

### ASXL3 (non-ER binding) ATM (non-ER binding) [<=60] p = 0.9488No detectable trend: [<=60] p = 0.98977No detectable trend: 16 16 [>60] p = 0.90067 [>60] p = 0.49739 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.86213[All] p = 0.987284 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$ 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 = 0.48203No detectable trend: [<=60] p = 0.72979No detectable trend: 16 16 [>60] p = 0.85082[>60] p = 0.91308 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [AII] p = 0.29986[All] p = 0.974044 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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# **BCL2 (non-ER binding)** [<=60] p = 0.46493No detectable trend: 16 [>60] p = 0.78547 |FC|<4 or adjPval>0.05 [All] p = 0.222514 log2(Raw expression) 12

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ω

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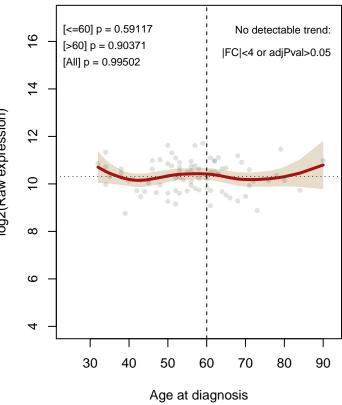
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### **BCL3 (non-ER binding)**





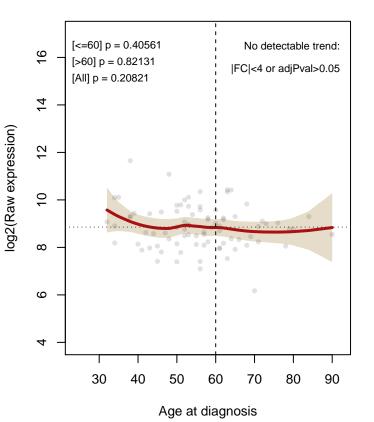
BIRC5 (non-ER binding)

Age at diagnosis

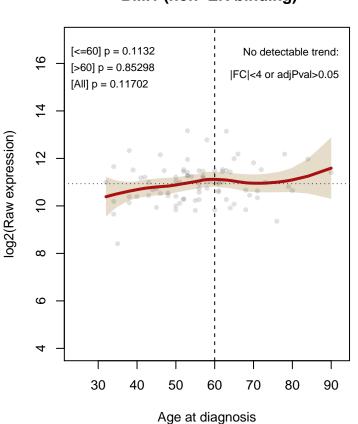
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### **BMI1 (non-ER binding)**



### BMX (non-ER binding) **BRCA1** (non-ER binding) [<=60] p = 0.58261No detectable trend: [<=60] p = 0.15671No detectable trend: 16 16 [>60] p = 0.87881 [>60] p = 0.55143 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.62321[All] p = 0.0550124 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 CA9 (non-ER binding) **CBX1** (non-ER binding) [<=60] p = 0.11927No detectable trend: [<=60] p = 0.19852No detectable trend: 16 16 [>60] p = 0.86911 [>60] p = 0.12085 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.67941[All] p = 0.428324 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 = 0.23936No detectable trend: [<=60] p = 0.13394No detectable trend: 16 16 [>60] p = 0.65207 [>60] p = 0.21033 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.52792[AII] p = 0.307784 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 = 0.45245No detectable trend: [<=60] p = 0.1713 No detectable trend: 16 16 [>60] p = 0.19913 [>60] p = 0.59641 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [AII] p = 0.50326[All] p = 0.327214 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω

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Age at diagnosis

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Age at diagnosis

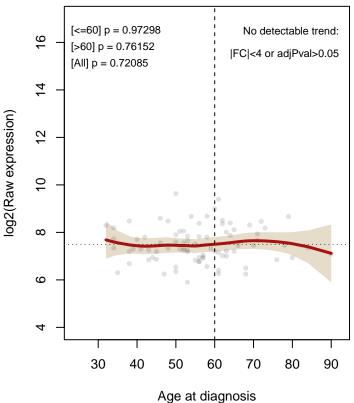
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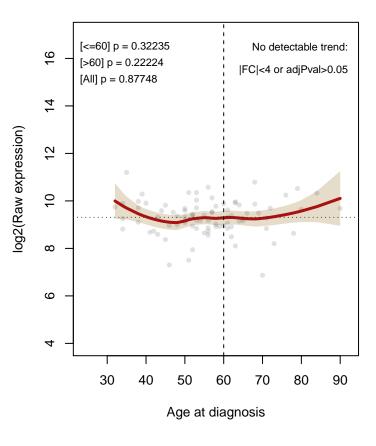
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# CBX8 (non-ER binding)

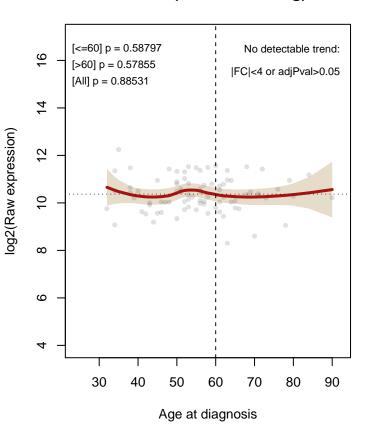
### CCNA2 (non-ER binding)

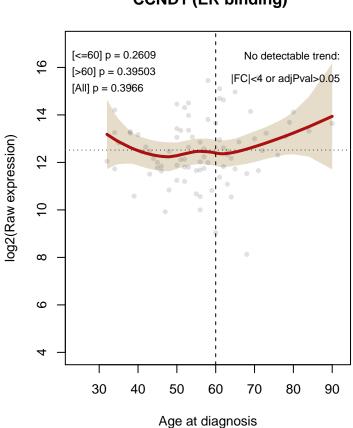


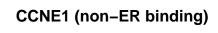


### CCNB1 (non-ER binding)

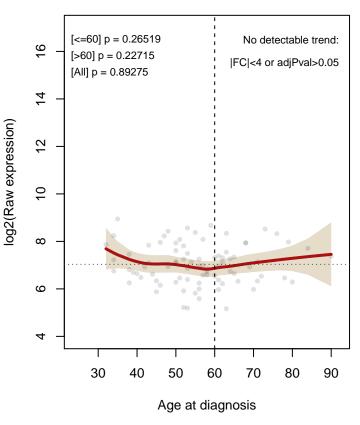
**CCND1 (ER binding)** 

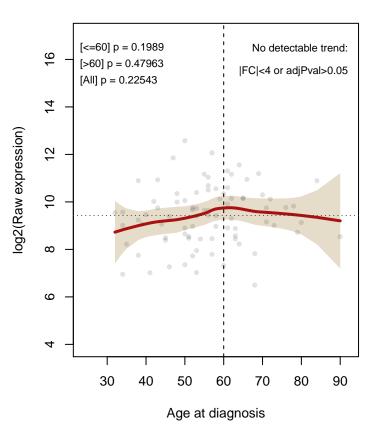






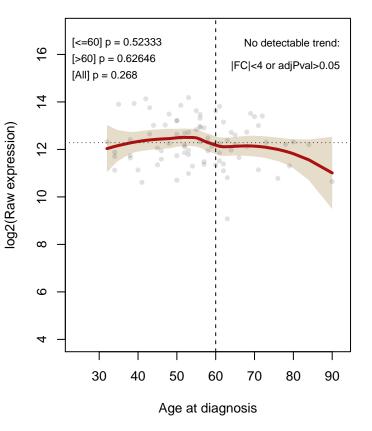
### CD163 (non-ER binding)

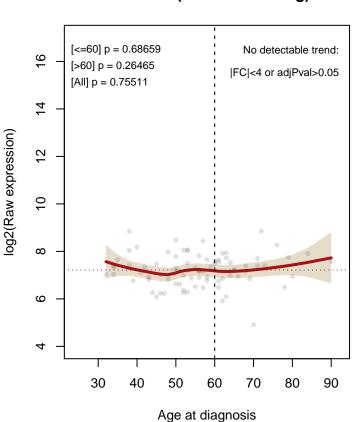


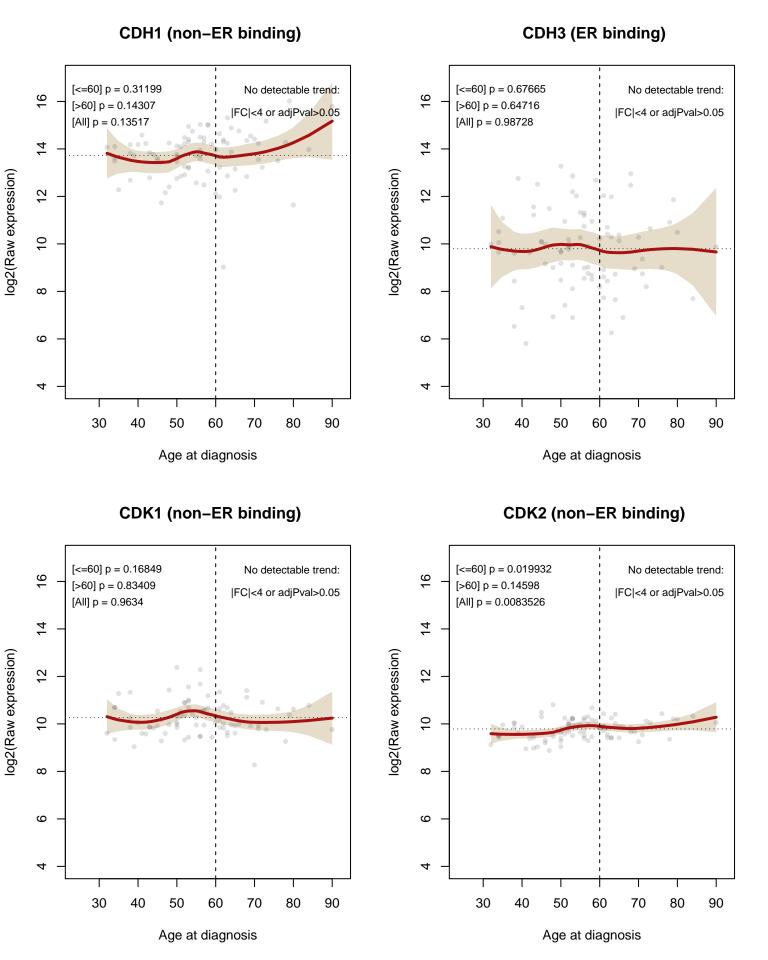


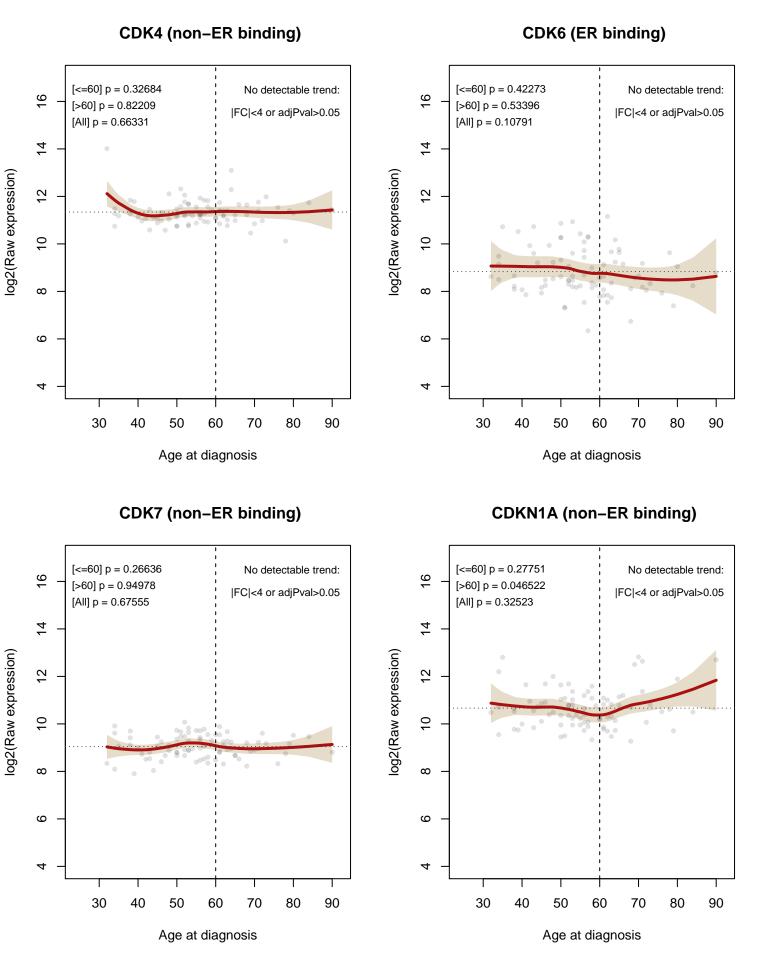
### CD44 (non-ER binding)

CDC25C (non-ER binding)



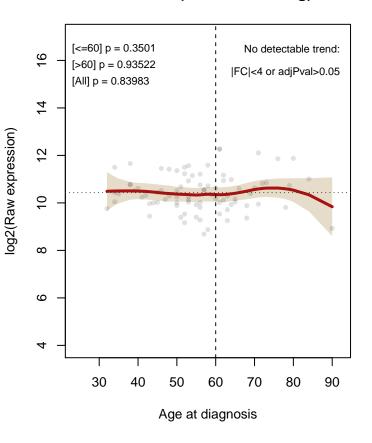


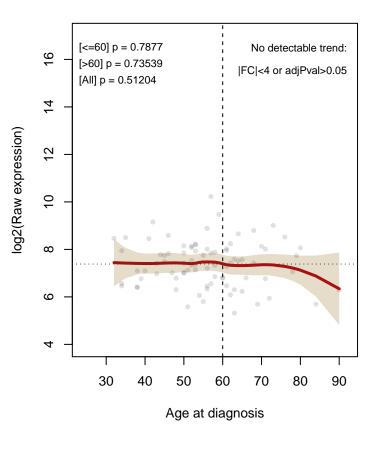




### CDKN1B (non-ER binding)

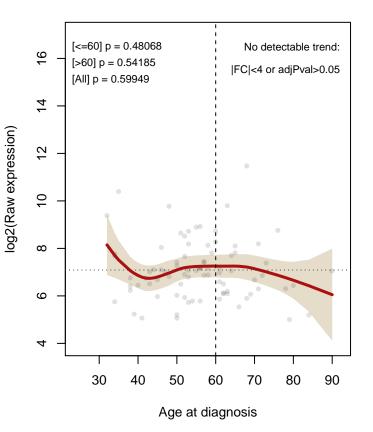
### CDKN1C (non-ER binding)

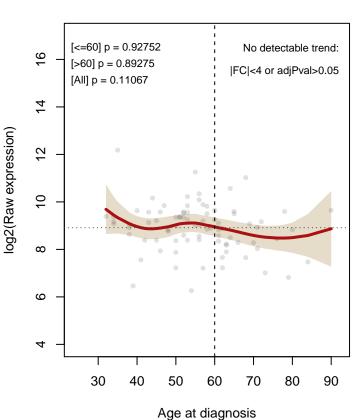




### CDKN2A (non-ER binding)

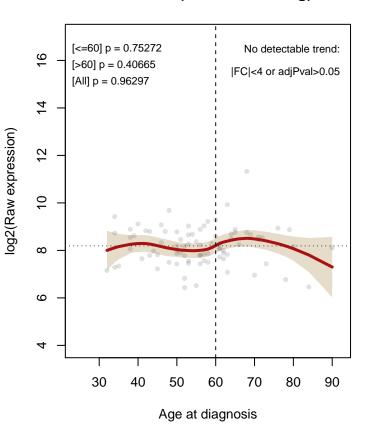
### CDKN2B (non-ER binding)

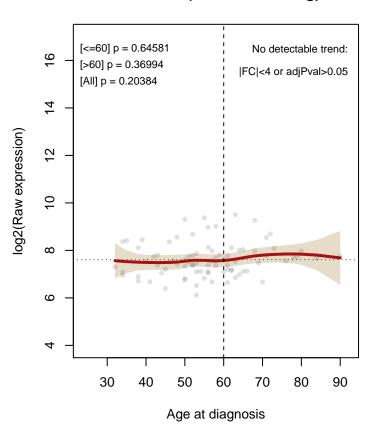




### CDKN2C (non-ER binding)

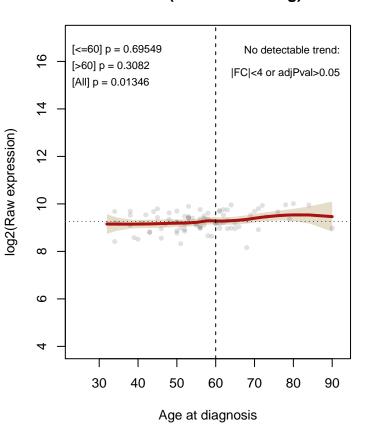
### CDKN2D (non-ER binding)

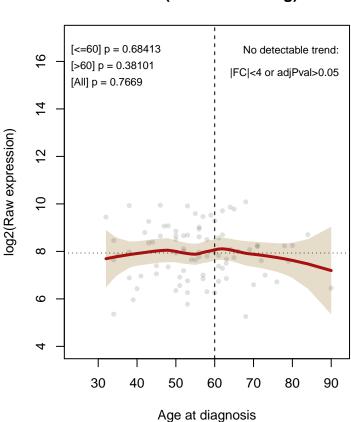




### CHUK (non-ER binding)

CIITA (non-ER binding)

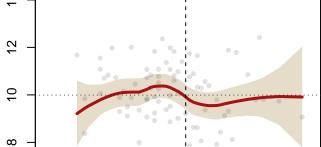






# No detectable trend:





log2(Raw expression)

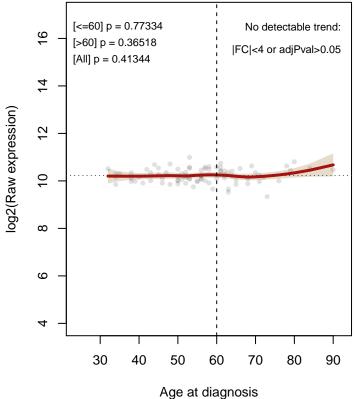
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## CREB1 (non-ER binding)



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

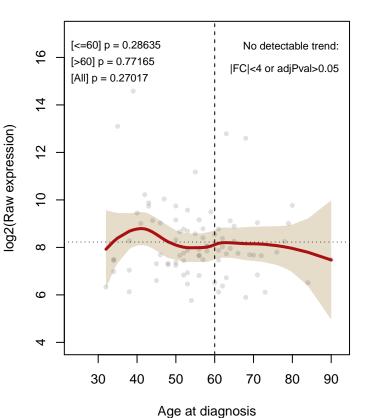
Age at diagnosis

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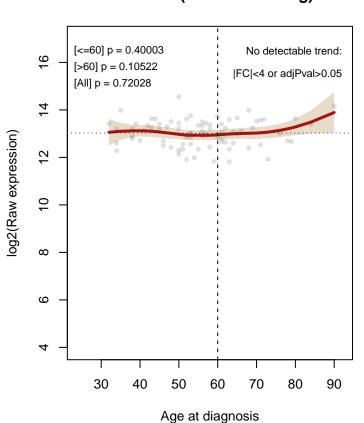
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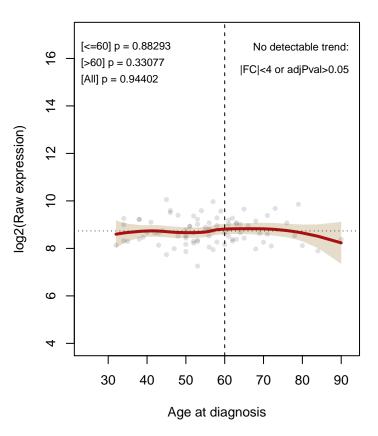


### CTNNB1 (non-ER binding)

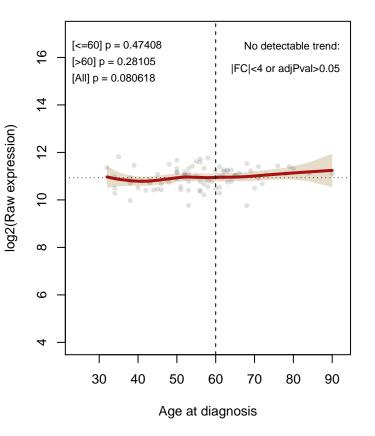


# **DLC1 (ER binding)** [<=60] p = 0.94669No detectable trend: 16 [>60] p = 0.9966|FC|<4 or adjPval>0.05 [All] p = 0.91154 log2(Raw expression) 12 10 ω 9 30 40 50 60 70 80 90 Age at diagnosis

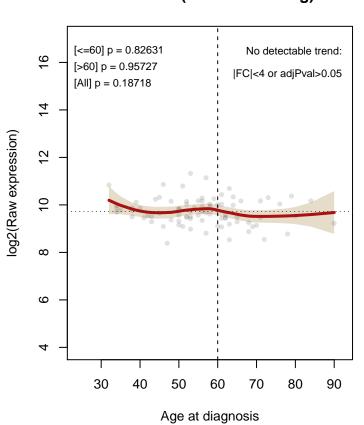
### DMAP1 (non-ER binding)



**DNMT1** (non-ER binding)

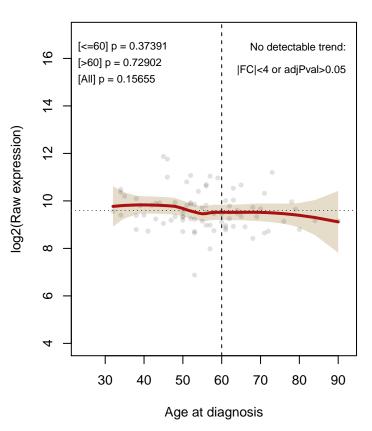


### **DNMT3A (non-ER binding)**



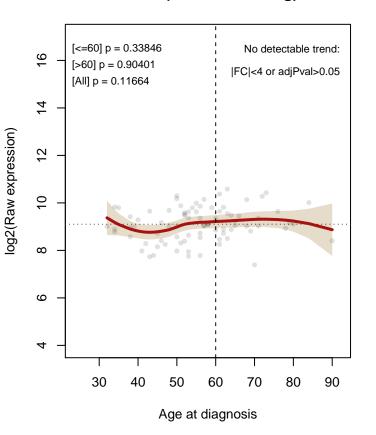
# DNMT3B (non–ER binding) (=60] p = 0.22814 | (=60) p = 0.70003 | (=60) p = 0.65656No detectable trend: |FC| < 4 or adjPval>0.05

### DVL1 (non-ER binding)

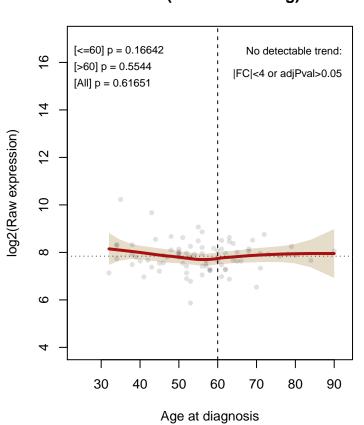


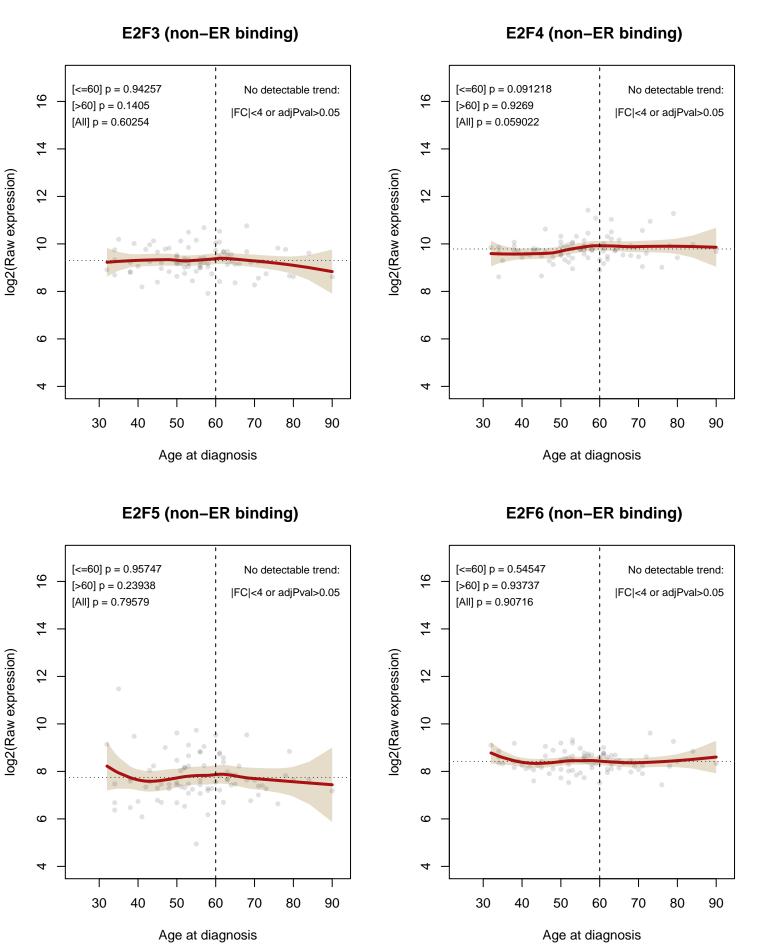
E2F1 (non-ER binding)

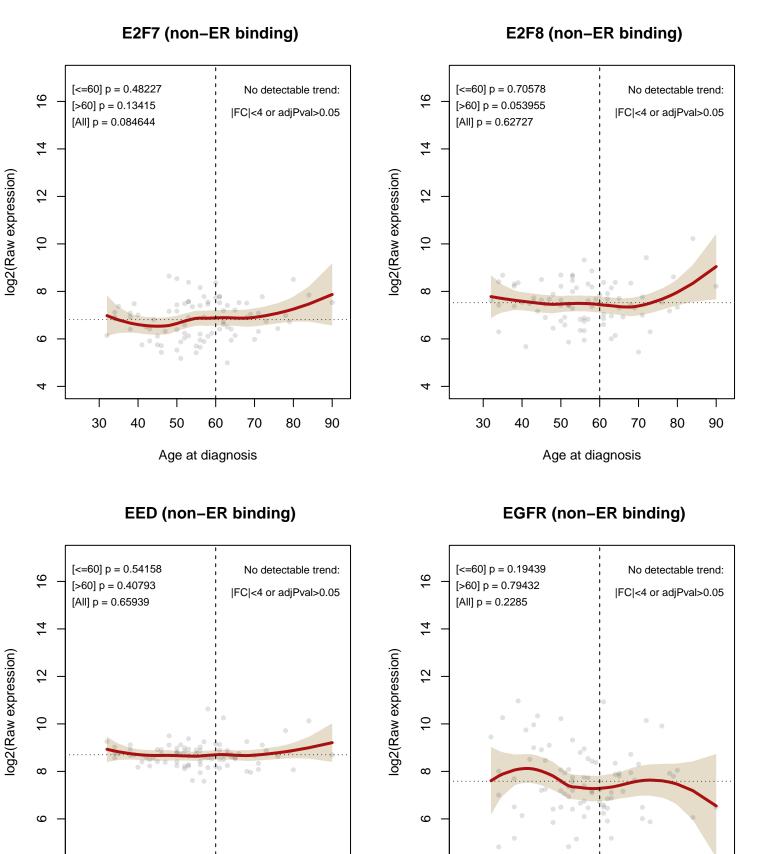
Age at diagnosis



### E2F2 (non-ER binding)





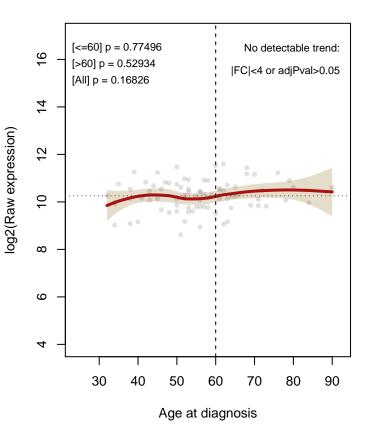


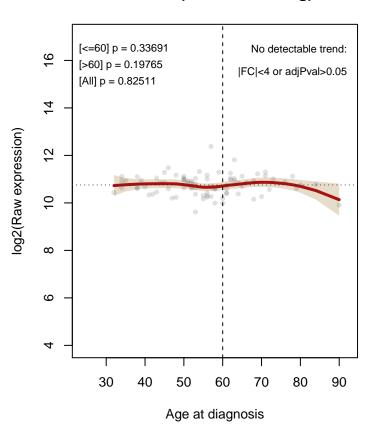
Age at diagnosis

Age at diagnosis



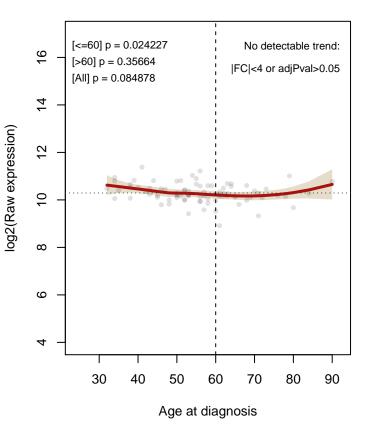
### EHMT2 (non-ER binding)

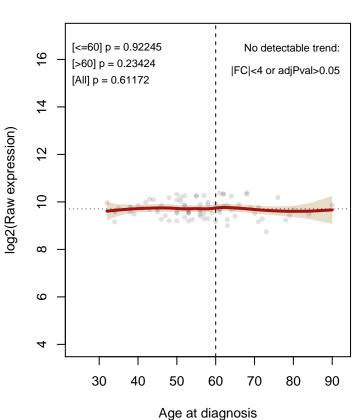




**ELAC2 (non-ER binding)** 

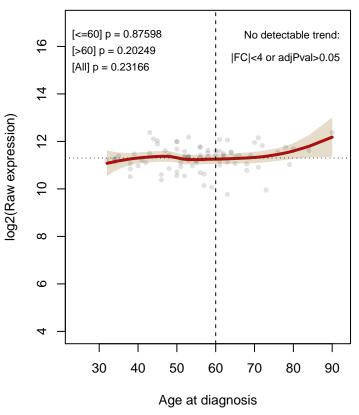
**ELK1 (non-ER binding)** 

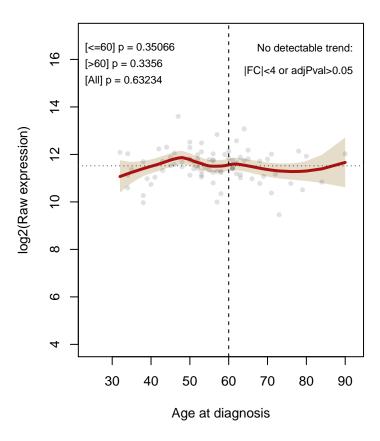






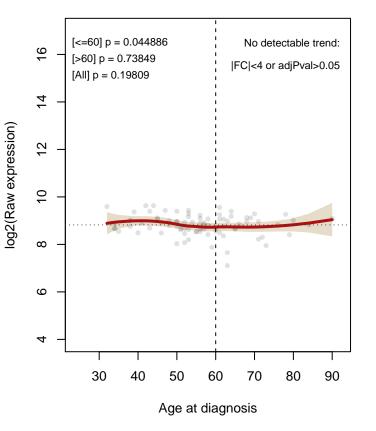
### **EPAS1** (non-ER binding)

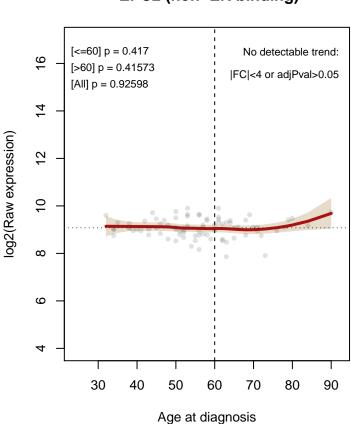




**EPC1 (non-ER binding)** 

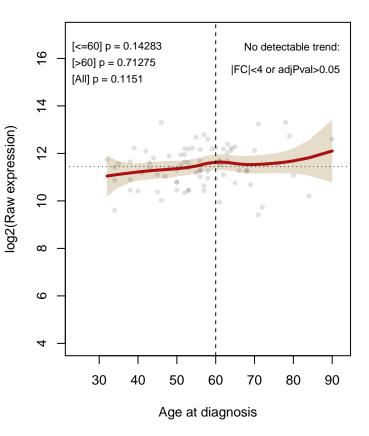
**EPC2** (non-ER binding)

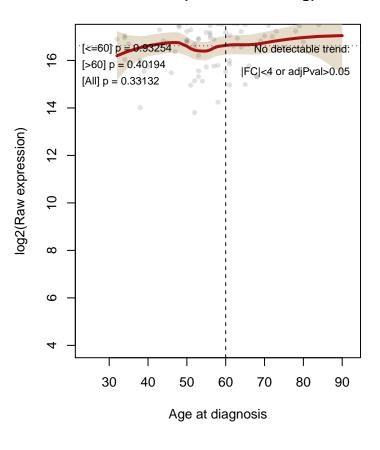






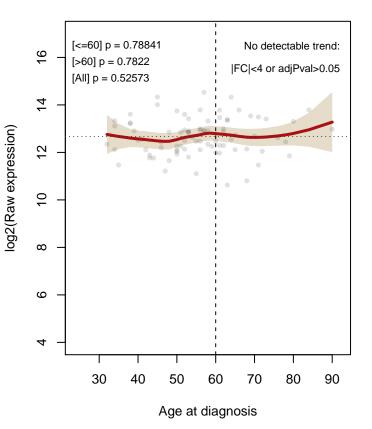
### ERBB2 (non-ER binding)

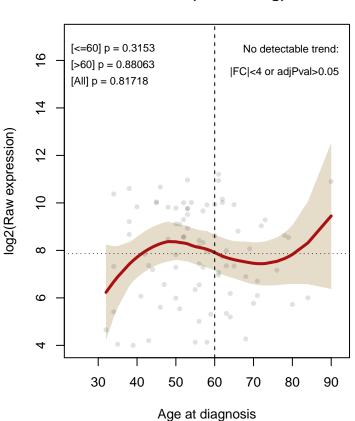


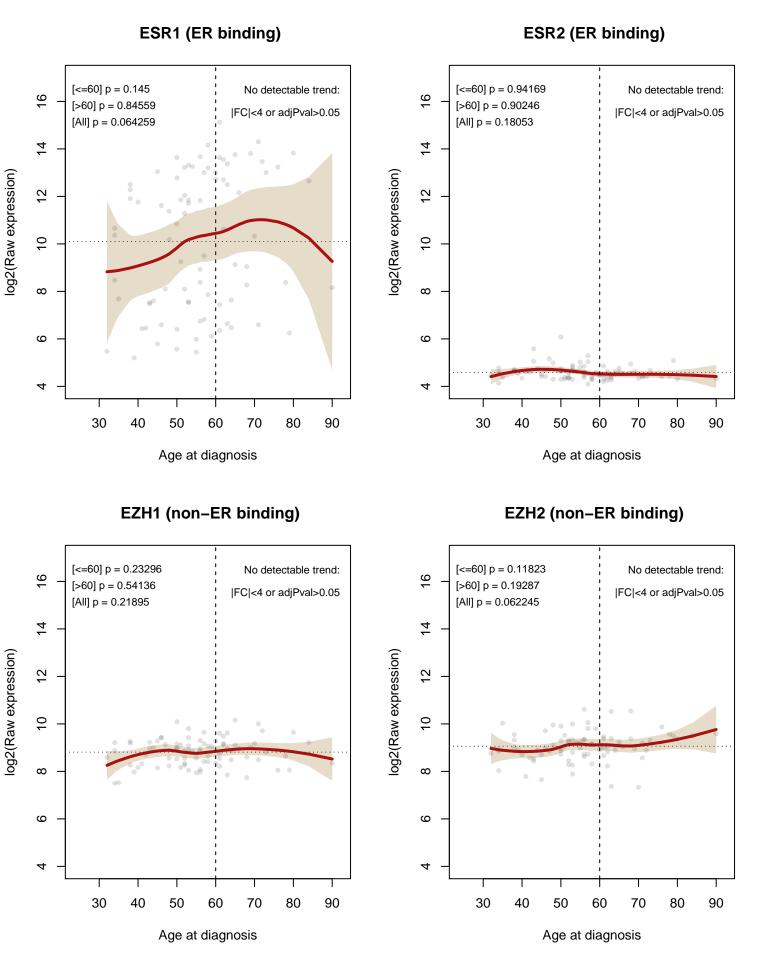


### **ERBB3** (non-ER binding)

### **ERBB4 (ER binding)**







### FOSL1 (non-ER binding) FOS (non-ER binding) [<=60] p = 0.23551No detectable trend: [<=60] p = 0.017163 No detectable trend: 16 16 [>60] p = 0.50131 [>60] p = 0.57932 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.30537[All] p = 0.689914 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 = 0.19982No detectable trend: [<=60] p = 0.13397No detectable trend: 16 16 [>60] p = 0.70926 [>60] p = 0.66957 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.23961[AII] p = 0.34054 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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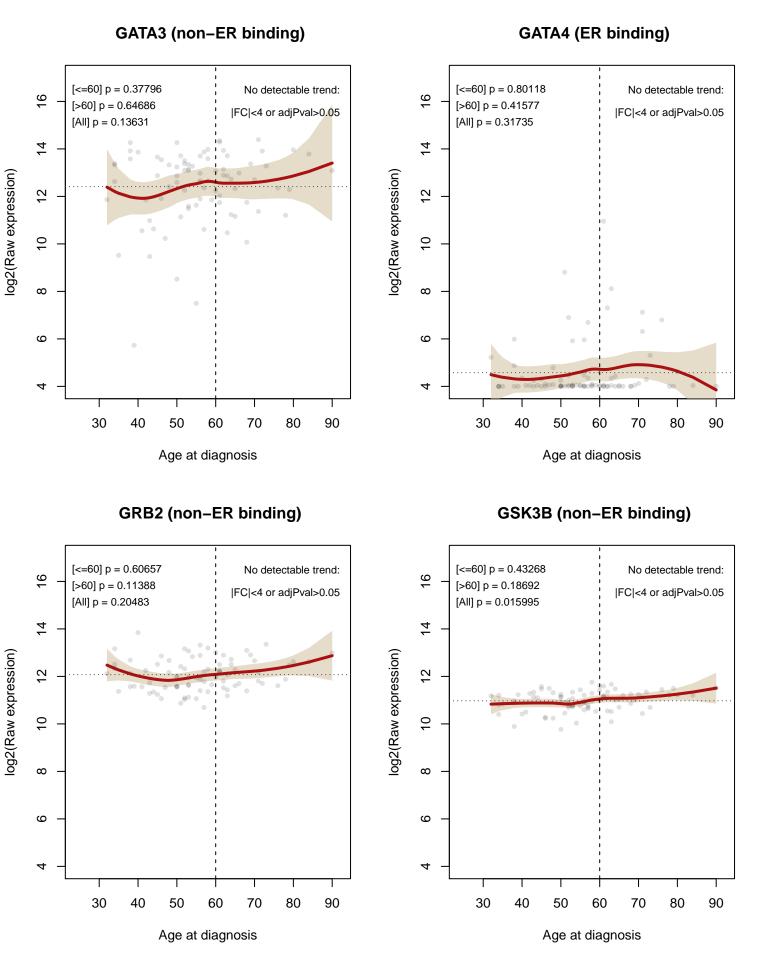
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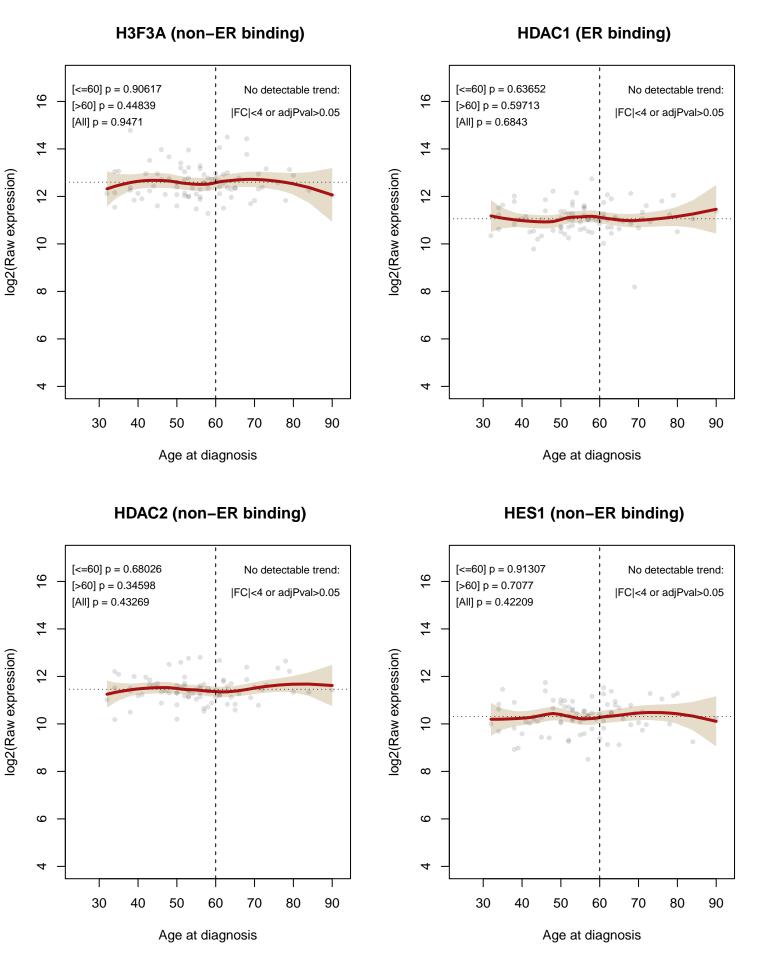
Age at diagnosis

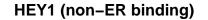
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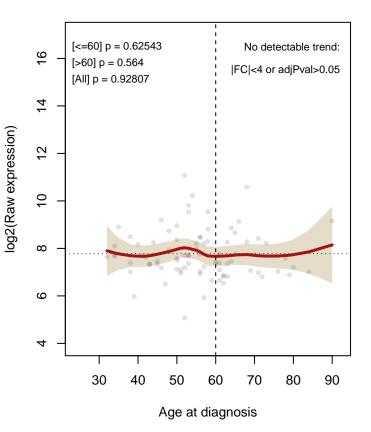
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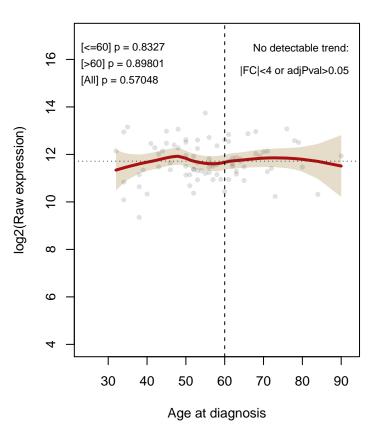






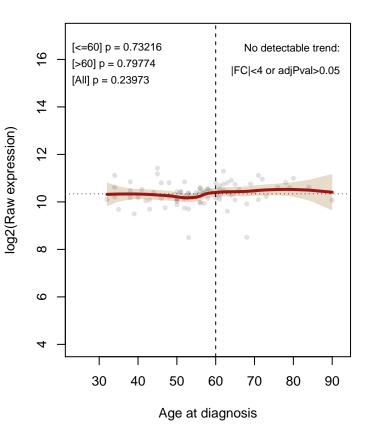
### HIF1A (non-ER binding)

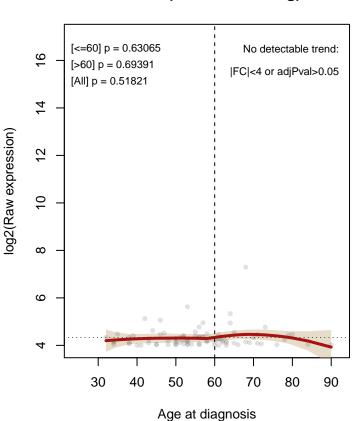




### HIF1AN (non-ER binding)

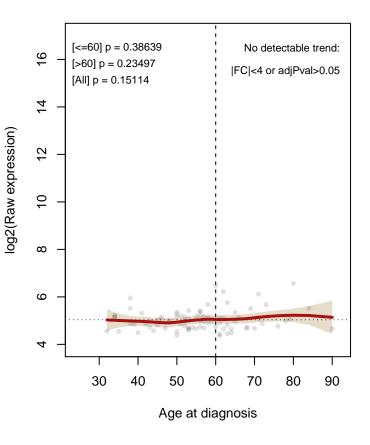
HIF3A (non-ER binding)

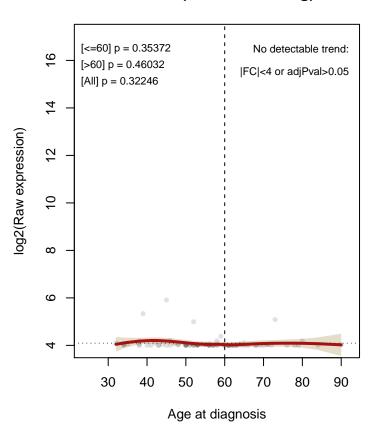




### HNF1A (non-ER binding)

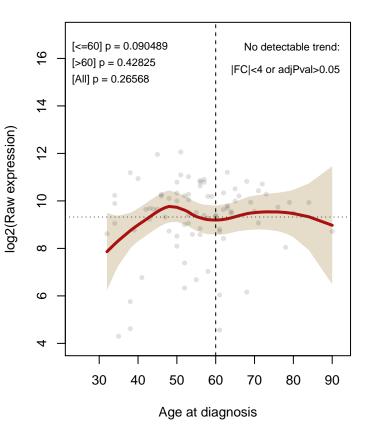
### HNF1B (non-ER binding)

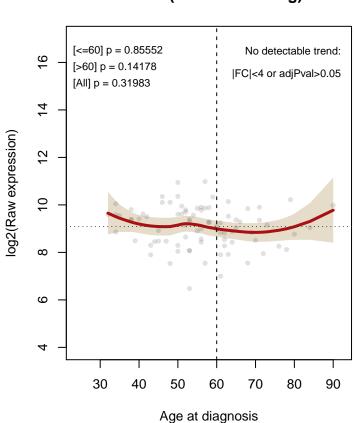


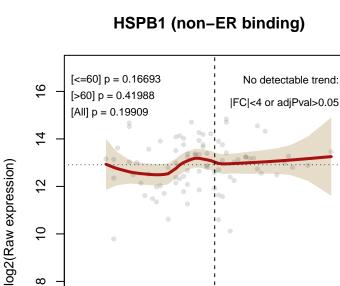


### **HOXC10 (non-ER binding)**

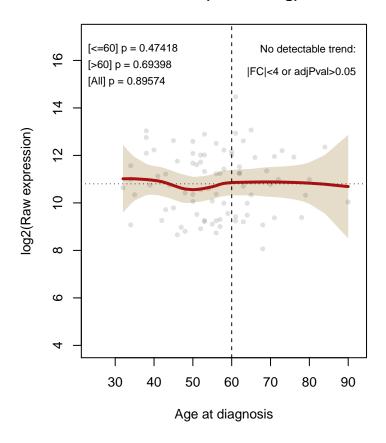
HRAS (non-ER binding)

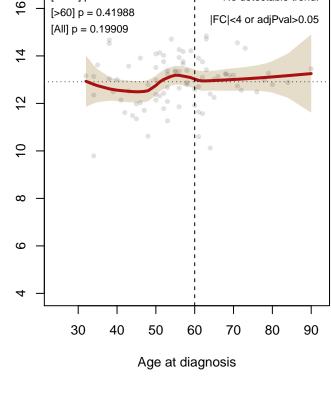




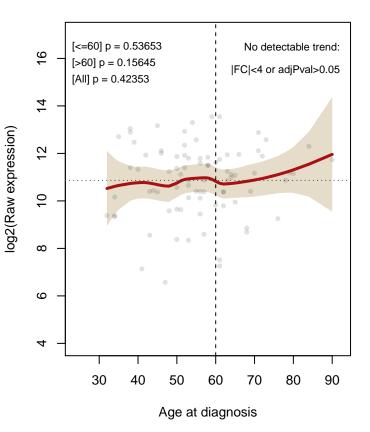


### IGF1R (ER binding)

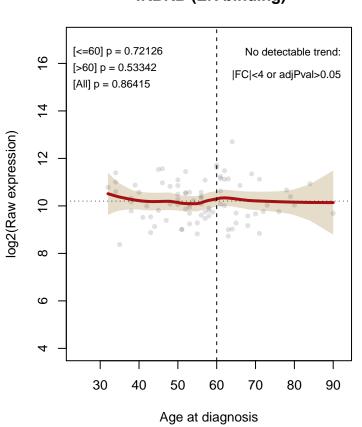




### IGFBP2 (non-ER binding)

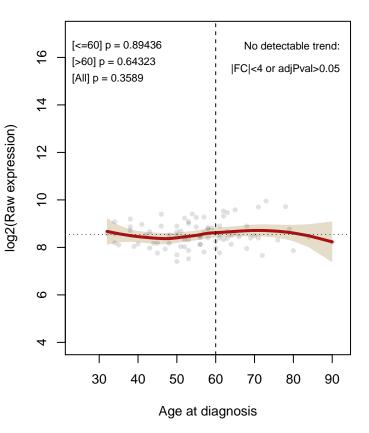


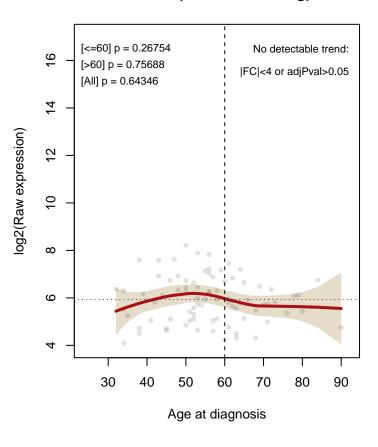
### **IKBKB (ER binding)**





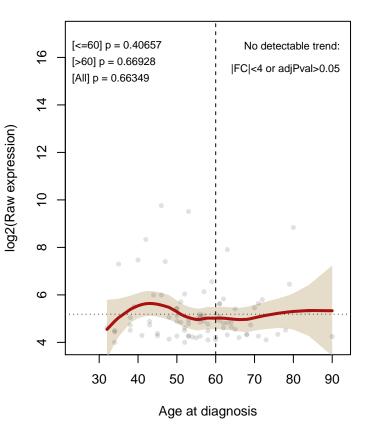
### IL2RA (non-ER binding)

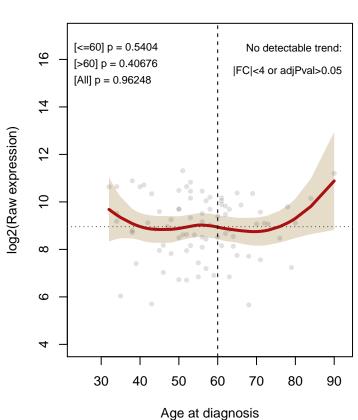


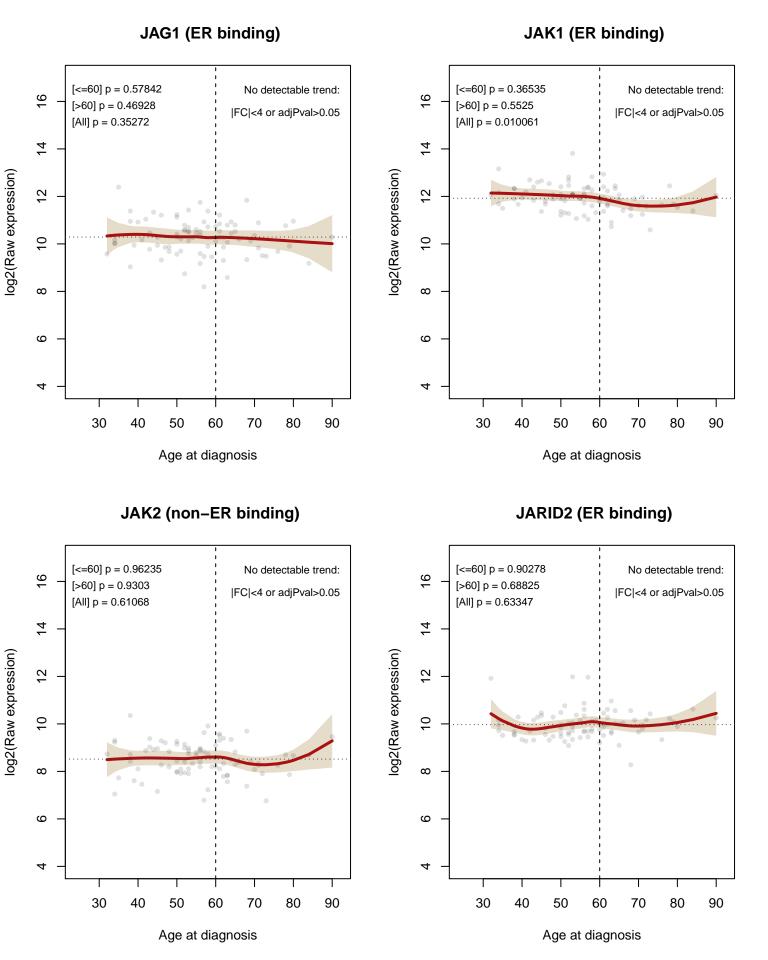


### IL6 (non-ER binding)

INPP4B (non-ER binding)

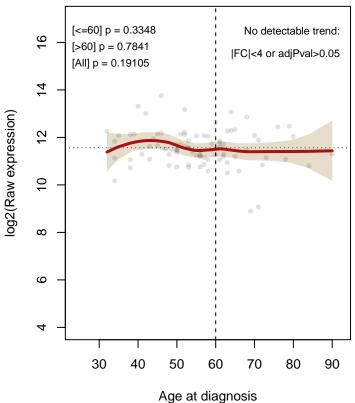


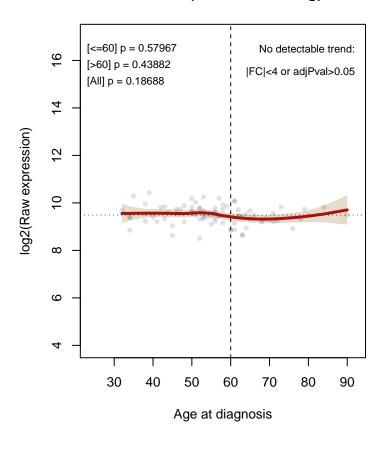






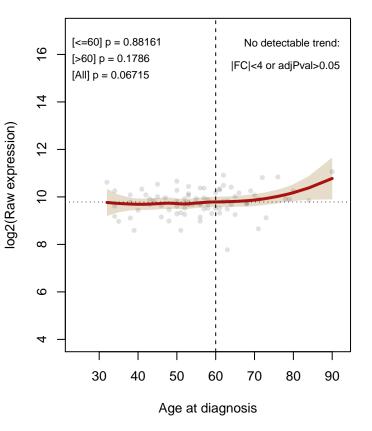
### KDM2B (non-ER binding)

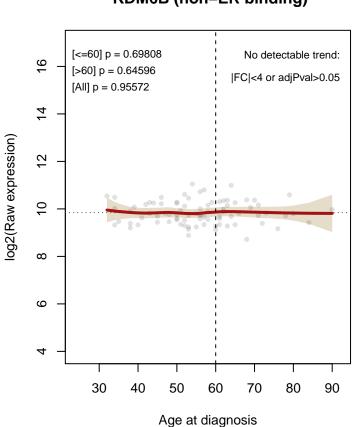




### KDM6A (non-ER binding)

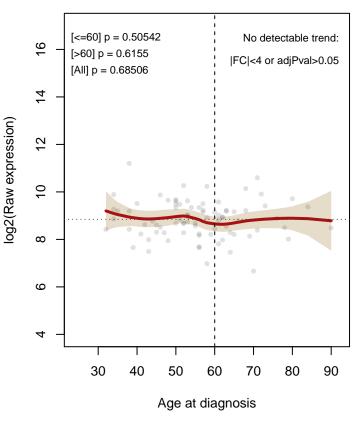
KDM6B (non-ER binding)

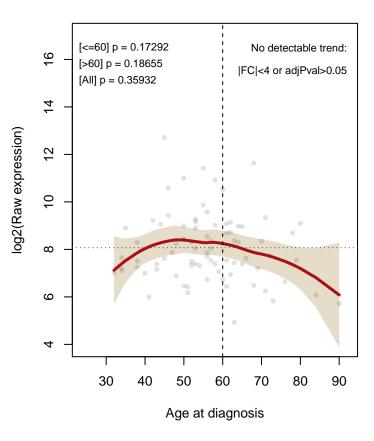






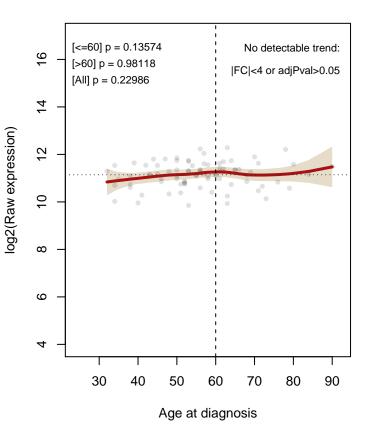
### KIT (non-ER binding)

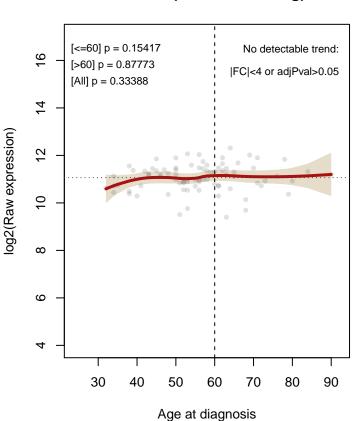




### KMT2C (non-ER binding)

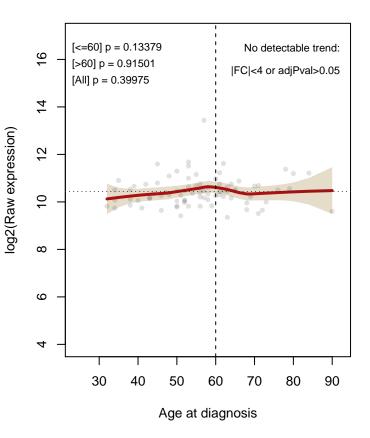
KMT2D (non-ER binding)

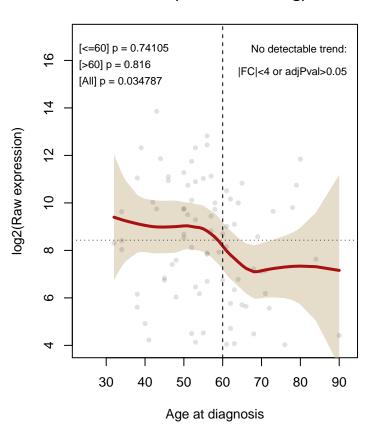






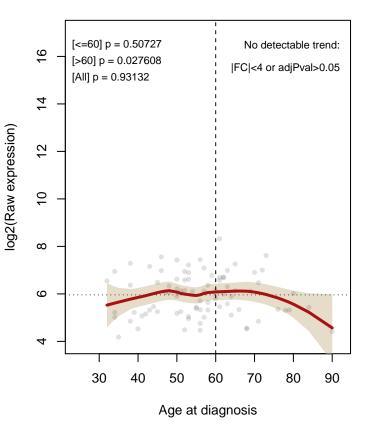
### KRT5 (non-ER binding)

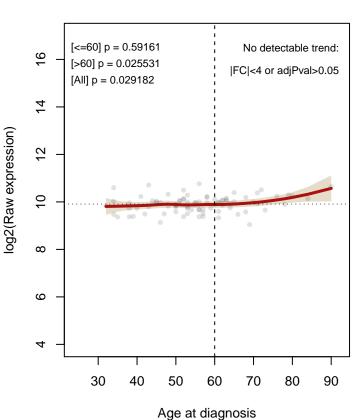




### L3MBTL1 (non-ER binding)

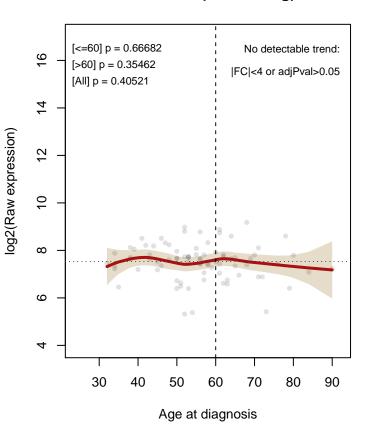
### L3MBTL2 (non-ER binding)

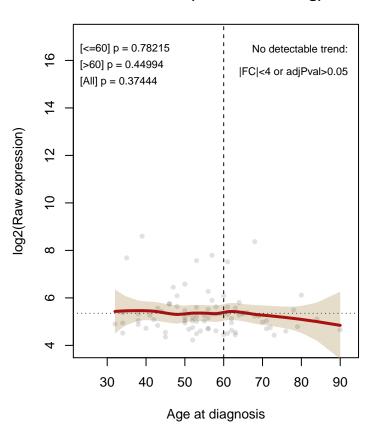




### L3MBTL3 (ER binding)

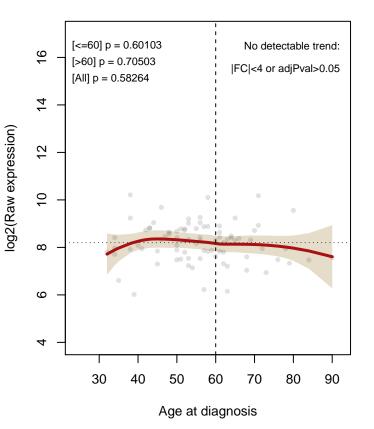
# L3MBTL4 (non-ER binding)

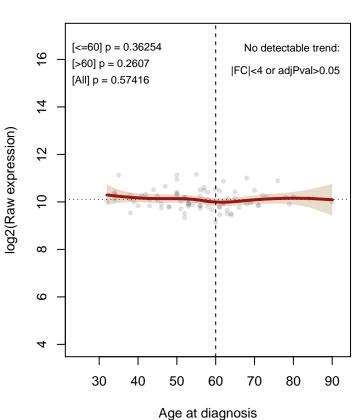




LEF1 (non-ER binding)

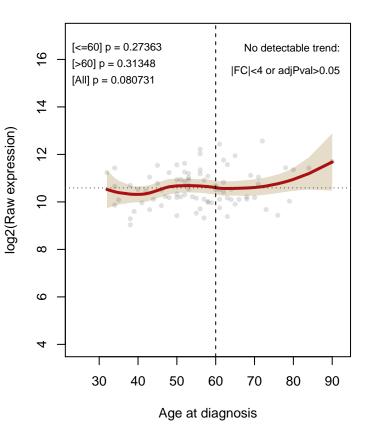
MAP2K1 (non-ER binding)

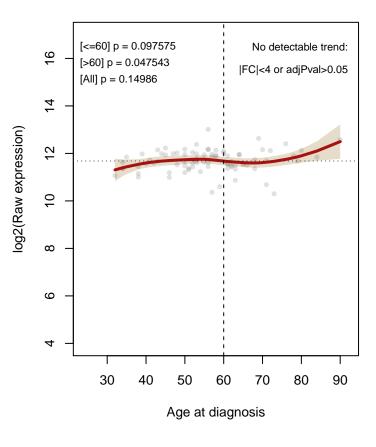






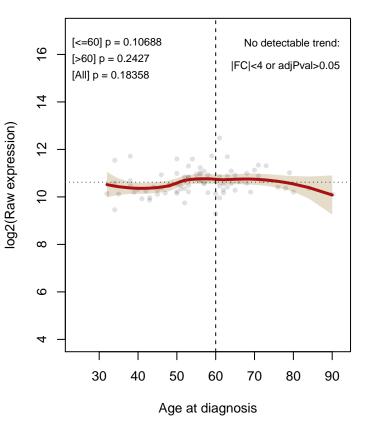
### MAPK1 (non-ER binding)

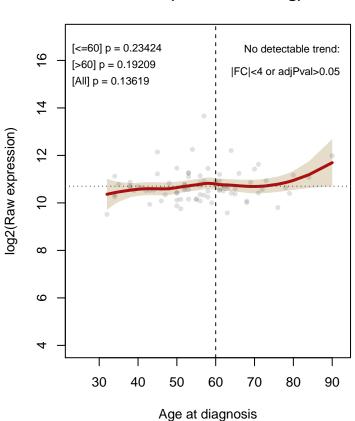


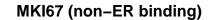


### MAPK3 (non-ER binding)

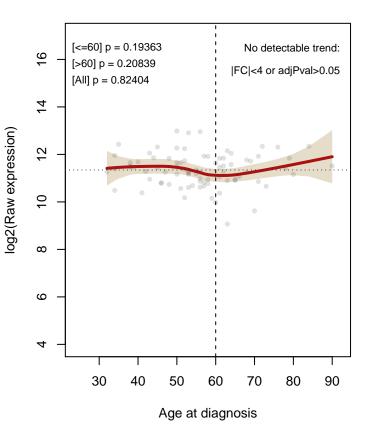
MDM2 (non-ER binding)

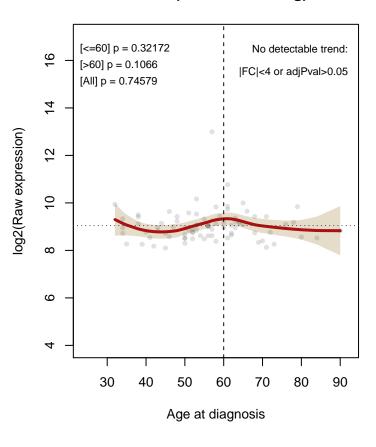






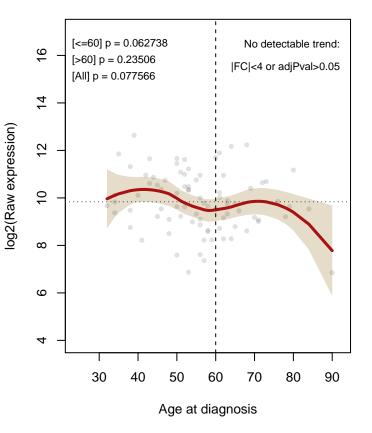
### MTF2 (non-ER binding)

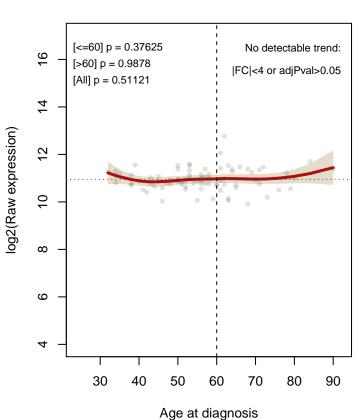




### MYC (non-ER binding)

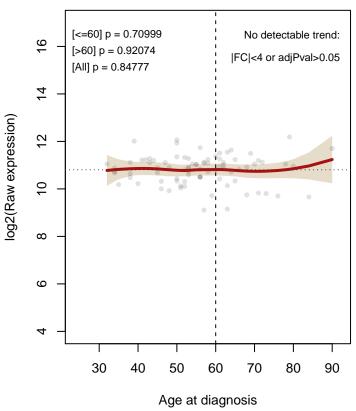
### NCOA6 (non-ER binding)

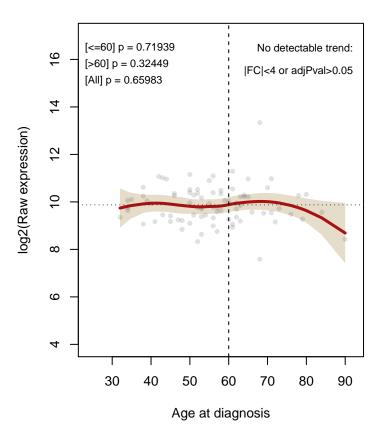






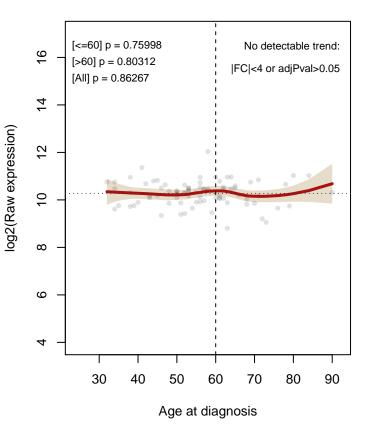
# **NES (non-ER binding)**

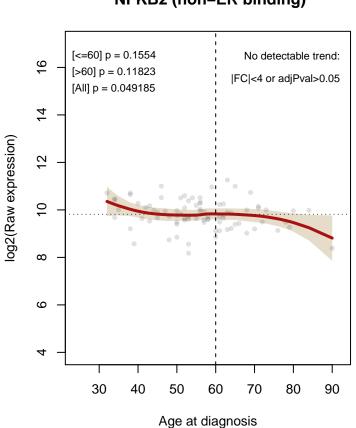




# NFKB1 (non-ER binding)

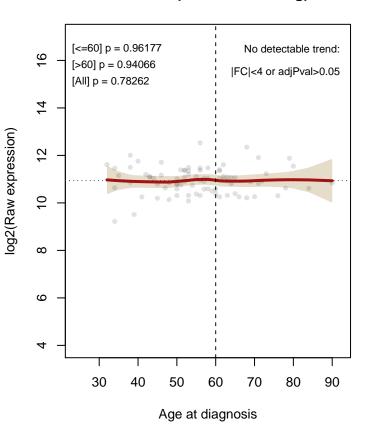
NFKB2 (non-ER binding)

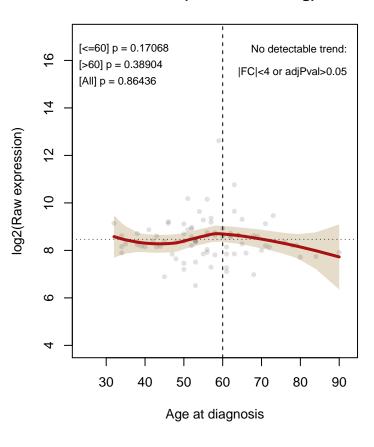




#### NFKBIA (non-ER binding)

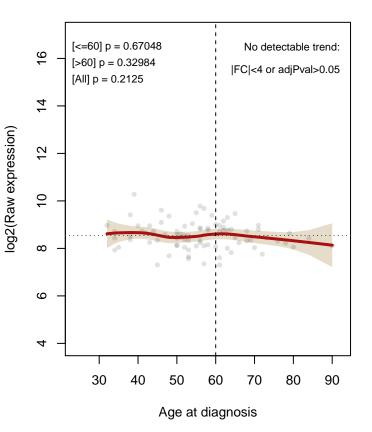
#### NFKBIB (non-ER binding)

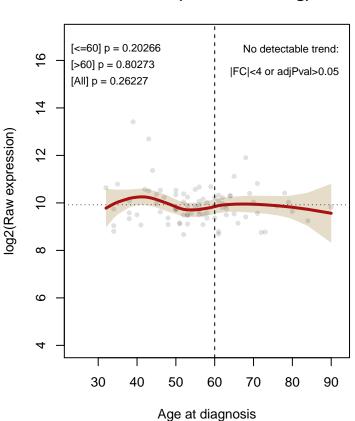




# NFKBIE (non-ER binding)

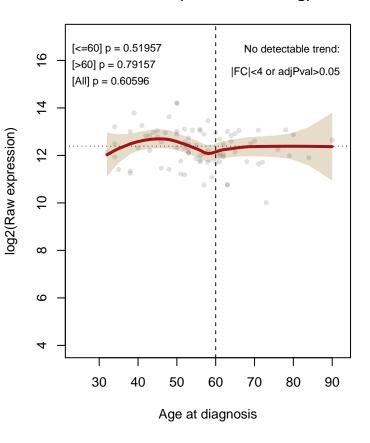
# NOTCH1 (non-ER binding)

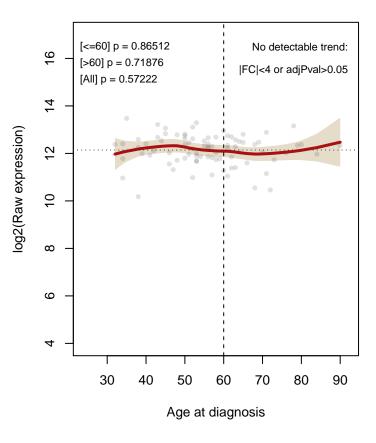




#### NOTCH2 (non-ER binding)

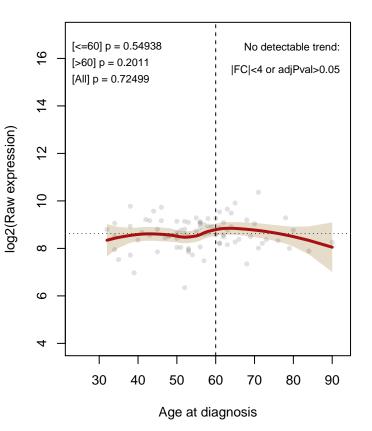
# NOTCH3 (non-ER binding)

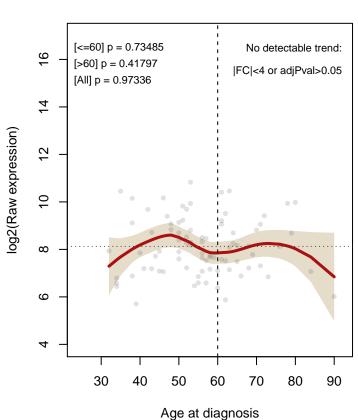




# NOTCH4 (non-ER binding)

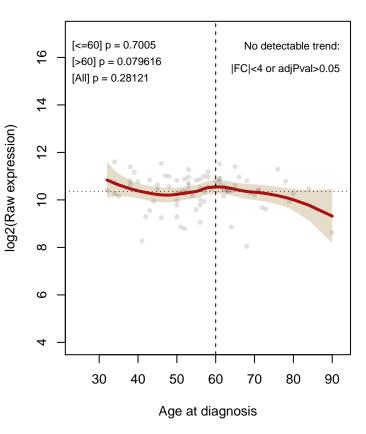
# NR4A2 (non-ER binding)

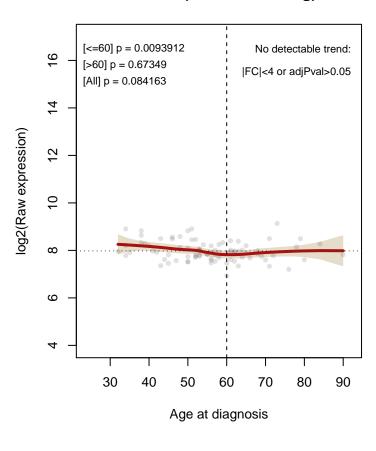






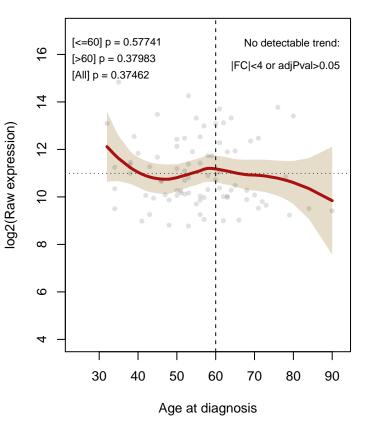
#### PCGF1 (non-ER binding)

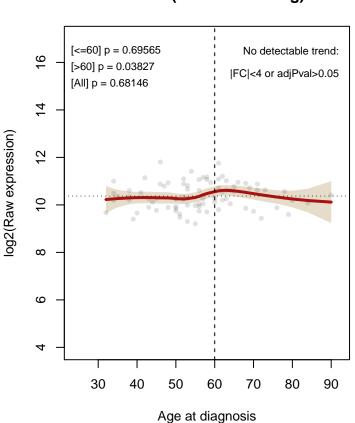




# PCGF2 (non-ER binding)

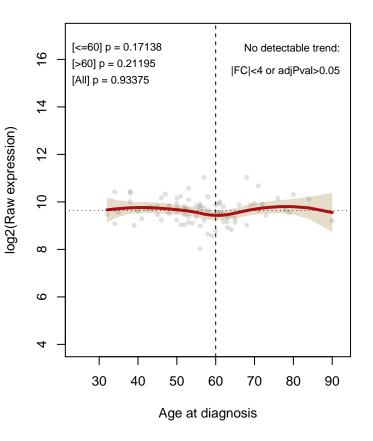
PCGF3 (non-ER binding)

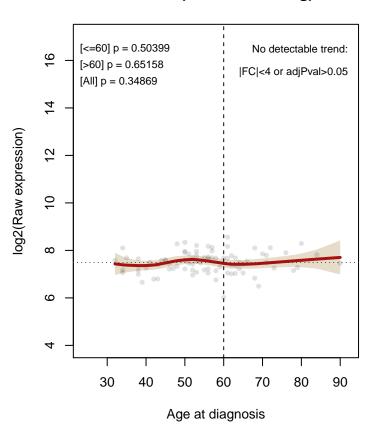






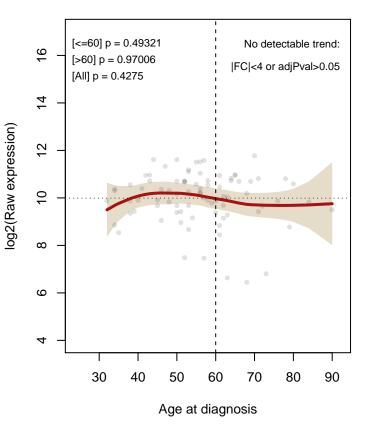
#### PCGF6 (non-ER binding)

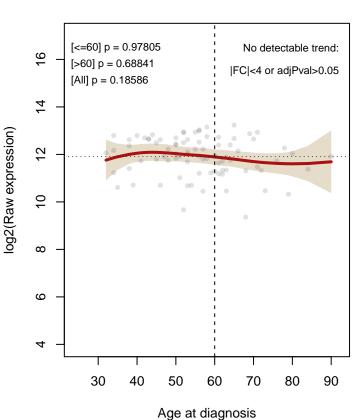




# PDGFRA (non-ER binding)

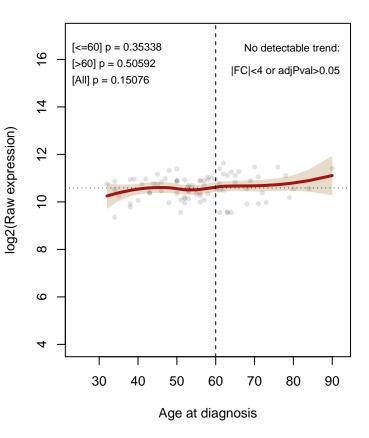
# PDGFRB (non-ER binding)

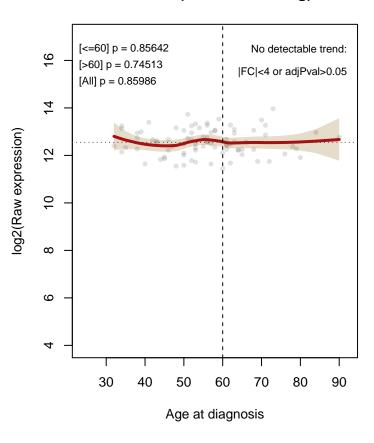






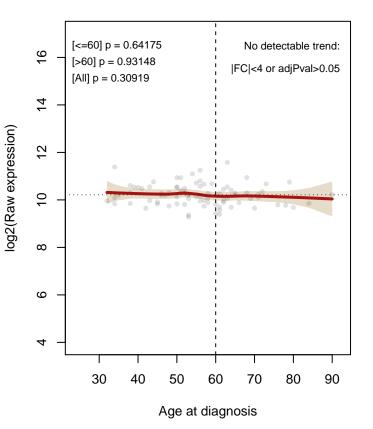
#### PEBP1 (non-ER binding)

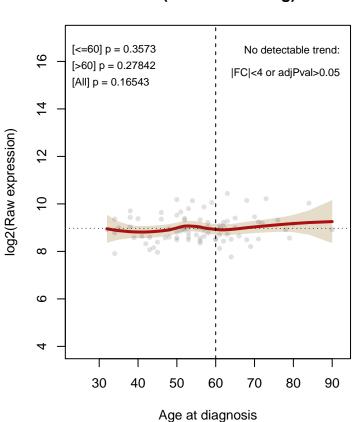


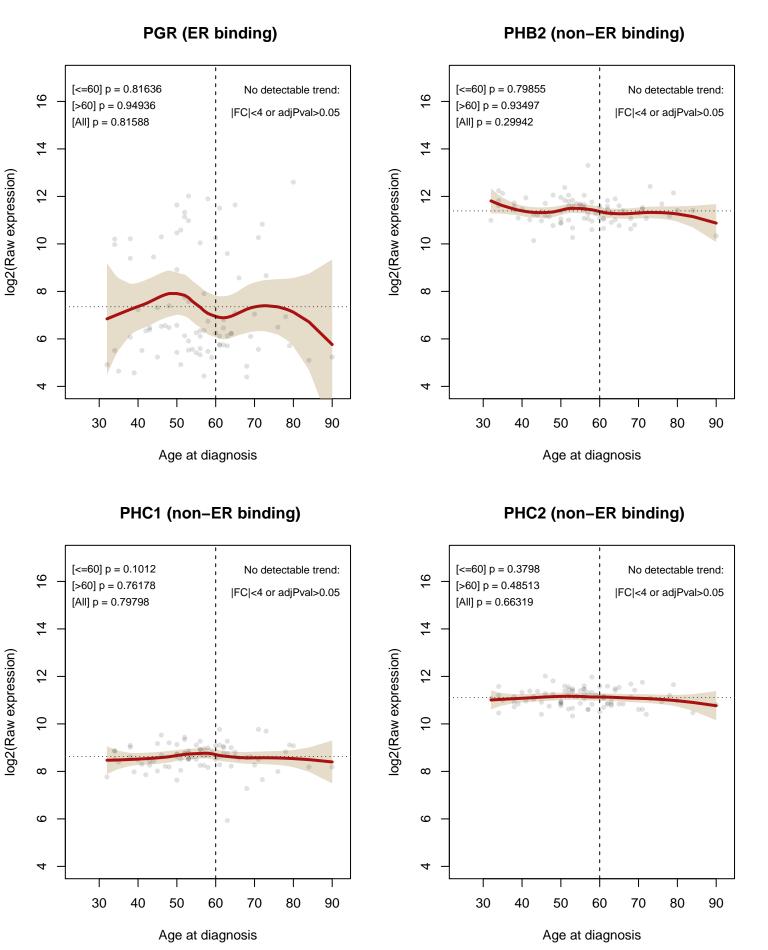


PELP1 (non-ER binding)

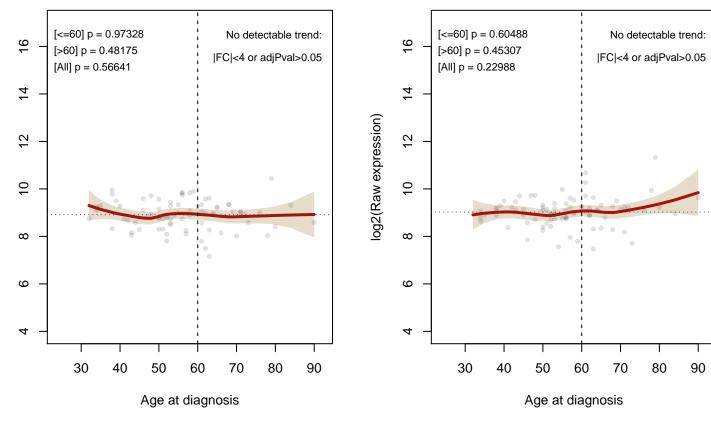
PGP (non-ER binding)





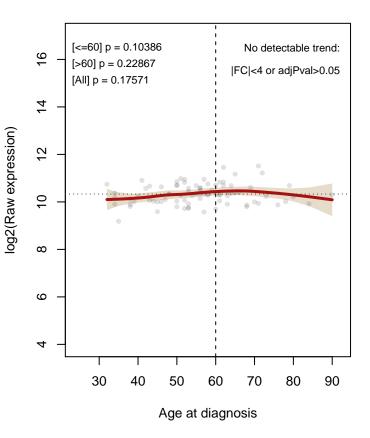


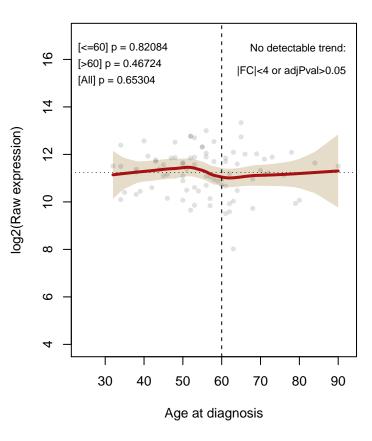
#### PHC3 (non-ER binding) PHF1 (non-ER binding) [<=60] p = 0.9401 No detectable trend: [<=60] p = 0.98561No detectable trend: 16 16 [>60] p = 0.8483 [>60] p = 0.19115 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.17744[All] p = 0.914054 4 log2(Raw expression) log2(Raw expression) 12 12 19 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 = 0.97328No detectable trend: [<=60] p = 0.6048816 16 [>60] p = 0.48175 [>60] p = 0.45307|FC|<4 or adjPval>0.05 [All] p = 0.56641[All] p = 0.229884 4 log2(Raw expression) 12 12





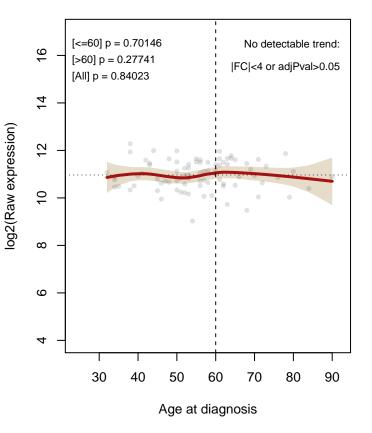
#### PLAU (non-ER binding)

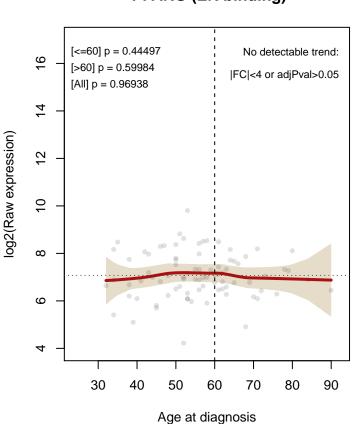


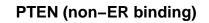


# PODXL (non-ER binding)

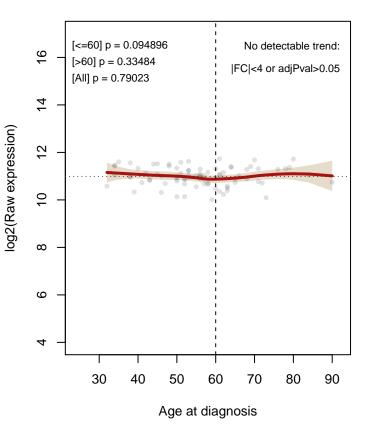
#### **PPARG (ER binding)**

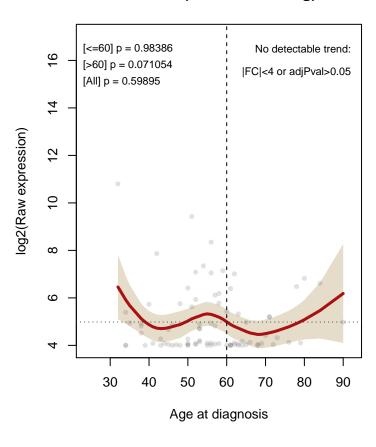






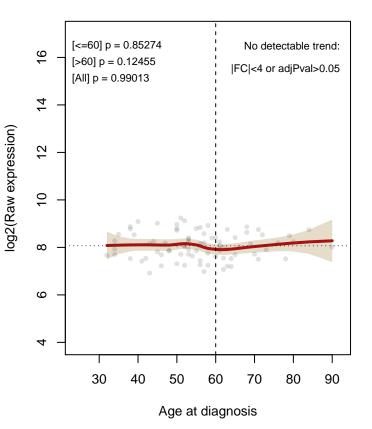
#### **PYDC1** (non-ER binding)

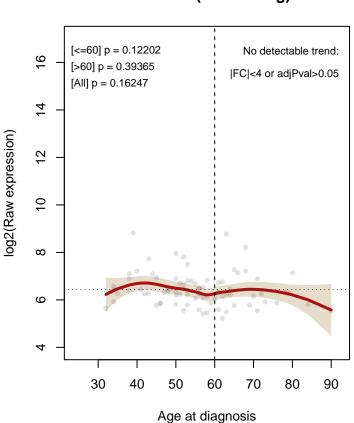




# RAD51 (non-ER binding)

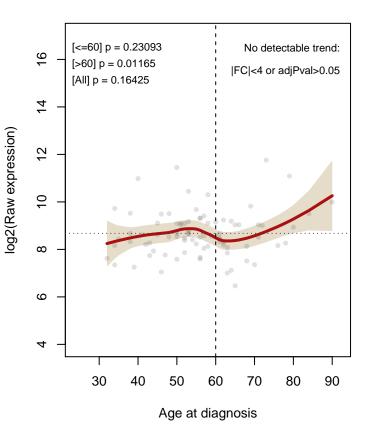
#### RAD51B (ER binding)

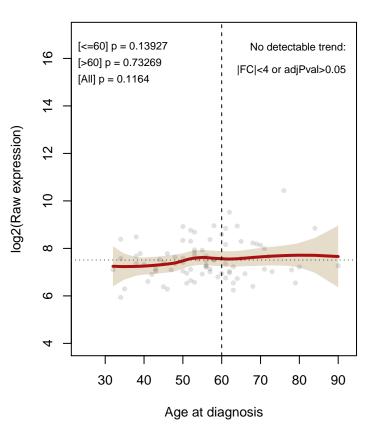




# RAD51C (non-ER binding)

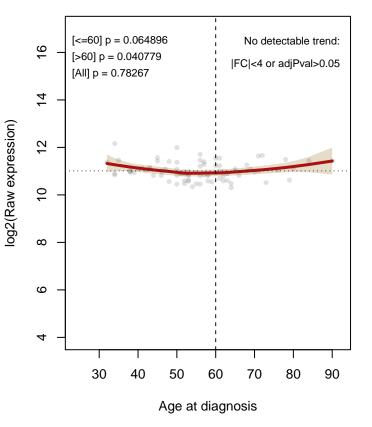
# RAD51D (non-ER binding)

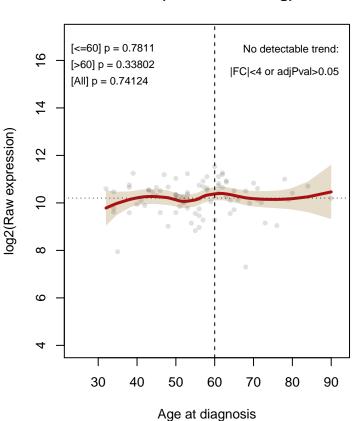




RAF1 (non-ER binding)

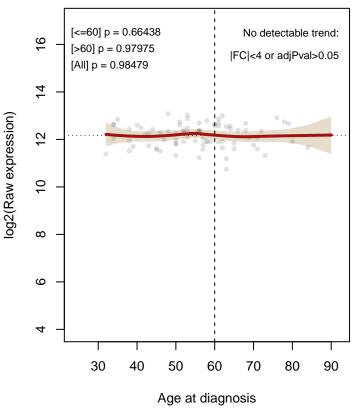
RB1 (non-ER binding)

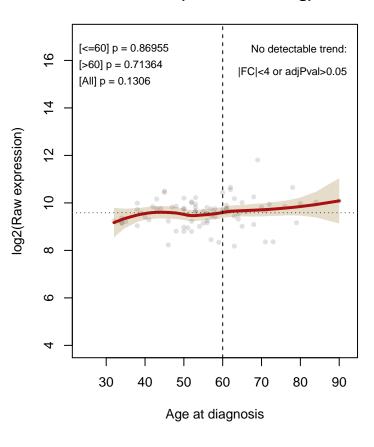






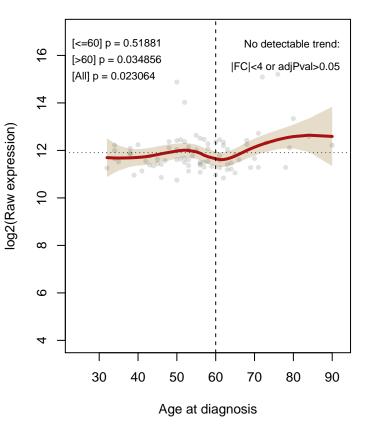
#### RBBP5 (non-ER binding)

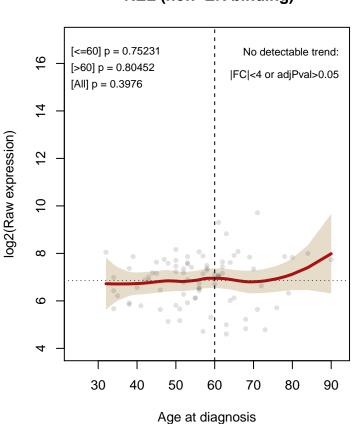


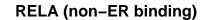


# RBBP7 (non-ER binding)

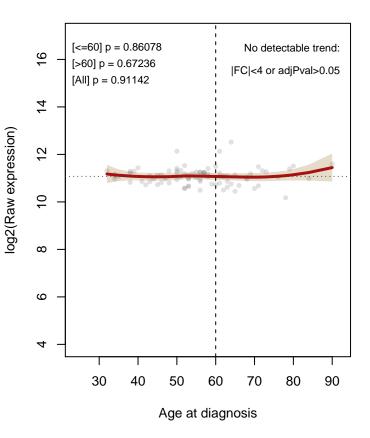
**REL** (non-ER binding)

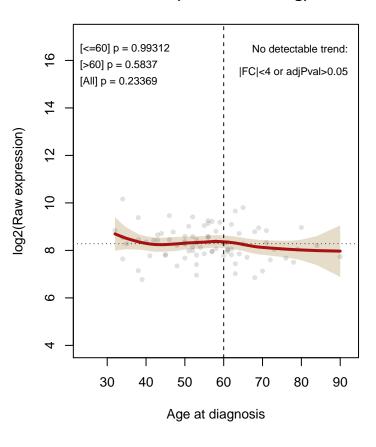






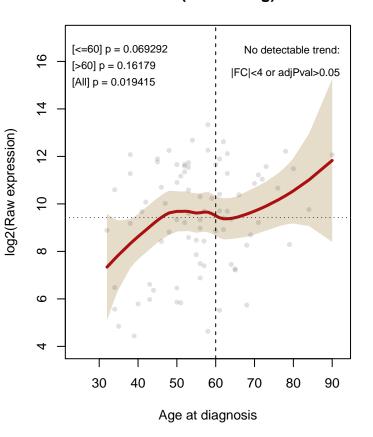
#### **RELB** (non-ER binding)

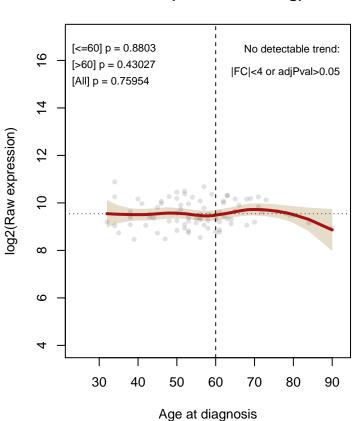




# **RET (ER binding)**

RING1 (non-ER binding)





#### RNF2 (non-ER binding) **RUNX1 (ER binding)** [<=60] p = 0.54794No detectable trend: [<=60] p = 0.057952 No detectable trend: 16 16 [>60] p = 0.63027 [>60] p = 0.56507 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.35823[All] p = 0.0299454 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 **RUNX3 (non-ER binding)** RYBP (non-ER binding) [<=60] p = 0.17382No detectable trend: [<=60] p = 0.13844No detectable trend: 16 16 [>60] p = 0.21118 [>60] p = 0.78157 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [AII] p = 0.37105[All] p = 0.0041574 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9

30

40

50

60

Age at diagnosis

70

80

90

30

40

50

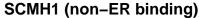
60

Age at diagnosis

70

80

90



# [<=60] p = 0.45902No detectable trend:

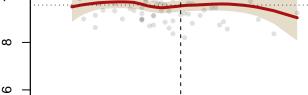


16

4

log2(Raw expression)





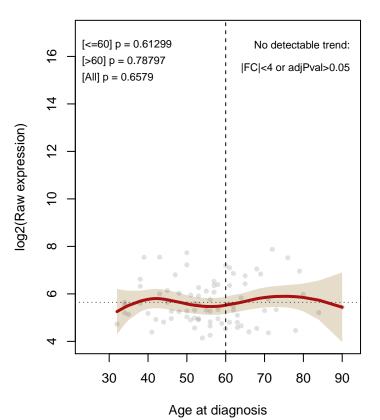
# Age at diagnosis

50

30

40

# SCML2 (non-ER binding)



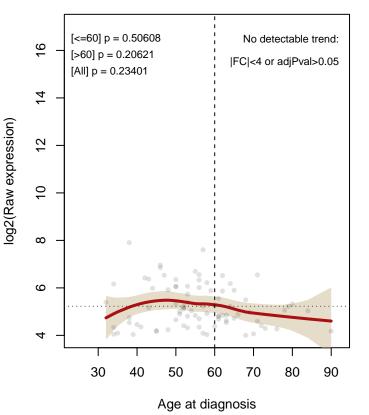
# SCML4 (non-ER binding)

60

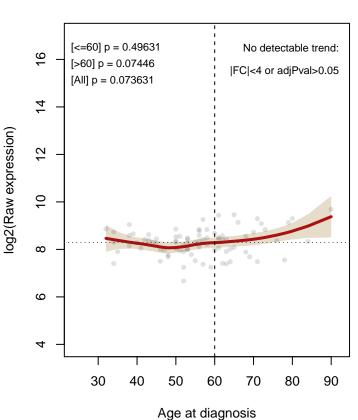
70

80

90

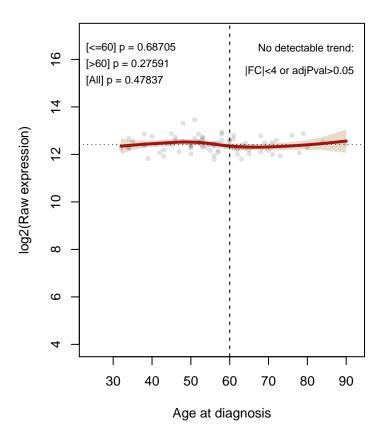


# SFMBT1 (ER binding)



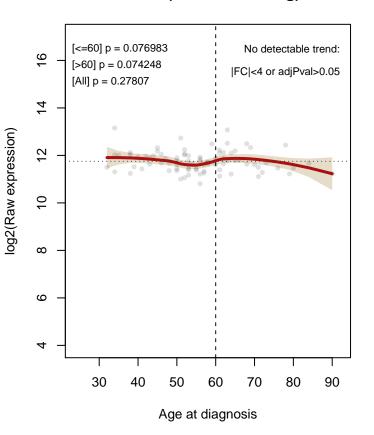
# SFMBT2 (ER binding) [<=60] p = 0.75391 No detectable trend: 16 [>60] p = 0.73652 [All] p = 0.586844 log2(Raw expression) 12

# SFPQ (non-ER binding)

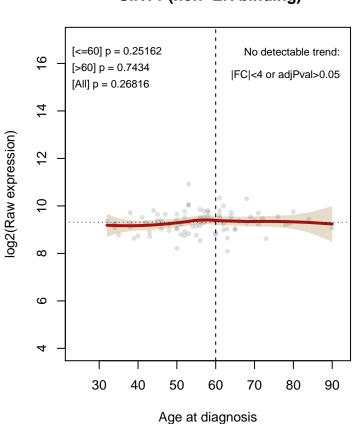


|FC|<4 or adjPval>0.05 10 ω 9 30 40 50 60 70 80 90 Age at diagnosis

# SHC1 (non-ER binding)

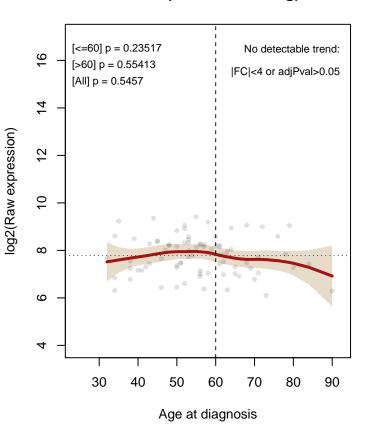


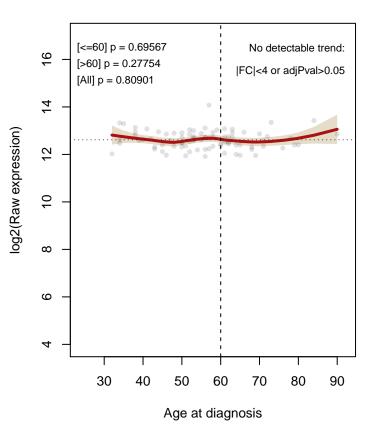
# SIRT1 (non-ER binding)



#### SKP2 (non-ER binding)

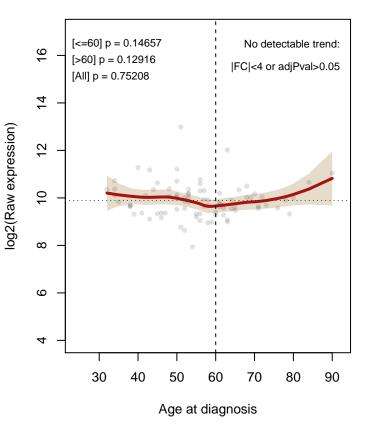
#### SLC25A3 (non-ER binding)

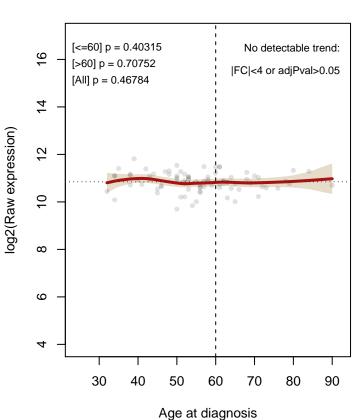




# SMAD1 (non-ER binding)

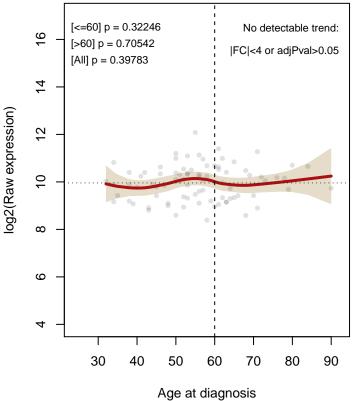
SMAD2 (non-ER binding)

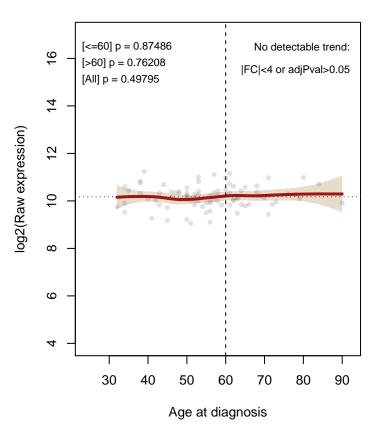




# SMAD3 (ER binding)

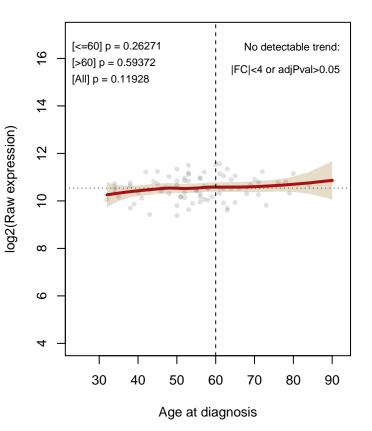
# SMAD4 (non-ER binding)

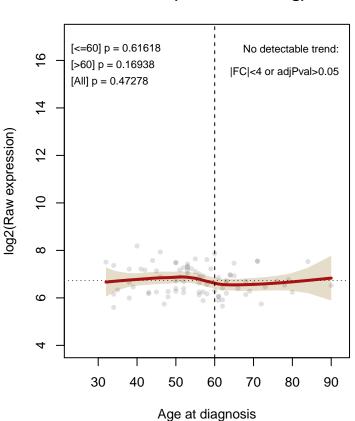


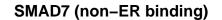


# SMAD5 (non-ER binding)

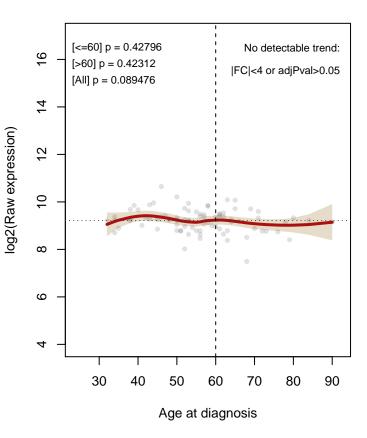
SMAD6 (non-ER binding)

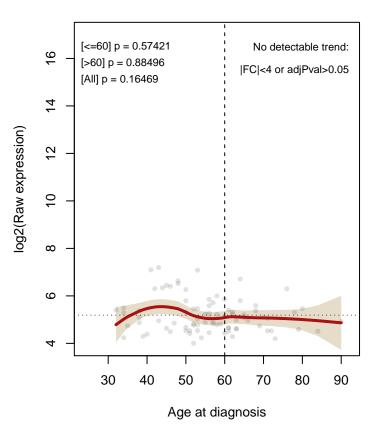






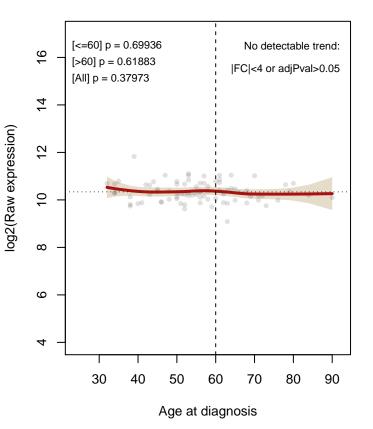
# SMAD9 (non-ER binding)

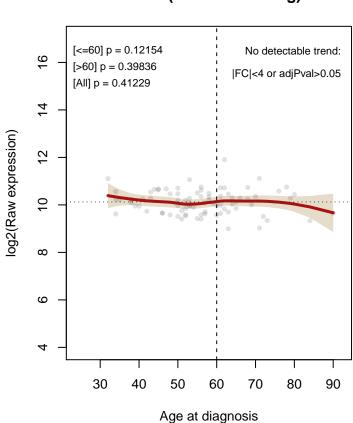


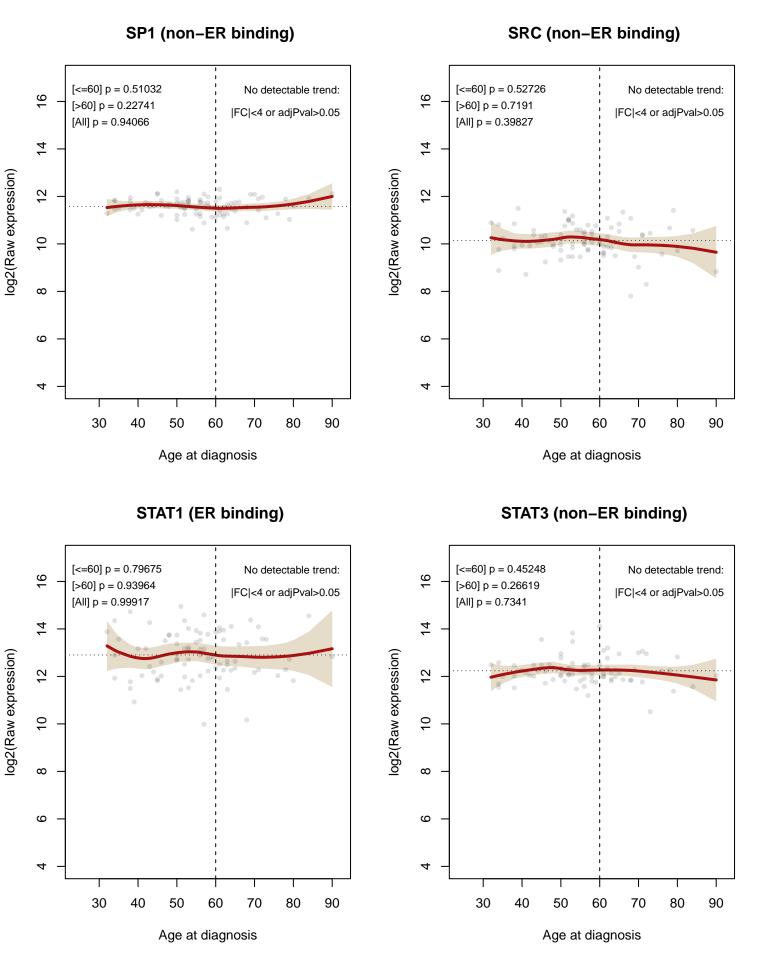


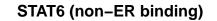
# SOS1 (non-ER binding)

SOS2 (non-ER binding)

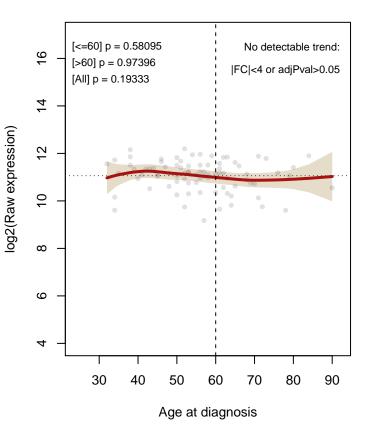


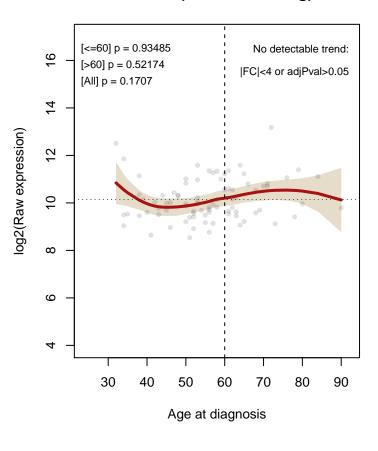






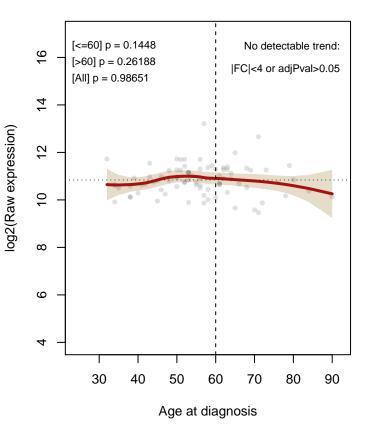
#### SUZ12 (non-ER binding)

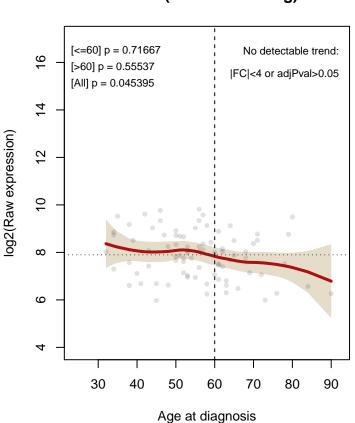




# TCF3 (non-ER binding)

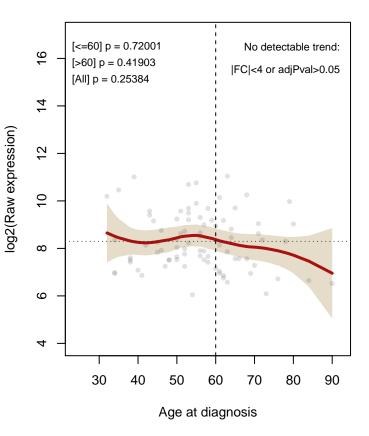
TCF7 (non-ER binding)

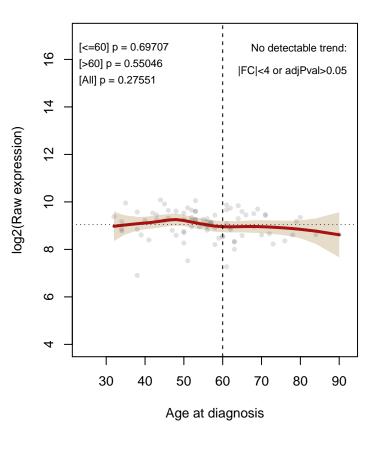






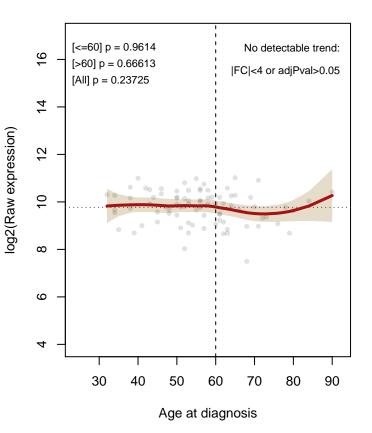
#### TCF7L2 (non-ER binding)

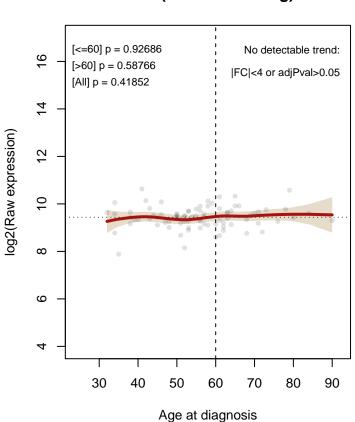


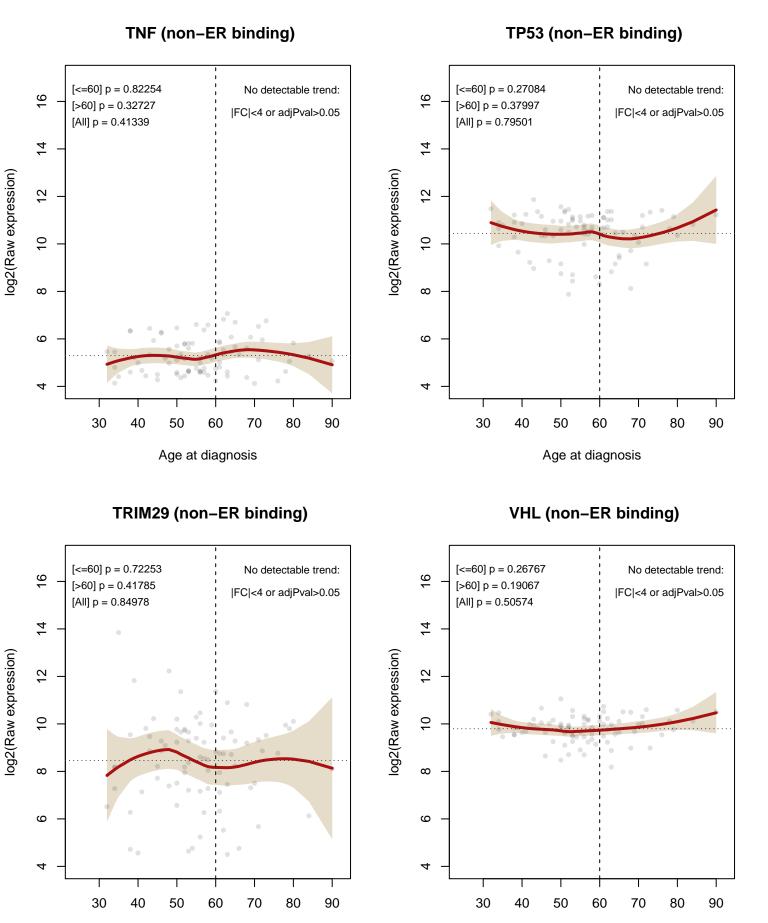


# TGFB1 (non-ER binding)

# TK2 (non-ER binding)



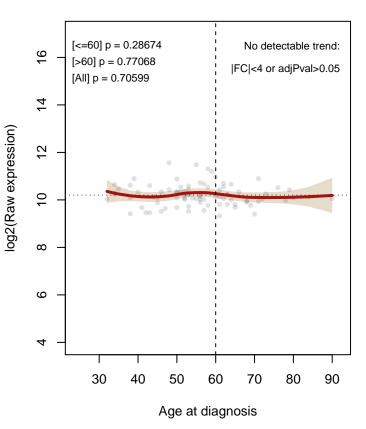




Age at diagnosis

Age at diagnosis





# [<=60] p = 0.65929No detectable trend: 16 [>60] p = 0.92503 |FC|<4 or adjPval>0.05 [All] p = 0.139424 log2(Raw expression) 12 10 ω 9 30 40 50 60 70 80 90 Age at diagnosis

WHSC1 (non-ER binding)

# WNT1 (non-ER binding)

# [<=60] p = 0.74742 No detectable trend: 16 [>60] p = 0.14483 |FC|<4 or adjPval>0.05 [AII] p = 0.0978344 12 10 ω 9

30

40

50

60

Age at diagnosis

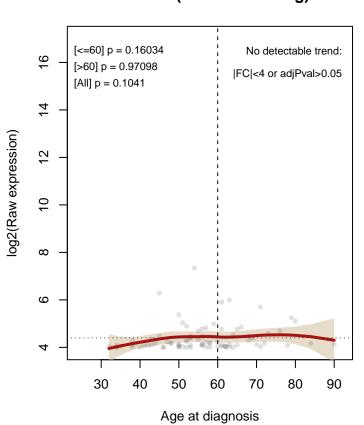
70

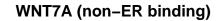
80

90

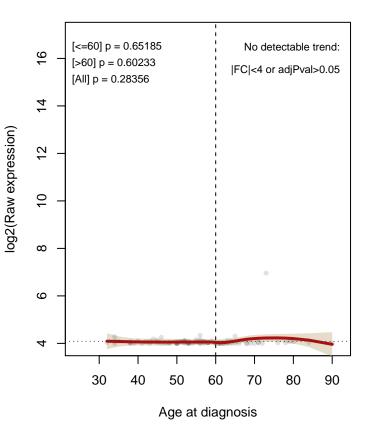
log2(Raw expression)

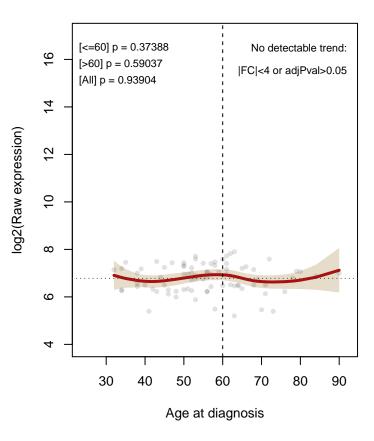
# WNT3A (non-ER binding)





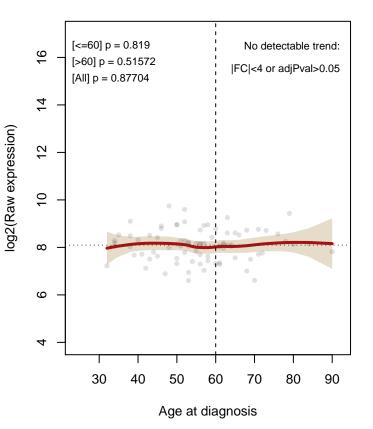
#### XRCC2 (non-ER binding)

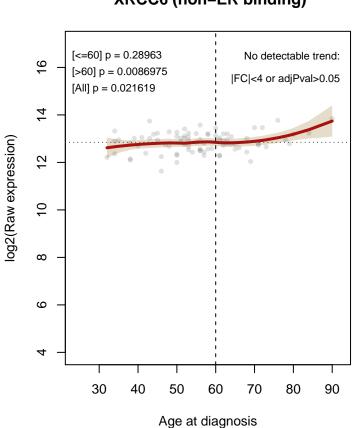




# XRCC3 (non-ER binding)

XRCC6 (non-ER binding)





#### YAF2 (non-ER binding)

# [<=60] p = 0.79577No detectable trend: 16 [>60] p = 0.20996 |FC|<4 or adjPval>0.05 [All] p = 0.627584 log2(Raw expression) 12 10

ω

9

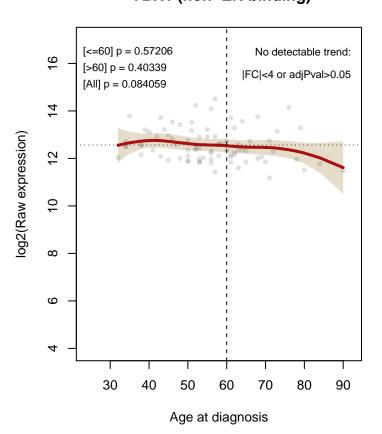
4

30

40

50

# YBX1 (non-ER binding)



YY1 (non-ER binding)

Age at diagnosis

60

70

80

90

