

## **Eluster\_2: Report of findings**

Model 1 uses a dropout layer. Model 2 increases training data while keeping validation and test images the same. Model 3 increases the validation and test images. Model 4 uses the pretrained network and feature extraction.

For each of the following models, the loss and accuracy of the test is as follows:

### **Model 1:**

Loss	Acc
0.5355906	.7420

### **Model 2:**

Loss	Acc
0.4718557	.7650

### **Model 3:**

Loss	Acc
0.5407254	.7360

### **Model 4:**

Loss	Acc
.2575279	.894000

Based on these results, a model using a pretrained layer is far more effective than models that train a convnet from nothing. Increasing sample sizes do increase accuracy, but only for training data. The choice of network seems to be much more important than sample size. Its possible if the increase in sample size was higher, then the accuracy would increase by more.