

Sample Size Determination - MAF Proposal 2024:

INTRODUCTION:

A study is being prepared and has one primary metric of interest: # of cells in hydrogel. Historical data (murine study) is used for reference. This metric is being assessed with two hydrogel conditions: one *with* GM-CSF, one *without* GM-CSF. Each dog will have 2 hydrogels injected (with/without GM-CSF) and cell analysis will be performed three days later. The objective of this analysis is to identify how many pairs of samples must be collected to achieve a desired power of 0.95.

↳ Can change

ANALYSIS:

Historical data (from murine study):

hydrogel with GM-CSF:

5,400,000 cells \pm 500,000

hydrogel without GM-CSF:

100 cells \pm 25

CONCLUSION:

Ideally, sample size is no more than 3 dogs with paired hydrogels. Let's make this as powered as possible using 3 dogs.