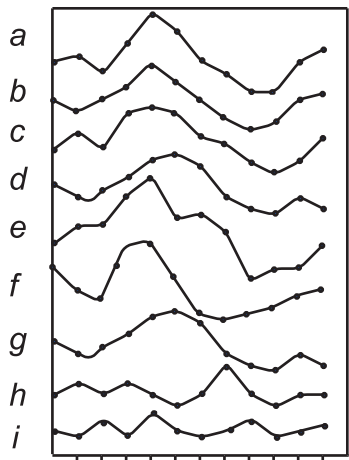


gene expression profiles



transcription factor binding p -values

	TF1	TF2	TF3	TF4	TF5	TF6	TF7
a	< p 1	< p 1	< p 1	< p 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1
b	< p 1	< p 1	< p 1	< p 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1
c	< p 1	< p 1	< p 1	< p 1	$\geq p$ 1	$\geq p$ 1	< p 1
d	< p 1	< p 1	< p 1	< p 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1
e	< p 1	< p 1	< p 1	< p 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1
f	< p 1	$\geq p$ 1	< p 1	< p 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1
g	$\geq p$ 1	< p 1	< p 1	< p 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1
h	< p 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1	$\geq p$ 1	< p 1
i	$\geq p$ 1	$\geq p$ 1	< p 1	$\geq p$ 1	< p 1	$\geq p$ 1	$\geq p$ 1

determine core gene set,
calculate center expression profile

core gene set [a,b,c,d,e]

re-calculate combined p -values

combined p -values

a	< p 1
b	< p 1
c	< p 1
d	< p 1
e	< p 1
f	< p 1
g	< p 1
h	$\geq p$ 1
i	$\geq p$ 1

final gene module
 $G = [a,b,c,d,e,f,g]$
 as regulated by transcription factors
 $F = [TF1, TF2, TF3, TF4]$