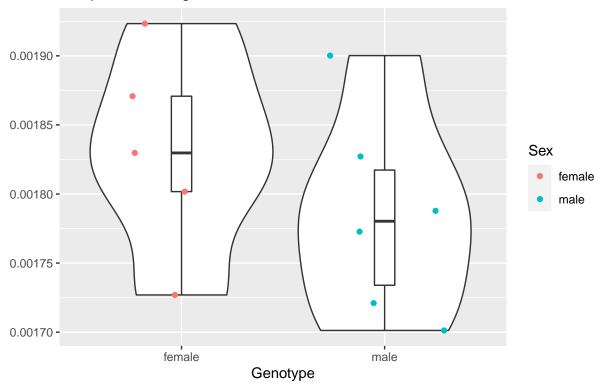


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 6.539e-08 6.539e-08 2.704 0.134

**##** Residuals 9 2.176e-07 2.418e-08

## Left Caudomedial Entorhinal Cortex

## Red points denoting outliers

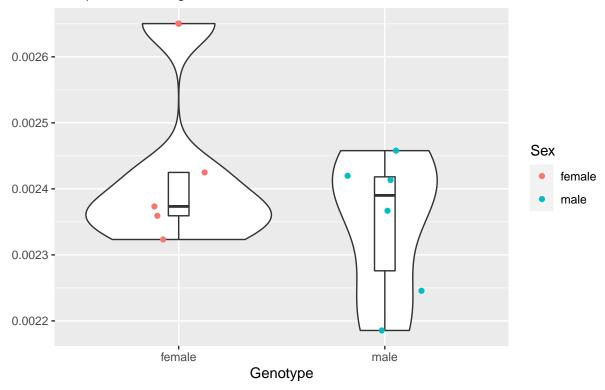


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 5.640e-09 5.641e-09 1.055 0.331

**##** Residuals 9 4.811e-08 5.345e-09

## Left Ventral Orbital Cortex

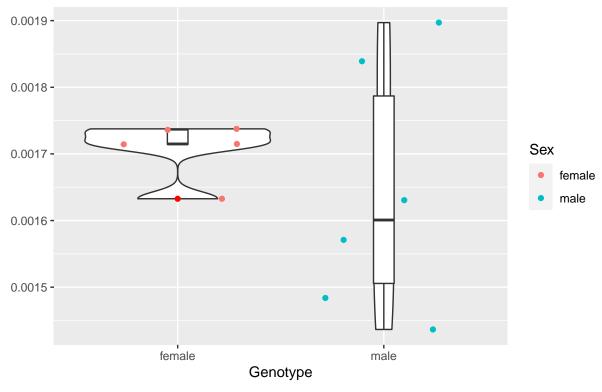
## Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.662e-08 1.662e-08 1.179 0.306

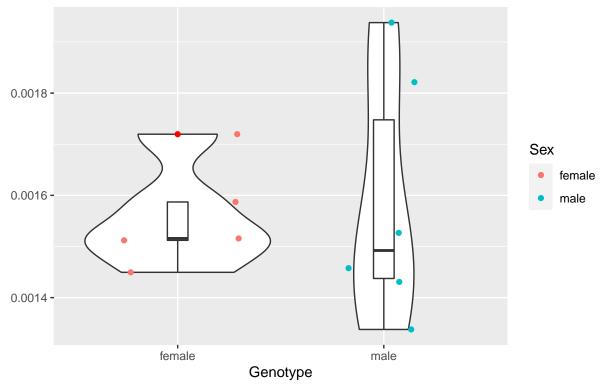
**##** Residuals 9 1.268e-07 1.409e-08

# Left Secondary Visual Cortex Mediomedial Area Red points denoting outliers



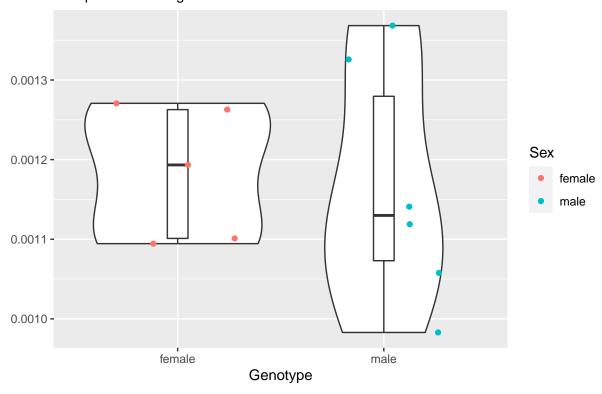
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.121e-08 1.121e-08 0.549 0.478
## Residuals 9 1.837e-07 2.041e-08

Left Secondary Visual Cortex Mediolateral Area Red points denoting outliers



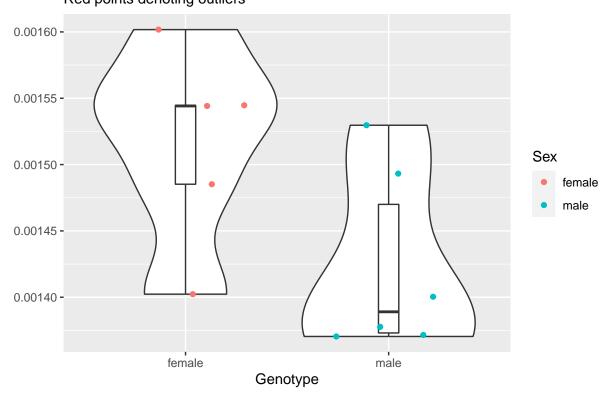
Df Sum Sq Mean Sq F value Pr(>F) 1 2.200e-09 2.22e-09 0.061 0.81 ## ## Sex ## Residuals 9 3.276e-07 3.64e-08

Left Secondary Visual Cortex Lateral Area Red points denoting outliers



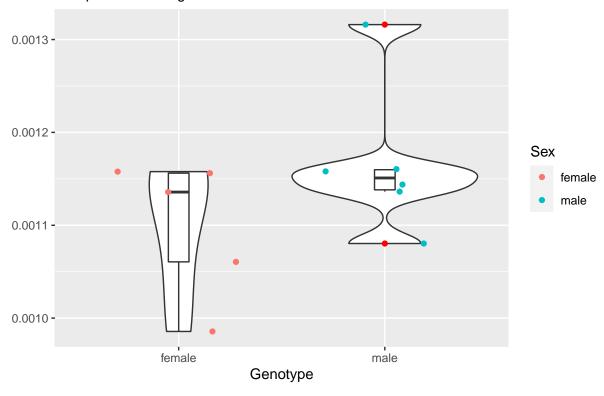
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 9.600e-10 9.550e-10 0.06 0.812
## Residuals 9 1.433e-07 1.592e-08

## Left Primary Visual Cortex Monocular Area Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.299e-08 2.299e-08 4.391 0.0656 .
## Residuals 9 4.712e-08 5.236e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

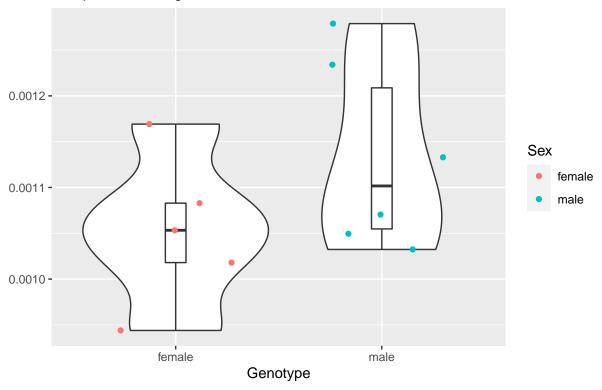
# Left Primary Visual Cortex Binocular Area Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.212e-08 1.212e-08 2.03 0.188
## Residuals 9 5.373e-08 5.970e-09

## Left Primary Visual Cortex

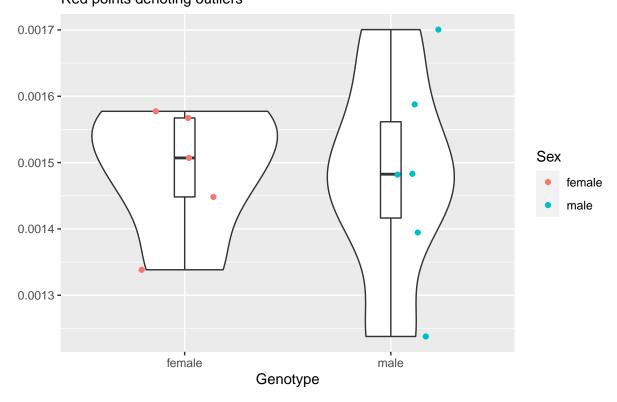
## Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.726e-08 1.726e-08 1.942 0.197

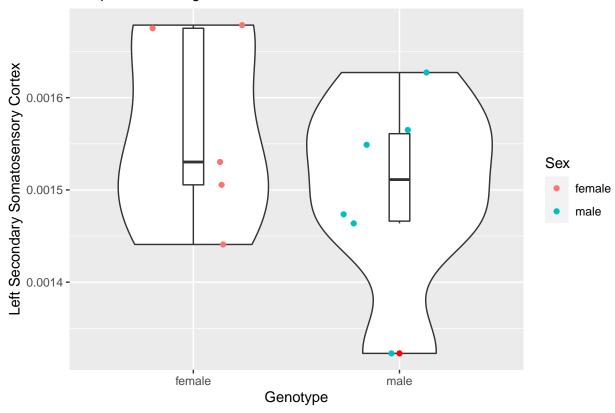
## Residuals 9 7.999e-08 8.888e-09

# Left Temporal Association Cortex Red points denoting outliers



## Sex 1 1.200e-10 1.23e-10 0.007 0.936 ## Residuals 9 1.647e-07 1.83e-08

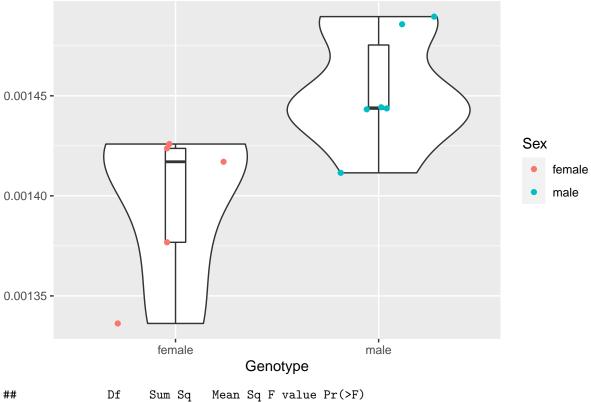
## Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 1.185e-08 1.185e-08 1.051 0.332

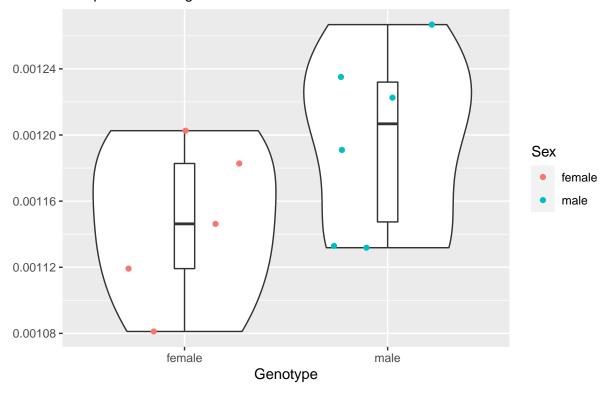
## Residuals 9 1.014e-07 1.127e-08

## Left Primary Somatosensory Cortex Upper Lip Region Red points denoting outliers



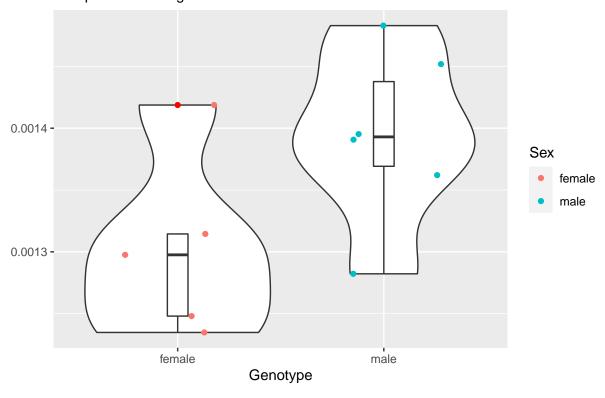
```
## Sex 1 8.884e-09 8.884e-09 7.662 0.0218 *
## Residuals 9 1.044e-08 1.160e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

# Left Primary Somatosensory Cortex Trunk Region Red points denoting outliers



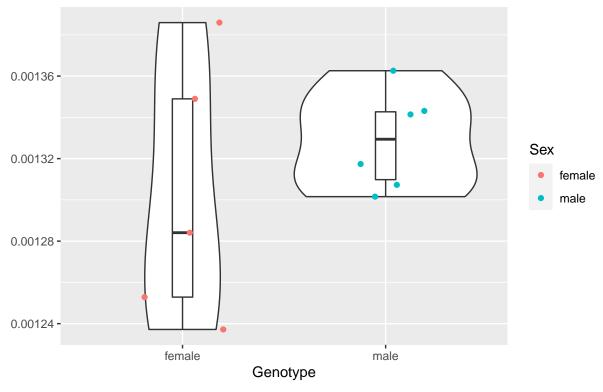
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 6.901e-09 6.901e-09 2.5 0.148
## Residuals 9 2.485e-08 2.761e-09

## Left Primary Somatosensory Cortex Shoulder Region Red points denoting outliers



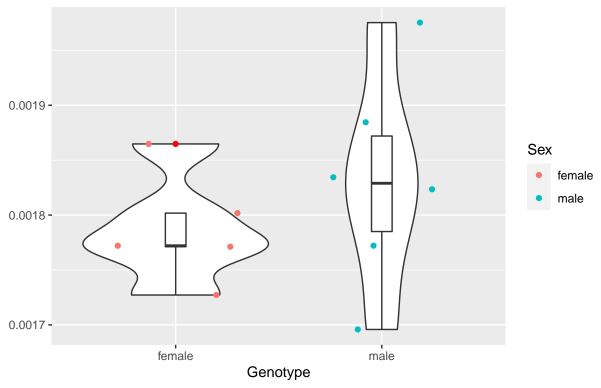
```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.281e-08 2.281e-08 4.461 0.0639 .
## Residuals 9 4.603e-08 5.114e-09
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

## Left Primary Somatosensory Cortex Jaw Region Red points denoting outliers



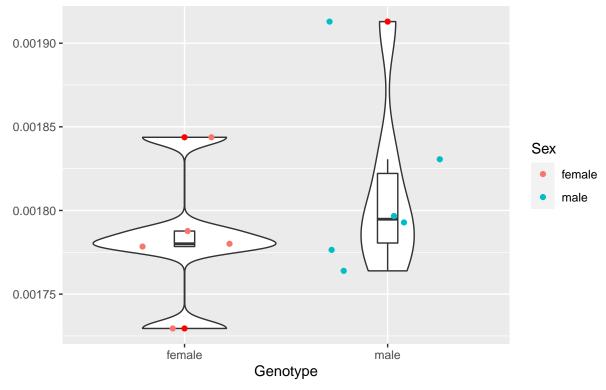
Sum Sq Mean Sq F value Pr(>F) ## 1 2.000e-09 2.000e-09 0.946 0.356 ## Sex ## Residuals 9 1.902e-08 2.114e-09

# Left Primary Somatosensory Cortex Hindlimb Region Red points denoting outliers



## Sex 1 5.170e-09 5.173e-09 0.835 0.385 ## Residuals 9 5.579e-08 6.199e-09

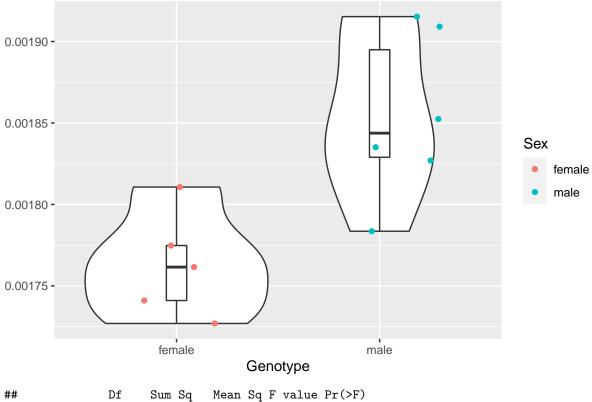
# Left Primary Somatosensory Cortex Forelimb Region Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.191e-09 2.191e-09 0.926 0.361

## Residuals 9 2.130e-08 2.367e-09

## Left Primary Somatosensory Cortex Dysgranular Zone Red points denoting outliers



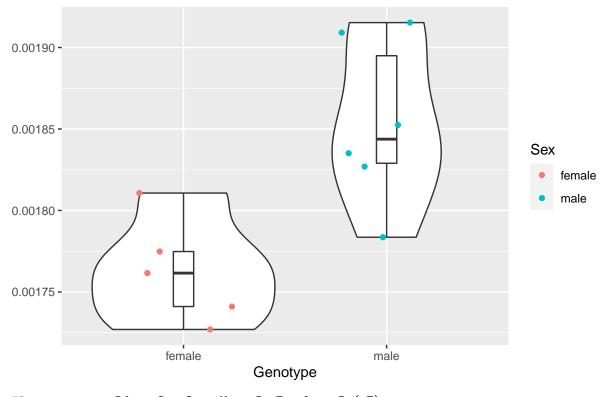
```
## Sex 1 1.087e-08 1.087e-08 3.421 0.0974 .

## Residuals 9 2.860e-08 3.178e-09

## ---

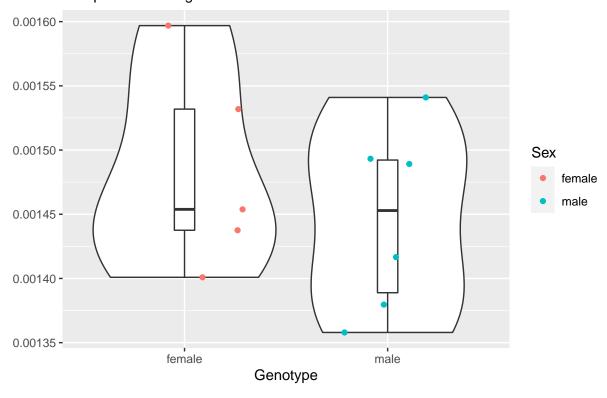
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

## Left Primary Somatosensory Cortex Barrel Field Red points denoting outliers



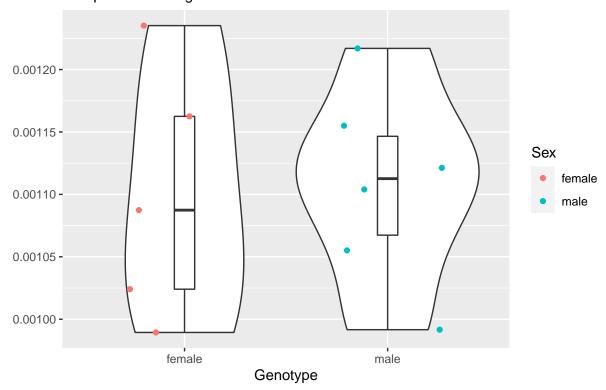
```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.245e-08 2.245e-08 11.86 0.00735 **
## Residuals 9 1.704e-08 1.894e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

## Left Primary Somatosensory Cortex Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## 1 3.930e-09 3.927e-09 0.691 0.427 ## Sex ## Residuals 9 5.115e-08 5.684e-09

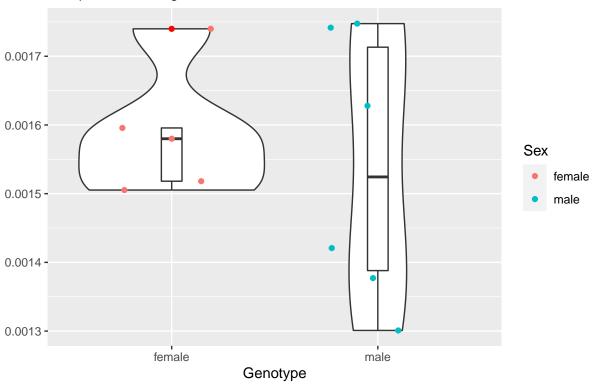
## Left Parietal Cortex Posterial Area Rostral Part Red points denoting outliers



Mean Sq F value Pr(>F) ## Sum Sq 1 1.600e-10 1.580e-10 0.02 0.891 ## Sex ## Residuals 9 7.093e-08 7.881e-09

## Left Medial Parietal Association Cortex

## Red points denoting outliers

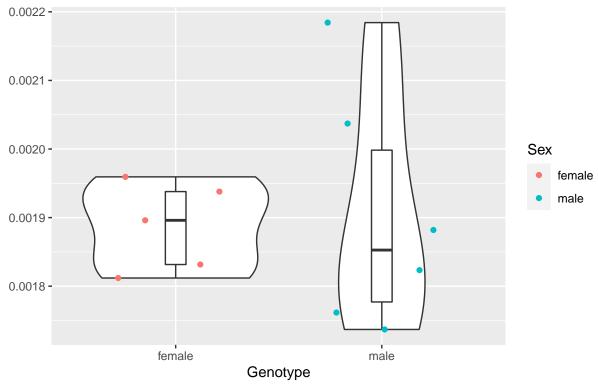


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 7.320e-09 7.319e-09 0.294 0.601

**##** Residuals 9 2.242e-07 2.491e-08

## Left Medial Orbital Cortex

## Red points denoting outliers

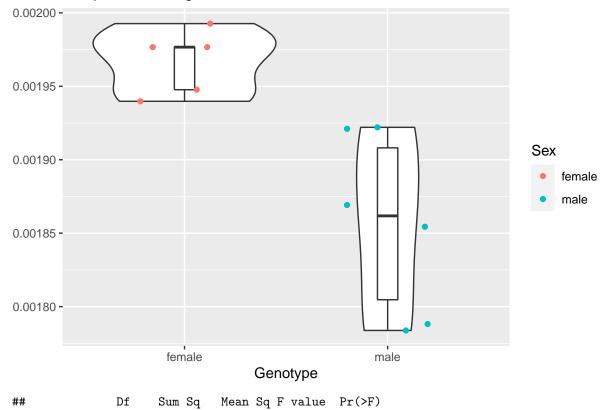


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 7.700e-10 7.720e-10 0.041 0.843

## Residuals 9 1.681e-07 1.868e-08

## Left Secondary Motor Cortex

#### Red points denoting outliers



```
## Sex 1 3.317e-08 3.317e-08 14.52 0.00415 **

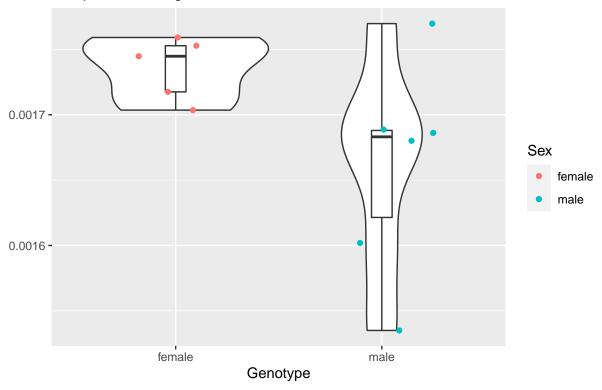
## Residuals 9 2.056e-08 2.280e-09

## ---

## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

## Left Primary Motor Cortex

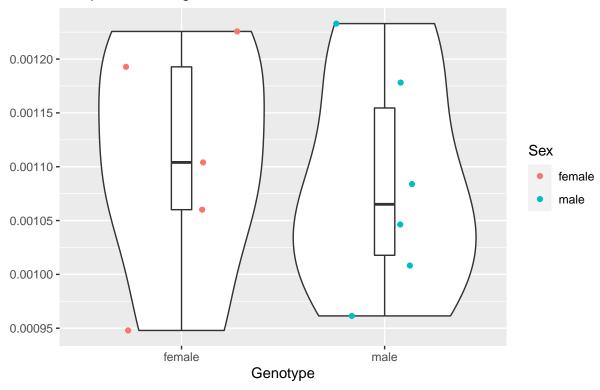
## Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.546e-08 1.546e-08 3.95 0.0781 .
## Residuals 9 3.523e-08 3.914e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

## Left Lateral Parietal Association Cortex

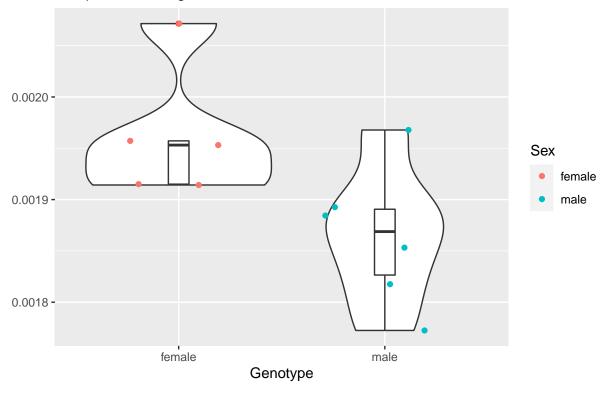
#### Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.190e-09 1.195e-09 0.105 0.753
## Residuals 9 1.021e-07 1.135e-08

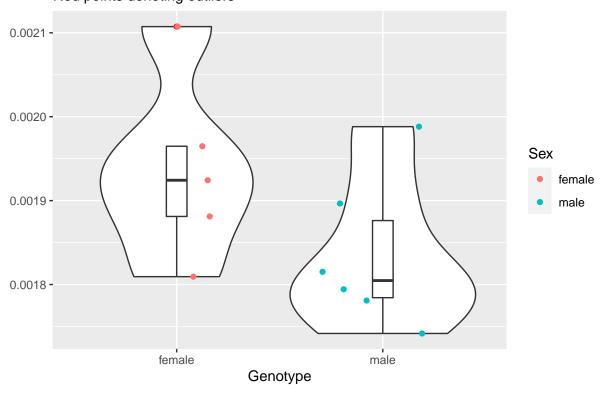
#### Left Lateral Orbital Cortex

## Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.594e-08 2.594e-08 5.951 0.0374 *
## Residuals 9 3.923e-08 4.359e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
```

Left Insular Cortex
Red points denoting outliers

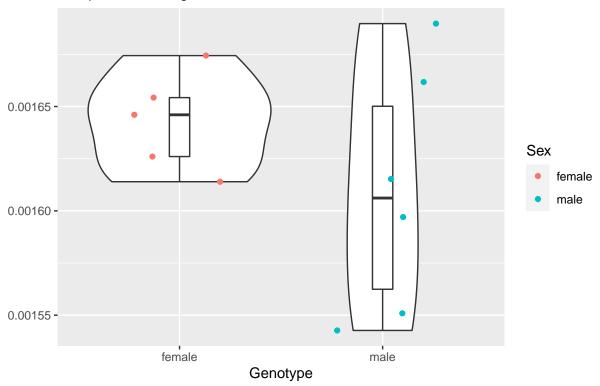


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 2.796e-08 2.796e-08 2.787 0.129

## Residuals 9 9.029e-08 1.003e-08

#### Left Frontal Assocation Cortex

## Red points denoting outliers

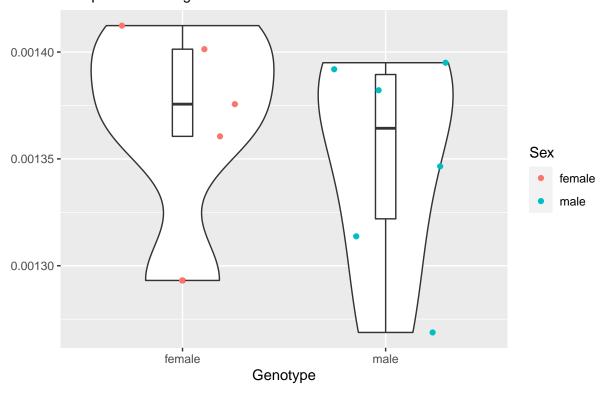


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.038e-09 3.038e-09 1.402 0.267

## Residuals 9 1.950e-08 2.167e-09

## Left Frontal Cortex Area 3

## Red points denoting outliers

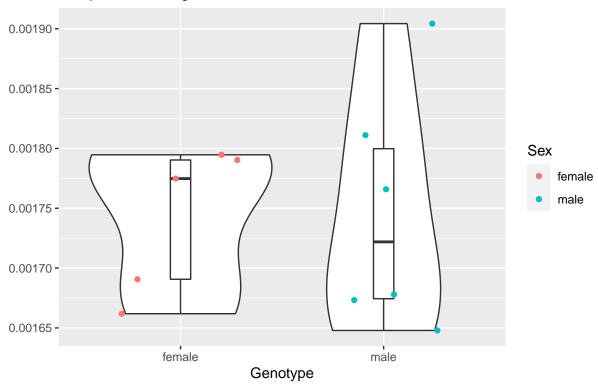


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 9.760e-10 9.755e-10 0.408 0.539

## Residuals 9 2.154e-08 2.394e-09

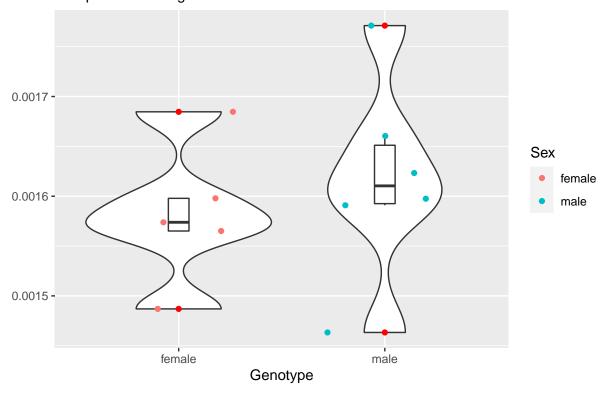
## Left Dorsolateral Orbital Cortex

## Red points denoting outliers



Sum Sq Mean Sq F value Pr(>F) ## 1 5.000e-11 4.900e-11 0.007 0.936 ## Sex ## Residuals 9 6.448e-08 7.164e-09

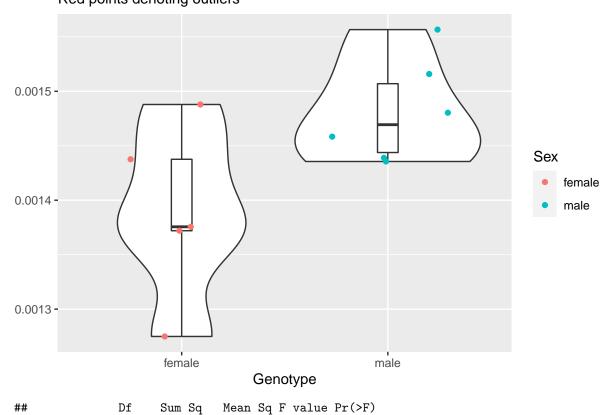
# Left Secondary Auditory Cortex Ventral Part Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 3.550e-09 3.548e-09 0.453 0.518

## Residuals 9 7.053e-08 7.836e-09

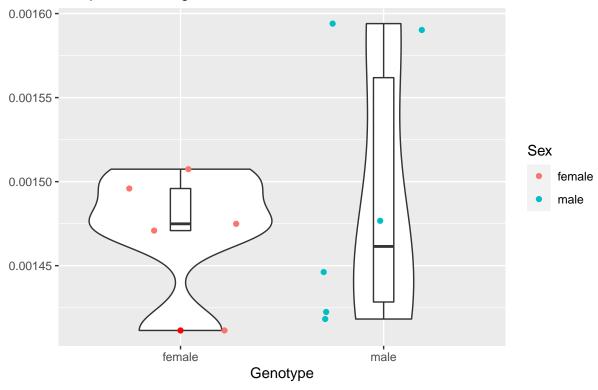
## Left Secondary Auditory Cortex Dorsal Part Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.276e-08 2.276e-08 5.55 0.0429 *
## Residuals 9 3.691e-08 4.101e-09
## ---
## Signif. codes: 0 '*** 0.001 '** 0.05 '.' 0.1 ' ' 1
```

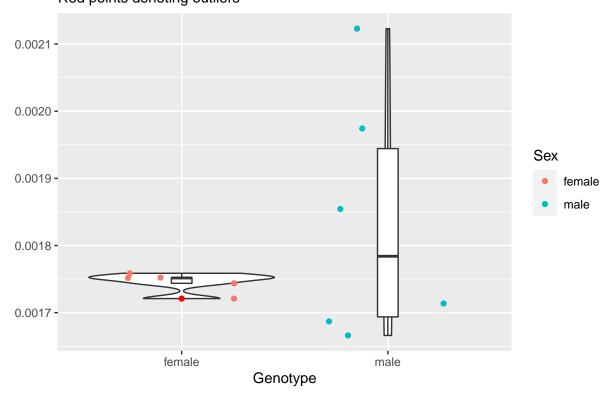
## Left Primary Auditory Cortex

## Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.010e-09 1.005e-09 0.237 0.638
## Residuals 9 3.816e-08 4.241e-09

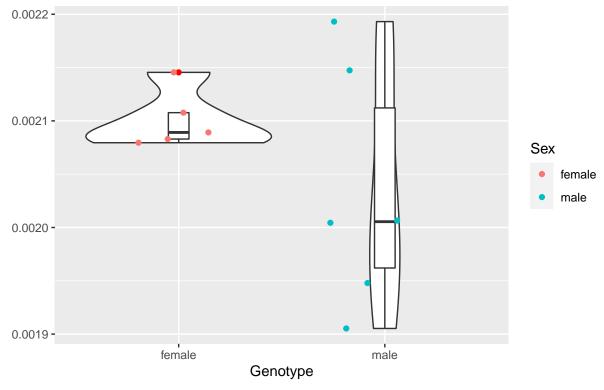
## Left Cingulate Cortex Area 32 Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.257e-08 2.257e-08 1.204 0.301
## Residuals 9 1.688e-07 1.876e-08

# Left Cingulate Cortex Area 30

## Red points denoting outliers

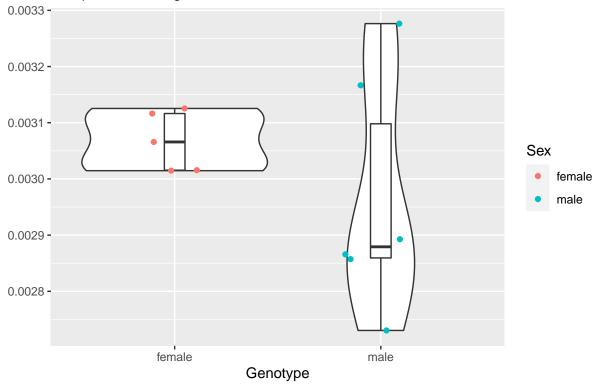


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.219e-08 1.219e-08 1.644 0.232

**##** Residuals 9 6.674e-08 7.415e-09

## Left Cingulate Cortex Area 29c

## Red points denoting outliers

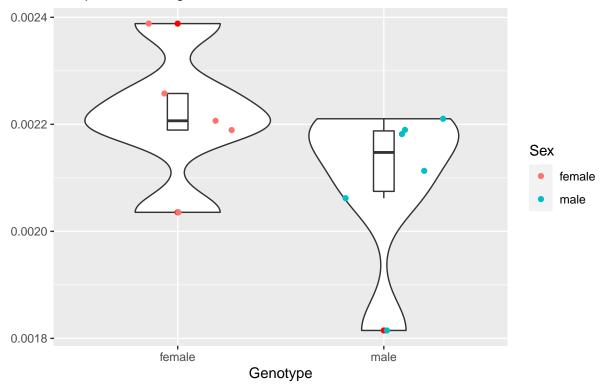


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 2.878e-08 2.878e-08 1.123 0.317

**##** Residuals 9 2.306e-07 2.563e-08

## Left Cingulate Cortex Area 29b

## Red points denoting outliers

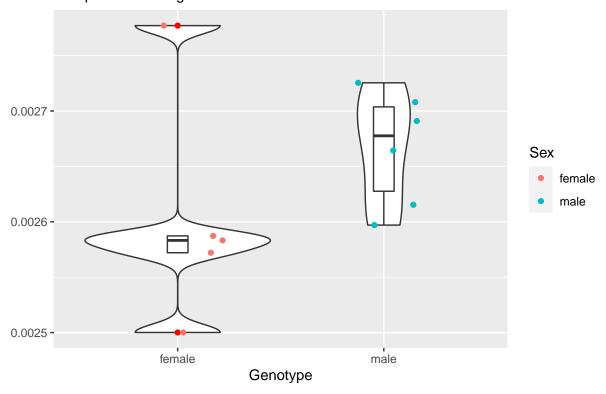


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 3.940e-08 3.940e-08 2.032 0.188

**##** Residuals 9 1.745e-07 1.939e-08

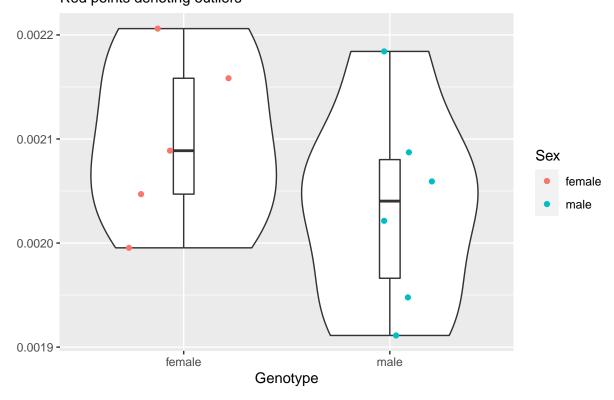
## Left Cingulate Cortex Area 29a

## Red points denoting outliers



Mean Sq F value Pr(>F) Sum Sq ## 1 1.078e-08 1.078e-08 1.742 0.219 ## Sex ## Residuals 9 5.571e-08 6.190e-09

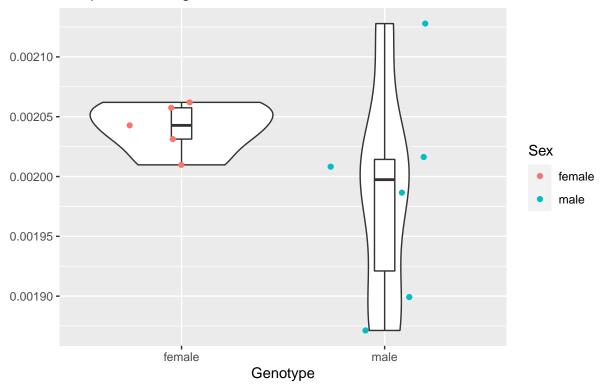
# Left Cingulate Cortex Area 24b Prime Red points denoting outliers



## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 1.116e-08 1.116e-08 1.301 0.283
## Residuals 9 7.720e-08 8.578e-09

## Left Cingulate Cortex Area 24b

## Red points denoting outliers

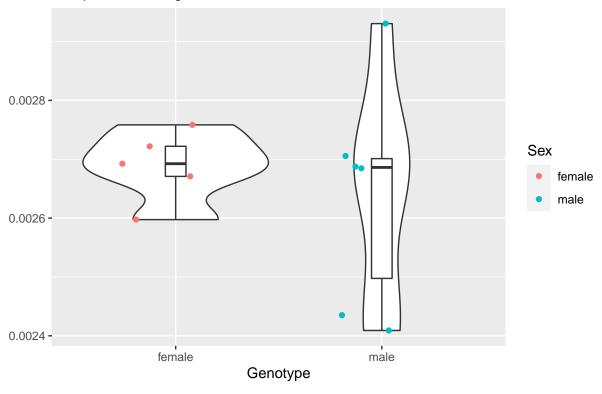


## Df Sum Sq Mean Sq F value Pr(>F)
## Sex 1 8.470e-09 8.473e-09 1.734 0.22

## Residuals 9 4.399e-08 4.887e-09

# Left Cingulate Cortex Area 24a Prime

## Red points denoting outliers

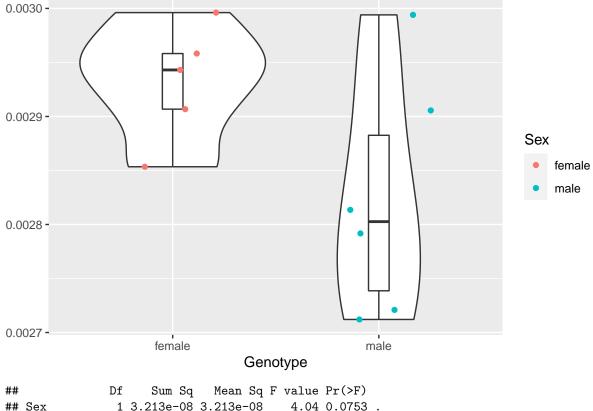


## Df Sum Sq Mean Sq F value Pr(>F) ## Sex 1 5.810e-09 5.809e-09 0.258 0.624

## Residuals 9 2.028e-07 2.254e-08

## Left Cingulate Cortex Area 24a

## Red points denoting outliers



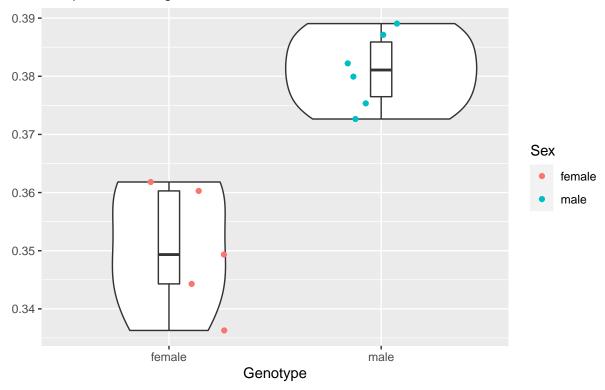
```
## Sex 1 3.213e-08 3.213e-08 4.04 0.0753 .

## Residuals 9 7.158e-08 7.950e-09

## ---

## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```

Exterior
Red points denoting outliers



```
## Df Sum Sq Mean Sq F value Pr(>F)

## Sex 1 0.0025623 0.0025623 34.29 0.000242 ***

## Residuals 9 0.0006724 0.0000747

## ---

## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' ' 1
```