

GROUP D:

PAULO SOUSA

SOFIA MALPIQUE

YANNIK BAUER

# ASSIGNMENT 6



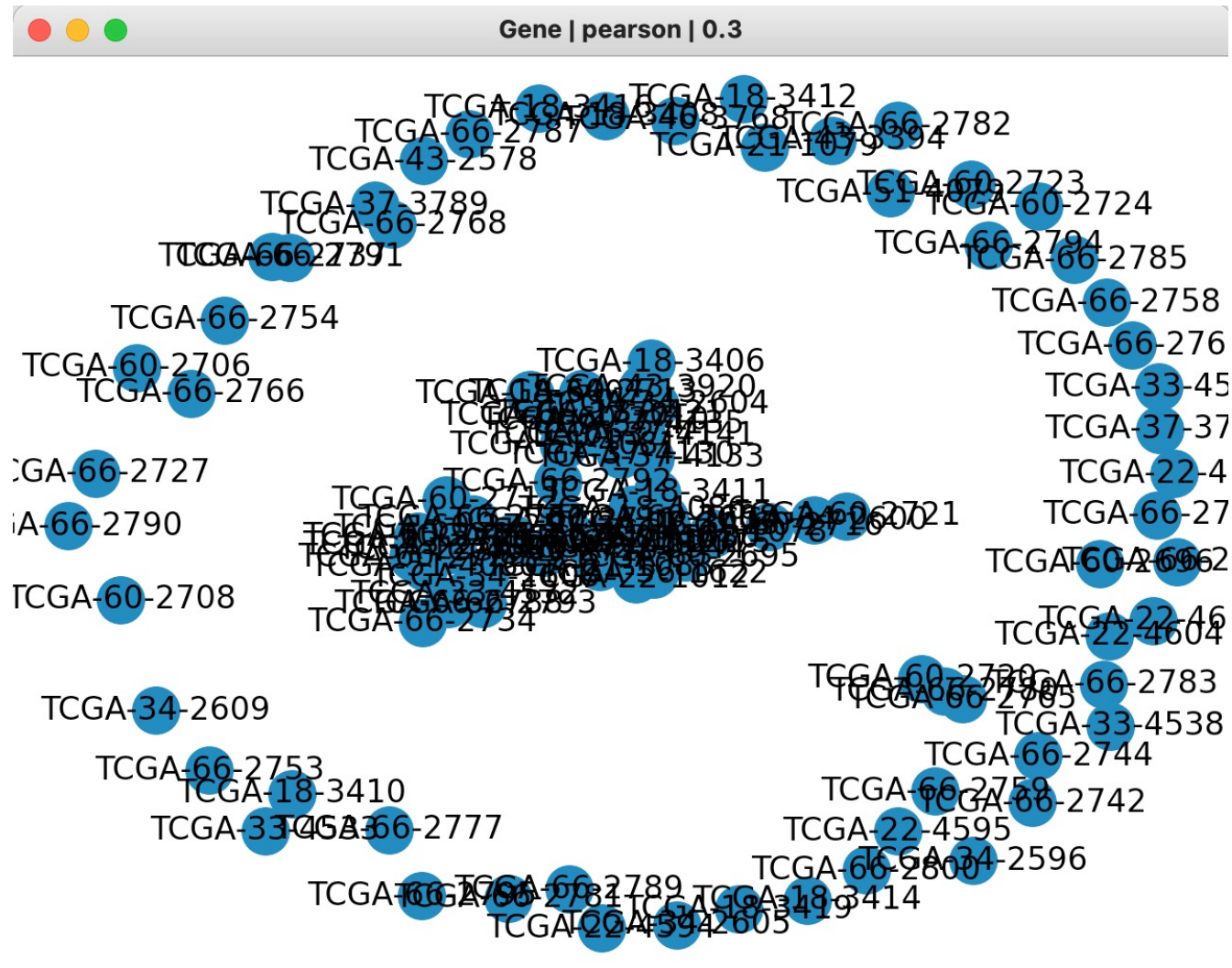
# TASK 1.1

## ONE CORRELATION MATRIZ:

```
Correlation Matriz | datatype: Gene | correlation= pearson | :  
      TCGA-18-3406  TCGA-18-3407  ...  TCGA-66-2795  TCGA-66-2800  
TCGA-18-3406      1.000000      0.104163  ...      0.147598      -0.050254  
TCGA-18-3407      0.104163      1.000000  ...     -0.001384       0.002215  
TCGA-18-3408      0.090739      0.071621  ...      0.143832       0.187454  
TCGA-18-3410      0.043099     -0.081285  ...     -0.076058     -0.067875  
TCGA-18-3411      0.088210     -0.079021  ...      0.182132       0.109491  
...              ...              ...  ...              ...              ...  
TCGA-66-2792     -0.196908      0.078084  ...      0.033762       0.160412  
TCGA-66-2793     -0.122325     -0.124143  ...     -0.103974     -0.064065  
TCGA-66-2794     -0.190241     -0.122525  ...      0.038960       0.187828  
TCGA-66-2795      0.147598     -0.001384  ...      1.000000       0.117730  
TCGA-66-2800     -0.050254      0.002215  ...      0.117730       1.000000
```

# TASK 1.2

- ONE GRAPH:



# **TASK 1.3**

- Está feito no código python, mas não houve tempo para fazer o slide

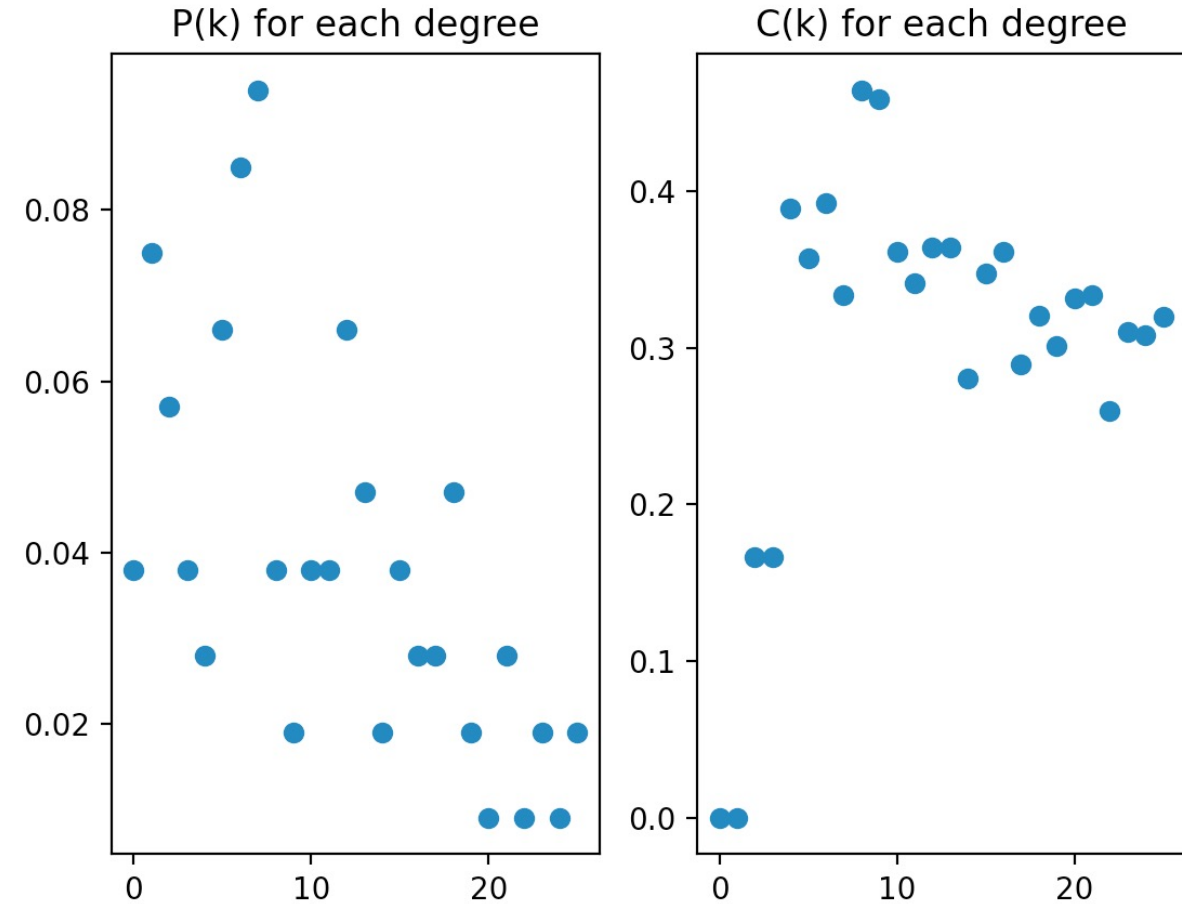
# TASK 1.4

0.1	pearson	106	2177	41.08	0.48
0.2	pearson	106	513	9.68	0.30
0.3	pearson	106	72	1.36	0.08
0.4	pearson	106	5	0.09	0.00
0.5	pearson	106	0	0.00	0.00
0.1	spearman	106	2341	44.17	0.50
0.2	spearman	106	654	12.34	0.34
0.3	spearman	106	99	1.87	0.11
0.4	spearman	106	8	0.15	0.02
0.5	spearman	106	0	0.00	0.00

# TASK 1.5

COM BASE NESTES  
GRAFICOS DECIDIMOS  
O NETWORK MAIS  
SEMELHANTE

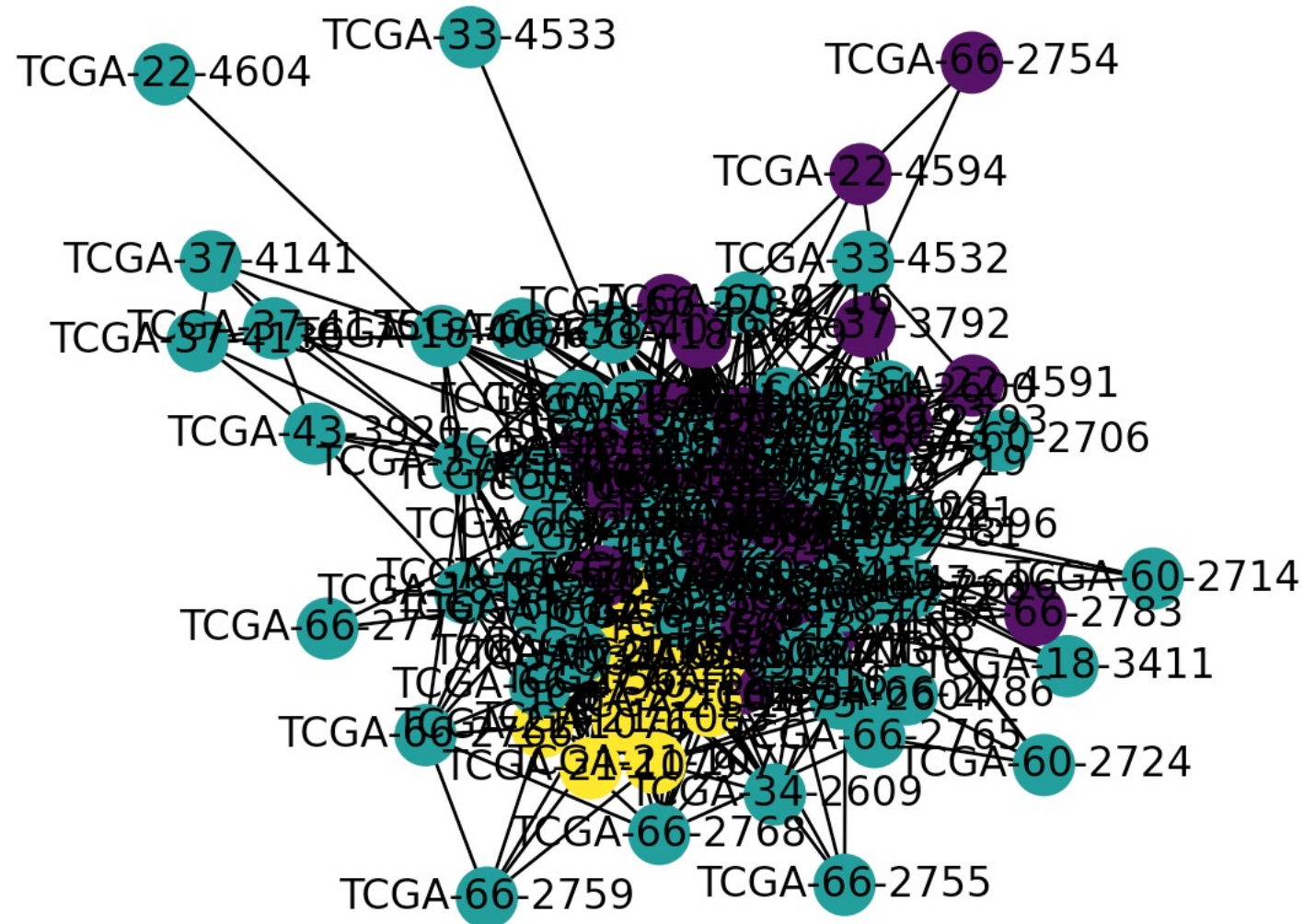
Gene | pearson | 0.2





## TASK 2

- kMeans com  $k=3$



## TASK 2

Coluna Survival  
que está muito diferente  
para os 3 clusters

	cluster1	cluster2	cluster3
count	30.000000	64.000000	12.000000
mean	586.300000	719.531250	1147.750000
std	588.585631	773.106863	1022.473038
min	12.000000	12.000000	53.000000
25%	128.750000	93.250000	462.000000
50%	443.500000	531.000000	922.000000
75%	748.250000	952.000000	1449.250000
max	2466.000000	3469.000000	3724.000000