



## Design Guide Summary Report

Generated with [MySampleSize.com](https://www.mysamplesize.com)

Your hypothesis is: *Pharmacological activation of Group II metabotropic glutamate receptors with compound DCG-IV will reduce neuronal cell degeneration measured at 24 hours after experimental TBI in rats.*

You will be testing this hypothesis using the outcome measure *degenerating cells* in units of *number of cells*.

Your hypothesis involves treatment(s) of *drug*, and associated control(s) of *Vehicle (Artificial CSF)*. Other factors in your experiment are *none*. The following table shows the treatments, factors, and their levels.

### Treatments and Factors

	Name	Levels / Description	Control Type	Control Name
Treatment 1	drug	Setting 1 : 20 fmol DCG-IV Setting 2 : 100 fmol DCG-IV Setting 3 : 500 fmol DCG-IV	Vehicle	Artificial CSF

### Groups

These are all the groups possible with these treatments and factors.

**Group**  
(drug: 20 fmol DCG-IV)  
(drug: 100 fmol DCG-IV)  
(drug: 500 fmol DCG-IV)  
(Artificial CSF: Vehicle control)

Your inputs result in a **Completely Randomized** design and a **1-Way ANOVA** as your statistical test.

### Statistical Power and Sample Size Calculation Summary

Statistical Test:	1-Way ANOVA
Significance Level:	0.05
Measurement SD:	125
Absolute Effect Size:	60
Relative Effect Size ( $f$ ):	0.48
Total Groups:	4
Statistical Power:	0.8

The results of the Sample Size Calculation are

---

### ANOVA Test

17 Subjects per Group

68 Total Subjects

---

### Post hoc Dunnett Test

92 Subject per Group

368 Total Subjects

---

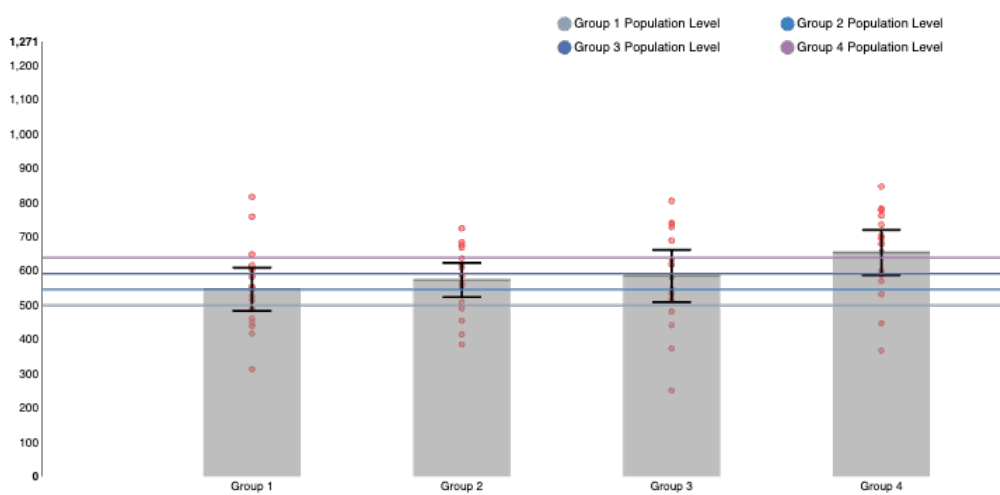
### Post hoc Tukey Test

102 Subject per Group

408 Total Subjects

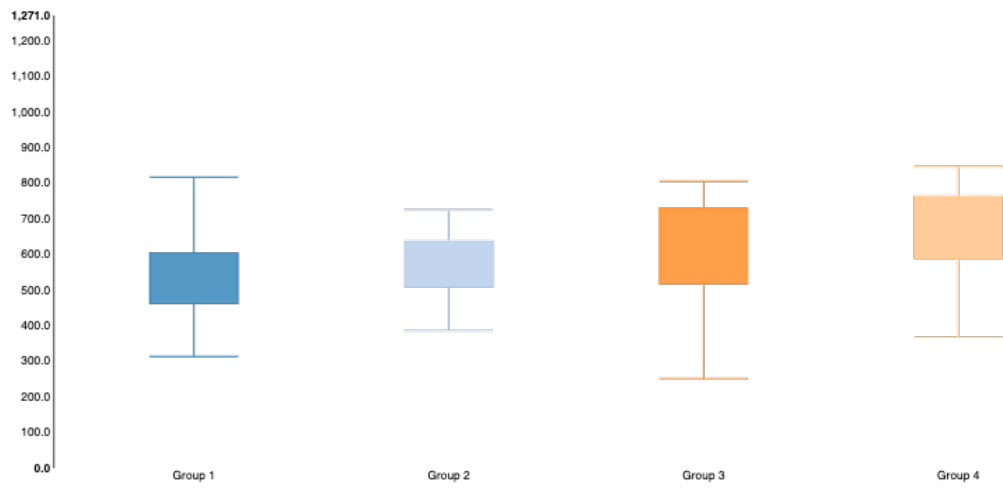
### Simulation Plot 1

p-value this sim: 9.142e-2



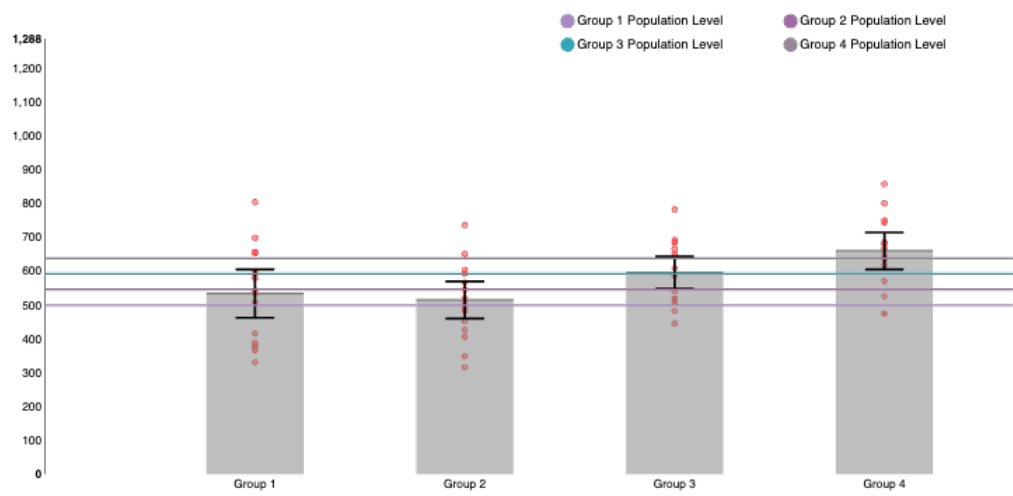
Simulation Plot 2

p-value this sim: 9.142e-2



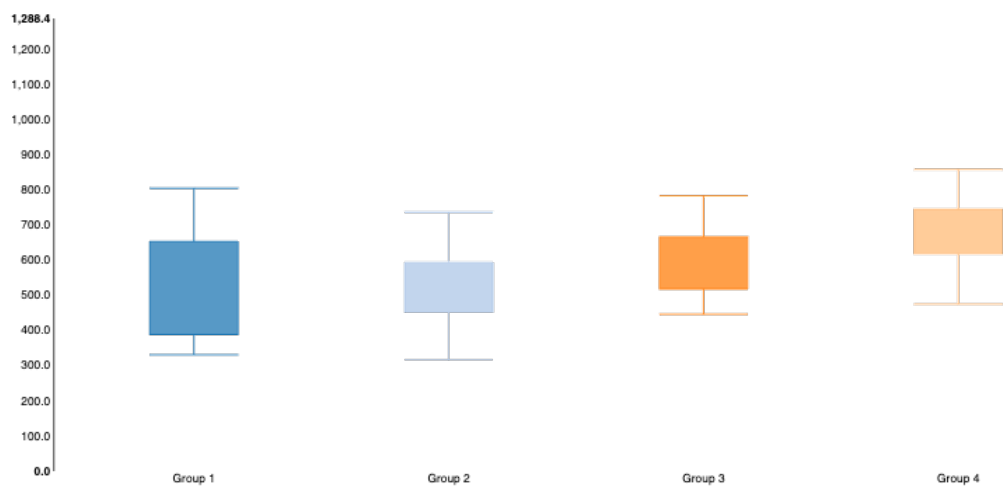
Simulation Plot 3

p-value this sim: 1.409e-3



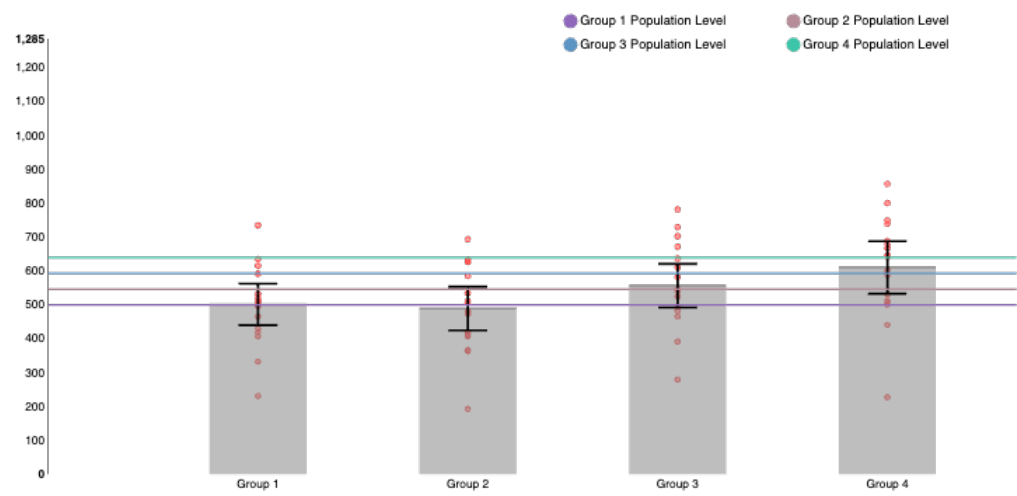
Simulation Plot 4

p-value this sim: 1.409e-3



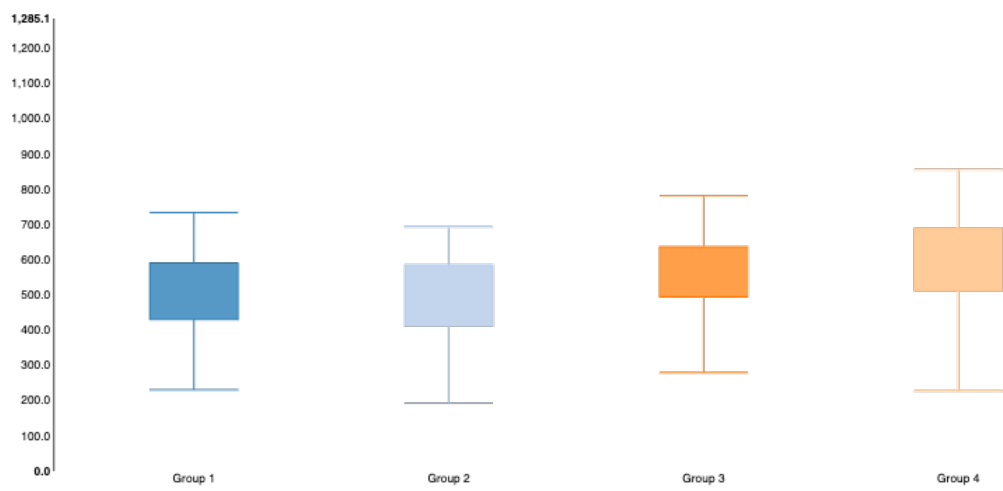
Simulation Plot 5

p-value this sim: 3.350e-2



Simulation Plot 6

p-value this sim: 3.350e-2



Power Plot

Note: "You are here" point does not show up. We are working on this issue.

