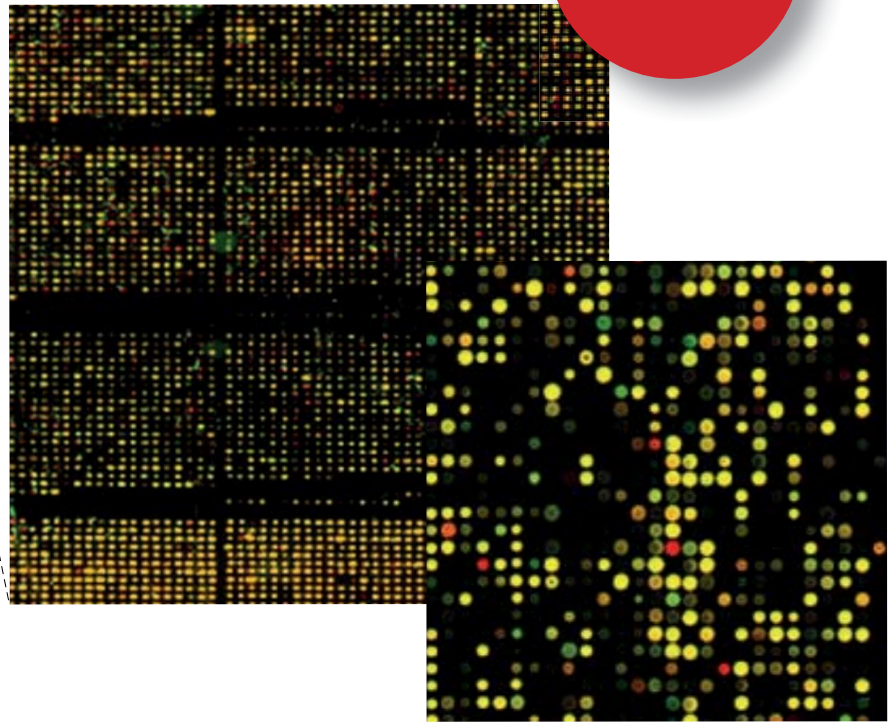


Clustering Exercises for the Classroom

Anastasios Koutsos
Alexandra Manaia
Julia Willingale-Theune

Version 2.3



Anastasios Koutsos, Alexandra Manaia and Julia Willingale-Theune



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Clustering activity tables

Gene	Green	Red
james watson	0	0
francis crick	9	9
rosalind franklin	1	1
maurice wilkins	3	3
thomas morgan	4	8
alexander fleming	0	3
barbara mcclintock	1	6
john kendrew	2	1
jacques monod	4	0
leo szilard	9	3
Total	33	34

Cluster	Genes	Green	Red	Result

Cluster	Genes	Green	Red	Regulation
1	james watson	0	0	Identical
	francis crick	9	9	Identical
	rosalind franklin	1	1	Identical
	maurice wilkins	3	3	Identical
2	thomas morgan	4	8	2-fold up regulation
	barbara mcclintock	1	6	6-fold up regulation
3	jacques monod	4	0	disappearing
	alexander fleming	0	3	appearing
4	leo szilard	9	3	3-fold down regulation
	john kendrew	2	1	2-fold down regulation

Cluster	Genes	Green	Red	Result
A	james watson	0	0	no regulation
	francis crick	9	9	no regulation
	rosalind franklin	1	1	no regulation
	maurice wilkins	3	3	no regulation
B	thomas morgan	4	8	2-fold up regulation
	barbara mcclintock	1	6	6-fold up regulation
	alexander fleming	0	3	up regulation
C	leo szilard	9	3	3-fold down regulation
	john kendrew	2	1	2-fold down regulation
	jacques monod	4	0	down regulation

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