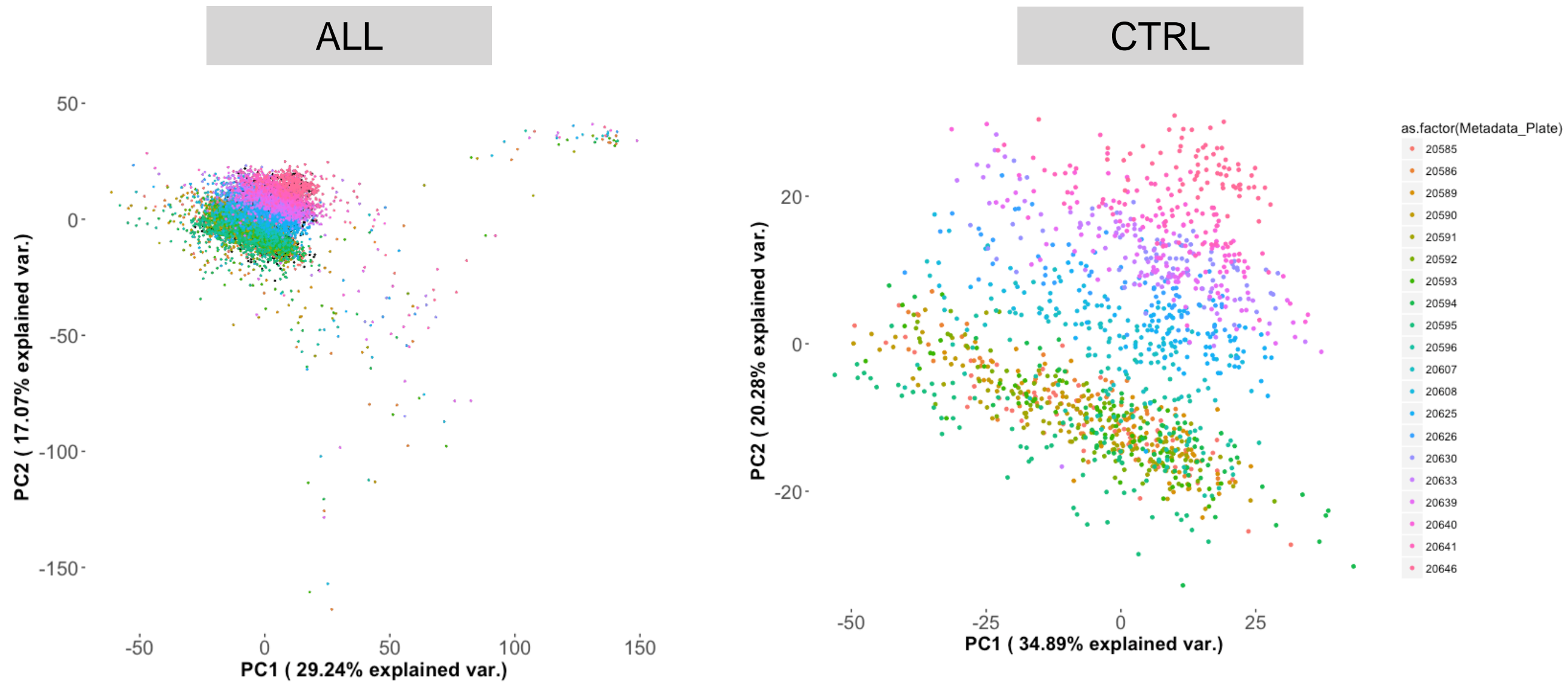


CytoData2017

Peng Qiu, Michaël Barbier, Marlies Verschuuren

Plate Differences



Workplan

1

Norm. based
on ctrl

2

Feature Groups
* Corr

3

Feature red.
* Var

4

Evaluation

1

Norm. based
on ctrl

For each plate:

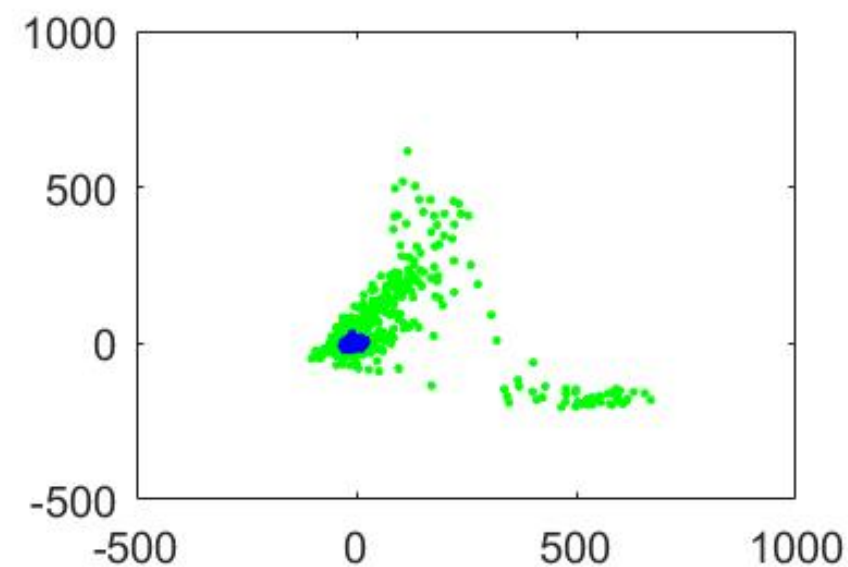
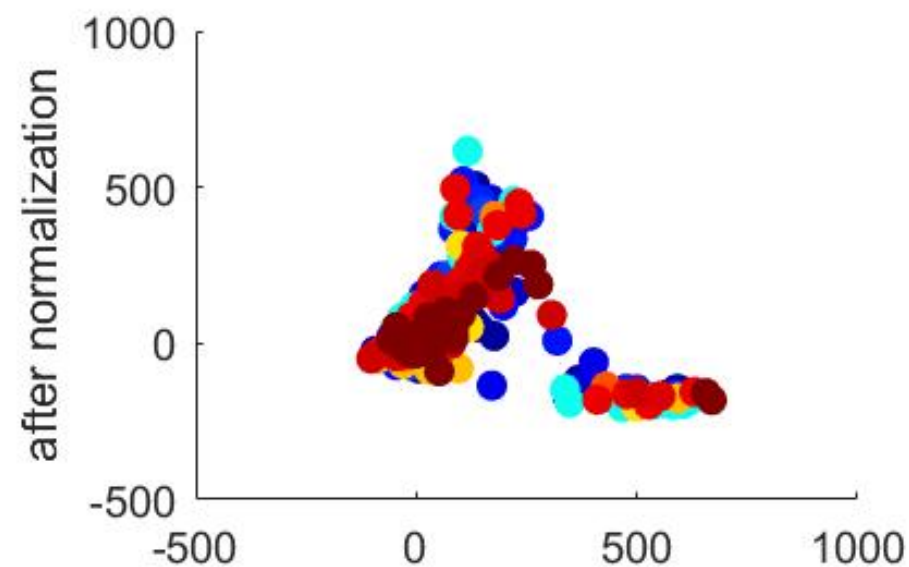
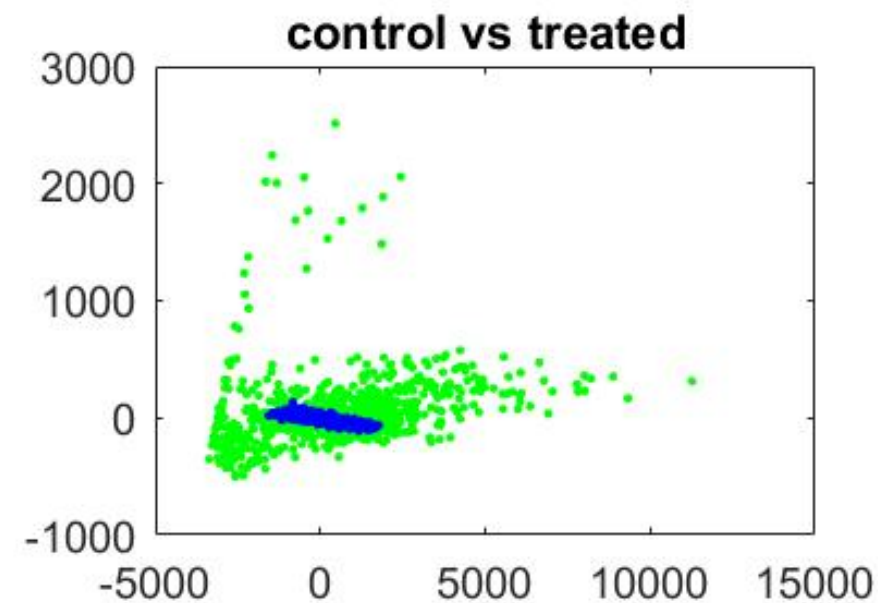
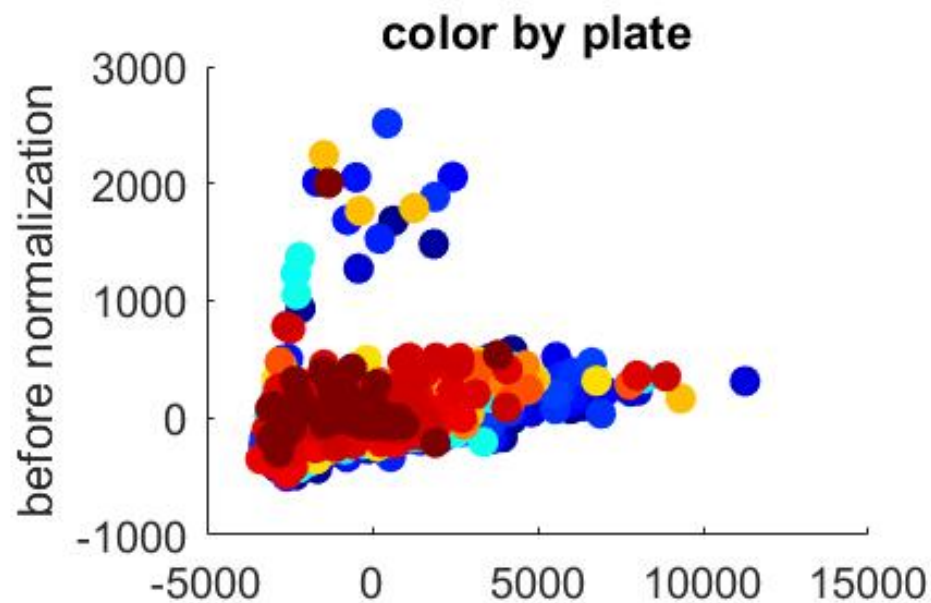
take the 64 control wells

compute the mean and std of all 824 features using the control wells

normalize data data for each feature by the mean and std

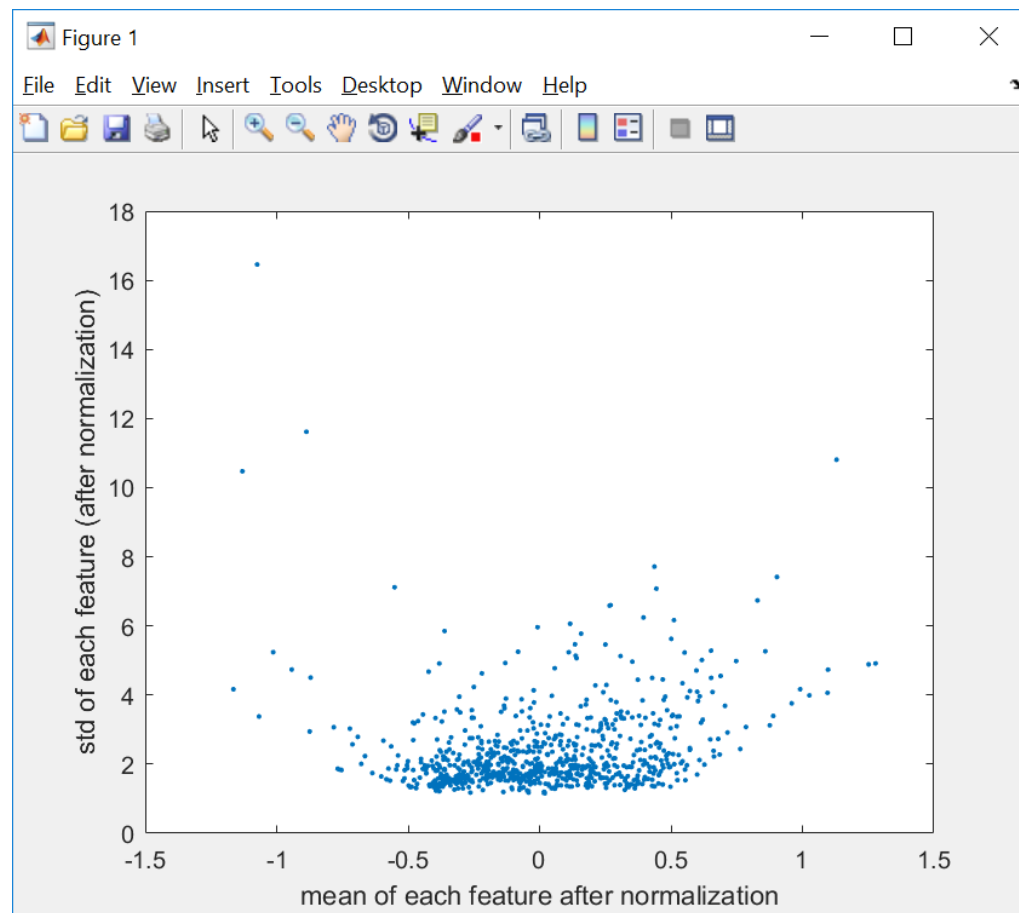
visualize before and after using PCA

observe shrinkage of the distribution of the controls

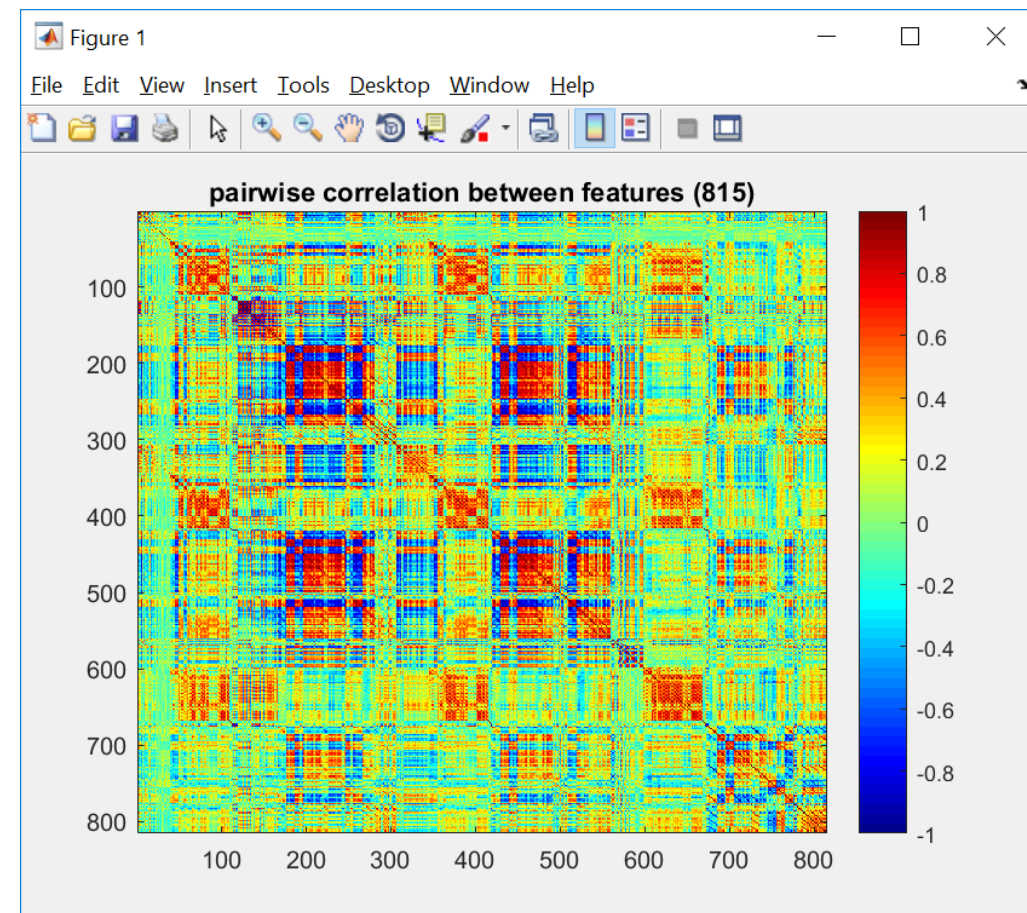


Feature Groups * Corr

Features are not equally important



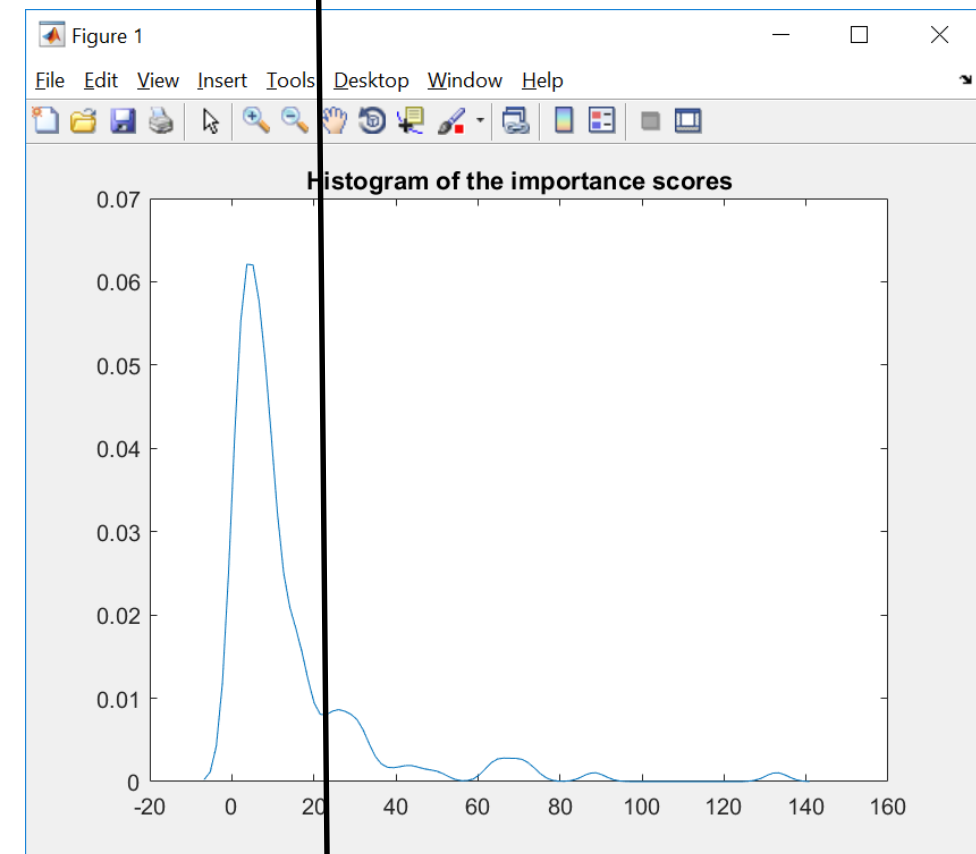
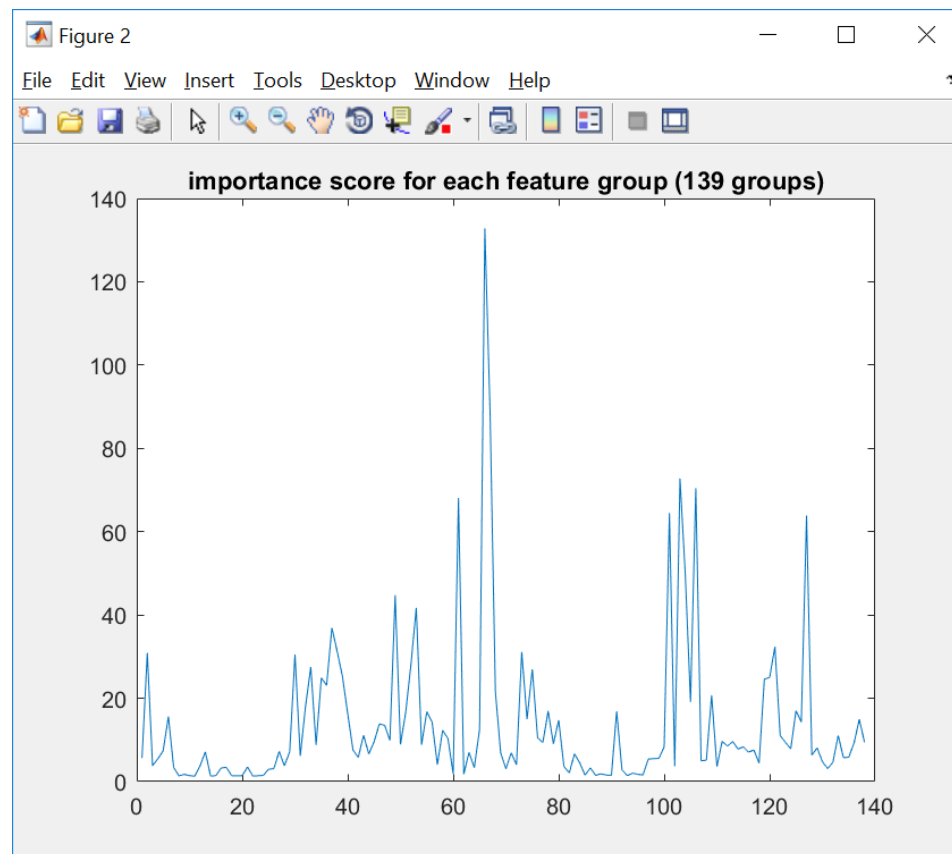
Features can be highly correlated



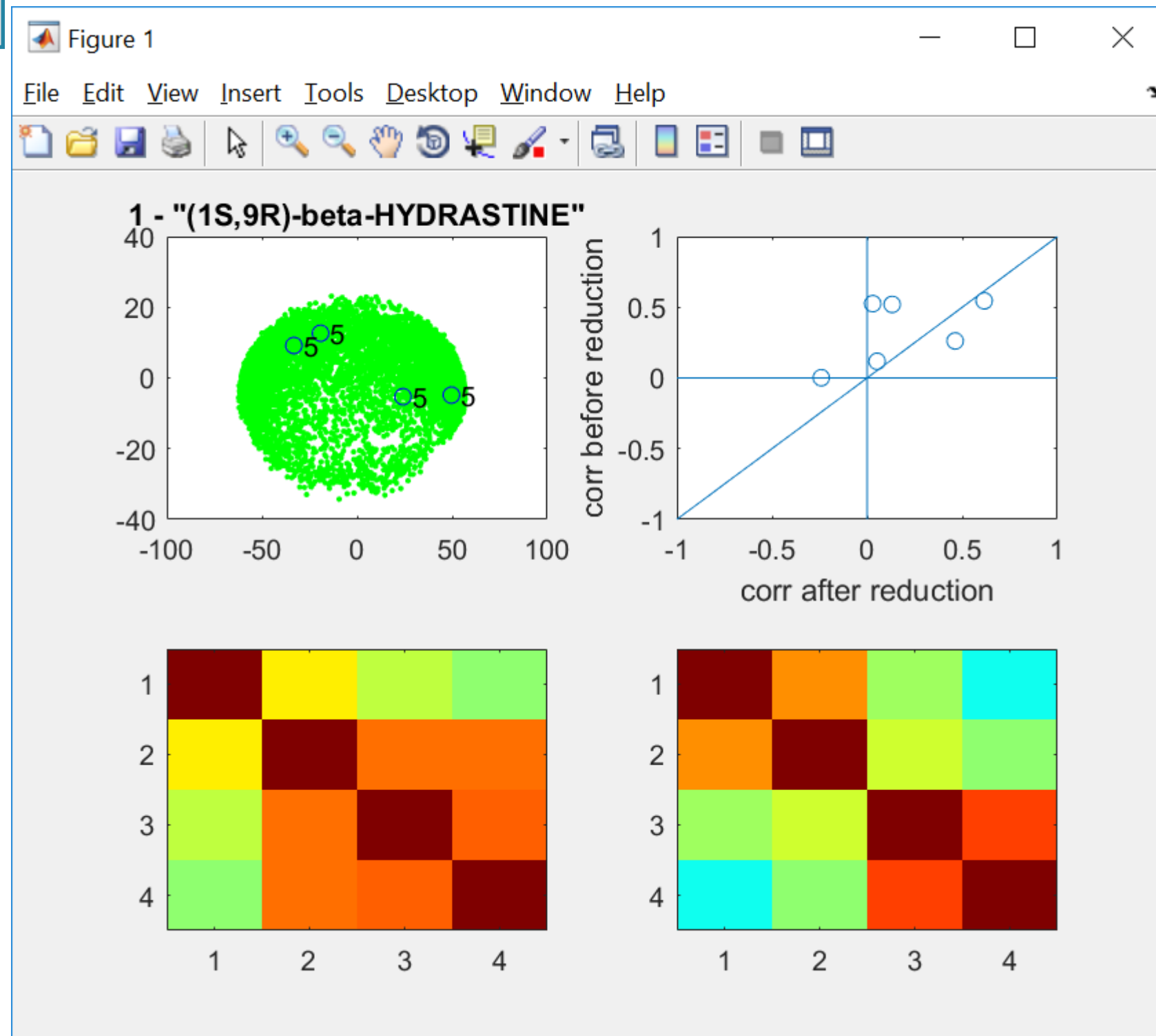
3

Feature red.
* Var

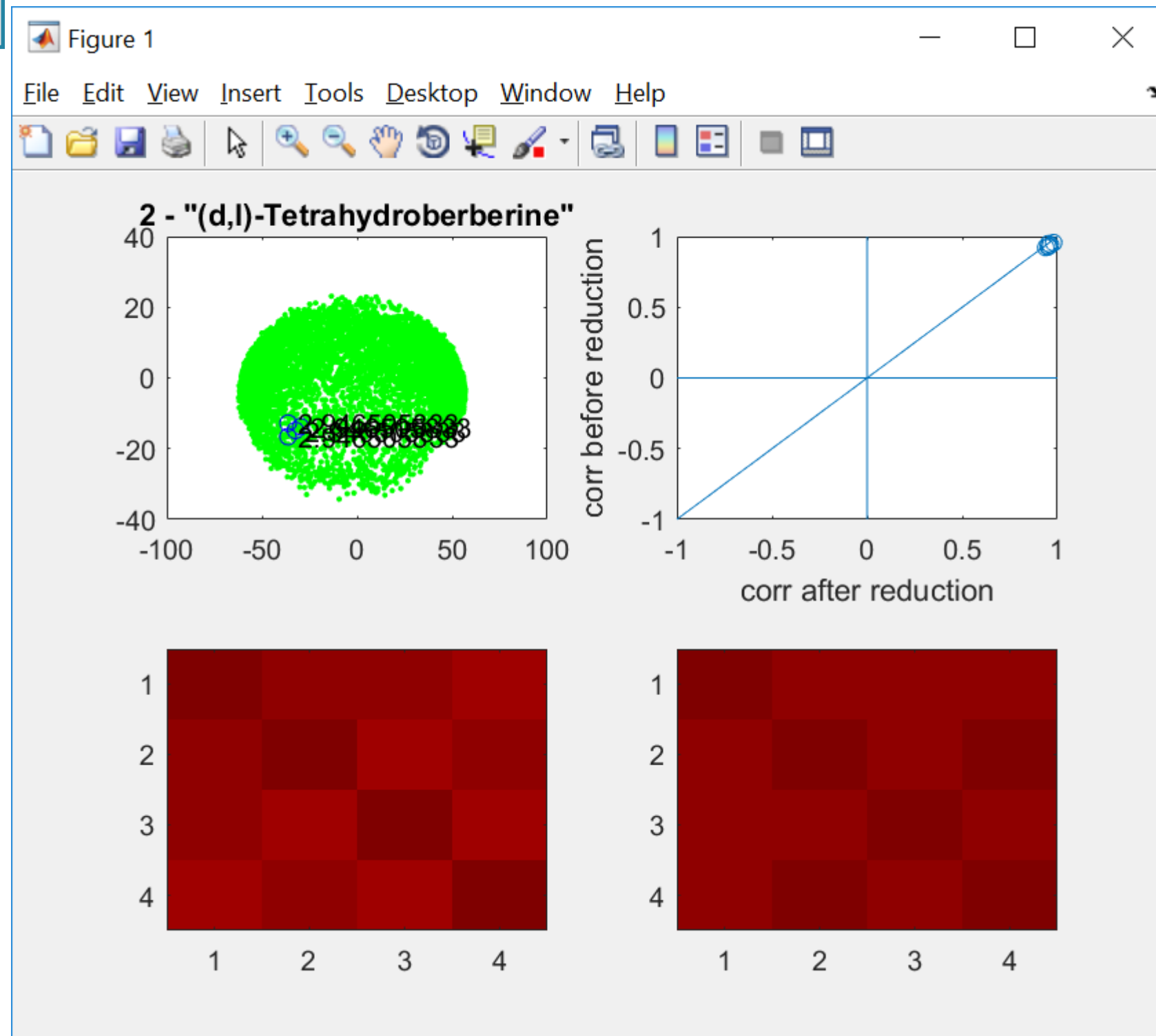
Group features based on correlation, 0.9
Selected important feature groups (26)



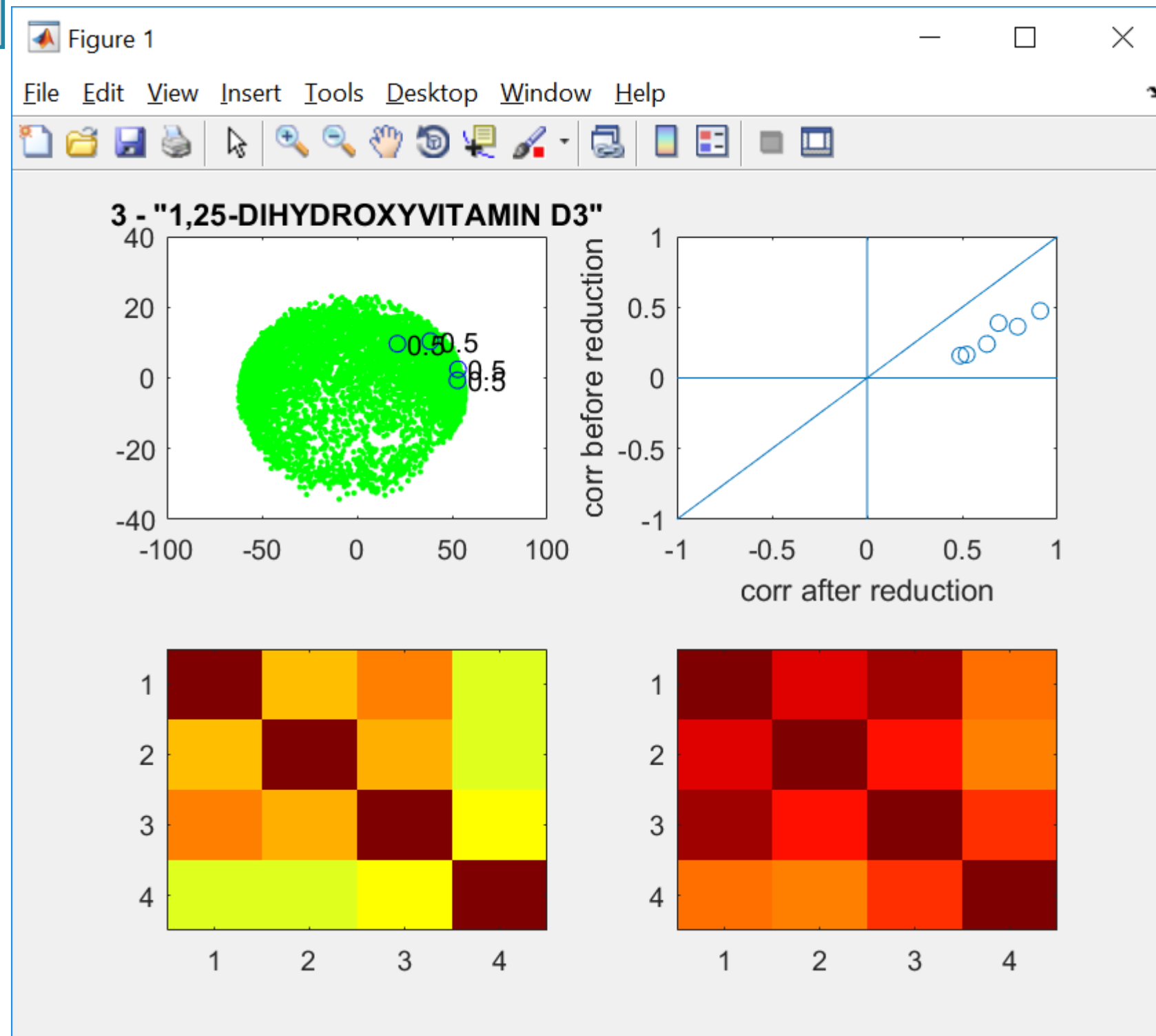
Evaluation



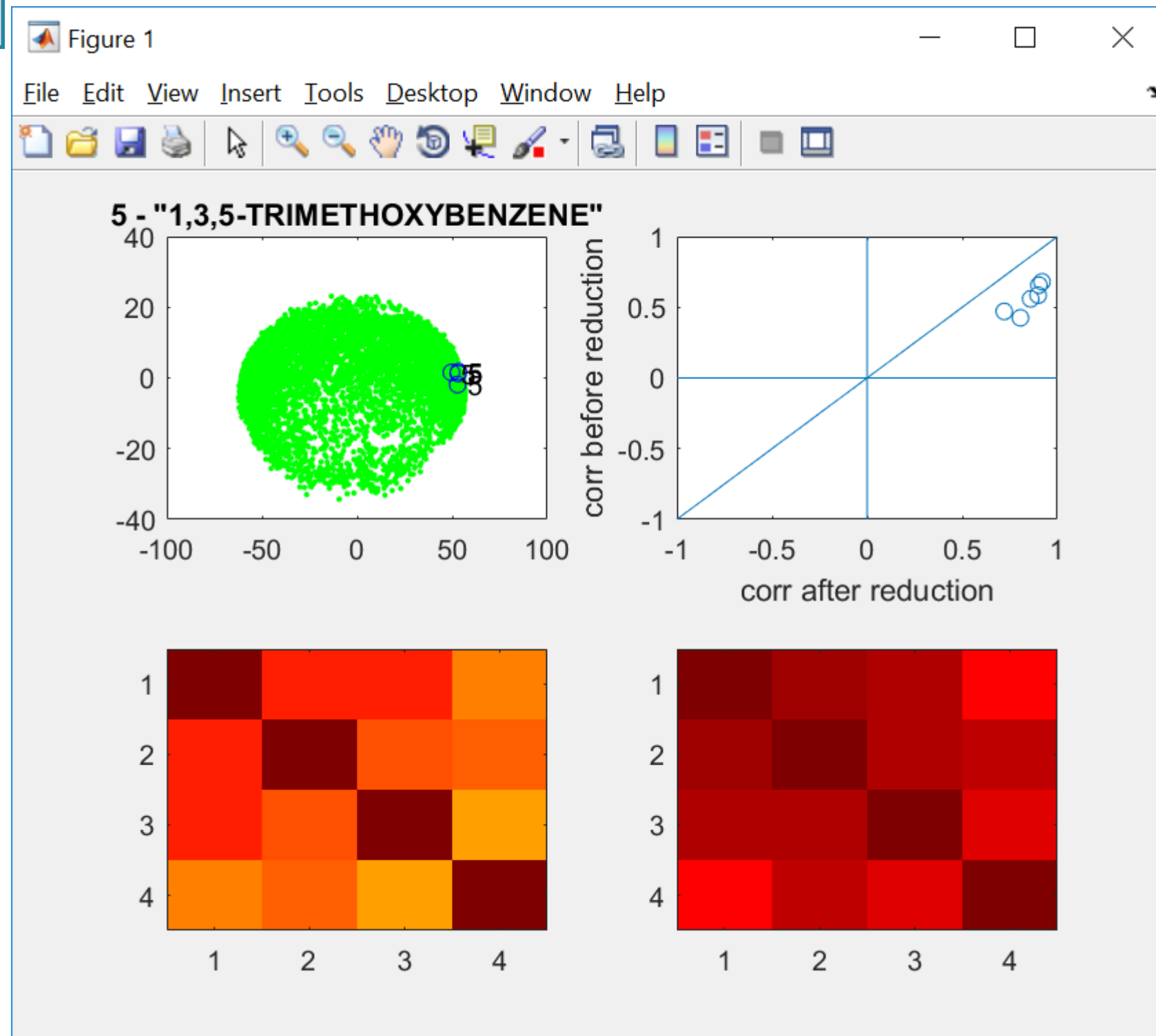
Evaluation



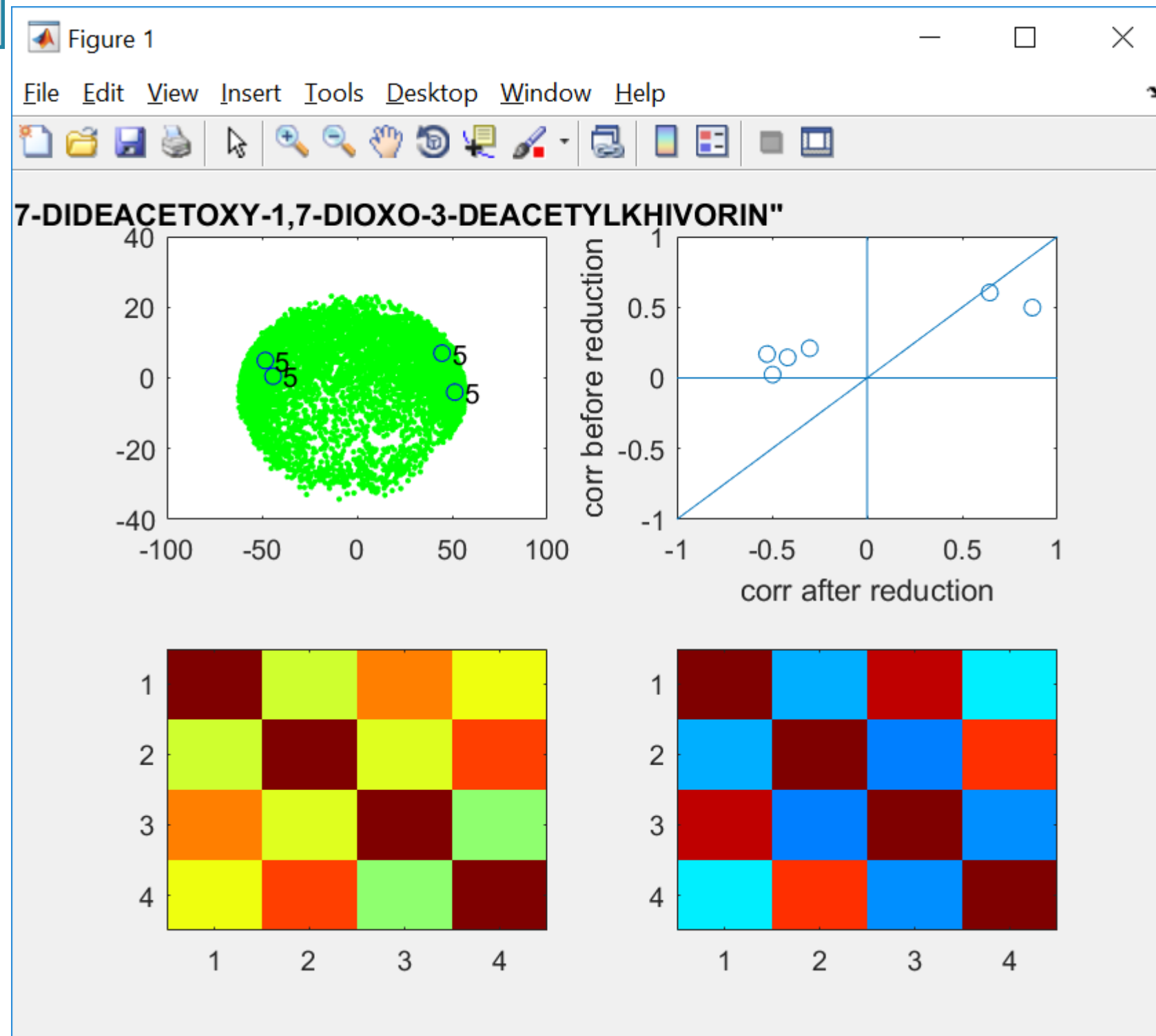
Evaluation



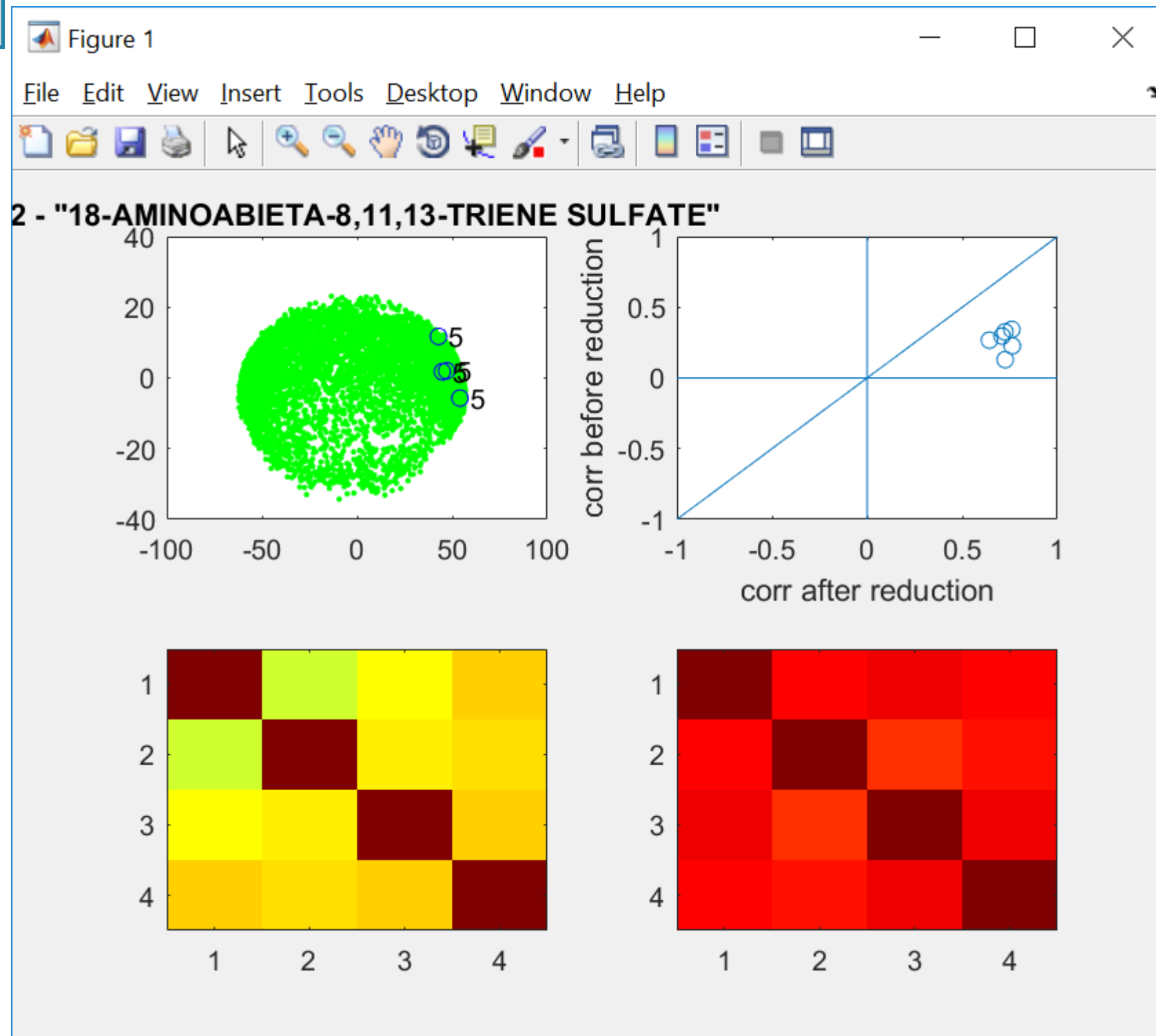
Evaluation



Evaluation



Evaluation



Is this helping? 😊 or ☹️

