

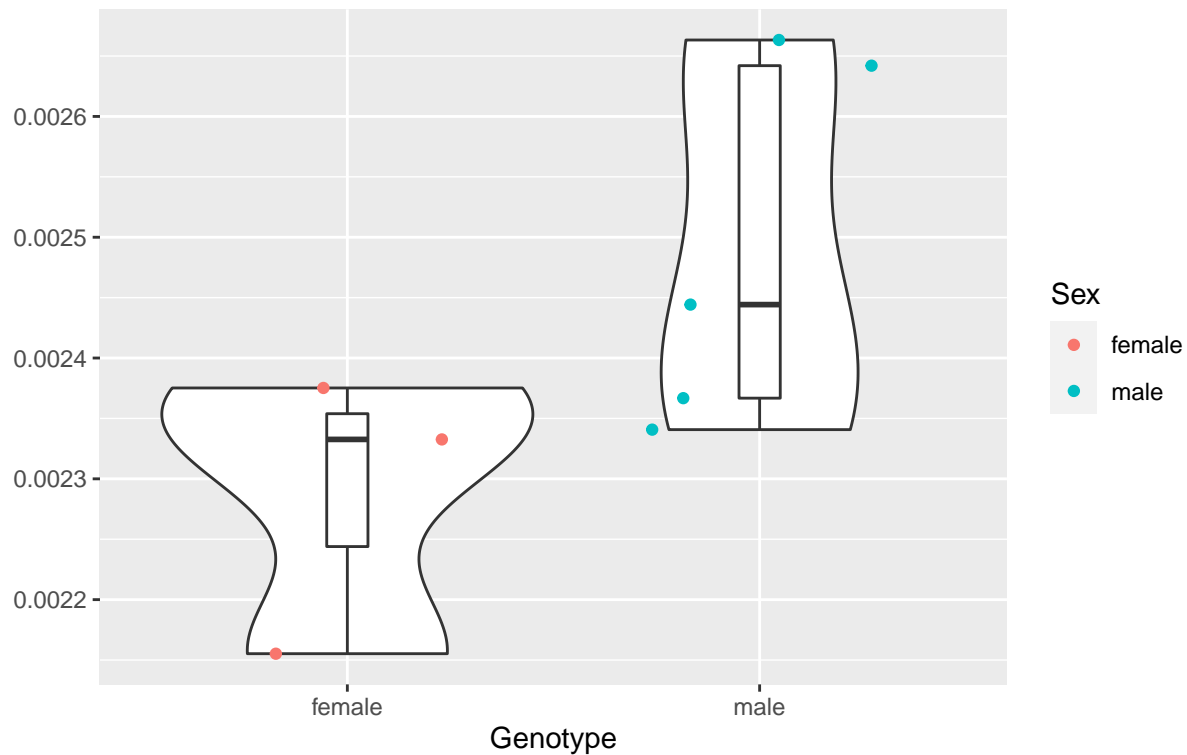
Right APOE3 Disaggregated by Sex

Anna MacFarlane

3/25/2021

Interpeduncular Nucleus

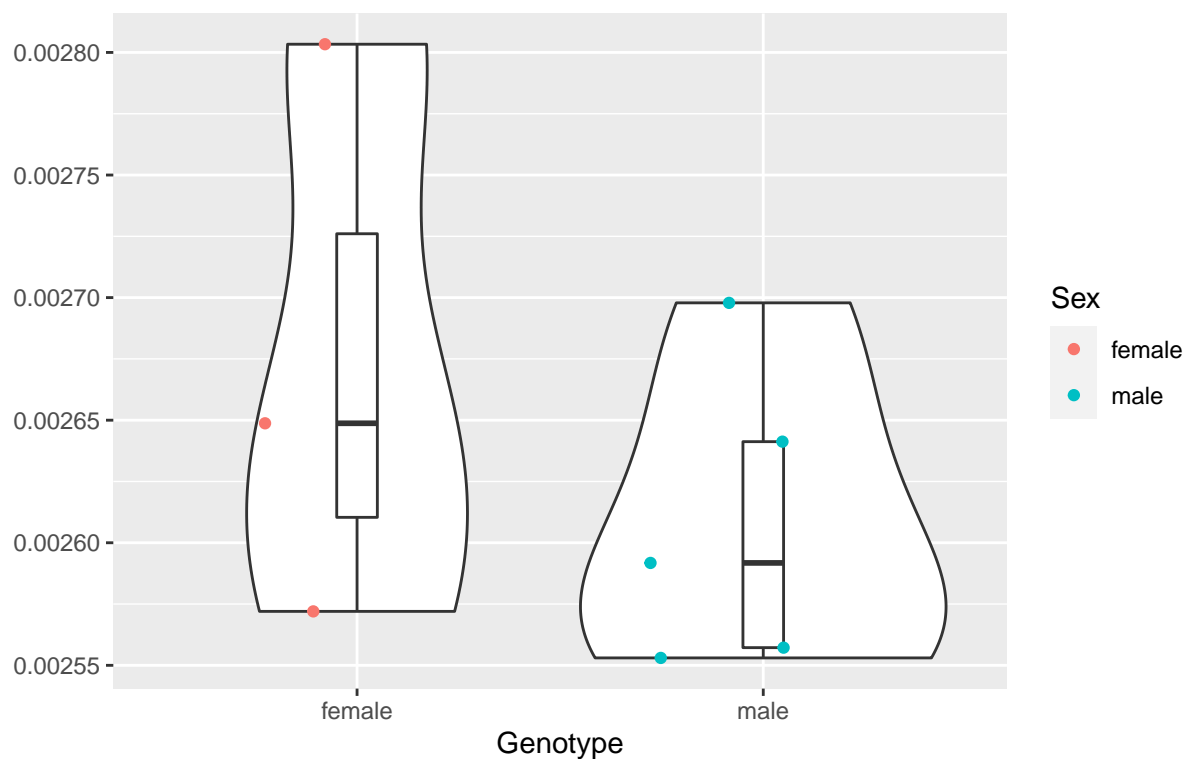
Red points denoting outliers



```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex        1 7.781e-08 7.781e-08   3.893 0.0959 .
## Residuals   6 1.199e-07 1.999e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Cerebellar Cortex

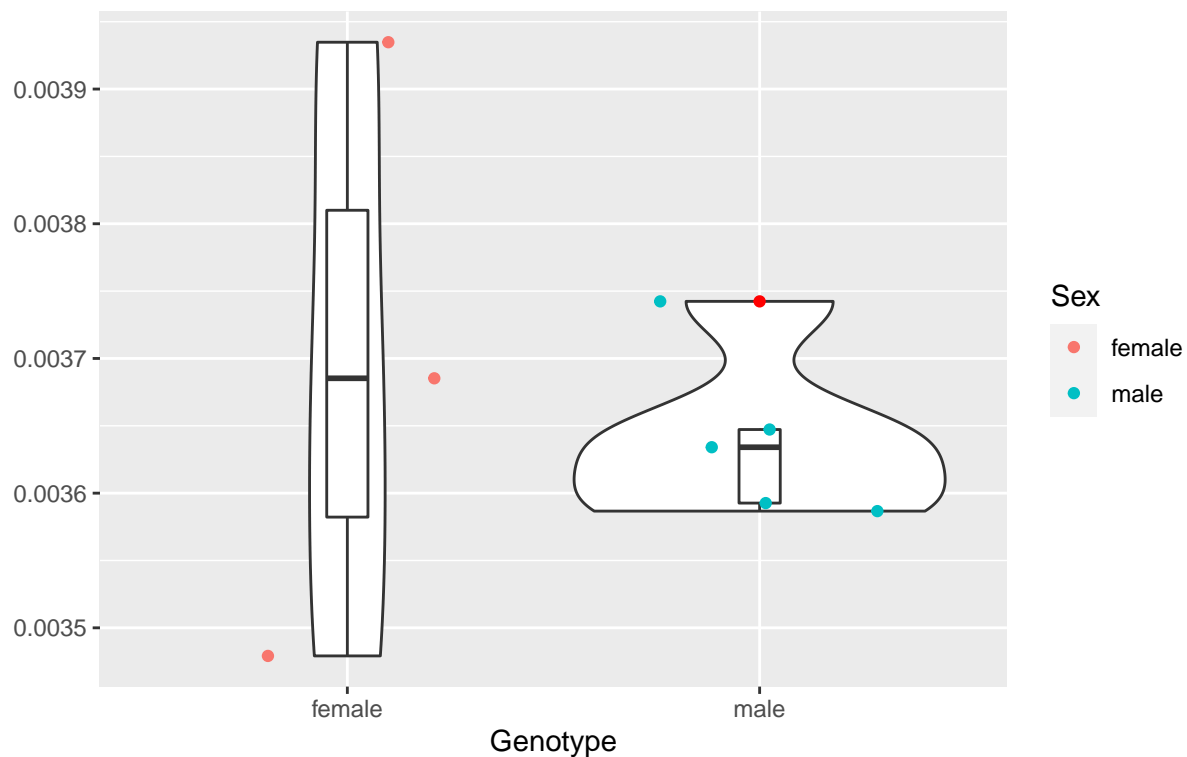
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	8.290e-09	8.286e-09	1.161	0.323
## Residuals	6	4.282e-08	7.136e-09		

Dentate (Lateral) Nucleus of Cerebellum

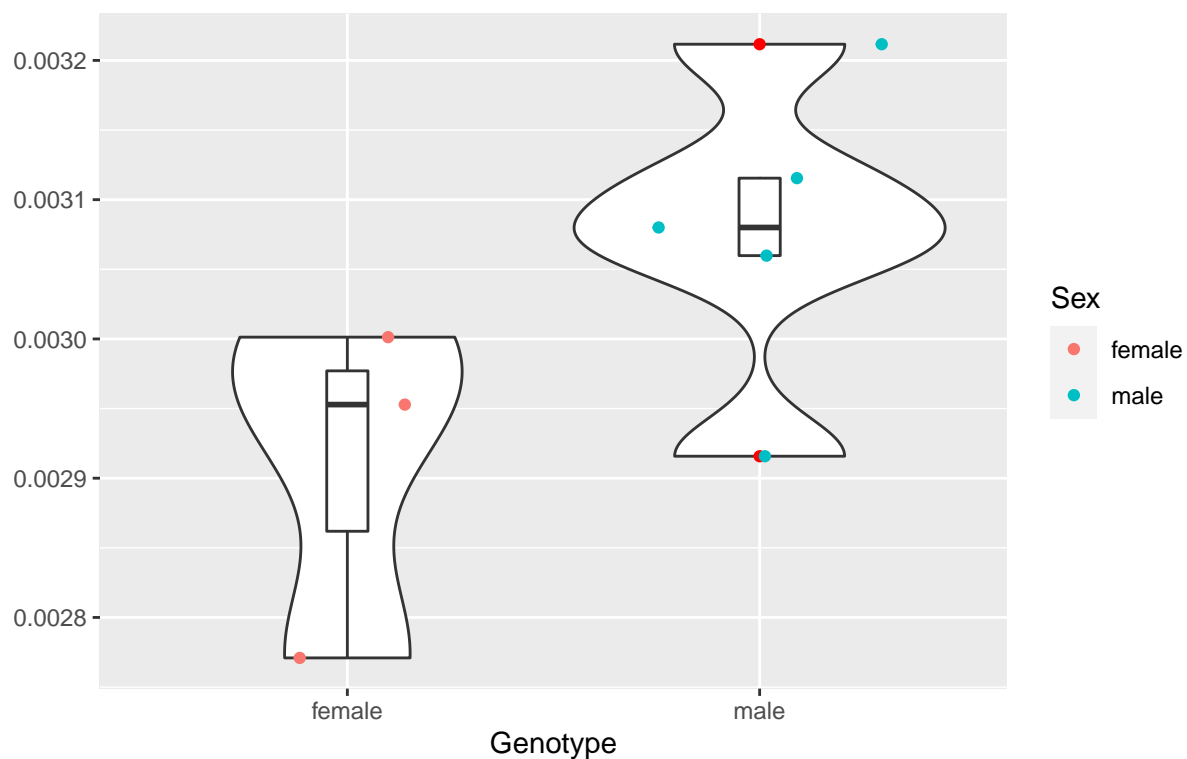
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.560e-09	6.557e-09	0.328	0.587
## Residuals	6	1.198e-07	1.996e-08		

Interposed Nucleus of Cerebellum

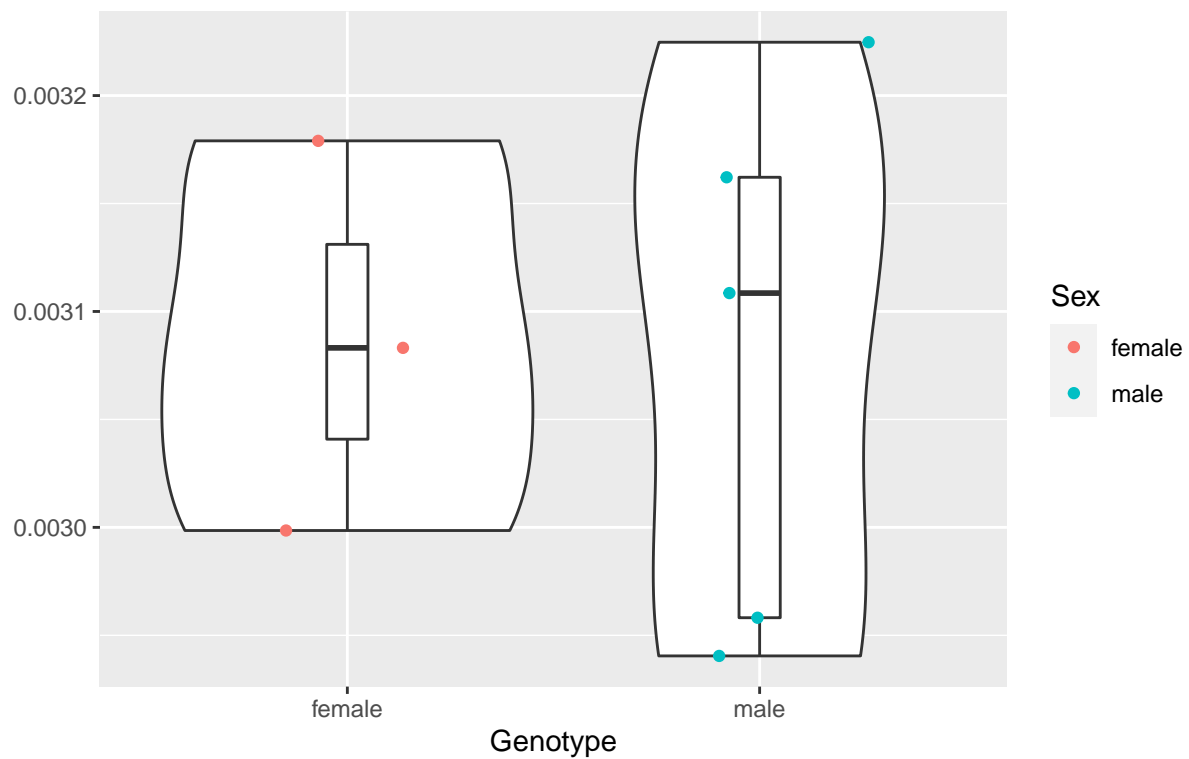
Red points denoting outliers



```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 5.303e-08 5.303e-08    4.22 0.0857 .
## Residuals    6 7.539e-08 1.257e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Fastigial Medial Dorsolateral Nucleus of Cerebellum

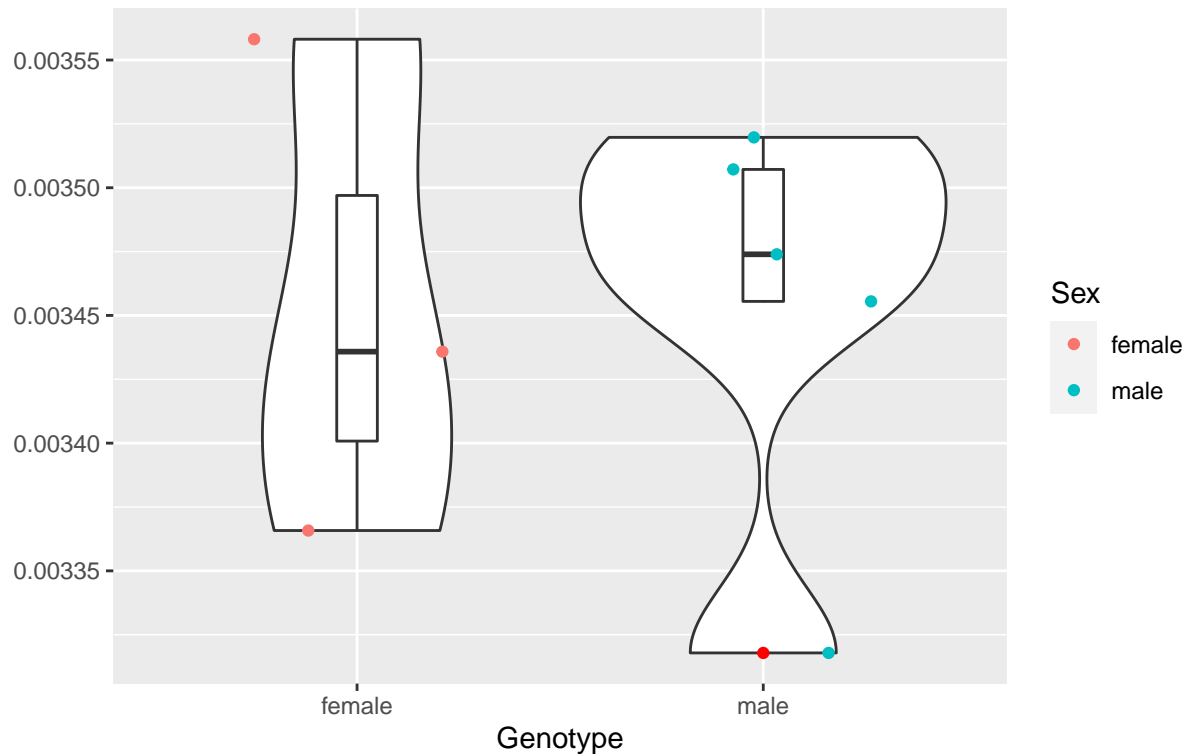
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.200e-10	1.230e-10	0.009	0.926
## Residuals	6	7.912e-08	1.319e-08		

Fastigial Medial Nucleus of Cerebellum

Red points denoting outliers



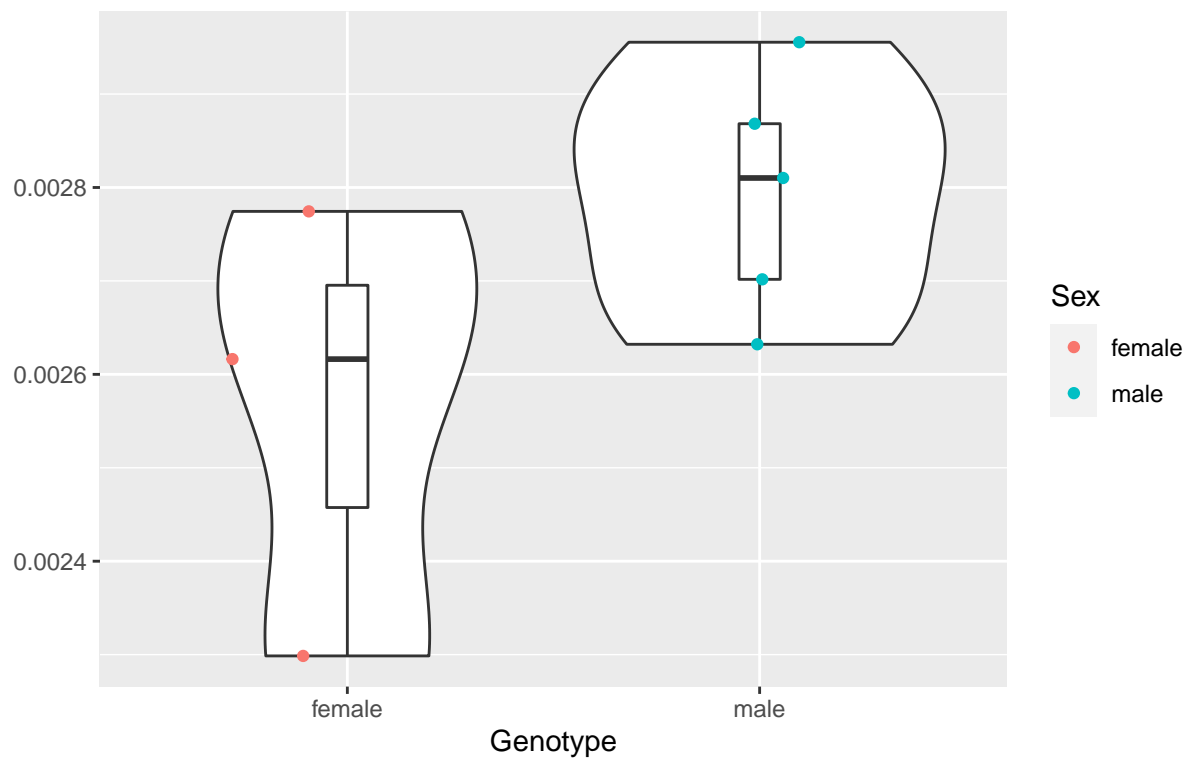
```
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Sex         1 0.000e+00 5.000e-12   0.001  0.981
## Residuals   6 4.503e-08 7.505e-09
```

```
#“{r VII, echo = FALSE} #ggplot(data = apoe3, 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 <- aov(VII ~ Sex, data = apoe3) #summary(res.aov) #“
```

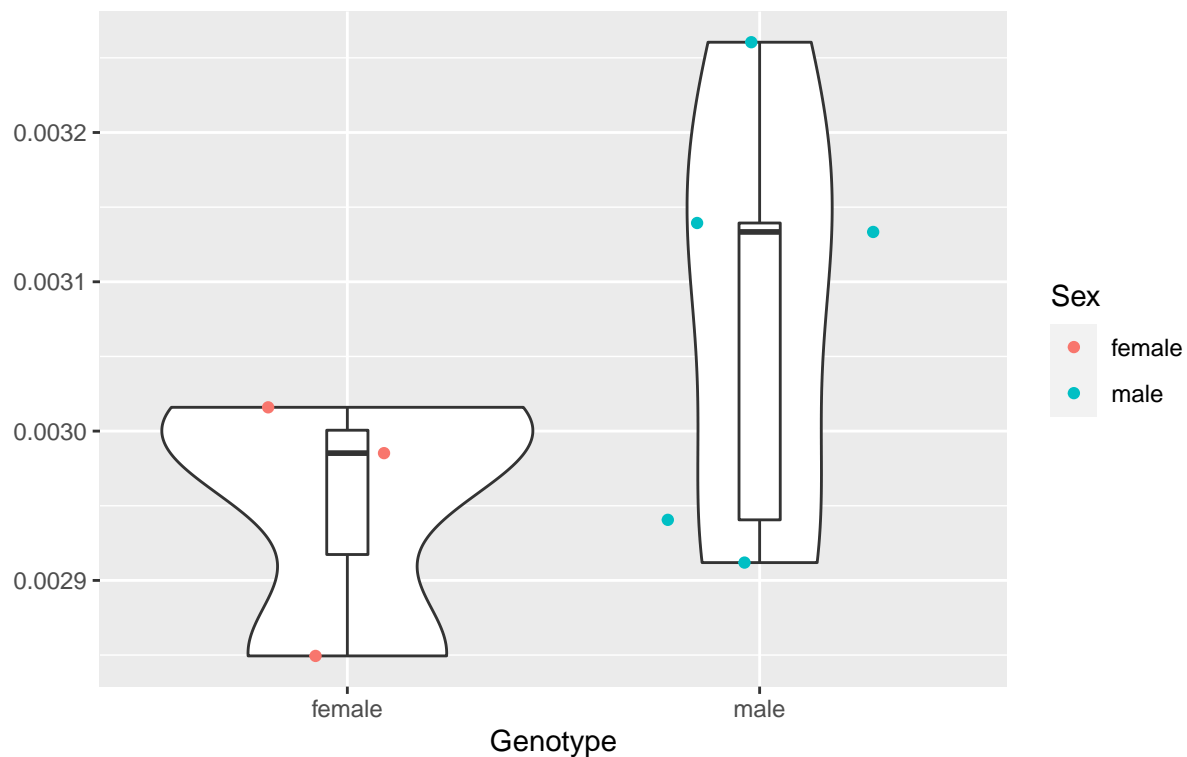
Parabrachial Nucleus

Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	9.955e-08	9.955e-08	3.247	0.122
## Residuals	6	1.840e-07	3.066e-08		

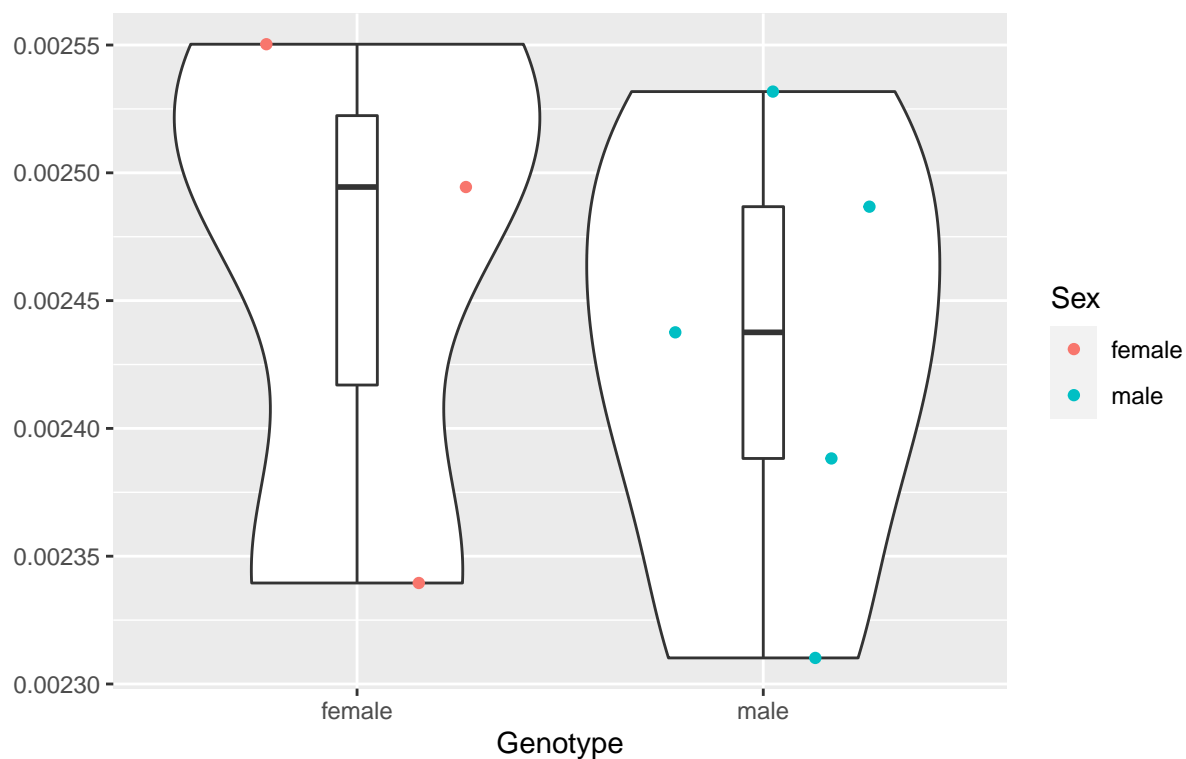
Parabrachial Medial Nucleus and Koelliker Fuse Nucleus Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.021e-08	3.022e-08	1.772	0.231
## Residuals	6	1.023e-07	1.705e-08		

Parvicellular Reticular Nucleus and Principal Sensory Trigeminal Nucleu

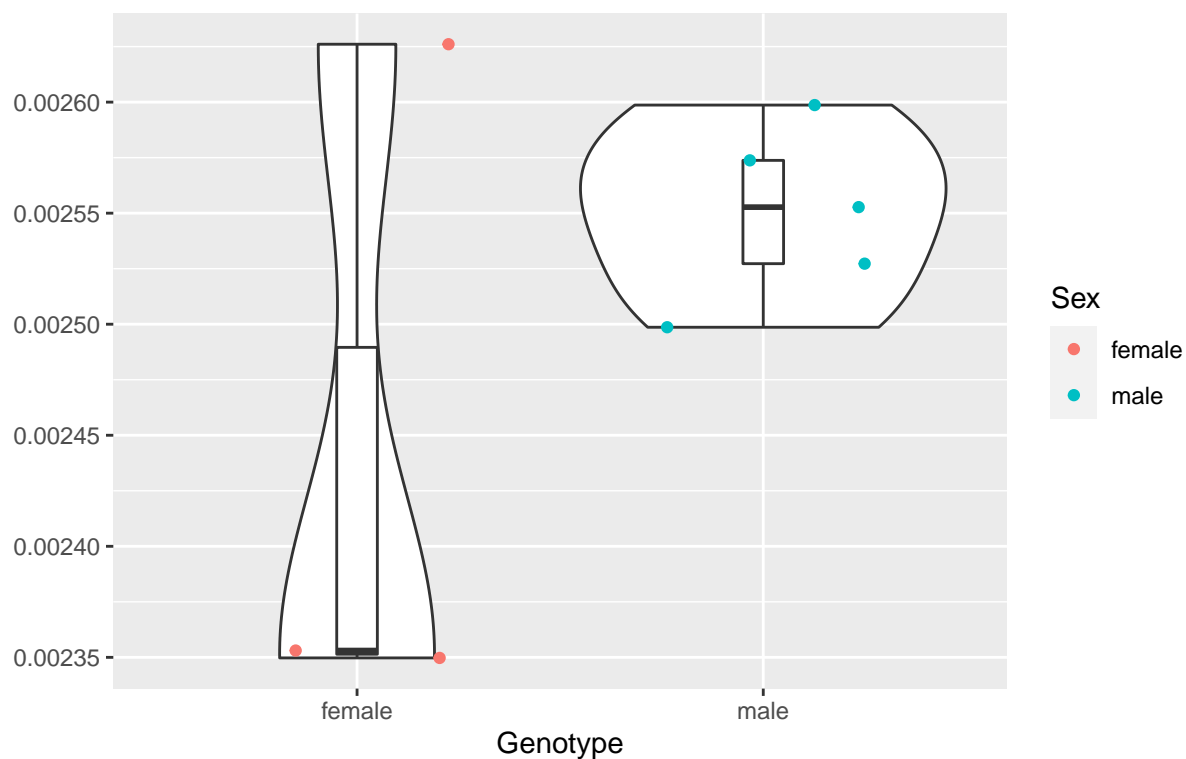
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.750e-09	1.746e-09	0.195	0.674
## Residuals	6	5.359e-08	8.931e-09		

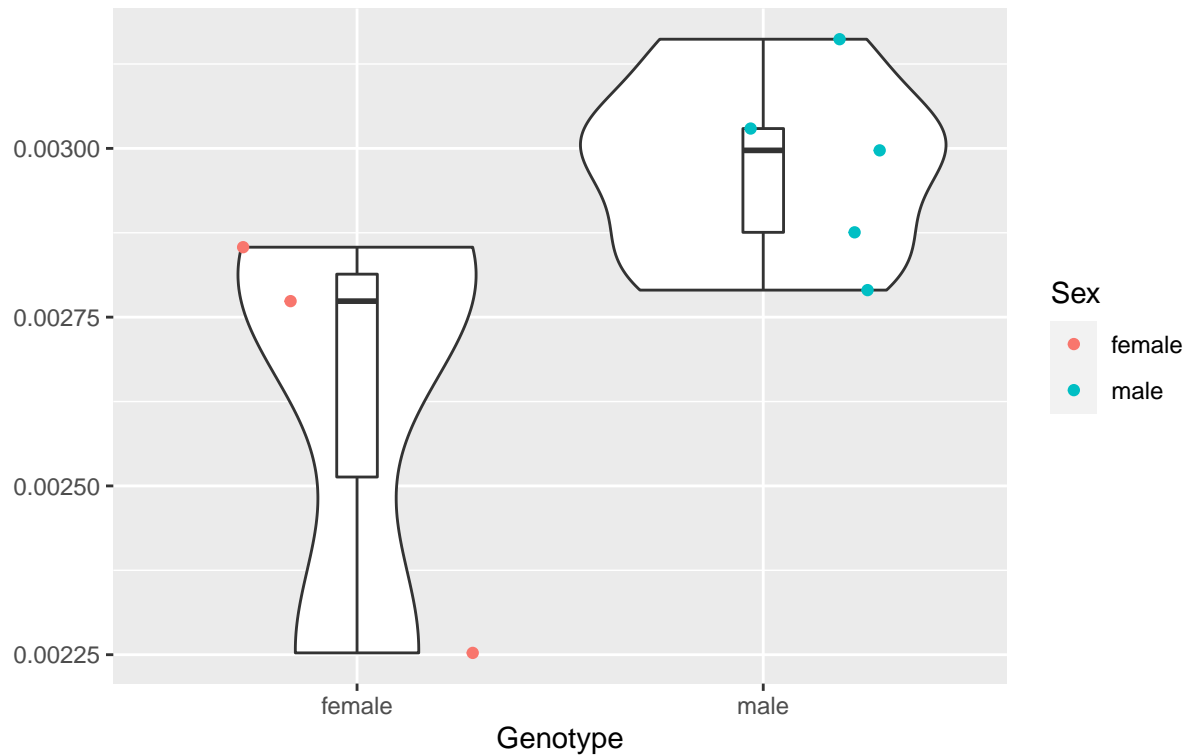
Central Gray

Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.157e-08	2.157e-08	2.294	0.181
## Residuals	6	5.640e-08	9.399e-09		

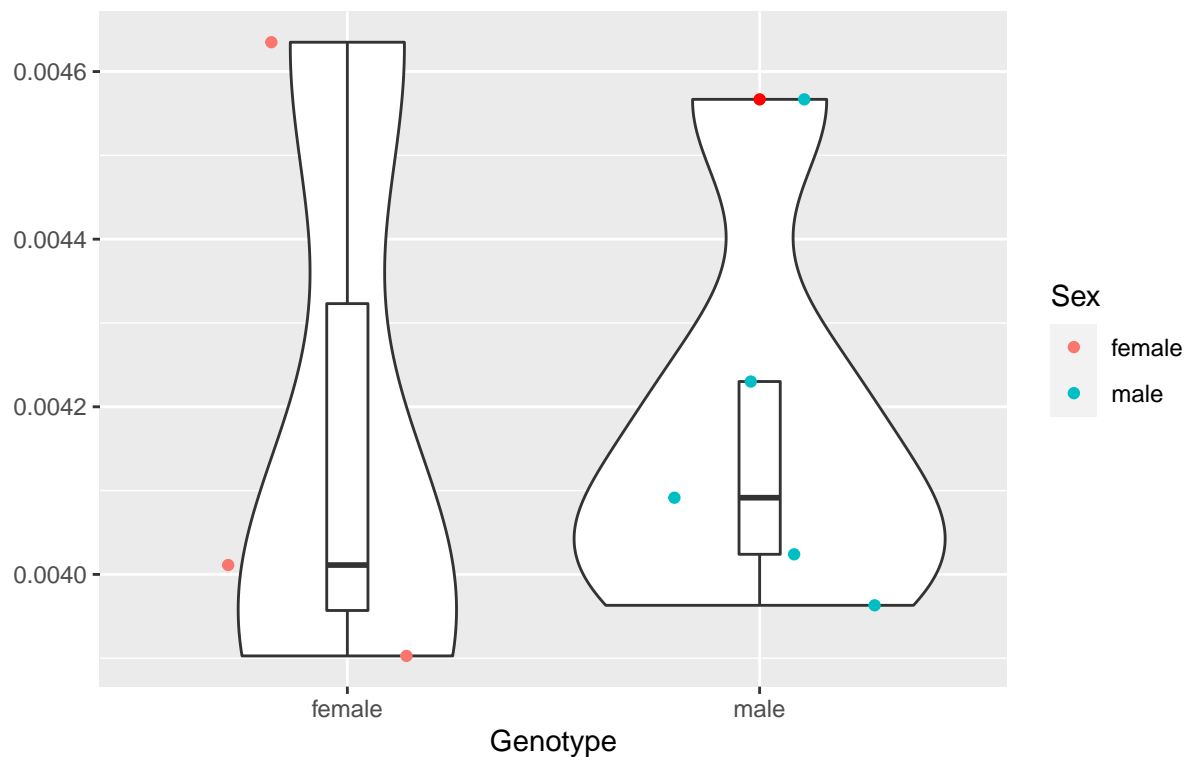
Pedunculotegmental Medial Paralemniscial and Supratrigeminal Nuclei Red points denoting outliers



```
##           Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex         1 2.220e-07 2.220e-07   4.511 0.0779 .
## Residuals   6 2.953e-07 4.922e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Motor Root of Trigeminal Nerve

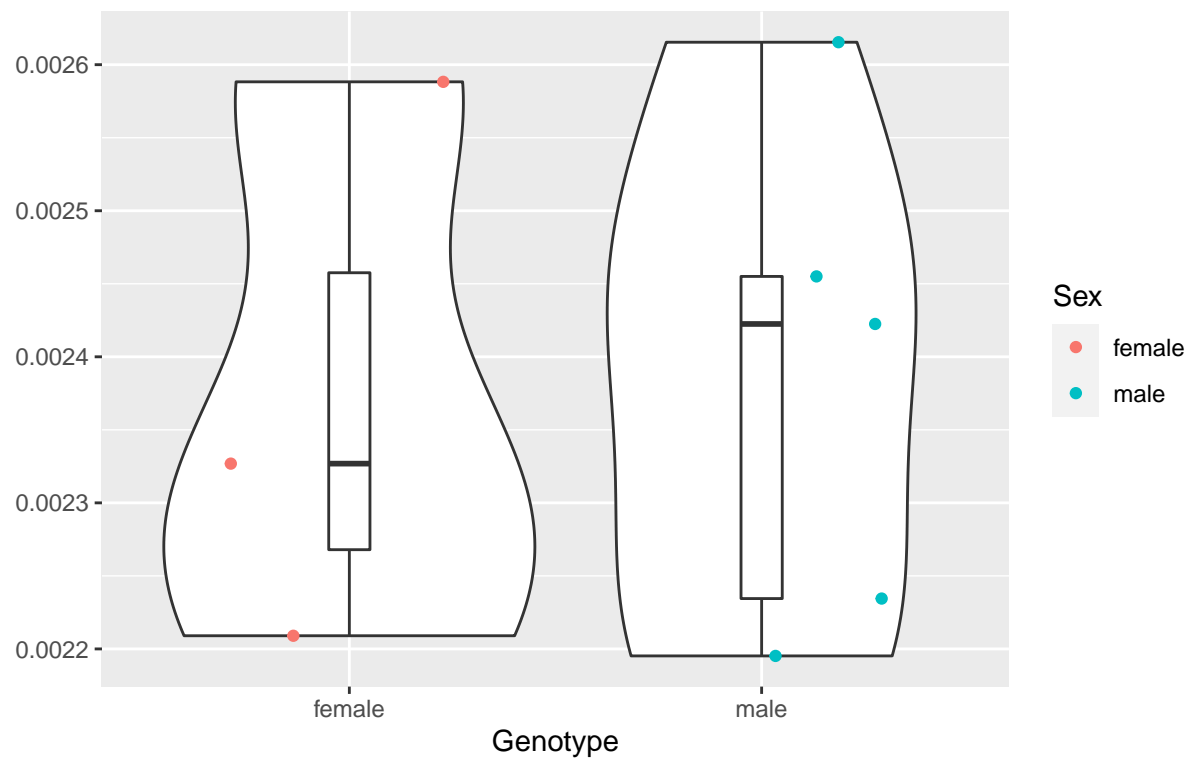
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.000e-10	1.20e-10	0.001	0.973
## Residuals	6	5.436e-07	9.06e-08		

Trigeminal Motor Nucleus

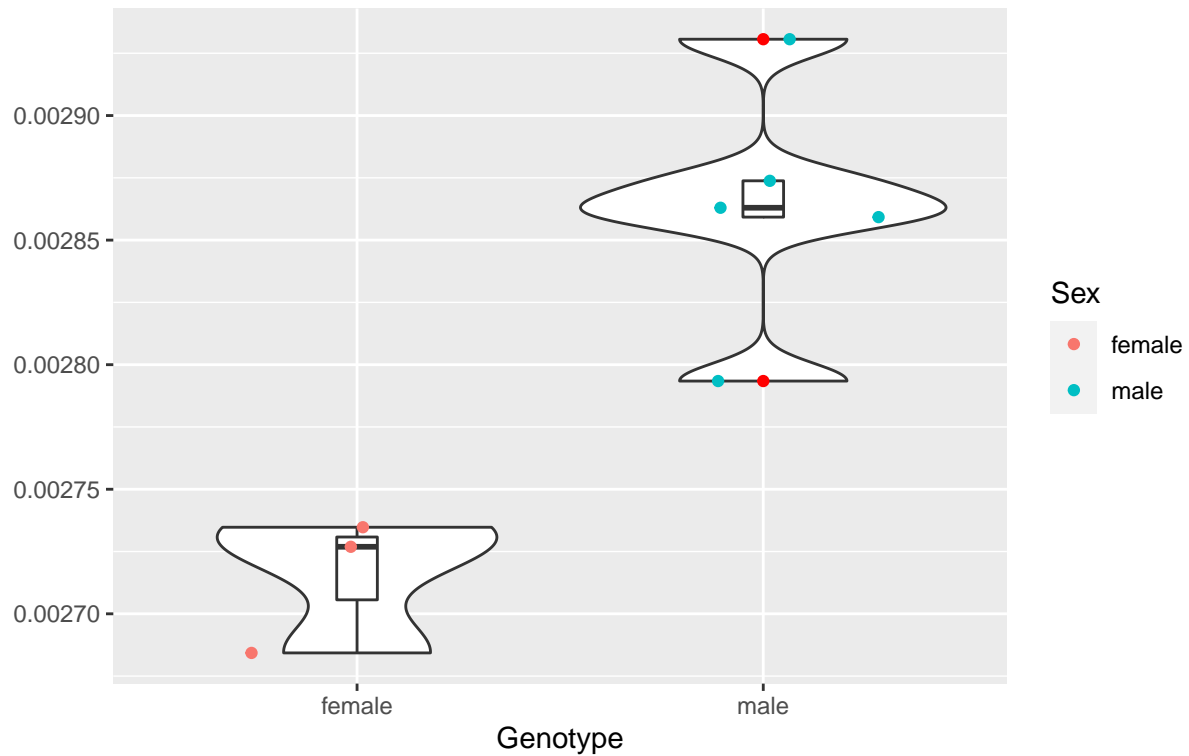
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.800e-10	1.800e-10	0.006	0.943
## Residuals	6	1.934e-07	3.224e-08		

Pontine Reticular Nucleus

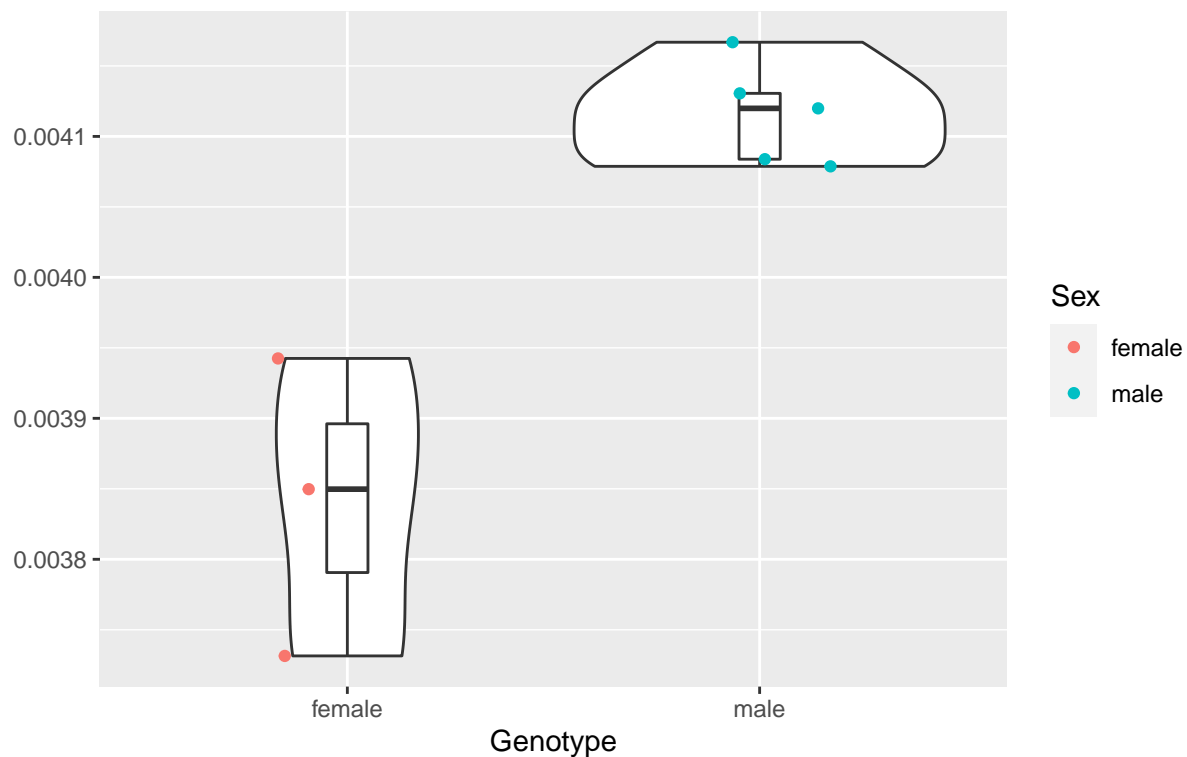
Red points denoting outliers



```
##          Df    Sum Sq  Mean Sq F value  Pr(>F)
## Sex          1 4.146e-08 4.146e-08   22.59 0.00315 **
## Residuals    6 1.101e-08 1.840e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Raphe Nucleus

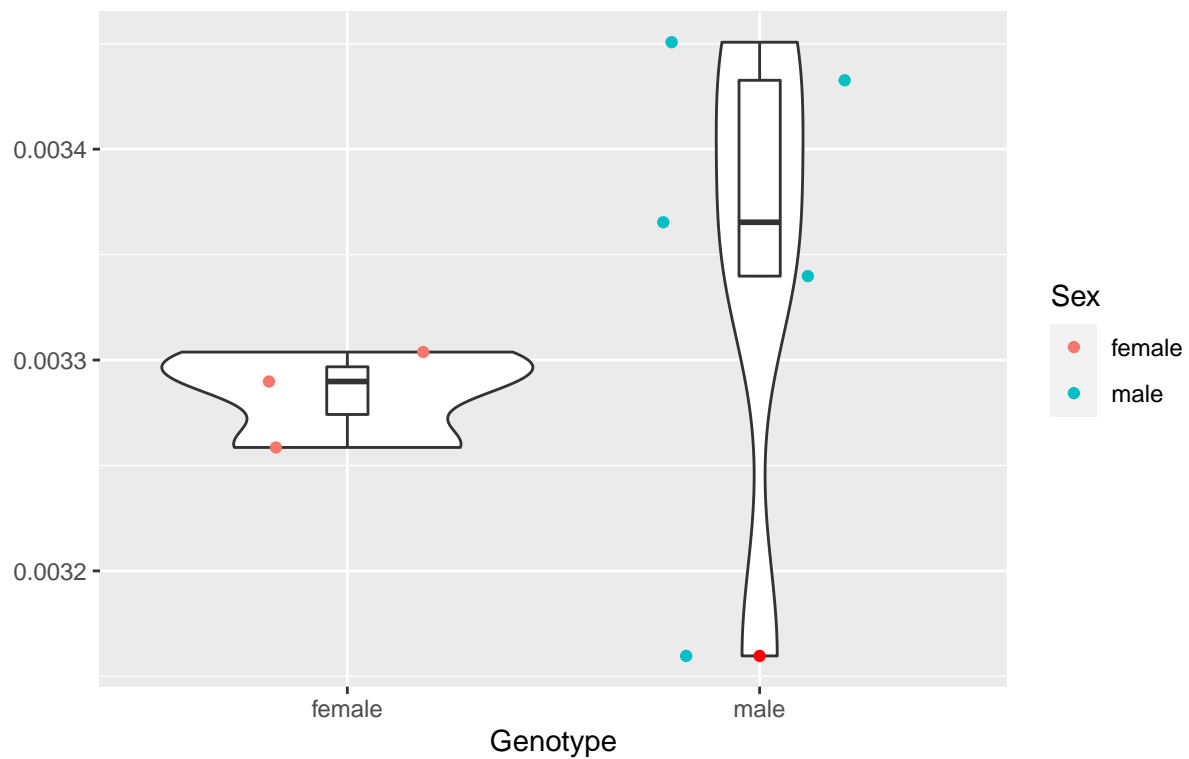
Red points denoting outliers



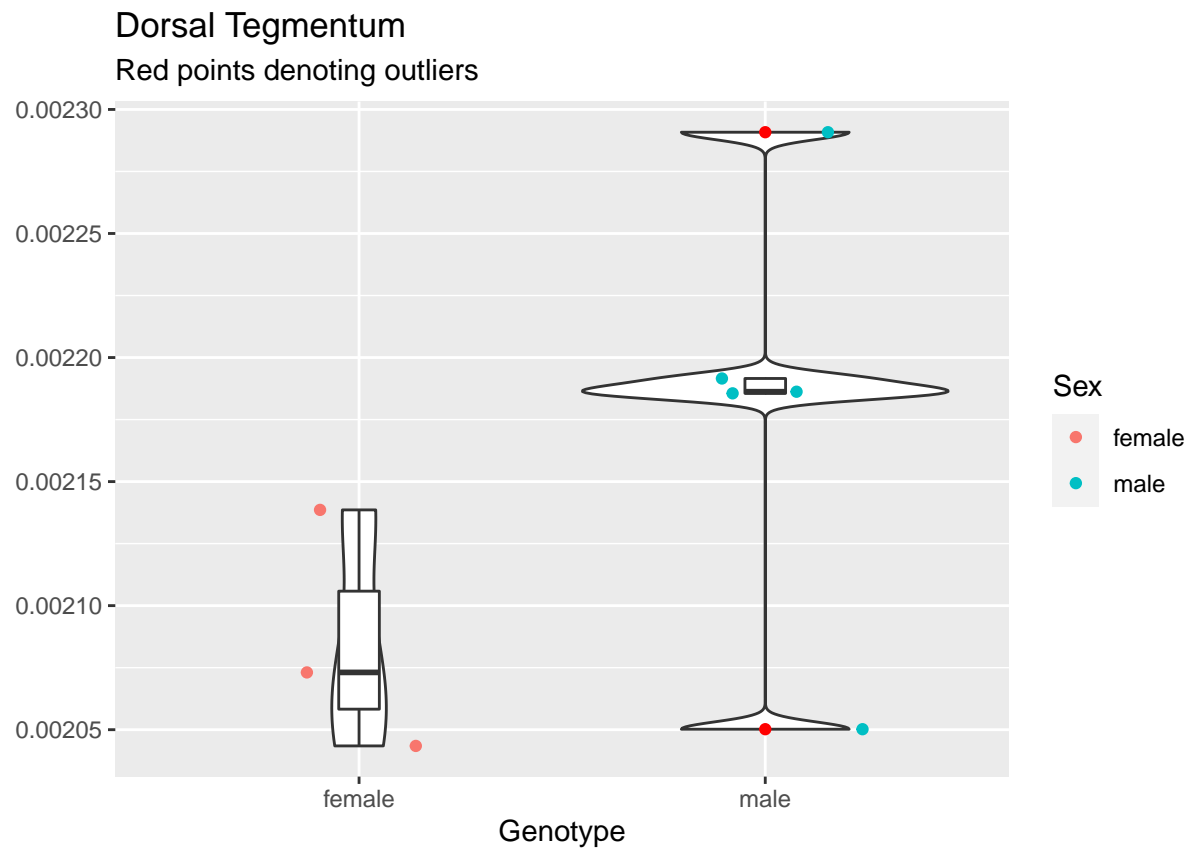
```
##          Df    Sum Sq  Mean Sq F value   Pr(>F)
## Sex          1 1.415e-07 1.415e-07   30.76 0.00145 **
## Residuals    6 2.761e-08 4.600e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Trigeminal Sensory Nucleus

Red points denoting outliers



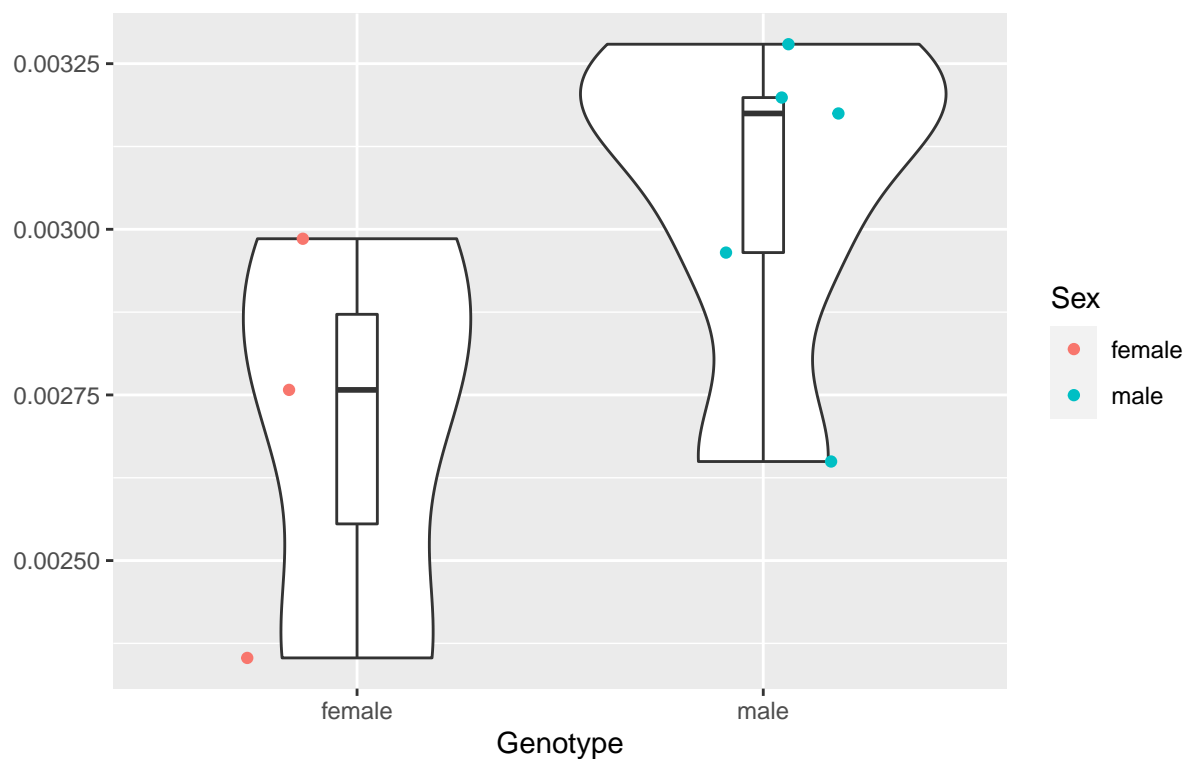
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	8.070e-09	8.067e-09	0.886	0.383
## Residuals	6	5.461e-08	9.101e-09		



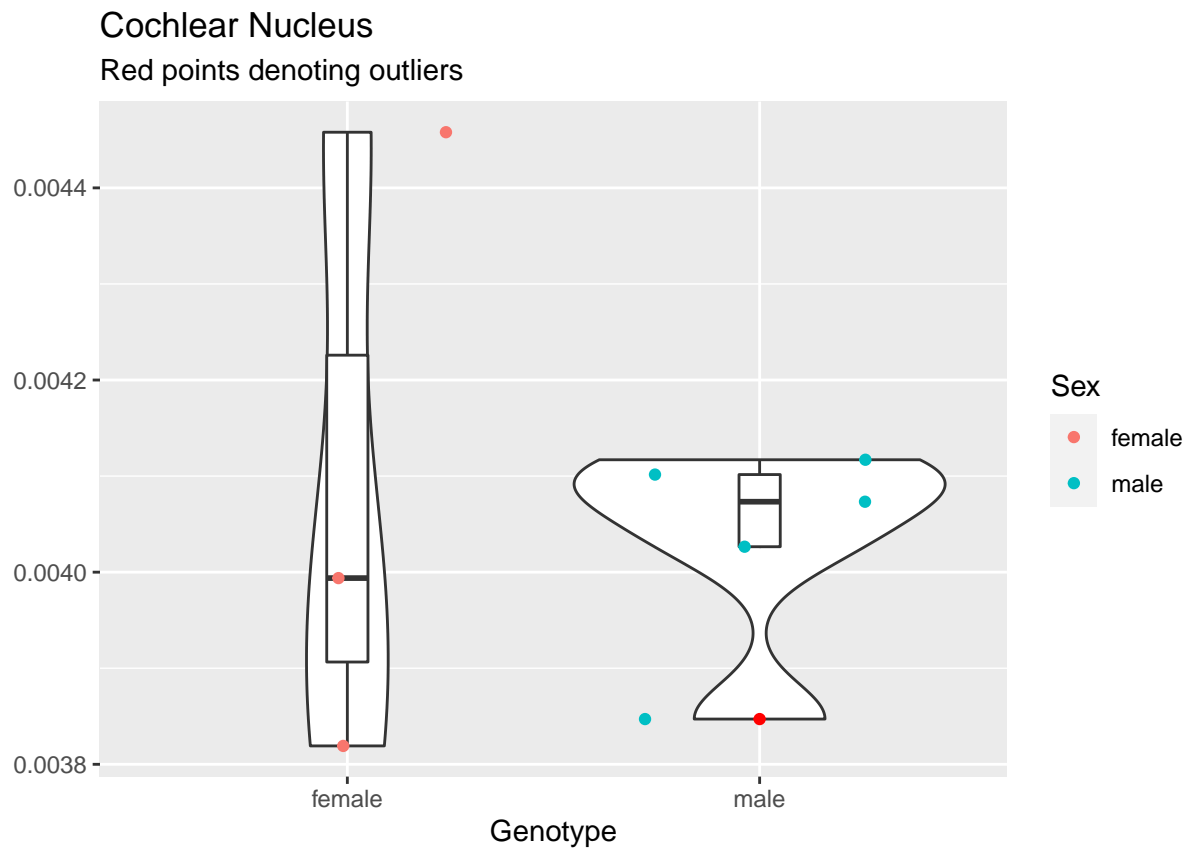
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.722e-08	1.722e-08	3.032	0.132
## Residuals	6	3.407e-08	5.678e-09		

Tegmental Nucleus

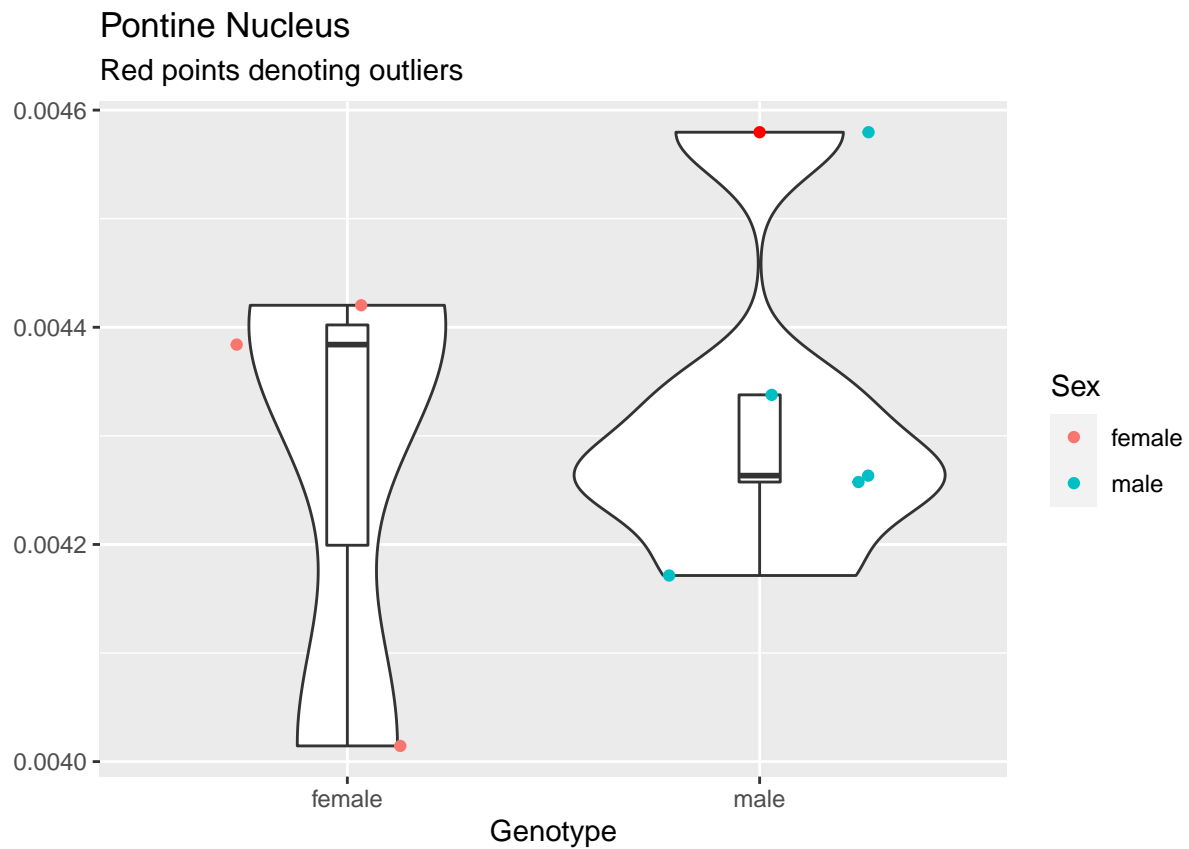
Red points denoting outliers

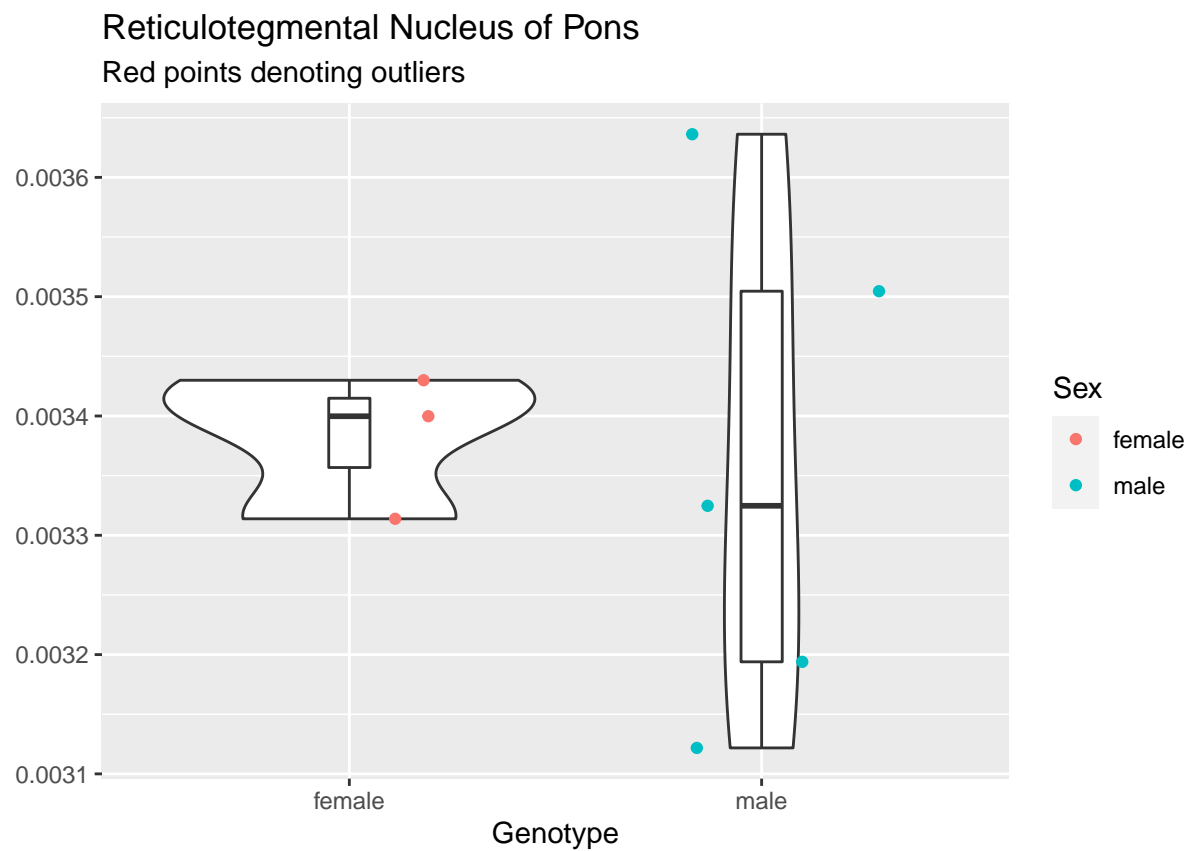


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.359e-07	2.359e-07	3.055	0.131
## Residuals	6	4.633e-07	7.721e-08		

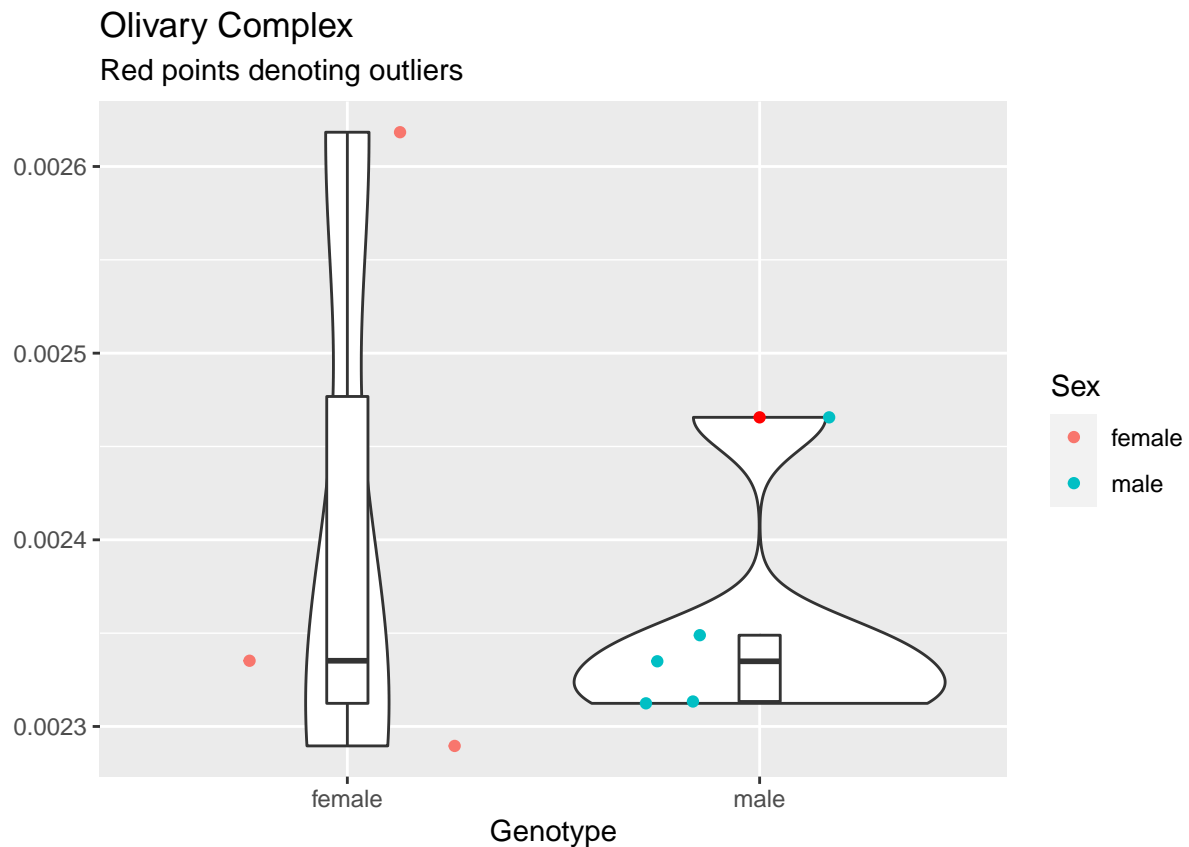


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.13e-09	6.130e-09	0.138	0.723
## Residuals	6	2.66e-07	4.433e-08		





```
##          Df Sum Sq Mean Sq F value Pr(>F)
## Sex      1 1.17e-09 1.170e-09  0.037  0.854
## Residuals 6 1.90e-07 3.166e-08
```

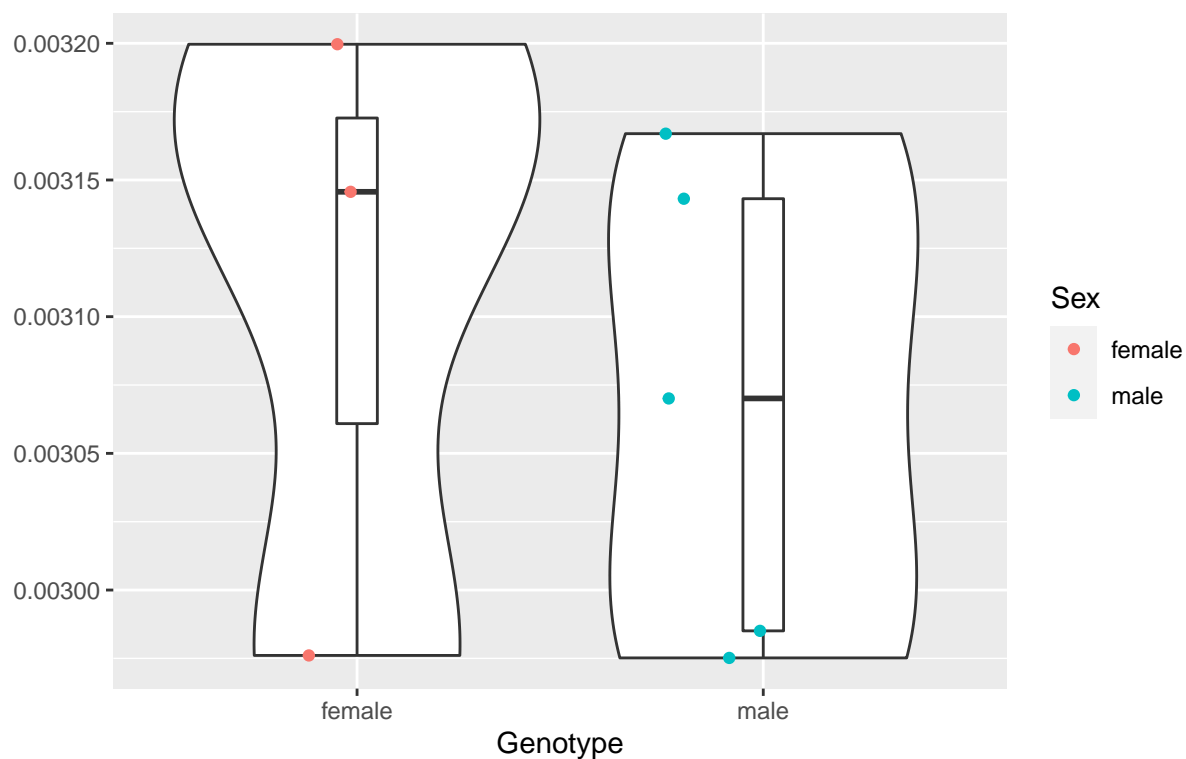


```
##           Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex       1 6.600e-09 6.603e-09   0.497  0.507
## Residuals 6 7.968e-08 1.328e-08
```

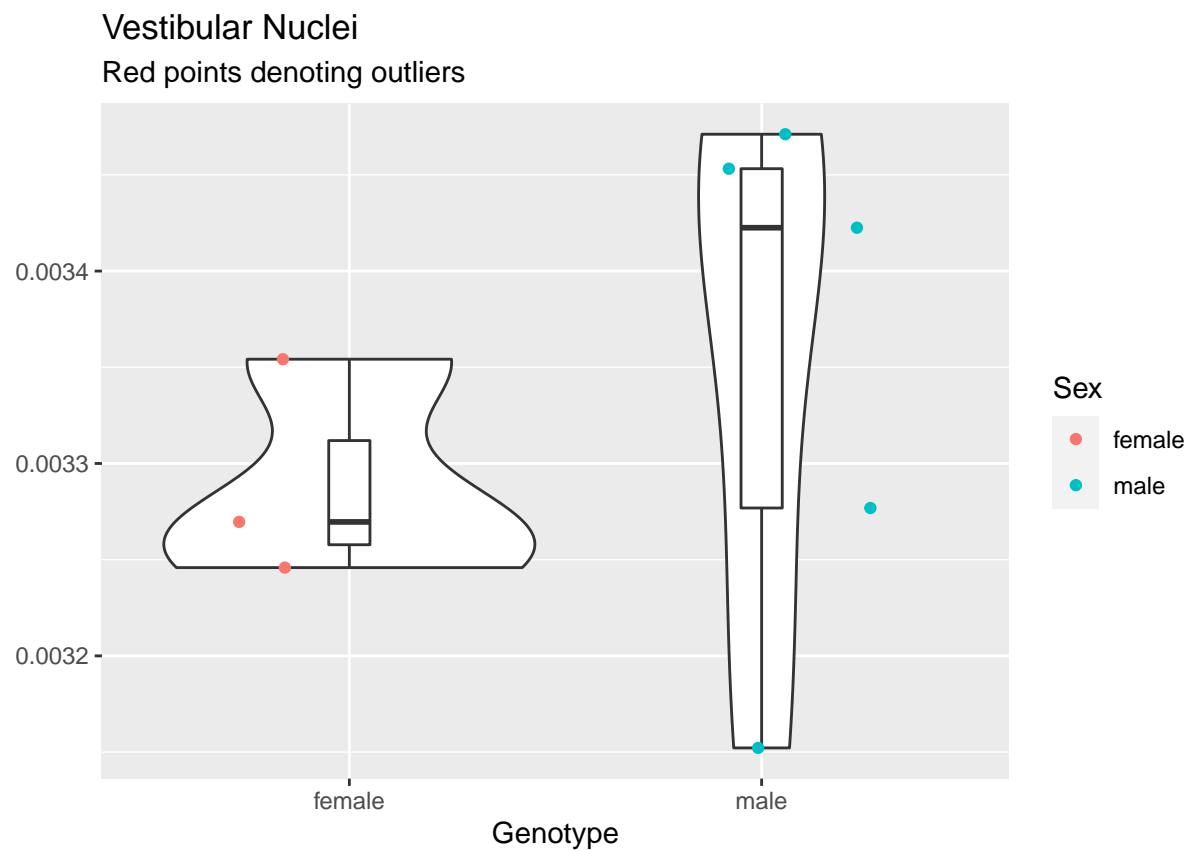
```
##“{r PnRt, echo = FALSE} #ggplot(data = apoe3, aes(factor(Sex), PnRt)) + # geom_violin() + #
geom_boxplot(width = 0.1, outlier.color = “red”) + # geom_jitter(height = 0, width = 0.3) + # labs(x =
“Genotype”, # y = “”, # title = “Pontine Reticular Nucleus”, # subtitle = “Red points denoting outliers”)
#res.aov <- aov(PnRt ~ Sex, data = apoe3) #summary(res.aov) #““
```

Spinal Trigeminal Nucleus

Red points denoting outliers

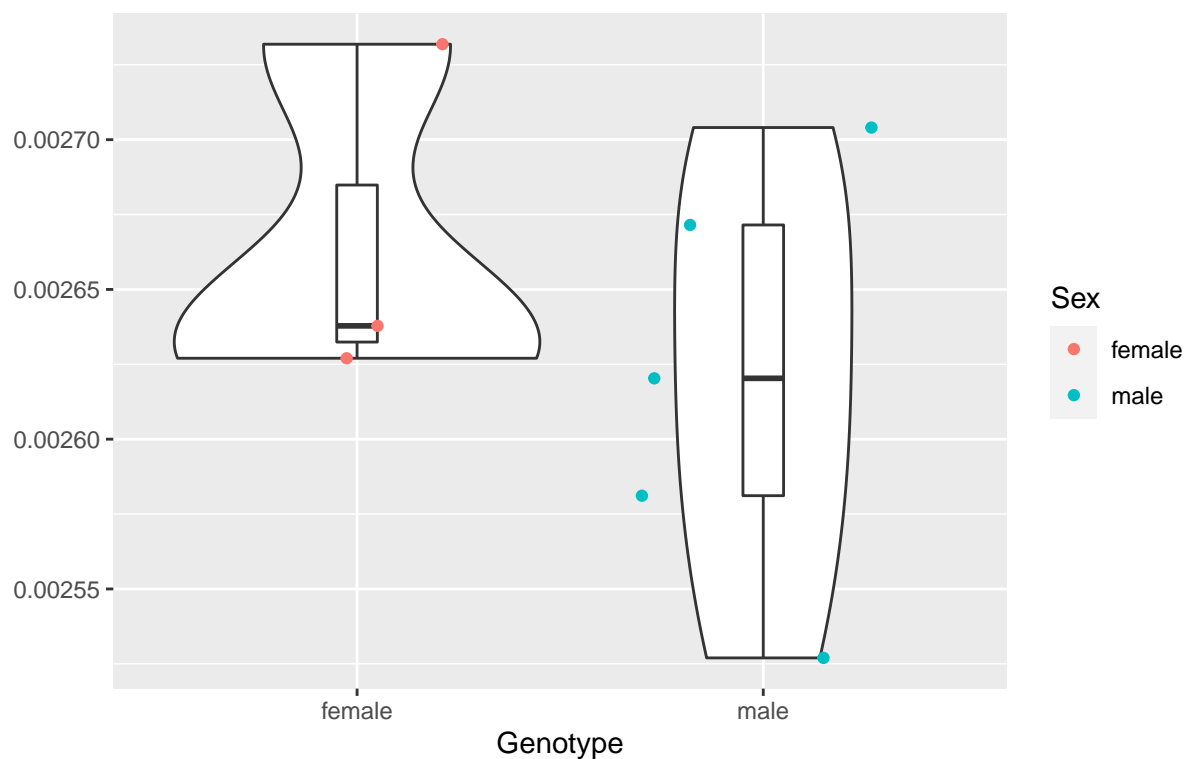


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.860e-09	2.860e-09	0.295	0.607
## Residuals	6	5.816e-08	9.694e-09		

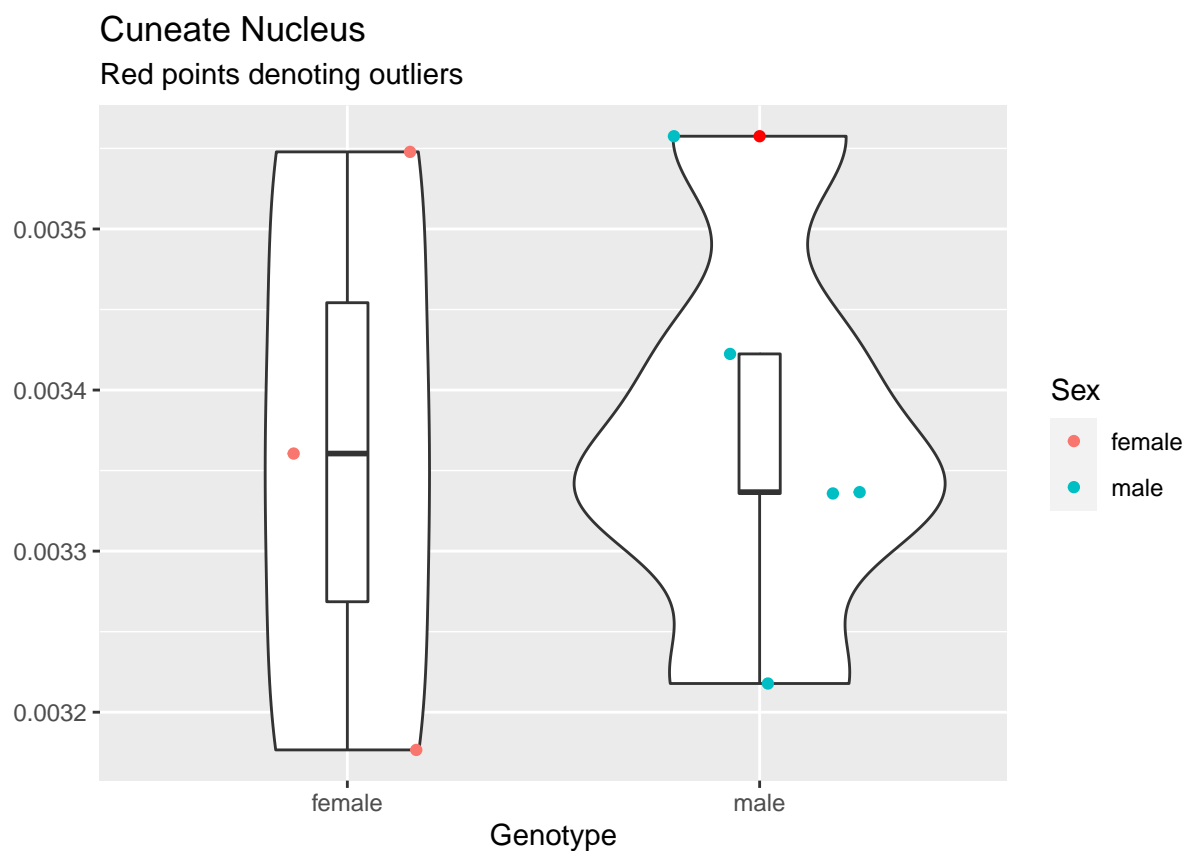


Gigantocellular Reticular Nucleus

Red points denoting outliers



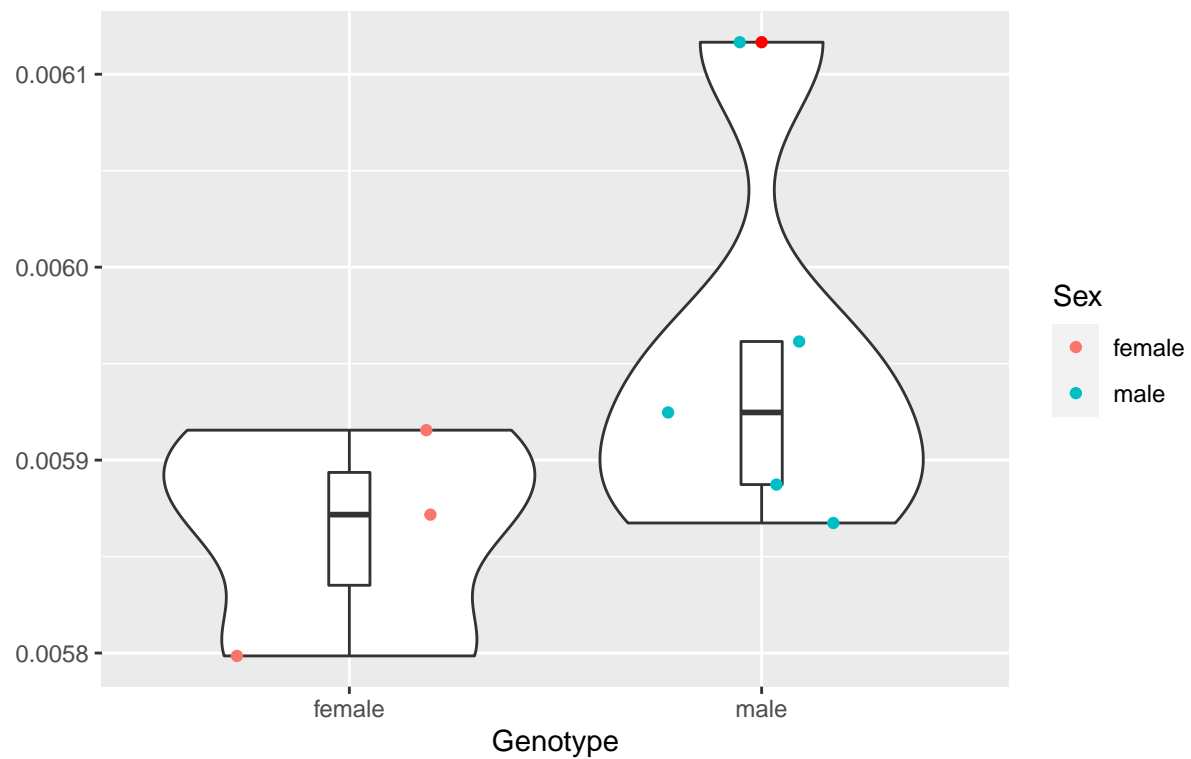
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.759e-09	3.759e-09	0.85	0.392
## Residuals	6	2.653e-08	4.422e-09		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.900e-10	2.870e-10	0.013	0.913
## Residuals	6	1.322e-07	2.204e-08		

Anterior Commissure

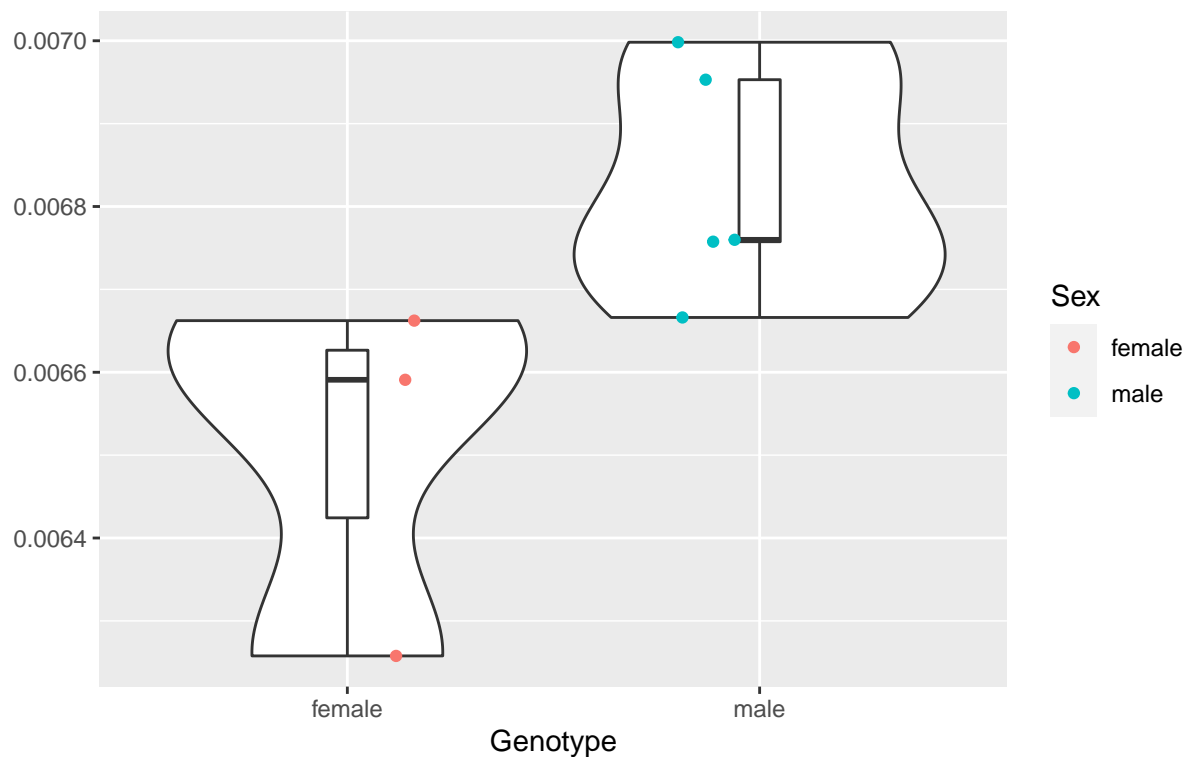
Red points denoting outliers



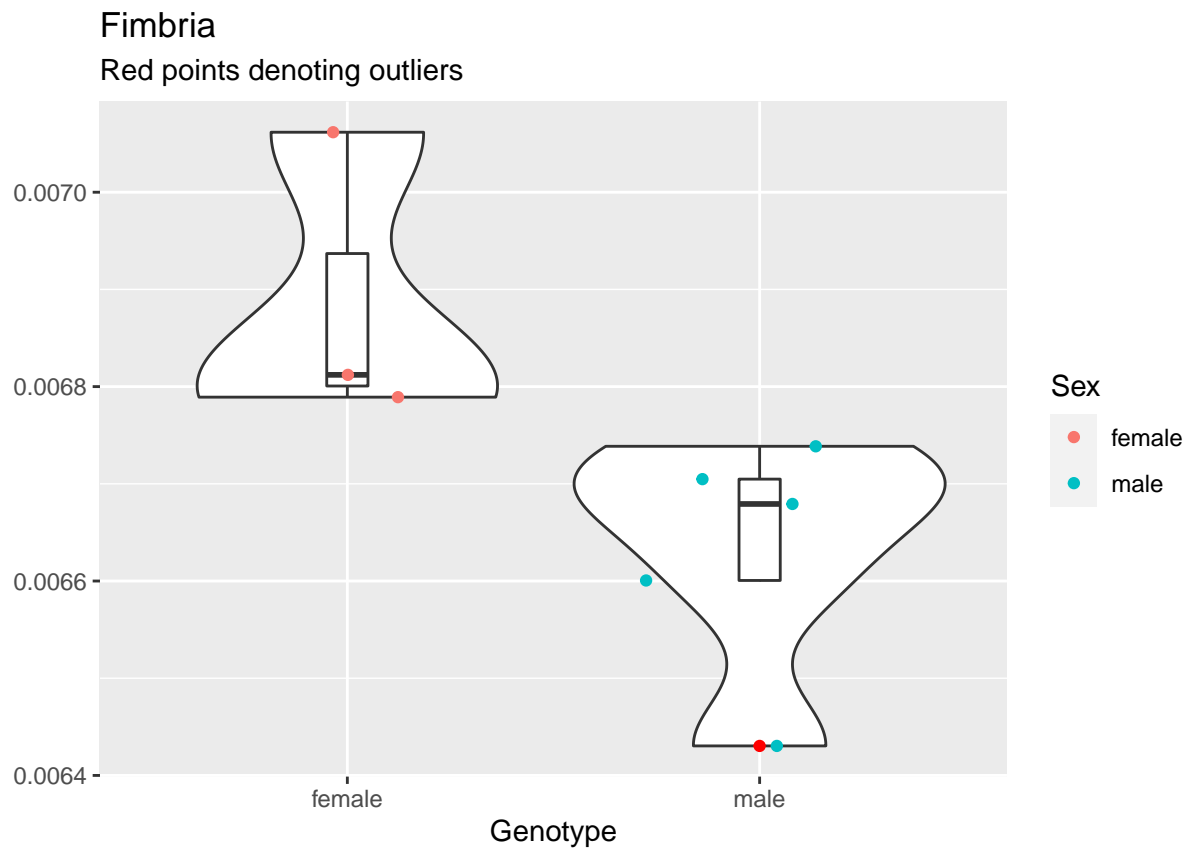
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.504e-08	1.504e-08	1.951	0.212
## Residuals	6	4.625e-08	7.709e-09		

Optic Tracts

Red points denoting outliers



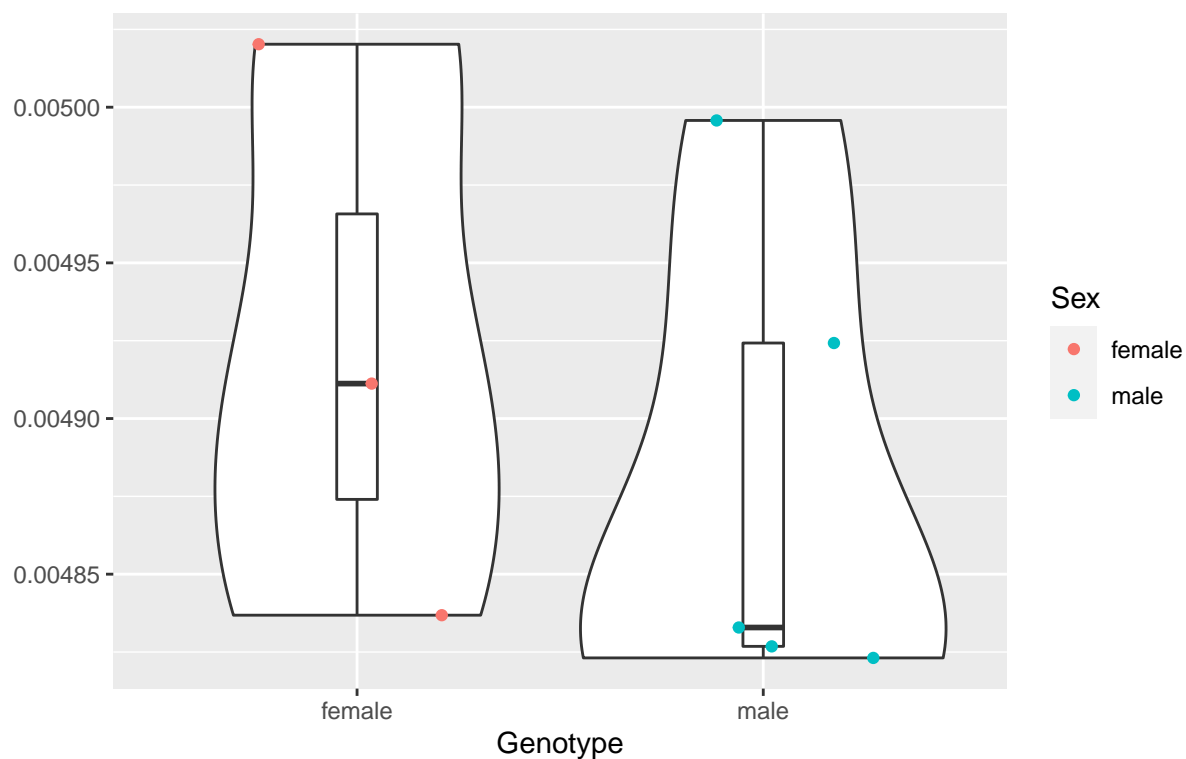
```
##           Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex         1 1.960e-07 1.960e-07   6.771 0.0405 *
## Residuals   6 1.737e-07 2.895e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```



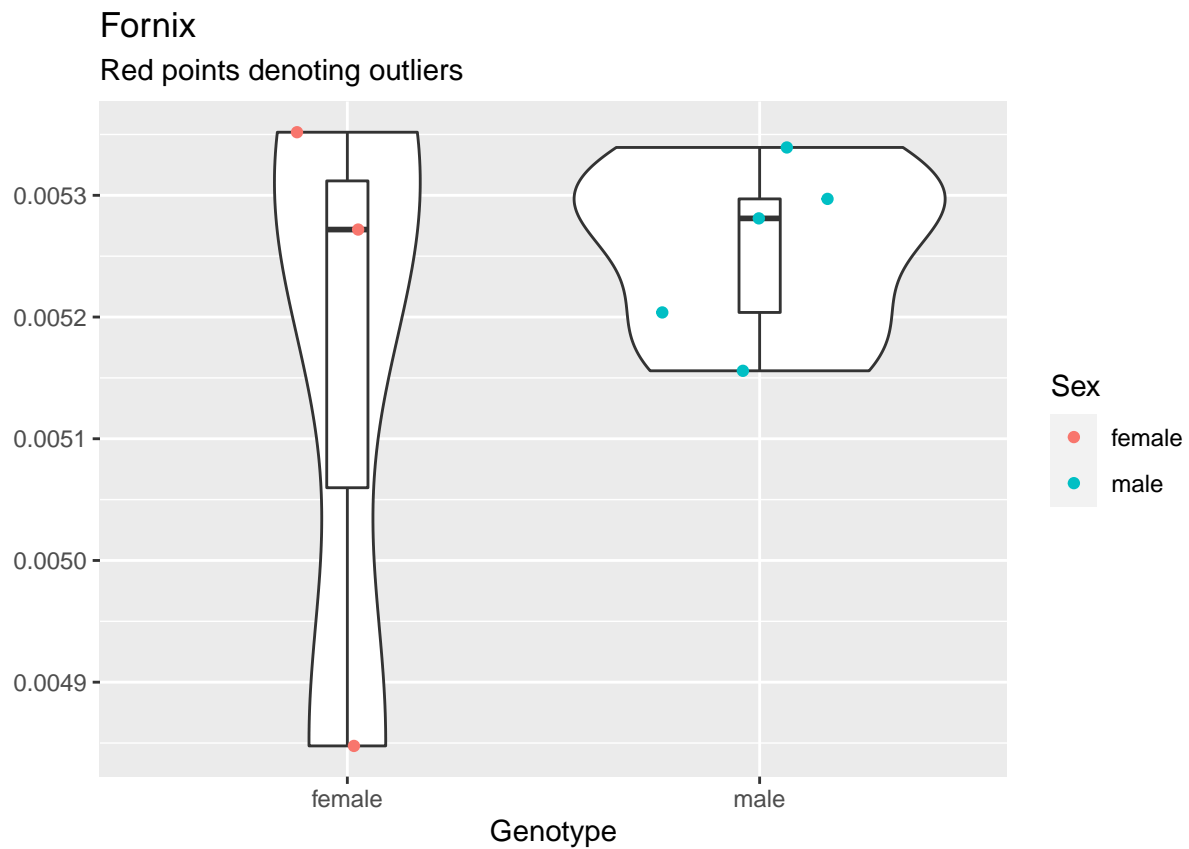
```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 1.238e-07 1.238e-07   6.99 0.0383 *
## Residuals    6 1.063e-07 1.771e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Corpus Callosum

Red points denoting outliers

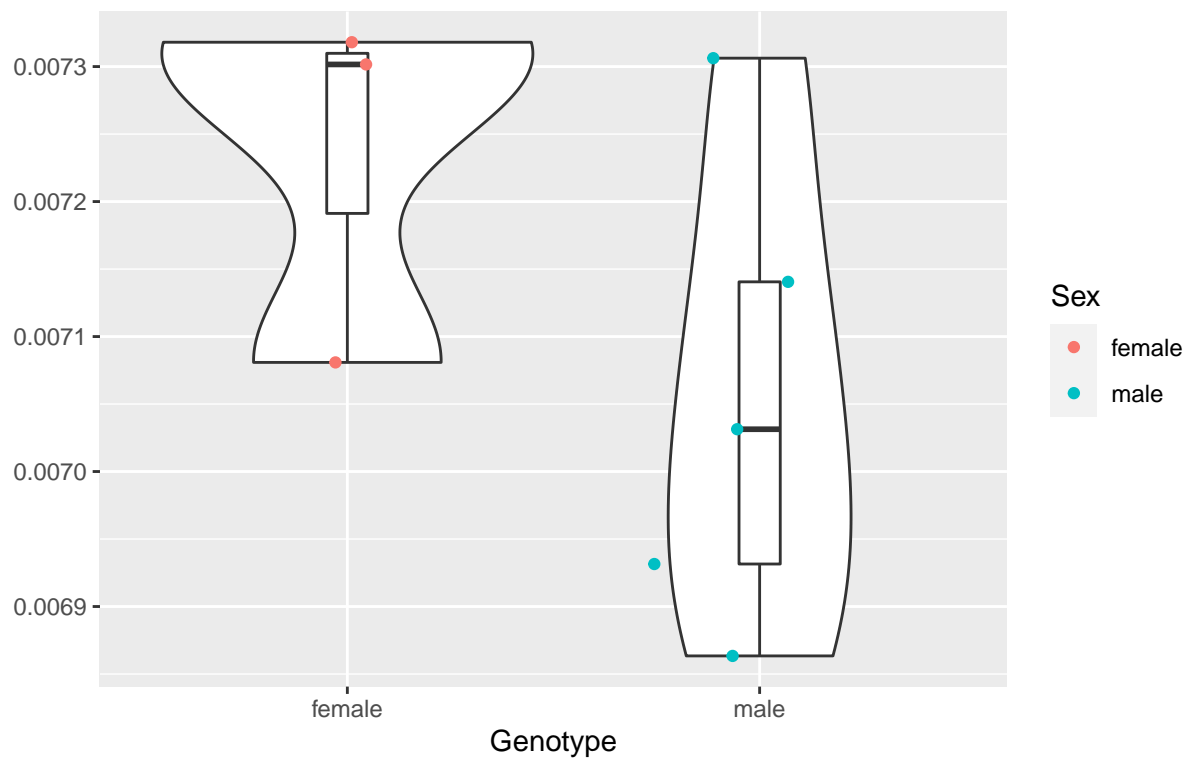


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.340e-09	3.340e-09	0.493	0.509
## Residuals	6	4.066e-08	6.777e-09		

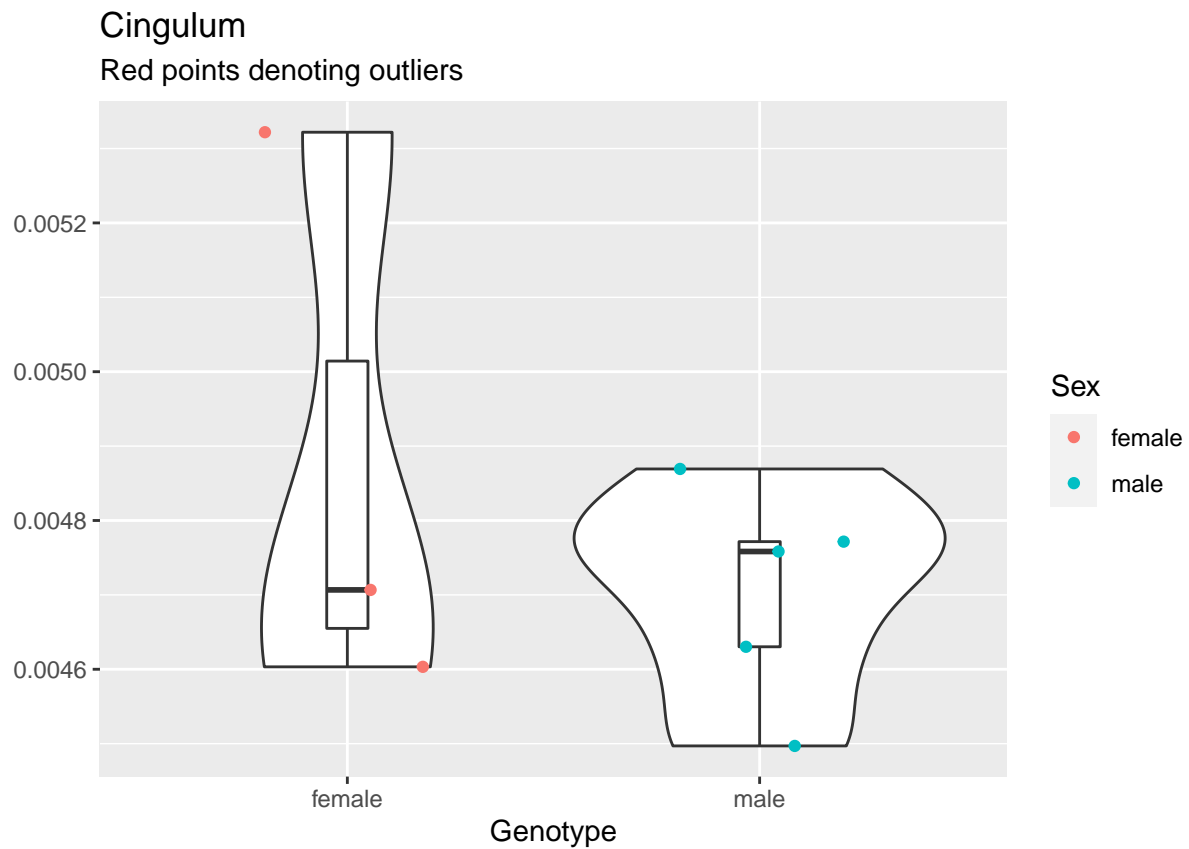


Stria Terminalis

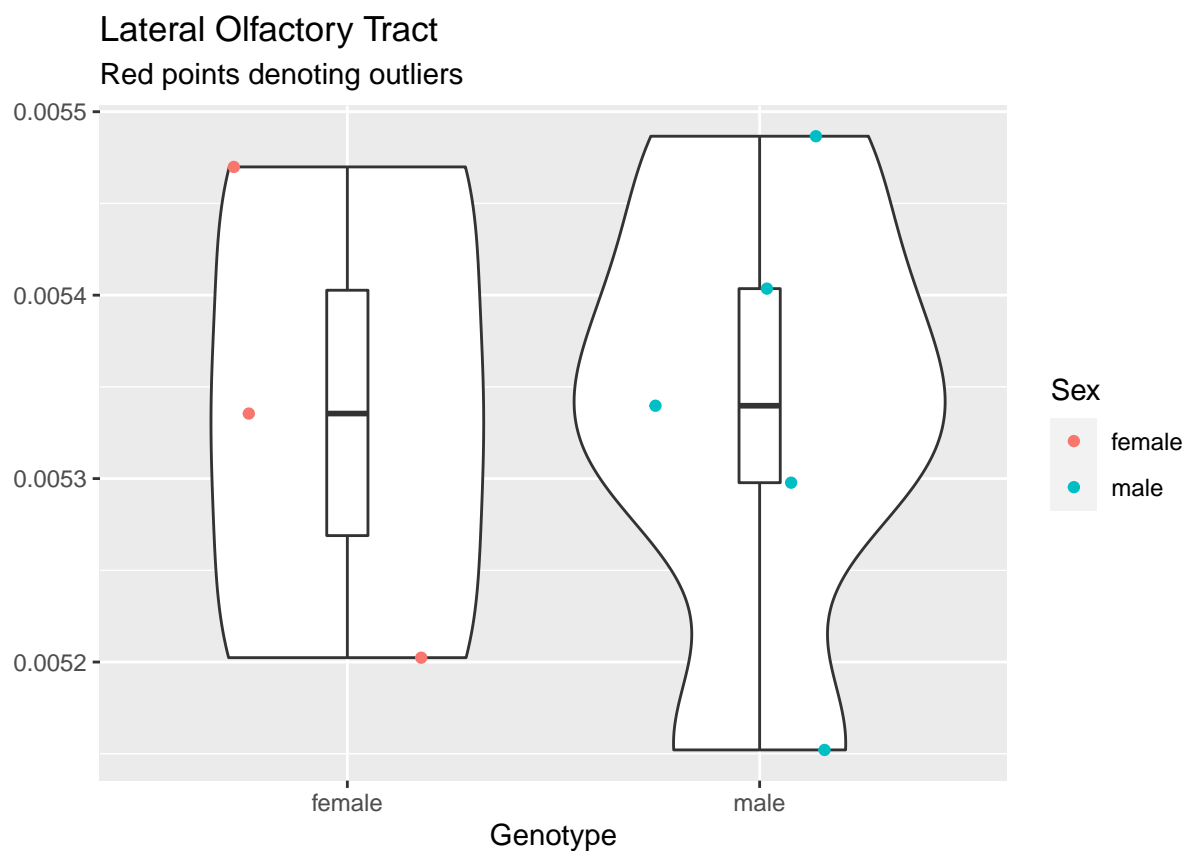
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.00e-08	6.000e-08	2.278	0.182
## Residuals	6	1.58e-07	2.634e-08		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.55e-08	5.549e-08	0.865	0.388
## Residuals	6	3.85e-07	6.417e-08		

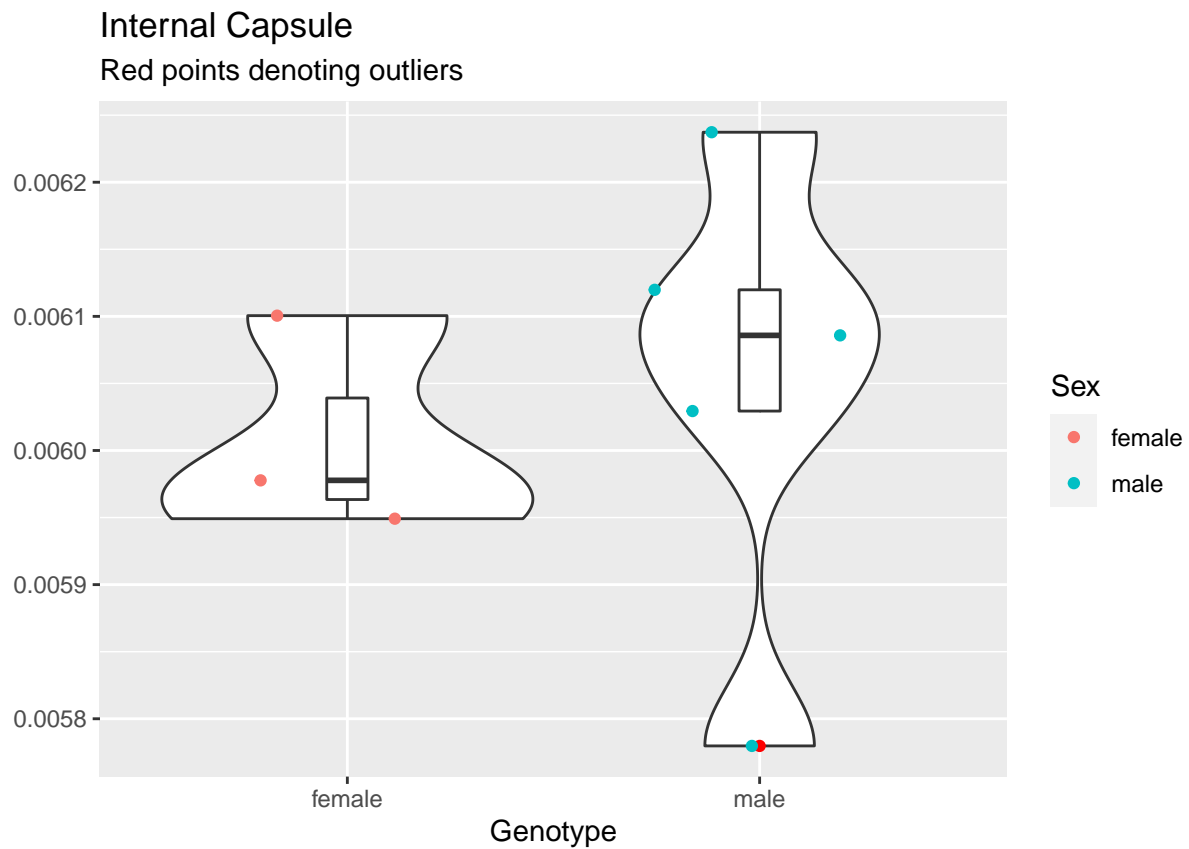


Ventral Hippocampal Commissure

Red points denoting outliers



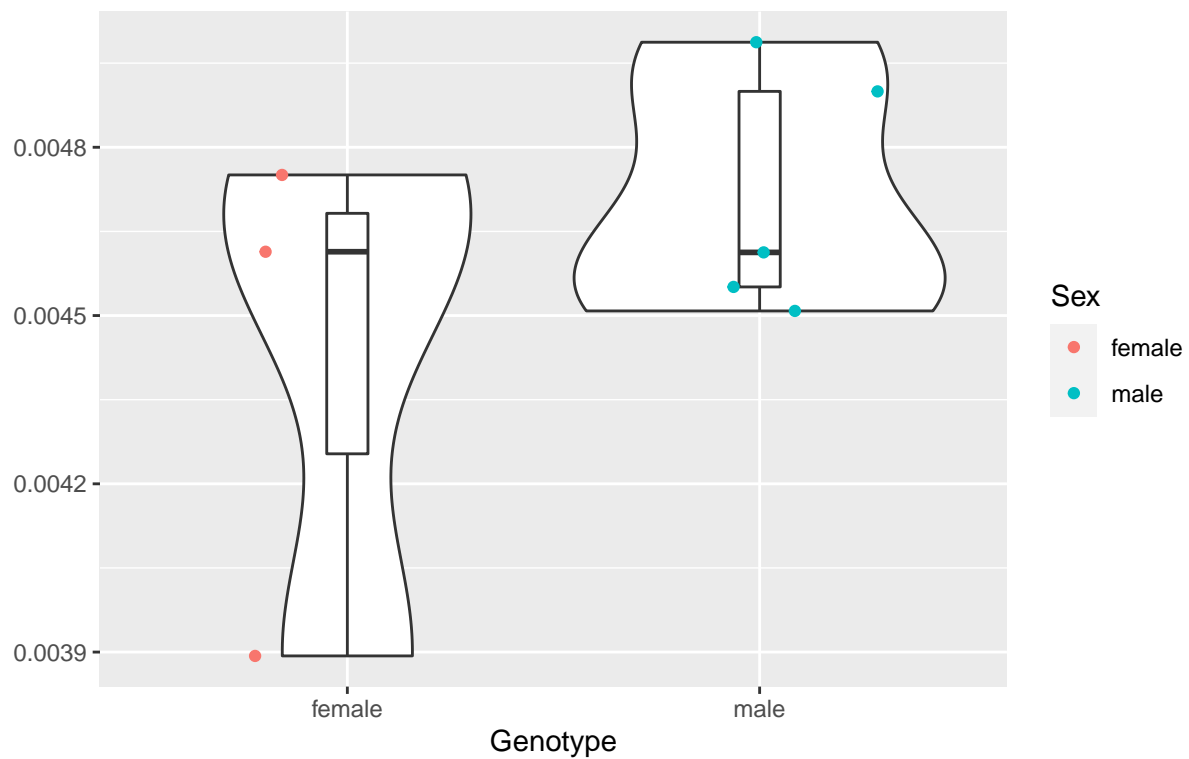
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	9.800e-09	9.840e-09	0.146	0.715
## Residuals	6	4.036e-07	6.726e-08		



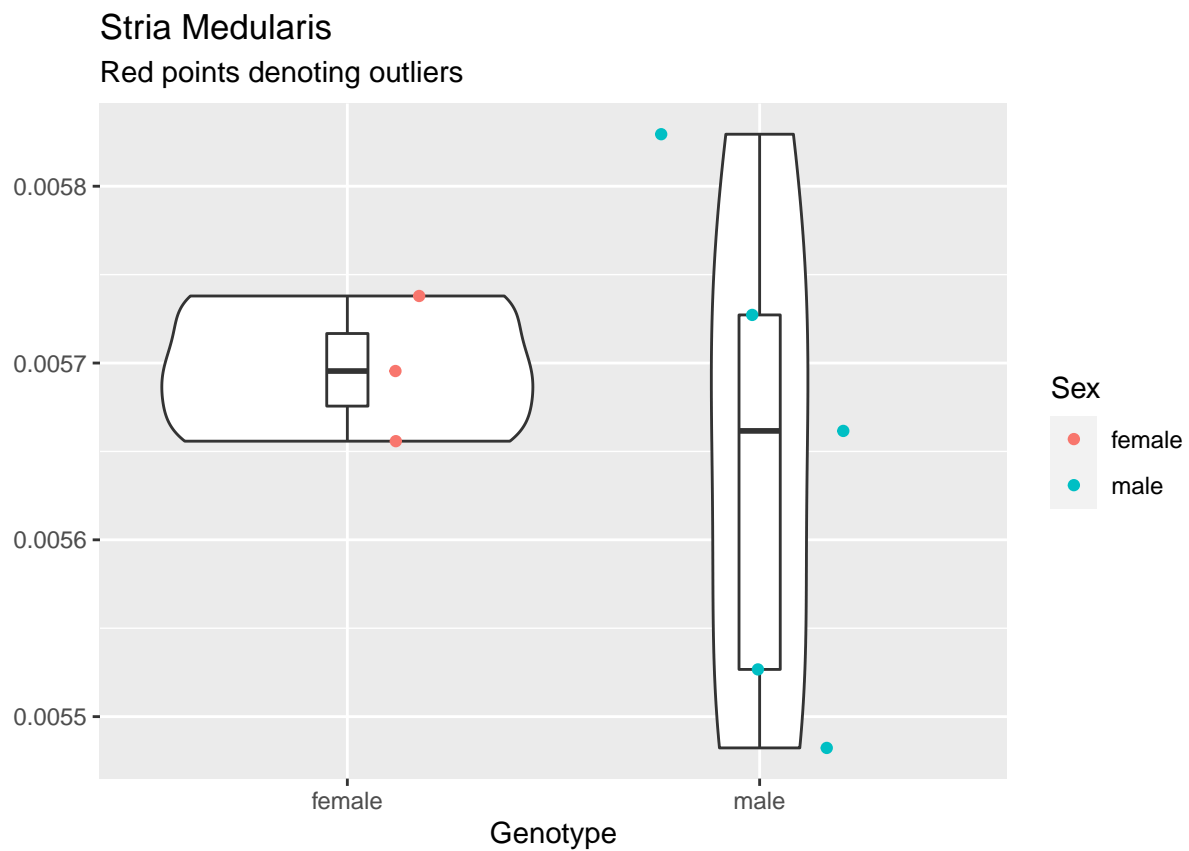
```
##          Df    Sum Sq  Mean Sq F value Pr(>F)
## Sex       1 3.190e-09 3.193e-09   0.15  0.712
## Residuals 6 1.276e-07 2.127e-08
```

Fasciculus Retroflexus

Red points denoting outliers

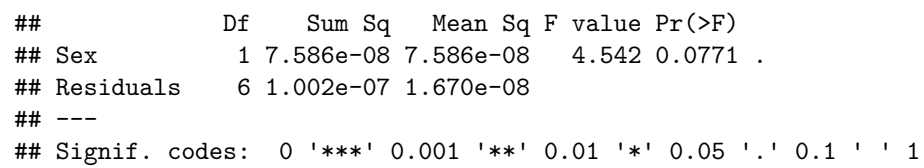


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.605e-07	1.605e-07	1.571	0.257
## Residuals	6	6.128e-07	1.021e-07		



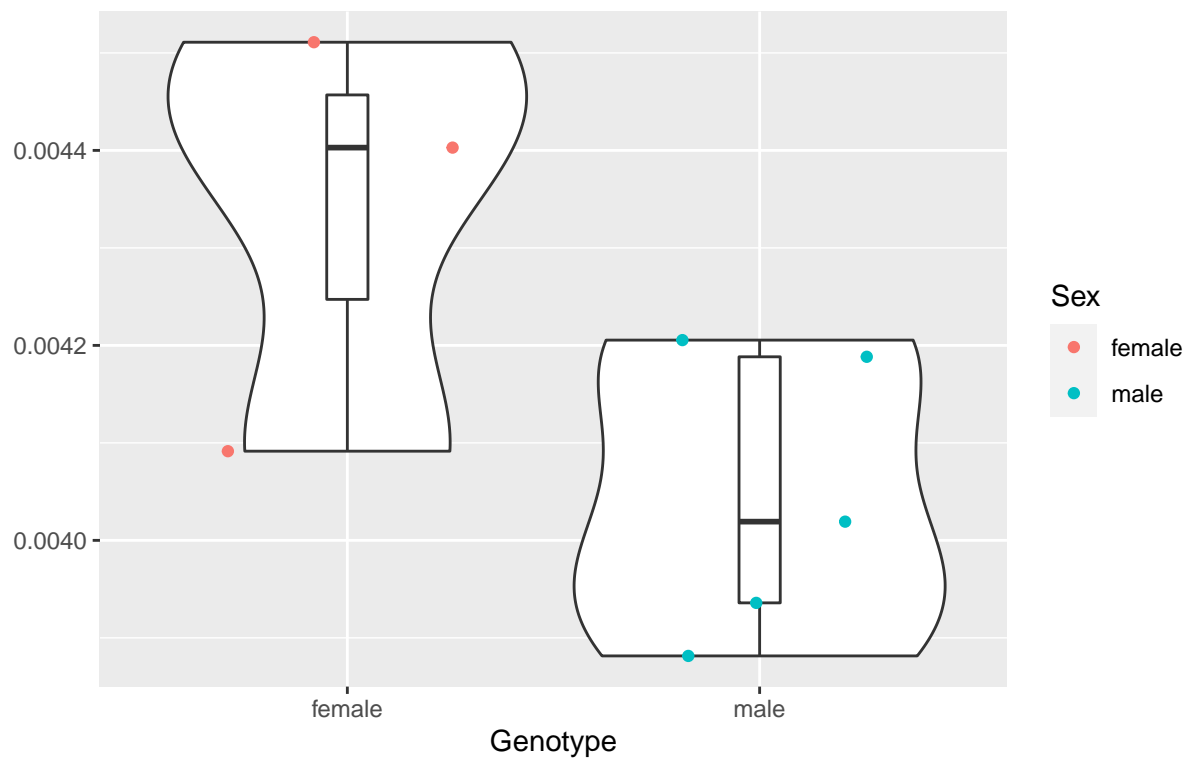
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.870e-09	4.867e-09	0.344	0.579
## Residuals	6	8.488e-08	1.415e-08		

Red points denoting outliers



Posterior Commissure

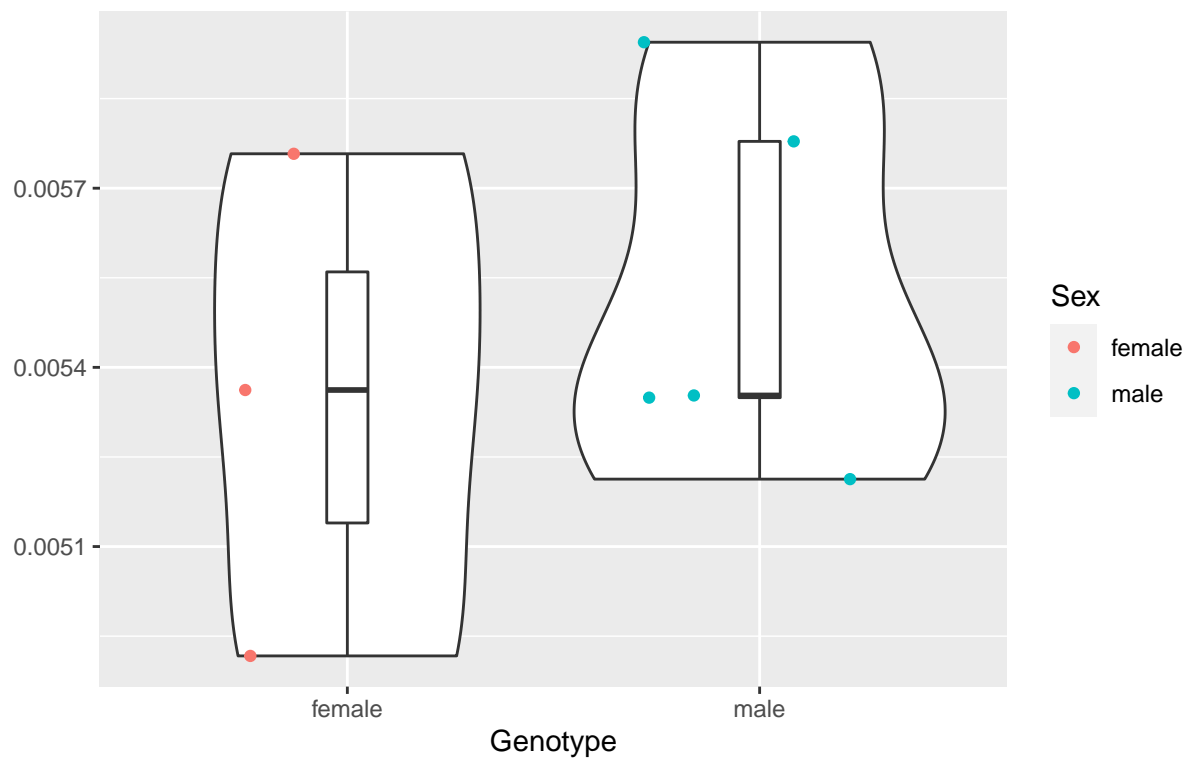
Red points denoting outliers



```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 1.567e-07 1.567e-07   5.209 0.0626 .
## Residuals    6 1.805e-07 3.007e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```


Brachium of Superior Colliculus

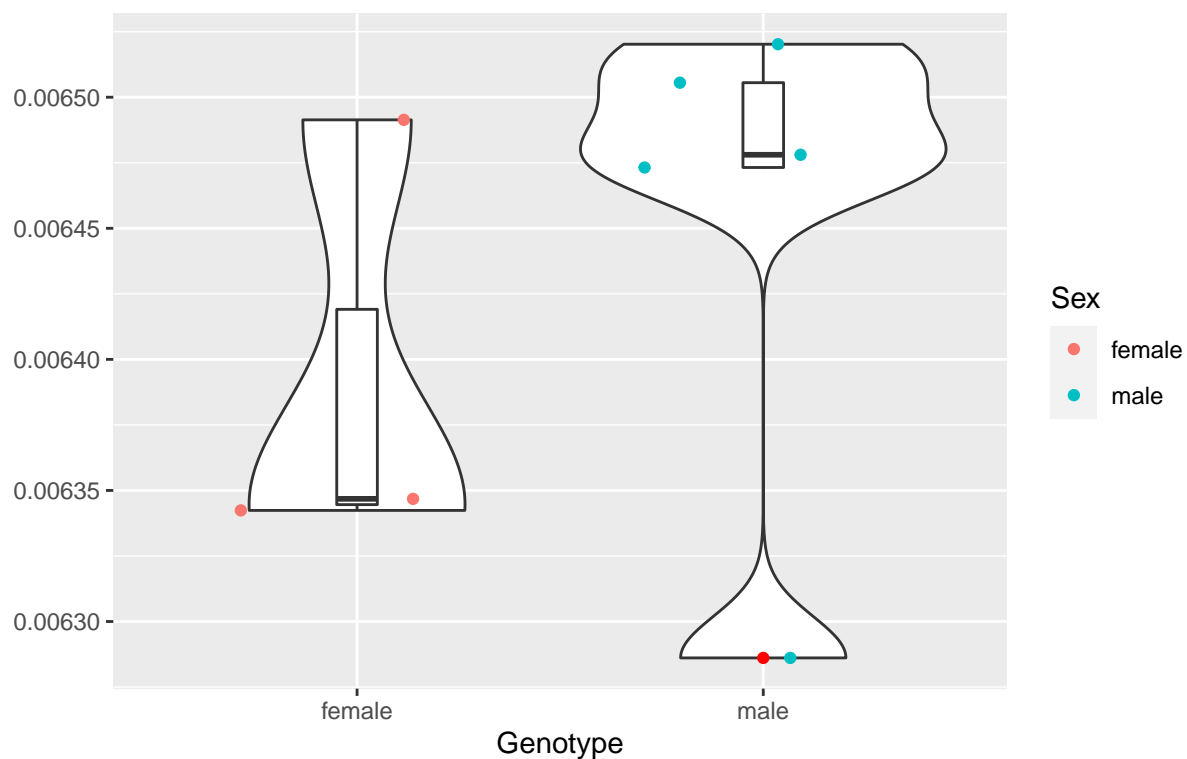
Red points denoting outliers



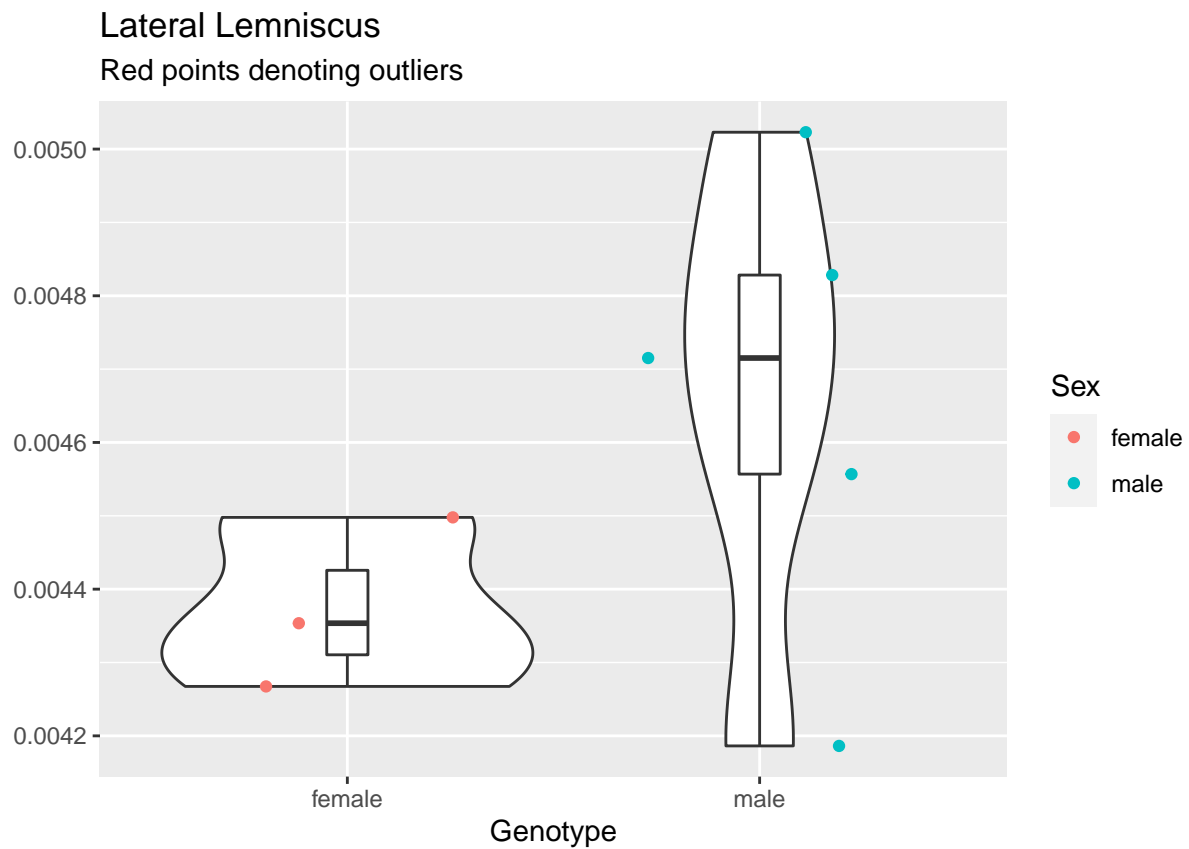
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.220e-08	6.216e-08	0.496	0.508
## Residuals	6	7.518e-07	1.253e-07		

Cerebral Peduncle

Red points denoting outliers



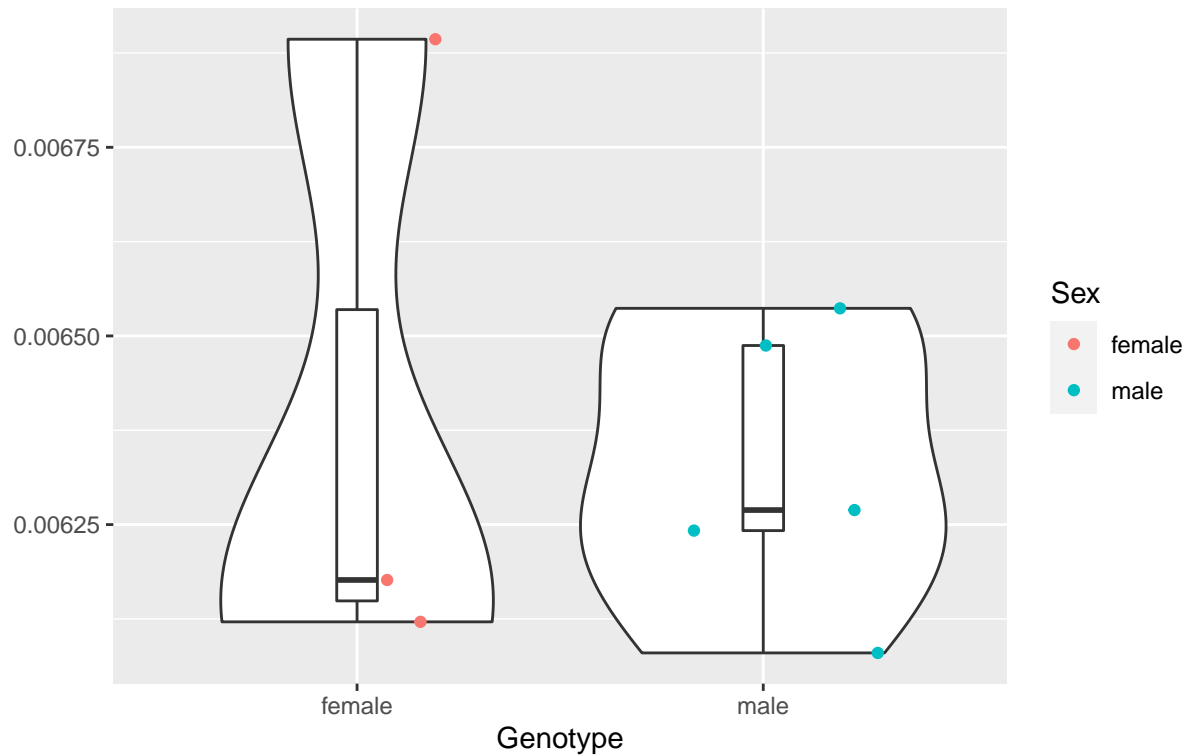
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.550e-09	6.550e-09	0.778	0.412
## Residuals	6	5.054e-08	8.423e-09		



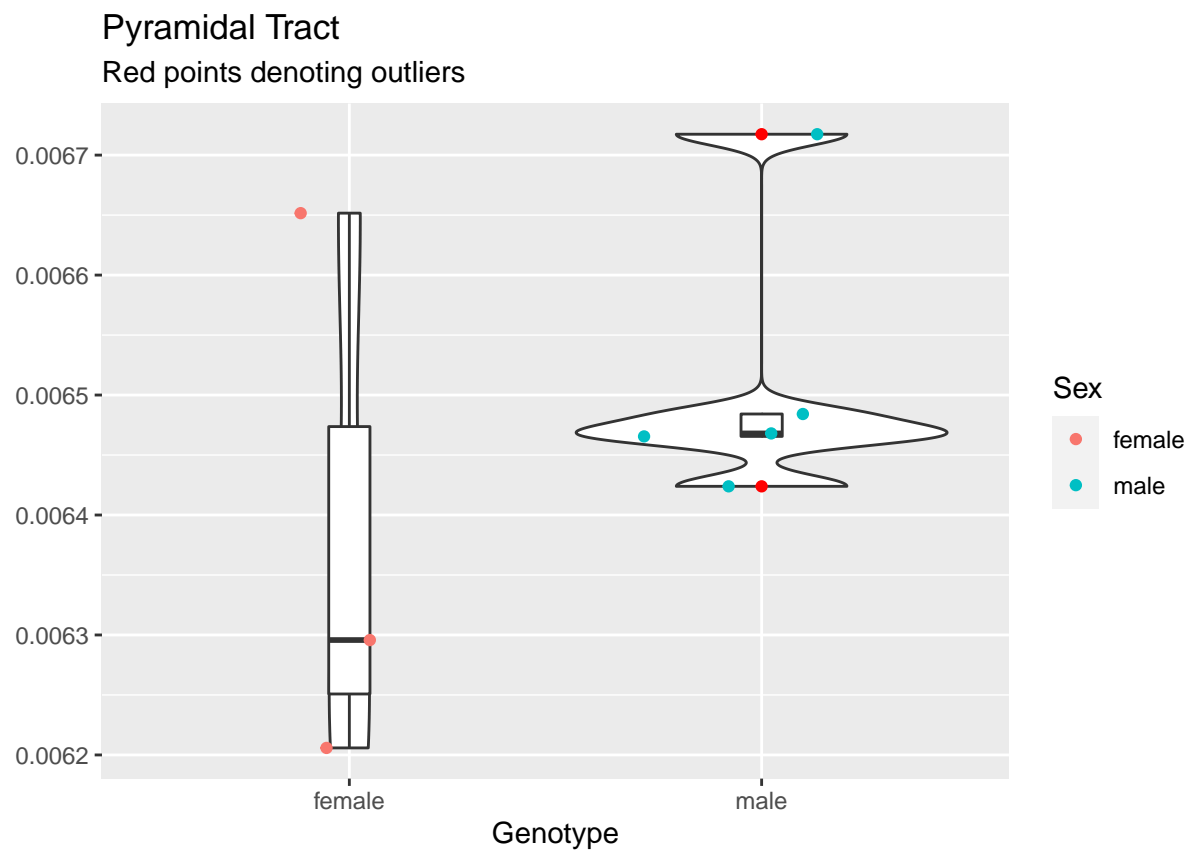
```
##          Df    Sum Sq  Mean Sq F value Pr(>F)
## Sex        1 1.566e-07 1.566e-07   2.209  0.188
## Residuals   6 4.253e-07 7.088e-08
```

Spinal Trigeminal Nerve

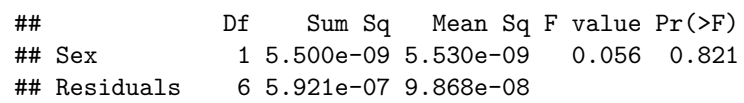
Red points denoting outliers

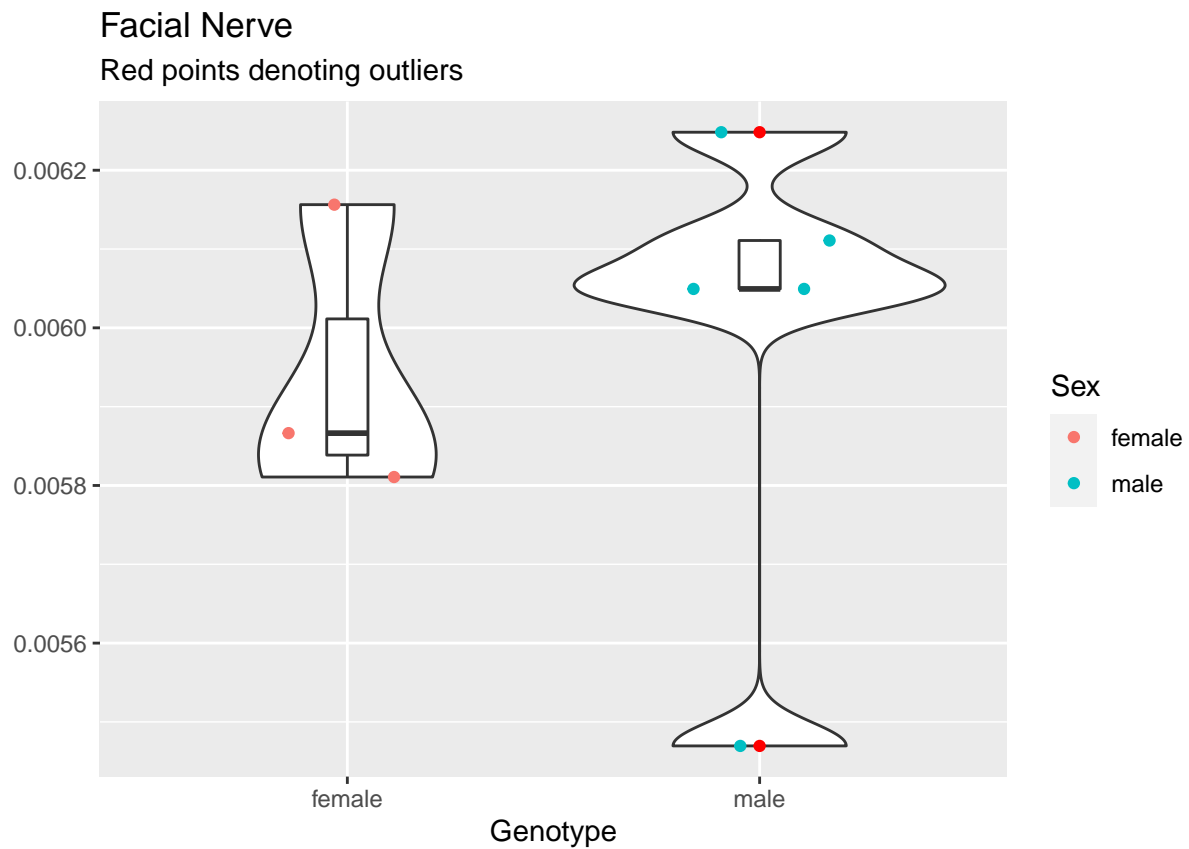


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.030e-08	1.025e-08	0.12	0.741
## Residuals	6	5.121e-07	8.535e-08		



Red points denoting outliers

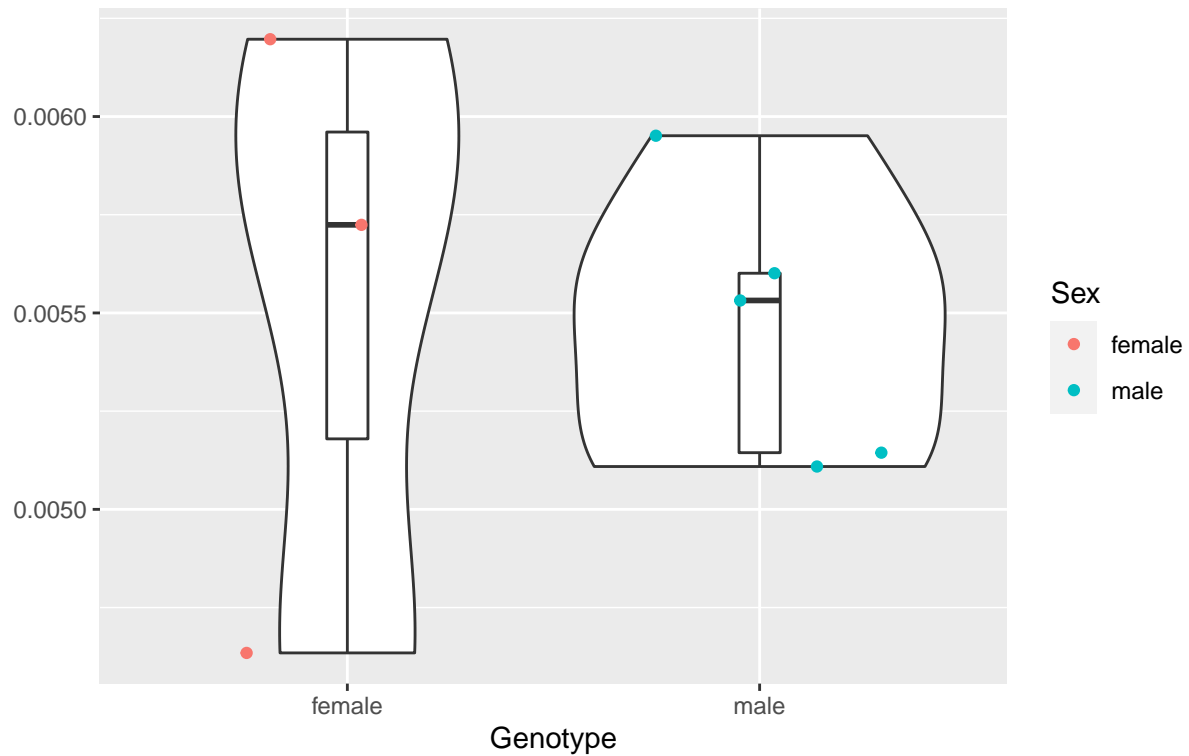




```
##          Df  Sum Sq  Mean Sq F value Pr(>F)
## Sex       1 3.20e-09 3.150e-09  0.044  0.84
## Residuals 6 4.28e-07 7.133e-08
```

Longitudinal Fasciculus of Pons

Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.900e-09	4.890e-09	0.017	0.902
## Residuals	6	1.773e-06	2.954e-07		

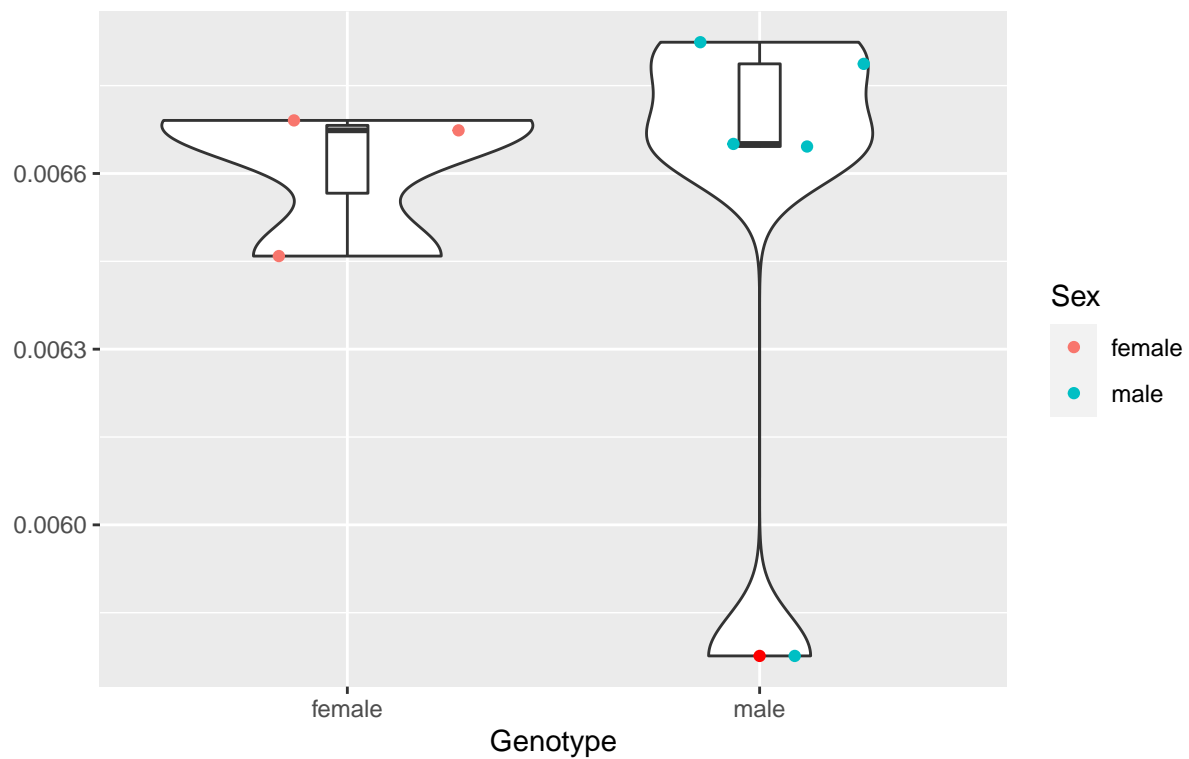
Medial Longitudinal Fasciculus and Tectospinal Tract

Red points denoting outliers

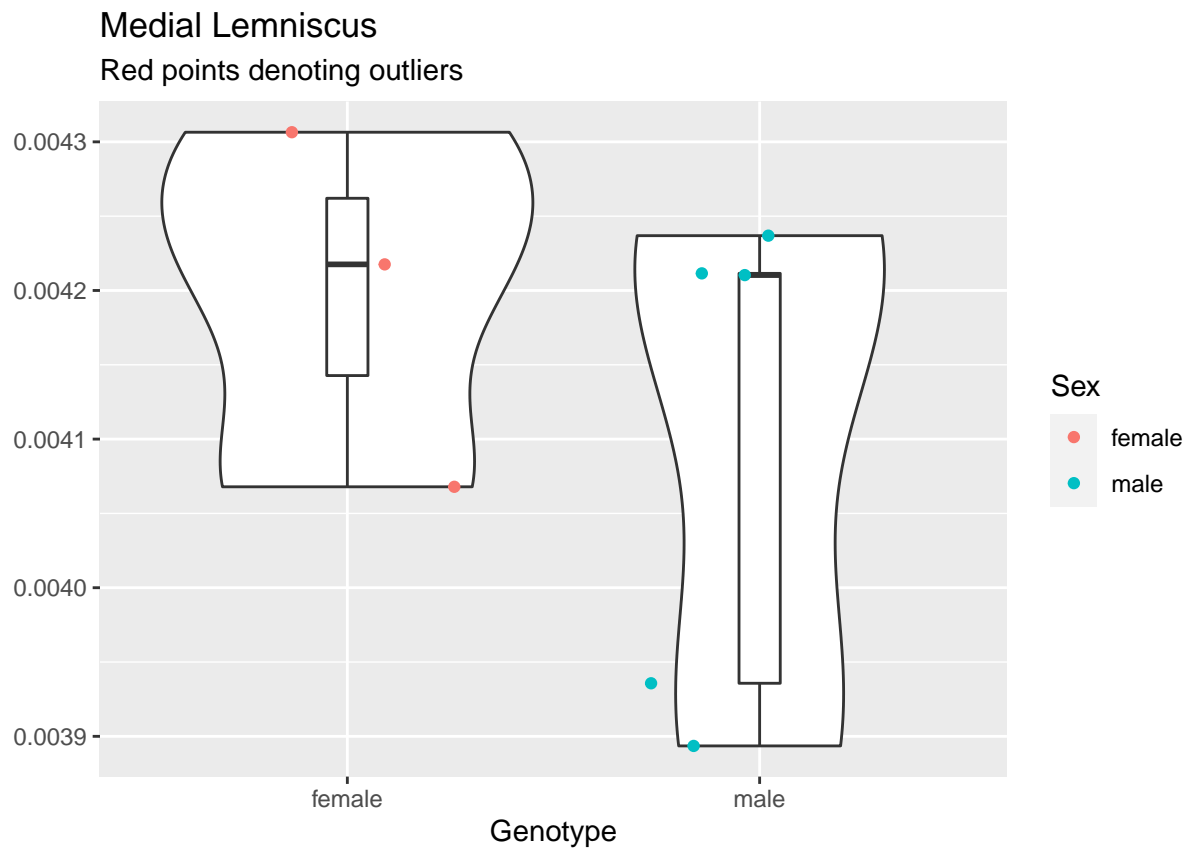


Spinocerebellar Tract

Red points denoting outliers



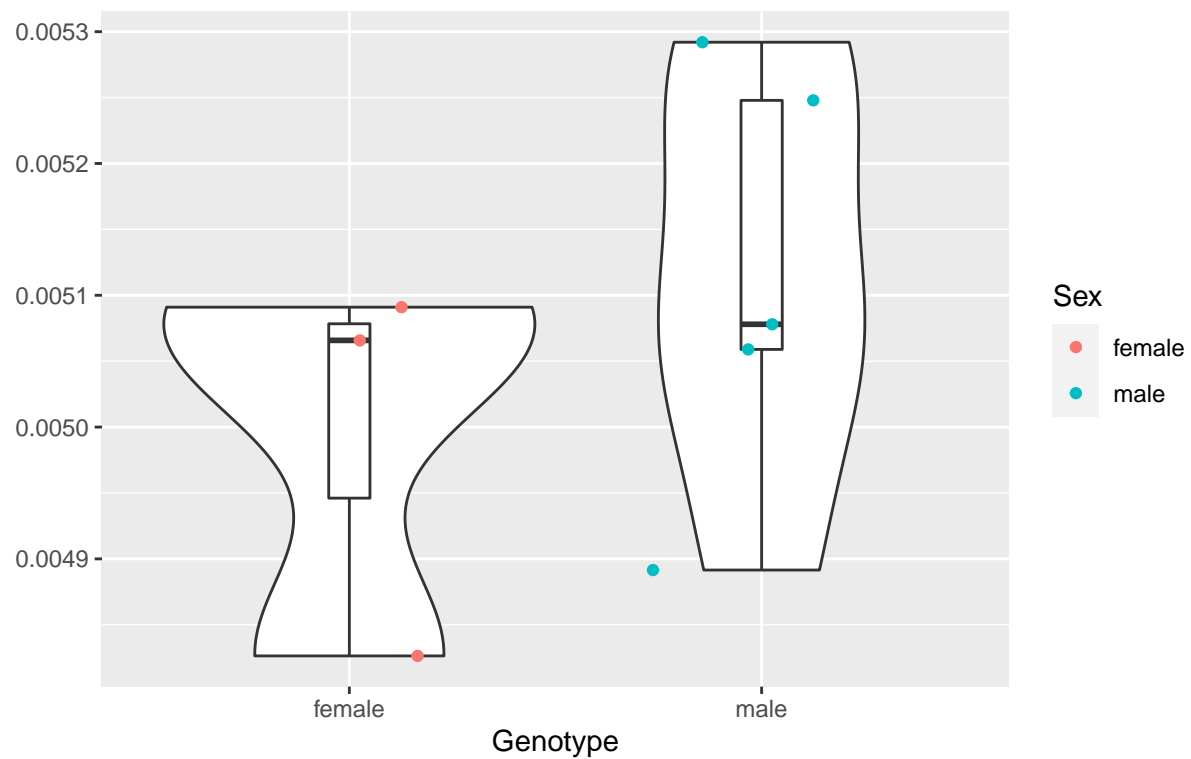
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	9.400e-09	9.430e-09	0.072	0.797
## Residuals	6	7.819e-07	1.303e-07		



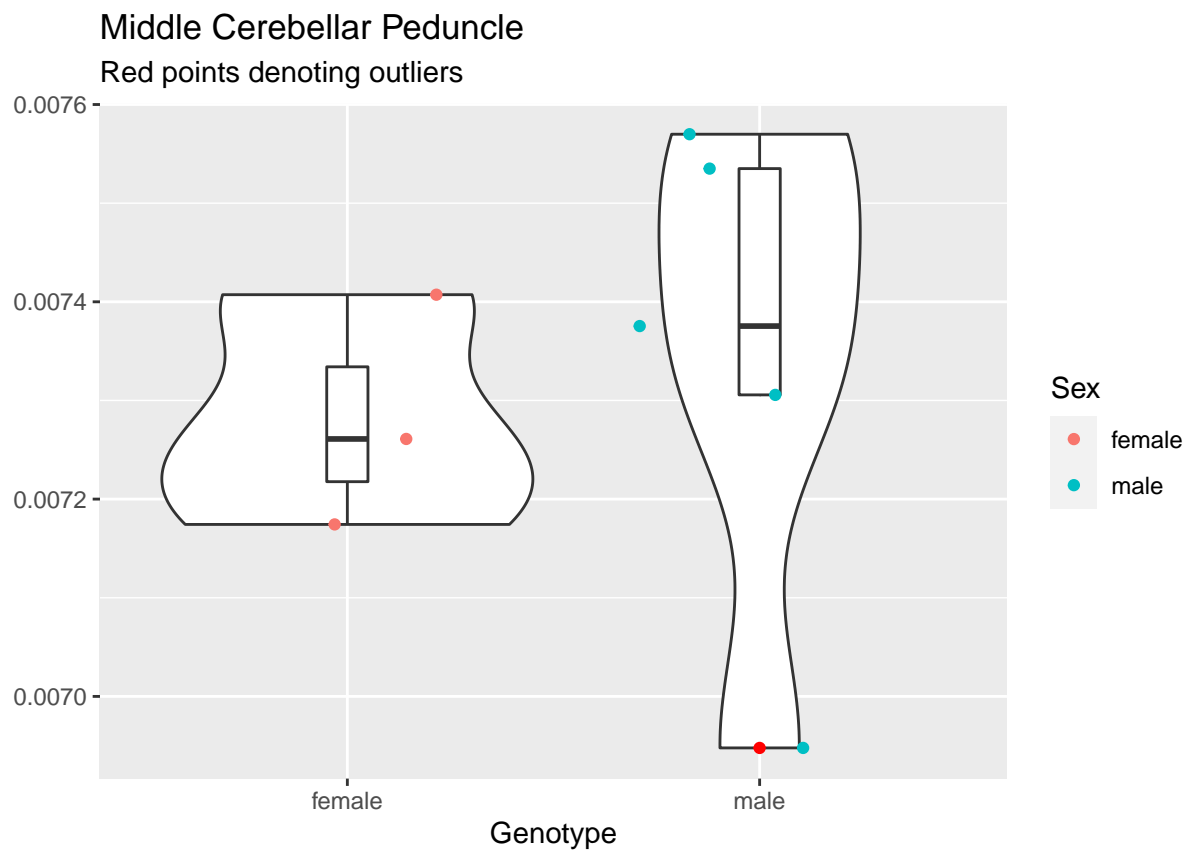
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.864e-08	1.864e-08	0.788	0.409
## Residuals	6	1.420e-07	2.367e-08		

Ventral Spinocerebellar Tract

Red points denoting outliers

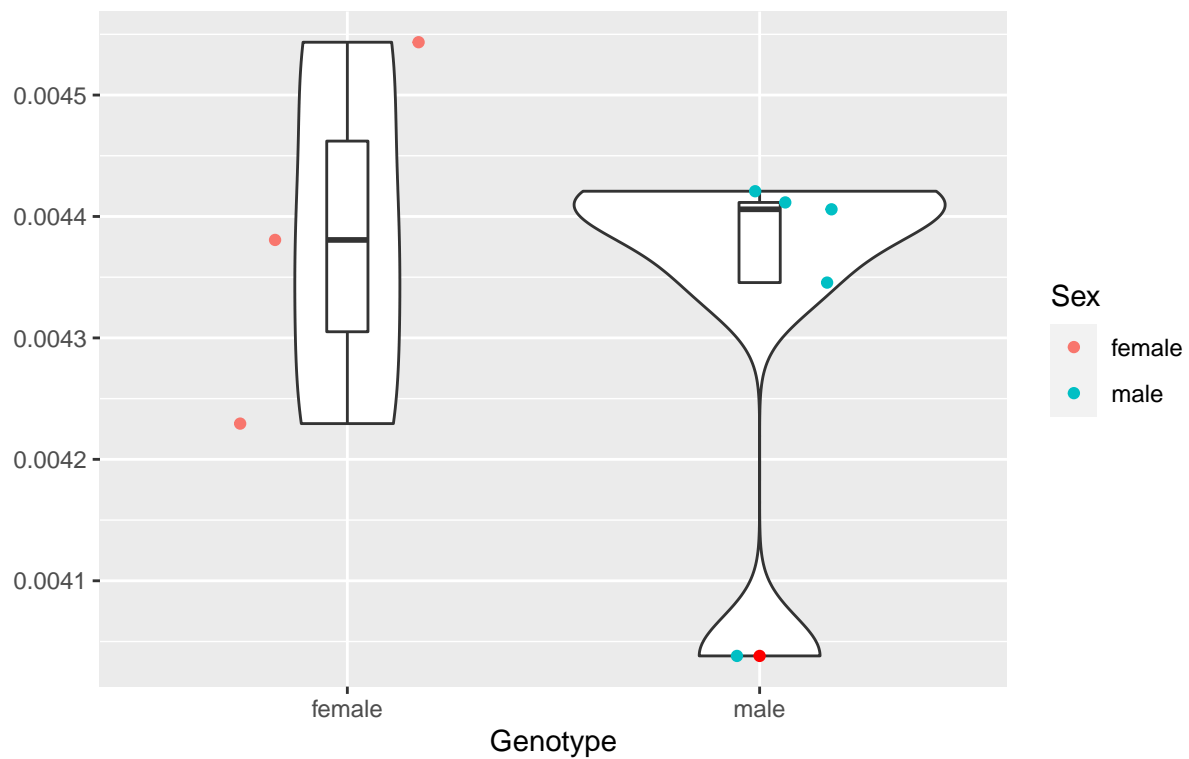


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.669e-08	2.669e-08	1.096	0.335
## Residuals	6	1.461e-07	2.435e-08		



Superior Cerebellar Peduncle

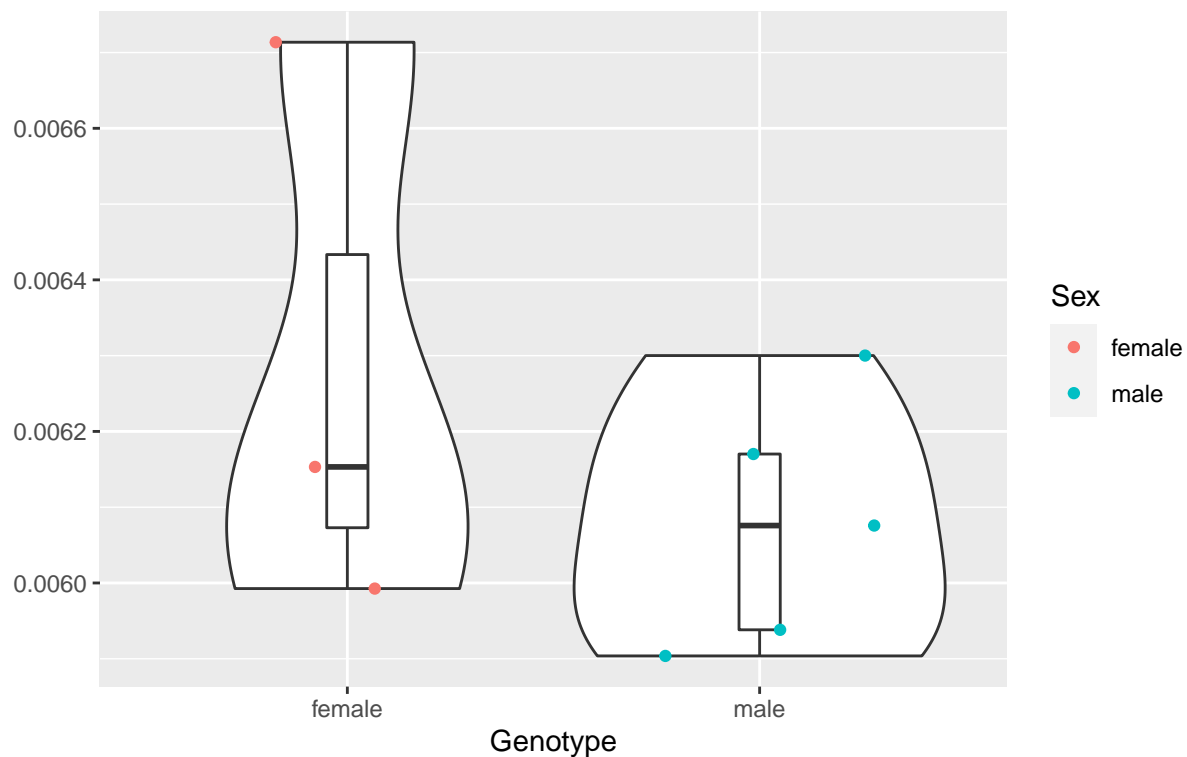
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.780e-09	6.784e-09	0.262	0.627
## Residuals	6	1.553e-07	2.588e-08		

Inferior Cerebellar Peduncle

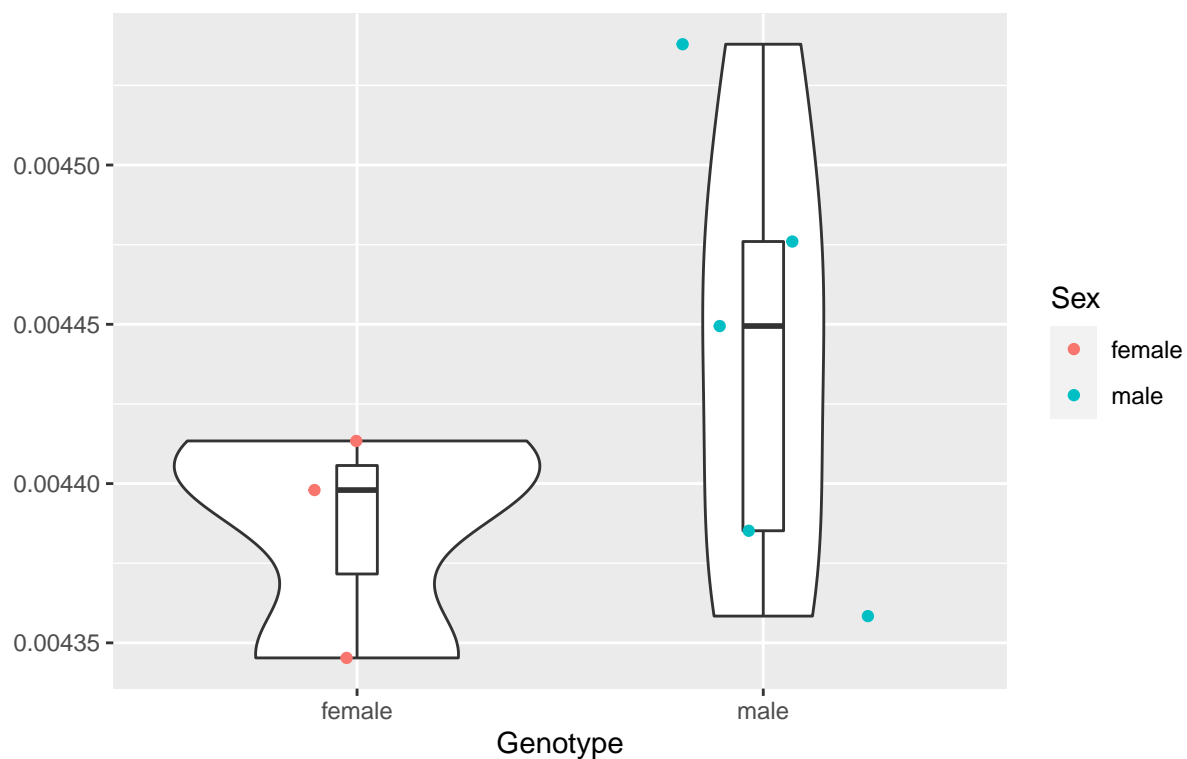
Red points denoting outliers



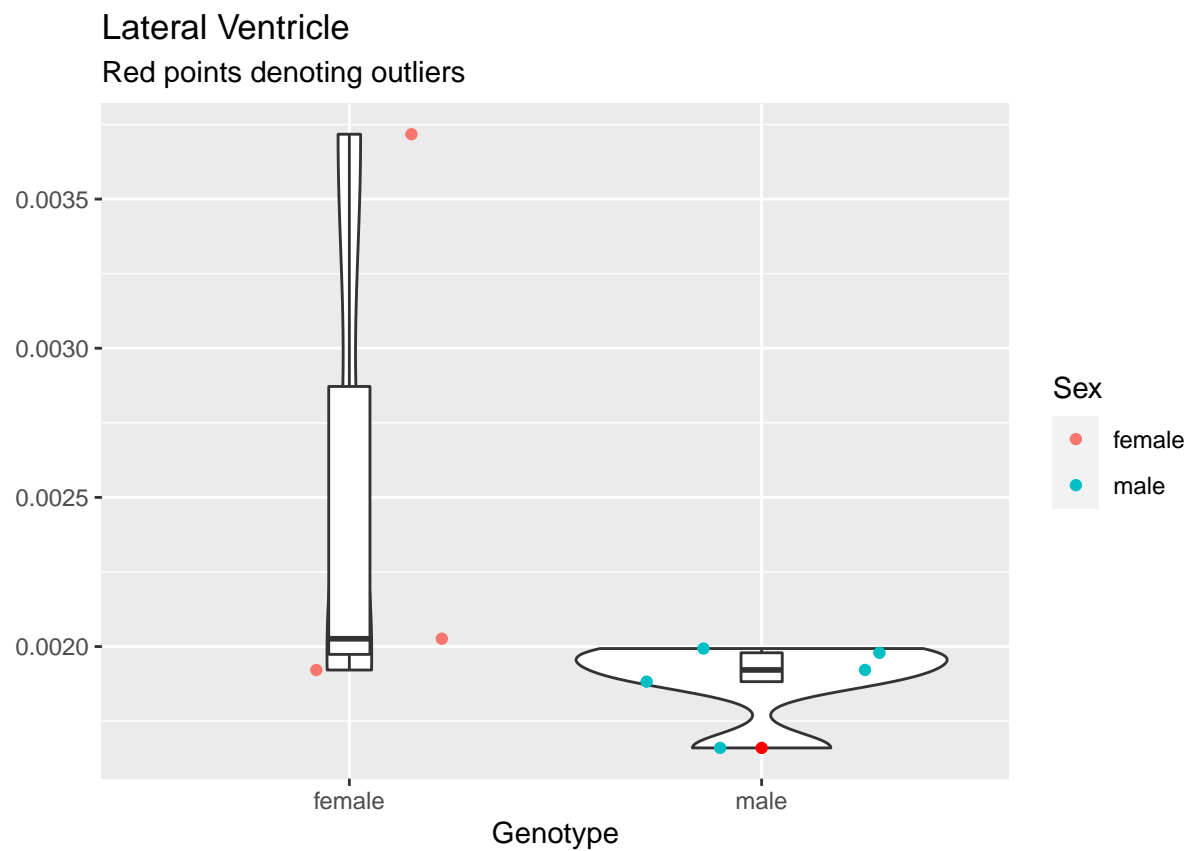
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	8.180e-08	8.179e-08	1.245	0.307
## Residuals	6	3.943e-07	6.572e-08		

Cerebellar White Matter

Red points denoting outliers



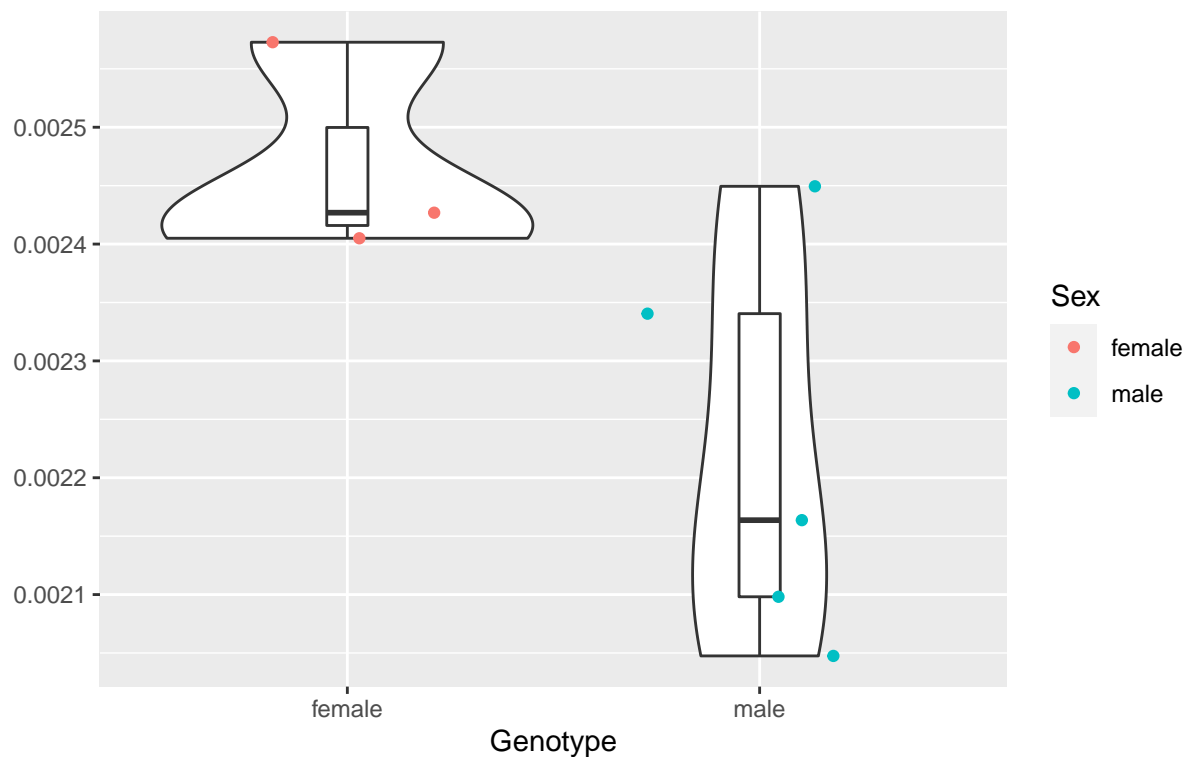
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.849e-09	5.849e-09	1.514	0.265
## Residuals	6	2.318e-08	3.863e-09		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	8.360e-07	8.360e-07	2.383	0.174
## Residuals	6	2.105e-06	3.508e-07		

Cingulate Cortex Area 25

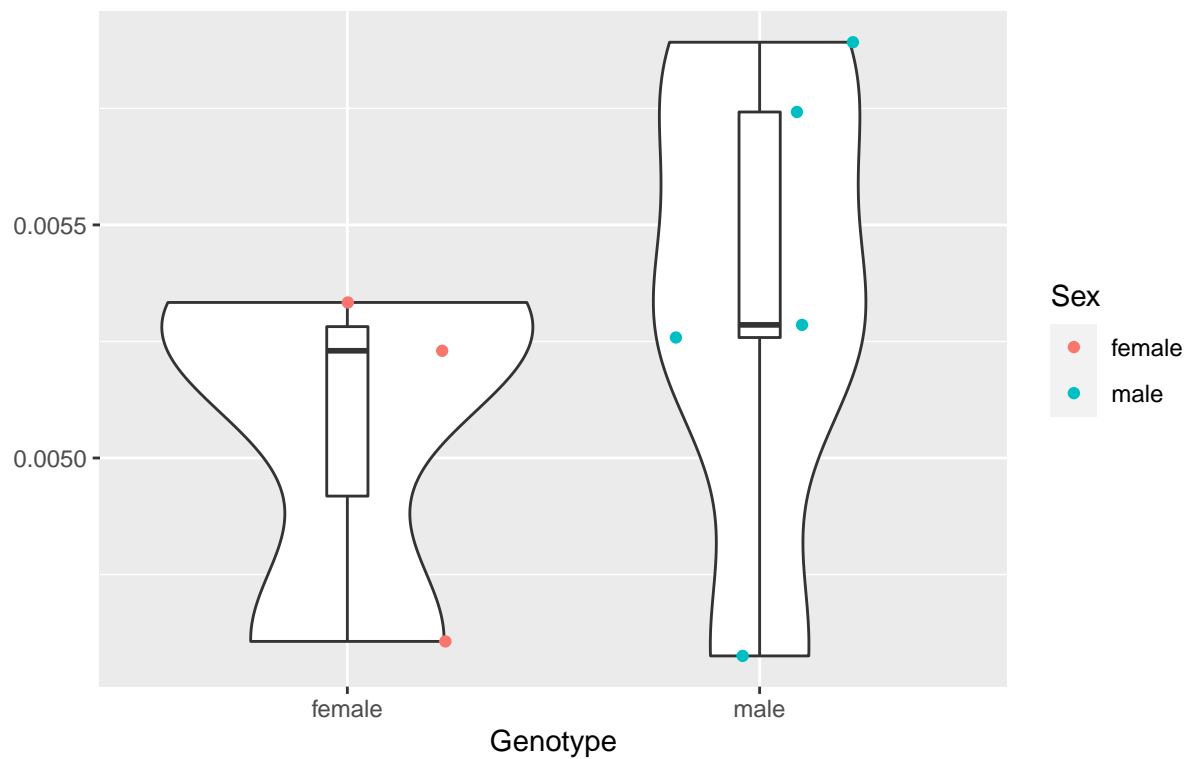
Red points denoting outliers



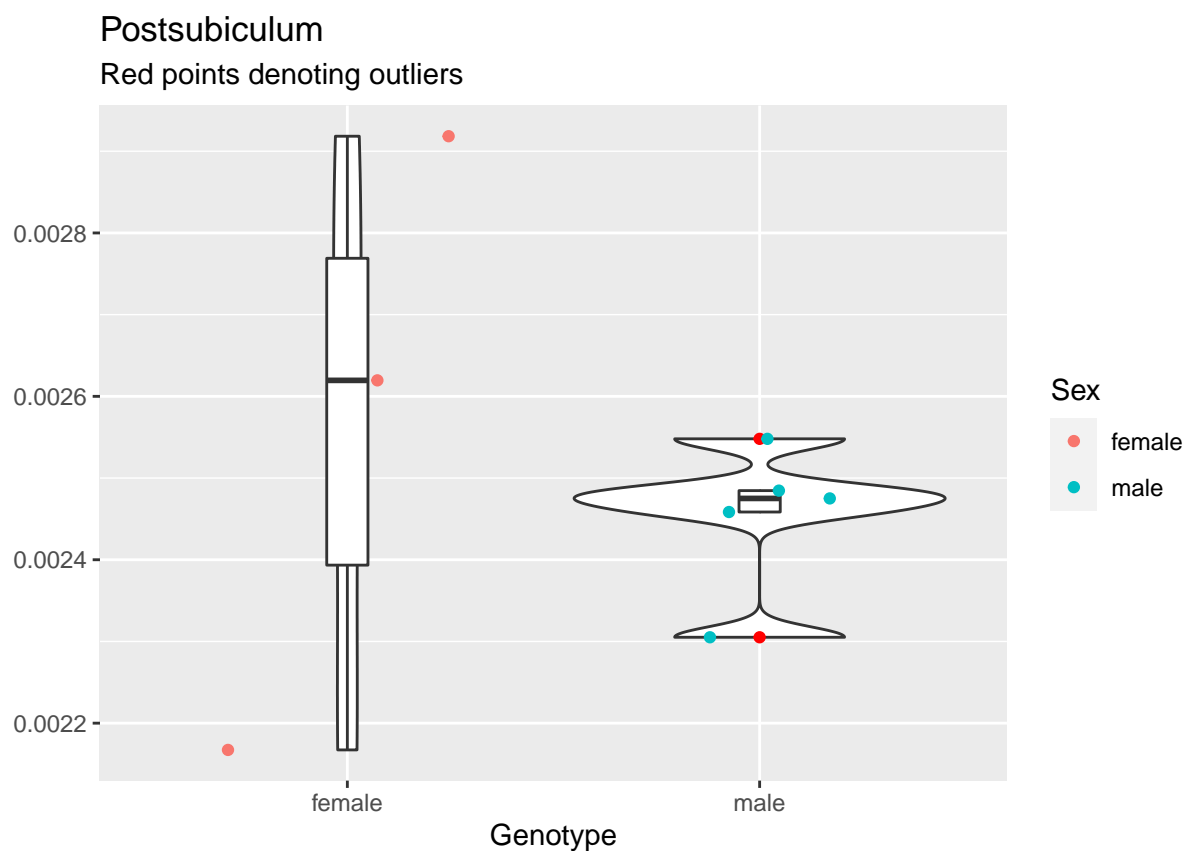
```
##           Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex           1 1.157e-07 1.157e-07   5.274 0.0614 .
## Residuals     6 1.316e-07 2.193e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Dorsal Acoustic Stria

Red points denoting outliers



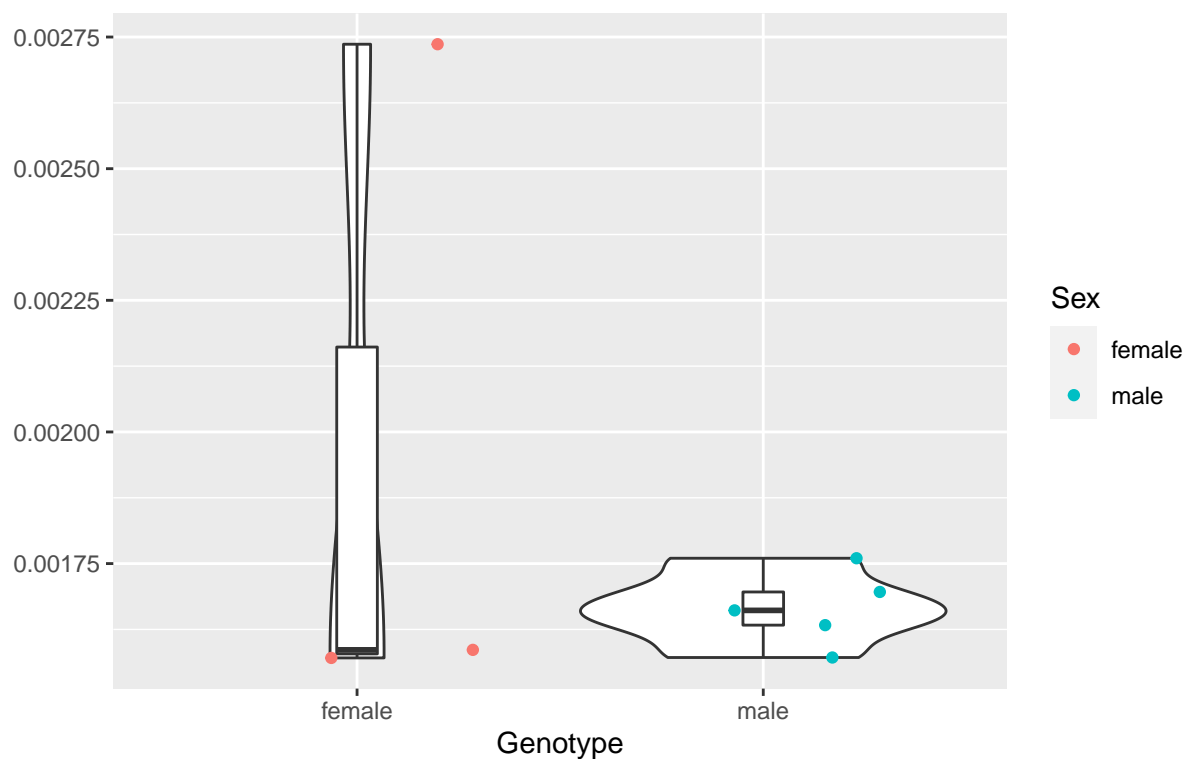
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.620e-07	1.620e-07	0.71	0.432
## Residuals	6	1.369e-06	2.282e-07		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.440e-08	2.443e-08	0.46	0.523
## Residuals	6	3.184e-07	5.307e-08		

Ventricular System 4th Ventricle

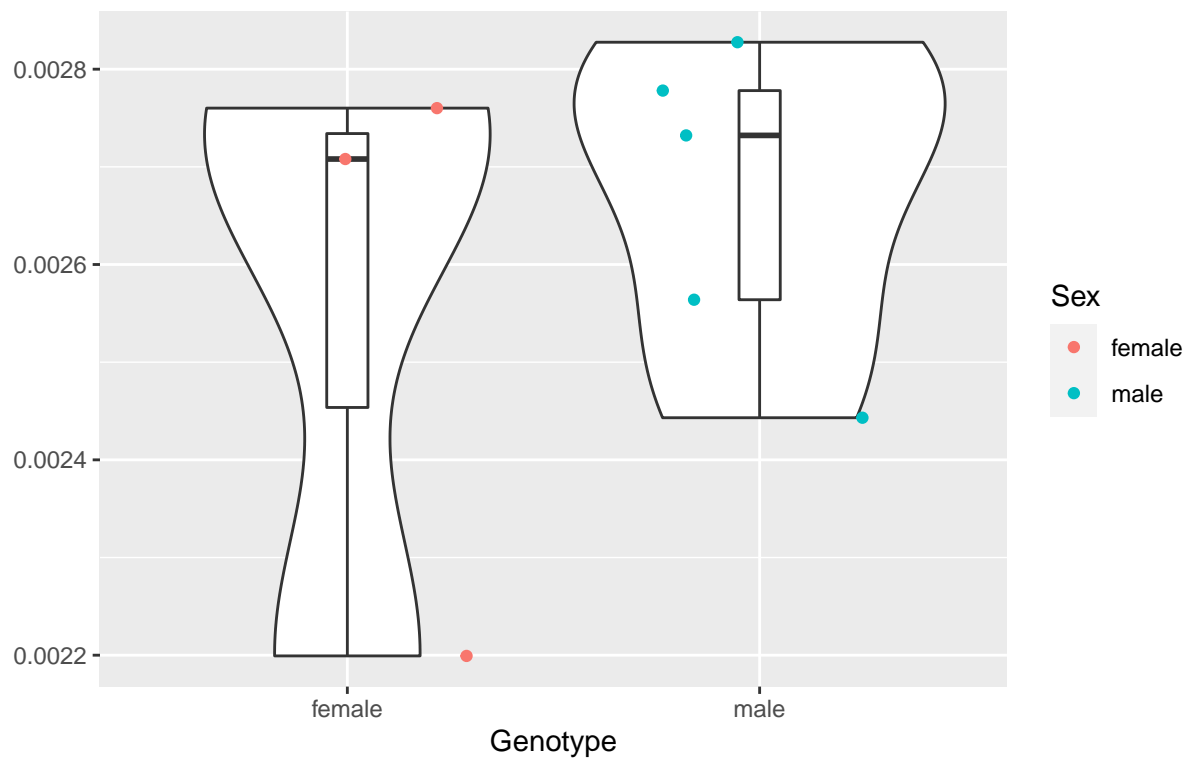
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.688e-07	1.688e-07	1.108	0.333
## Residuals	6	9.136e-07	1.523e-07		

Microcellular Tegmental Nucleus

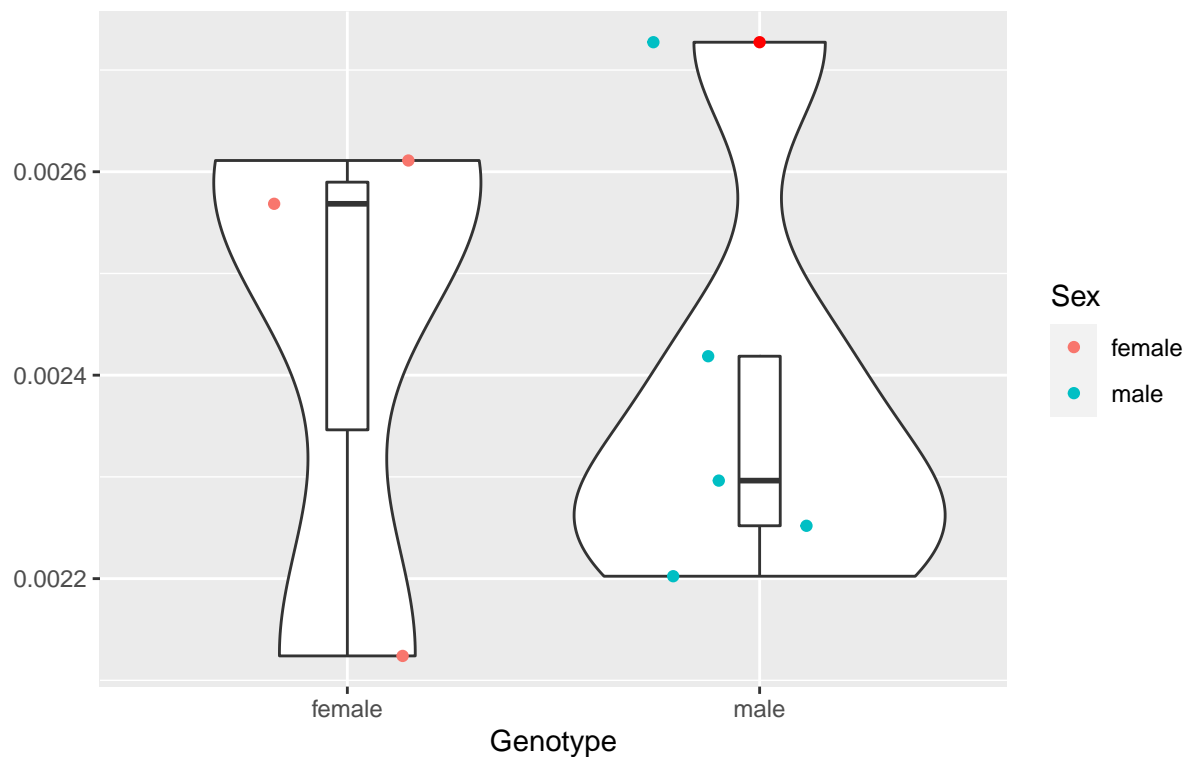
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.402e-08	2.402e-08	0.488	0.511
## Residuals	6	2.951e-07	4.919e-08		

Pretectal Nucleus

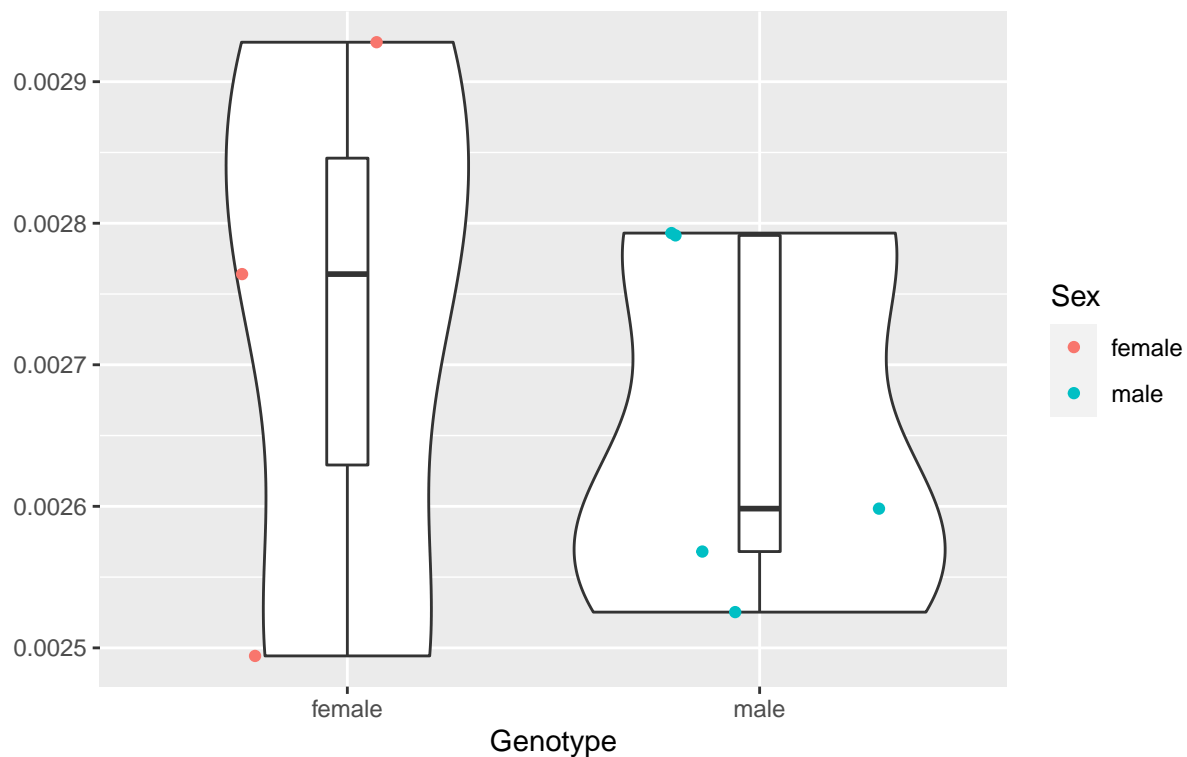
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.700e-09	5.710e-09	0.106	0.756
## Residuals	6	3.226e-07	5.377e-08		

Latero Dorsal Thalamic Nucleus Ventro Lateral

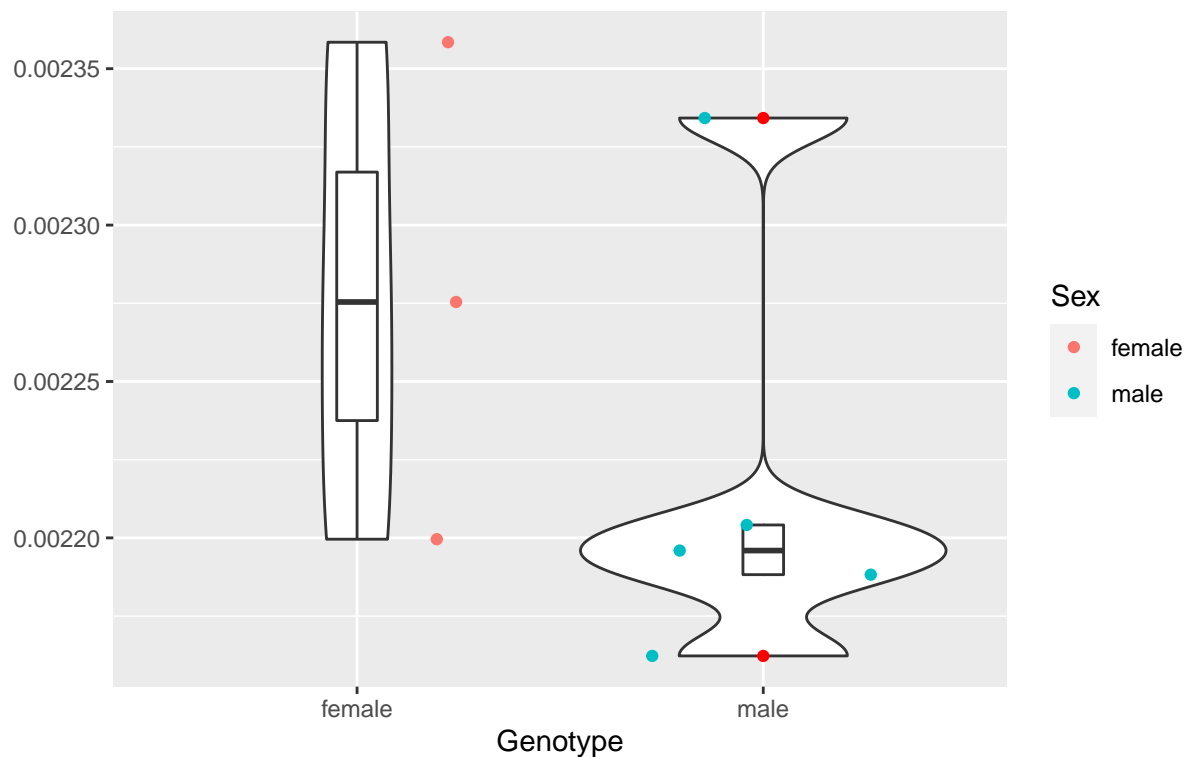
Red points denoting outliers



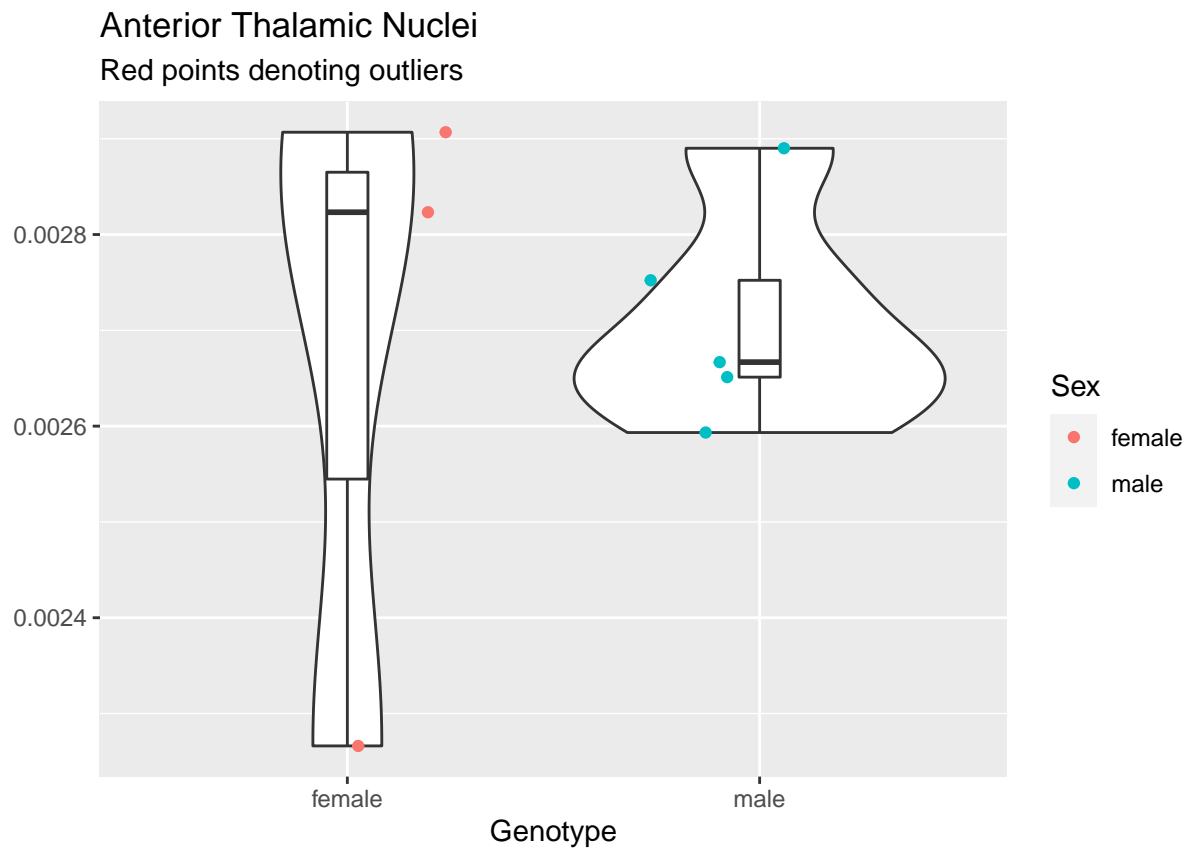
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.014e-08	1.014e-08	0.378	0.561
## Residuals	6	1.611e-07	2.685e-08		

Latero Posterior Nuclei of Thalamus

Red points denoting outliers

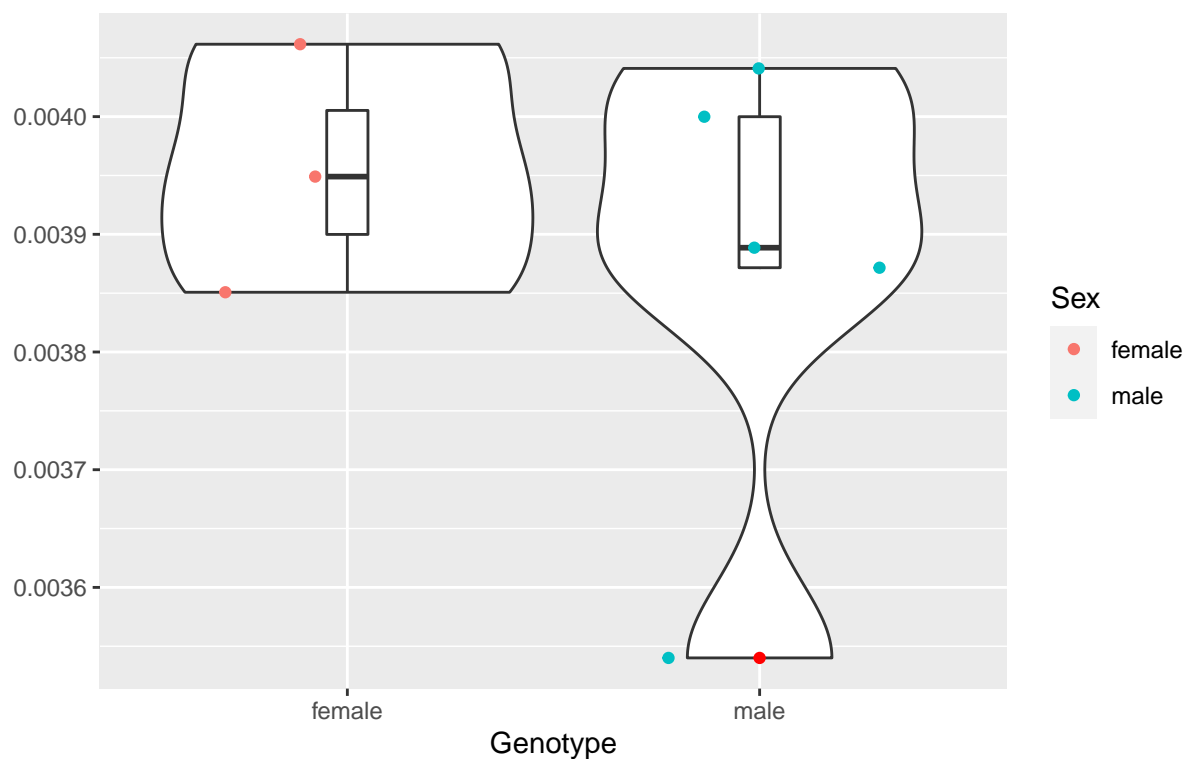


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.944e-09	6.944e-09	1.353	0.289
## Residuals	6	3.080e-08	5.134e-09		



Red Nucleus Magnocellular

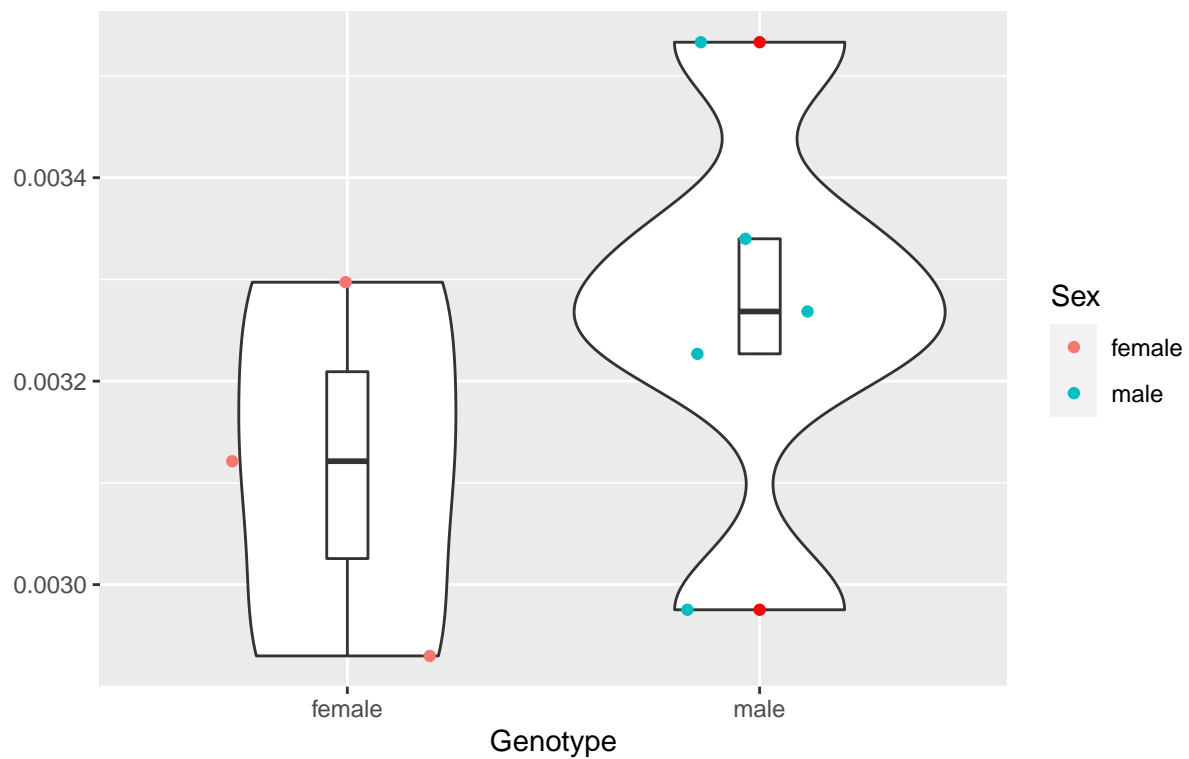
Red points denoting outliers



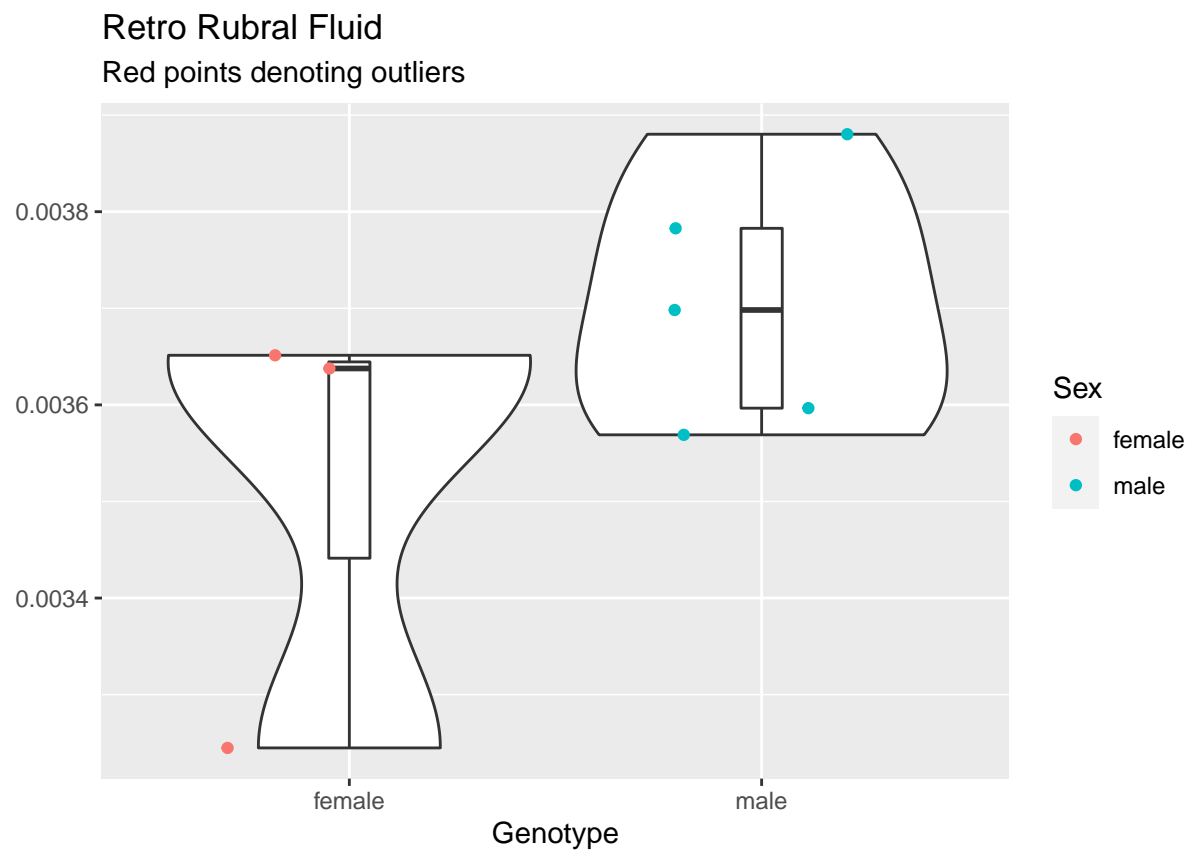
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.372e-08	1.372e-08	0.464	0.521
## Residuals	6	1.775e-07	2.959e-08		

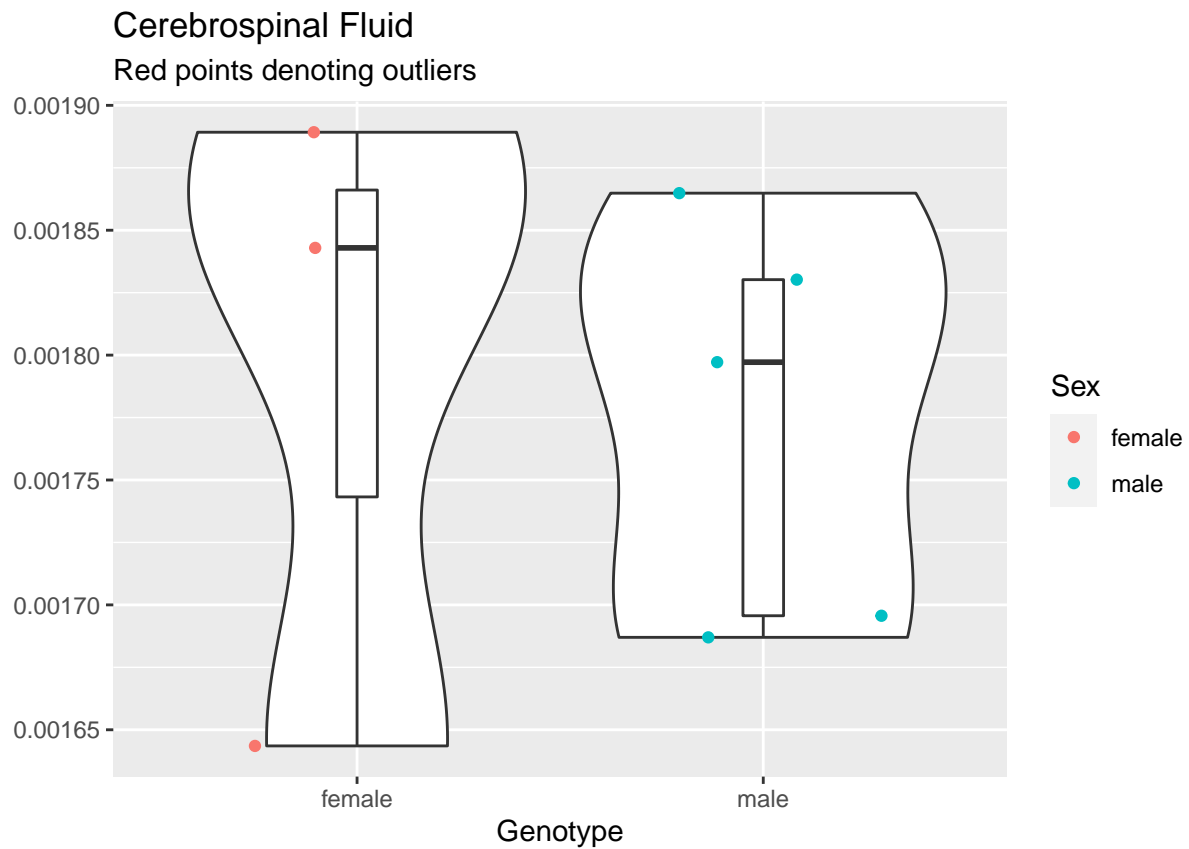
Pararubral Nucleus

Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.365e-08	4.365e-08	1.137	0.327
## Residuals	6	2.304e-07	3.840e-08		

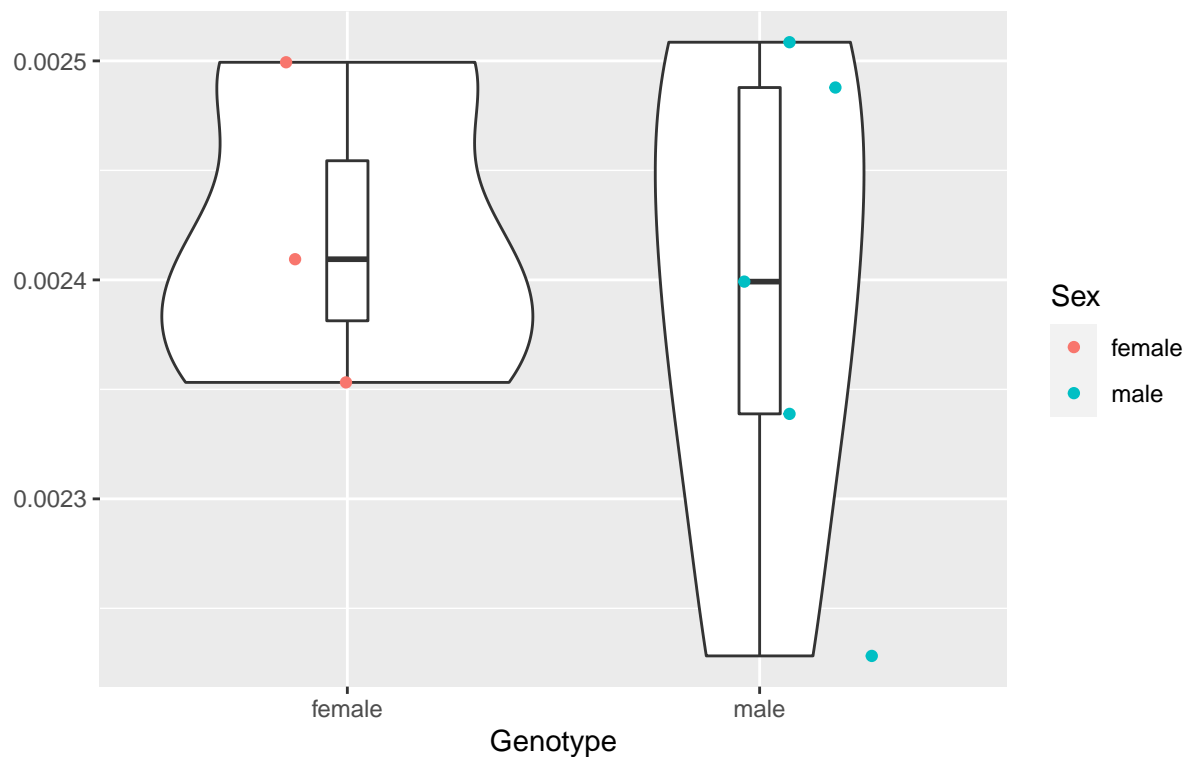




```
##          Df    Sum Sq  Mean Sq F value Pr(>F)
## Sex        1 5.400e-10 5.370e-10   0.054  0.824
## Residuals  6 5.975e-08 9.958e-09
```

Intermediate Reticular Nucleus

Red points denoting outliers

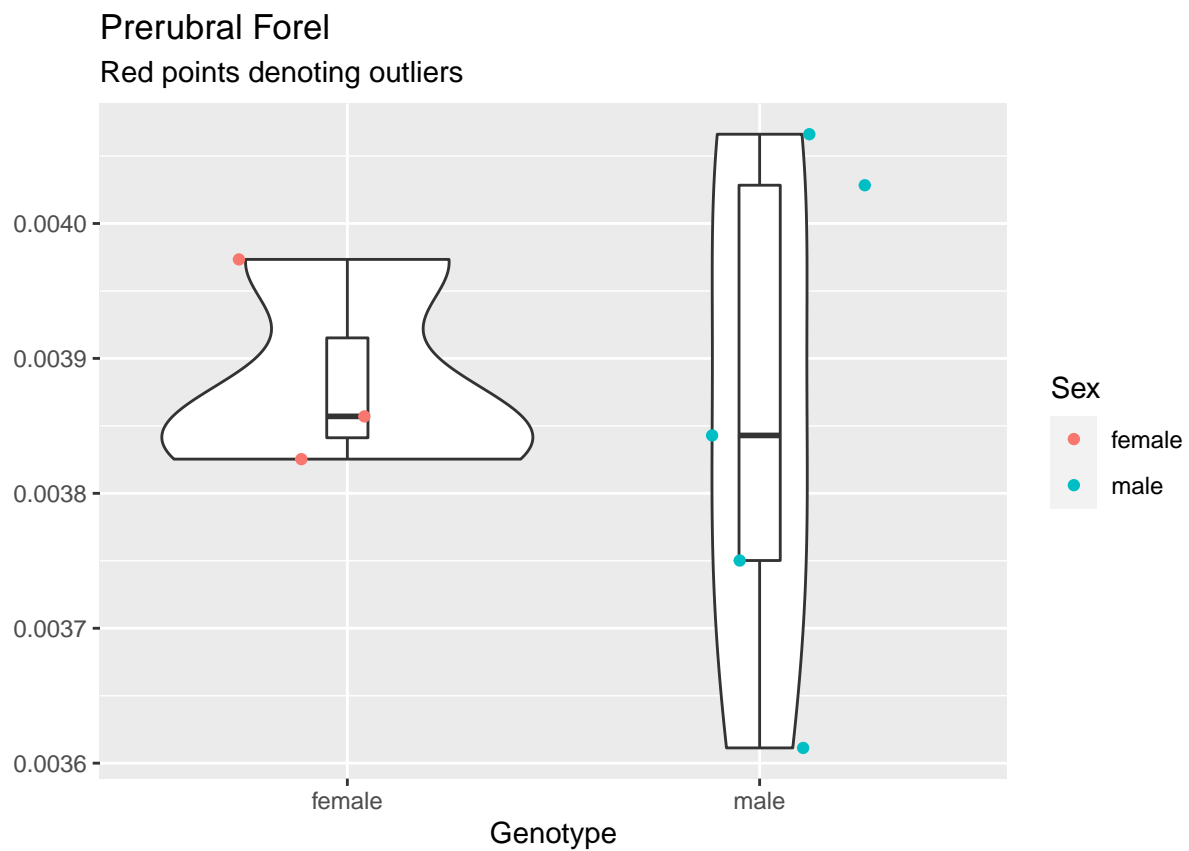


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.480e-09	1.484e-09	0.141	0.721
## Residuals	6	6.333e-08	1.055e-08		

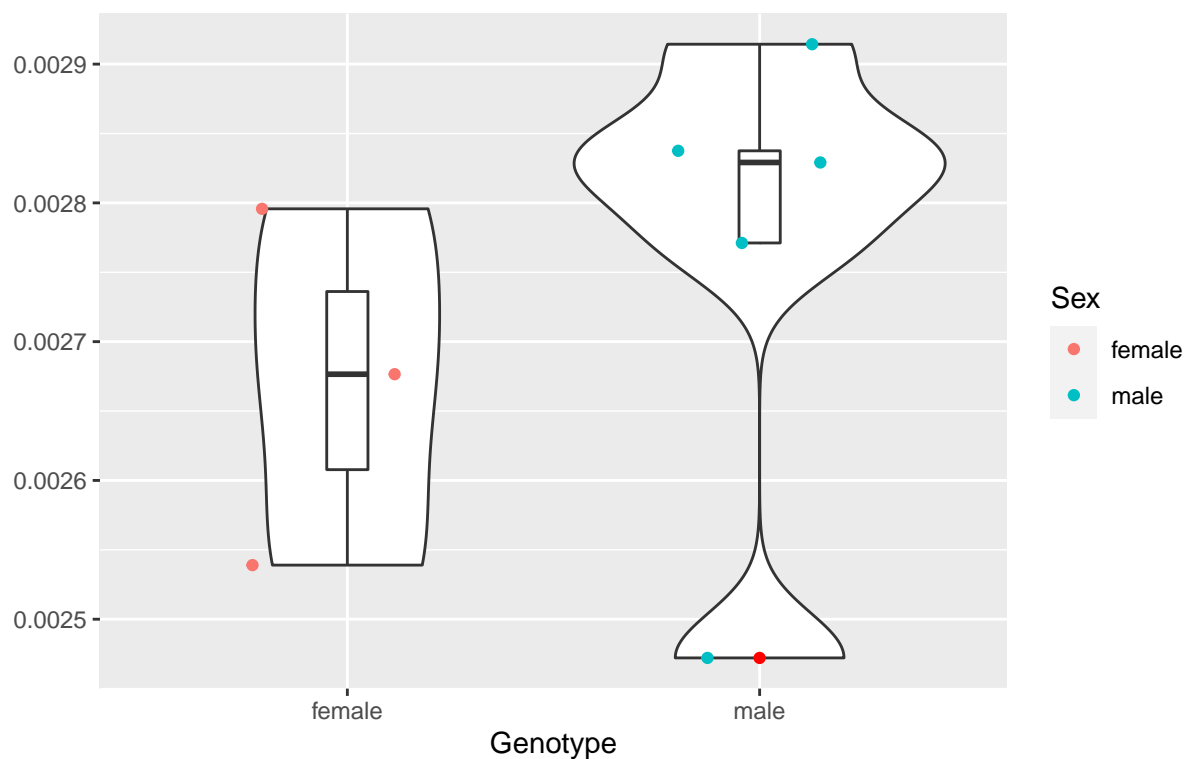
Posterior Dorsal Paraventricular Medial Parvicellular Posterior Lateral Hy
 Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.120e-09	4.120e-09	0.224	0.652
## Residuals	6	1.101e-07	1.836e-08		



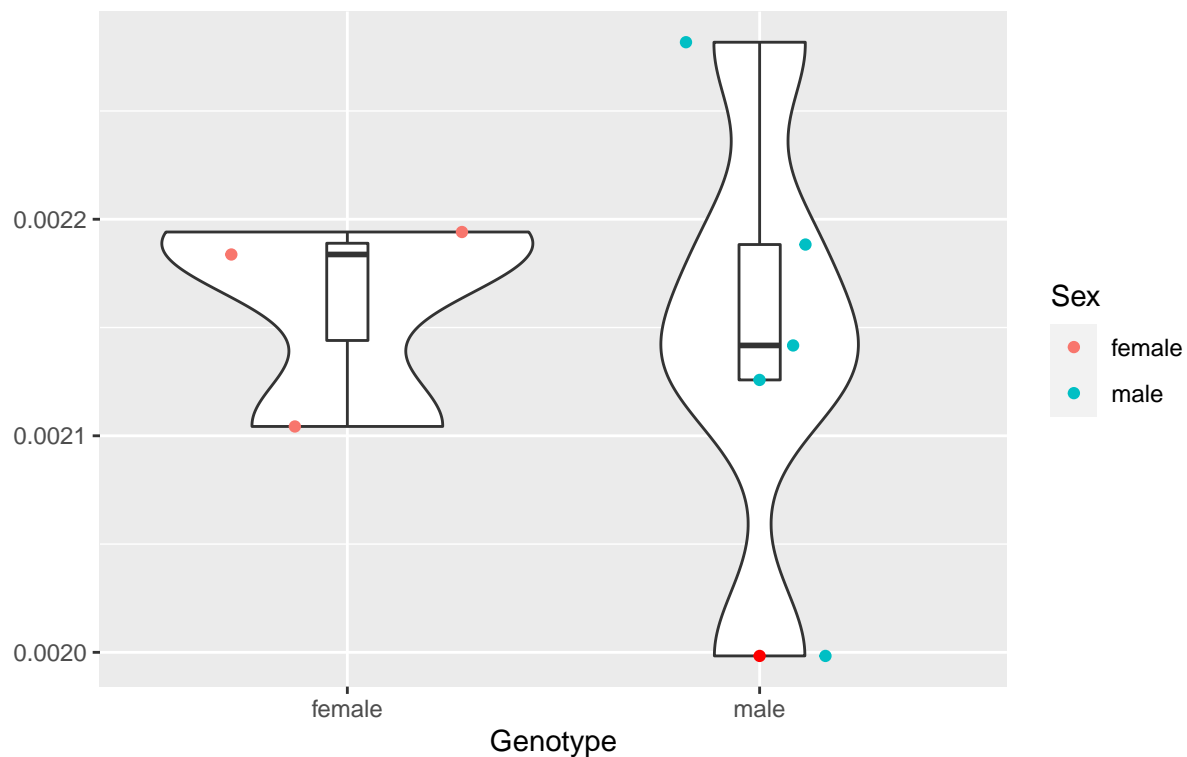
PVG of Hypothalamus Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.672e-08	1.672e-08	0.666	0.445
## Residuals	6	1.505e-07	2.509e-08		

Basal Lateral Amygdala

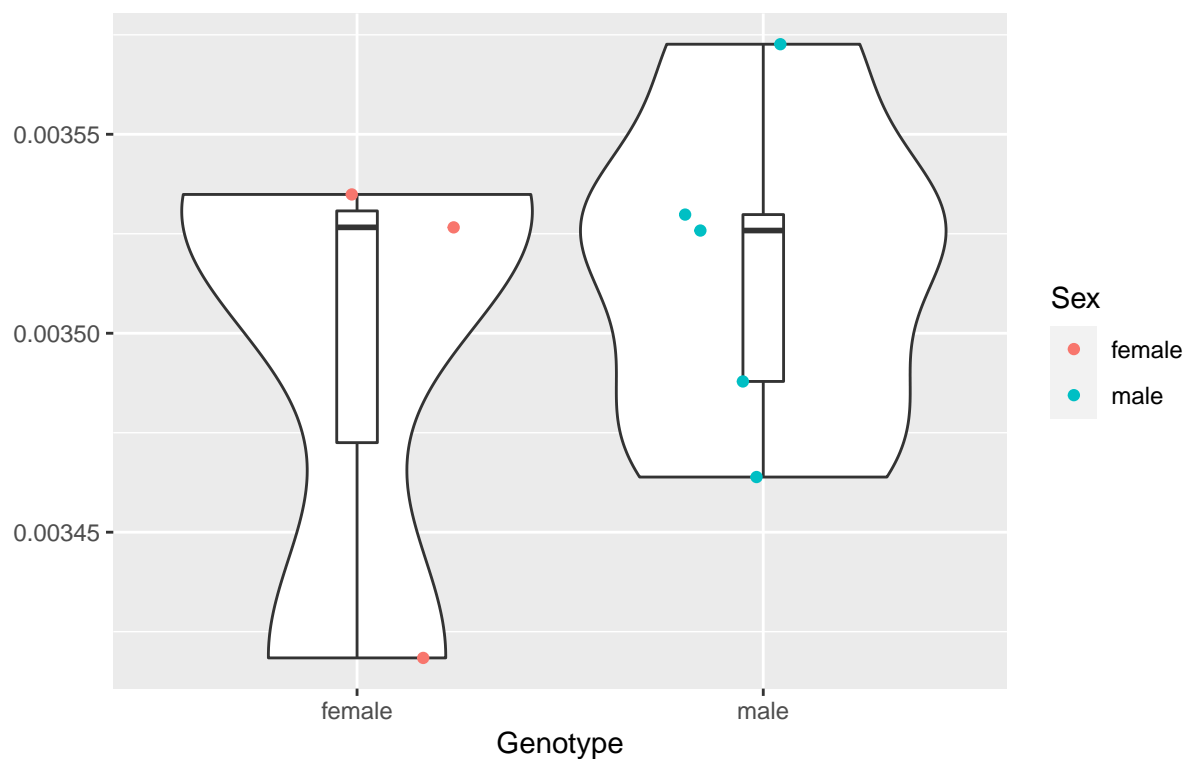
Red points denoting outliers



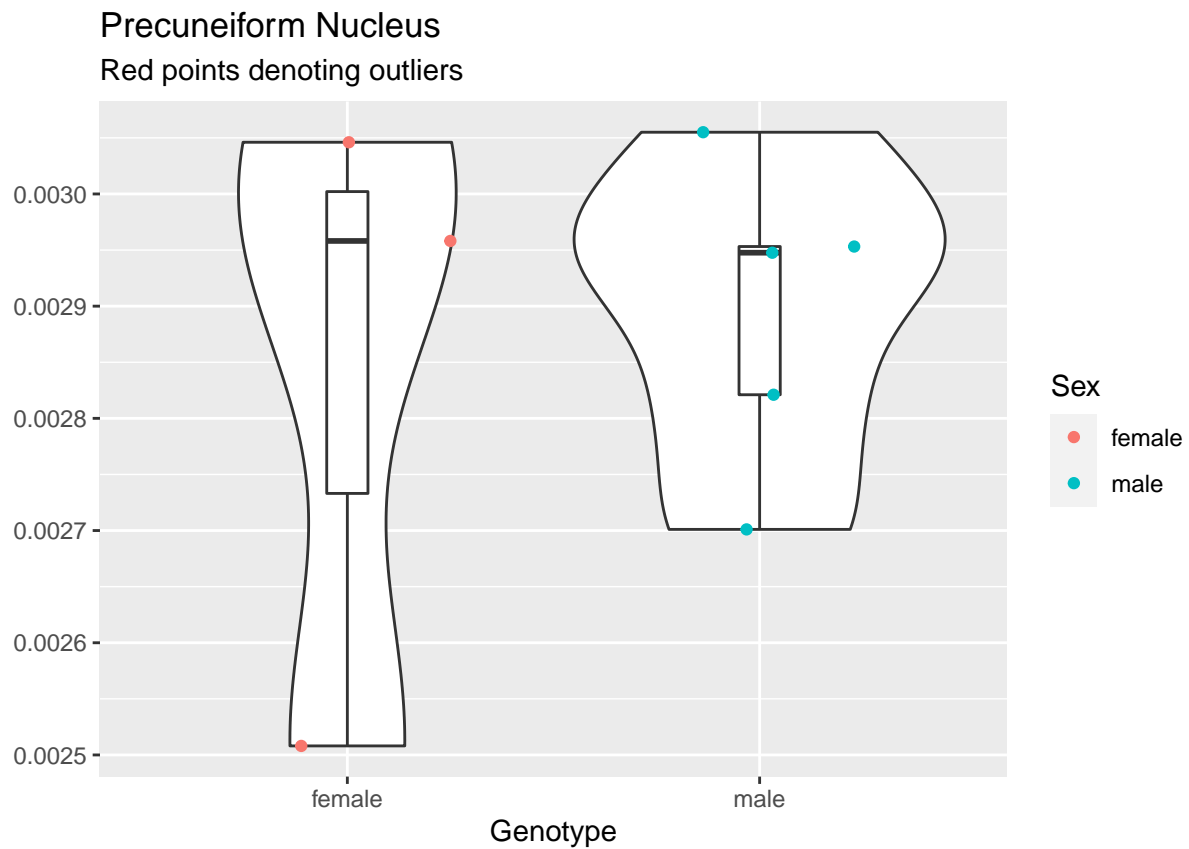
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.400e-10	3.430e-10	0.044	0.842
## Residuals	6	4.727e-08	7.878e-09		

Brain Stem Rest

Red points denoting outliers



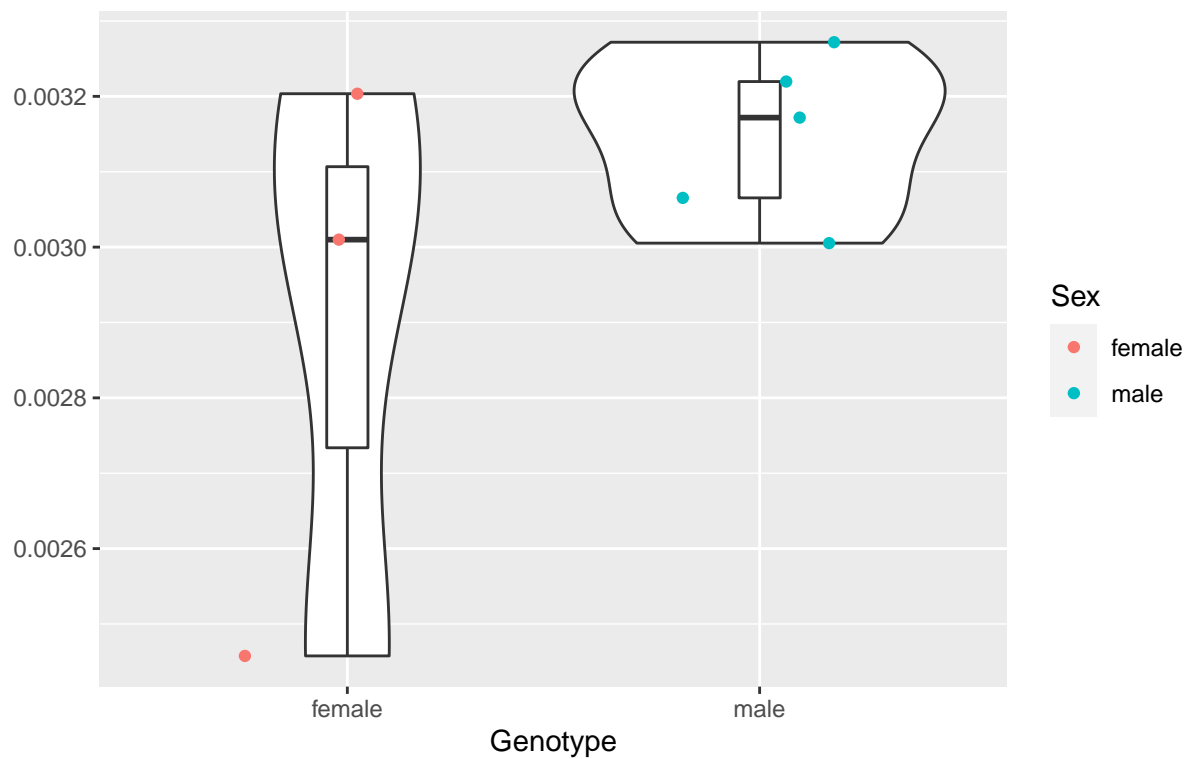
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	9.670e-10	9.665e-10	0.375	0.563
## Residuals	6	1.545e-08	2.575e-09		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.340e-09	6.340e-09	0.158	0.705
## Residuals	6	2.414e-07	4.024e-08		

Cuneiform Nucleus

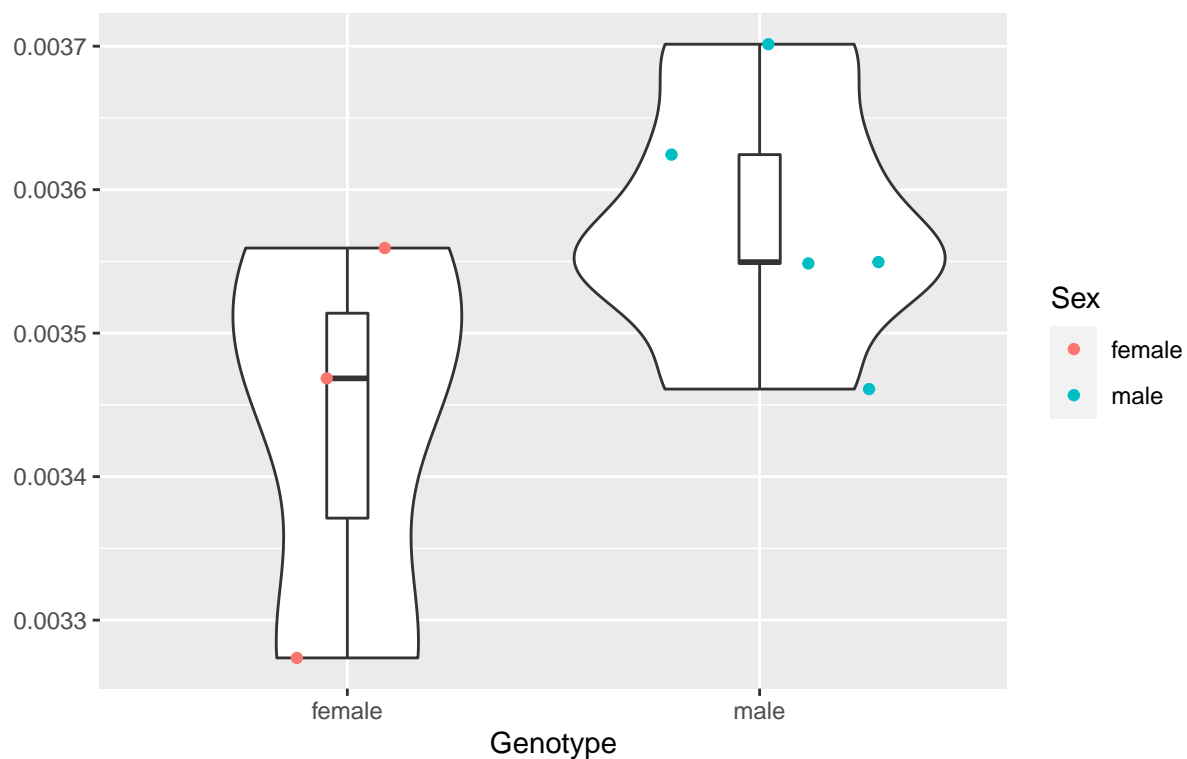
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.233e-07	1.233e-07	2.127	0.195
## Residuals	6	3.479e-07	5.798e-08		

Midbrain Linear Nucleus

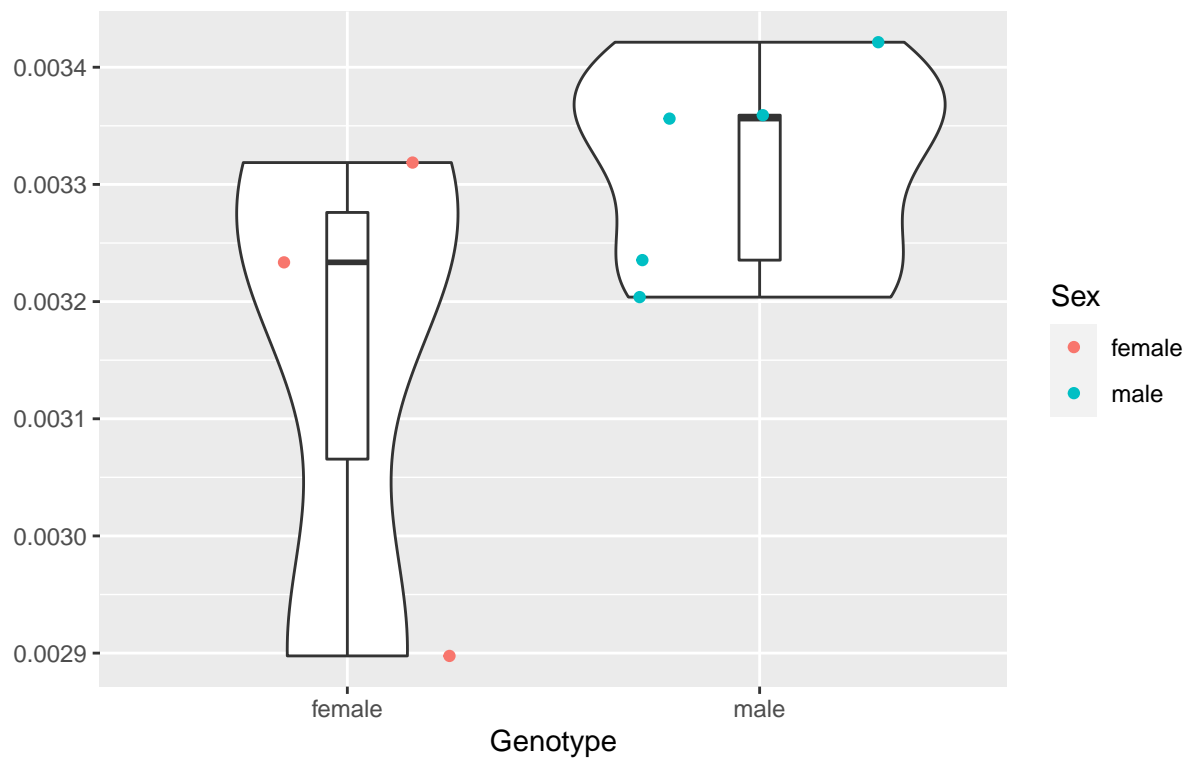
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.843e-08	3.843e-08	3.061	0.131
## Residuals	6	7.533e-08	1.256e-08		

Midbrain Reticular Nucleus

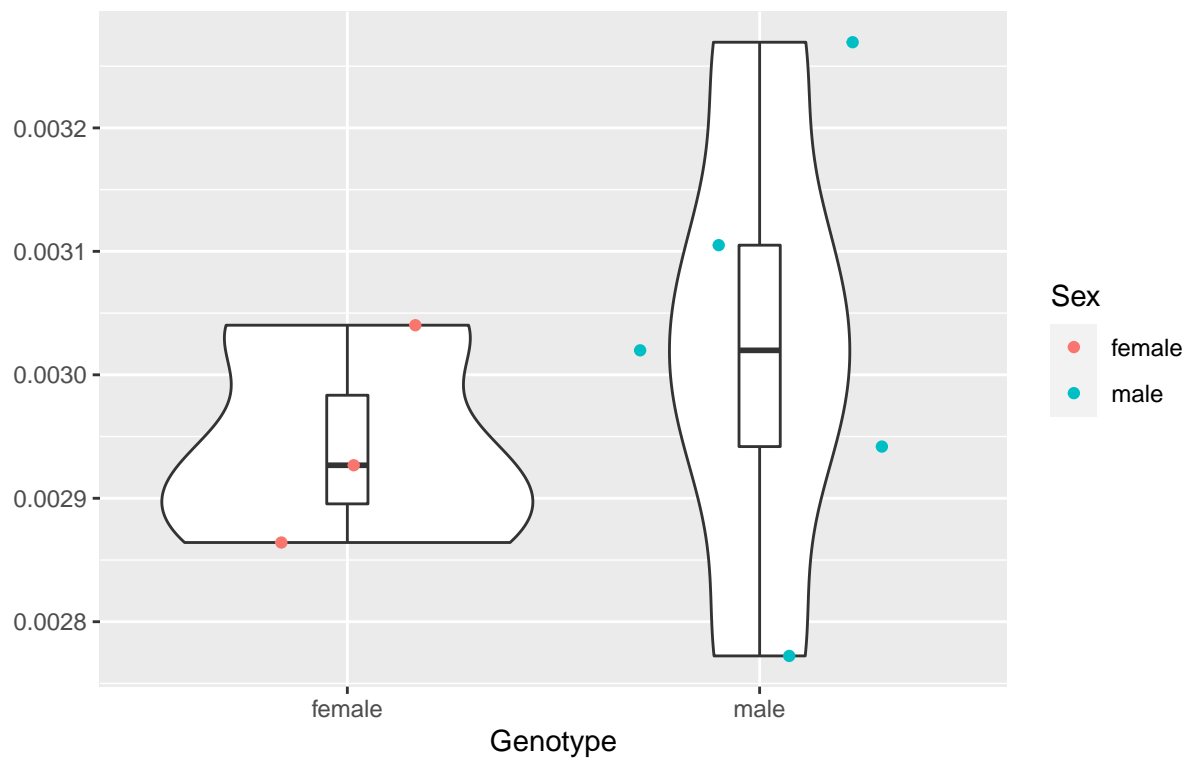
Red points denoting outliers



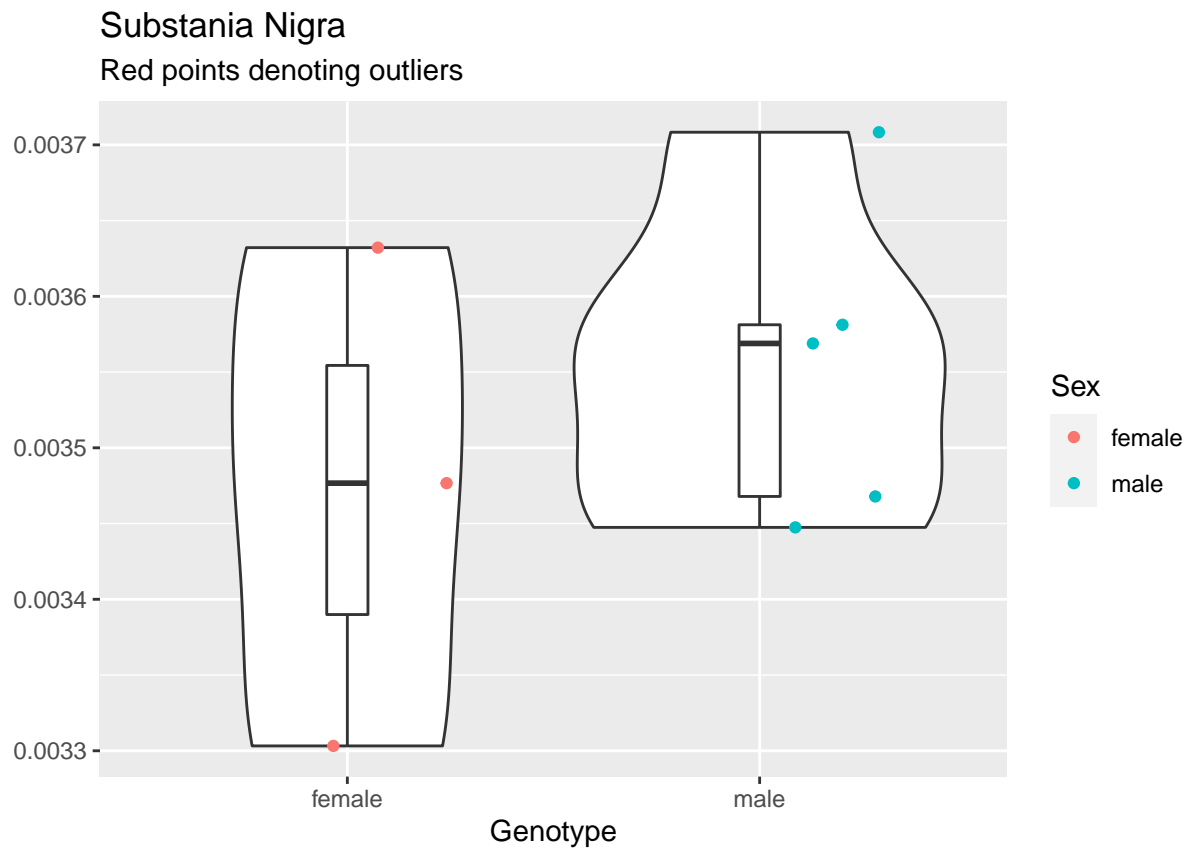
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.120e-08	5.120e-08	2.314	0.179
## Residuals	6	1.328e-07	2.213e-08		

Red Nucleus Parvicellular

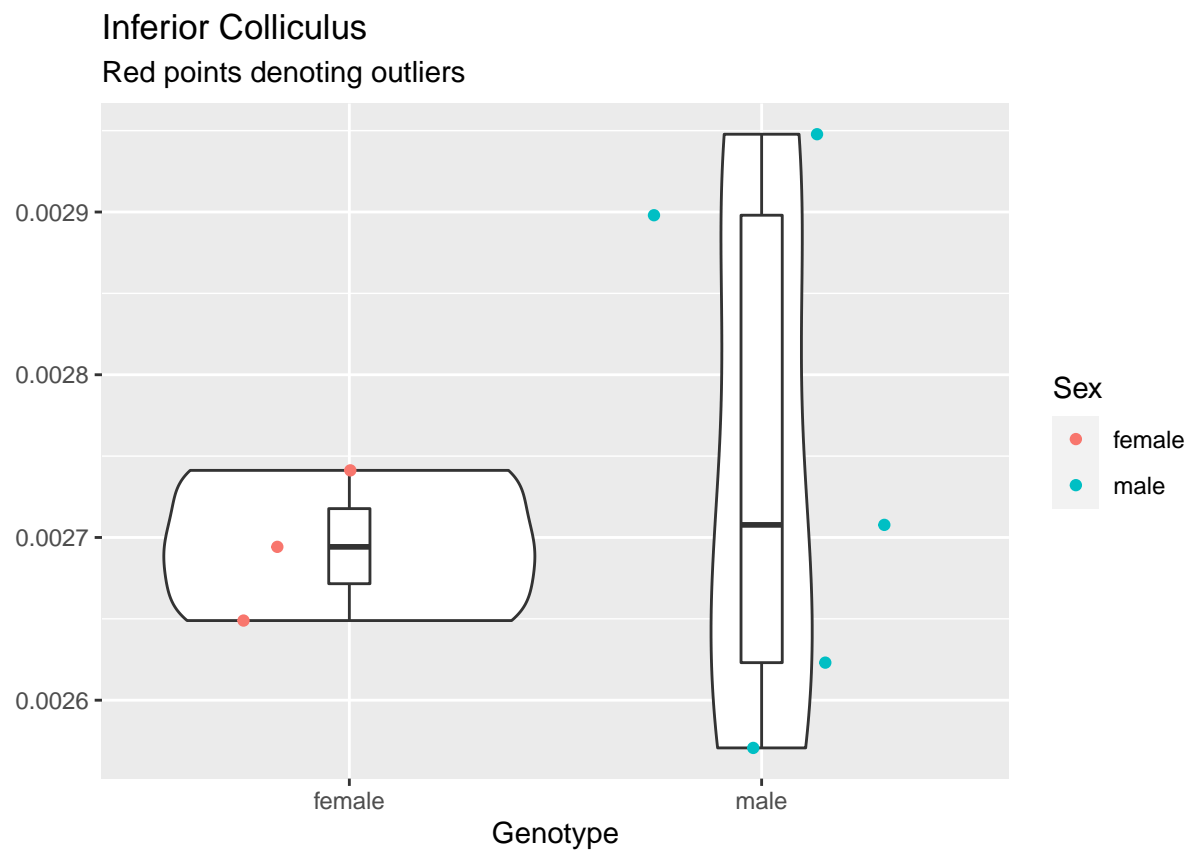
Red points denoting outliers

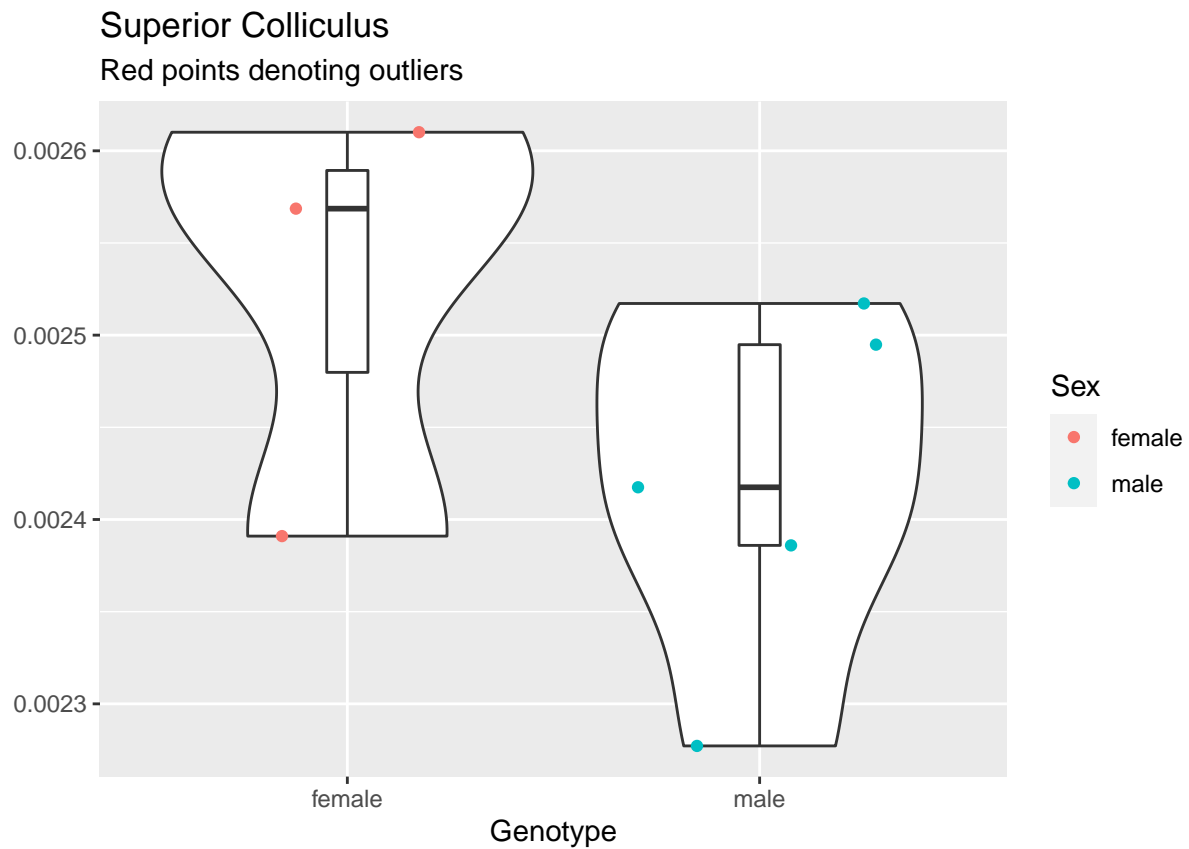


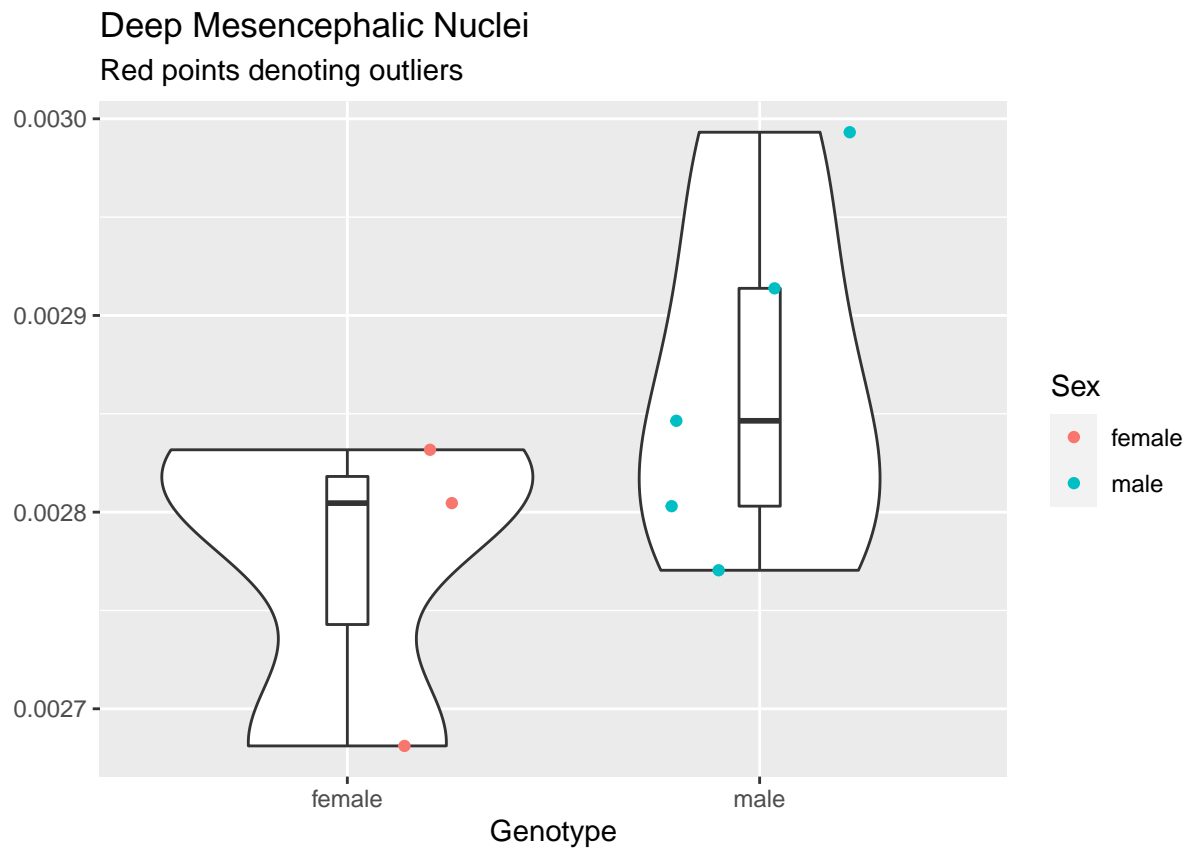
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.140e-08	1.141e-08	0.448	0.528
## Residuals	6	1.528e-07	2.547e-08		



```
##          Df    Sum Sq  Mean Sq F value Pr(>F)
## Sex        1 1.326e-08 1.326e-08   0.814  0.402
## Residuals  6 9.770e-08 1.628e-08
```



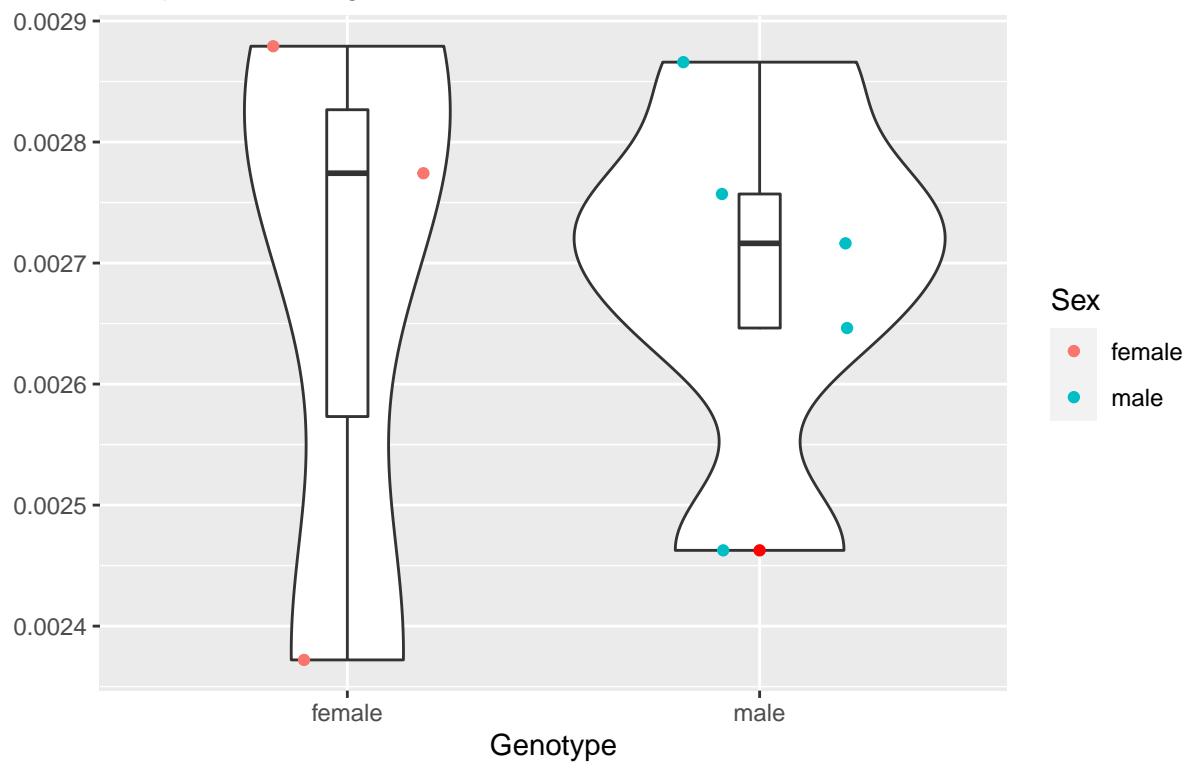




##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.618e-08	1.618e-08	2.167	0.191
## Residuals	6	4.482e-08	7.470e-09		

Subbrachial Nucleus and Peripeduncular Nucleus

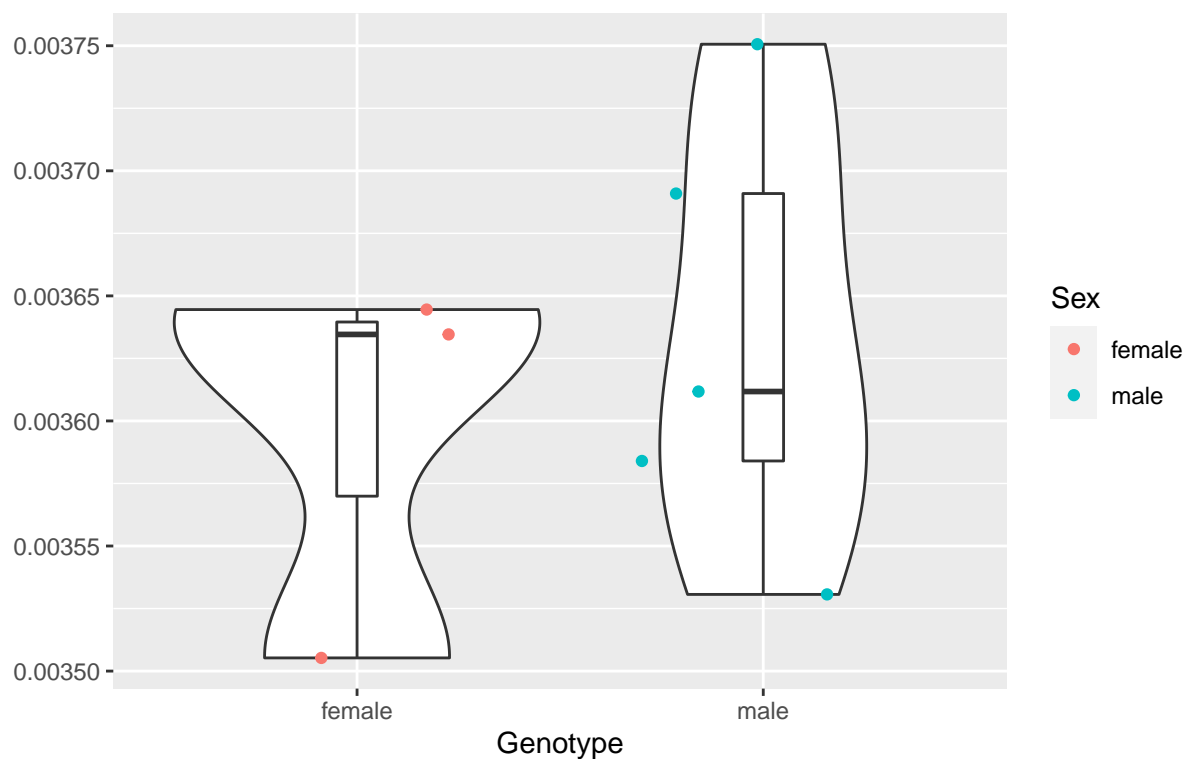
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.900e-10	3.900e-10	0.01	0.923
## Residuals	6	2.331e-07	3.885e-08		

Reticular Nucleus of Thalamus

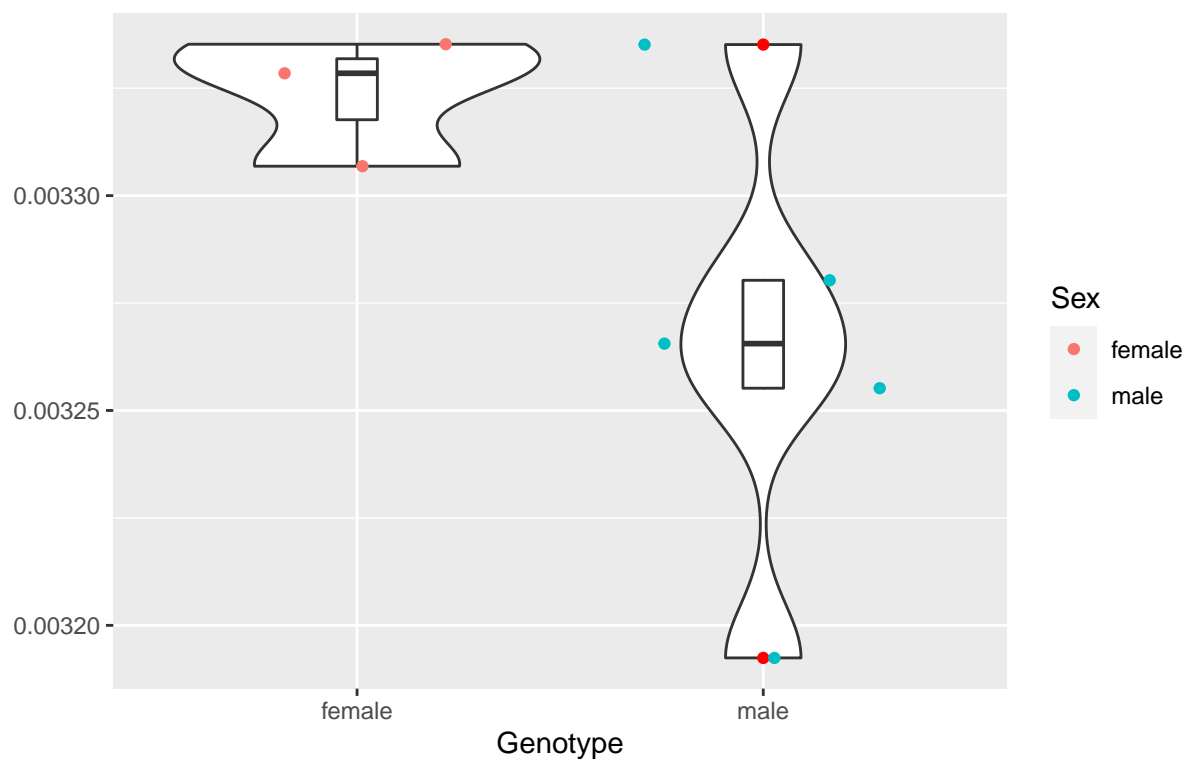
Red points denoting outliers



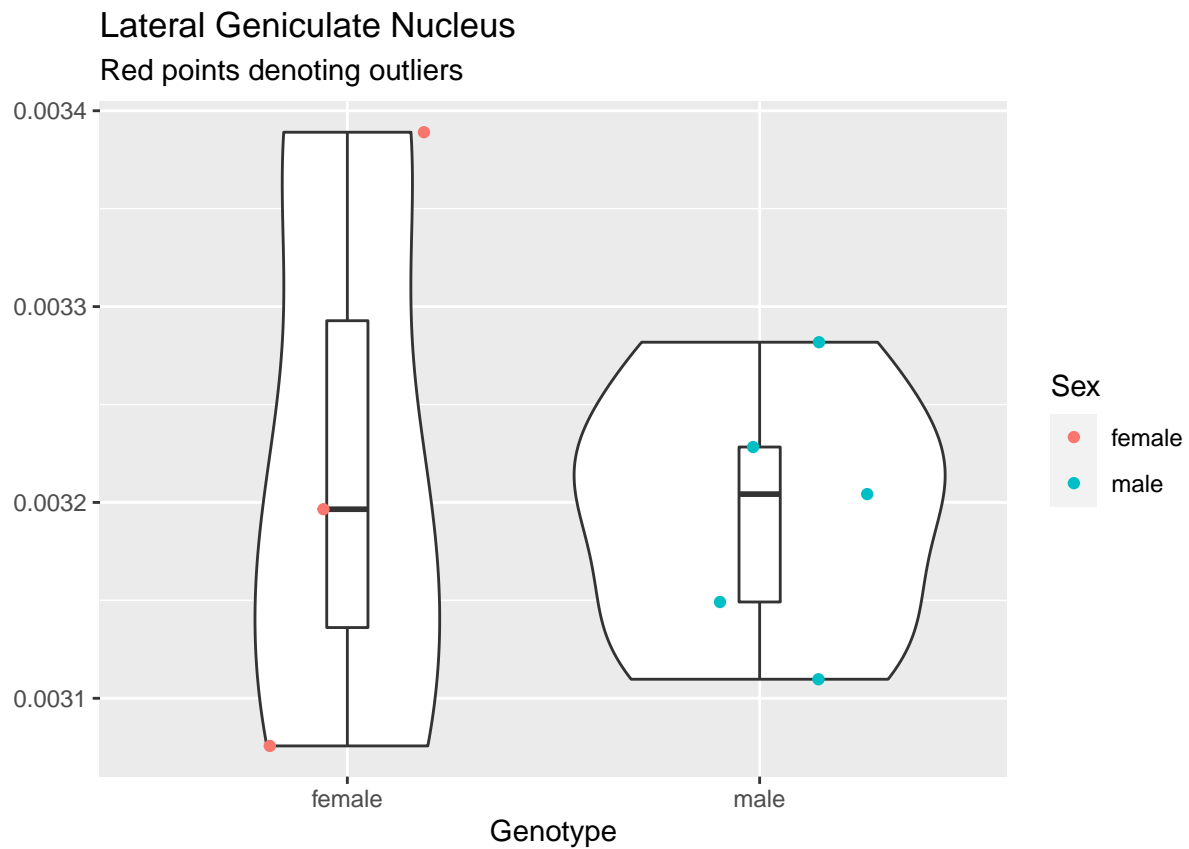
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.820e-09	2.822e-09	0.398	0.552
## Residuals	6	4.259e-08	7.098e-09		

Zona Incerta

Red points denoting outliers



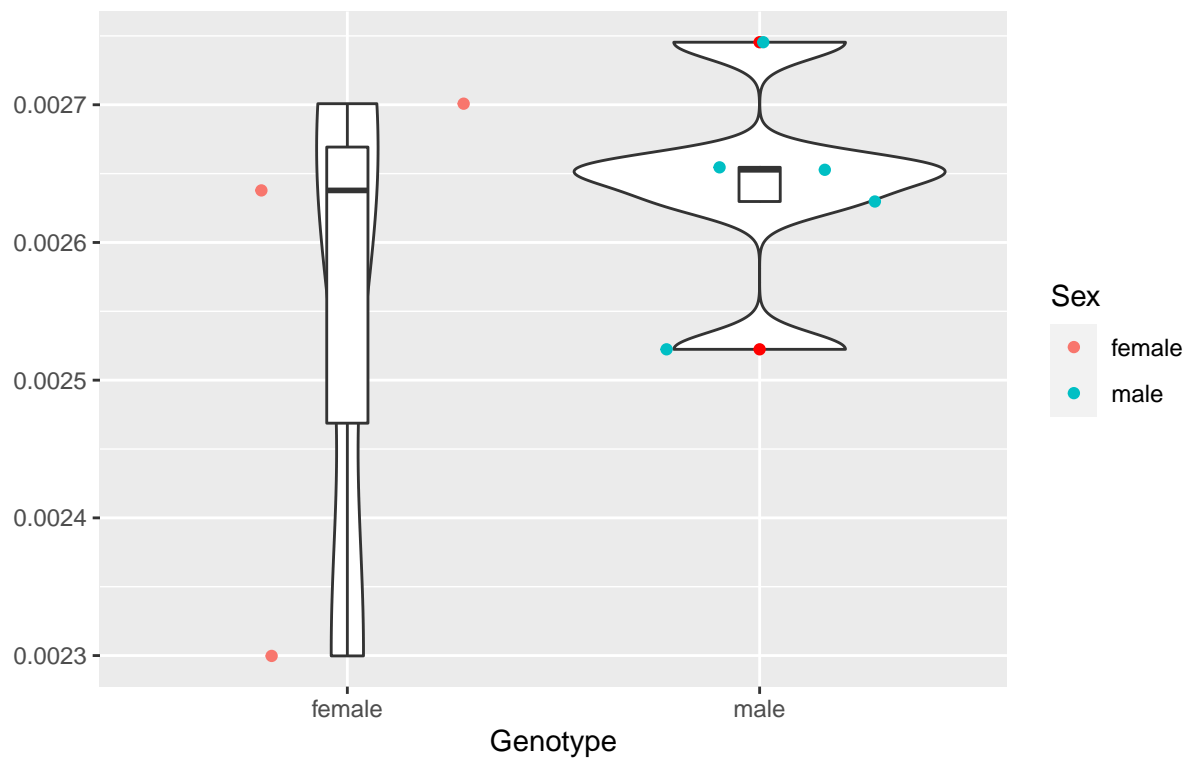
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.263e-09	6.263e-09	3.43	0.113
## Residuals	6	1.096e-08	1.826e-09		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.240e-09	1.245e-09	0.11	0.752
## Residuals	6	6.806e-08	1.134e-08		

Medial Geniculate Nucleus

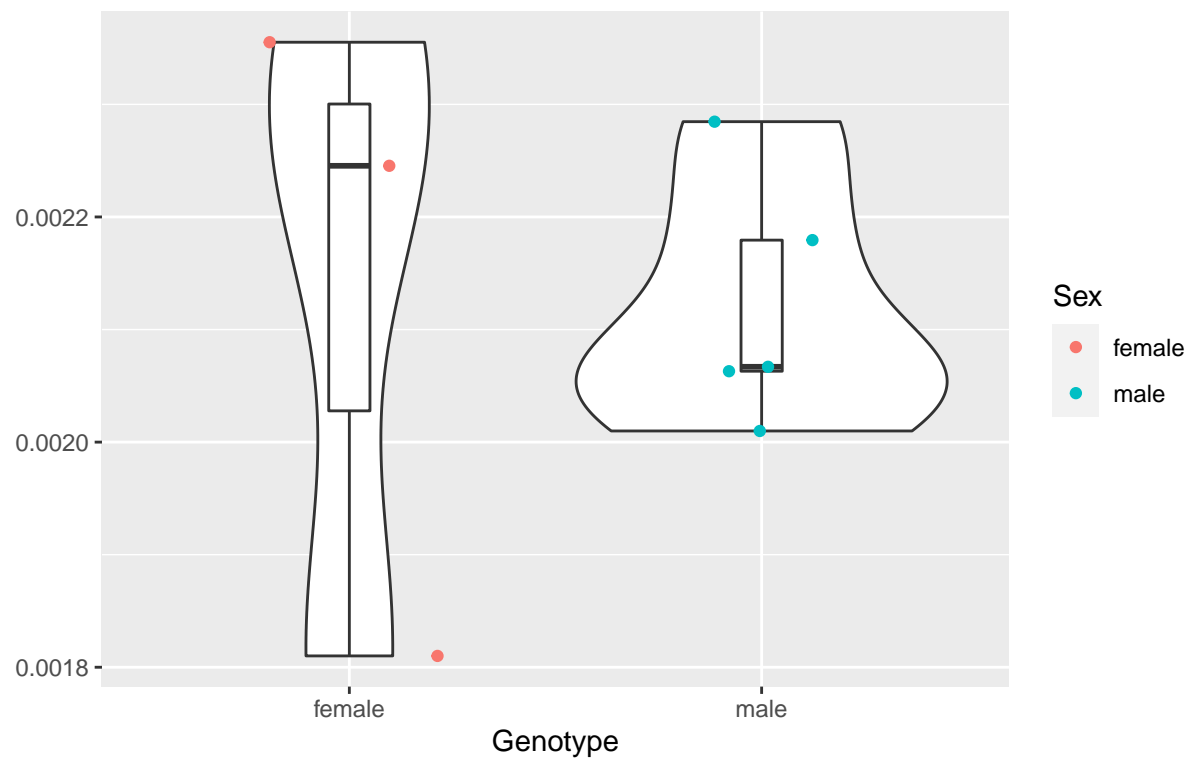
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.688e-08	1.688e-08	0.855	0.391
## Residuals	6	1.184e-07	1.974e-08		

Latero Dorsal Nucleus of Thalamus

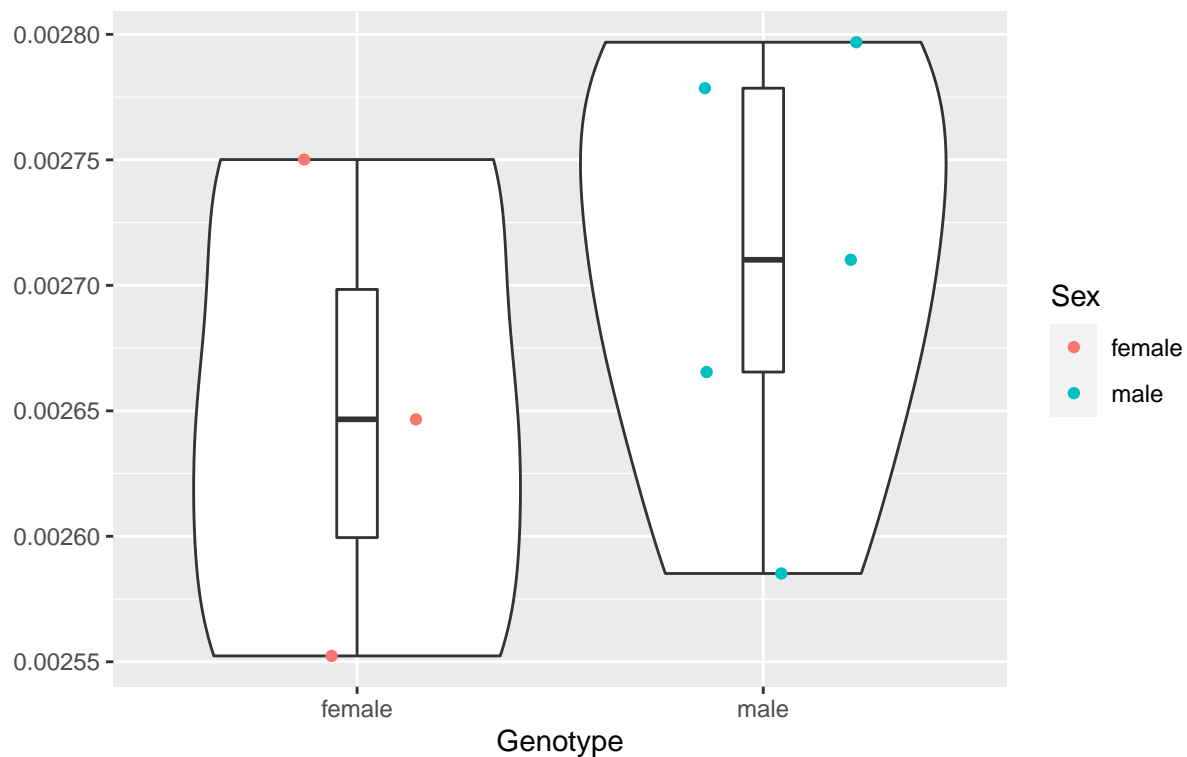
Red points denoting outliers



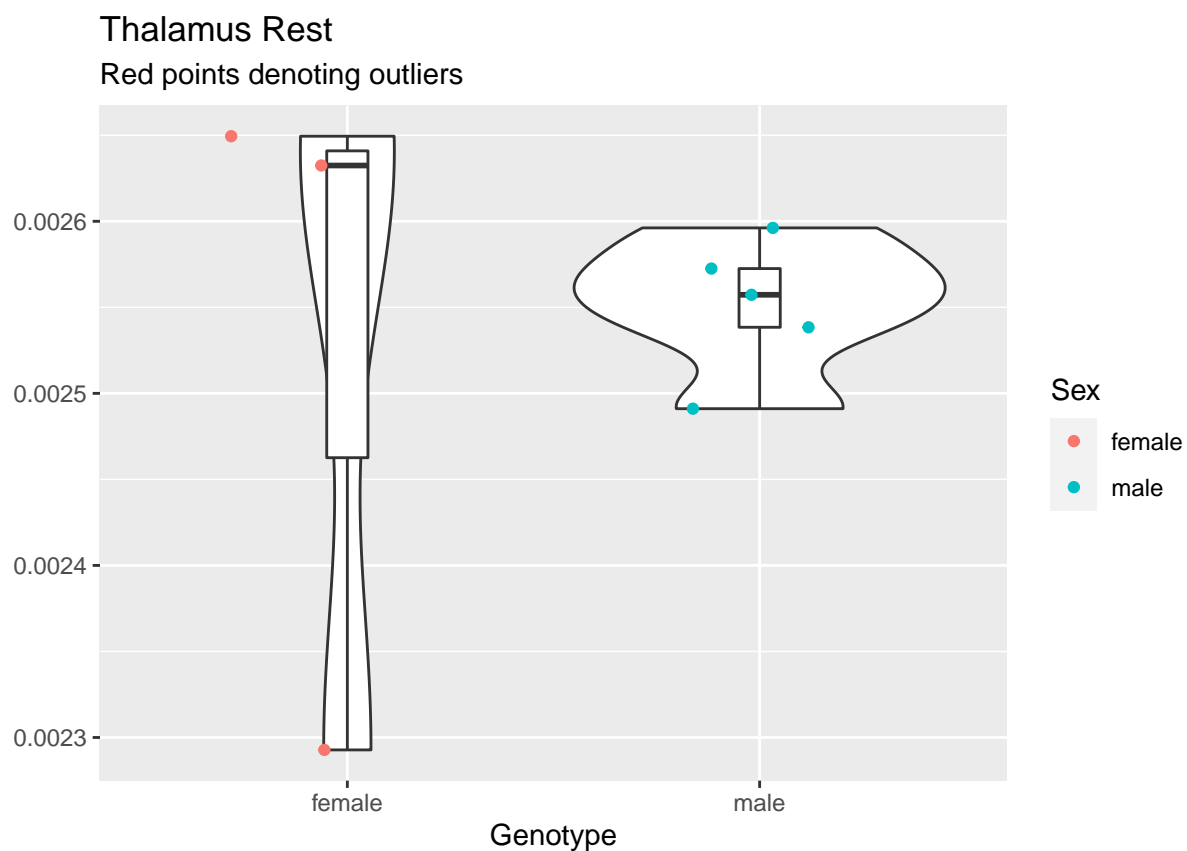
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.900e-10	4.900e-10	0.014	0.911
## Residuals	6	2.151e-07	3.585e-08		

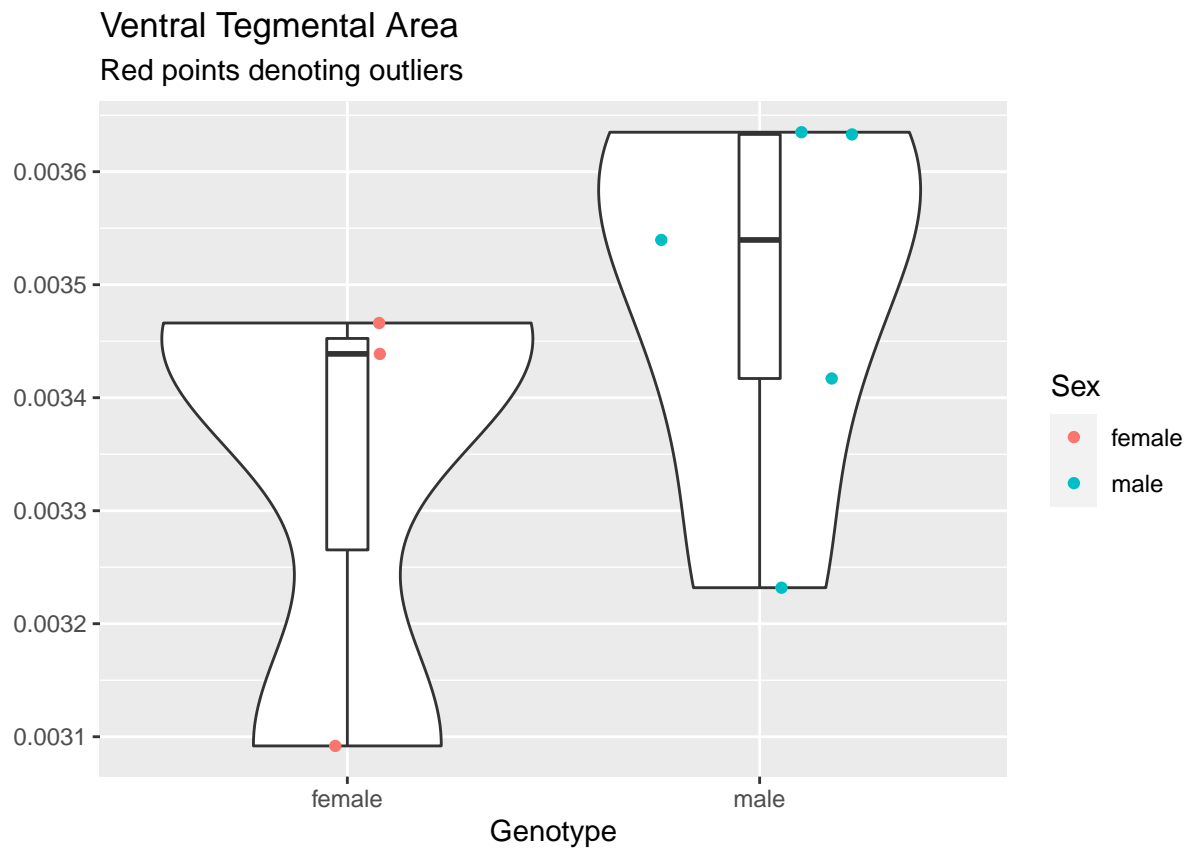
Ventral Thalamic Nuclei

Red points denoting outliers

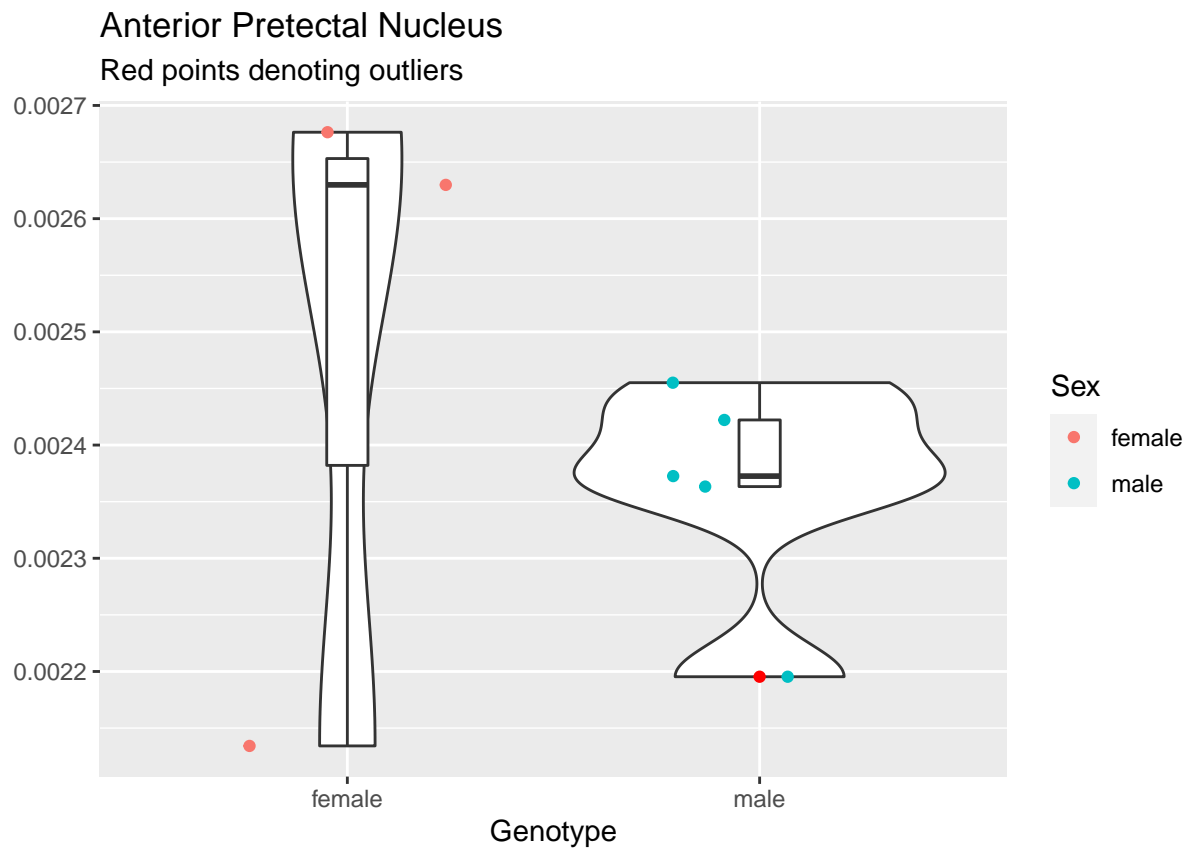


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.210e-09	6.213e-09	0.755	0.418
## Residuals	6	4.935e-08	8.225e-09		



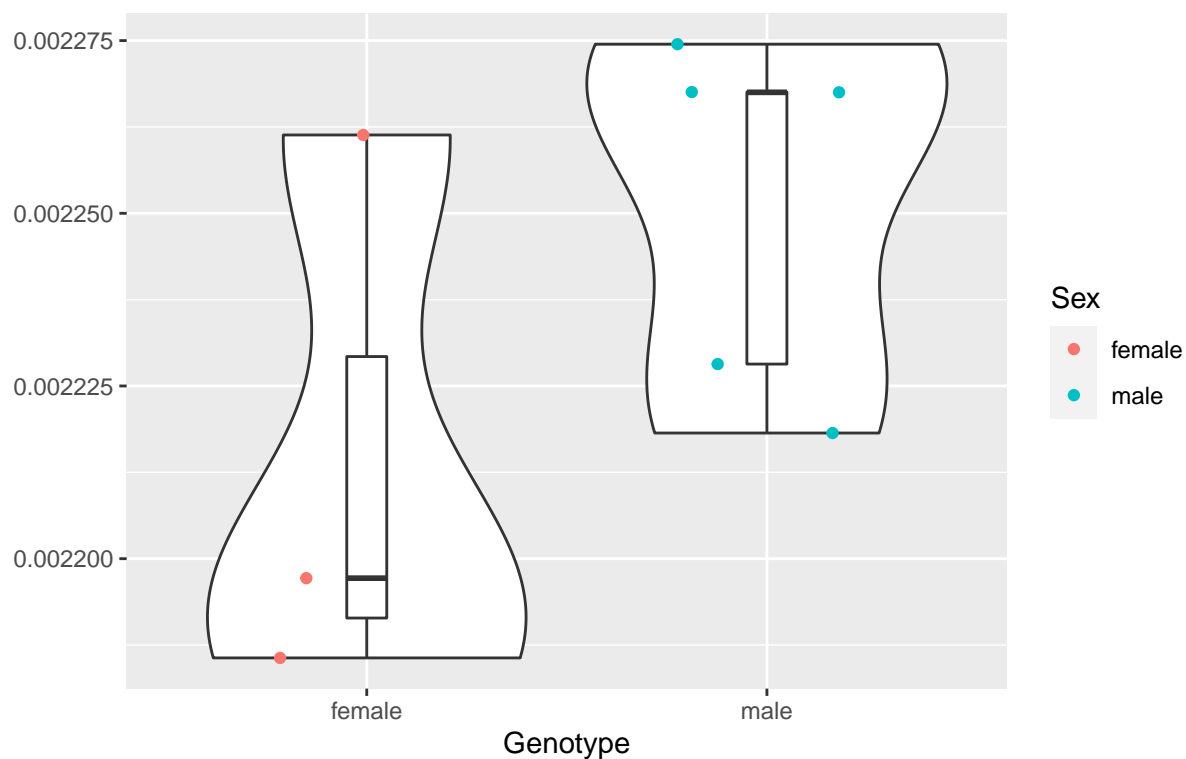


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.742e-08	4.742e-08	1.402	0.281
## Residuals	6	2.029e-07	3.382e-08		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.630e-08	2.630e-08	0.715	0.43
## Residuals	6	2.207e-07	3.679e-08		

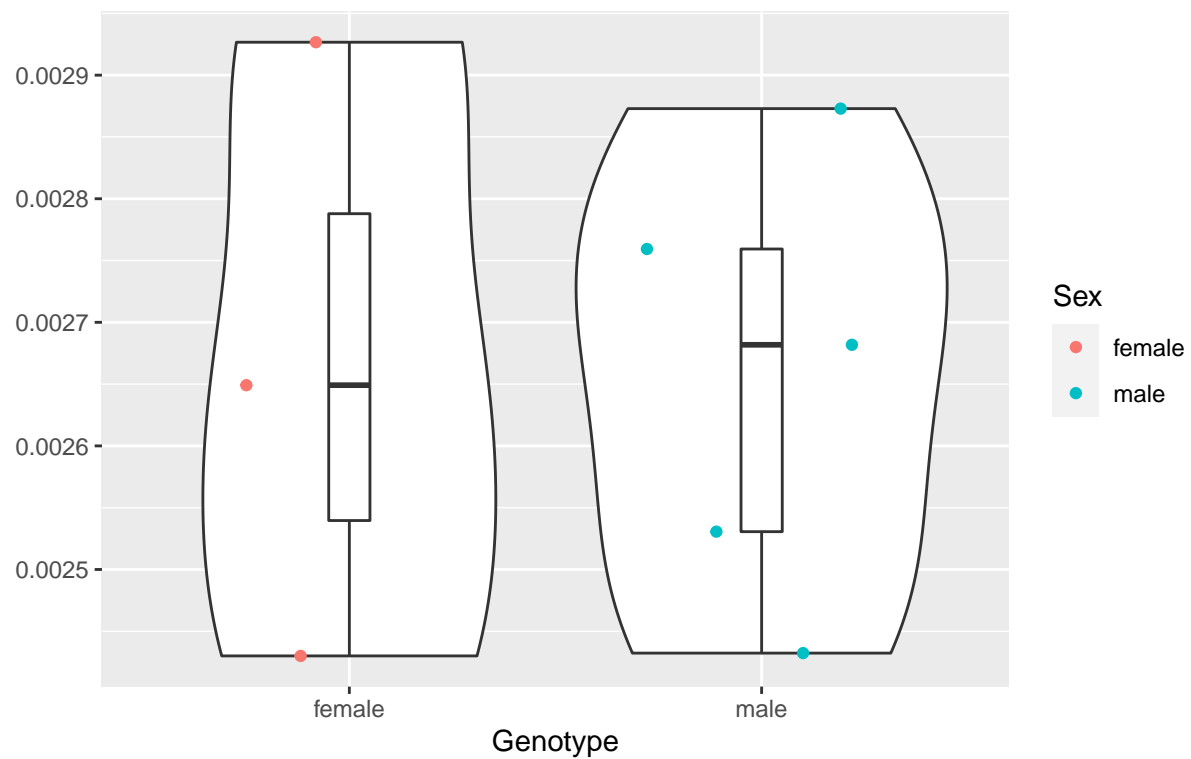
Periaqueductal Grey Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.493e-09	2.493e-09	2.484	0.166
## Residuals	6	6.023e-09	1.004e-09		

Ventral Pallidum

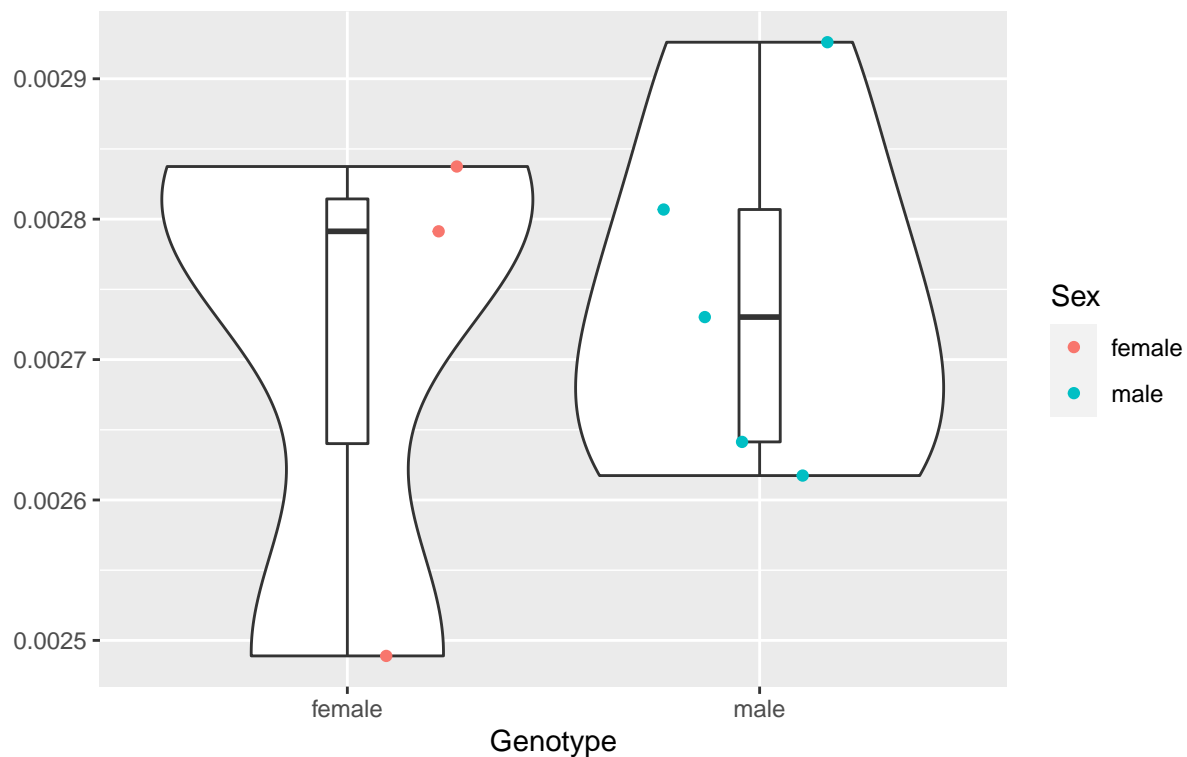
Red points denoting outliers



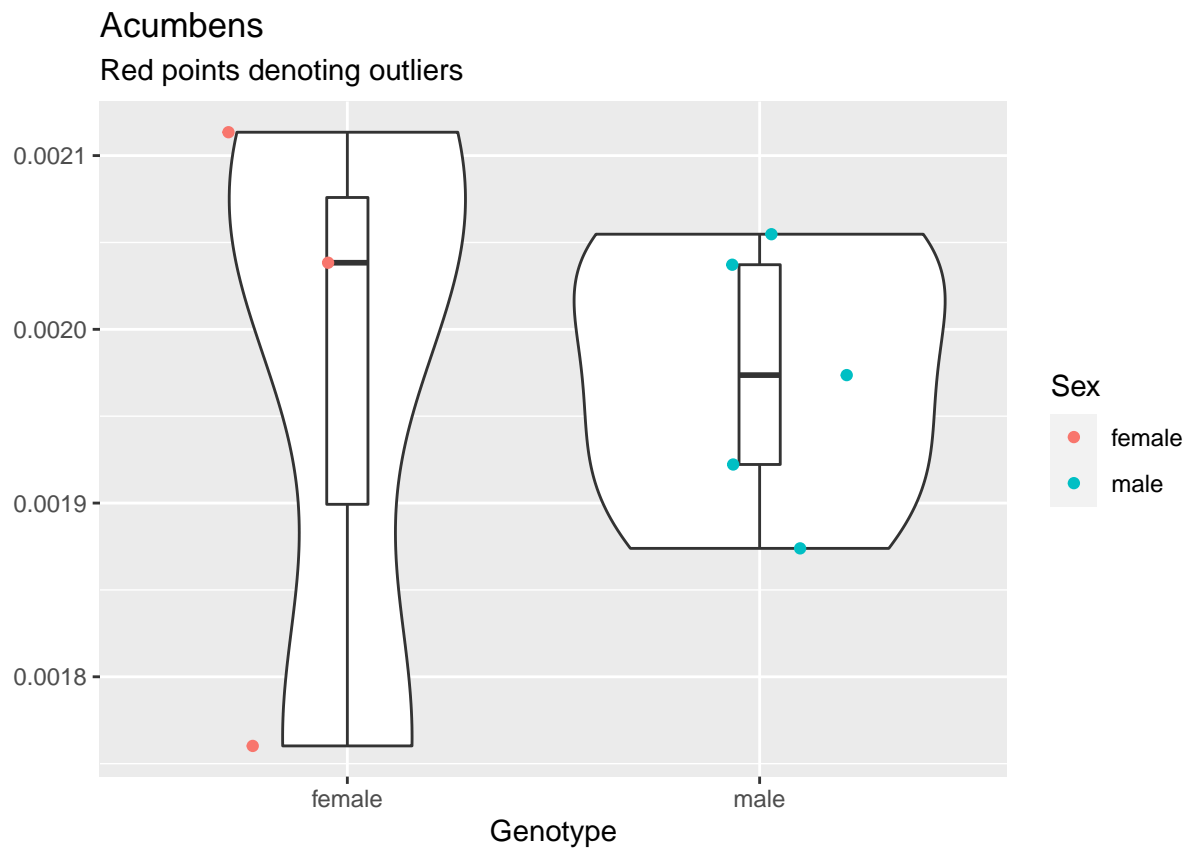
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.30e-10	3.300e-10	0.008	0.932
## Residuals	6	2.48e-07	4.134e-08		

Bed Nucleus of the Stria Terminalis

Red points denoting outliers



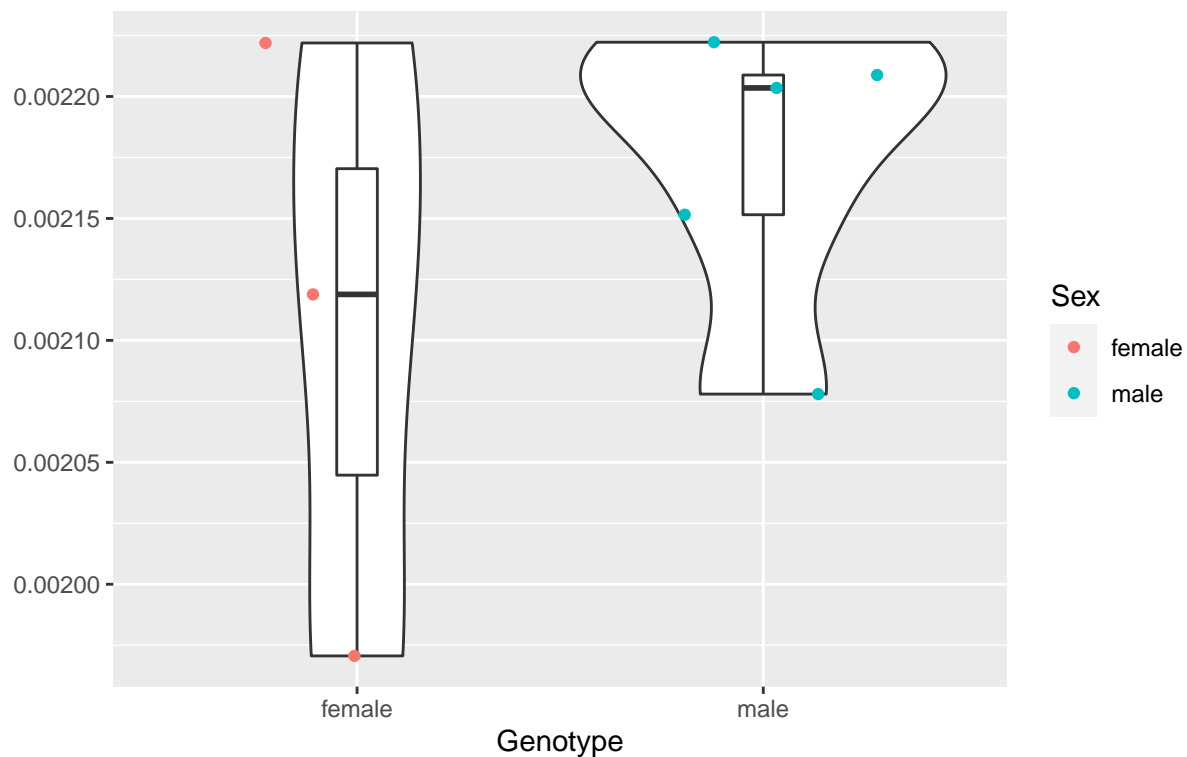
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.770e-09	2.773e-09	0.123	0.738
## Residuals	6	1.355e-07	2.259e-08		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.000e-11	5.000e-12	0	0.986
## Residuals	6	9.246e-08	1.541e-08		

Amygdala

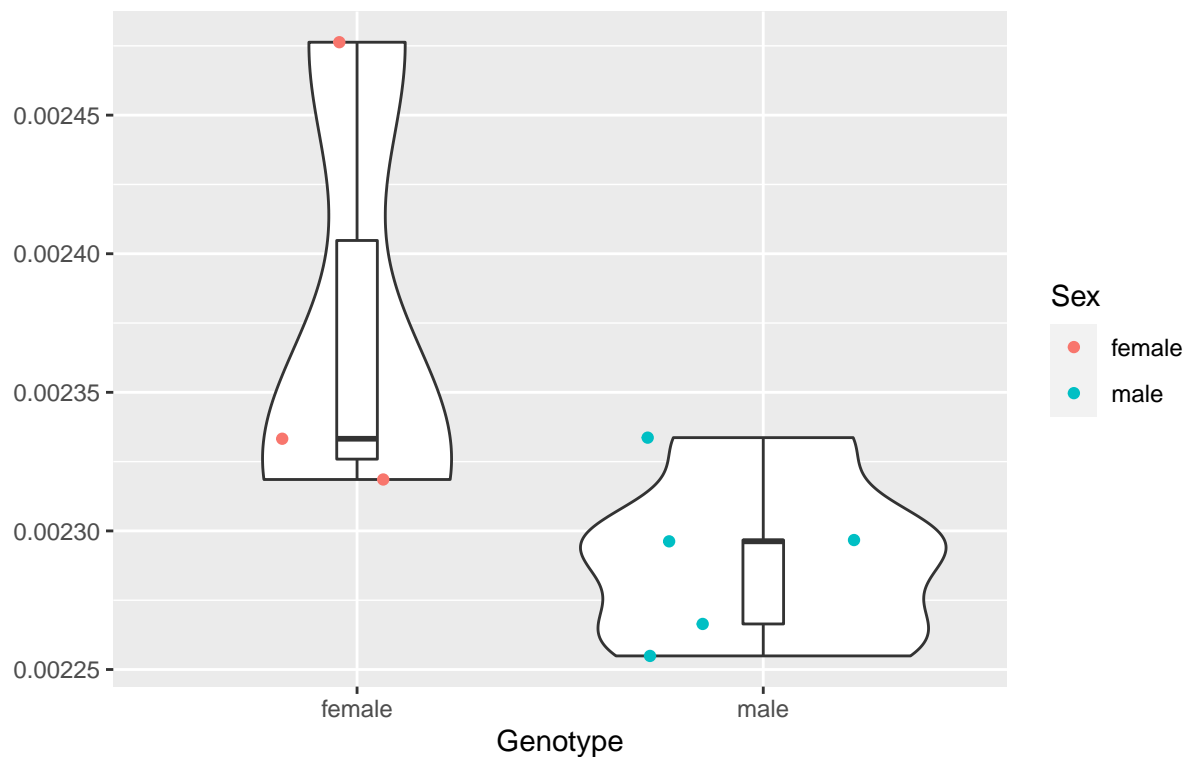
Red points denoting outliers



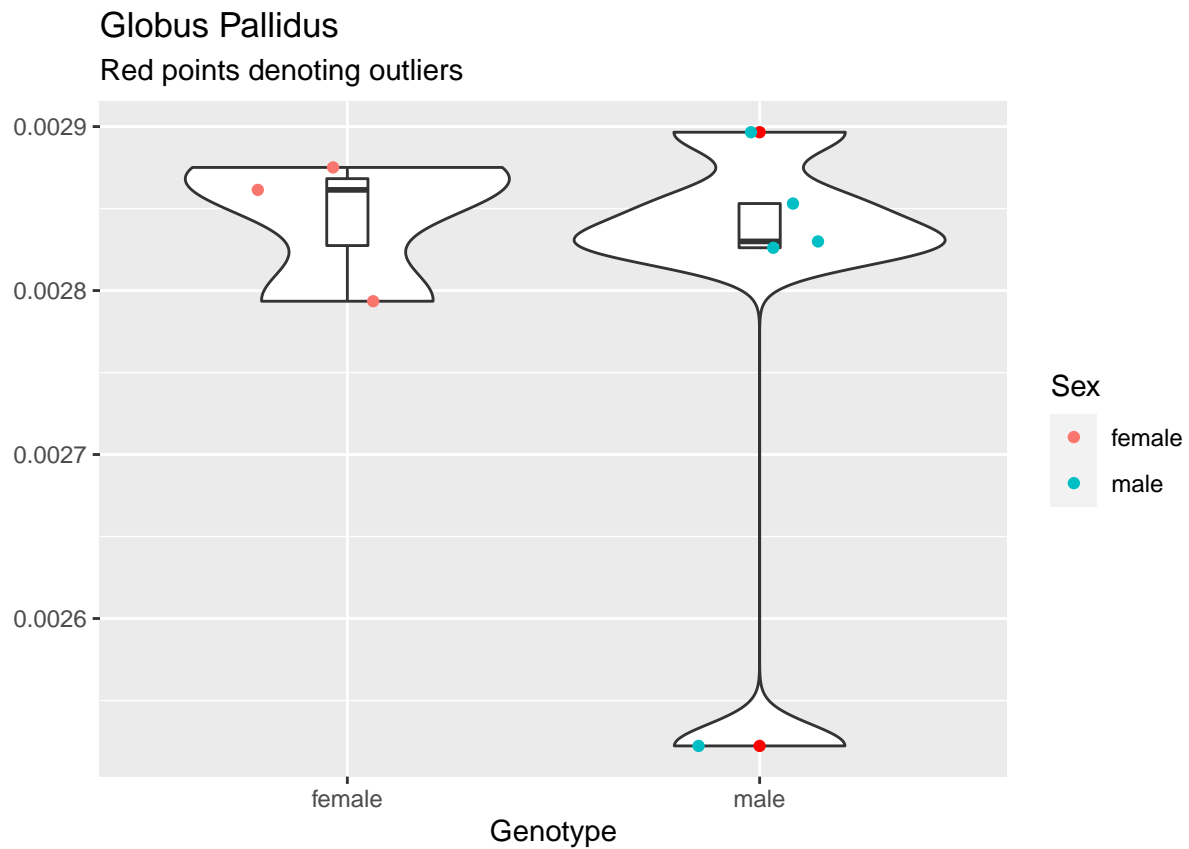
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	8.930e-09	8.929e-09	1.163	0.322
## Residuals	6	4.605e-08	7.676e-09		

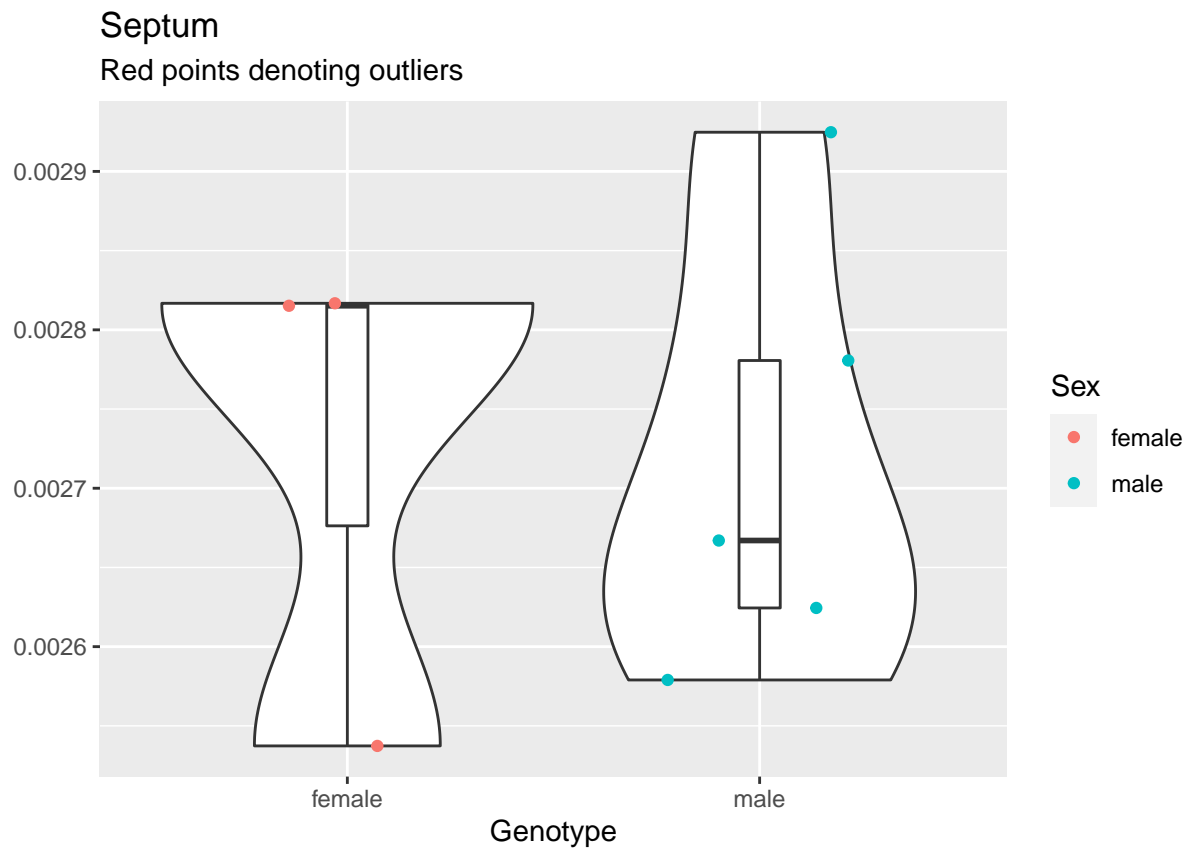
Striatum

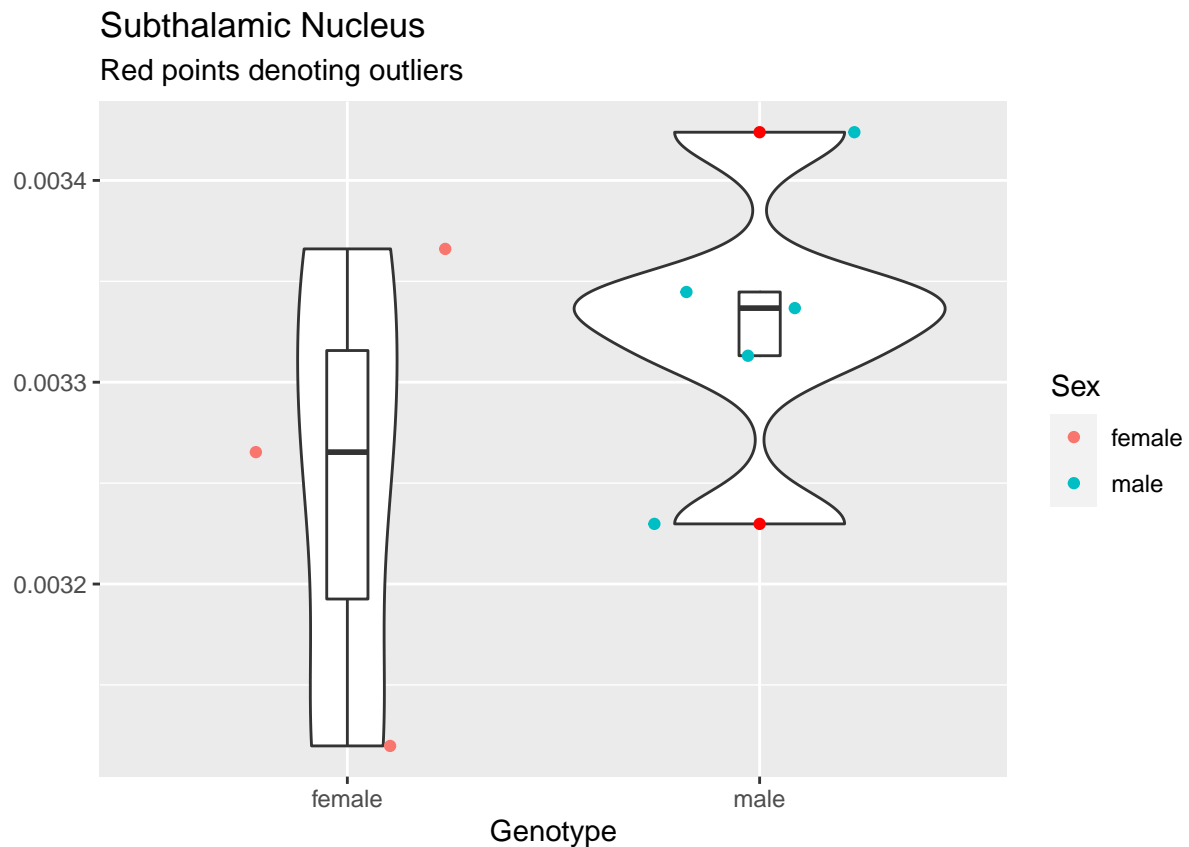
Red points denoting outliers



```
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Sex           1 1.401e-08 1.401e-08   4.433 0.0799 .
## Residuals     6 1.897e-08 3.161e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```







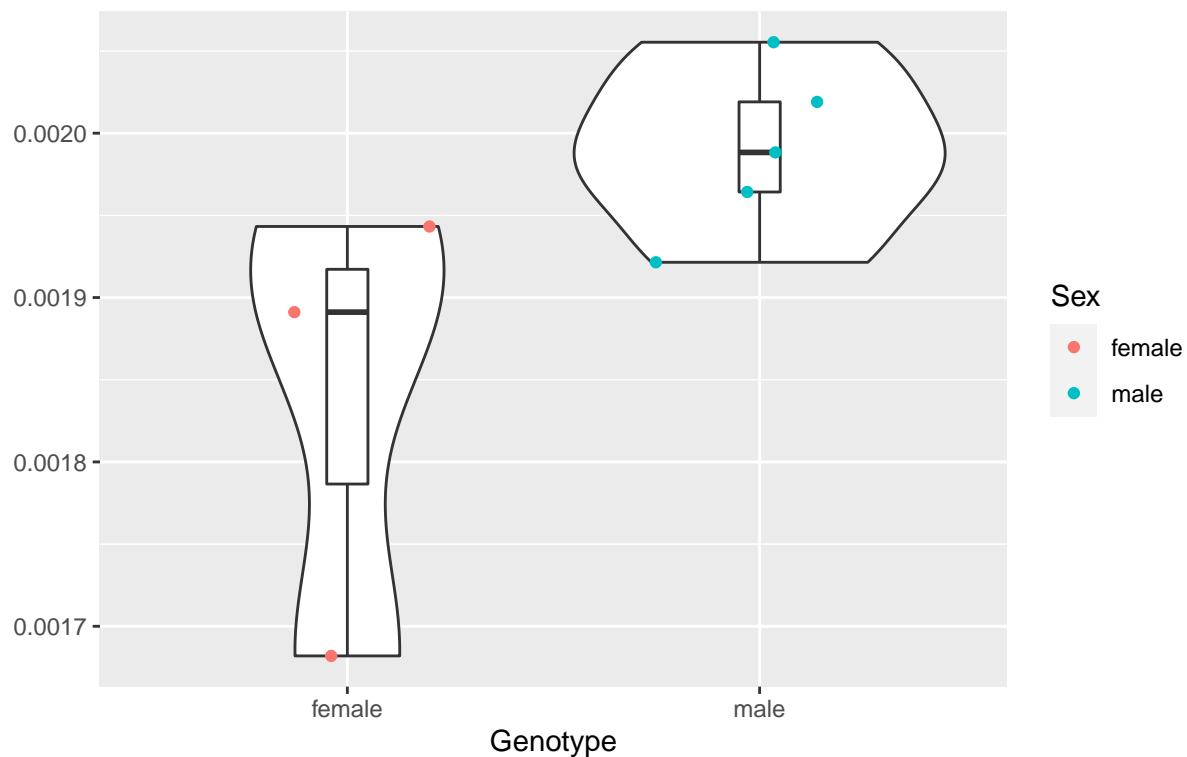
```
##           Df    Sum Sq  Mean Sq F value Pr(>F)
## Sex         1 1.178e-08 1.178e-08   1.411   0.28
## Residuals   6 5.007e-08 8.344e-09
```

```
#“{r Preopt, echo = FALSE} #ggplot(data = apoe3, aes(factor(Sex), Preopt)) + #geom_violin() +
#geom_boxplot(width = 0.1, outlier.color = “red”) + #geom_jitter(height = 0, width = 0.3, aes(color
= Sex)) + #labs(x = “Genotype”, #y = “”, #title =”Preoptic Telencephalon“, #subtitle =”Red points
denoting outliers”)
```

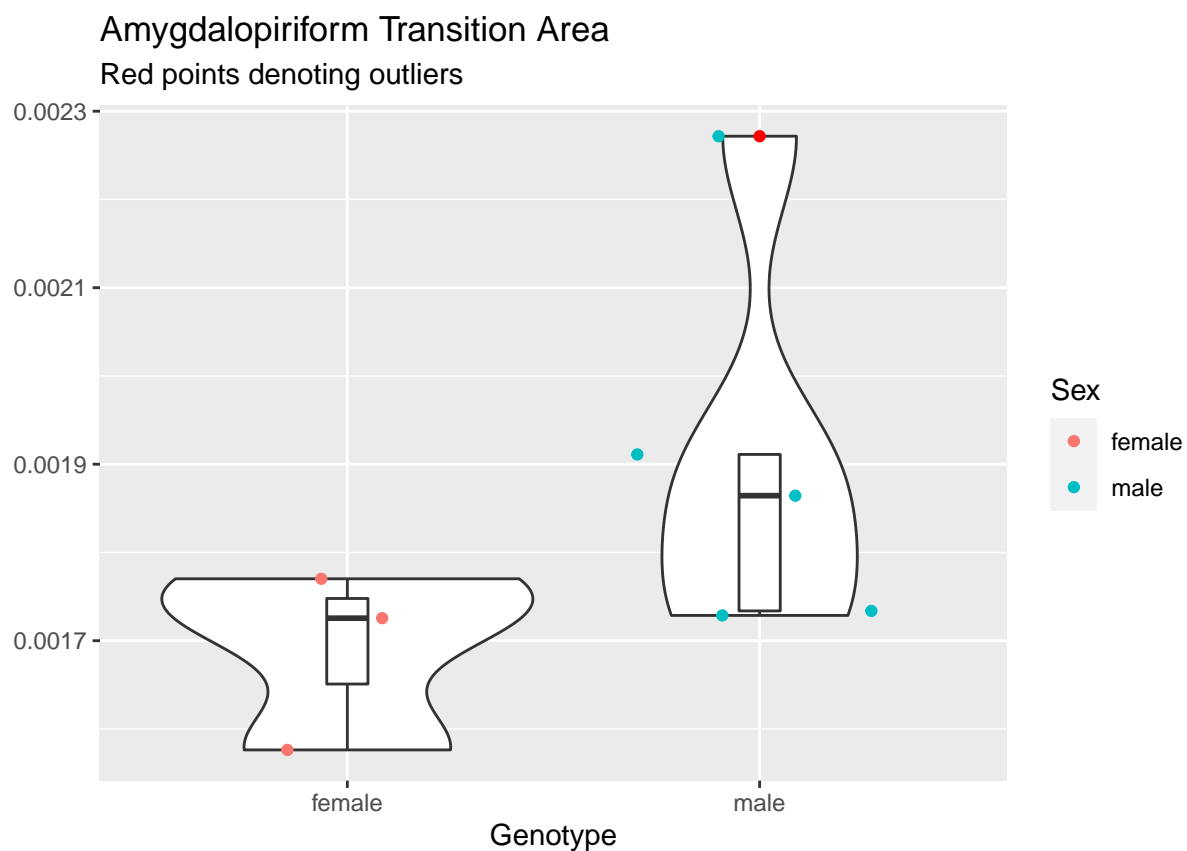
```
#res.aov <- aov(Preopt ~ Sex, data = apoe3) #summary(res.aov) #““
```


Hypothalamus

Red points denoting outliers

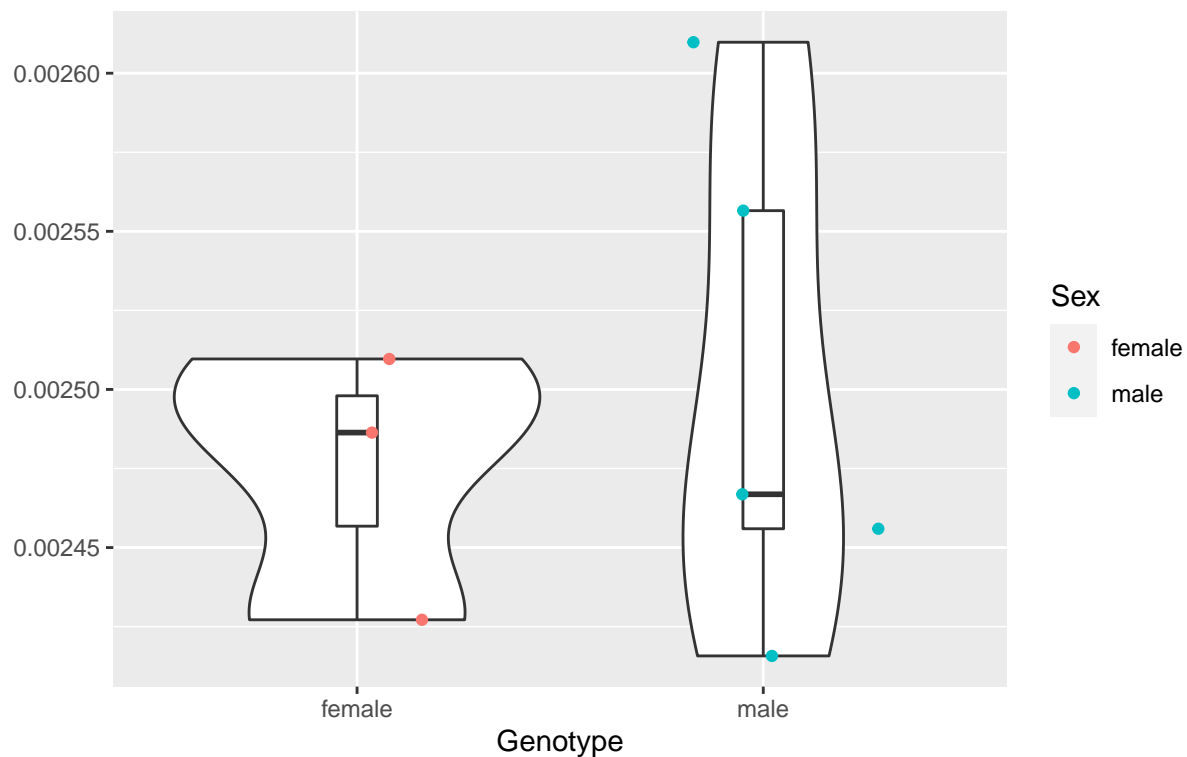


```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 4.269e-08 4.269e-08   5.258 0.0617 .
## Residuals    6 4.872e-08 8.120e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```



Periform Cortex

Red points denoting outliers



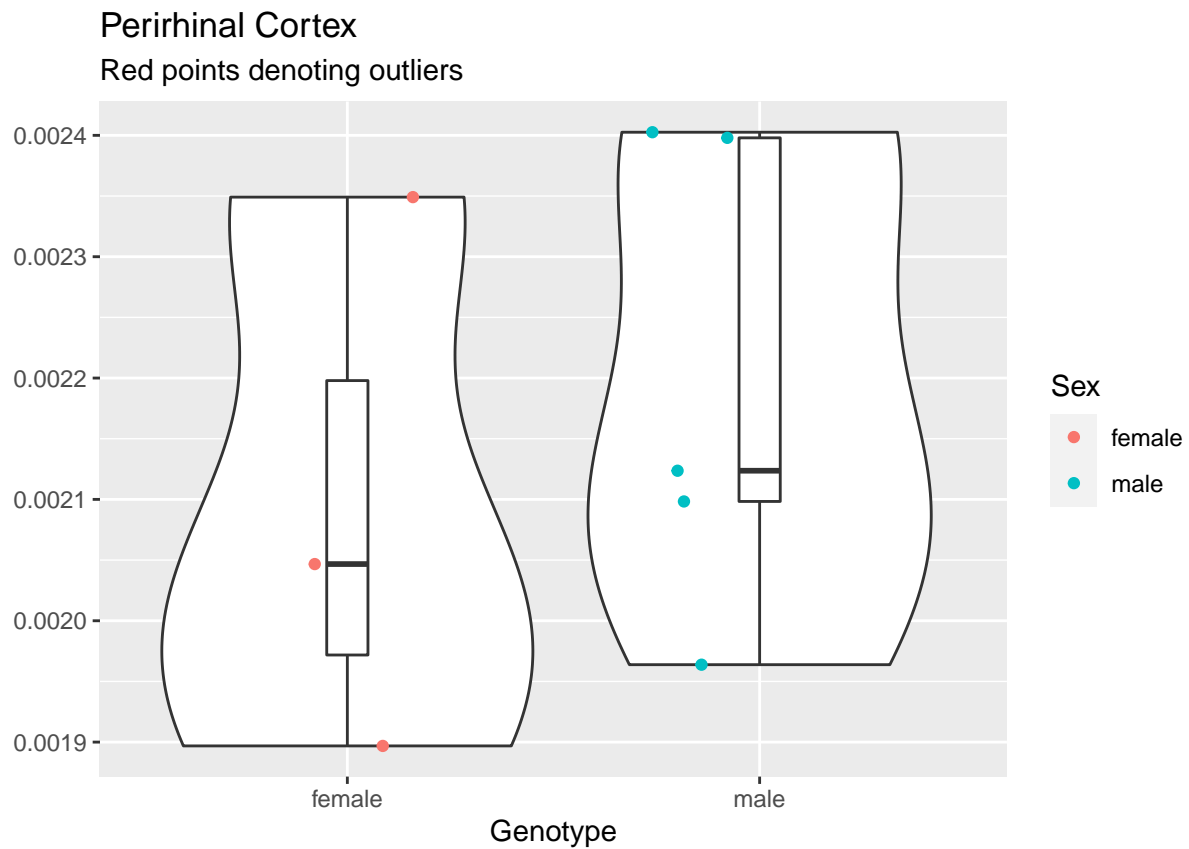
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.326e-09	1.326e-09	0.274	0.619
## Residuals	6	2.901e-08	4.834e-09		

Presubiculum

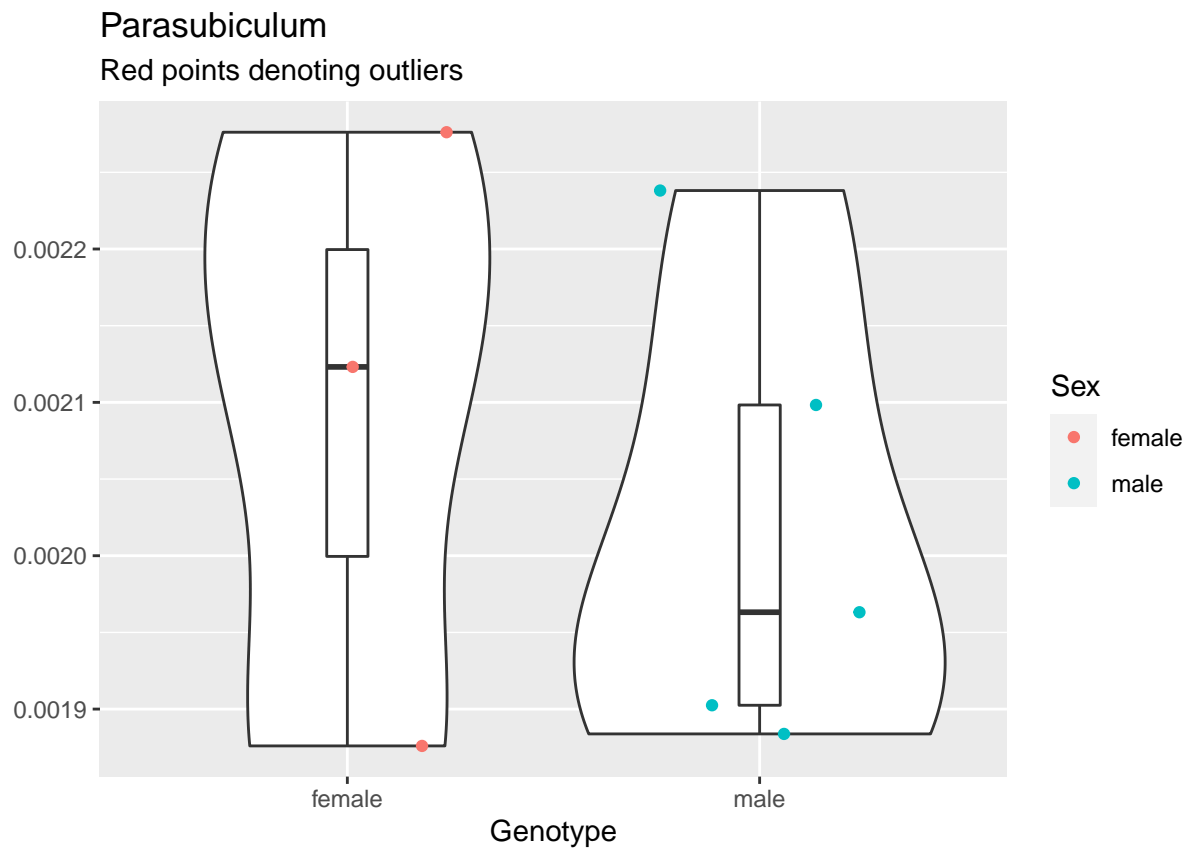
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.080e-08	2.078e-08	0.294	0.607
## Residuals	6	4.246e-07	7.076e-08		



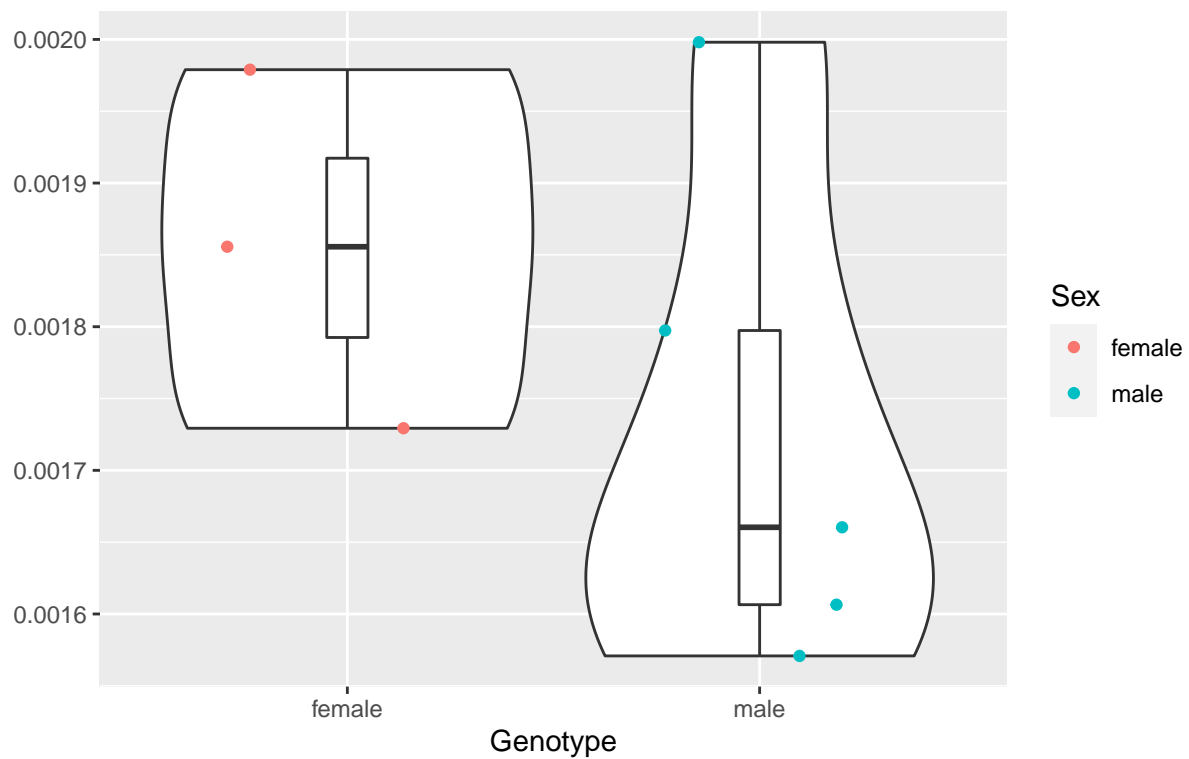
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.864e-08	1.864e-08	0.433	0.535
## Residuals	6	2.583e-07	4.305e-08		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.043e-08	1.043e-08	0.366	0.567
## Residuals	6	1.708e-07	2.847e-08		

Ectorhinal Cortex

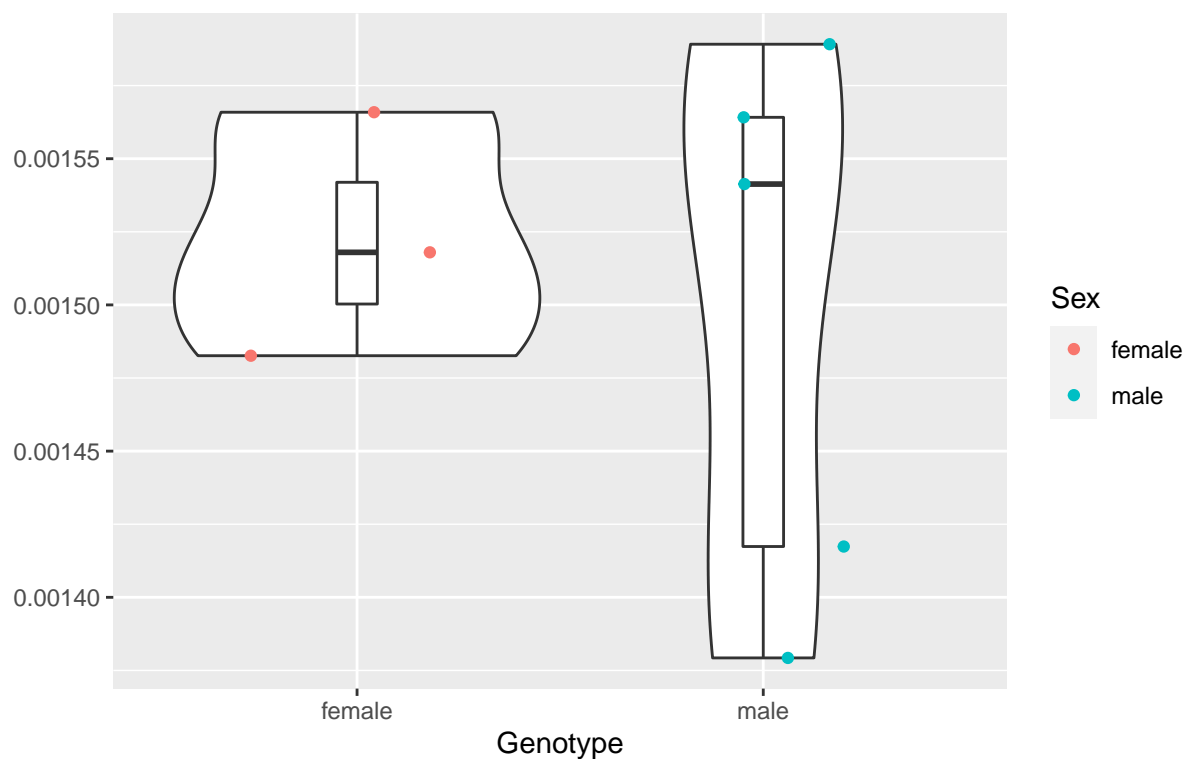
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.073e-08	3.073e-08	1.206	0.314
## Residuals	6	1.529e-07	2.549e-08		

Dorsal Tenia Tecta

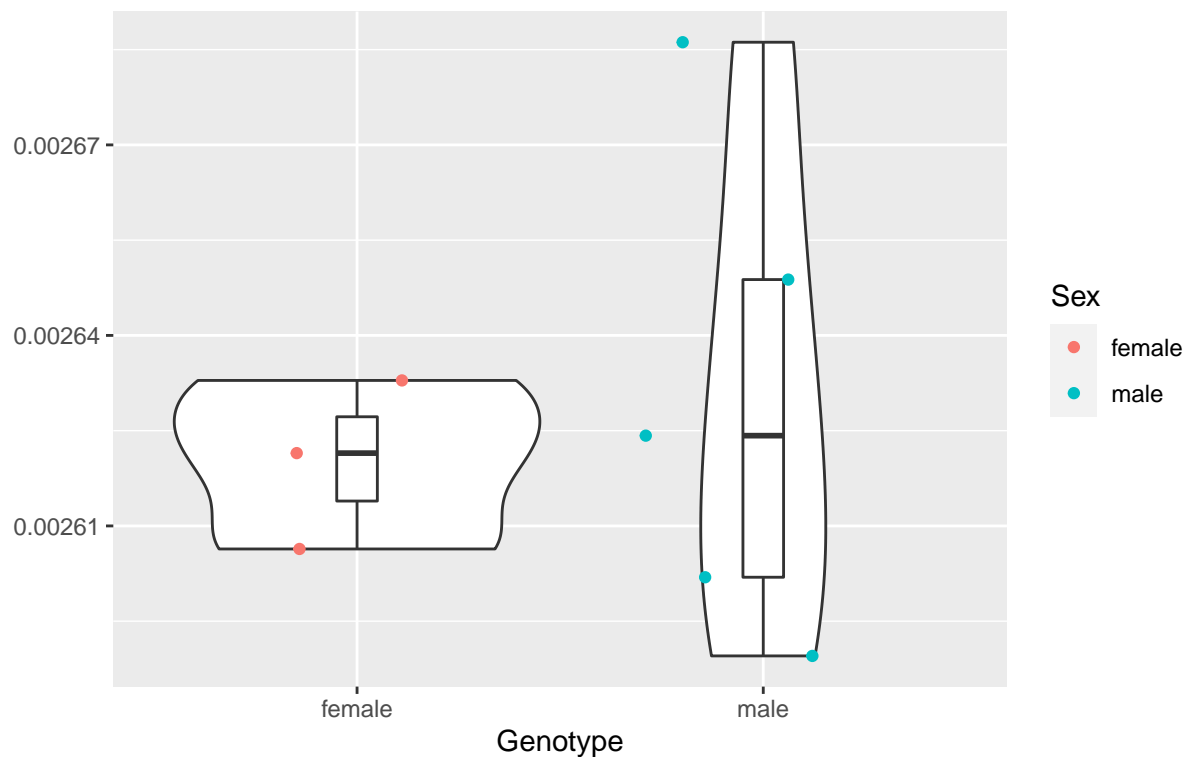
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.070e-09	1.072e-09	0.166	0.697
## Residuals	6	3.865e-08	6.442e-09		

Hippocampus

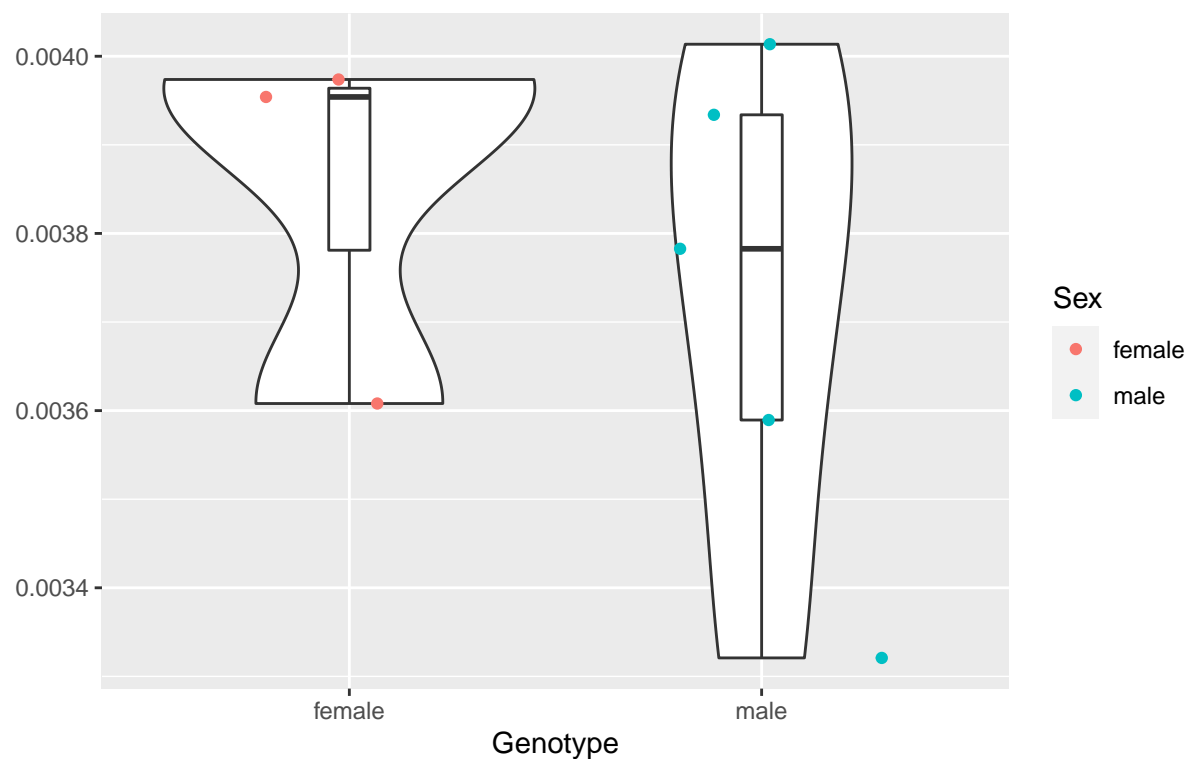
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.830e-10	1.828e-10	0.174	0.691
## Residuals	6	6.322e-09	1.054e-09		

Ventral Claustrum

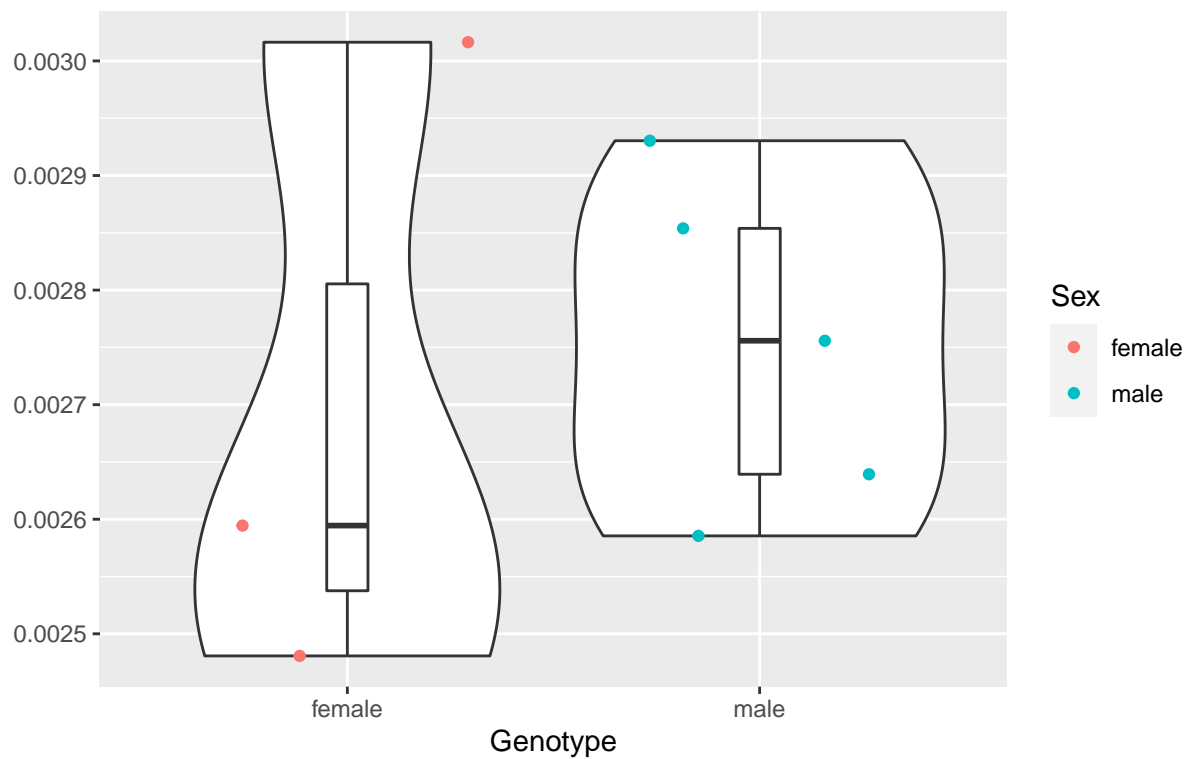
Red points denoting outliers



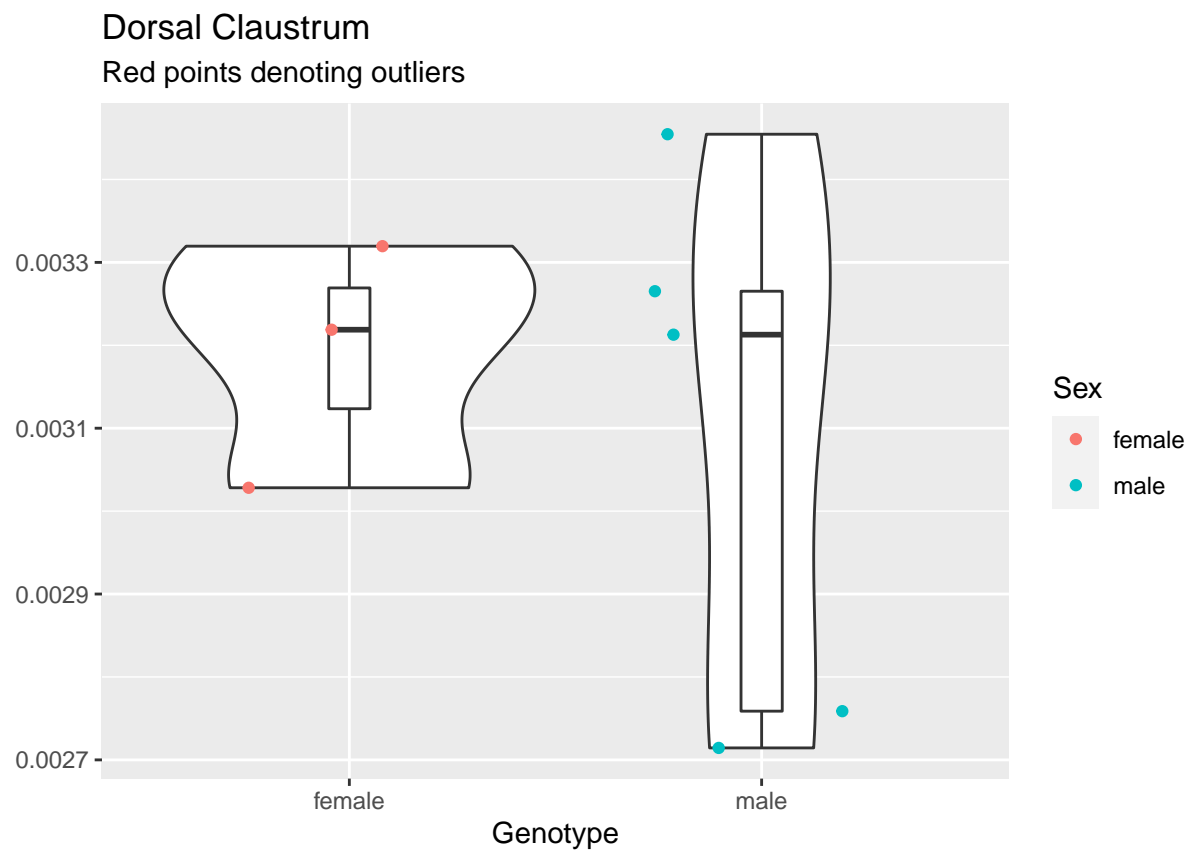
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.580e-08	2.576e-08	0.39	0.555
## Residuals	6	3.966e-07	6.610e-08		

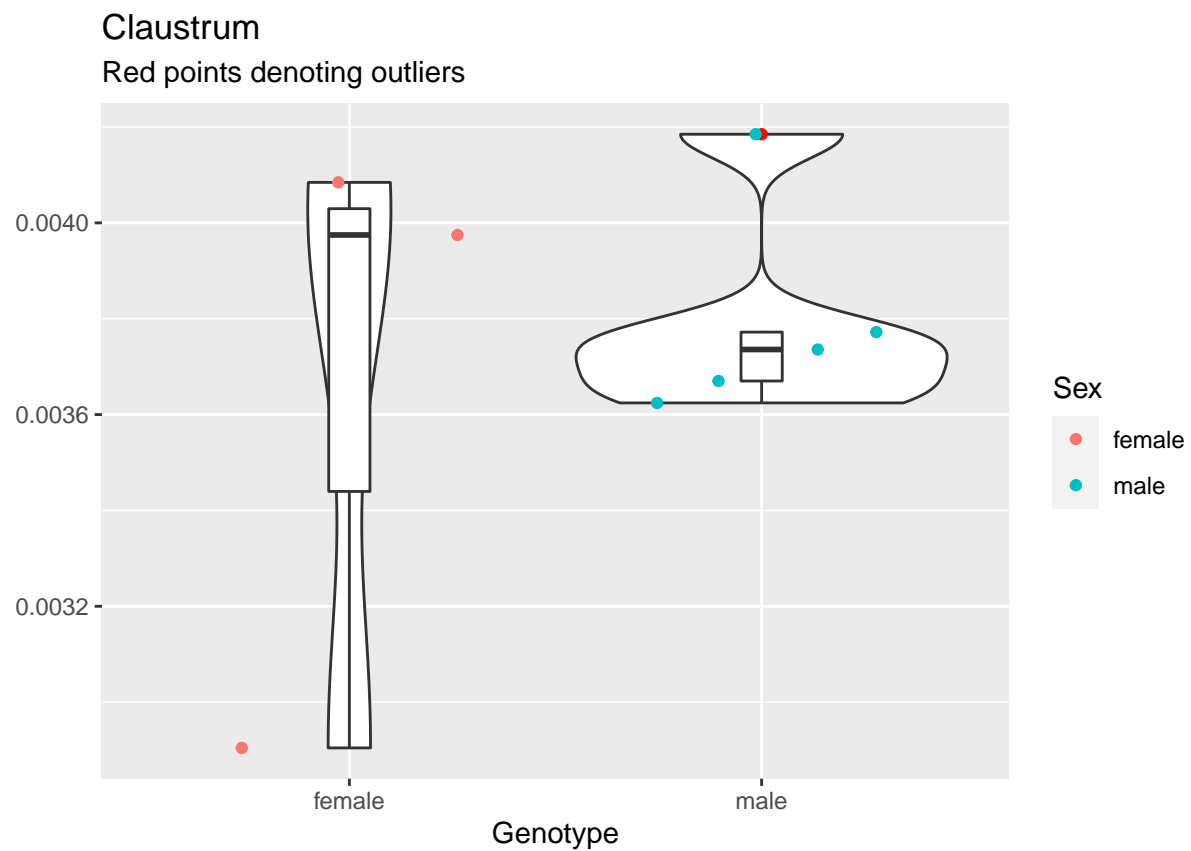
Posterolateral Cortical Amygdaloid Area

Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.830e-09	5.830e-09	0.145	0.717
## Residuals	6	2.419e-07	4.032e-08		

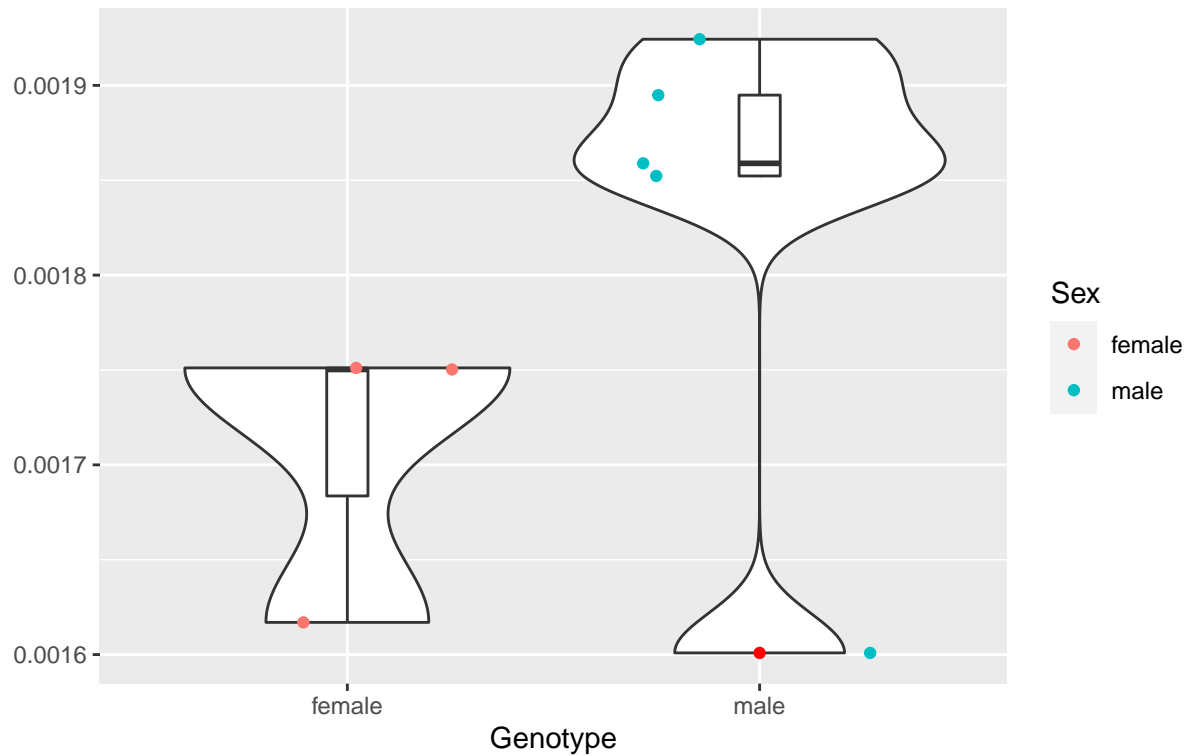




##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.830e-08	3.828e-08	0.219	0.657
## Residuals	6	1.051e-06	1.751e-07		

Ventral Intermediate Entorhinal Cortex

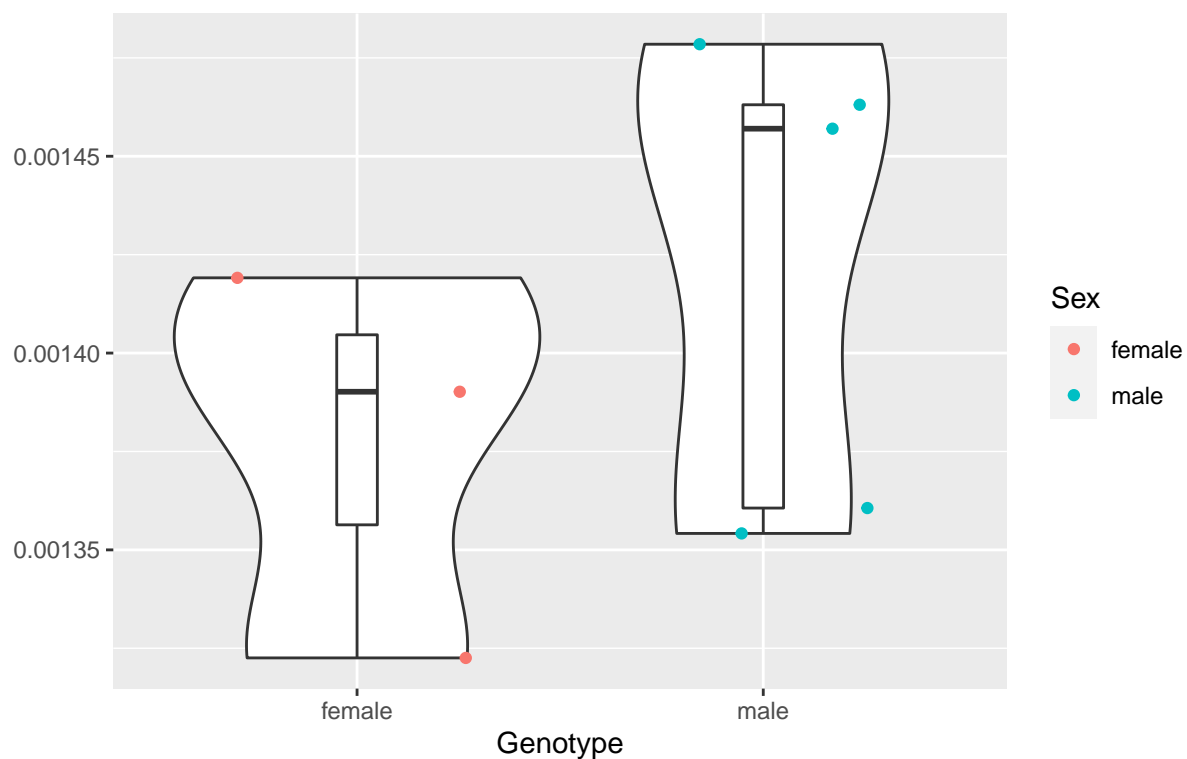
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.706e-08	2.706e-08	2.061	0.201
## Residuals	6	7.878e-08	1.313e-08		

Left Caudomedial Entorhinal Cortex

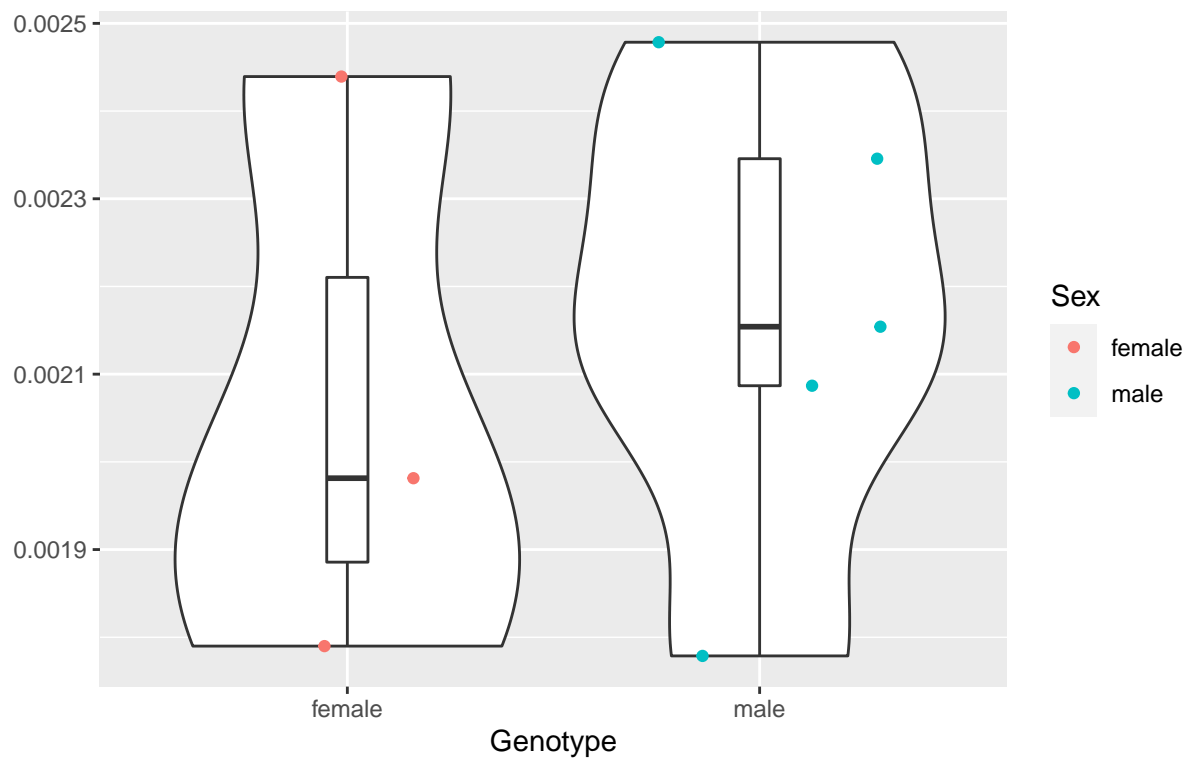
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.864e-09	3.864e-09	1.196	0.316
## Residuals	6	1.938e-08	3.230e-09		

Left Dorsolateral Entorhinal Cortex

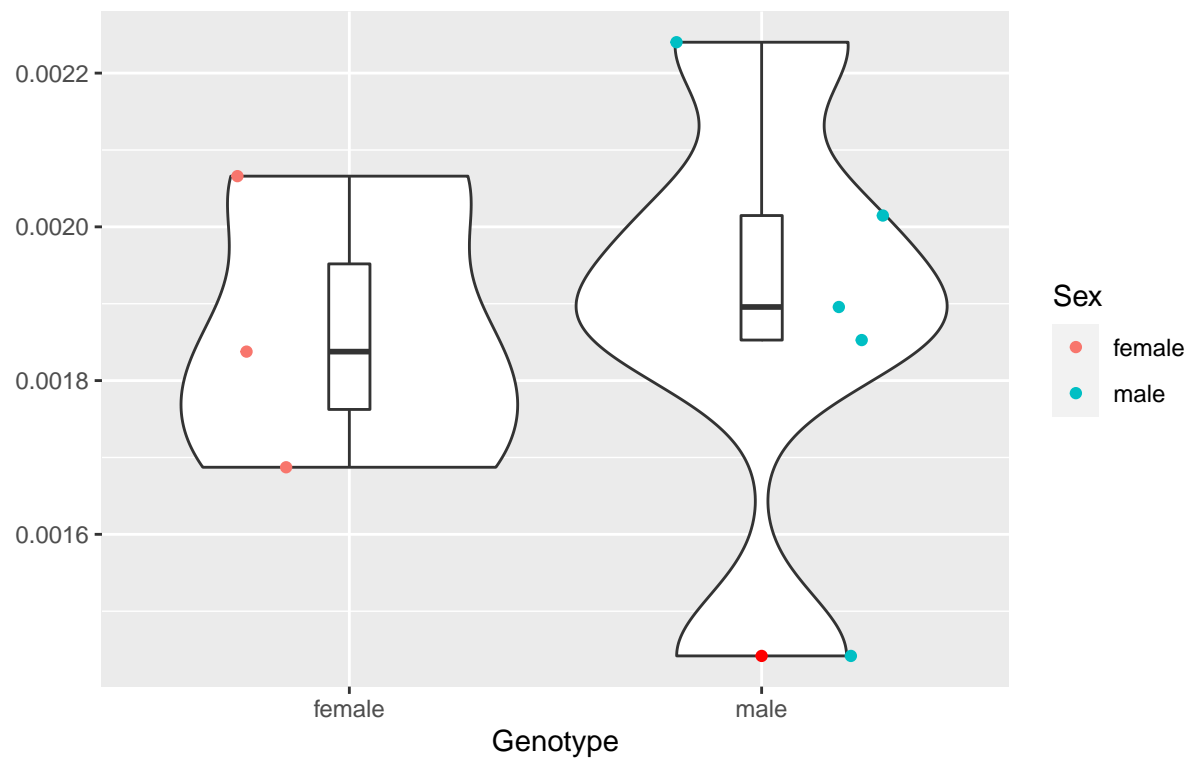
Red points denoting outliers



```
##          Df  Sum Sq  Mean Sq F value Pr(>F)
## Sex        1 1.82e-08 1.821e-08   0.215  0.659
## Residuals   6 5.09e-07 8.483e-08
```


Left Dorsal Intermediate Entorhinal Cortex

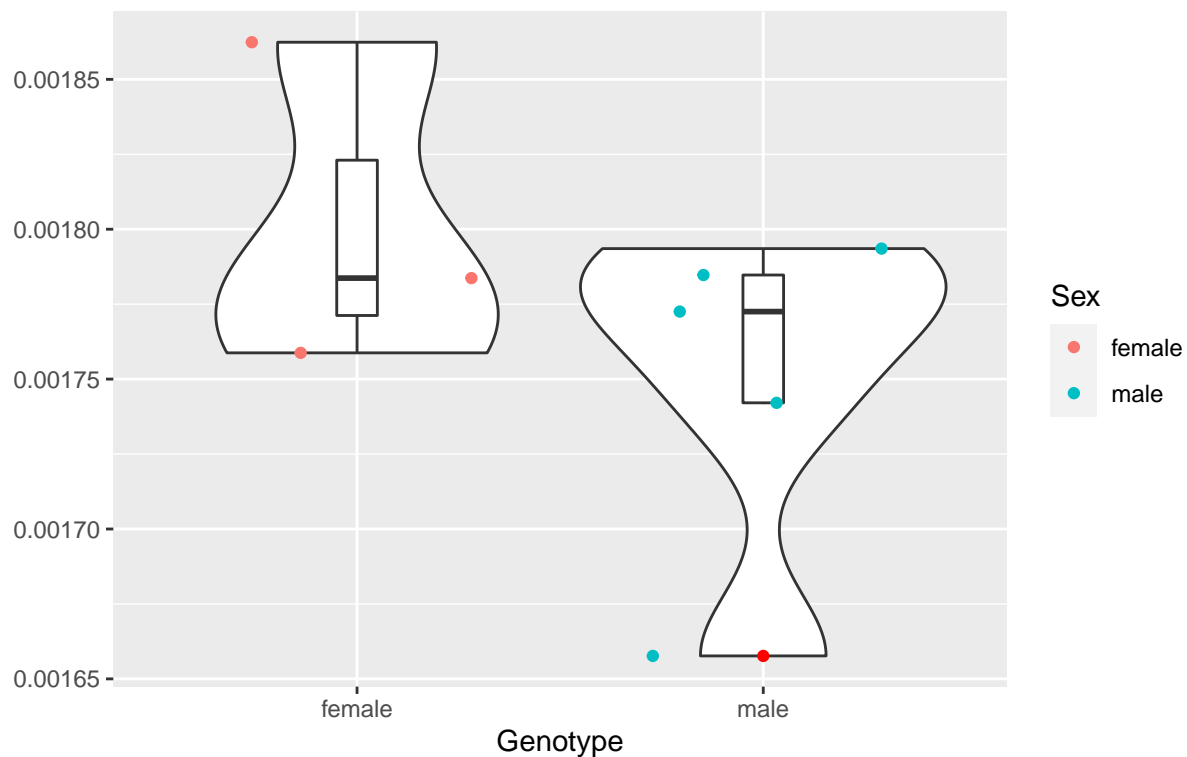
Red points denoting outliers



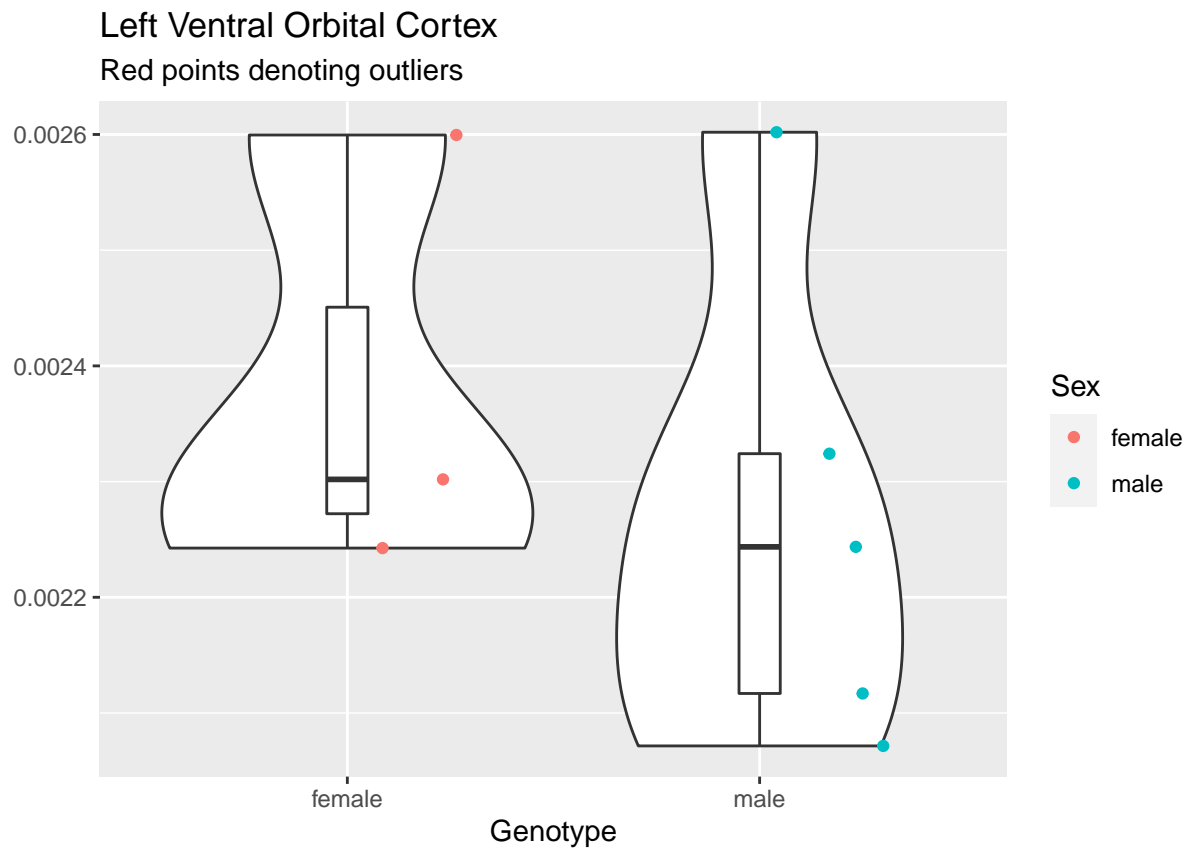
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.200e-09	1.210e-09	0.018	0.899
## Residuals	6	4.132e-07	6.886e-08		

Left Caudomedial Entorhinal Cortex

Red points denoting outliers



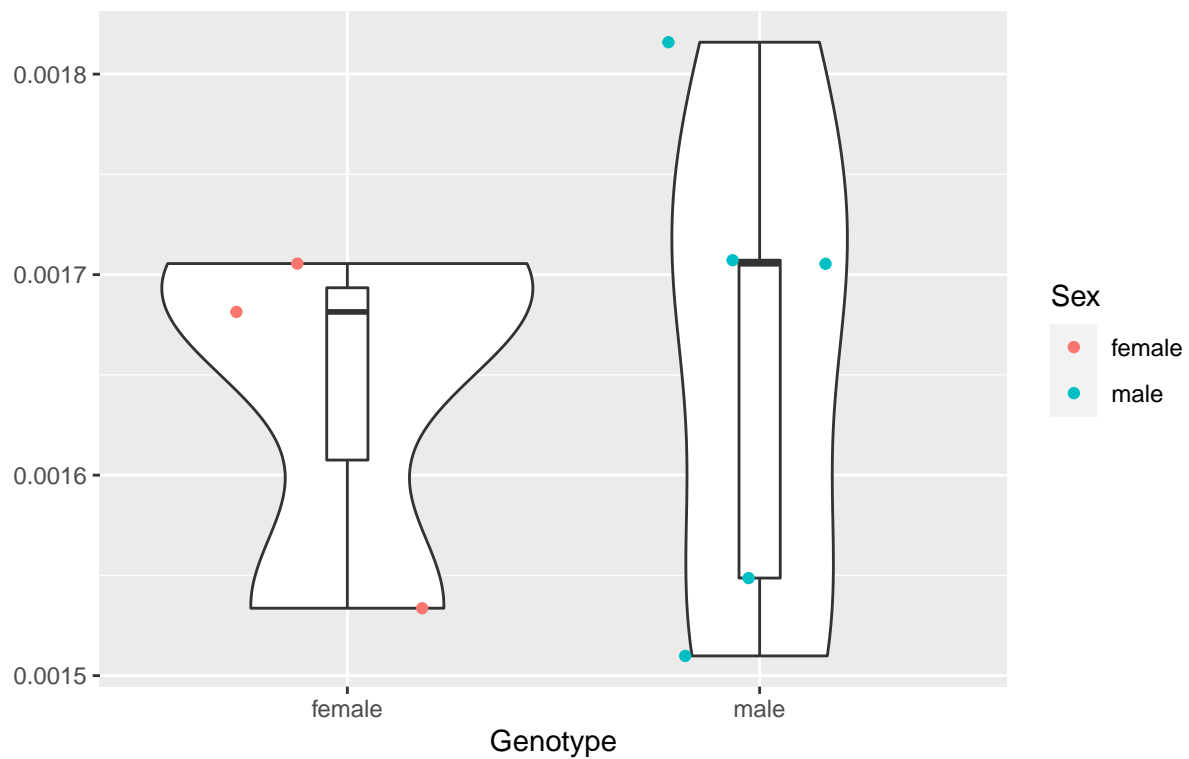
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.974e-09	4.974e-09	1.654	0.246
## Residuals	6	1.805e-08	3.008e-09		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.257e-08	2.257e-08	0.542	0.489
## Residuals	6	2.498e-07	4.164e-08		

Left Secondary Visual Cortex Mediomedial Area

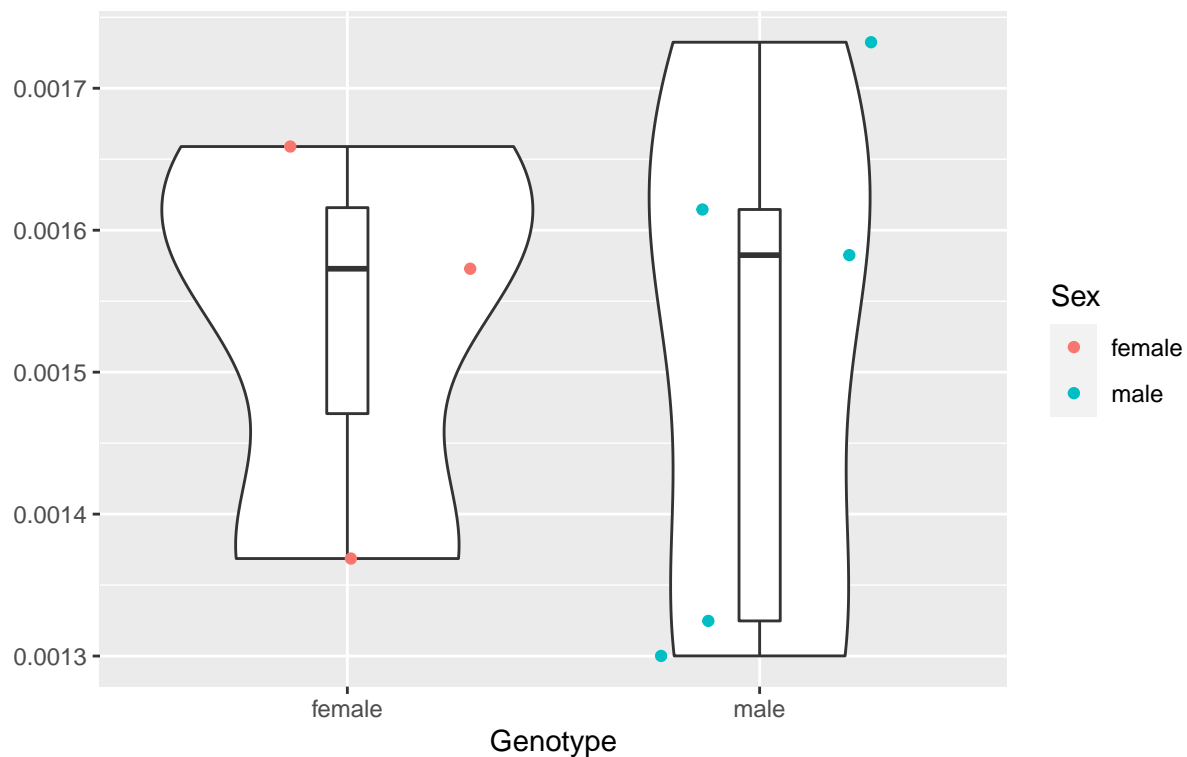
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.600e-10	5.560e-10	0.041	0.846
## Residuals	6	8.082e-08	1.347e-08		

Left Secondary Visual Cortex Mediolateral Area

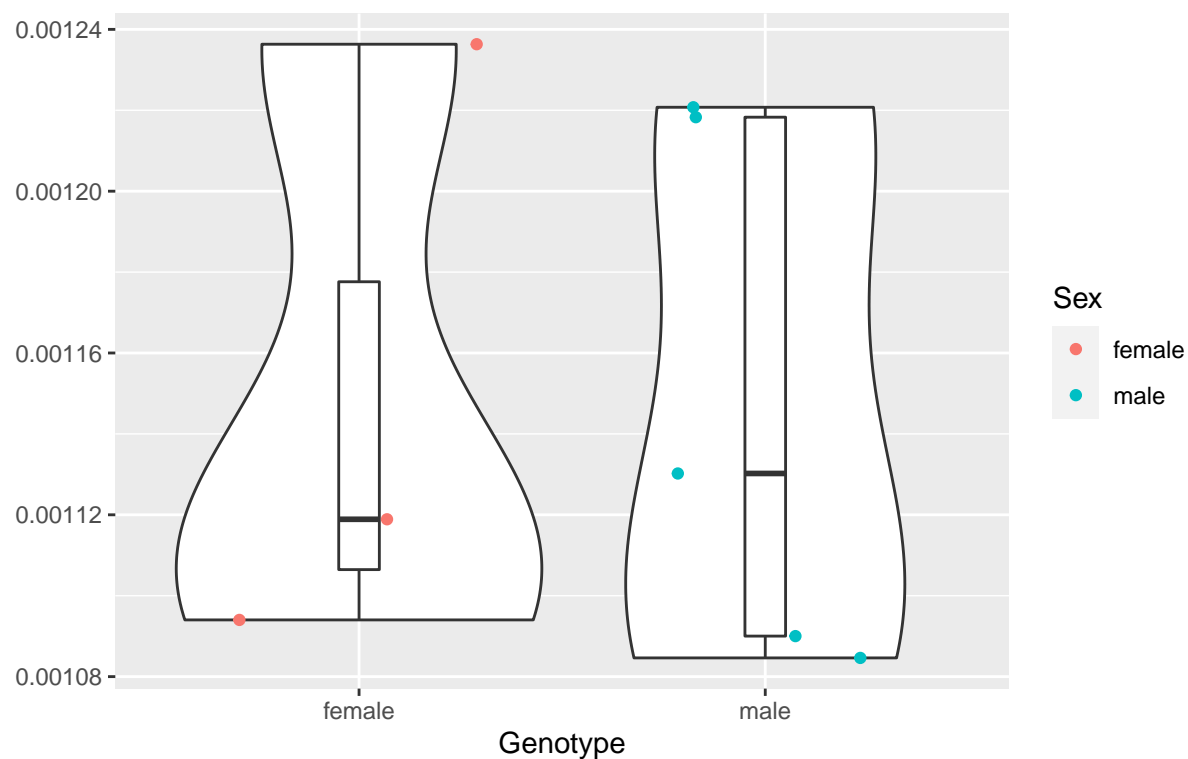
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	9.600e-10	9.600e-10	0.031	0.867
## Residuals	6	1.885e-07	3.142e-08		

Left Secondary Visual Cortex Lateral Area

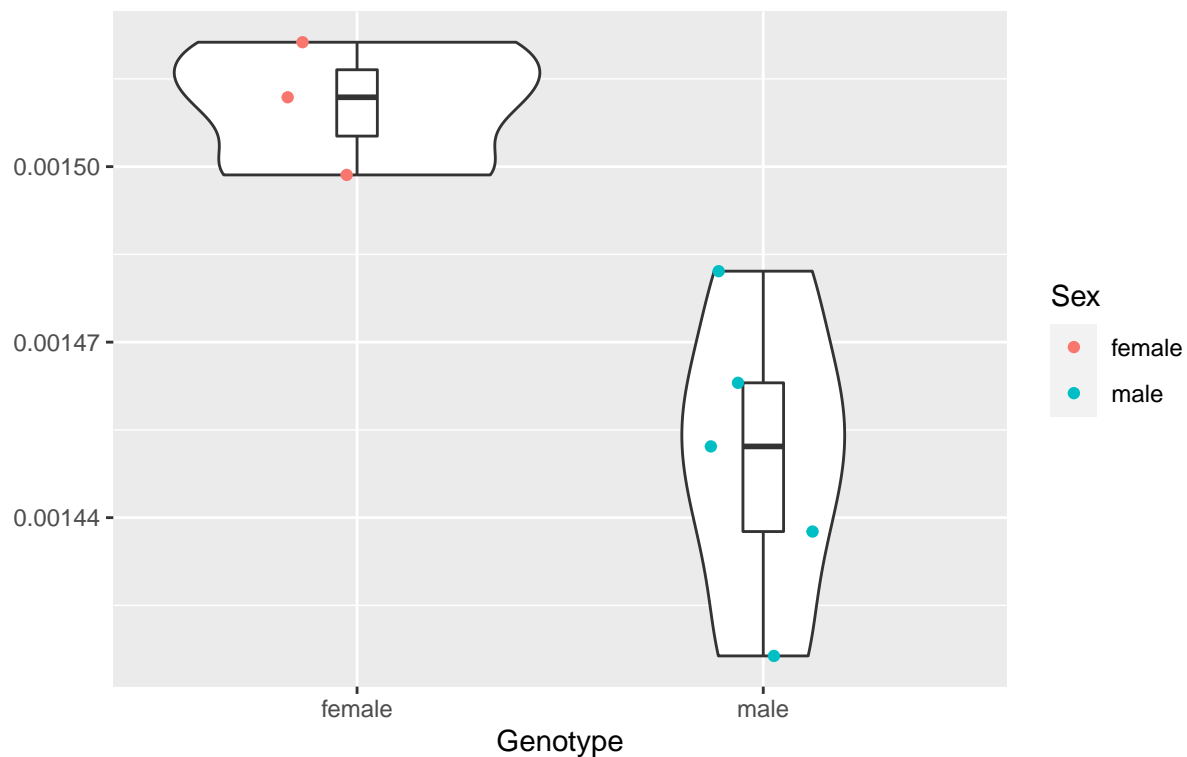
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.000e-12	2.000e-12	0	0.986
## Residuals	6	2.948e-08	4.913e-09		

Left Primary Visual Cortex Monocular Area

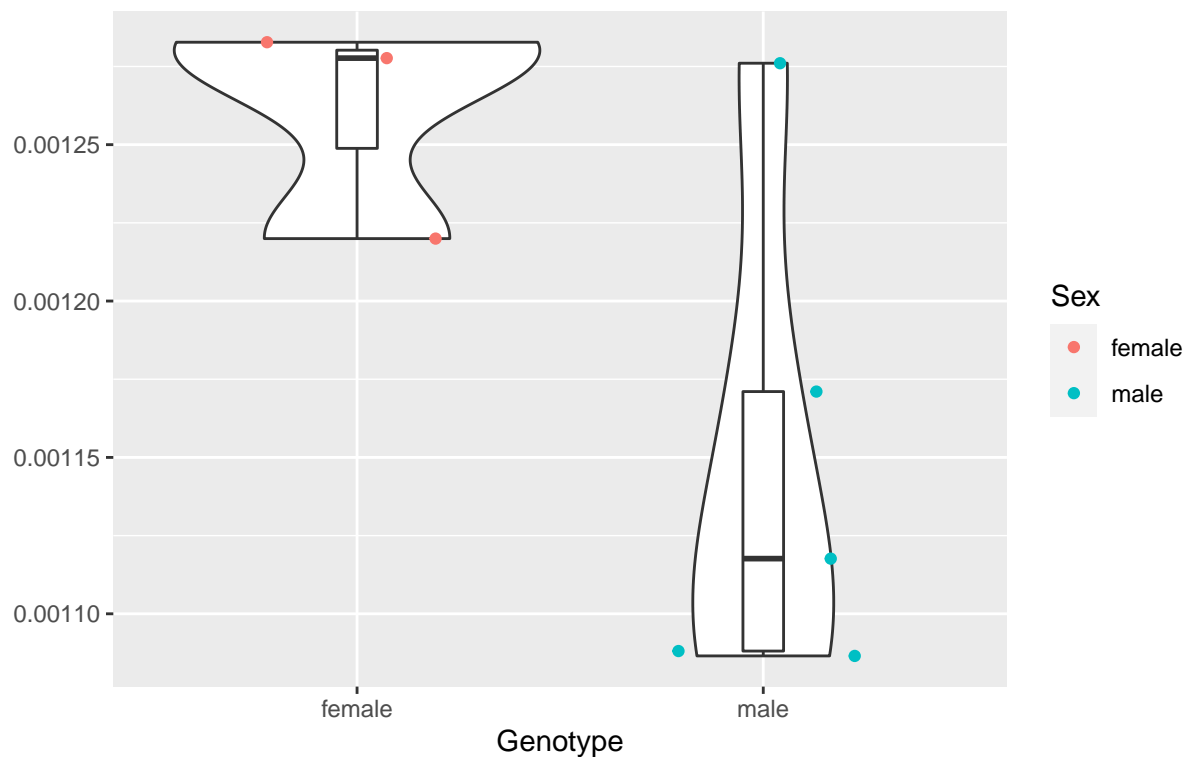
Red points denoting outliers



```
##          Df    Sum Sq  Mean Sq F value Pr(>F)
## Sex          1 6.818e-09 6.818e-09   14.87 0.0084 **
## Residuals    6 2.751e-09 4.590e-10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Left Primary Visual Cortex Binocular Area

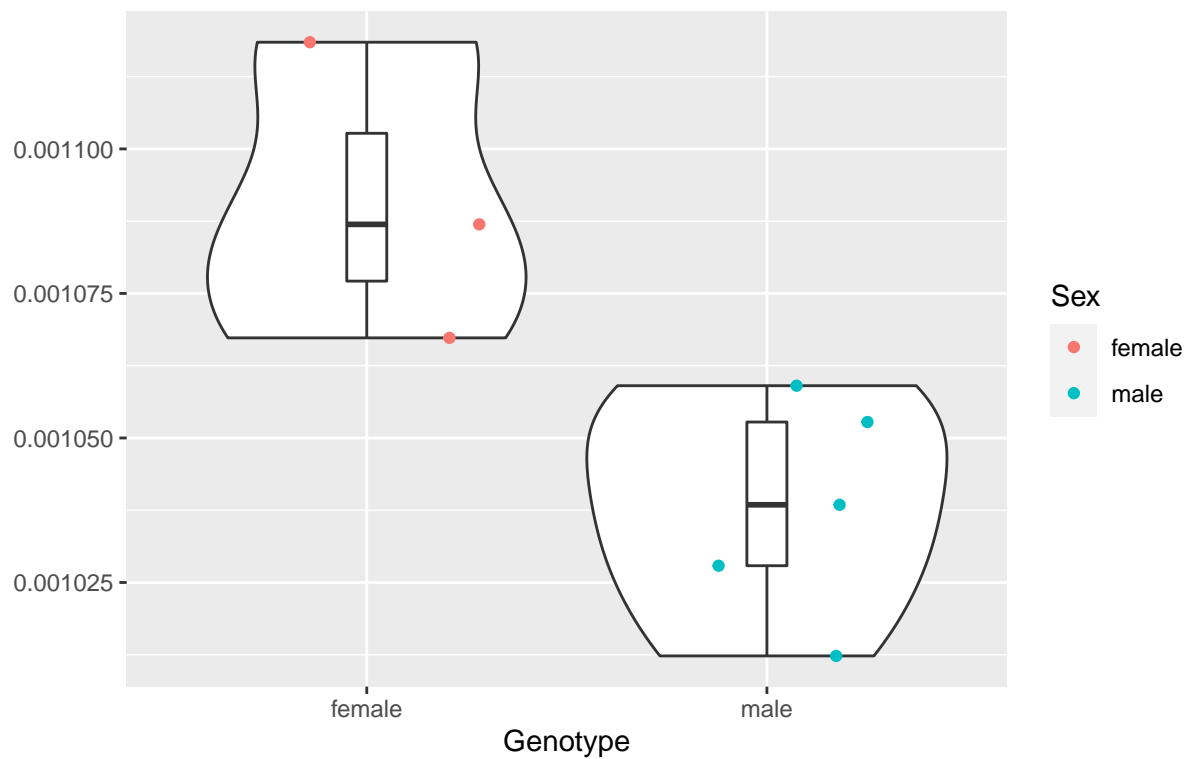
Red points denoting outliers



```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 2.363e-08 2.363e-08   5.128 0.0642 .
## Residuals    6 2.765e-08 4.608e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```


Left Primary Visual Cortex

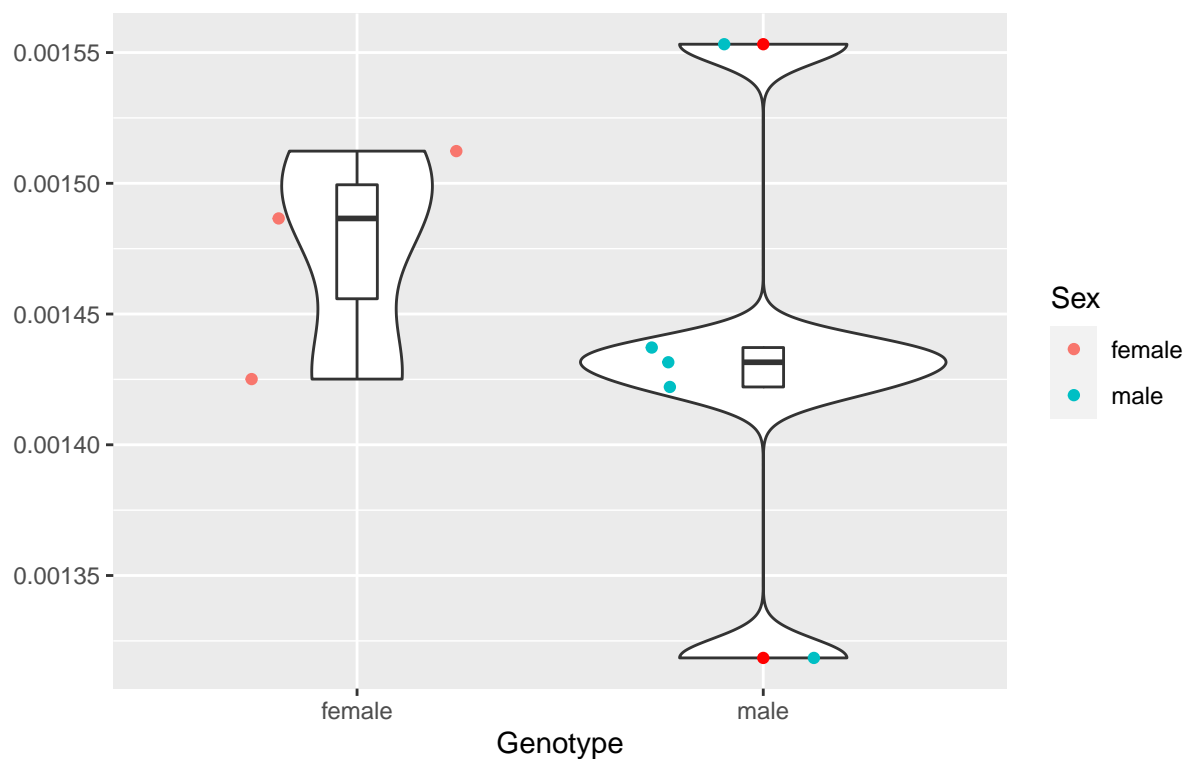
Red points denoting outliers



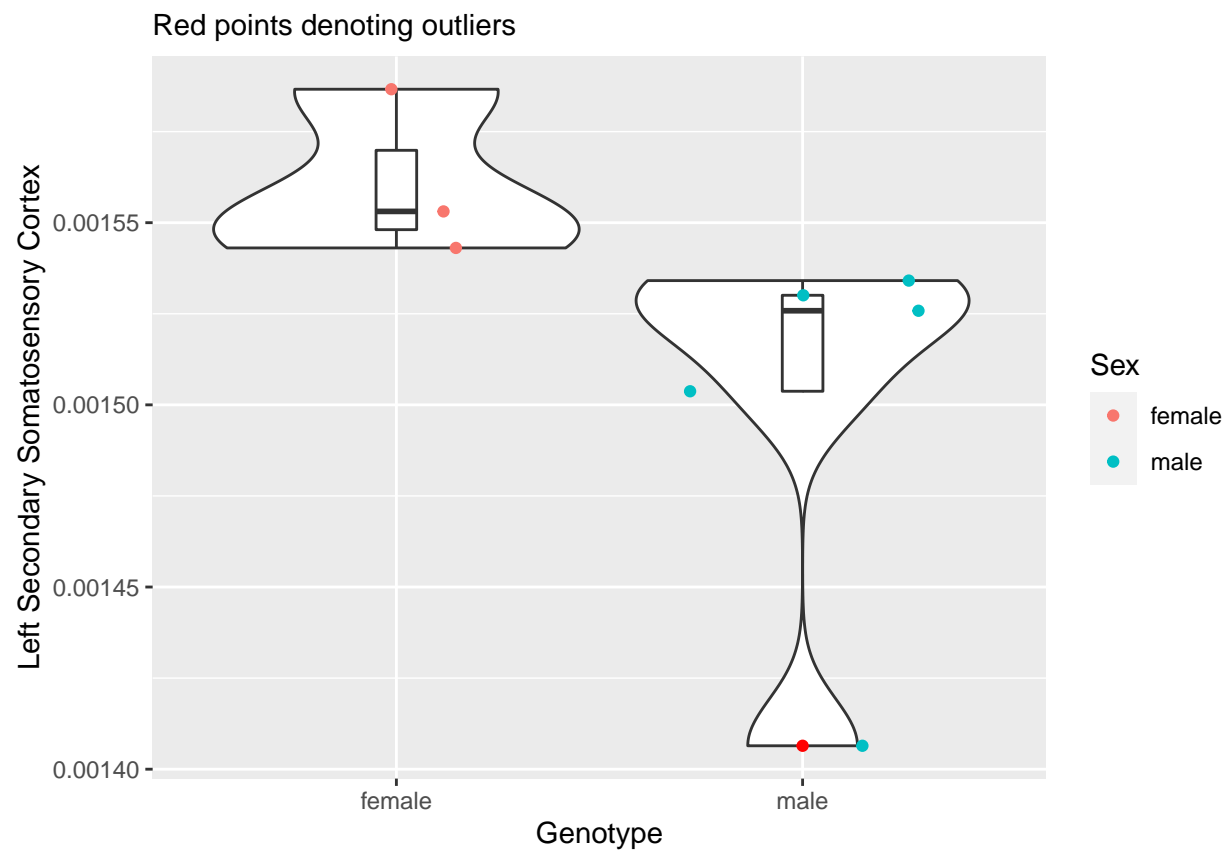
```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 5.231e-09 5.231e-09   11.39 0.0149 *
## Residuals    6 2.754e-09 4.590e-10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Left Temporal Association Cortex

Red points denoting outliers



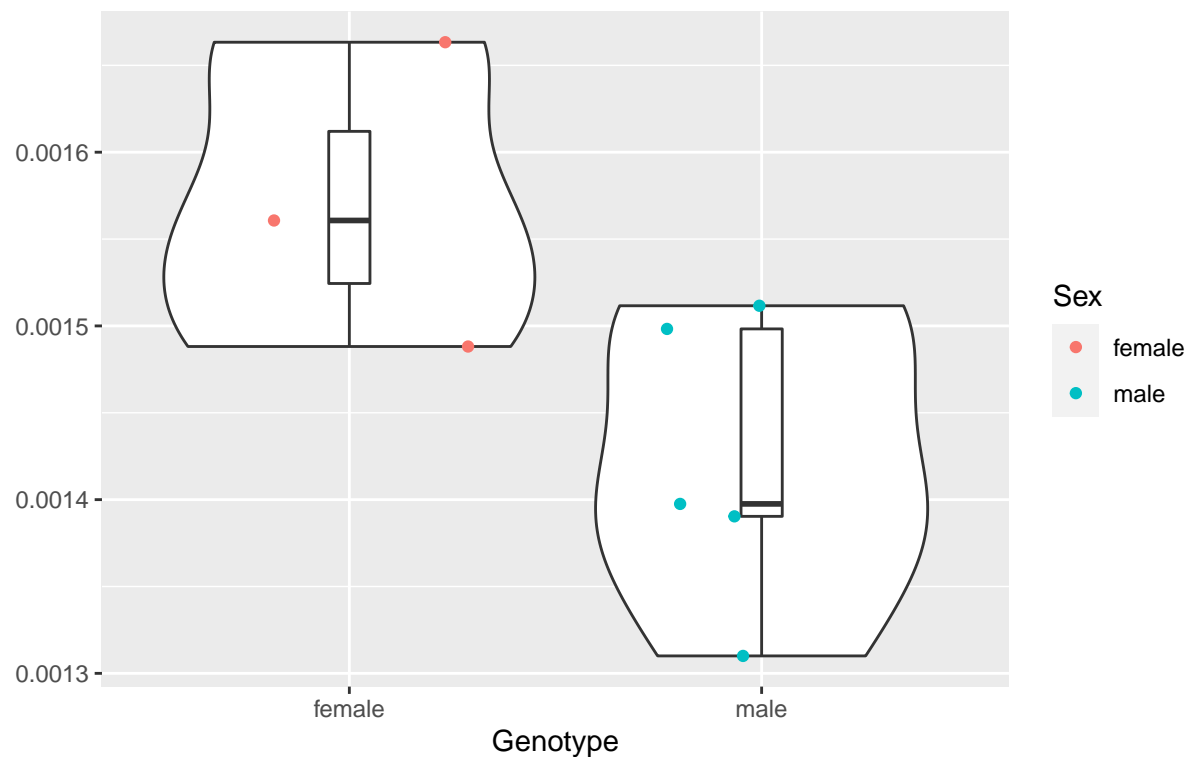
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.330e-09	3.333e-09	0.631	0.457
## Residuals	6	3.171e-08	5.285e-09		



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.954e-09	6.954e-09	3.326	0.118
## Residuals	6	1.255e-08	2.091e-09		

Left Primary Somatosensory Cortex Upper Lip Region

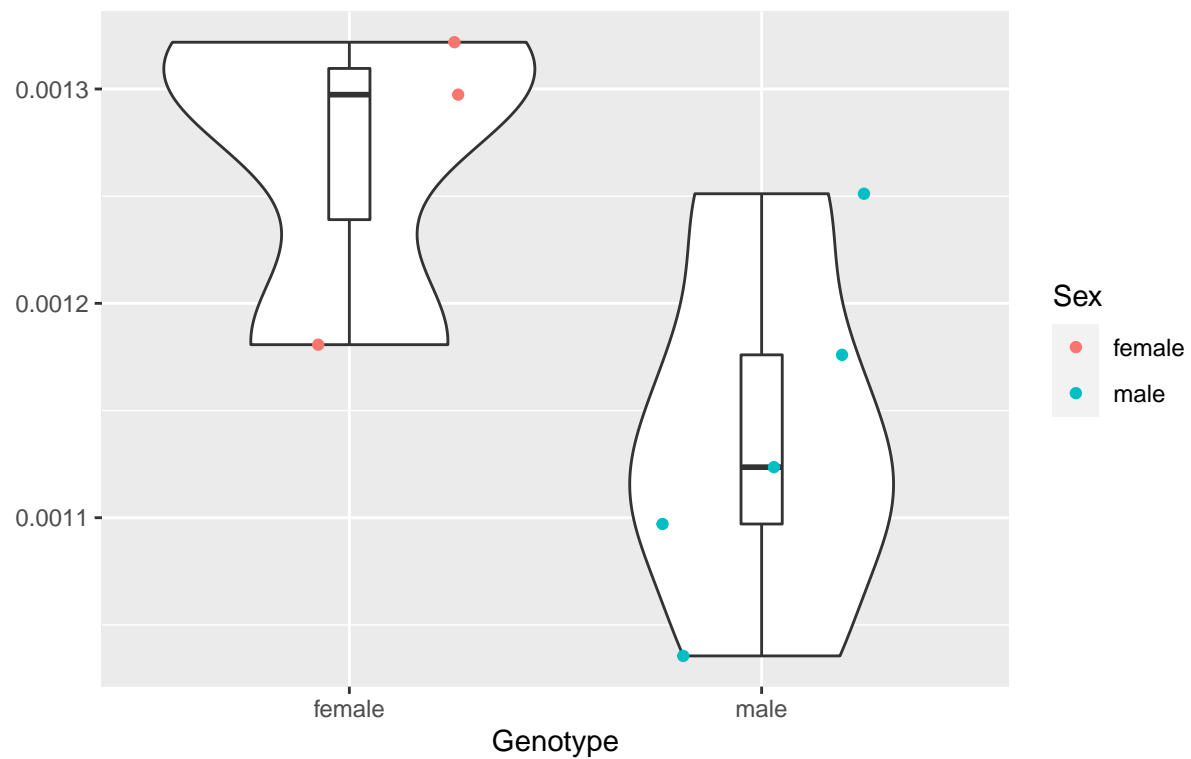
Red points denoting outliers



```
##          Df    Sum Sq  Mean Sq F value Pr(>F)
## Sex          1 4.171e-08 4.171e-08   5.757 0.0533 .
## Residuals    6 4.347e-08 7.250e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Left Primary Somatosensory Cortex Trunk Region

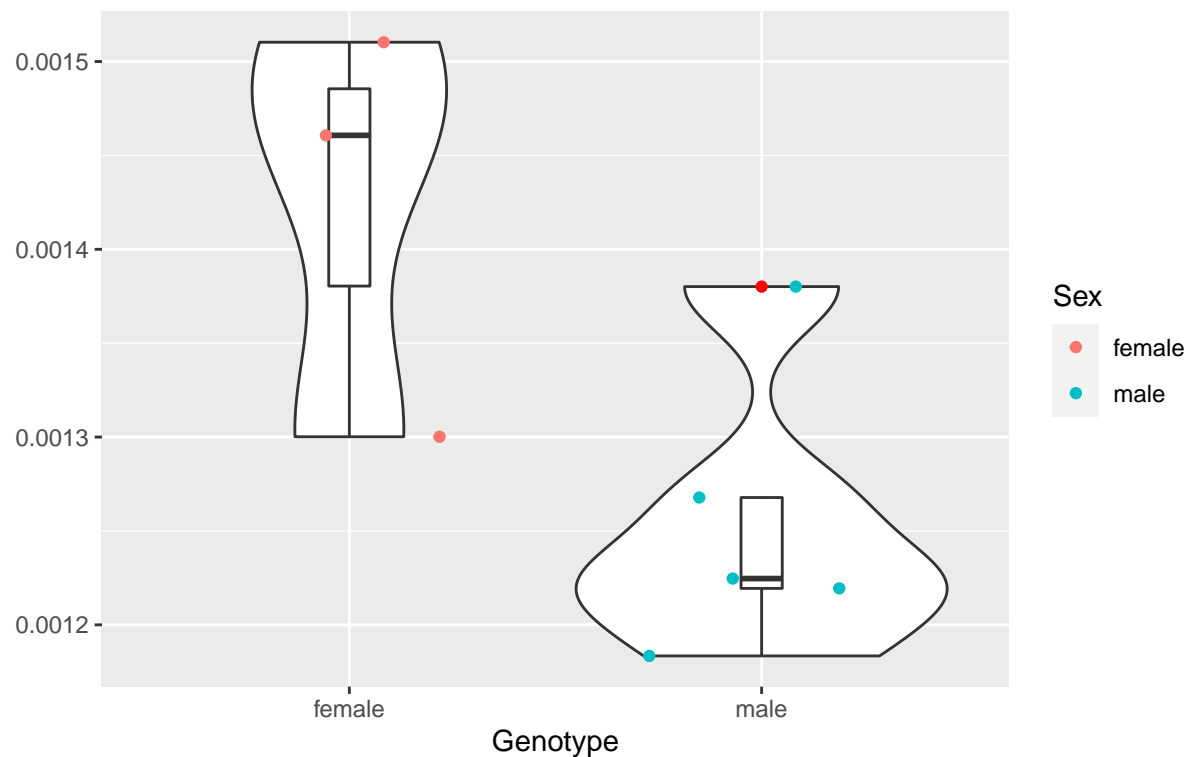
Red points denoting outliers



```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 3.168e-08 3.168e-08   5.004 0.0666 .
## Residuals    6 3.798e-08 6.330e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Left Primary Somatosensory Cortex Shoulder Region

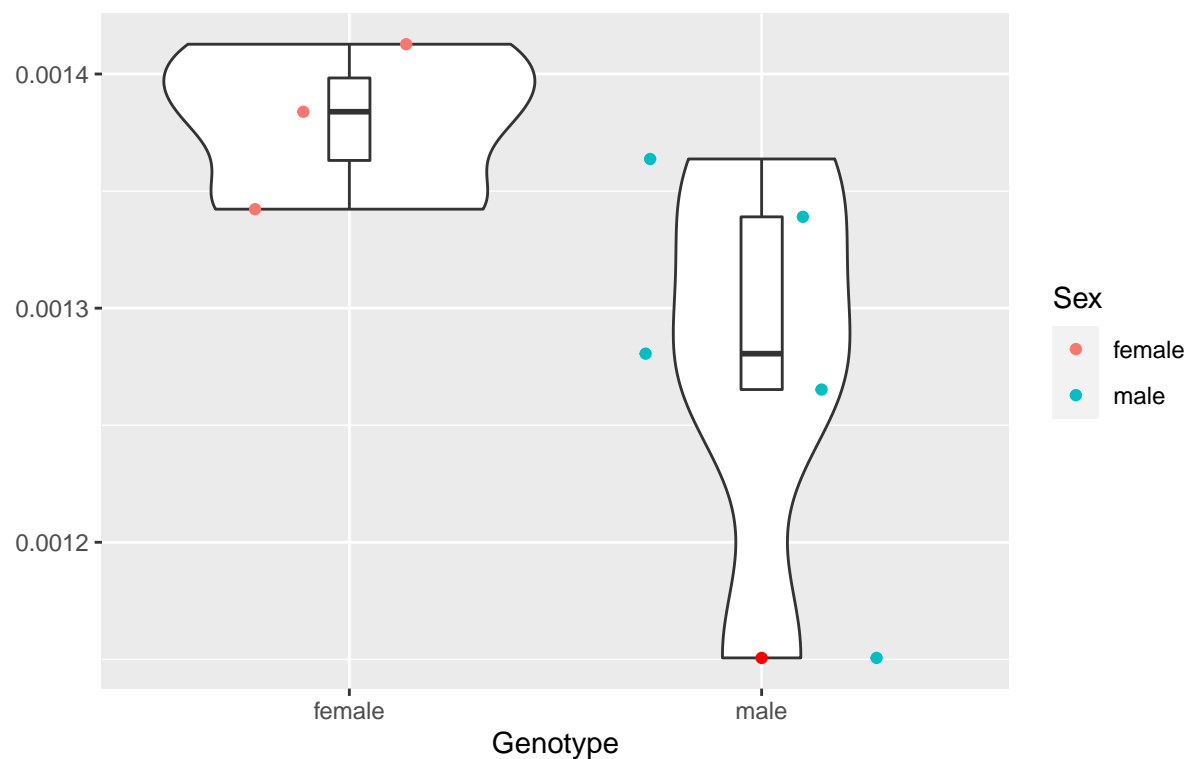
Red points denoting outliers



```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 5.331e-08 5.331e-08   6.769 0.0406 *
## Residuals    6 4.725e-08 7.880e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Left Primary Somatosensory Cortex Jaw Region

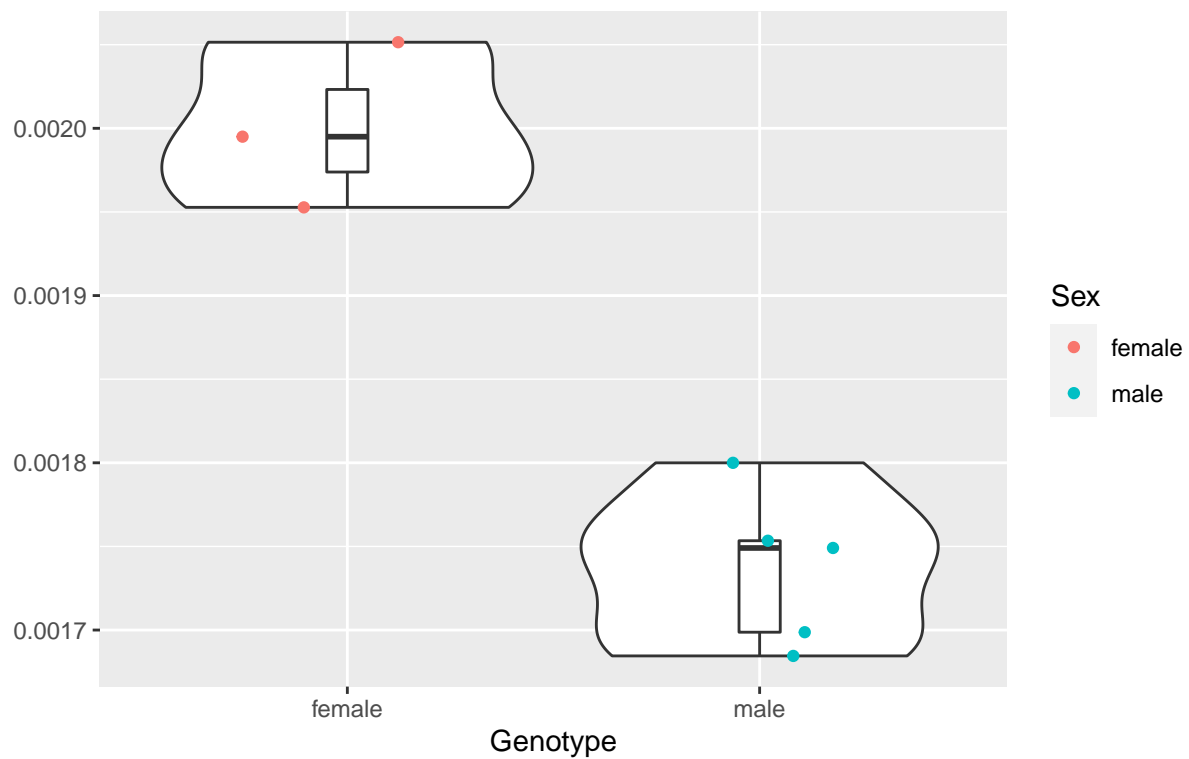
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.868e-08	1.868e-08	3.741	0.101
## Residuals	6	2.996e-08	4.993e-09		

Left Primary Somatosensory Cortex Hindlimb Region

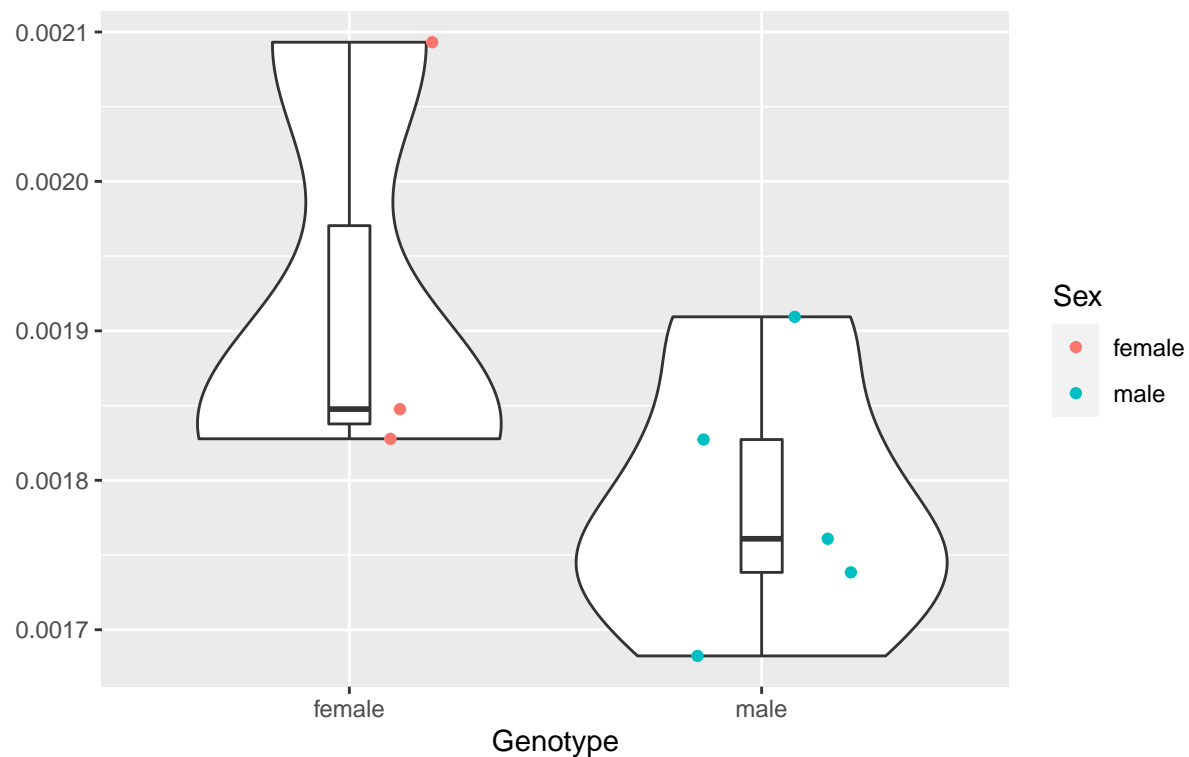
Red points denoting outliers



```
##          Df    Sum Sq  Mean Sq F value    Pr(>F)
## Sex          1 1.293e-07 1.293e-07   57.42 0.000275 ***
## Residuals    6 1.351e-08 2.250e-09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```


Left Primary Somatosensory Cortex Forelimb Region

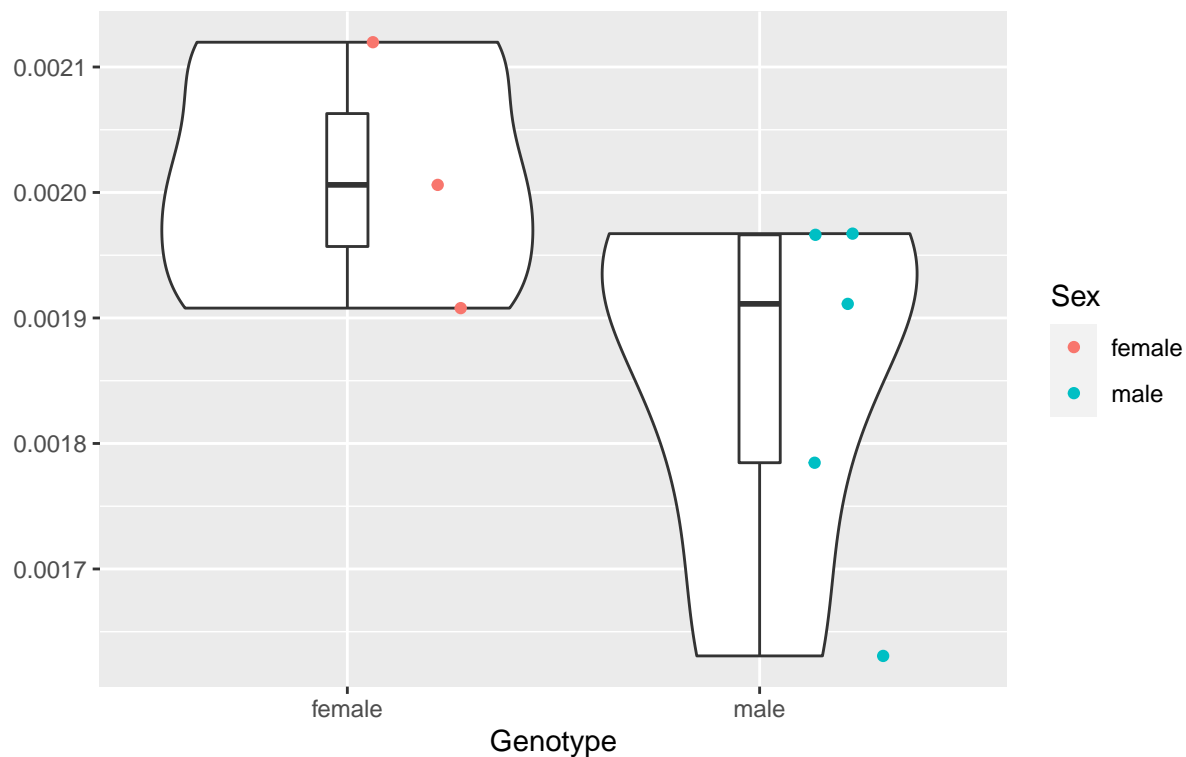
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.632e-08	3.632e-08	2.936	0.137
## Residuals	6	7.421e-08	1.237e-08		

Left Primary Somatosensory Cortex Dysgranular Zone

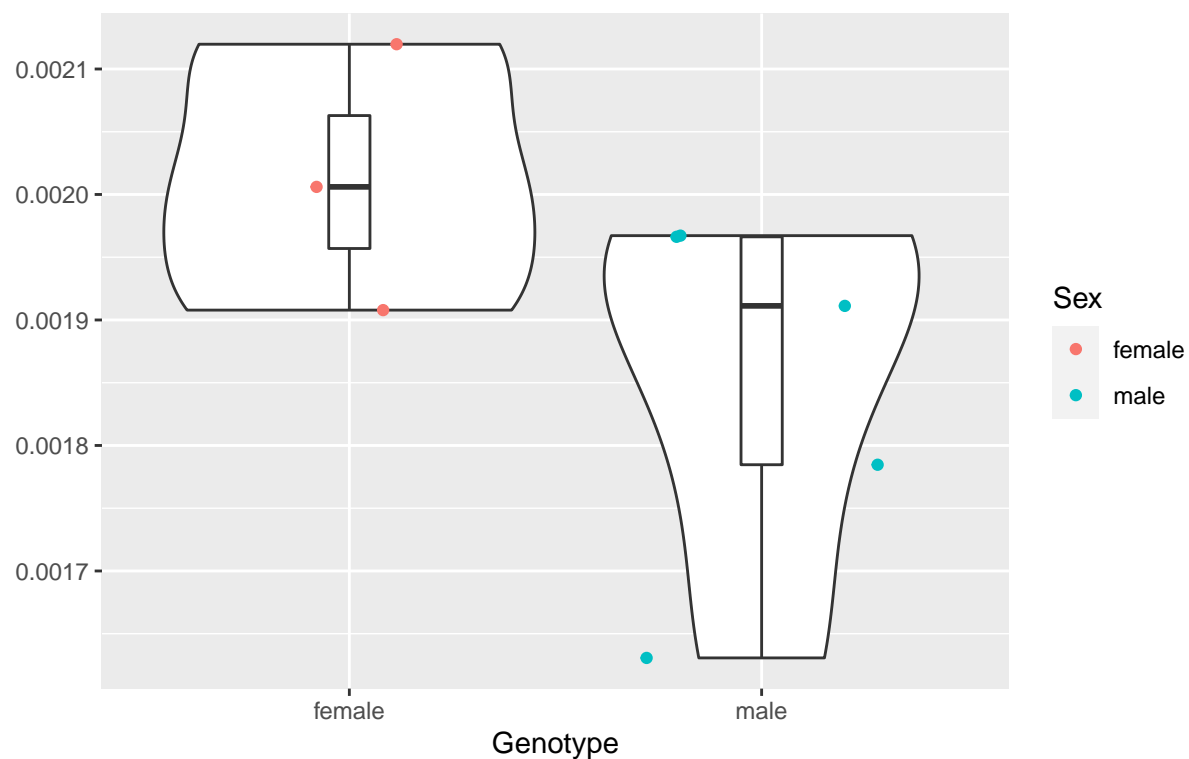
Red points denoting outliers



```
##           Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex         1 4.661e-08 4.661e-08   3.854 0.0973 .
## Residuals   6 7.256e-08 1.209e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Left Primary Somatosensory Cortex Barrel Field

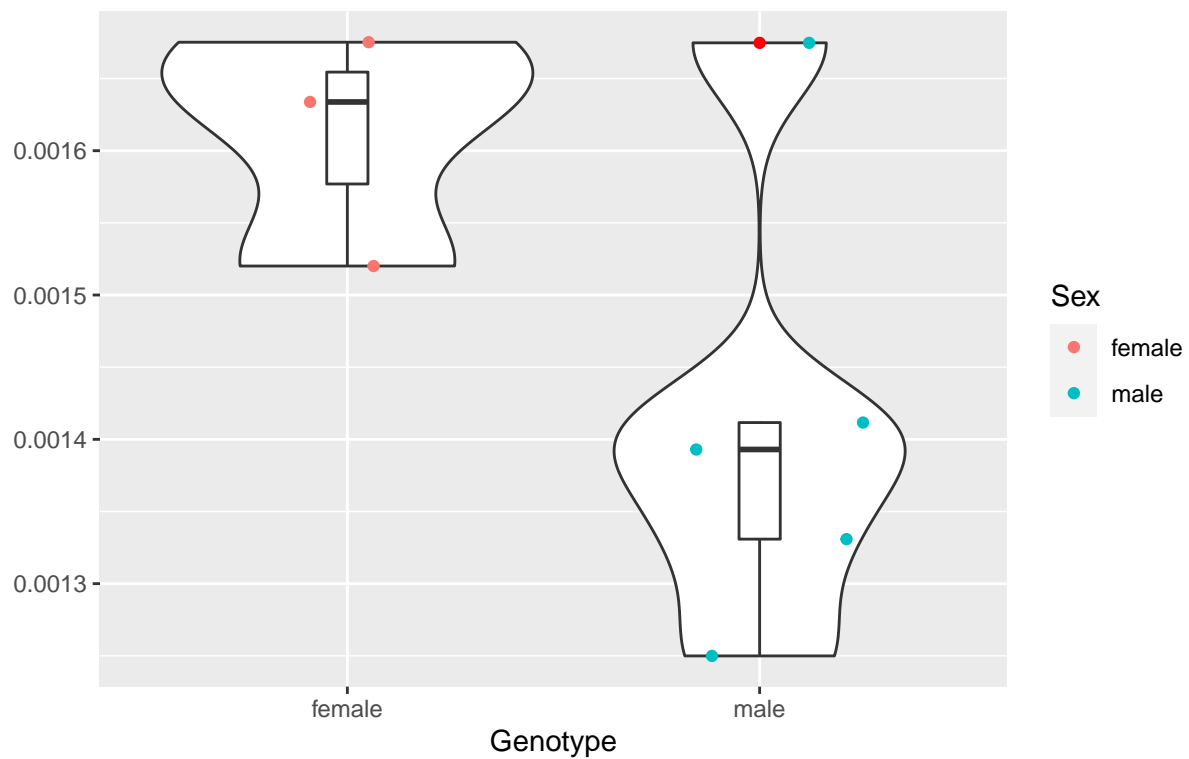
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.753e-08	4.753e-08	2.694	0.152
## Residuals	6	1.058e-07	1.764e-08		

Left Primary Somatosensory Cortex

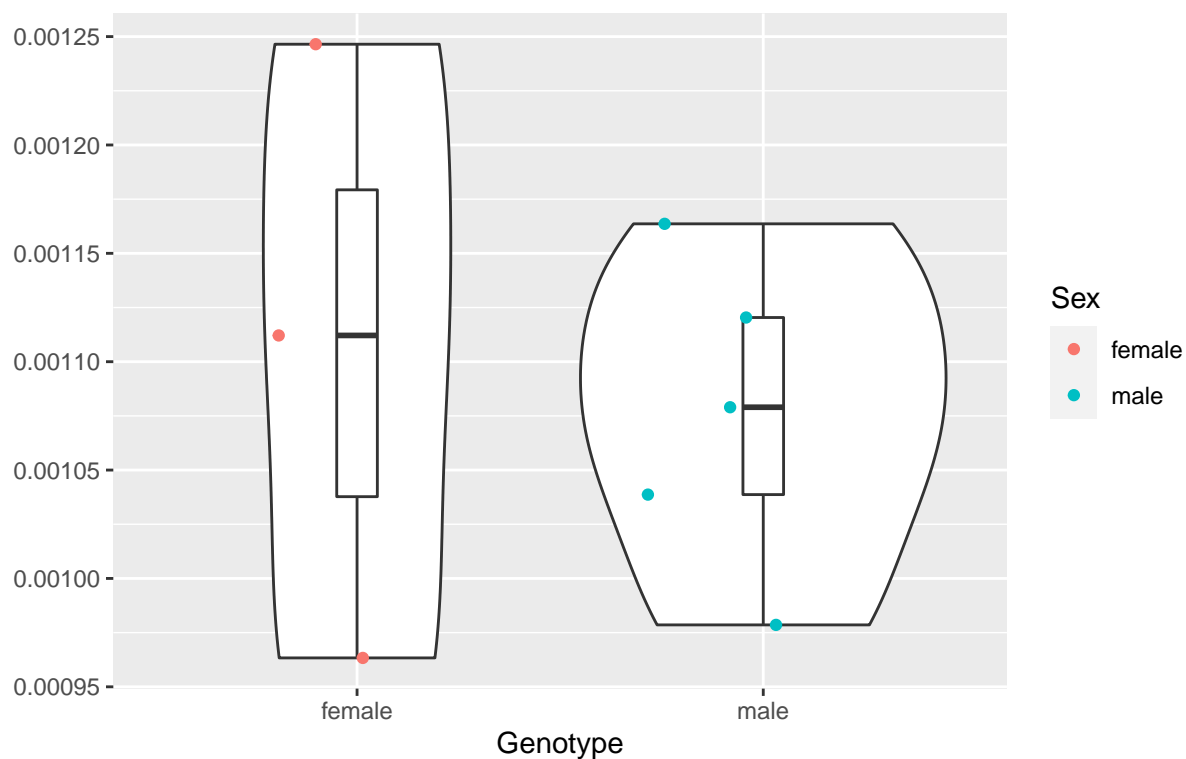
Red points denoting outliers



```
##           Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex         1 7.325e-08 7.325e-08   3.817 0.0985 .
## Residuals   6 1.151e-07 1.919e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Left Parietal Cortex Posterial Area Rostral Part

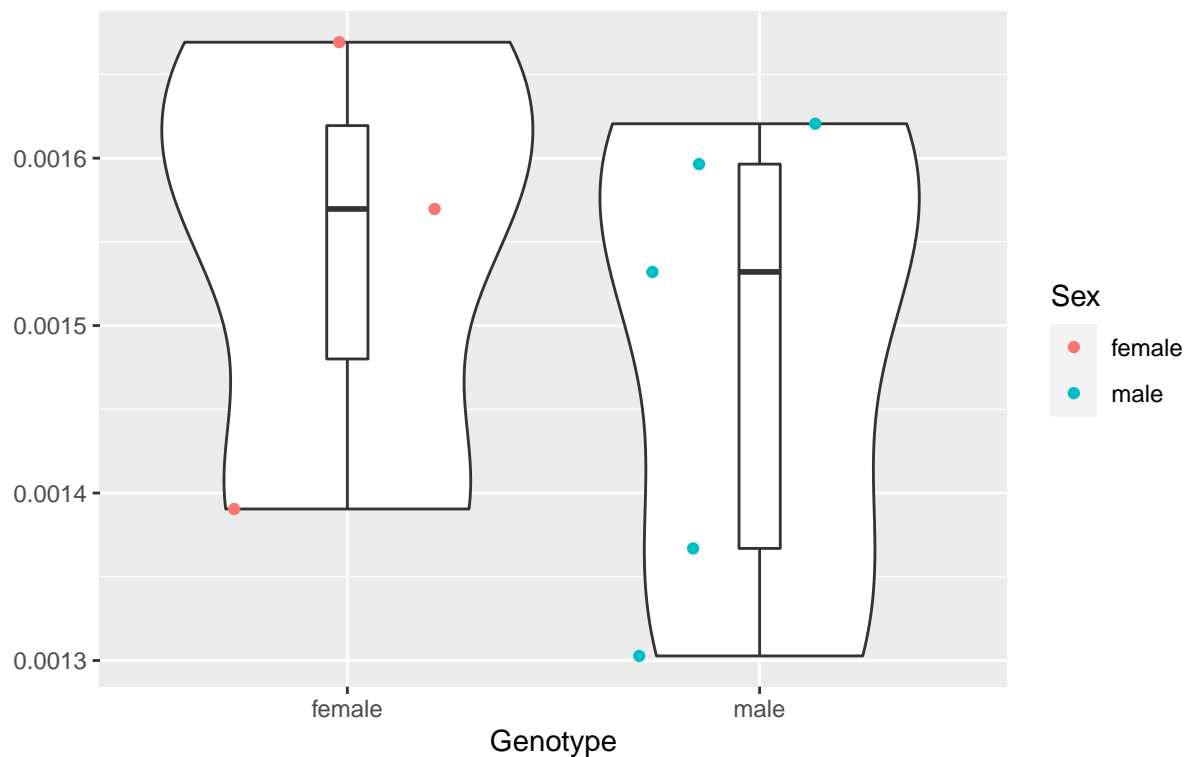
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.830e-09	1.832e-09	0.181	0.685
## Residuals	6	6.067e-08	1.011e-08		

Left Medial Parietal Association Cortex

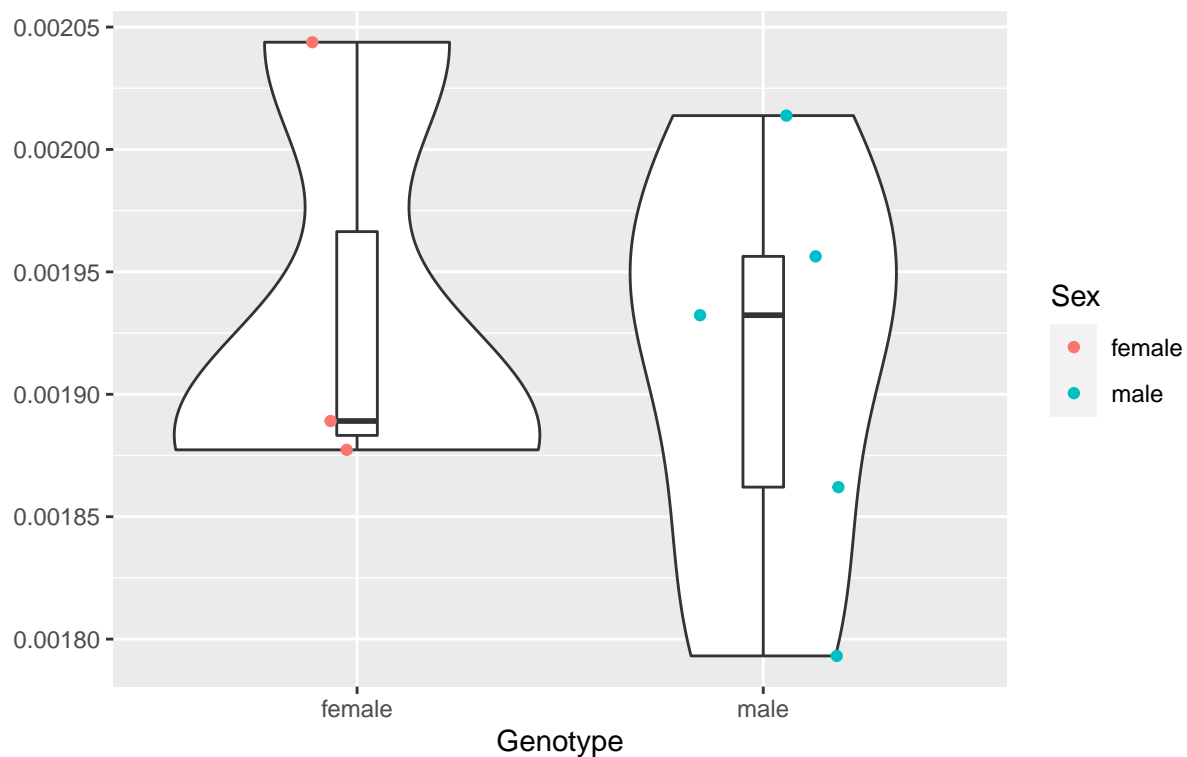
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	6.61e-09	6.612e-09	0.33	0.586
## Residuals	6	1.20e-07	2.001e-08		

Left Medial Orbital Cortex

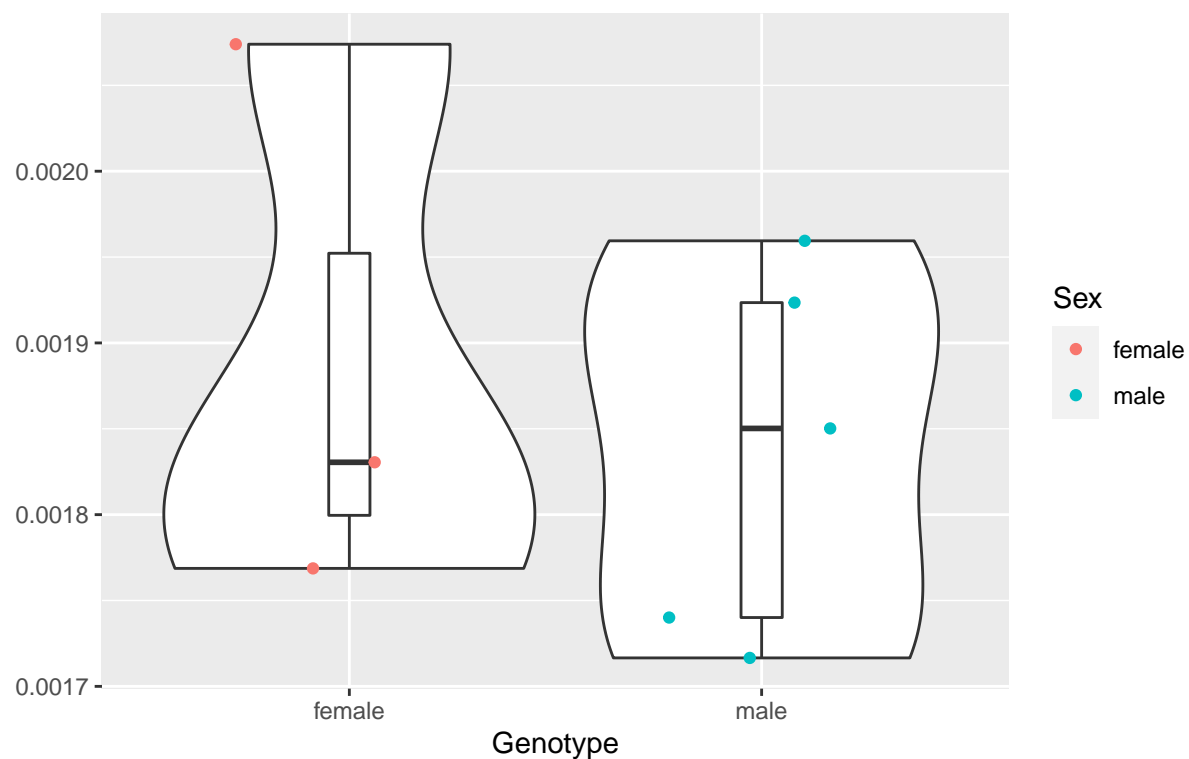
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.190e-09	1.191e-09	0.153	0.709
## Residuals	6	4.664e-08	7.773e-09		

Left Secondary Motor Cortex

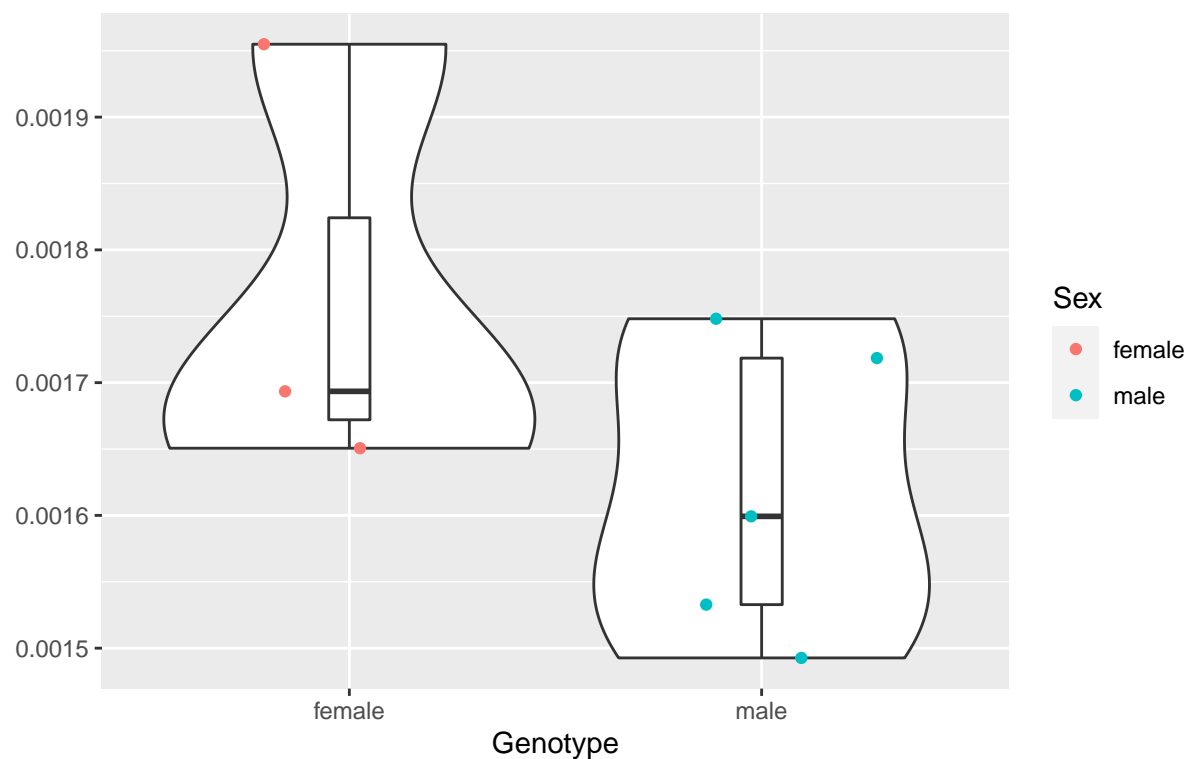
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.280e-09	5.284e-09	0.321	0.591
## Residuals	6	9.864e-08	1.644e-08		

Left Primary Motor Cortex

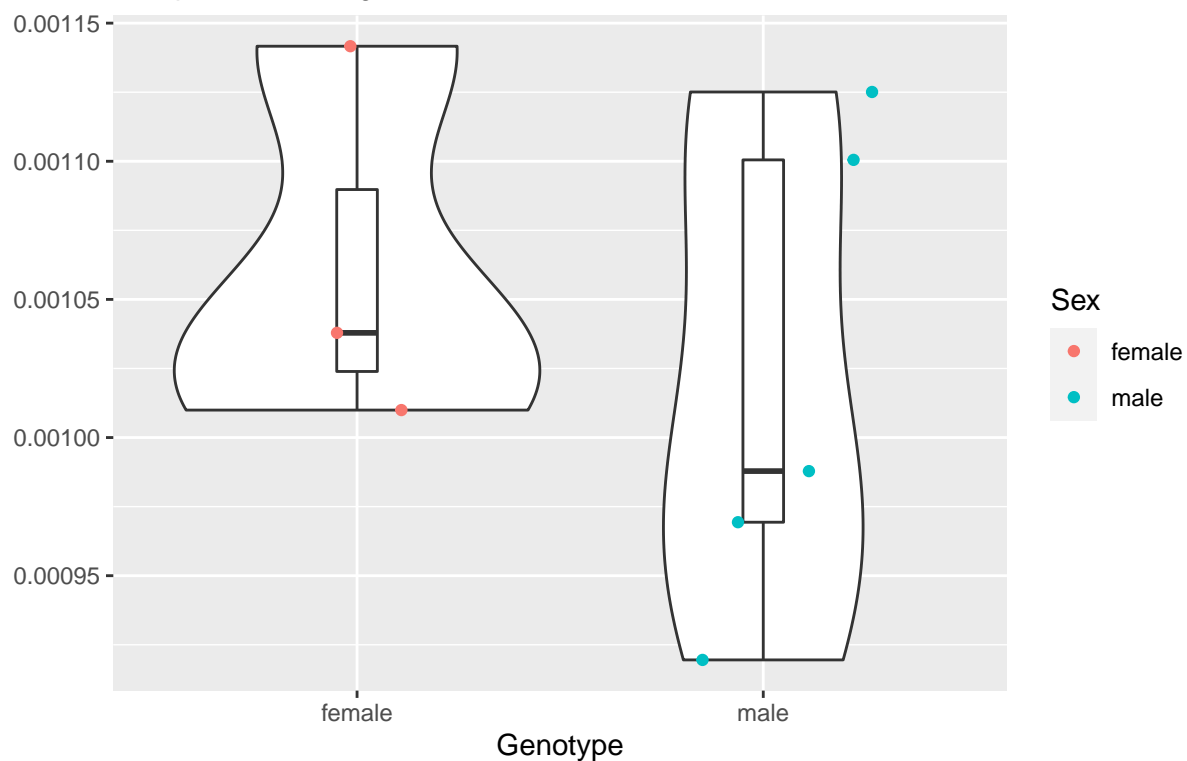
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.109e-08	4.109e-08	2.357	0.176
## Residuals	6	1.046e-07	1.743e-08		

Left Lateral Parietal Association Cortex

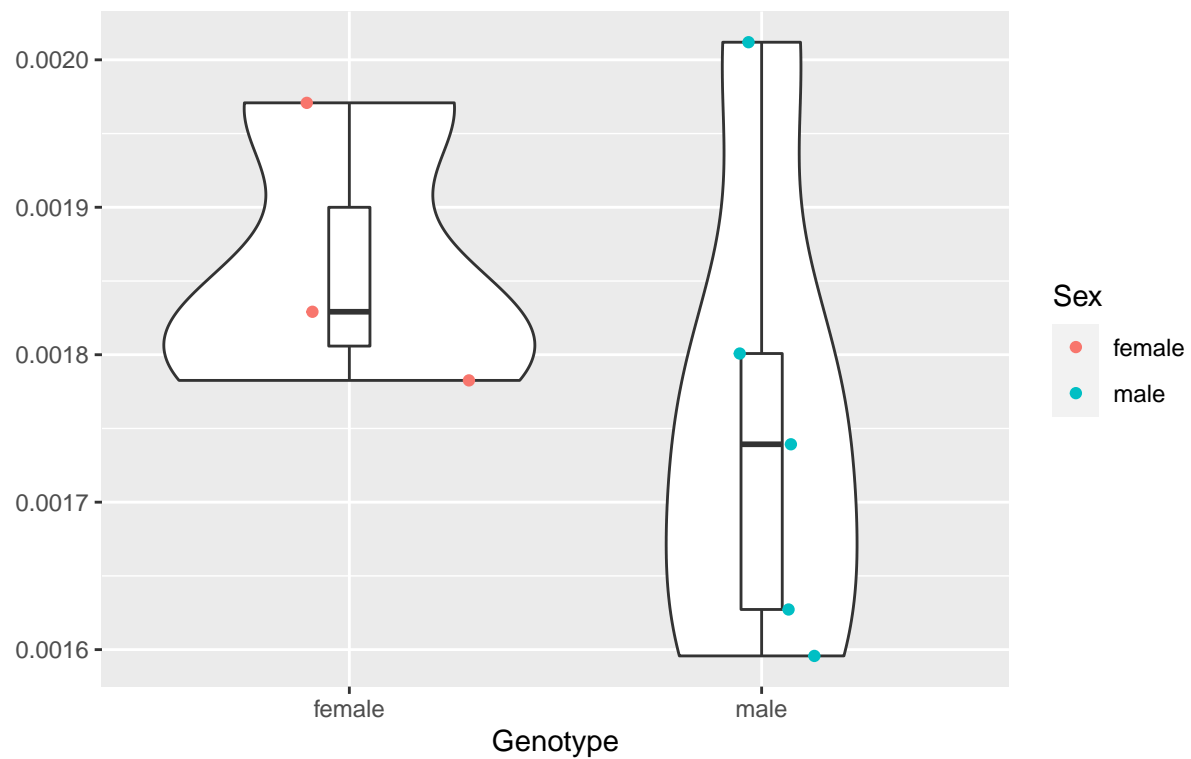
Red points denoting outliers



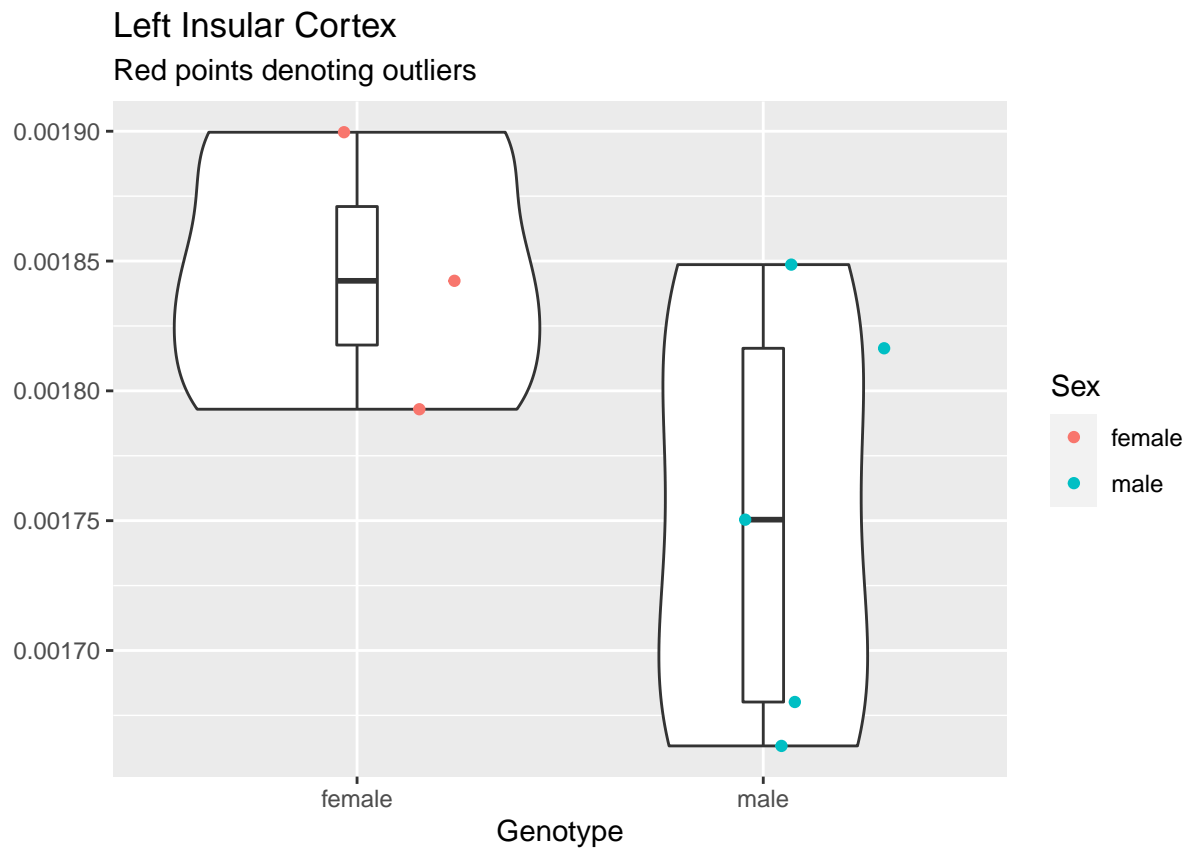
##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.420e-09	3.419e-09	0.502	0.505
## Residuals	6	4.085e-08	6.808e-09		

Left Lateral Orbital Cortex

Red points denoting outliers

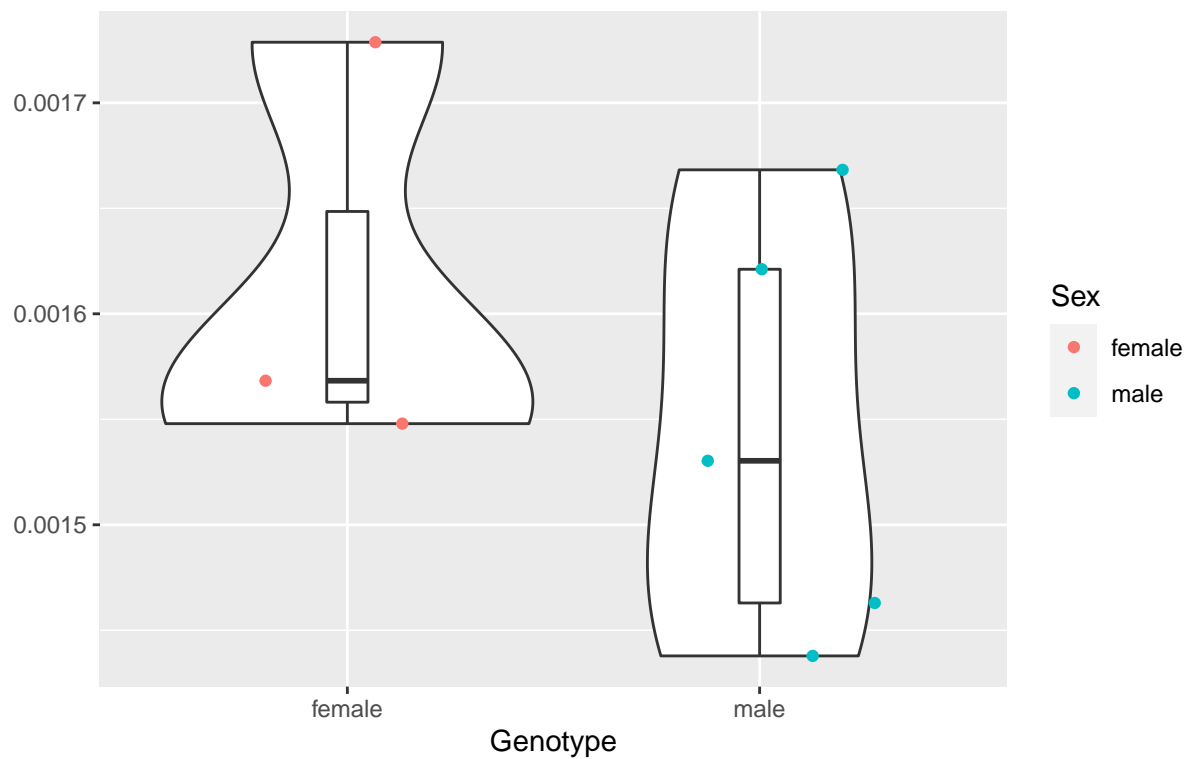


##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.101e-08	2.101e-08	0.975	0.362
## Residuals	6	1.293e-07	2.155e-08		



Left Frontal Association Cortex

Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	9.420e-09	9.423e-09	0.958	0.366
## Residuals	6	5.903e-08	9.838e-09		

Left Frontal Cortex Area 3

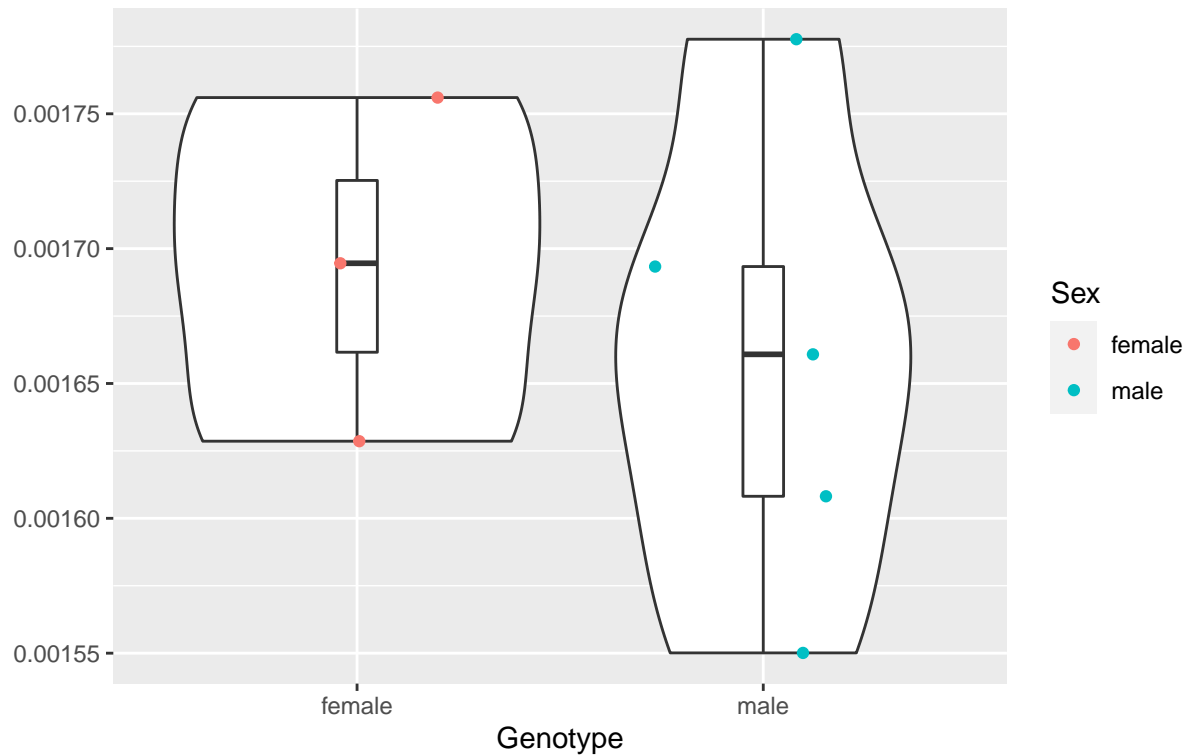
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.738e-08	1.738e-08	2.153	0.193
## Residuals	6	4.842e-08	8.070e-09		

Left Dorsolateral Orbital Cortex

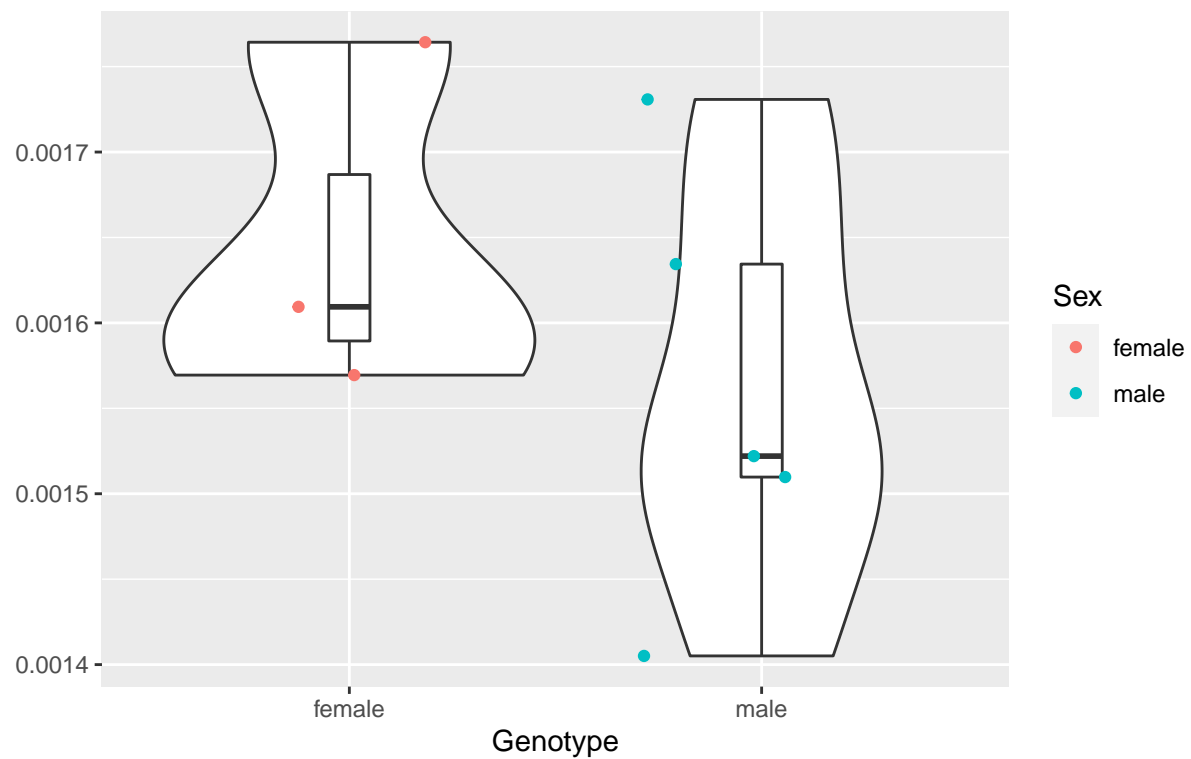
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	2.300e-09	2.303e-09	0.365	0.568
## Residuals	6	3.782e-08	6.304e-09		

Left Secondary Auditory Cortex Ventral Part

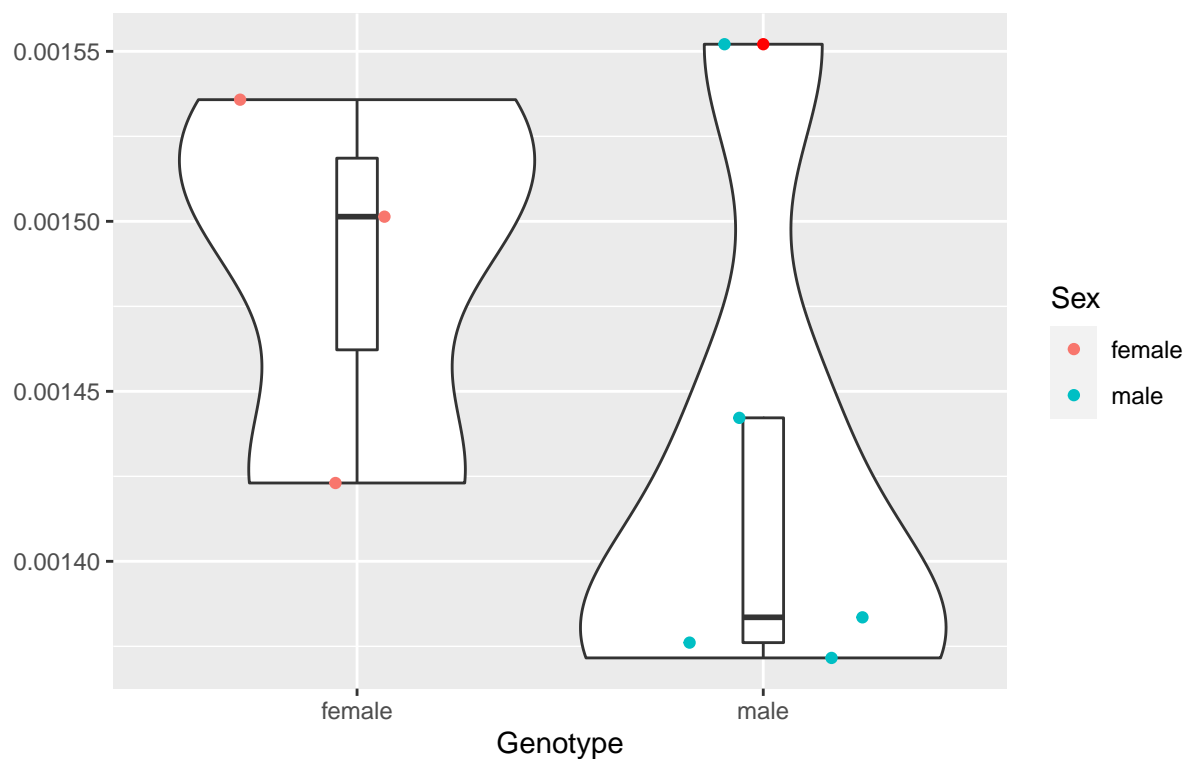
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.429e-08	1.429e-08	1.022	0.351
## Residuals	6	8.385e-08	1.398e-08		

Left Secondary Auditory Cortex Dorsal Part

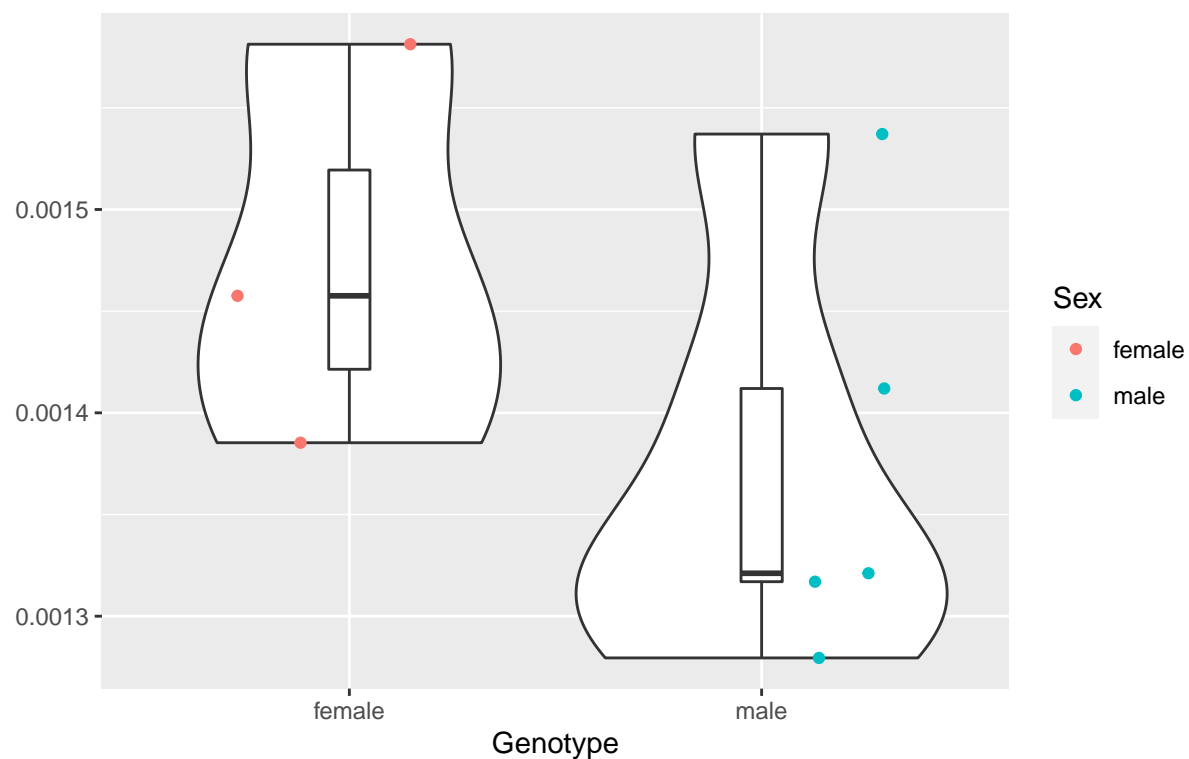
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	7.122e-09	7.122e-09	1.42	0.278
## Residuals	6	3.009e-08	5.015e-09		

Left Primary Auditory Cortex

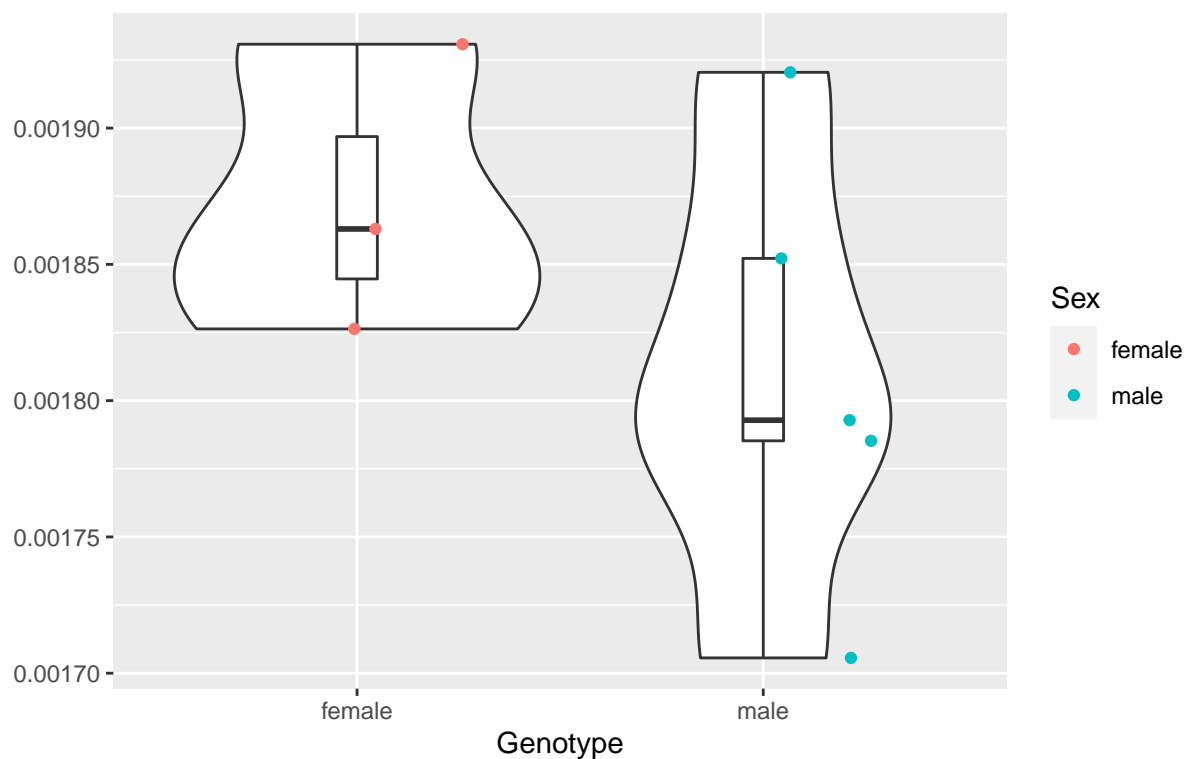
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	1.927e-08	1.927e-08	1.845	0.223
## Residuals	6	6.266e-08	1.044e-08		

Left Cingulate Cortex Area 32

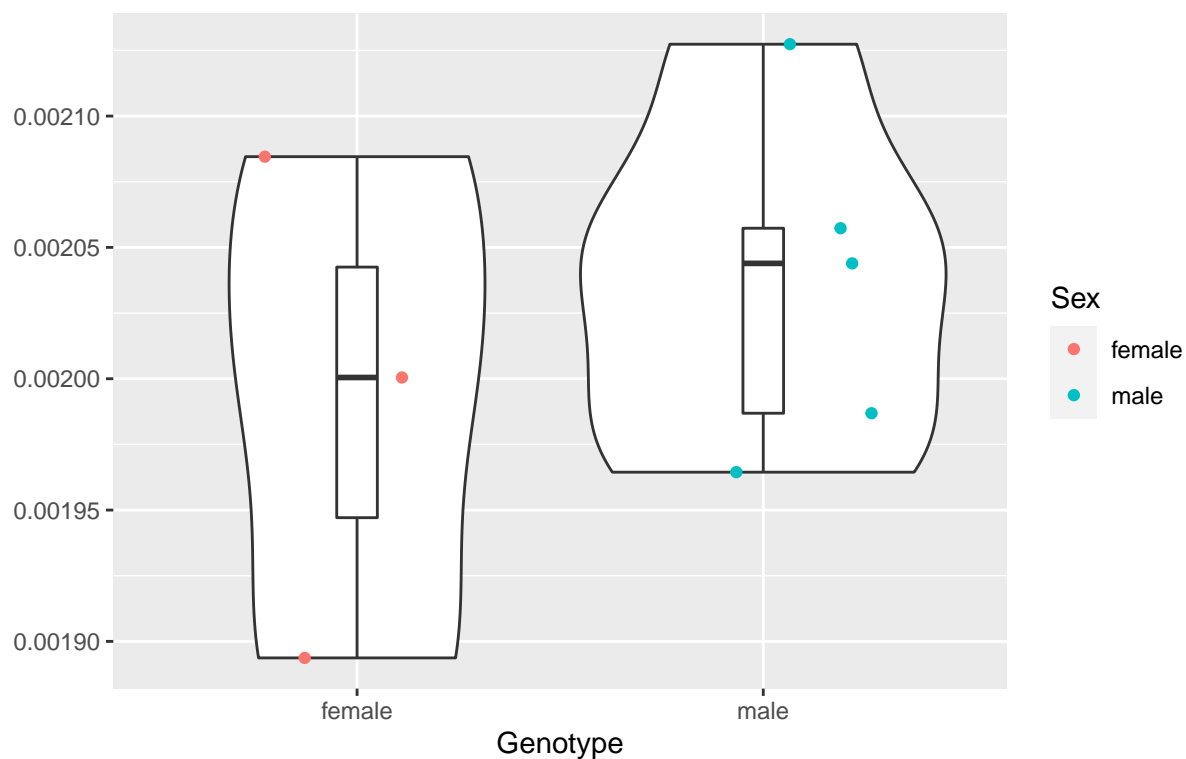
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	7.230e-09	7.230e-09	1.382	0.284
## Residuals	6	3.139e-08	5.232e-09		

Left Cingulate Cortex Area 30

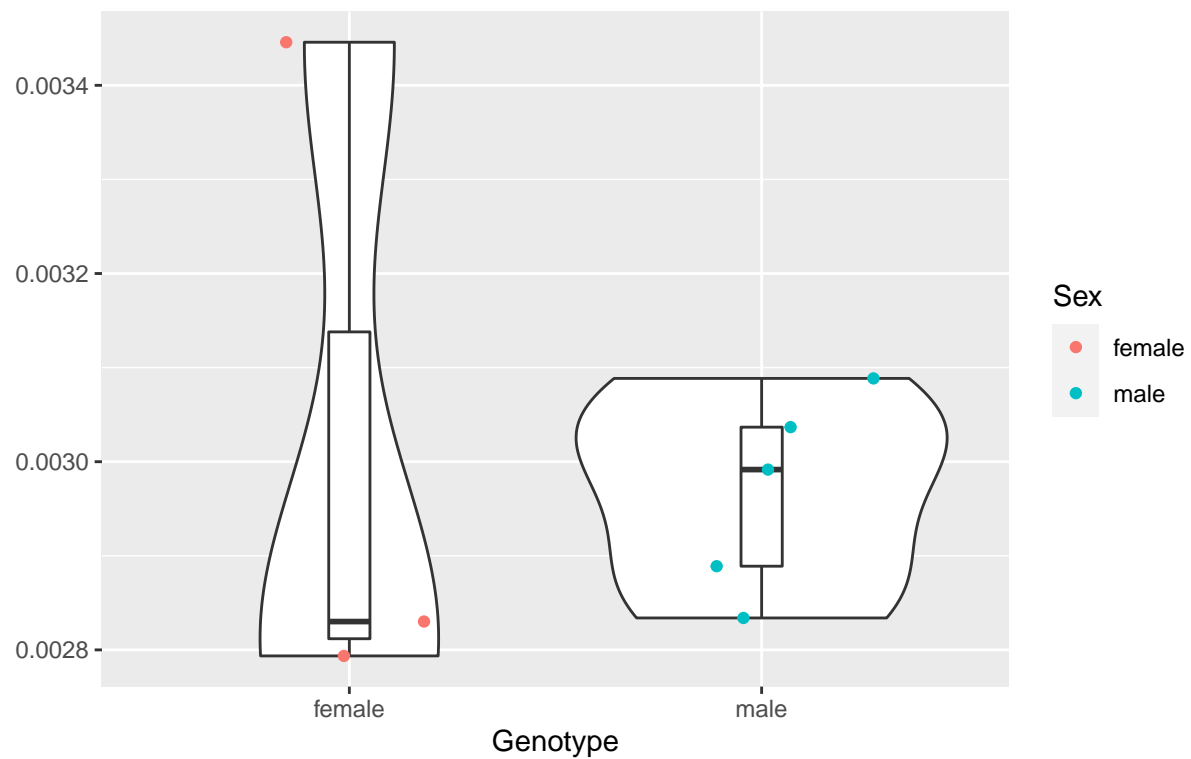
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	3.480e-09	3.478e-09	0.601	0.467
## Residuals	6	3.469e-08	5.782e-09		

Left Cingulate Cortex Area 29c

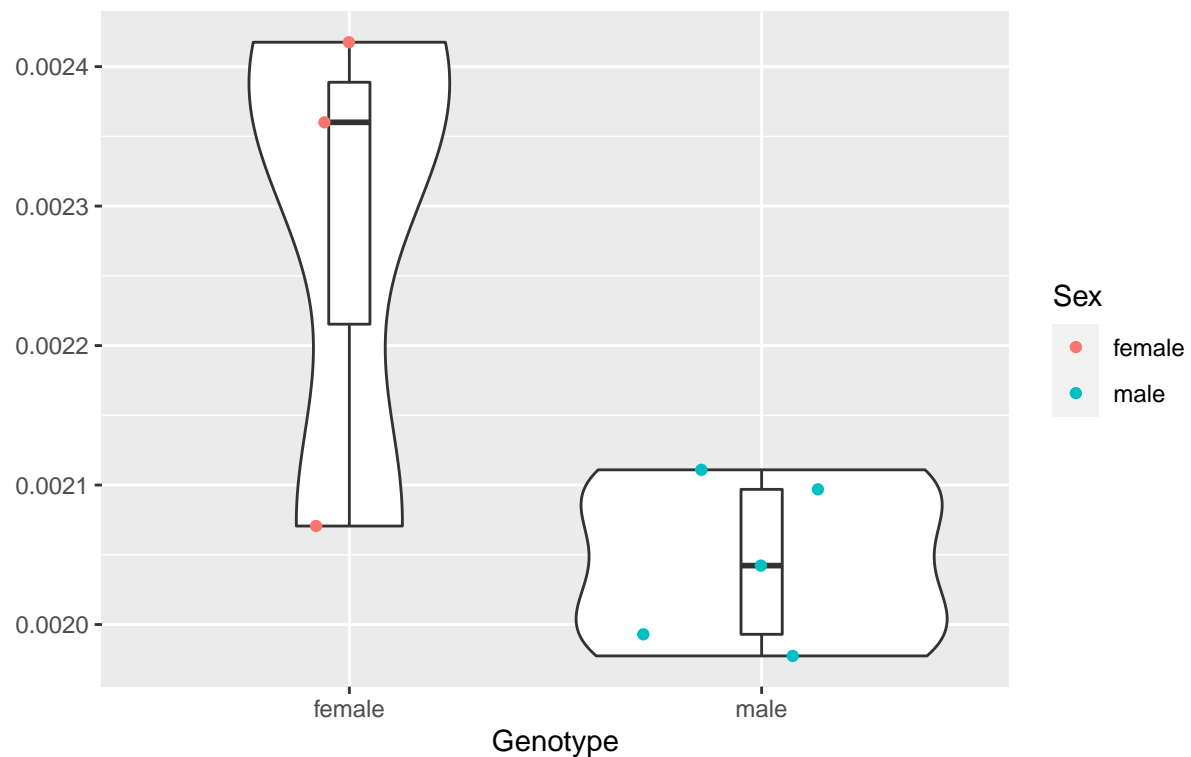
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.720e-09	5.720e-09	0.11	0.752
## Residuals	6	3.126e-07	5.211e-08		

Left Cingulate Cortex Area 29b

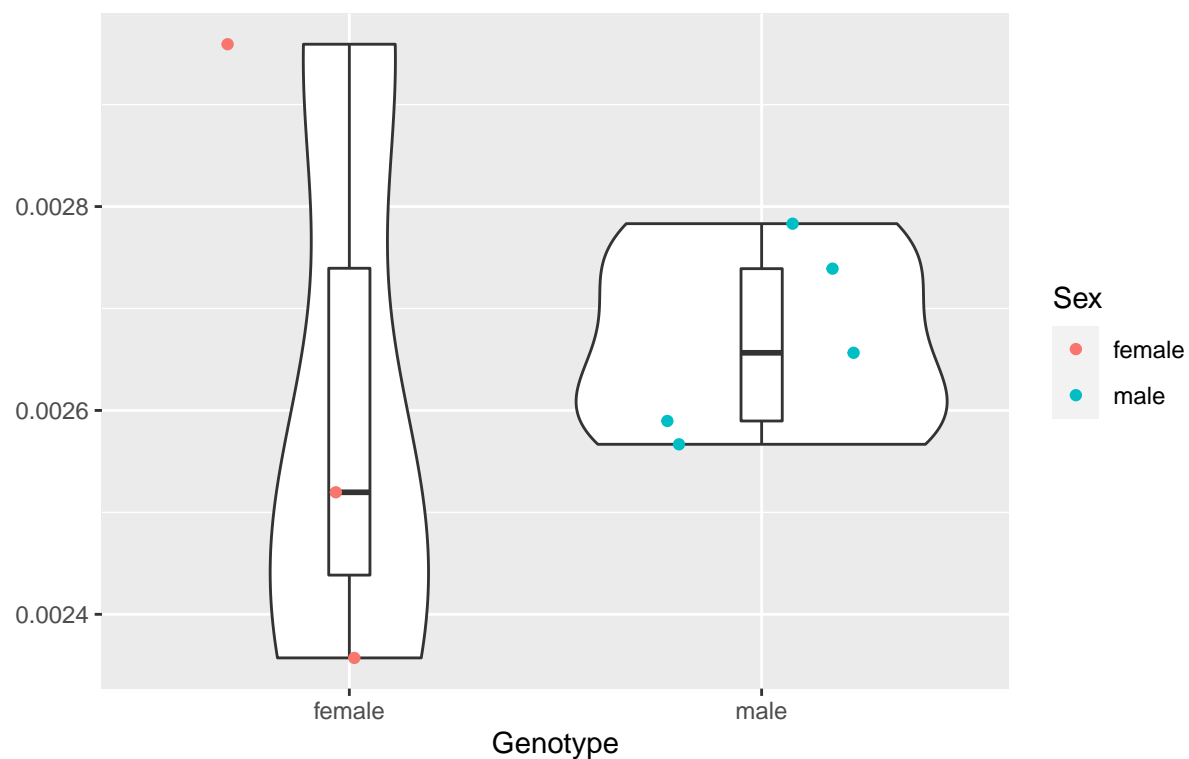
Red points denoting outliers



```
##          Df    Sum Sq   Mean Sq F value Pr(>F)
## Sex          1 1.068e-07 1.068e-07   7.677 0.0324 *
## Residuals    6 8.345e-08 1.391e-08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Left Cingulate Cortex Area 29a

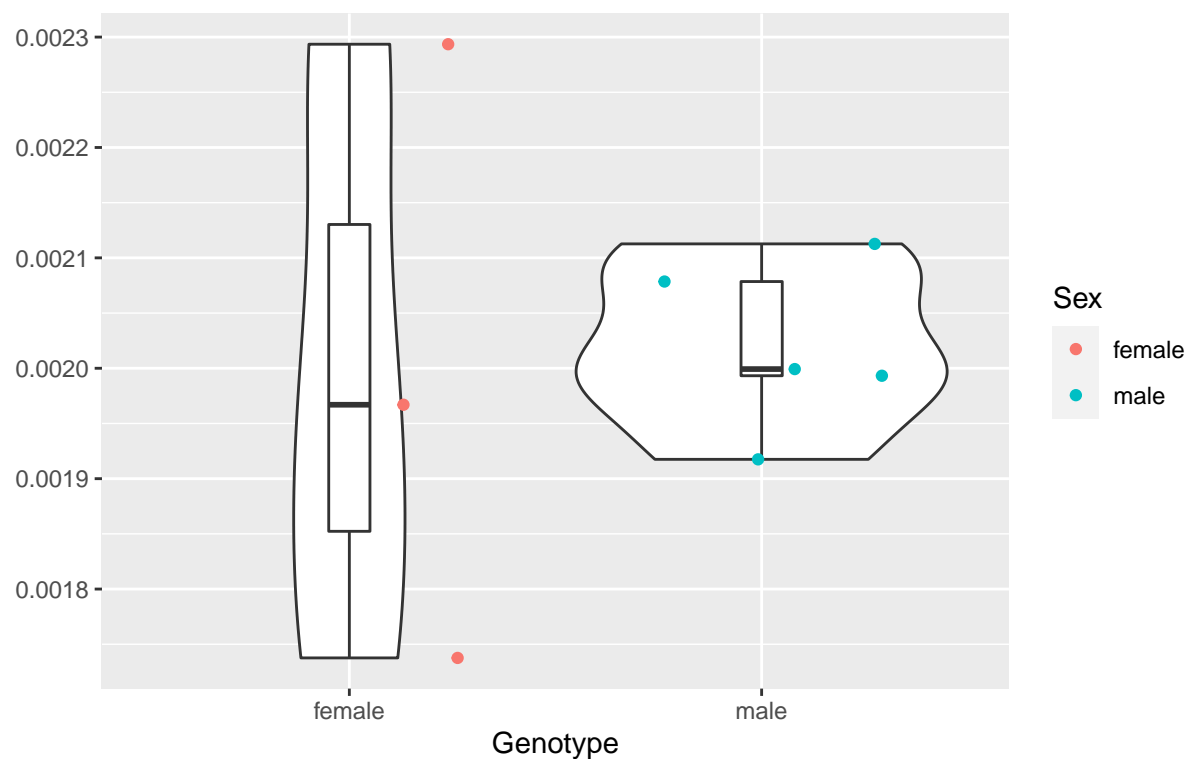
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	5.670e-09	5.670e-09	0.149	0.713
## Residuals	6	2.289e-07	3.814e-08		

Left Cingulate Cortex Area 24b Prime

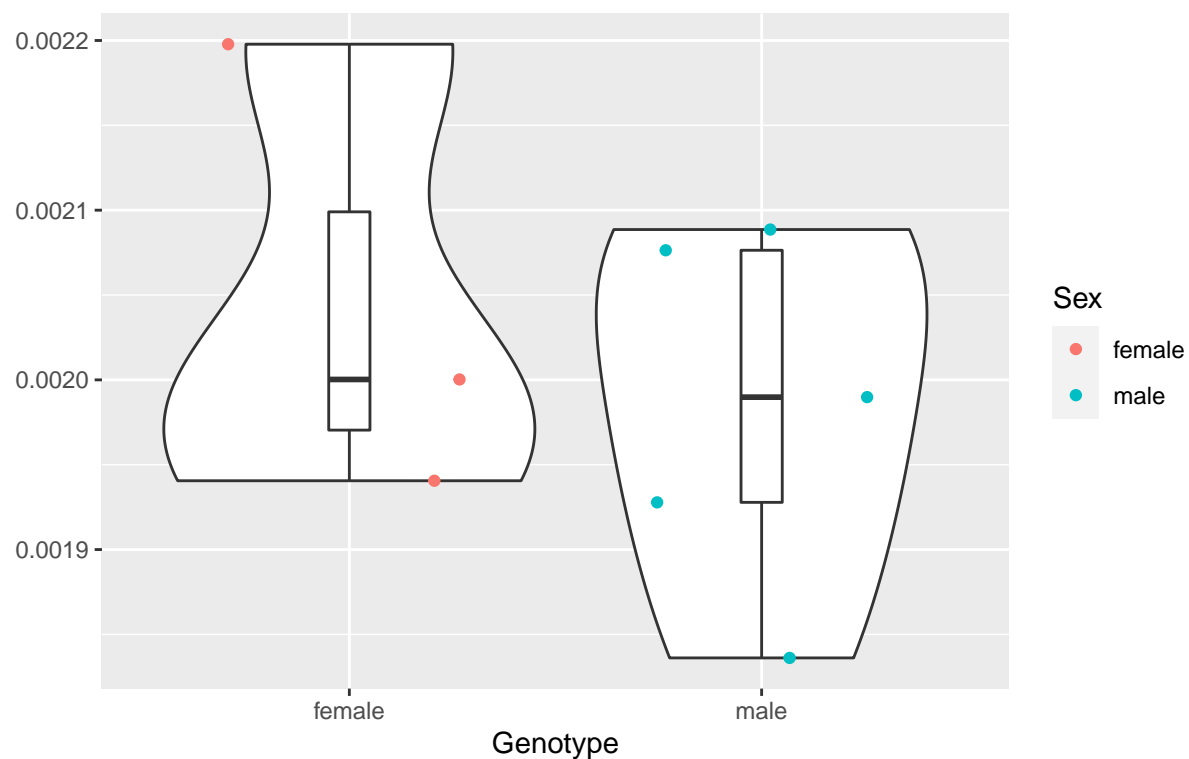
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	8.200e-10	8.170e-10	0.027	0.874
## Residuals	6	1.798e-07	2.996e-08		

Left Cingulate Cortex Area 24b

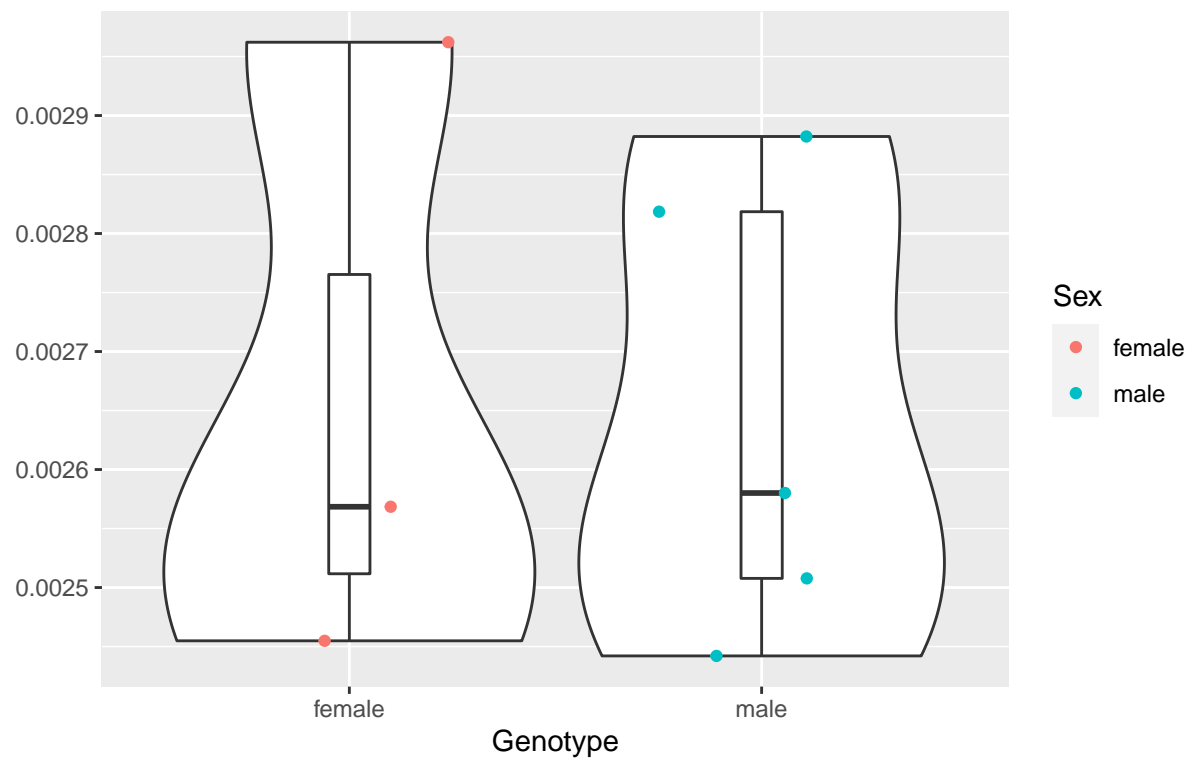
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	7.310e-09	7.313e-09	0.543	0.489
## Residuals	6	8.078e-08	1.346e-08		

Left Cingulate Cortex Area 24a Prime

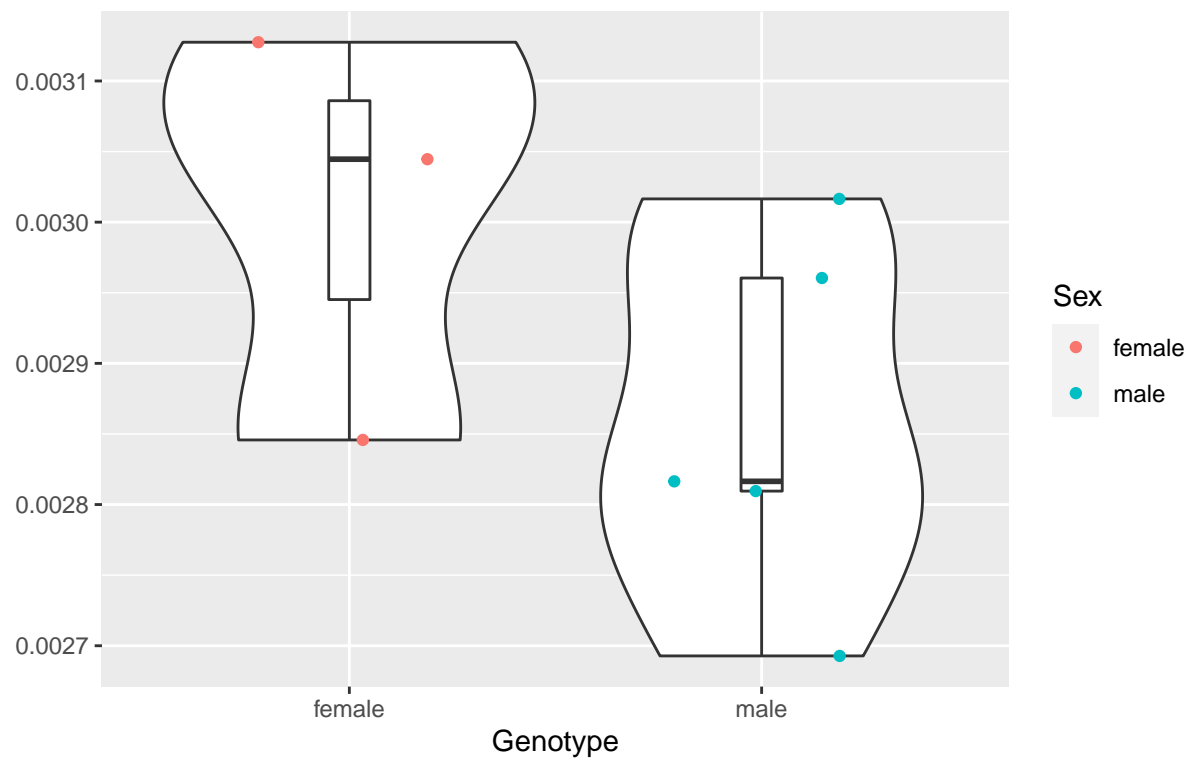
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.600e-10	4.600e-10	0.009	0.926
## Residuals	6	2.924e-07	4.873e-08		

Left Cingulate Cortex Area 24a

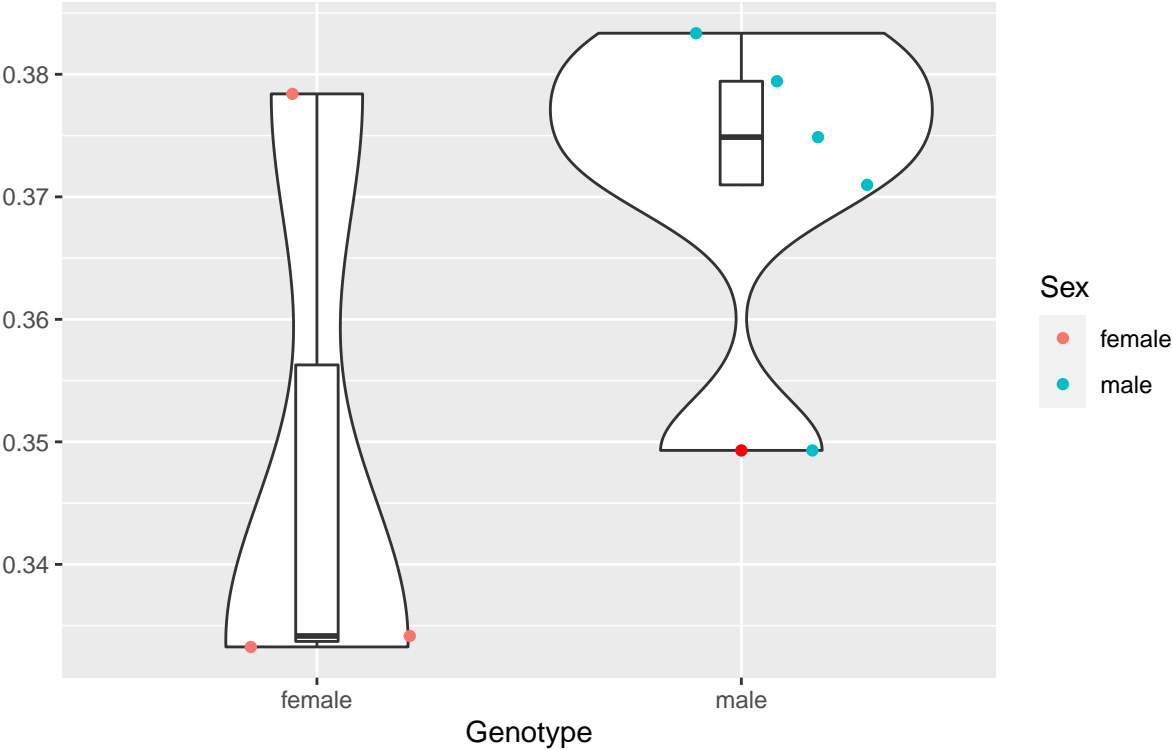
Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	4.040e-08	4.040e-08	2.226	0.186
## Residuals	6	1.089e-07	1.815e-08		

Exterior

Red points denoting outliers



##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## Sex	1	0.0009902	0.0009902	2.913	0.139
## Residuals	6	0.0020396	0.0003399		