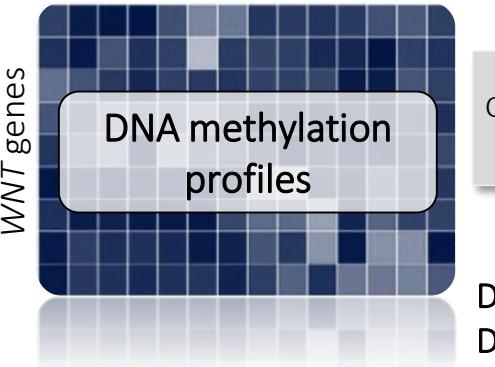
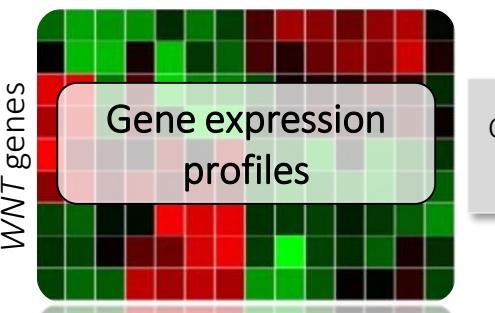


## Additional file 1



Discretized  
Gene expression data

Upregulated: 1  
Downregulated: -1

Compare to CD34+  
normal samples

	P <sub>1</sub> , P <sub>2</sub> , ..., P <sub>344</sub>
Gene 1	1
Gene 2	-1
...	...
Gene n	...

1

-1

0

1

...

...

...

...

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...

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...

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...

...

	P <sub>1</sub> , P <sub>2</sub> , ..., P <sub>344</sub>
Gene 1	4
Gene 2	2, 6, ..., 7
...	...
Gene n	...

4

8

...

...

...

...

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...

Group samples with the  
same gene-scenario

Scenario 1

Scenario 2

Scenario 4

Scenario 7

Scenario 8

Pairwise log-rank test  
between patients survival  
with different scenarios

	S <sub>1</sub> , S <sub>2</sub> , S <sub>4</sub> , S <sub>7</sub> , S <sub>8</sub>
S <sub>1</sub>	1, ..., ..., ..., ..., ...
S <sub>2</sub>	..., 1, ..., ..., ..., ...
S <sub>4</sub>	..., ..., 1, ..., ..., ...
S <sub>7</sub>	..., ..., ..., 1, ..., ...
S <sub>8</sub>	..., ..., ..., ..., 1, ...

S<sub>1</sub>

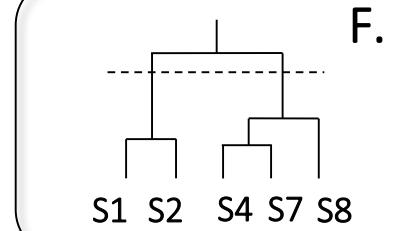
S<sub>2</sub>

S<sub>4</sub>

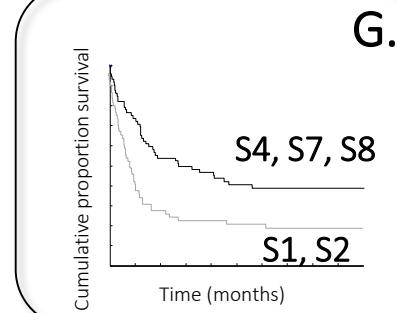
S<sub>7</sub>

S<sub>8</sub>

Hierarchical clustering



Cut tree on the leaves  
that select 2 groups



A.

B.

C.

D.

E.

Test for prognostic value  
between the two groups