

### ASXL3 (non-ER binding) ATM (non-ER binding) [<=60] p = 0.39277No detectable trend: [<=60] p = 0.039043No detectable trend: 16 16 [>60] p = 0.67944[>60] p = 0.34992 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.2492[All] p = 0.334854 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 $\infty$ $\infty$ 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis ATR (non-ER binding) **AXIN1 (ER binding)** [<=60] p = 0.87446No detectable trend: [<=60] p = 0.92071No detectable trend: 16 16 [>60] p = 0.20894 [>60] p = 0.05755 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.28506[All] p = 0.919524 4 log2(Raw expression) log2(Raw expression) 12 12 19 10 $\infty$ $\infty$ 9 9

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Age at diagnosis

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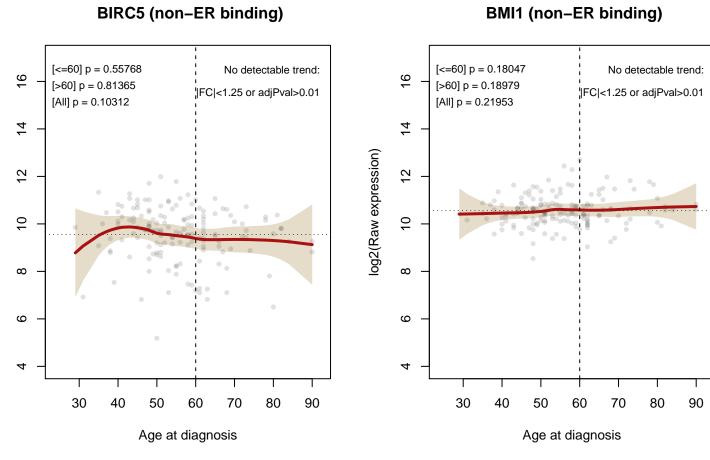
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Age at diagnosis

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### **BCL3 (non-ER binding) BCL2 (non-ER binding)** [<=60] p = 0.8545No detectable trend: [<=60] p = 0.83959No detectable trend: 16 16 [>60] p = 0.087222 [>60] p = 0.70592 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.097917[All] p = 0.177664 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis BIRC5 (non-ER binding) **BMI1 (non-ER binding)** [<=60] p = 0.55768No detectable trend: [<=60] p = 0.1804716 16 [>60] p = 0.18979 [>60] p = 0.81365 FC|<1.25 or adjPval>0.01 [All] p = 0.10312[All] p = 0.219534 4 log2(Raw expression)



### **BRCA1** (non-ER binding) BMX (non-ER binding) [<=60] p = 0.29988No detectable trend: [<=60] p = 0.22728No detectable trend: 16 16 [>60] p = 0.91315 [>60] p = 0.30828 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.99602[All] p = 0.703874 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 70 80 90 30 40 50 60 70 80 90 60 Age at diagnosis Age at diagnosis CA9 (non-ER binding) **CBX1** (non-ER binding) [<=60] p = 0.13454No detectable trend: [<=60] p = 0.60962No detectable trend: 16 16 [>60] p = 0.64067[>60] p = 0.10029 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.62658[All] p = 0.175094 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9

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Age at diagnosis

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Age at diagnosis

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### **CBX2** (non-ER binding) CBX4 (non-ER binding) [<=60] p = 0.33692No detectable trend: [<=60] p = 0.79639No detectable trend: 16 16 [>60] p = 0.53489 [>60] p = 0.40949 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.49787[All] p = 0.415664 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis CBX6 (non-ER binding) **CBX7 (non-ER binding)** [<=60] p = 0.78423No detectable trend: [<=60] p = 0.50361No detectable trend: 16 16 [>60] p = 0.27223 [>60] p = 0.49407 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.76884[All] p = 0.359234 4 log2(Raw expression) log2(Raw expression) 12 12 19 10 ω ω 9 9

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Age at diagnosis

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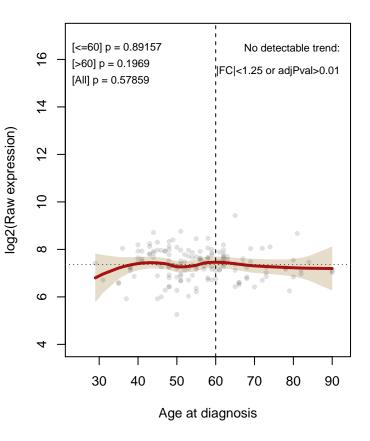
Age at diagnosis

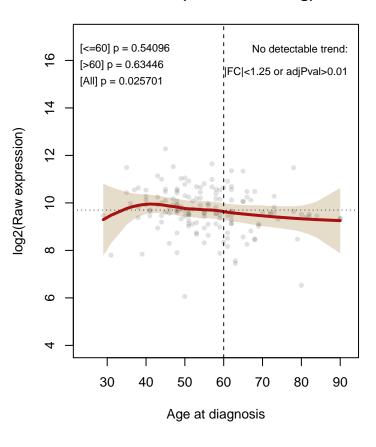
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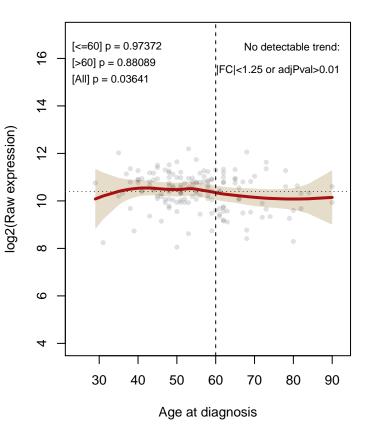
### CCNA2 (non-ER binding)

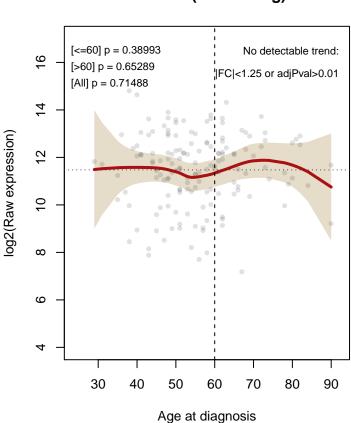


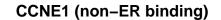


## CCNB1 (non-ER binding)

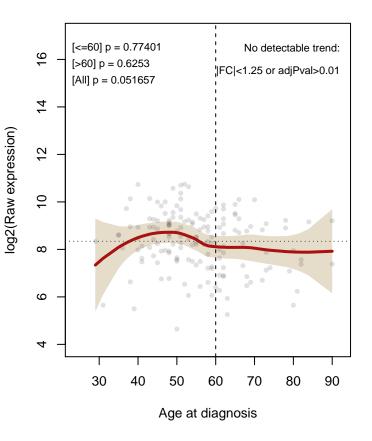
### **CCND1 (ER binding)**

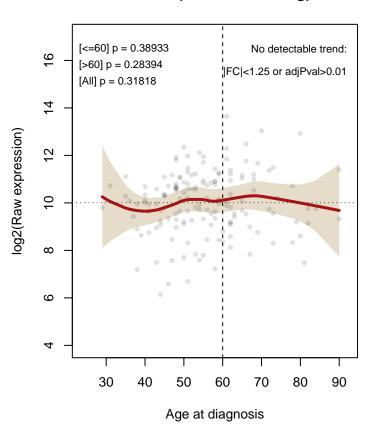






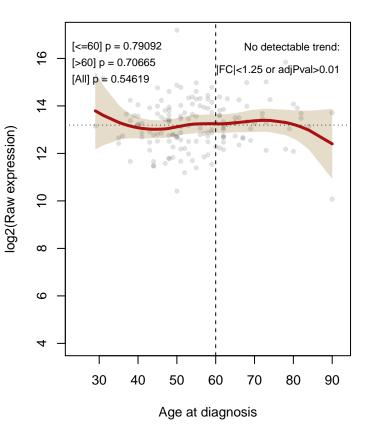
### CD163 (non-ER binding)

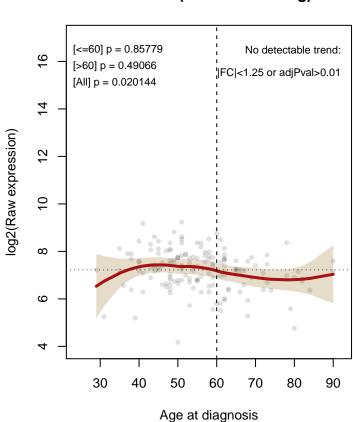


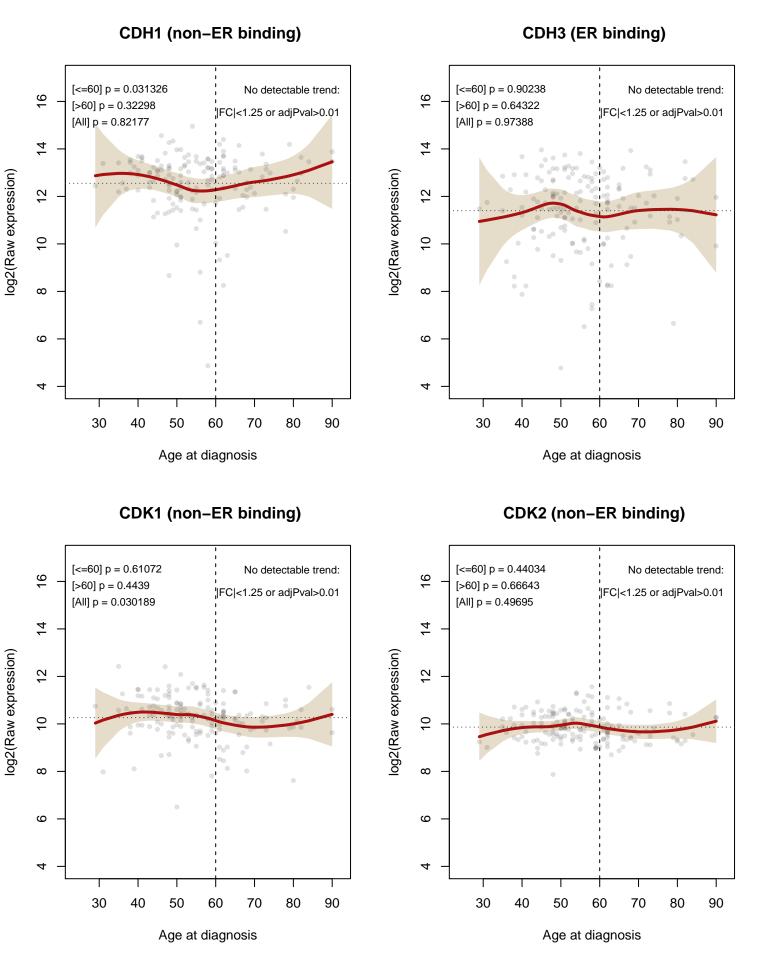


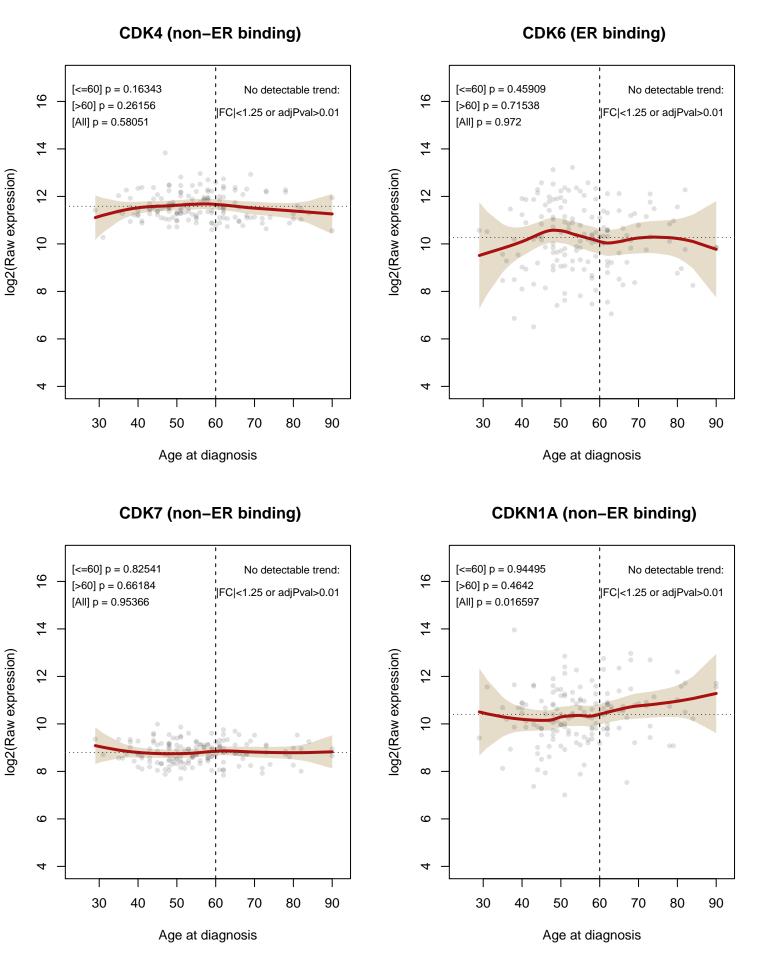
## CD44 (non-ER binding)

CDC25C (non-ER binding)

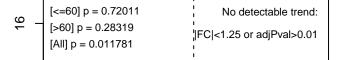


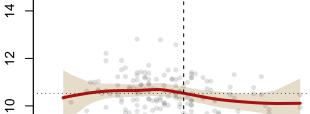




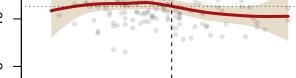


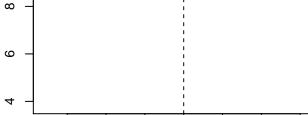
### CDKN1B (non-ER binding)





log2(Raw expression)





Age at diagnosis

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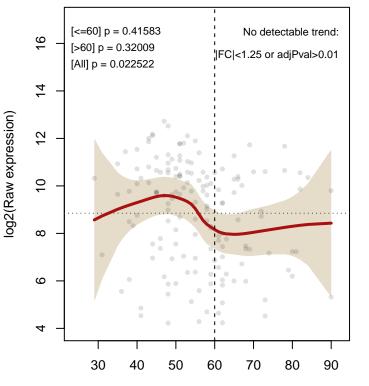
## CDKN2A (non-ER binding)

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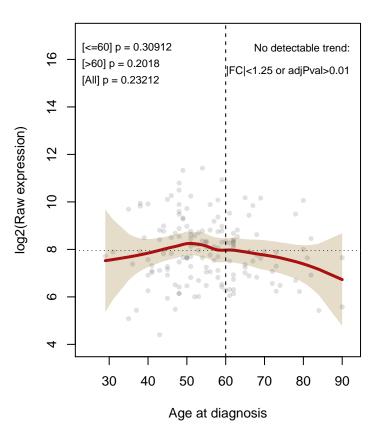
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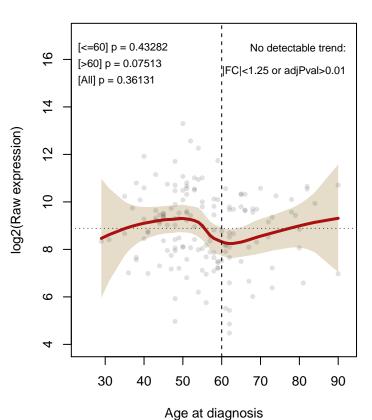


Age at diagnosis

### CDKN1C (non-ER binding)

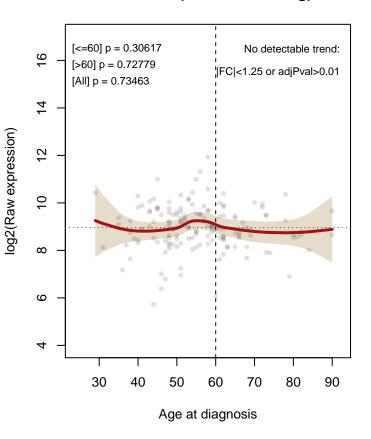


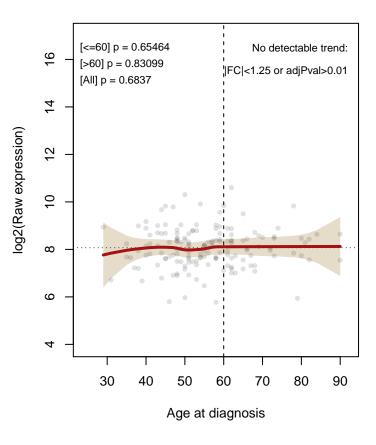
### CDKN2B (non-ER binding)



### CDKN2C (non-ER binding)

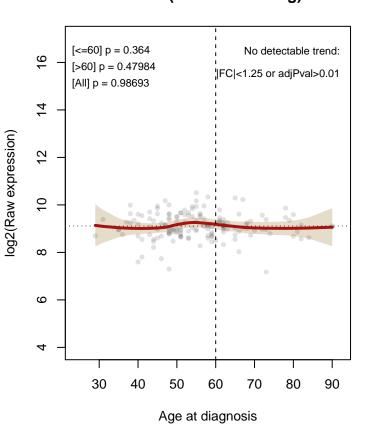
### CDKN2D (non-ER binding)

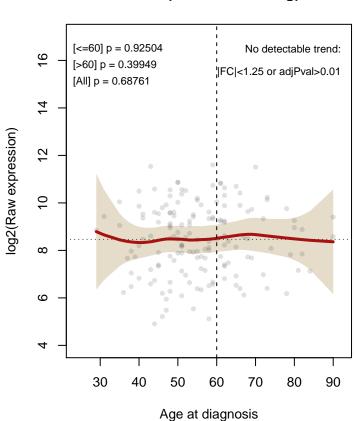




## CHUK (non-ER binding)

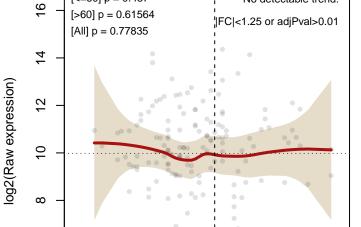
CIITA (non-ER binding)





### CLDN3 (non-ER binding)

# [<=60] p = 0.437 No detectable trend:



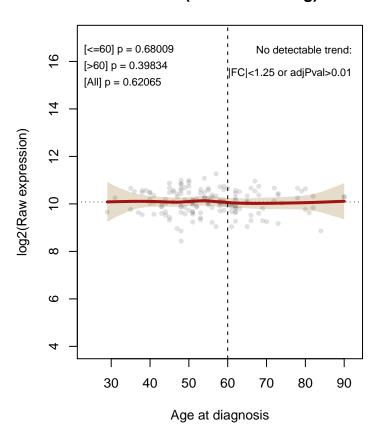
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### CREB1 (non-ER binding)



### CRYAB (non-ER binding)

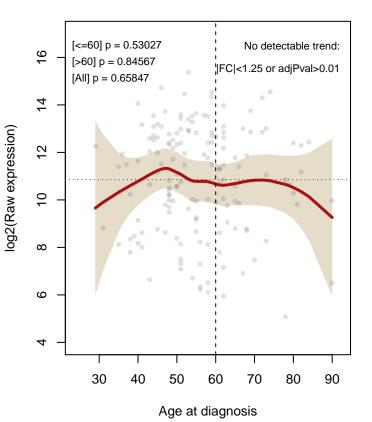
Age at diagnosis

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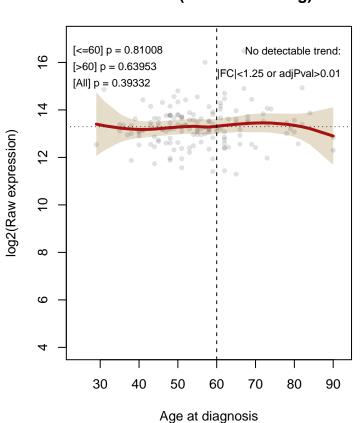
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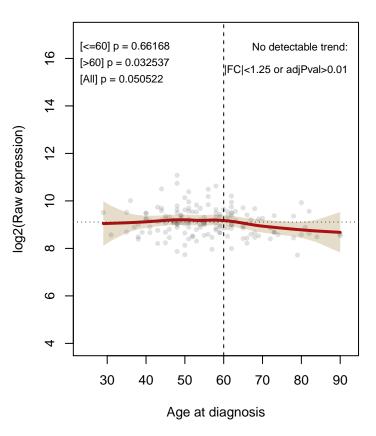


## CTNNB1 (non-ER binding)



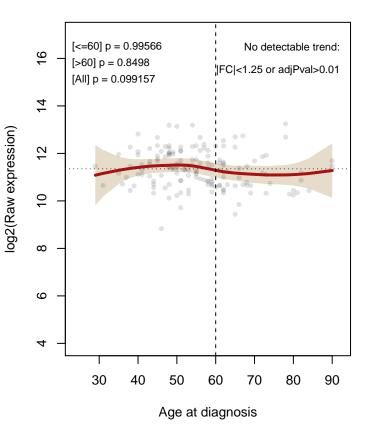
## **DLC1 (ER binding)** [<=60] p = 0.85259No detectable trend: 16 [>60] p = 0.67848 FC|<1.25 or adjPval>0.01 [AII] p = 0.605054 log2(Raw expression) 12 10 ω 9 30 40 50 60 70 80 90

### DMAP1 (non-ER binding)

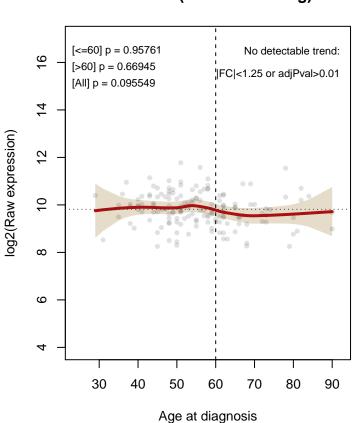


**DNMT1** (non-ER binding)

Age at diagnosis



## **DNMT3A (non-ER binding)**



### **DVL1 (non-ER binding) DNMT3B** (non-ER binding) [<=60] p = 0.98731No detectable trend: [<=60] p = 0.5239No detectable trend: 16 16 [>60] p = 0.49033 [>60] p = 0.86817 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.49657[AII] p = 0.740954 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis E2F1 (non-ER binding) E2F2 (non-ER binding) [<=60] p = 0.96592No detectable trend: [<=60] p = 0.57147No detectable trend: 16 16 [>60] p = 0.95254 [>60] p = 0.89273 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.071631[All] p = 0.0451114 4 log2(Raw expression) log2(Raw expression) 12 12 19 10 ω ω

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Age at diagnosis

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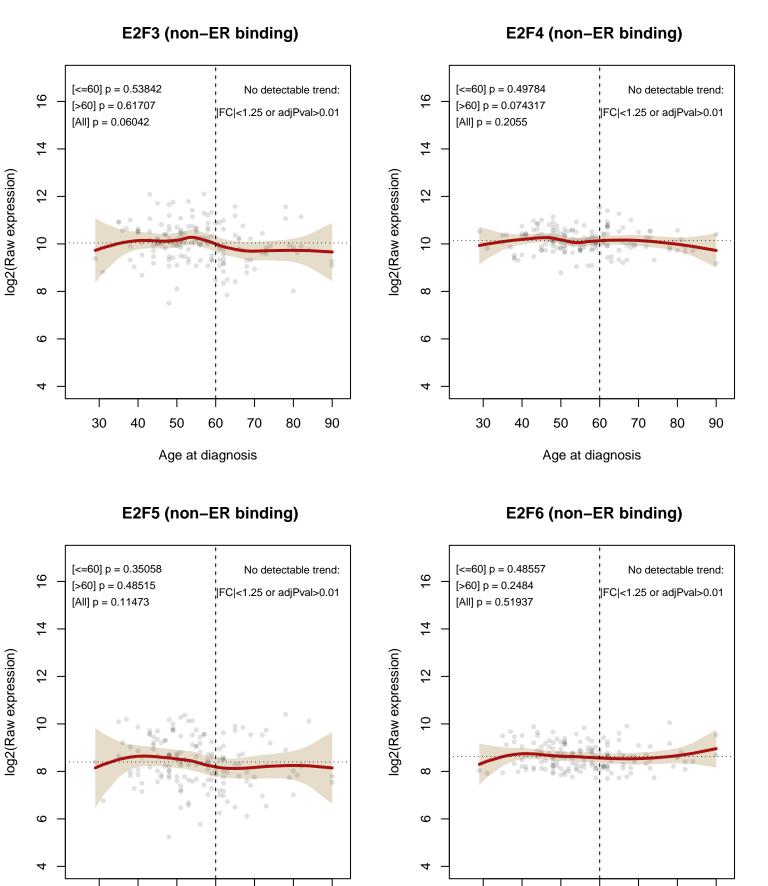
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Age at diagnosis

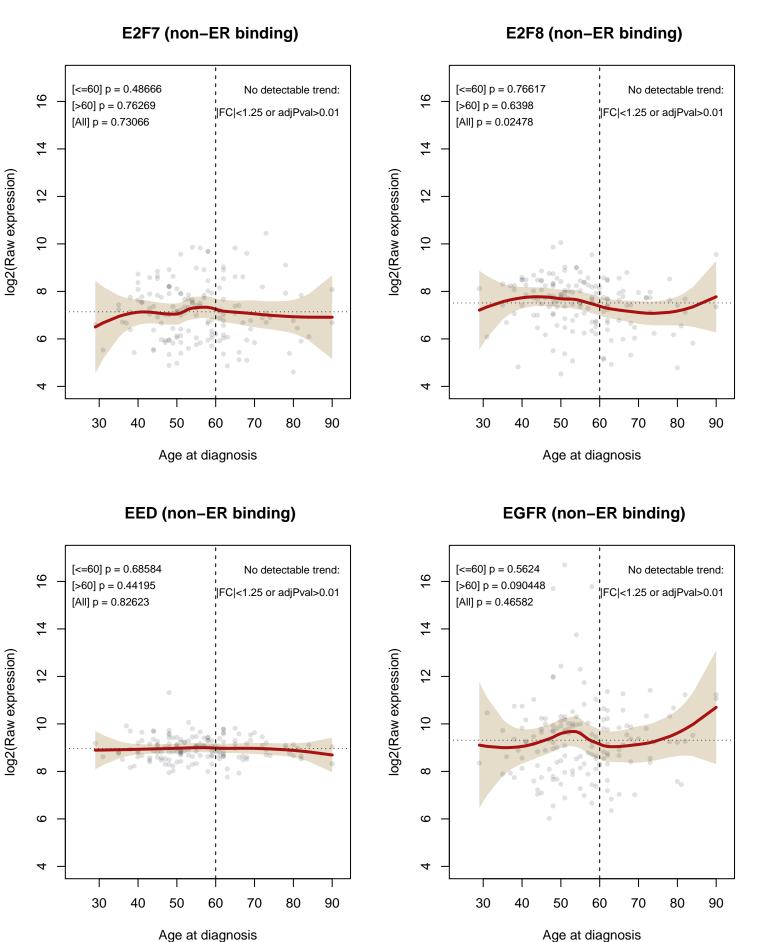
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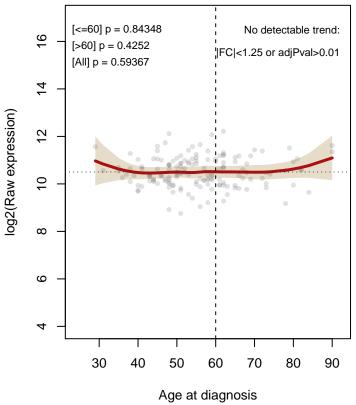
Age at diagnosis

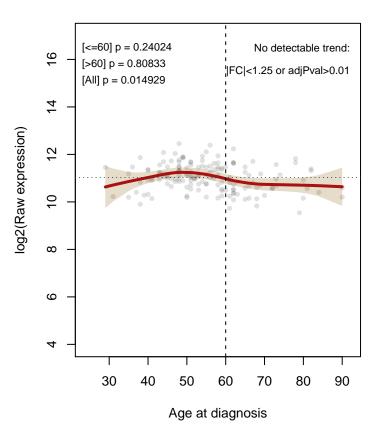
Age at diagnosis





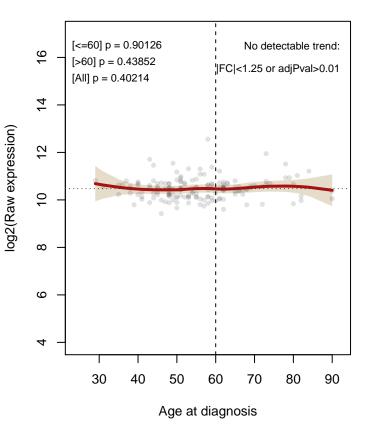
### **EHMT2** (non-ER binding)

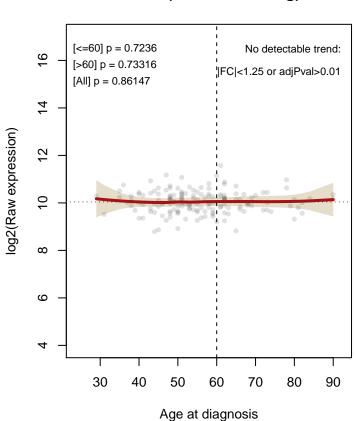




**ELAC2 (non-ER binding)** 

**ELK1 (non-ER binding)** 





### EP300 (non-ER binding) **EPAS1** (non-ER binding) [<=60] p = 0.5645No detectable trend: [<=60] p = 0.60365No detectable trend: 16 16 [>60] p = 0.80621 [>60] p = 0.88249 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.040342[All] p = 0.407314 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis **EPC1** (non-ER binding) **EPC2** (non-ER binding) [<=60] p = 0.57595No detectable trend: [<=60] p = 0.36216No detectable trend: 16 16 [>60] p = 0.61268[>60] p = 0.55157 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.11108[All] p = 0.570874 4 log2(Raw expression) log2(Raw expression) 12 12 19 10 ω ω

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Age at diagnosis

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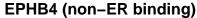
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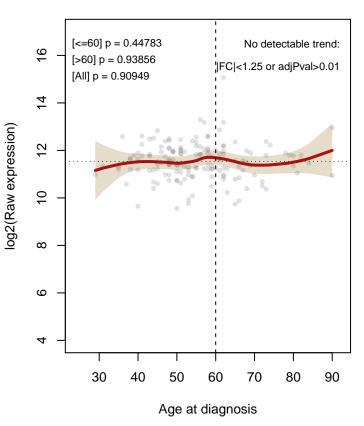
Age at diagnosis

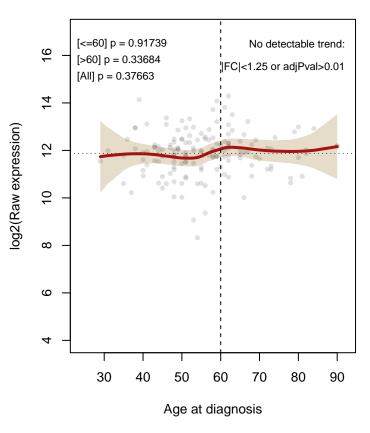
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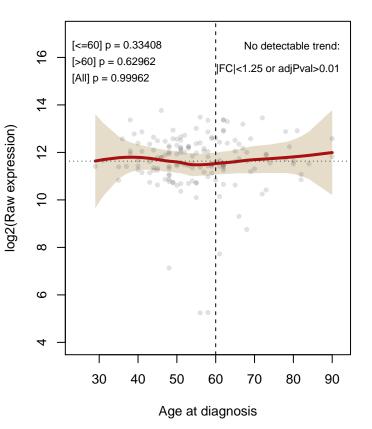
## **ERBB2** (non-ER binding)

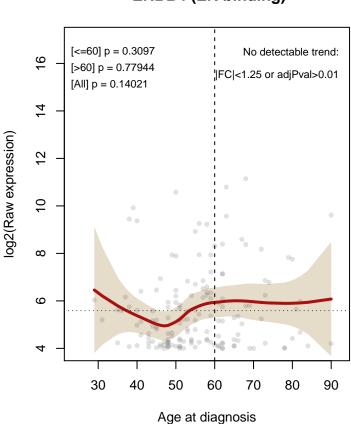


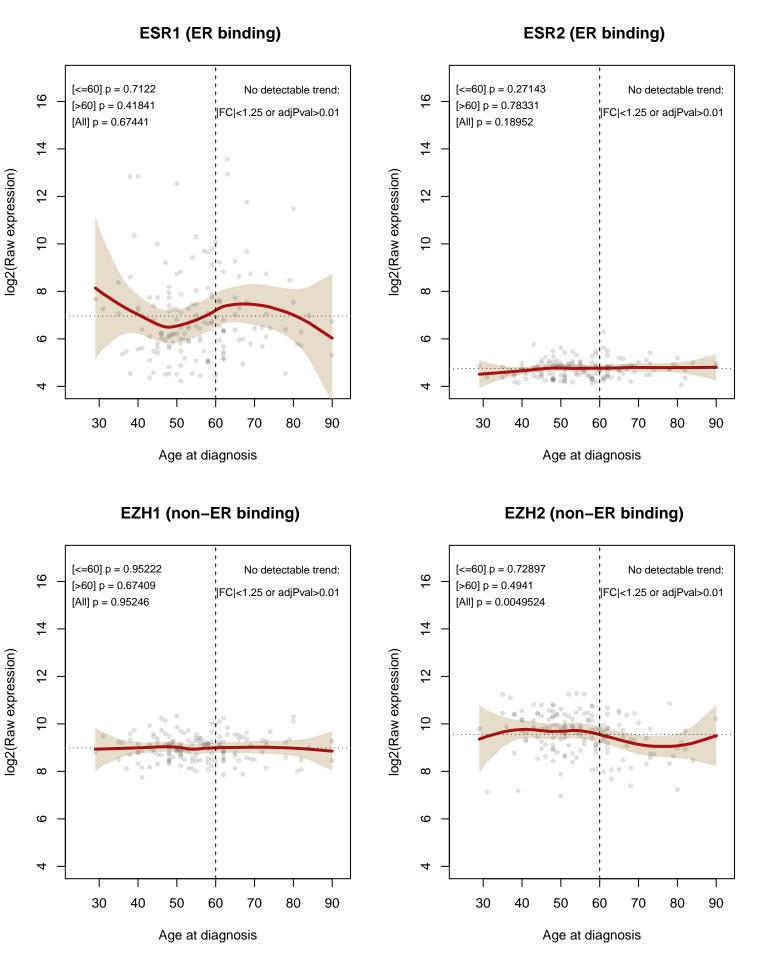


## ERBB3 (non-ER binding)

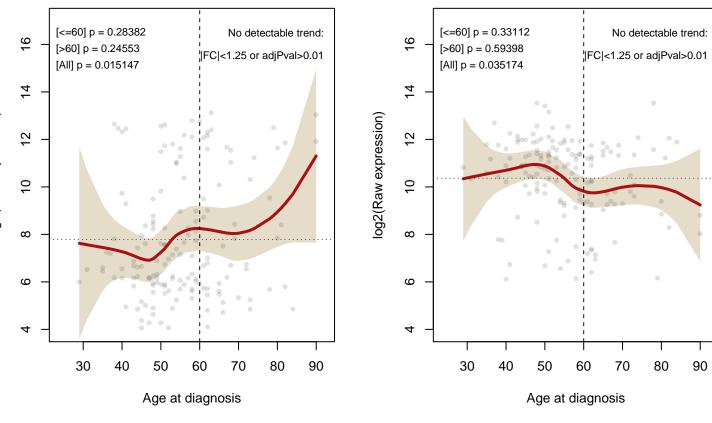
**ERBB4 (ER binding)** 

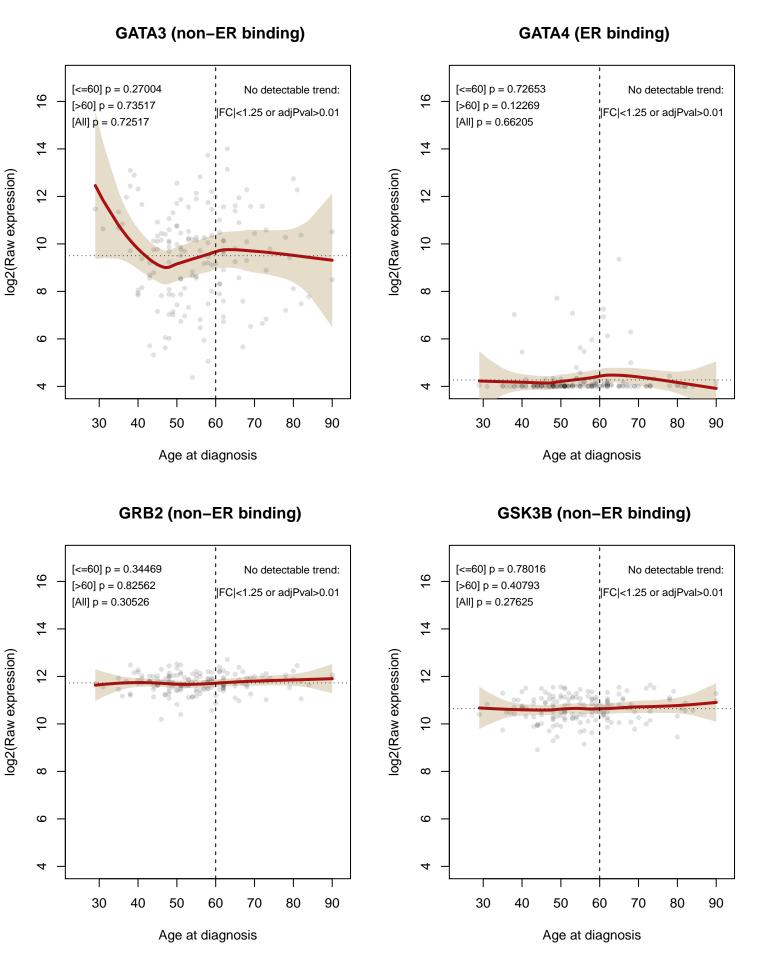


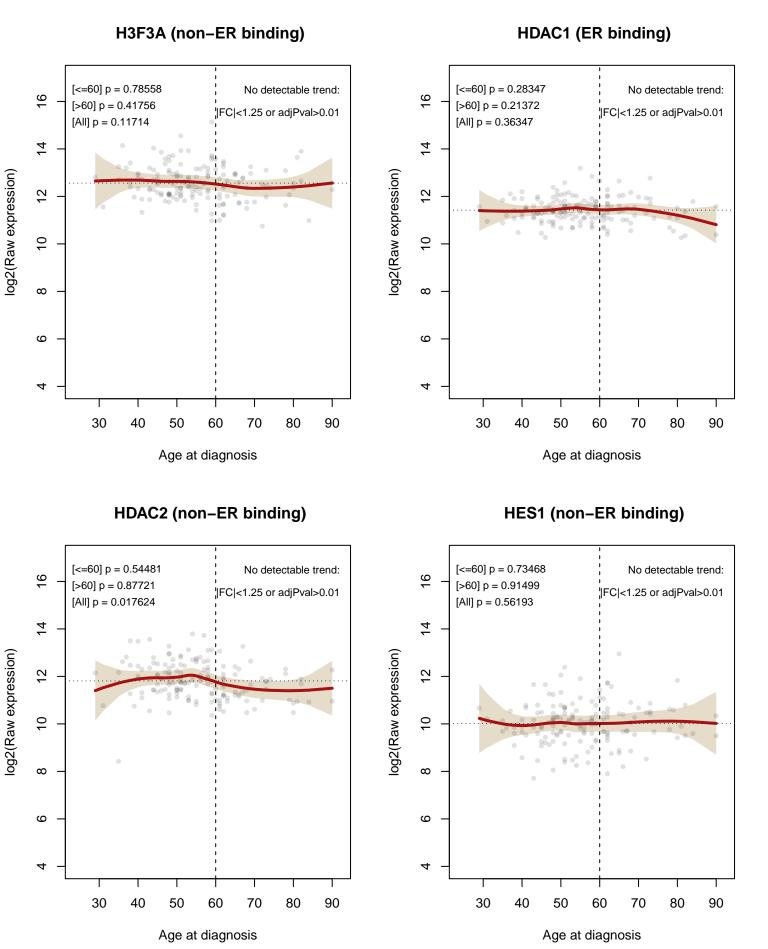


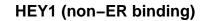


### FOS (non-ER binding) FOSL1 (non-ER binding) [<=60] p = 0.86776No detectable trend: [<=60] p = 0.41106No detectable trend: 16 16 [>60] p = 0.78389 [>60] p = 0.32873 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.23955[All] p = 0.706534 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis **FOXC1 (ER binding)** FOXA1 (ER binding) [<=60] p = 0.28382No detectable trend: [<=60] p = 0.33112 No detectable trend: 16 16 [>60] p = 0.24553 [>60] p = 0.59398 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.015147[All] p = 0.0351744 4 log2(Raw expression) 12 12

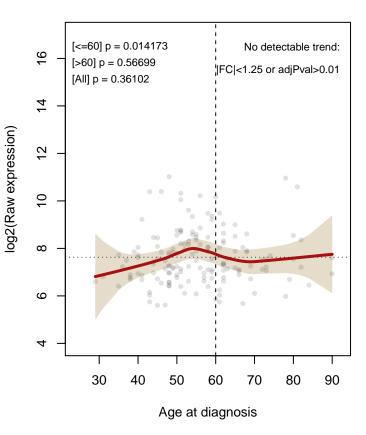


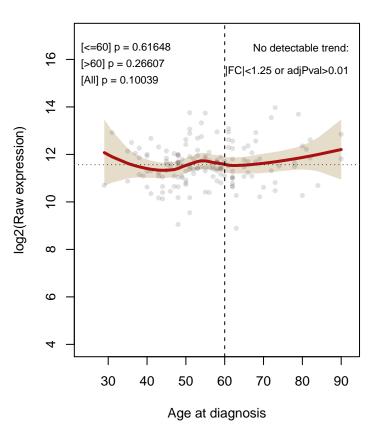






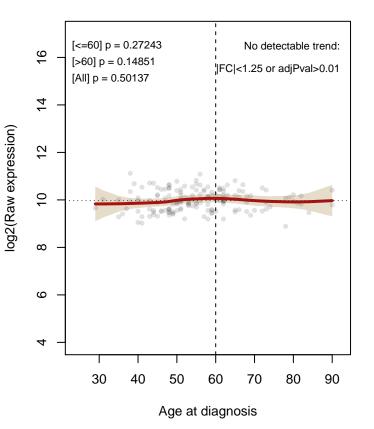
### HIF1A (non-ER binding)

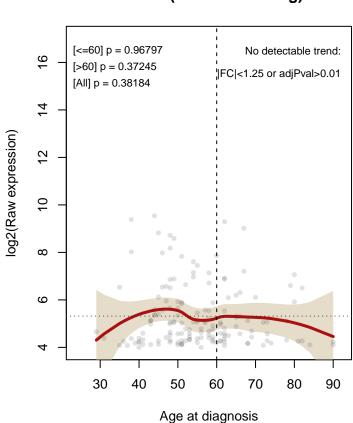




## HIF1AN (non-ER binding)

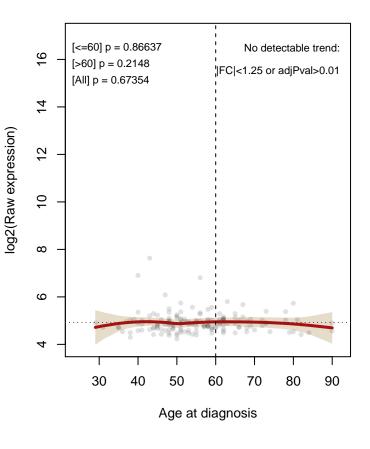
HIF3A (non-ER binding)

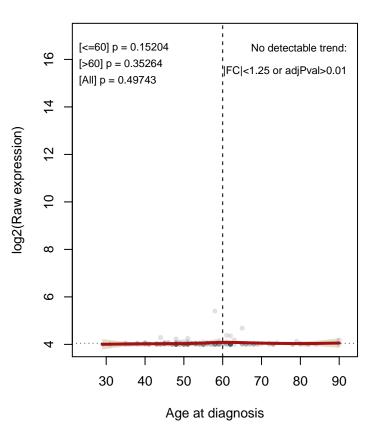




### **HNF1A** (non-ER binding)

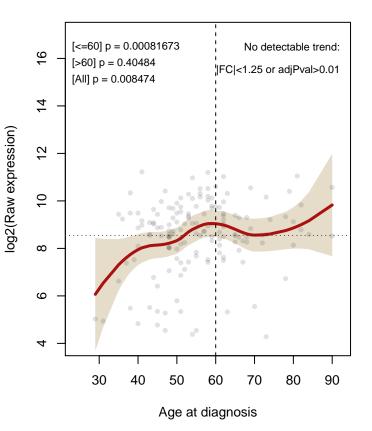
### **HNF1B** (non-ER binding)

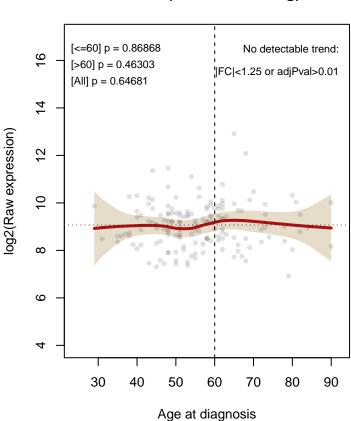




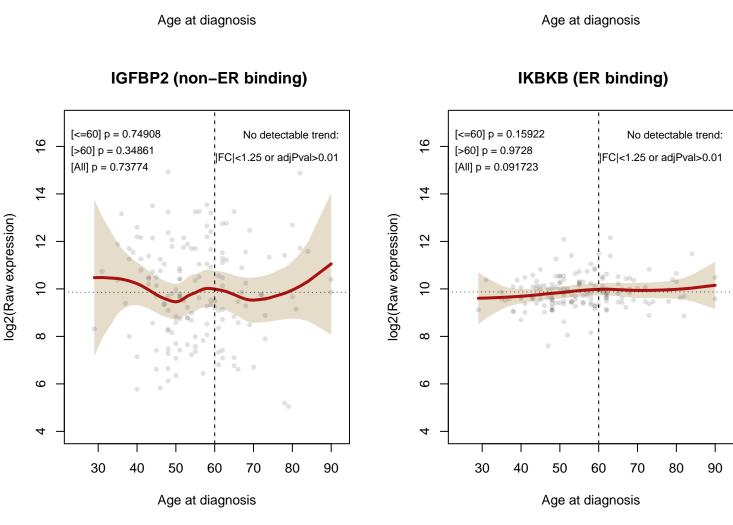
### **HOXC10 (non-ER binding)**

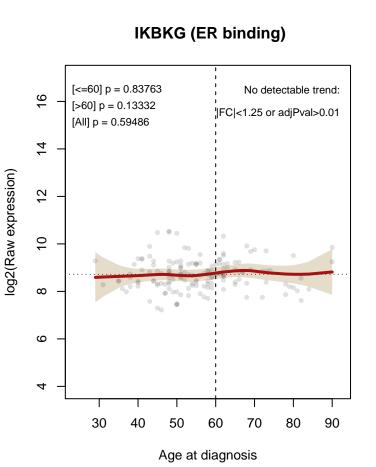
HRAS (non-ER binding)



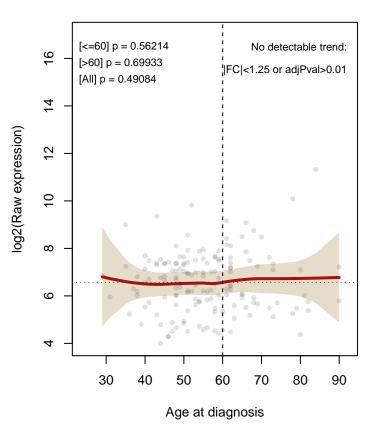


### **HSPB1** (non-ER binding) IGF1R (ER binding) [<=60] p = 0.74903No detectable trend: [<=60] p = 0.25606No detectable trend: 16 16 [>60] p = 0.92376 [>60] p = 0.98345 |FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.62509[All] p = 0.0169834 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 70 80 90 30 40 50 60 70 80 60 Age at diagnosis Age at diagnosis IGFBP2 (non-ER binding) **IKBKB (ER binding)**

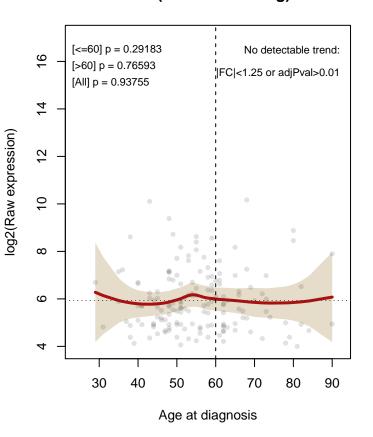




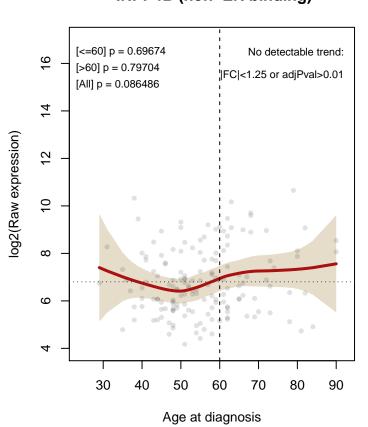
### IL2RA (non-ER binding)

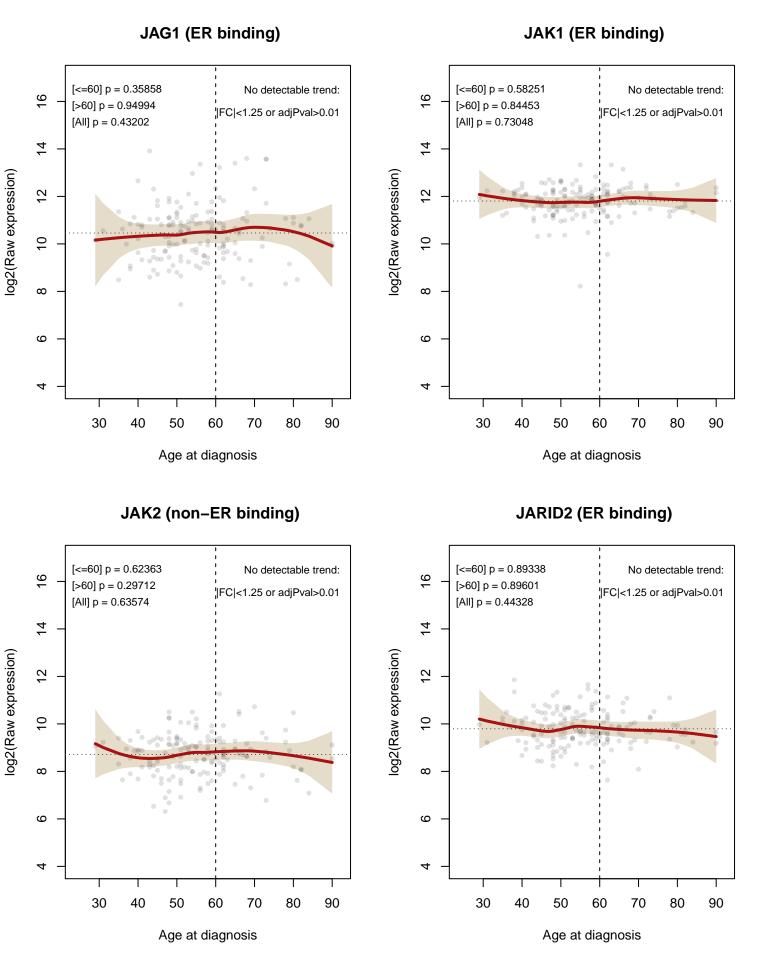


IL6 (non-ER binding)



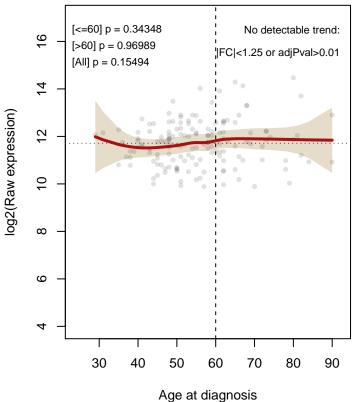
### INPP4B (non-ER binding)

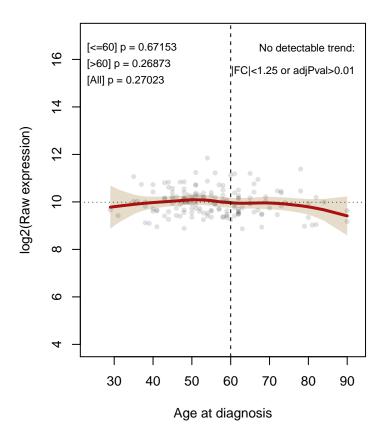






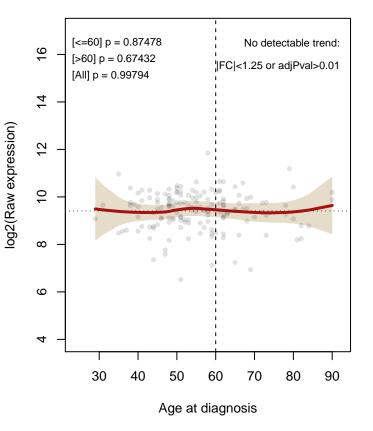
### KDM2B (non-ER binding)

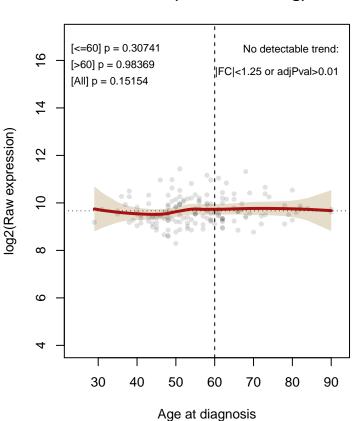




KDM6A (non-ER binding)

**KDM6B** (non-ER binding)







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[>60] p = 0.4499

[AII] p = 0.56666

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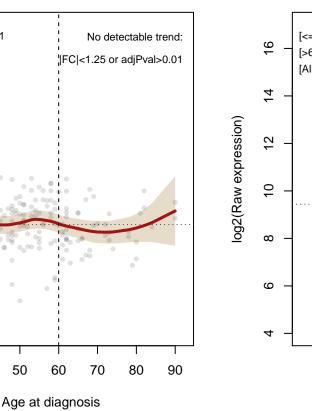
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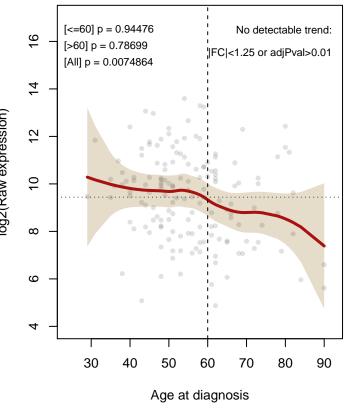
ω

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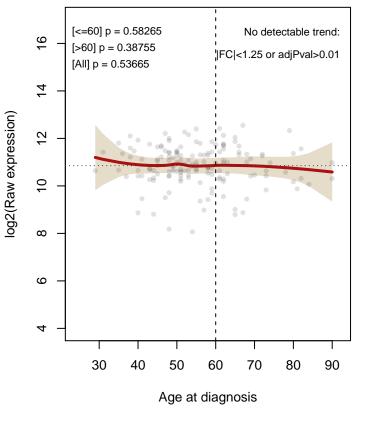
log2(Raw expression)

### KIT (non-ER binding)

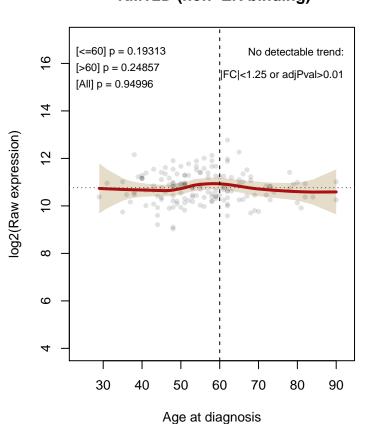




### KMT2C (non-ER binding)

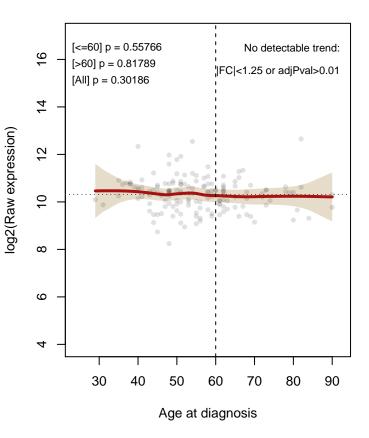


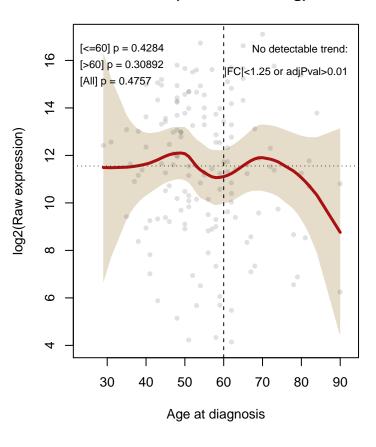
### KMT2D (non-ER binding)





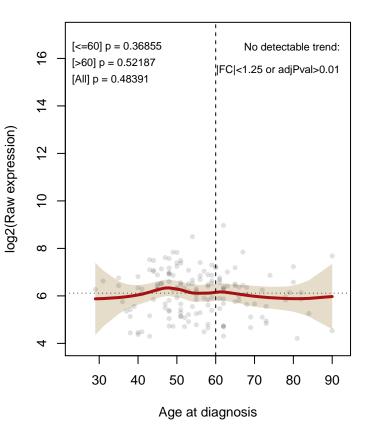
### KRT5 (non-ER binding)

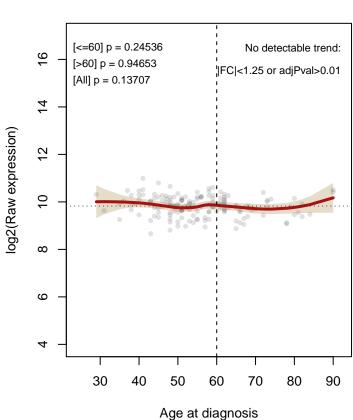




### L3MBTL1 (non-ER binding)

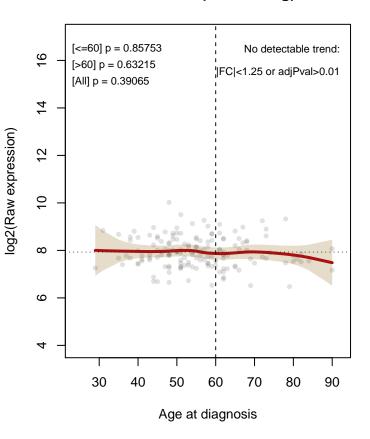
### L3MBTL2 (non-ER binding)

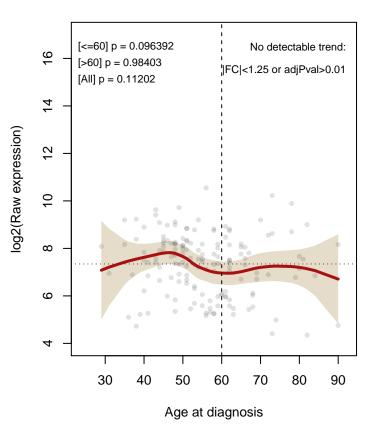




### L3MBTL3 (ER binding)

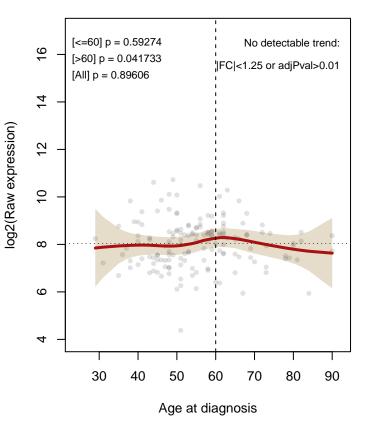
### L3MBTL4 (non-ER binding)

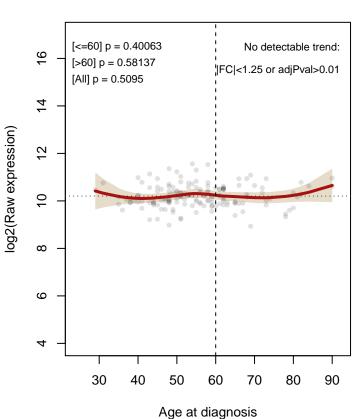




LEF1 (non-ER binding)

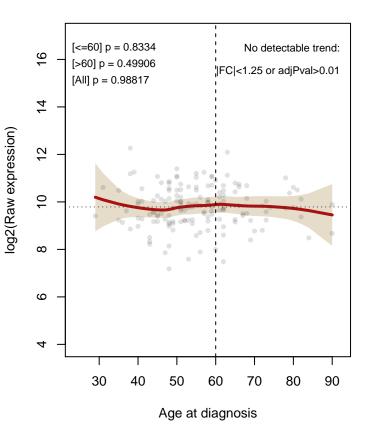
MAP2K1 (non-ER binding)

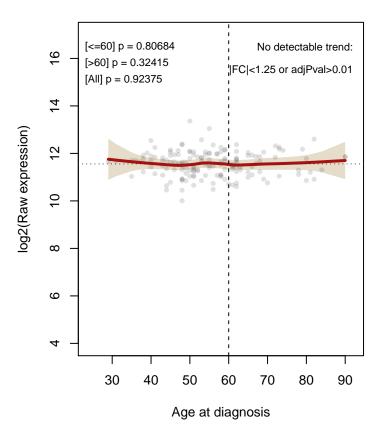






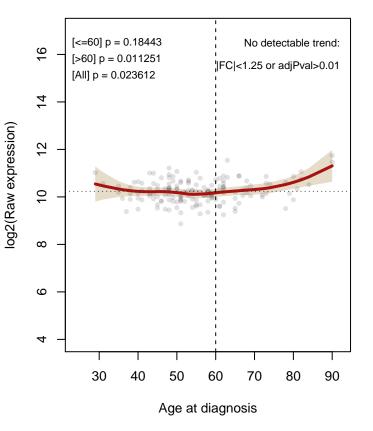
### MAPK1 (non-ER binding)

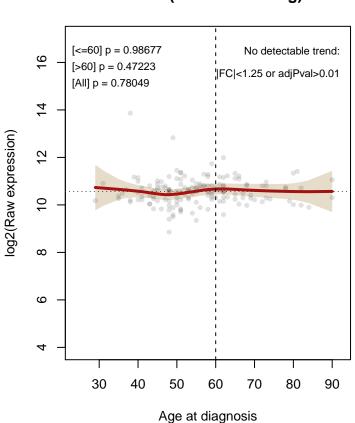




## MAPK3 (non-ER binding)

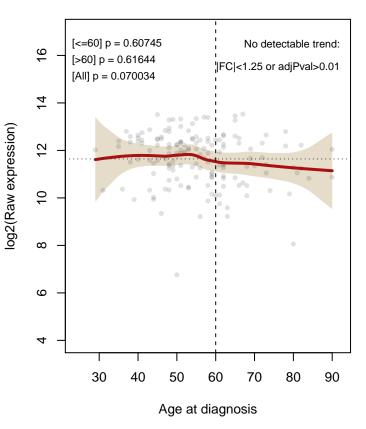
### MDM2 (non-ER binding)

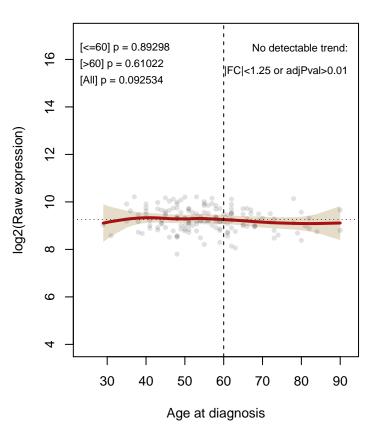






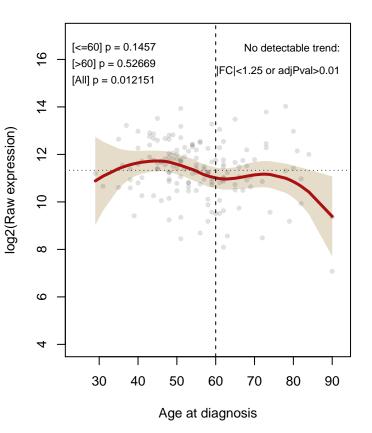
### MTF2 (non-ER binding)

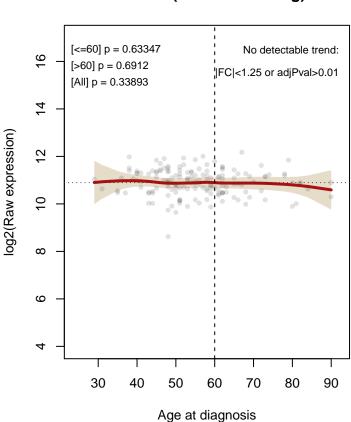




## MYC (non-ER binding)

NCOA6 (non-ER binding)





### NCOR1 (non-ER binding) [<=60] p = 0.42062No detectable trend: 16 [>60] p = 0.2719 FC|<1.25 or adjPval>0.01 [AII] p = 0.183644 log2(Raw expression) 12 10

ω

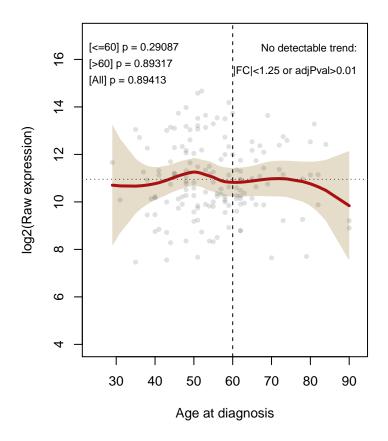
9

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### **NES (non-ER binding)**



NFKB1 (non-ER binding)

Age at diagnosis

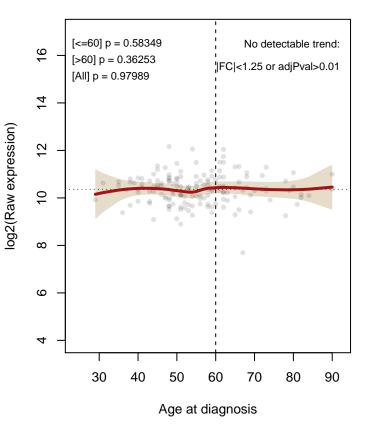
60

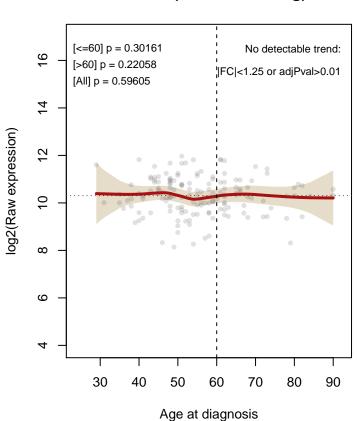
70

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90

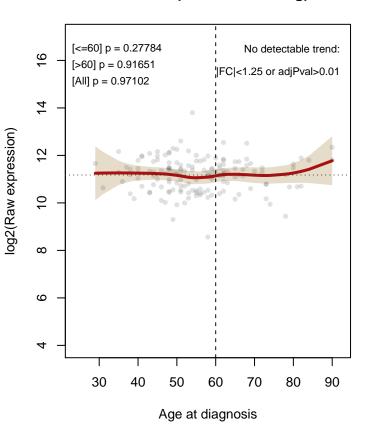
NFKB2 (non-ER binding)

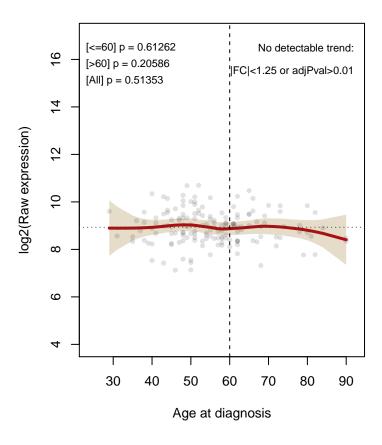




### NFKBIA (non-ER binding)

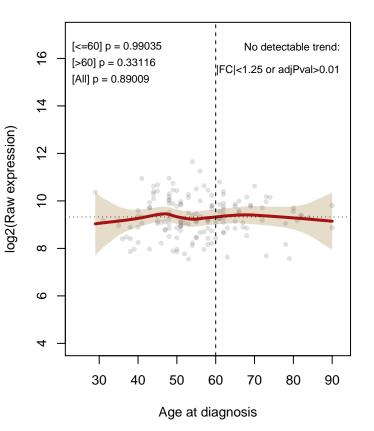
### NFKBIB (non-ER binding)

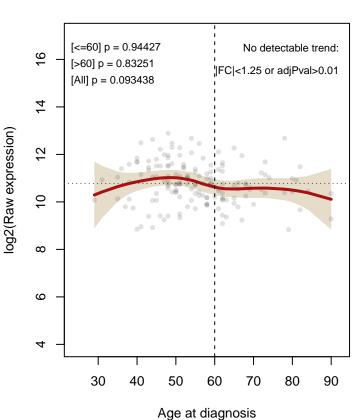




### **NFKBIE** (non-ER binding)

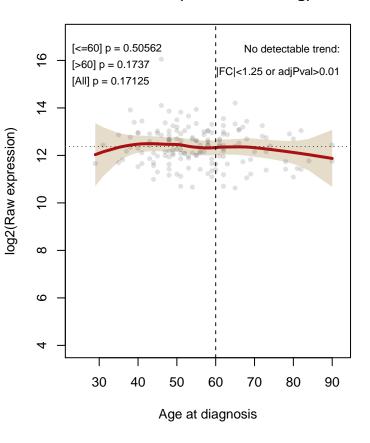
### NOTCH1 (non-ER binding)

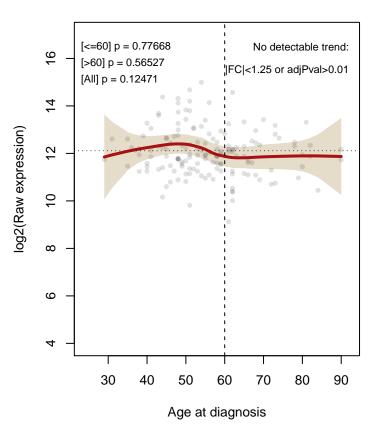




### NOTCH2 (non-ER binding)

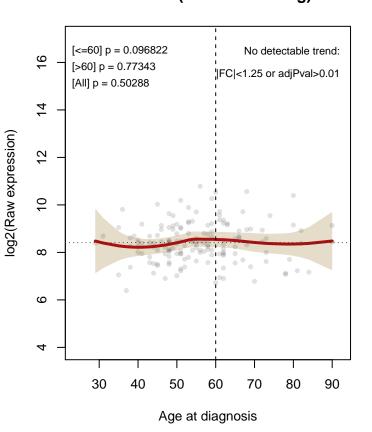
### NOTCH3 (non-ER binding)

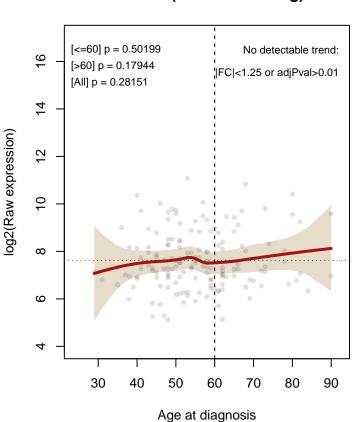


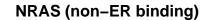


### NOTCH4 (non-ER binding)

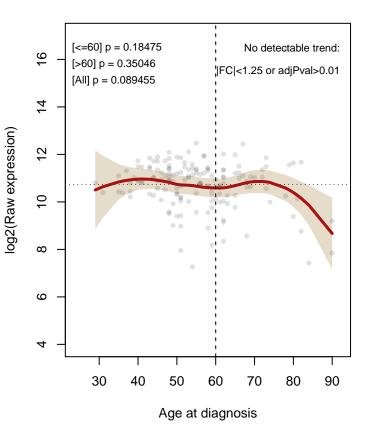
### NR4A2 (non-ER binding)

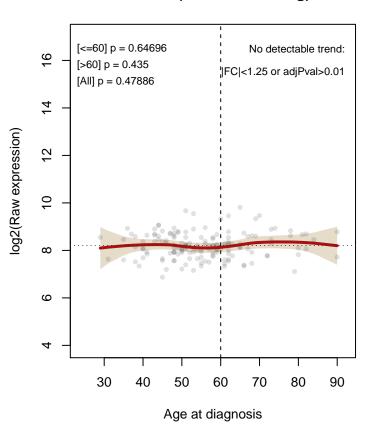






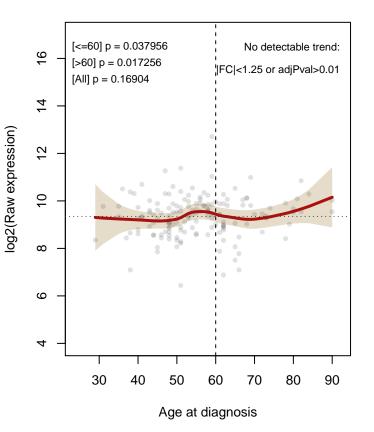
### PCGF1 (non-ER binding)

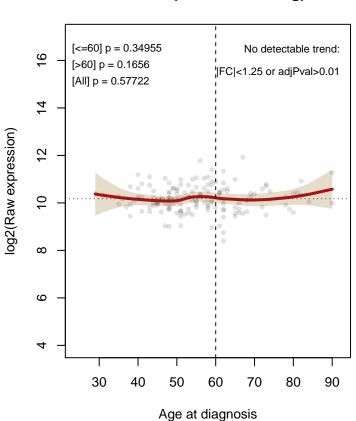


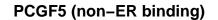


### PCGF2 (non-ER binding)

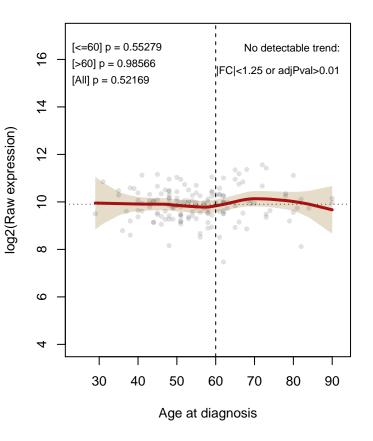
### PCGF3 (non-ER binding)

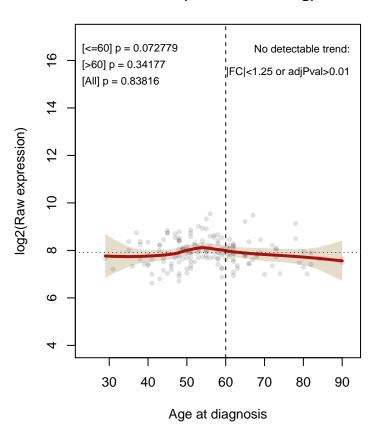






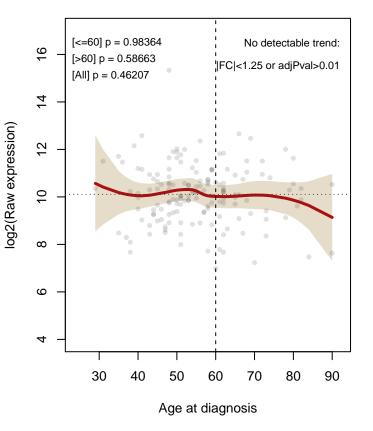
### PCGF6 (non-ER binding)

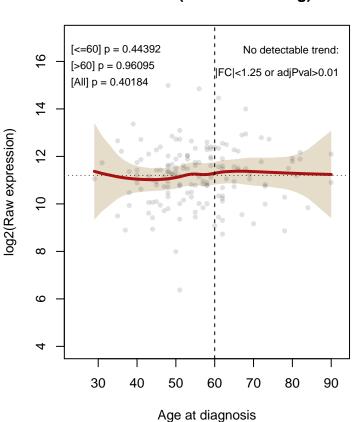


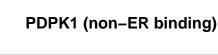


### PDGFRA (non-ER binding)

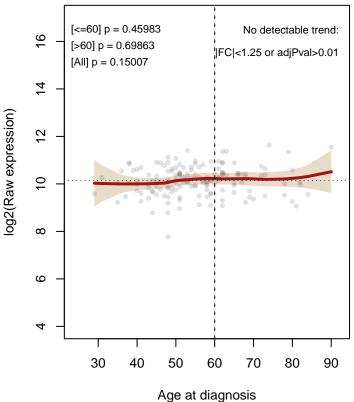
PDGFRB (non-ER binding)

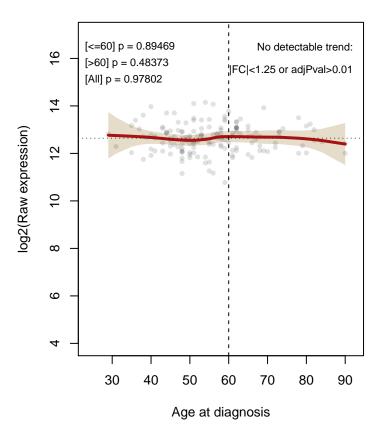






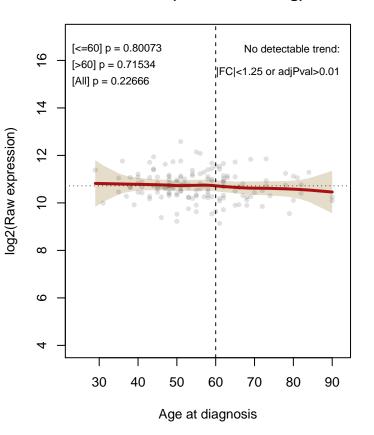
### PEBP1 (non-ER binding)

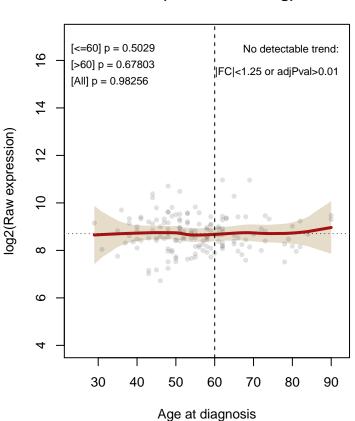


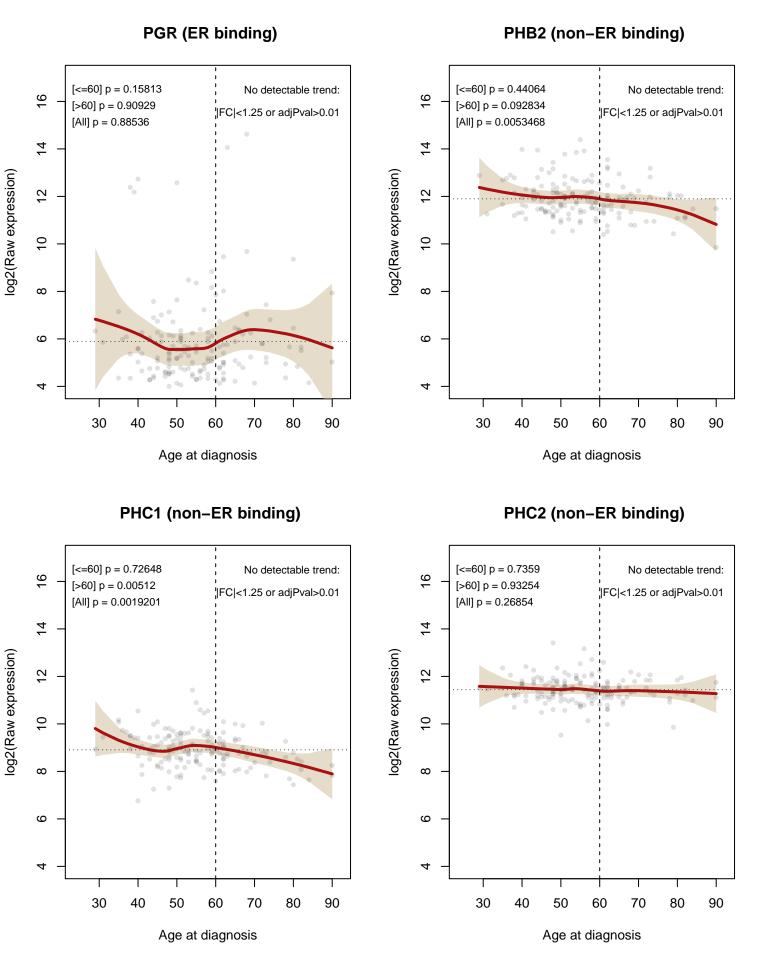


PELP1 (non-ER binding)

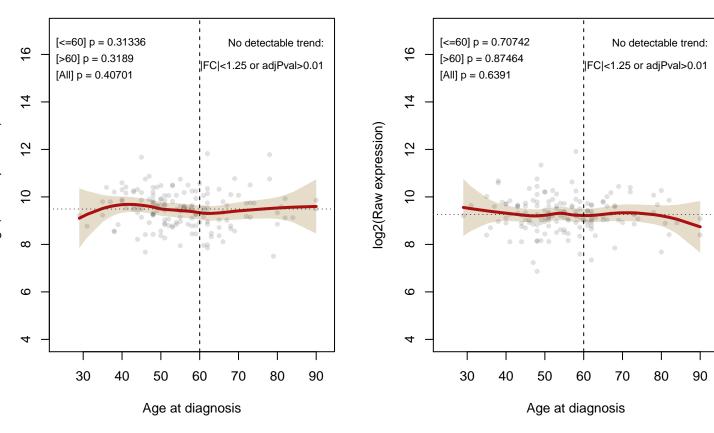
PGP (non-ER binding)





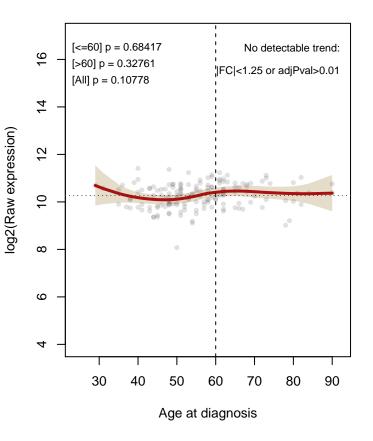


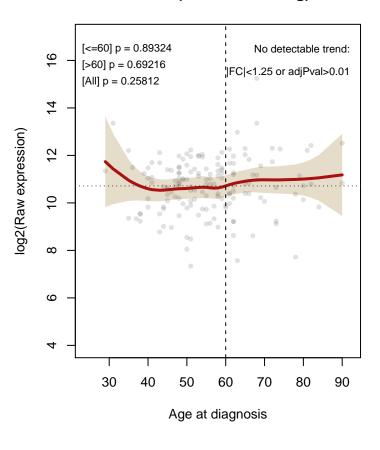
### PHC3 (non-ER binding) PHF1 (non-ER binding) [<=60] p = 0.50389No detectable trend: [<=60] p = 0.022557No detectable trend: 16 16 [>60] p = 0.59059 [>60] p = 0.9634FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.85159[All] p = 0.0237374 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis PHF19 (non-ER binding) PIK3CA (non-ER binding) [<=60] p = 0.31336No detectable trend: [<=60] p = 0.70742No detectable trend: 16 16 [>60] p = 0.87464[>60] p = 0.3189 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.40701[All] p = 0.63914 4 log2(Raw expression)





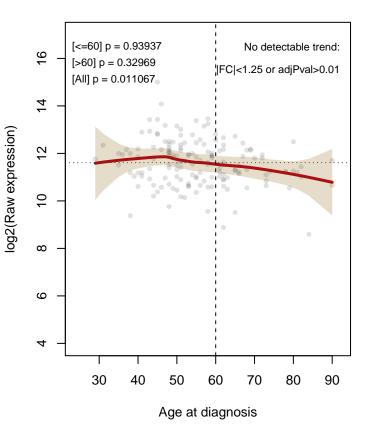
### PLAU (non-ER binding)

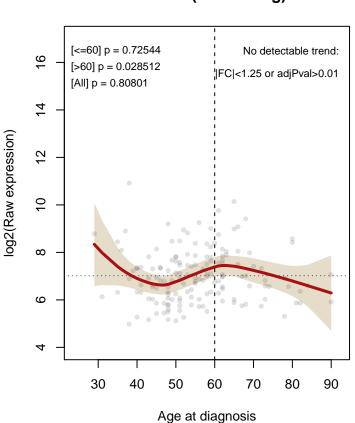




### PODXL (non-ER binding)

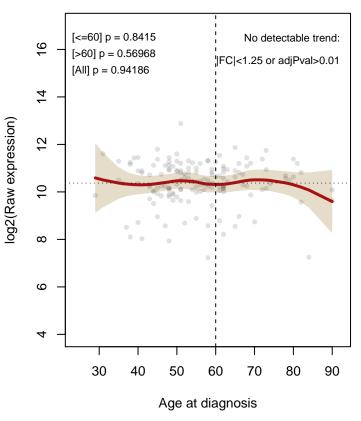
**PPARG (ER binding)** 

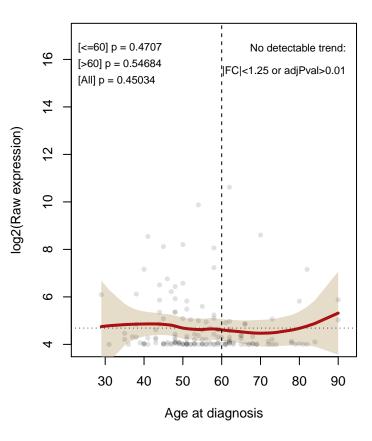






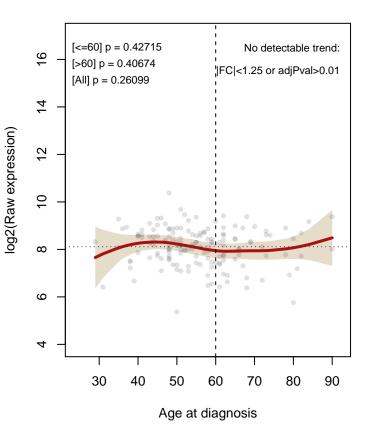
### **PYDC1** (non-ER binding)

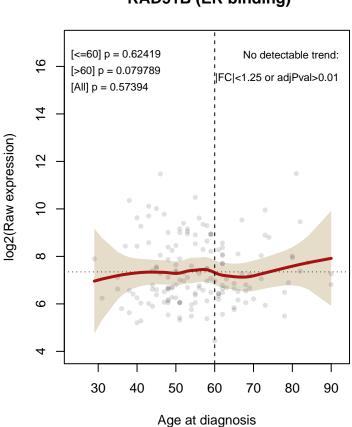




RAD51 (non-ER binding)

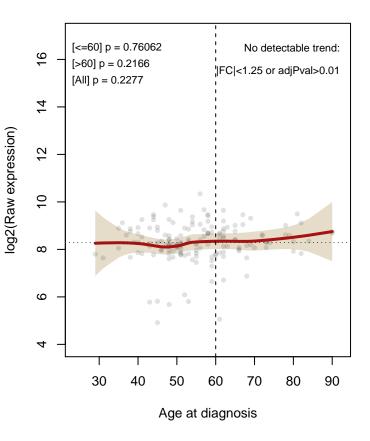
RAD51B (ER binding)

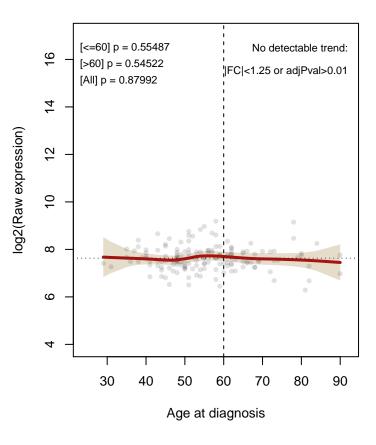




### RAD51C (non-ER binding)

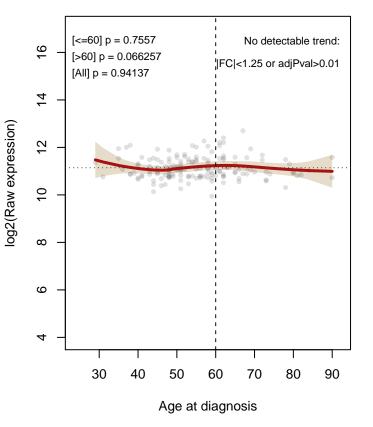
### RAD51D (non-ER binding)

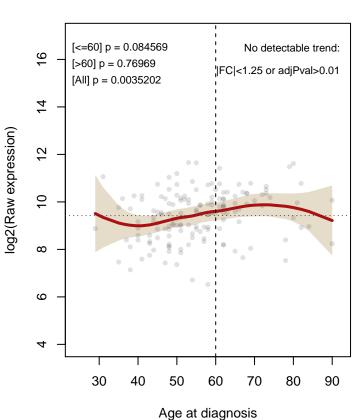




RAF1 (non-ER binding)

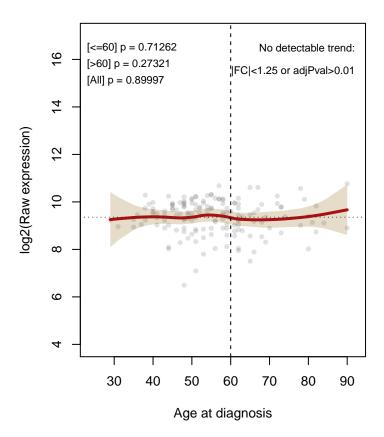
RB1 (non-ER binding)



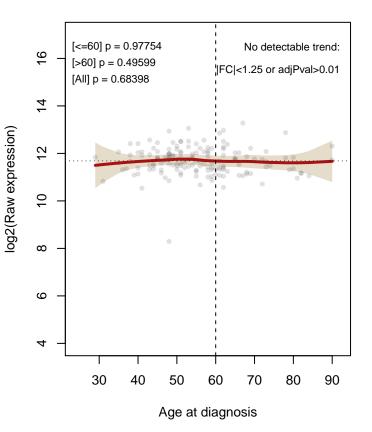


# RBBP4 (non–ER binding) [<=60] p = 0.61618 | No detectable trend: ||FC|<1.25 or adjPval>0.01

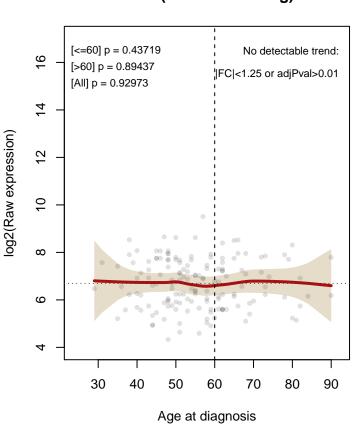
### RBBP5 (non-ER binding)



### RBBP7 (non-ER binding)

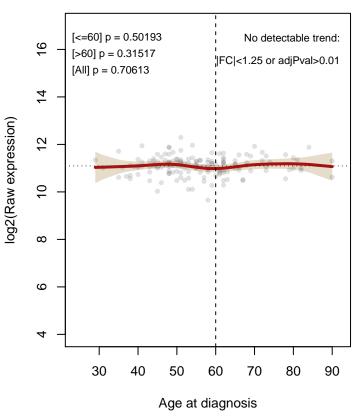


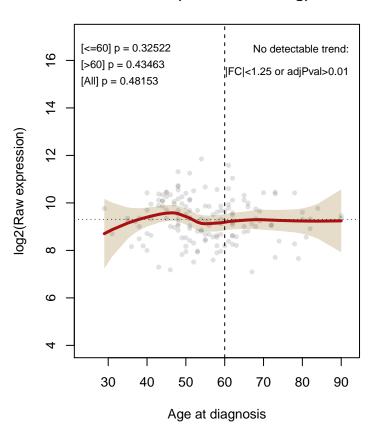
### REL (non-ER binding)





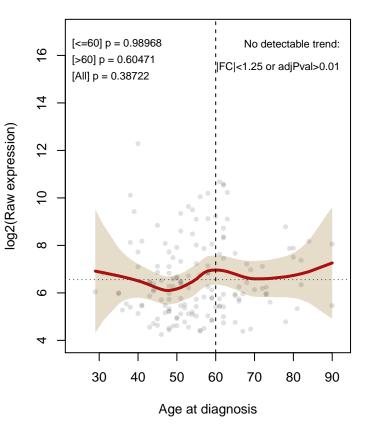
### **RELB** (non-ER binding)

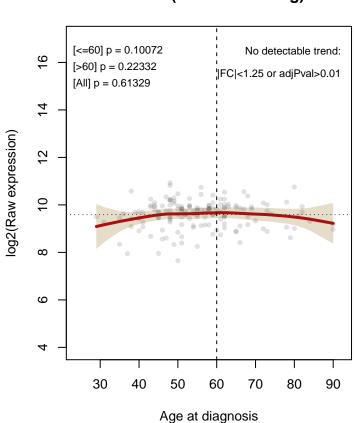


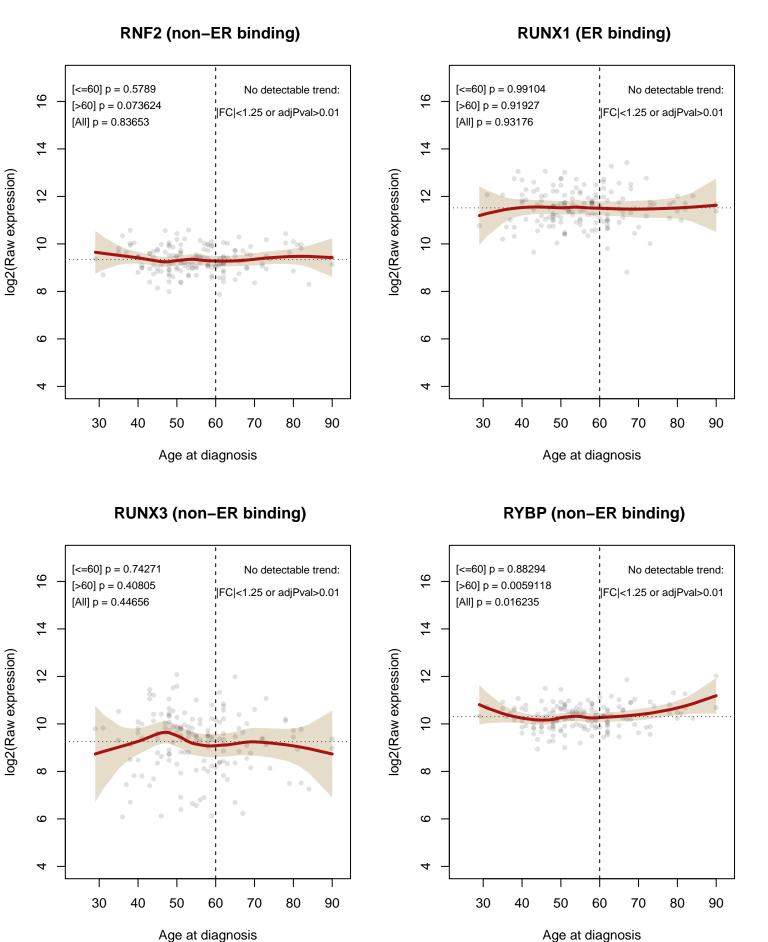


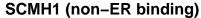
### **RET (ER binding)**

### RING1 (non-ER binding)

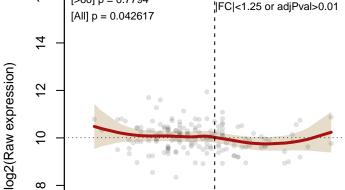








### [<=60] p = 0.56098No detectable trend: [>60] p = 0.7794

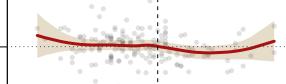


16

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Age at diagnosis

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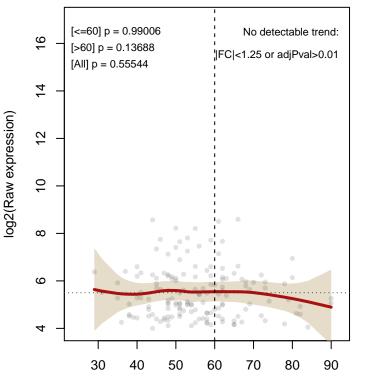
## SCML4 (non-ER binding)

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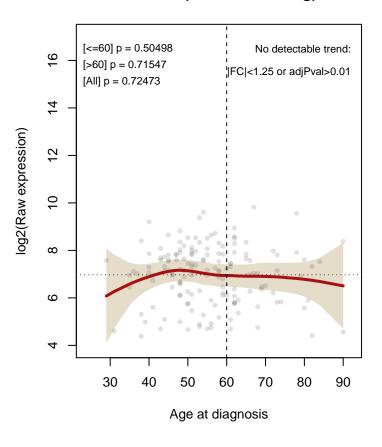
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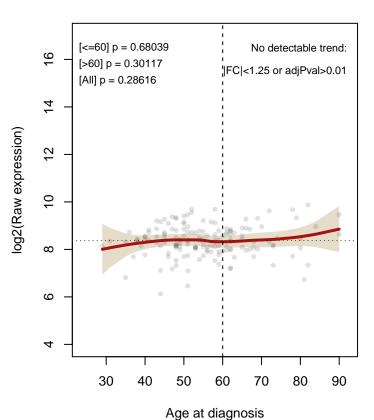


Age at diagnosis

SCML2 (non-ER binding)



### SFMBT1 (ER binding)



### SFMBT2 (ER binding) SFPQ (non-ER binding) [<=60] p = 0.74006No detectable trend: [<=60] p = 0.36065No detectable trend: 16 16 [>60] p = 0.87906 [>60] p = 0.070362 FC|<1.25 or adjPval>0.01 FC|<1.25 or adjPval>0.01 [All] p = 0.17073[All] p = 0.47554 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis SHC1 (non-ER binding) SIRT1 (non-ER binding) [<=60] p = 0.64867No detectable trend: [<=60] p = 0.30762No detectable trend: 16 16 [>60] p = 0.058307 [>60] p = 0.6413 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.72102[All] p = 0.131664 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9

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Age at diagnosis

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Age at diagnosis

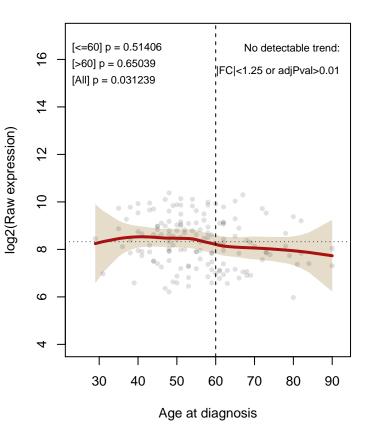
70

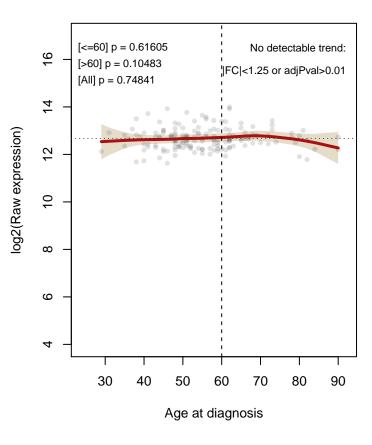
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### SKP2 (non-ER binding)

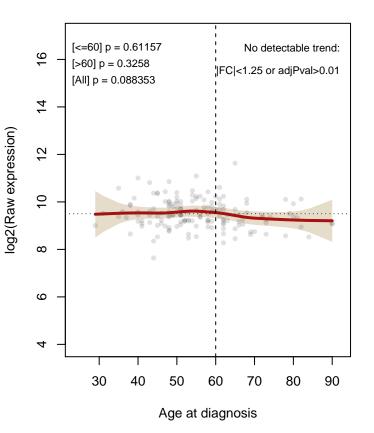
### SLC25A3 (non-ER binding)

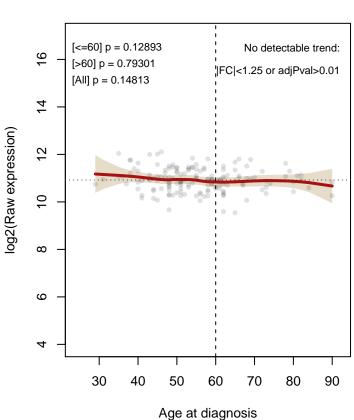




### **SMAD1** (non-ER binding)

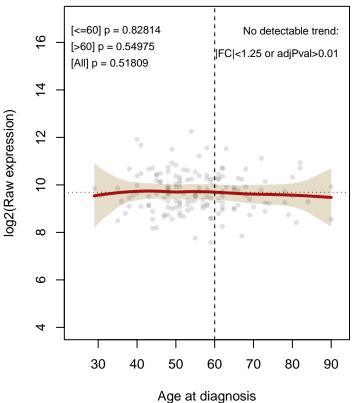
SMAD2 (non-ER binding)

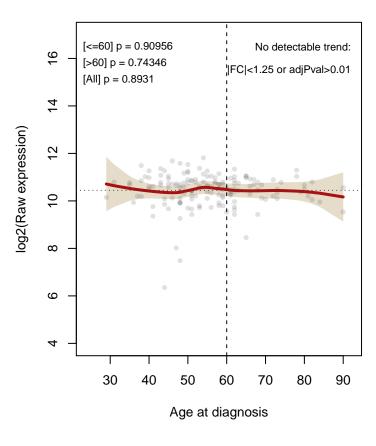




# SMAD3 (ER binding)

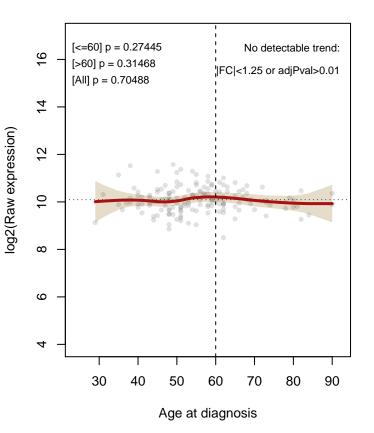
### SMAD4 (non-ER binding)

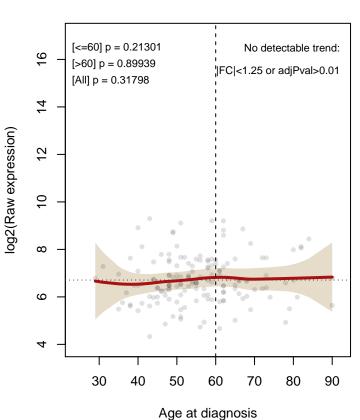




### **SMAD5** (non-ER binding)

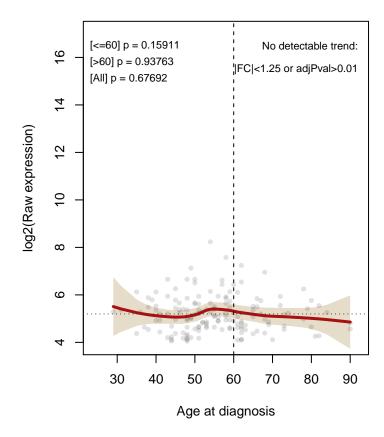
SMAD6 (non-ER binding)

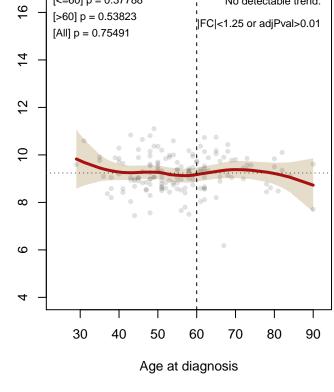




# SMAD7 (non–ER binding) [<=60] p = 0.37788 [>60] p = 0.53823 [All] p = 0.75491 No detectable trend: ||FC|<1.25 or adjPval>0.01

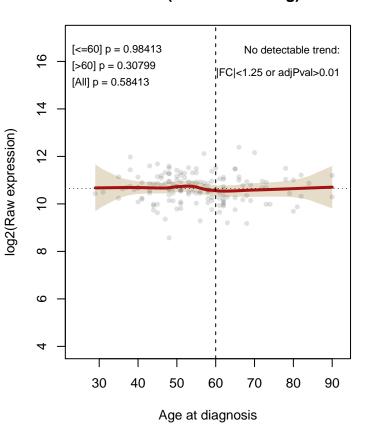
### SMAD9 (non-ER binding)



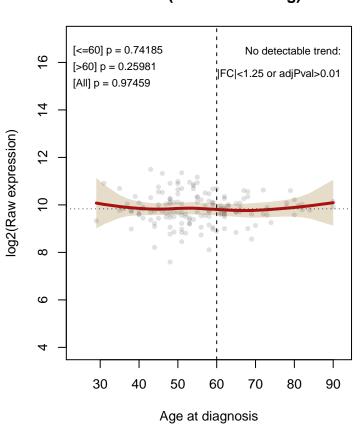


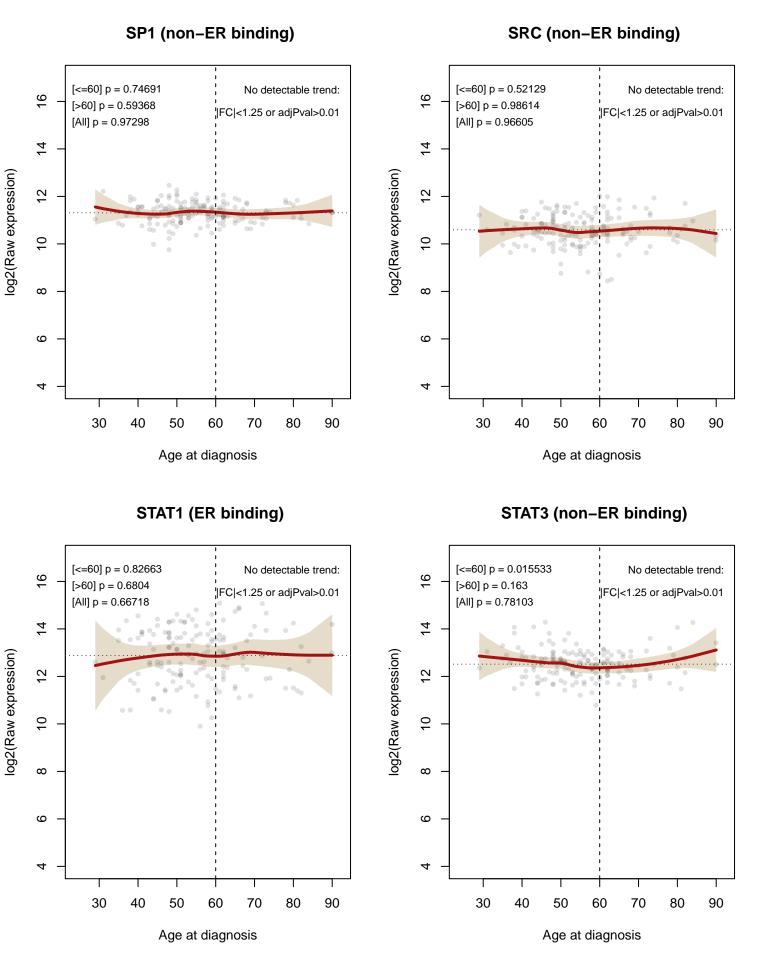
log2(Raw expression)

### SOS1 (non-ER binding)



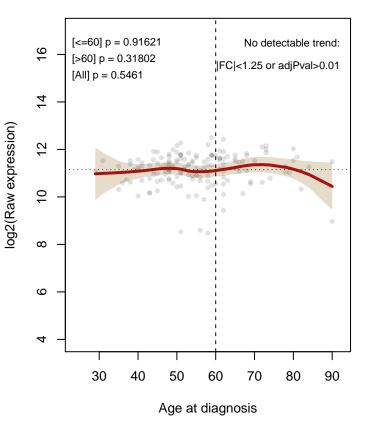
### SOS2 (non-ER binding)

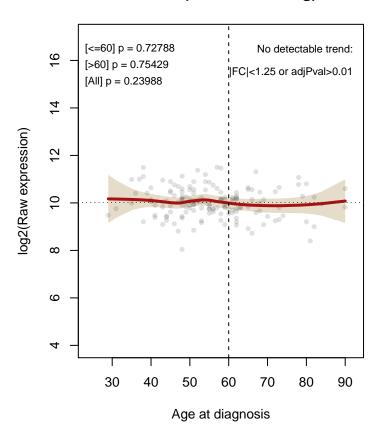






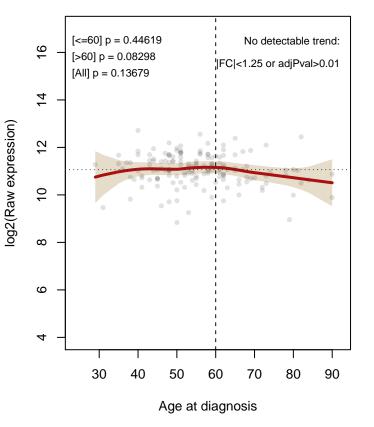
### SUZ12 (non-ER binding)

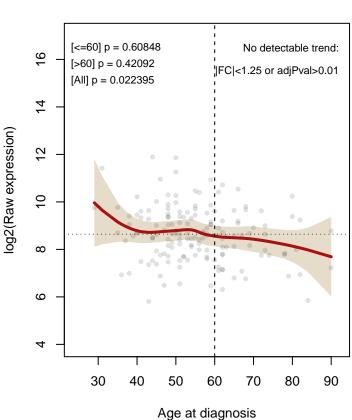




### TCF3 (non-ER binding)

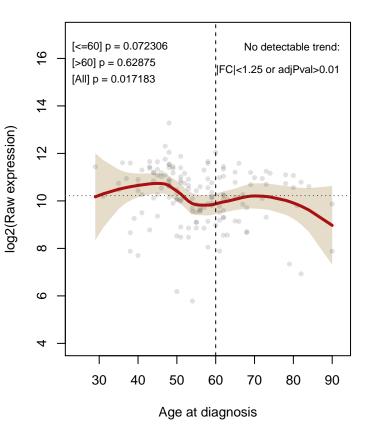
TCF7 (non-ER binding)

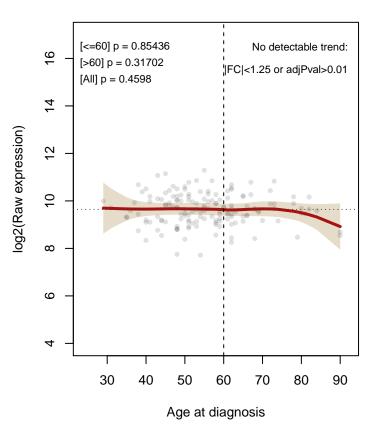






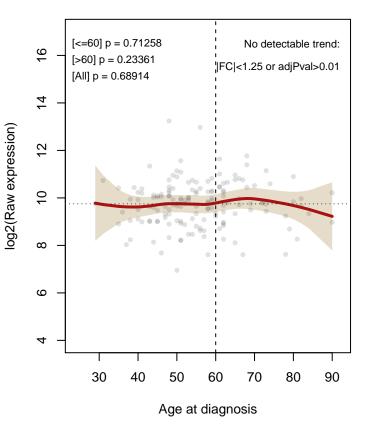
### TCF7L2 (non-ER binding)

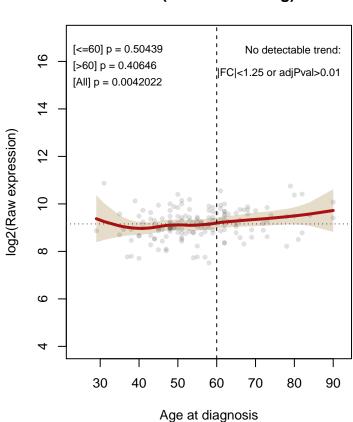


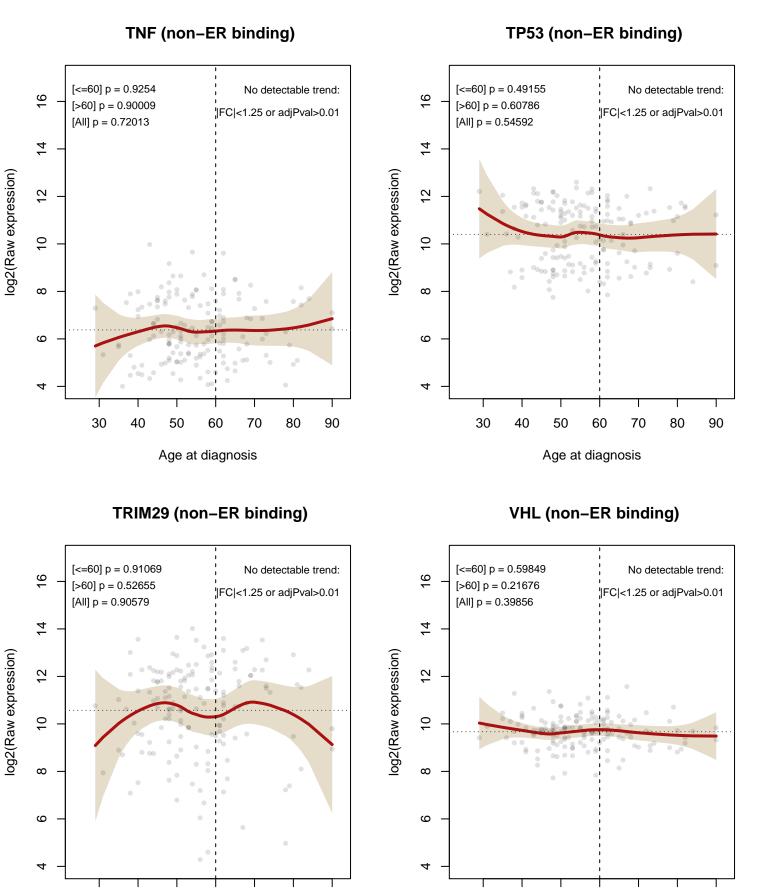


### TGFB1 (non-ER binding)

TK2 (non-ER binding)

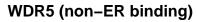


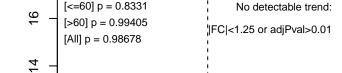


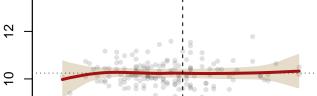


Age at diagnosis

Age at diagnosis

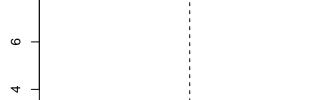






# 19 ω

log2(Raw expression)



50

30

40

Age at diagnosis

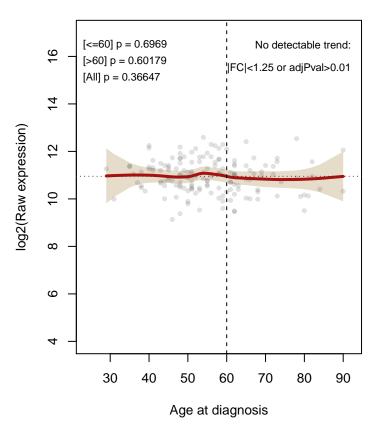
60

70

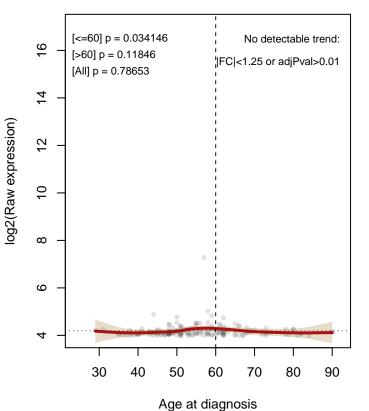
80

90

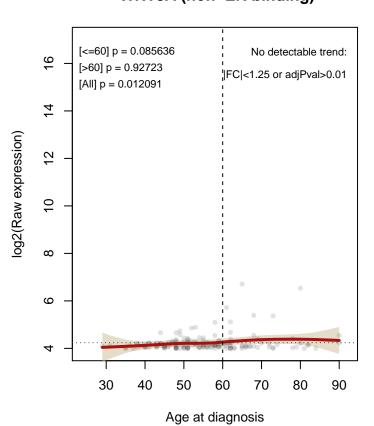
### WHSC1 (non-ER binding)



### WNT1 (non-ER binding)

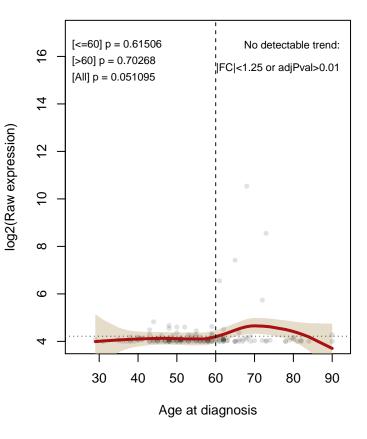


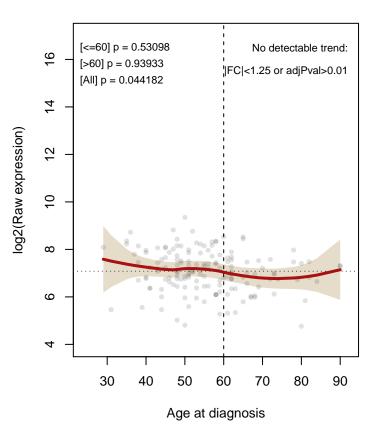
### WNT3A (non-ER binding)





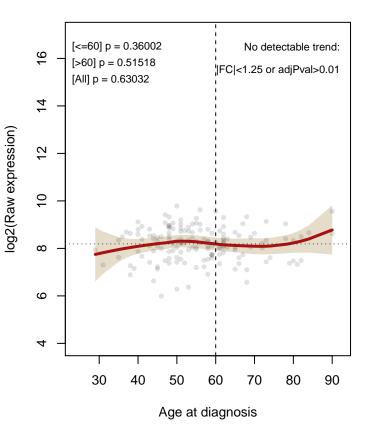
### XRCC2 (non-ER binding)

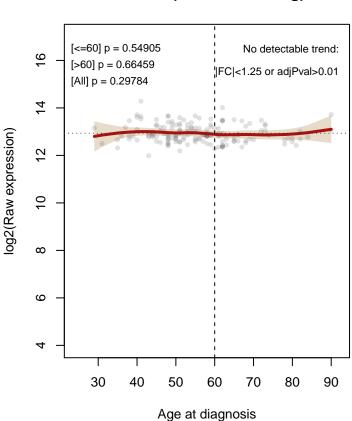




### XRCC3 (non-ER binding)

XRCC6 (non-ER binding)

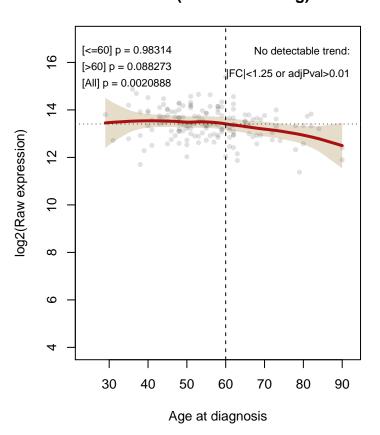




### YAF2 (non-ER binding)

### 

### YBX1 (non-ER binding)



### YY1 (non-ER binding)

Age at diagnosis

