

# Project\_report

## Mean Intensity

## Warning: package 'rJava' was built under R version 3.2.3

Striatum (whole area)

```
##
## Welch Two Sample t-test
##
## data: mean_intensity by group
## t = 1.6376, df = 7.6464, p-value = 0.1419
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -17.18059 99.07651
## sample estimates:
## mean in group control mean in group mutant
## 178.0974 137.1494
```

Dorsal Lateral Striatum (DLS)

```
##
## Welch Two Sample t-test
##
## data: mean_intensity by group
## t = 0.53183, df = 7.996, p-value = 0.6093
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -71.03956 113.62498
## sample estimates:
## mean in group control mean in group mutant
## 193.8259 172.5331
```

Dorsal Medial Striatum (DMS)

```
##
## Welch Two Sample t-test
##
## data: mean_intensity by group
## t = 2.6354, df = 6.4576, p-value = 0.03621
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## 5.129635 112.473287
## sample estimates:
## mean in group control mean in group mutant
## 178.4518 119.6503
```

## Center Region

```
##
## Welch Two Sample t-test
##
## data: mean_intensity by group
## t = 2.494, df = 7.9999, p-value = 0.03729
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## 3.222256 82.277132
## sample estimates:
## mean in group control mean in group mutant
## 162.0145 119.2648
```

## Summary:

```
## region p_value
## 1 DLS 0.609
## 2 DMS 0.036
## 3 center 0.037
```

## Occupied Area

### Striatum (whole area)

```
## method p_value
## 1 Default.txt 0.1938103
## 2 Huang.txt 0.3843208
## 3 Intermodes.txt 0.7116997
## 4 IsoData.txt 0.2034911
## 5 Li.txt 0.3189104
## 6 MaxEntropy.txt 0.2412189
## 7 Mean.txt 0.2588927
## 8 Minimum.txt 0.6851154
## 9 Moments.txt 0.3229488
## 10 Otsu.txt 0.2091102
## 11 Percentile.txt 0.3236796
## 12 RenyiEntropy.txt 0.5770490
## 13 Shanbhag.txt 0.2732786
## 14 Triangle.txt 0.1003956
## 15 Yen.txt 0.6778435
```

### Dorsal Lateral Striatum (DLS)

```
## method p_value
## 1 Default.txt 0.1688234
## 2 Huang.txt 0.3543728
## 3 Intermodes.txt 0.7234825
## 4 IsoData.txt 0.1769371
```

## 5	Li.txt	0.2716892
## 6	MaxEntropy.txt	0.8678689
## 7	Mean.txt	0.2276392
## 8	Minimum.txt	0.1811787
## 9	Moments.txt	0.4193008
## 10	Otsu.txt	0.1833269
## 11	Percentile.txt	0.6351579
## 12	RenyiEntropy.txt	0.6550566
## 13	Shanbhag.txt	0.1863482
## 14	Triangle.txt	0.2458846
## 15	Yen.txt	0.4978789

#### Dorsal Medial Striatum (DMS)

##	method	p_value
## 1	Default.txt	0.13198228
## 2	Huang.txt	0.28268639
## 3	Intermodes.txt	0.21589544
## 4	IsoData.txt	0.13396073
## 5	Li.txt	0.23407162
## 6	MaxEntropy.txt	0.13295179
## 7	Mean.txt	0.20135457
## 8	Minimum.txt	0.07727301
## 9	Moments.txt	0.15966501
## 10	Otsu.txt	0.12193767
## 11	Percentile.txt	0.82210760
## 12	RenyiEntropy.txt	0.17576665
## 13	Shanbhag.txt	0.25570069
## 14	Triangle.txt	0.08449089
## 15	Yen.txt	0.21897689

#### Center Region

##	method	p_value
## 1	Default.txt	0.36269676
## 2	Huang.txt	0.56935736
## 3	Intermodes.txt	0.20272487
## 4	IsoData.txt	0.39106998
## 5	Li.txt	0.52799734
## 6	MaxEntropy.txt	0.08334187
## 7	Mean.txt	0.40850343
## 8	Minimum.txt	0.37017680
## 9	Moments.txt	0.47131546
## 10	Otsu.txt	0.46453053
## 11	Percentile.txt	0.17755389
## 12	RenyiEntropy.txt	0.26637190
## 13	Shanbhag.txt	0.51281988
## 14	Triangle.txt	0.06713616
## 15	Yen.txt	0.24193463