

#### ASXL3 (non-ER binding) ATM (non-ER binding) [<=60] p = 0.53036No detectable trend: [<=60] p = 0.49183No detectable trend: 16 16 [>60] p = 0.83651 [>60] p = 0.45266 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [All] p = 0.30423[AII] p = 0.20744 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 ATR (non-ER binding) **AXIN1 (ER binding)** [<=60] p = 0.94907No detectable trend: [<=60] p = 0.097443No detectable trend: 16 16 [>60] p = 0.74207 [>60] p = 0.59644 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.4629[All] p = 0.787074 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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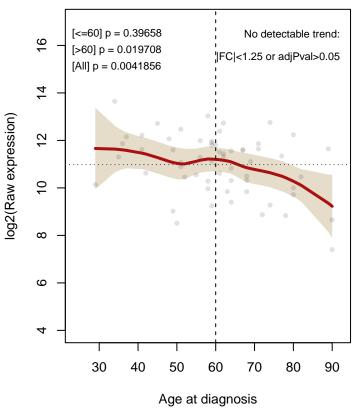
Age at diagnosis

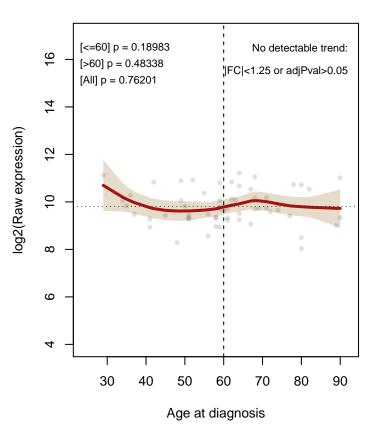
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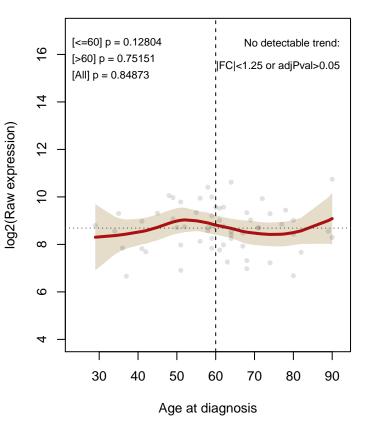
BCL3 (non-ER binding)

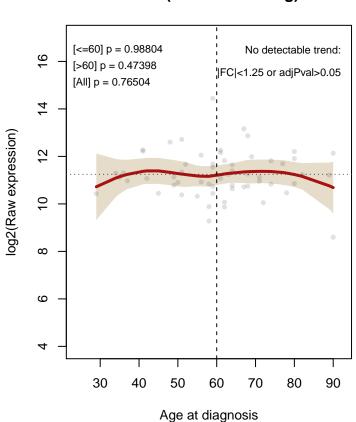


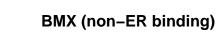


**BIRC5** (non-ER binding)

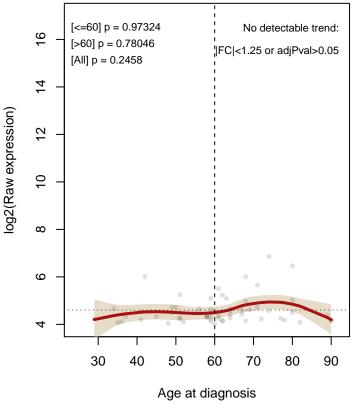
**BMI1 (non-ER binding)** 

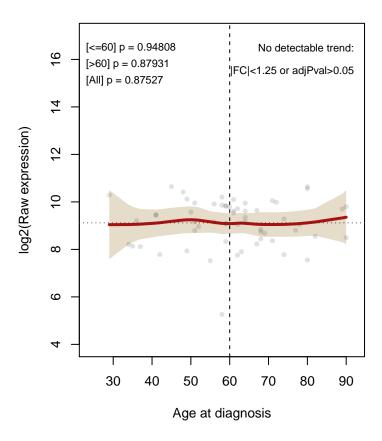






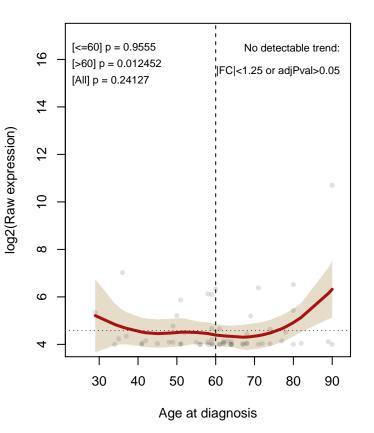
#### **BRCA1** (non-ER binding)

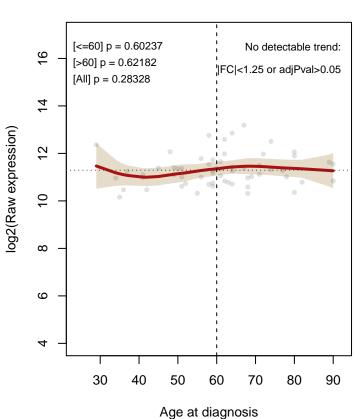




CA9 (non-ER binding)

CBX1 (non-ER binding)





#### CBX2 (non-ER binding) **CBX4** (non-ER binding) [<=60] p = 0.34252No detectable trend: [<=60] p = 0.31569No detectable trend: 16 16 [>60] p = 0.53166 [>60] p = 0.62417 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.93154[All] p = 0.150634 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 = 0.78263No detectable trend: [<=60] p = 0.95578No detectable trend: 16 16 [>60] p = 0.038562 [>60] p = 0.023679 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [All] p = 0.010655[All] p = 0.0613264 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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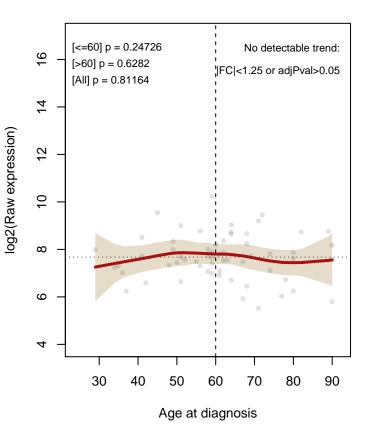
Age at diagnosis

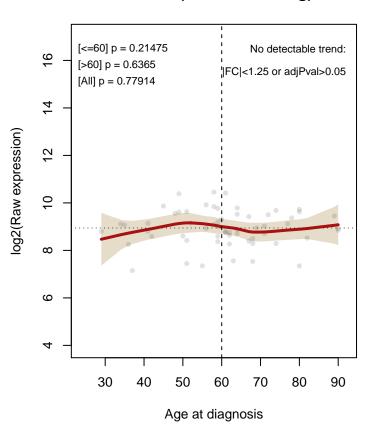
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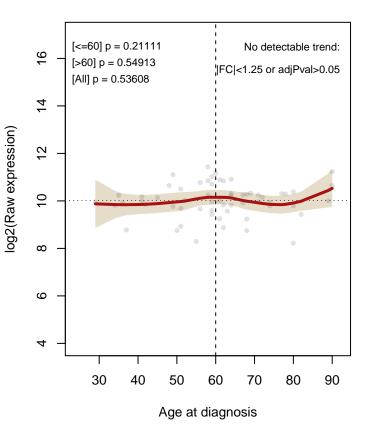
#### CCNA2 (non-ER binding)

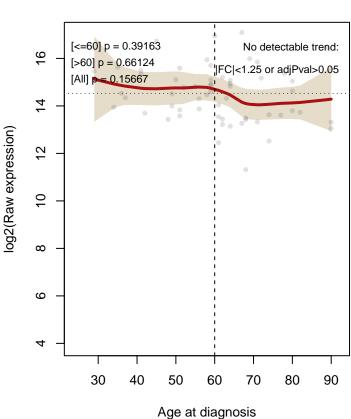


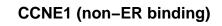


#### CCNB1 (non-ER binding)

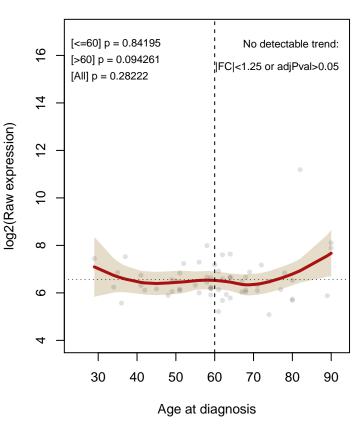
#### **CCND1 (ER binding)**

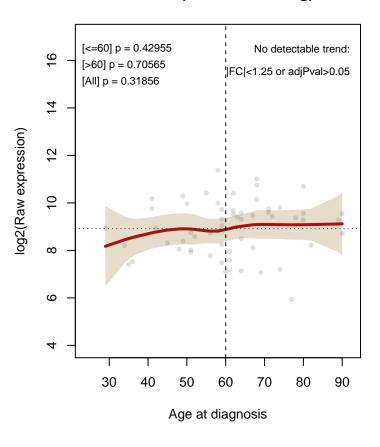






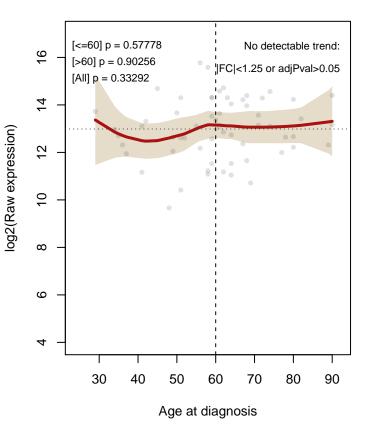
#### CD163 (non-ER binding)

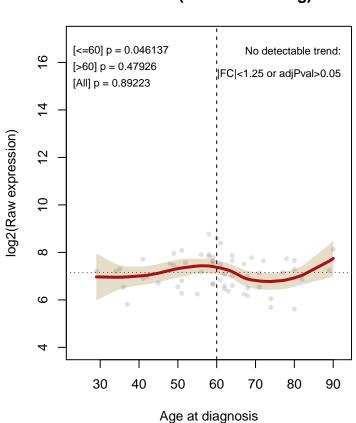


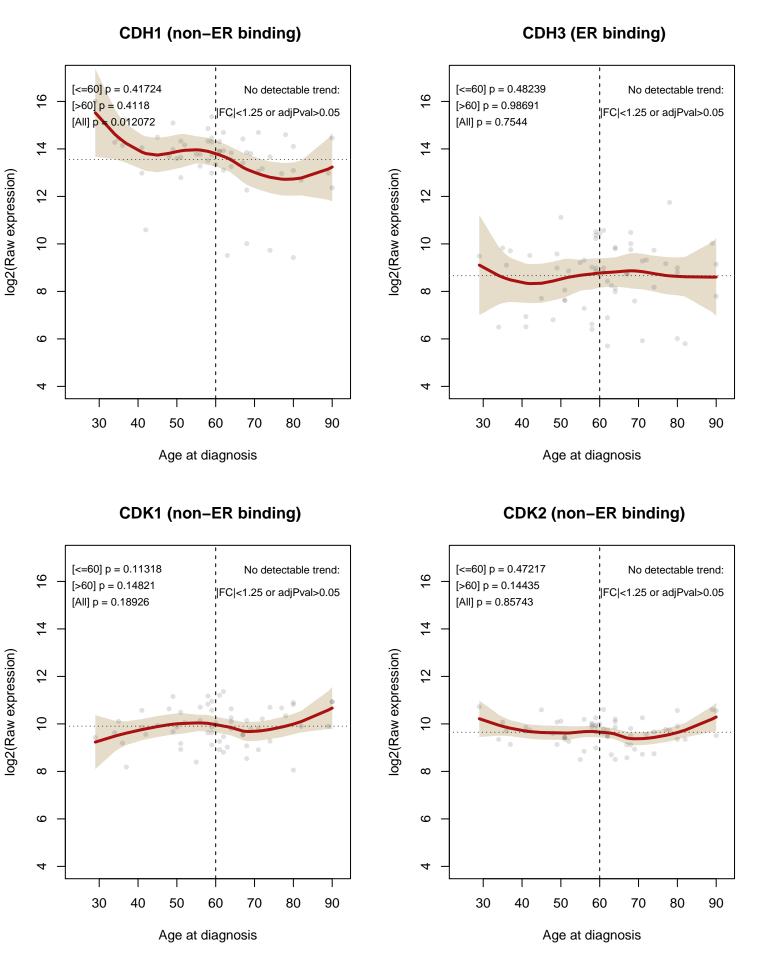


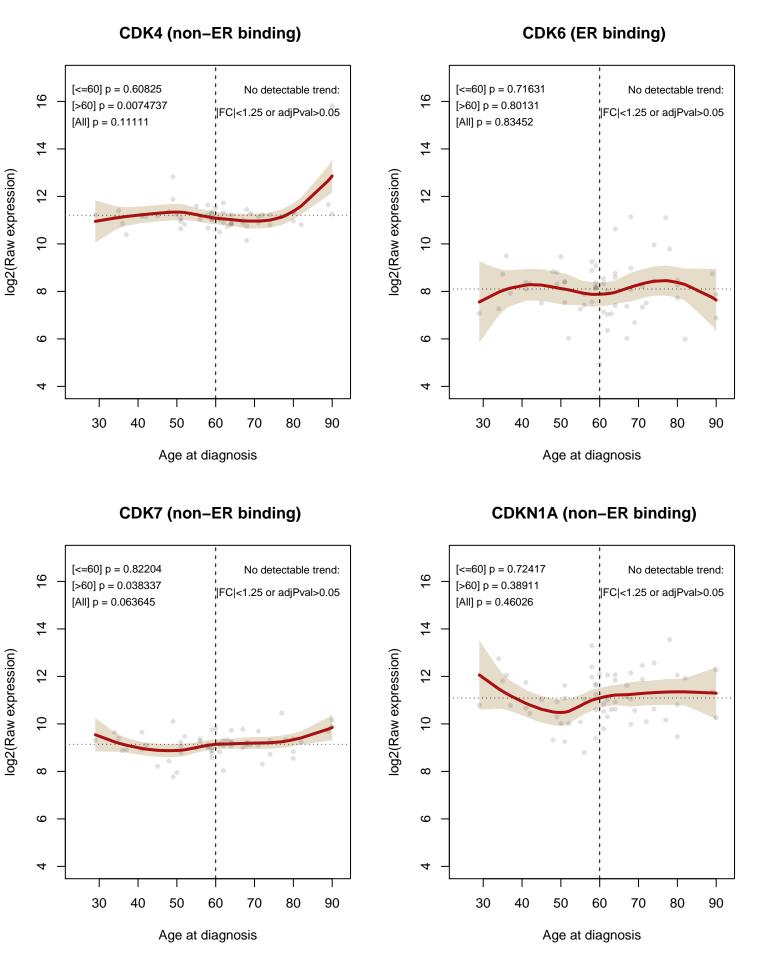
#### CD44 (non-ER binding)

CDC25C (non-ER binding)



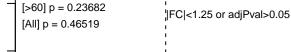






#### CDKN1B (non-ER binding)

# [<=60] p = 0.77398No detectable trend:

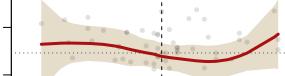


16

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log2(Raw expression)



# 19 ω



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Age at diagnosis

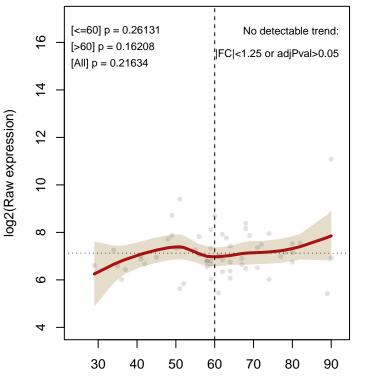
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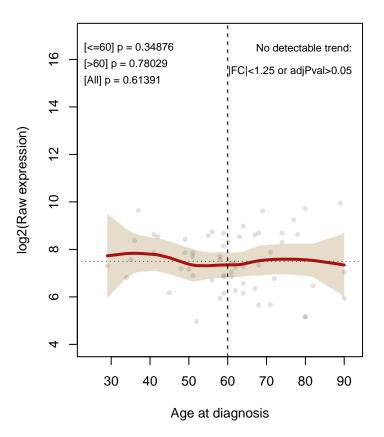
90

#### CDKN2A (non-ER binding)

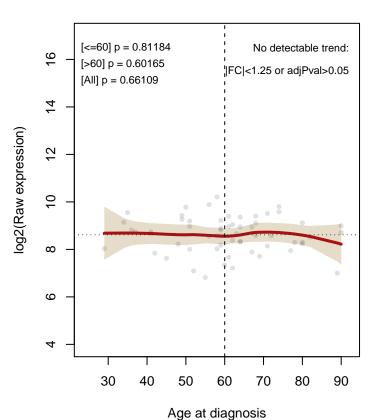


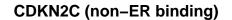
Age at diagnosis

#### CDKN1C (non-ER binding)

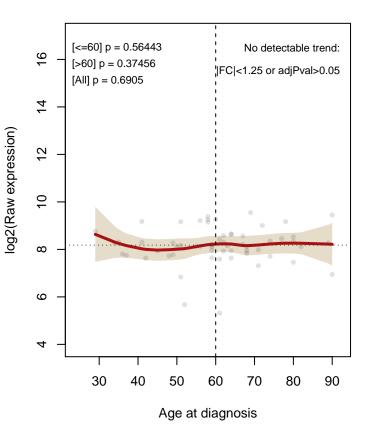


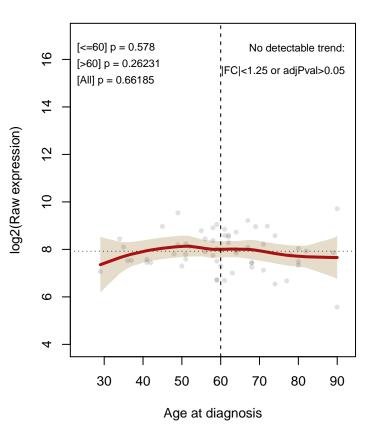
#### CDKN2B (non-ER binding)





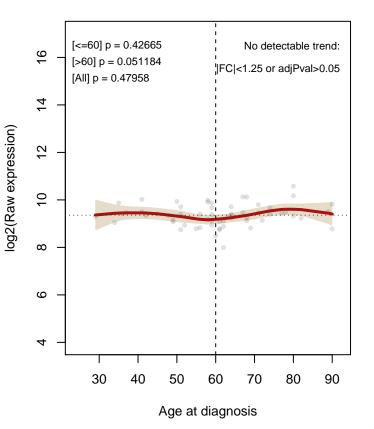
#### CDKN2D (non-ER binding)

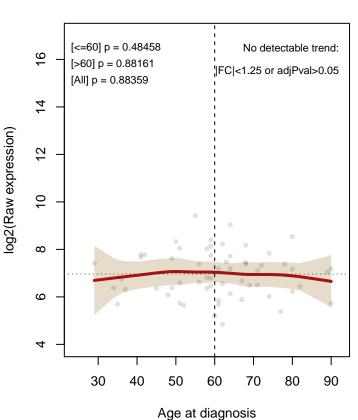




## CHUK (non-ER binding)

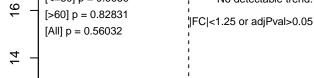
#### CIITA (non-ER binding)

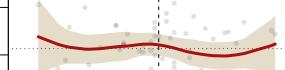




#### CLDN3 (non-ER binding)

## [<=60] p = 0.9059No detectable trend:





# 10 ω

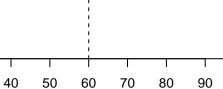
log2(Raw expression)

log2(Raw expression)

12

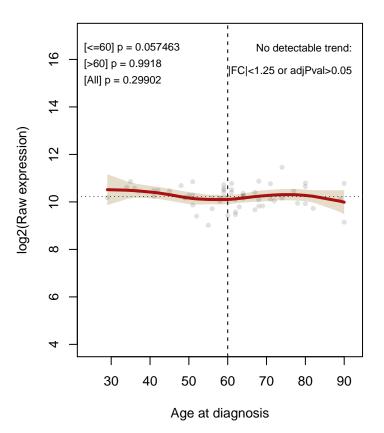
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Age at diagnosis

#### CREB1 (non-ER binding)

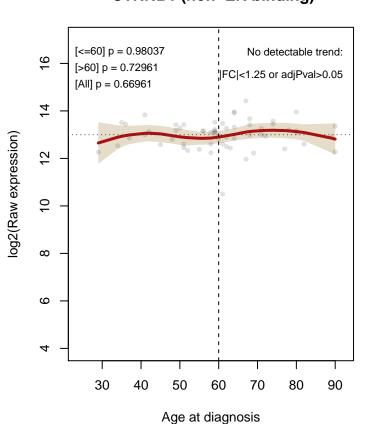


#### **CRYAB** (non-ER binding)

## [<=60] p = 0.2356No detectable trend: 16 [>60] p = 0.68105 |FC|<1.25 or adjPval>0.05 [All] p = 0.616644 12 10 ω 9 30 40 50 60 70 80 90

Age at diagnosis

#### CTNNB1 (non-ER binding)



#### **DLC1 (ER binding)** DMAP1 (non-ER binding) [<=60] p = 0.44874No detectable trend: [<=60] p = 0.90172No detectable trend: 16 16 [>60] p = 0.077541 [>60] p = 0.53743 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.186[All] p = 0.485214 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 **DNMT1** (non-ER binding) **DNMT3A (non-ER binding)** [<=60] p = 0.12272No detectable trend: [<=60] p = 0.99542No detectable trend: 16 16 [>60] p = 0.66021 [>60] p = 0.22137 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [All] p = 0.22149[All] p = 0.0349144 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$

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Age at diagnosis

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Age at diagnosis

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# **DNMT3B** (non-ER binding) [<=60] p = 0.91426No detectable trend: 16 [>60] p = 0.71911 |FC|<1.25 or adjPval>0.05 [All] p = 0.752274 log2(Raw expression) 12 10

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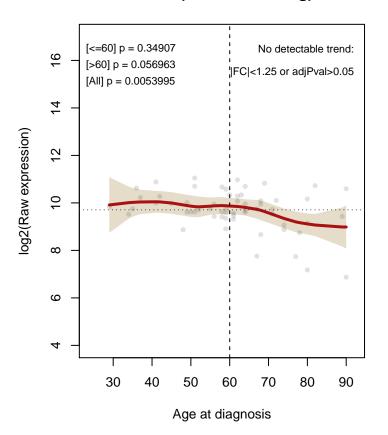
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#### **DVL1 (non-ER binding)**



E2F1 (non-ER binding)

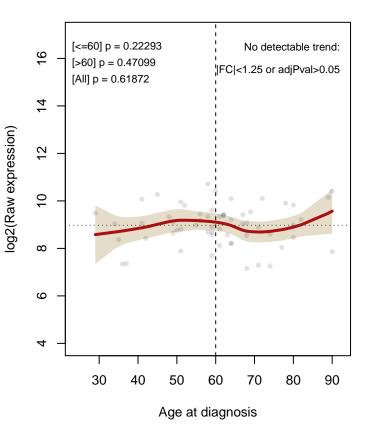
Age at diagnosis

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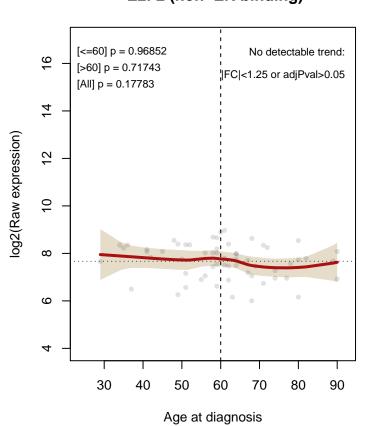
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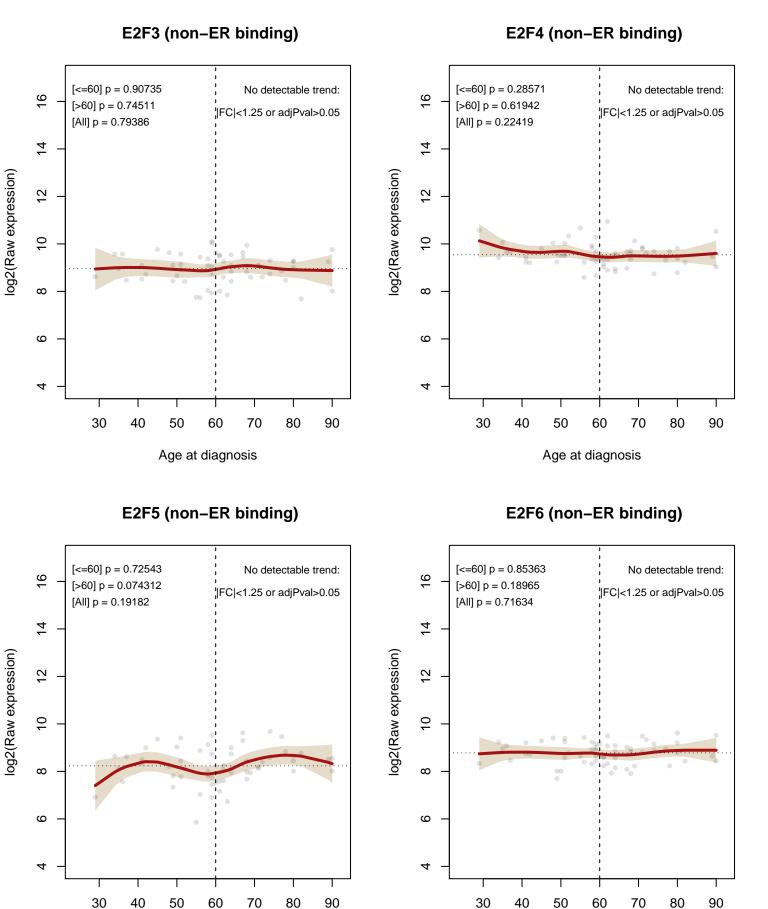
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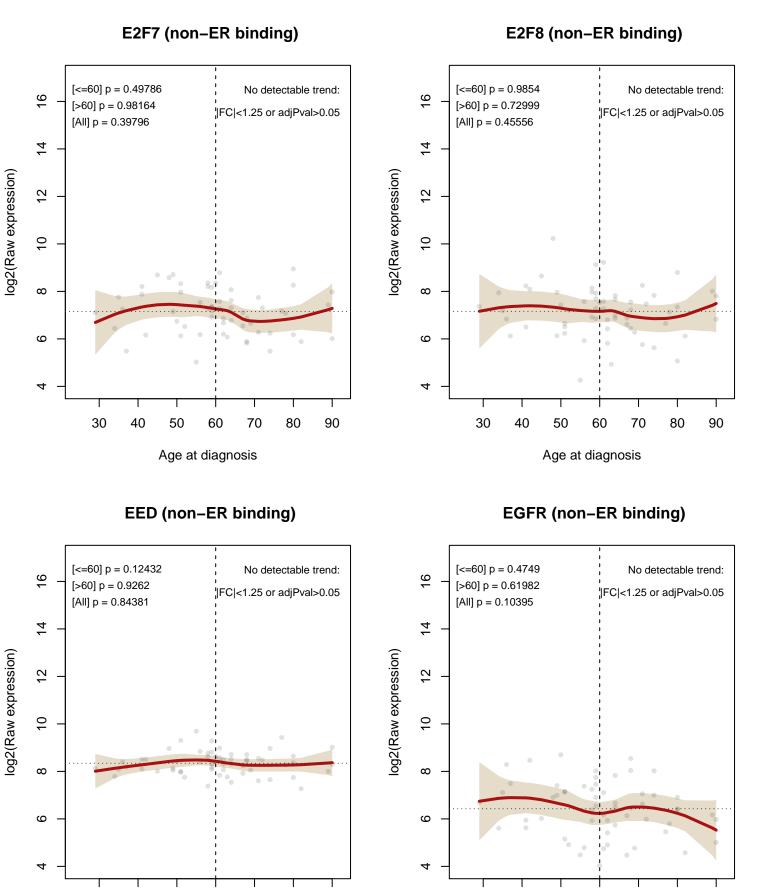
#### E2F2 (non-ER binding)





Age at diagnosis

Age at diagnosis

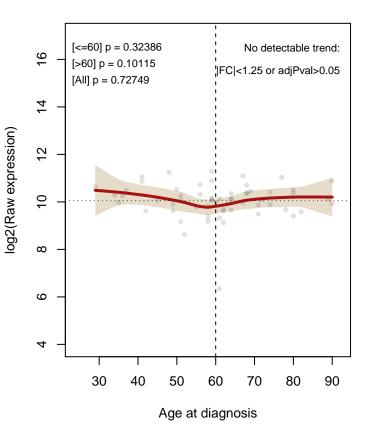


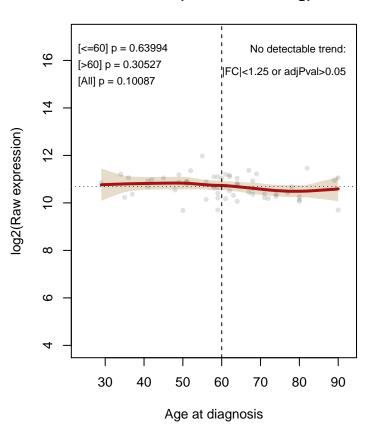
Age at diagnosis

Age at diagnosis



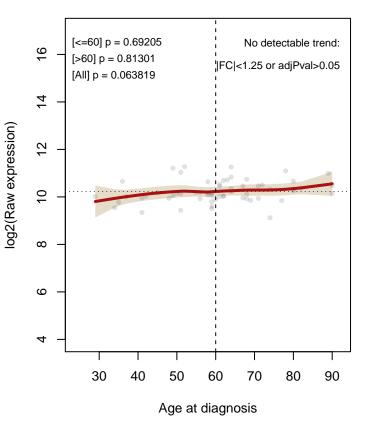
#### **EHMT2** (non-ER binding)

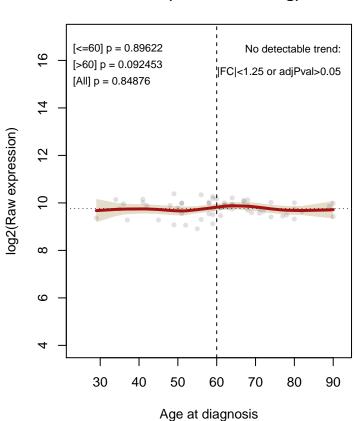




**ELAC2 (non-ER binding)** 

#### **ELK1 (non-ER binding)**





#### EP300 (non-ER binding) **EPAS1** (non-ER binding) [<=60] p = 0.28924No detectable trend: [<=60] p = 0.047791No detectable trend: 16 16 [>60] p = 0.16256 [>60] p = 0.98354 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [All] p = 0.052433[All] p = 0.0489114 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 **EPC1** (non-ER binding) **EPC2** (non-ER binding) [<=60] p = 0.04524No detectable trend: [<=60] p = 0.049033No detectable trend: 16 16 [>60] p = 0.09967 [>60] p = 0.60229 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.0097816[All] p = 0.0554944 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$

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Age at diagnosis

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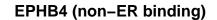
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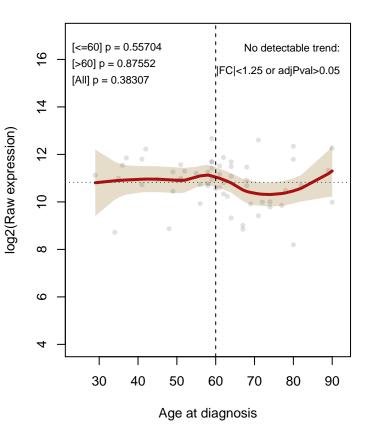
Age at diagnosis

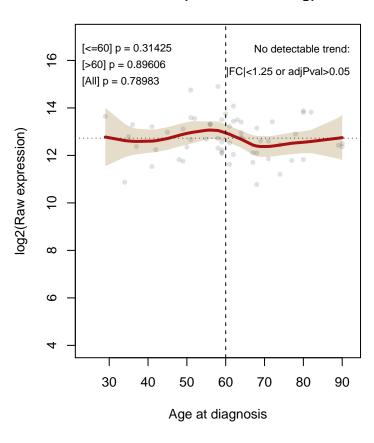
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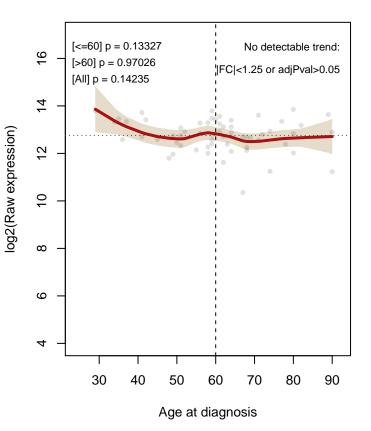
#### **ERBB2** (non-ER binding)

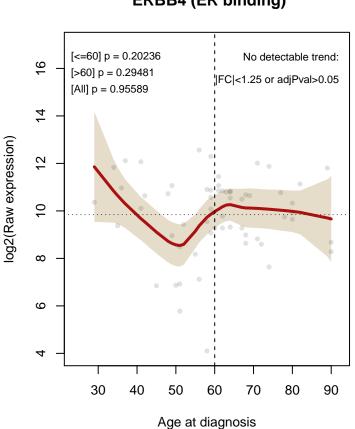


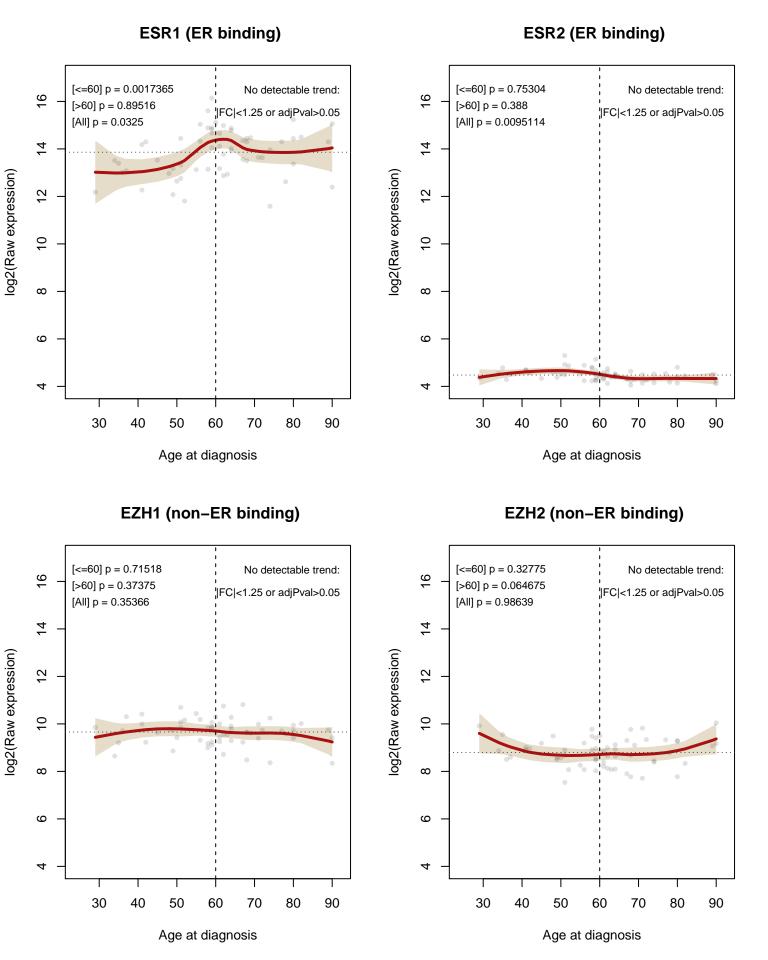


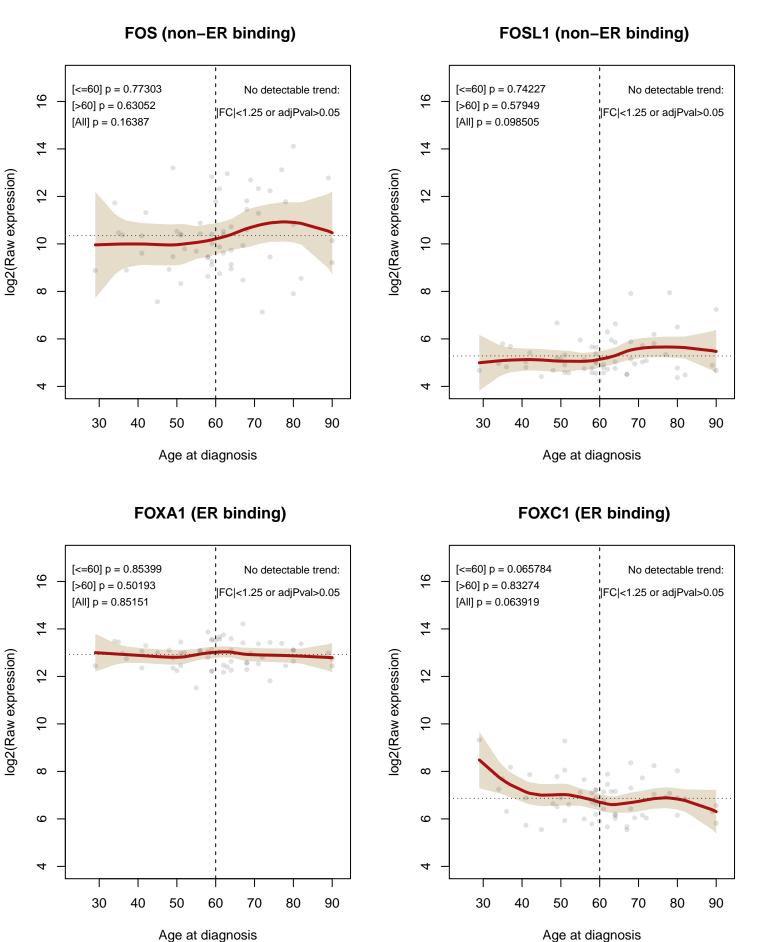
ERBB3 (non-ER binding)

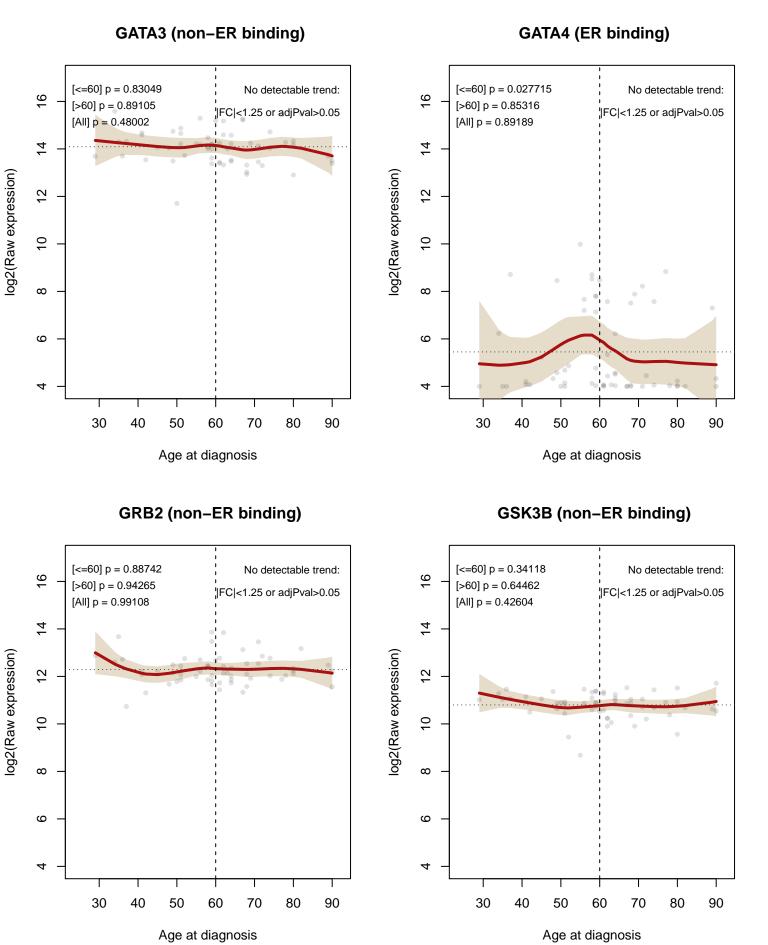
**ERBB4 (ER binding)** 

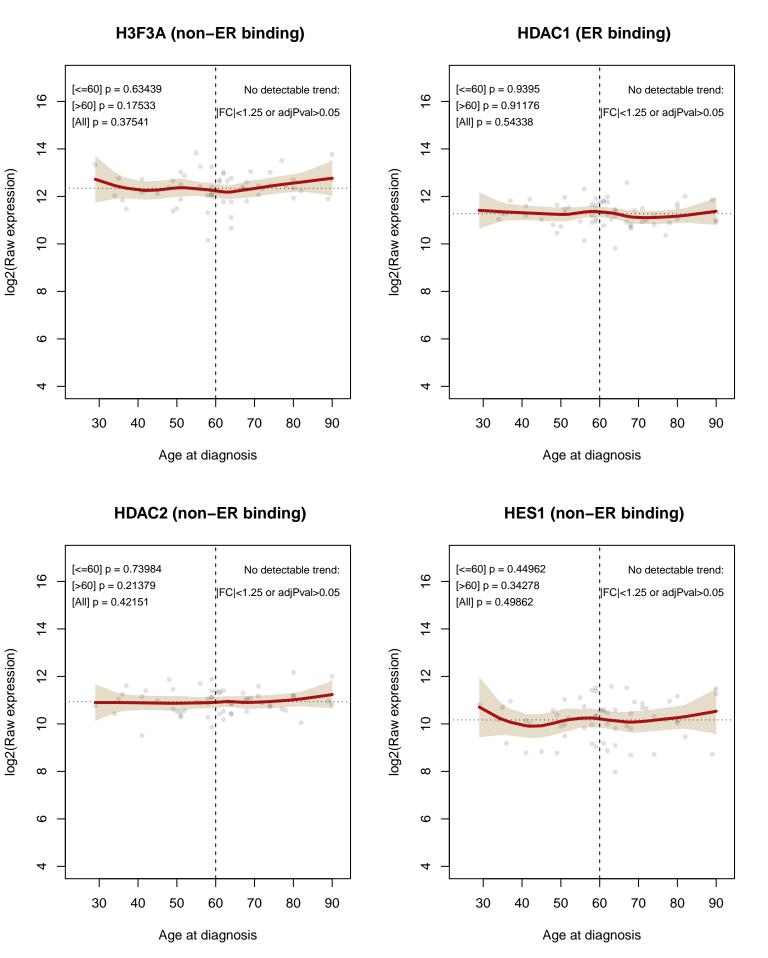






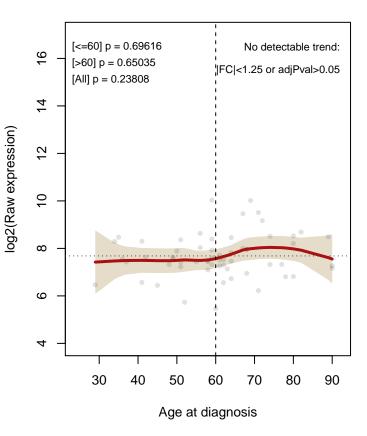


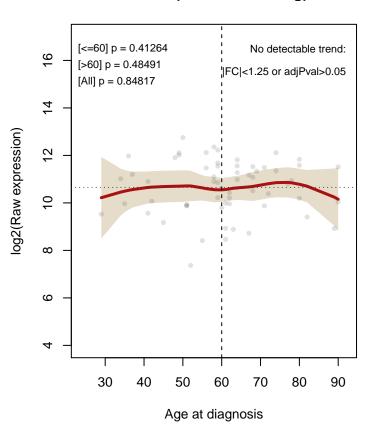






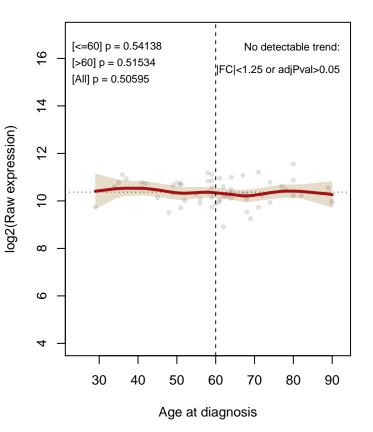
#### HIF1A (non-ER binding)

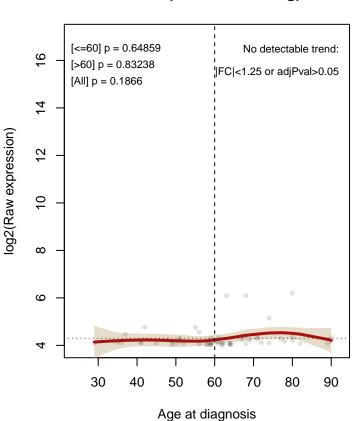




#### HIF1AN (non-ER binding)

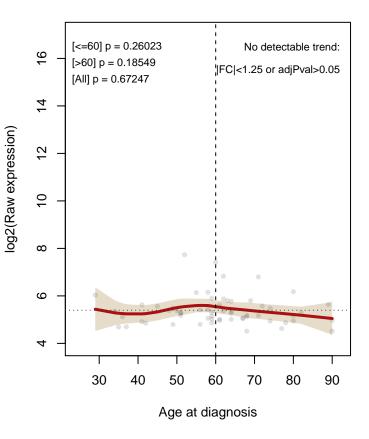
#### HIF3A (non-ER binding)

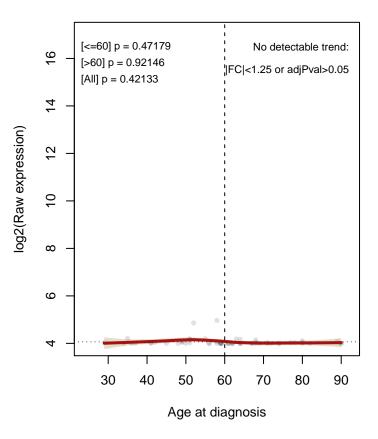






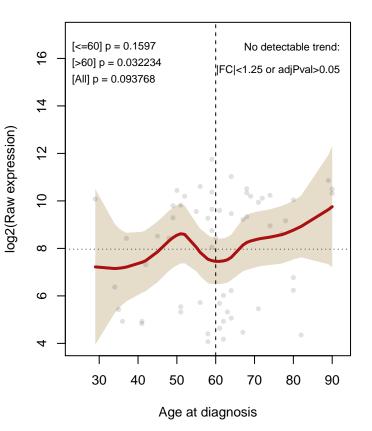
#### HNF1B (non-ER binding)

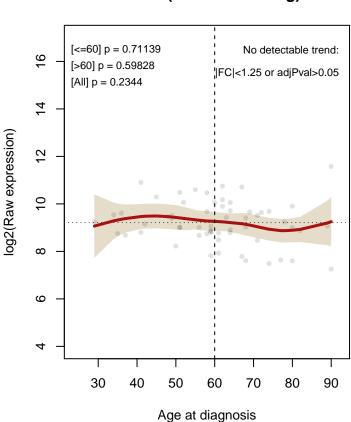




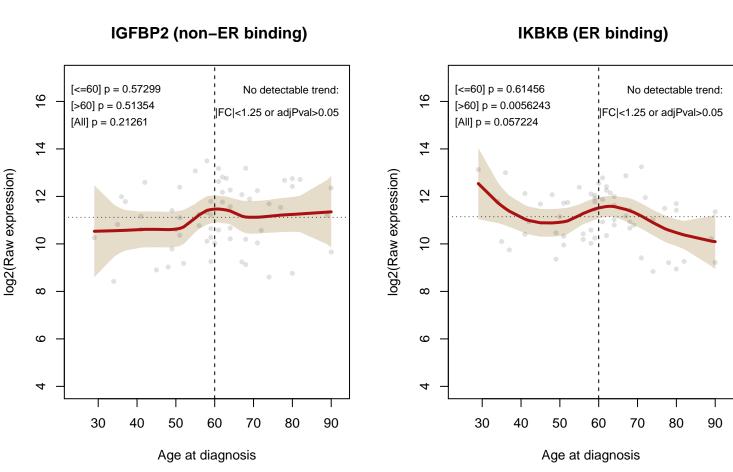
#### **HOXC10 (non-ER binding)**

HRAS (non-ER binding)



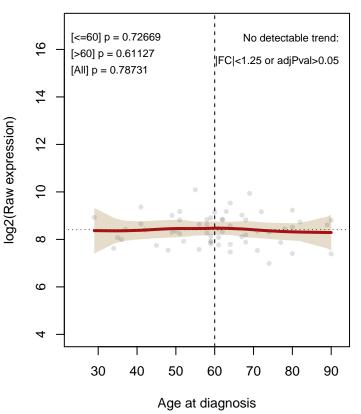


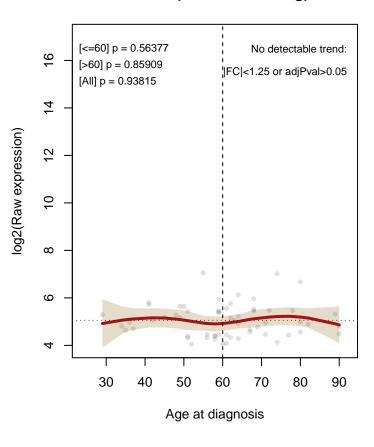
#### **HSPB1** (non-ER binding) IGF1R (ER binding) [<=60] p = 0.77089No detectable trend: [<=60] p = 0.2004No detectable trend: 16 16 [>60] p = 0.41974 [>60] p = 0.086396 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.013921[AII] p = 0.868284 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$ 9 9 30 40 50 70 80 90 30 40 50 60 70 80 90 60 Age at diagnosis Age at diagnosis IGFBP2 (non-ER binding) **IKBKB (ER binding)** [<=60] p = 0.57299No detectable trend: [<=60] p = 0.61456 No detectable trend: 16 16 [>60] p = 0.51354 [>60] p = 0.0056243 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.21261[All] p = 0.0572244 4





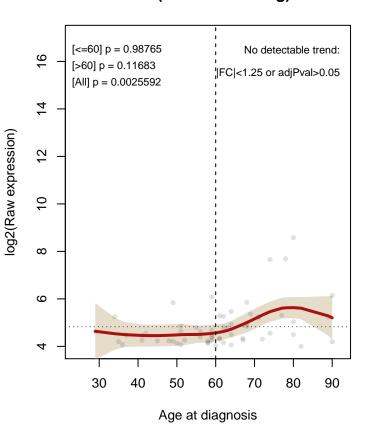
#### IL2RA (non-ER binding)

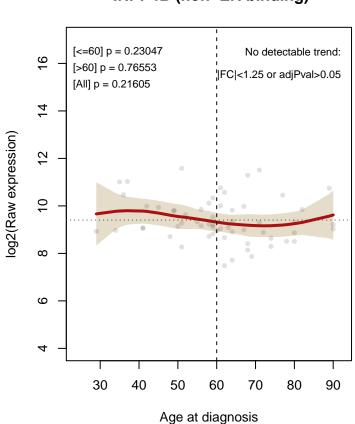


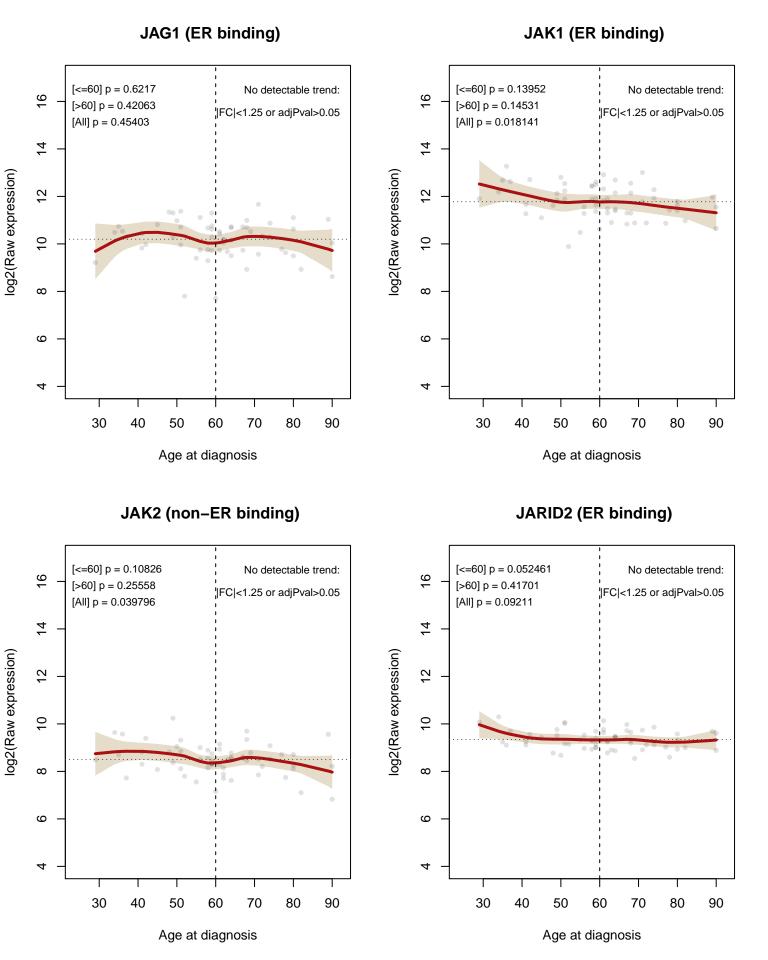


## IL6 (non-ER binding)

#### INPP4B (non-ER binding)

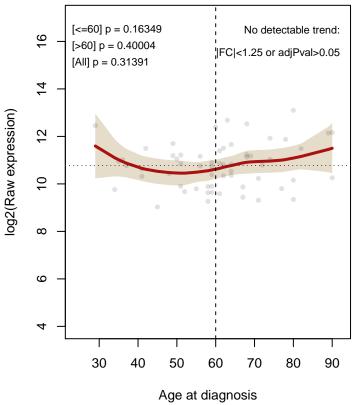


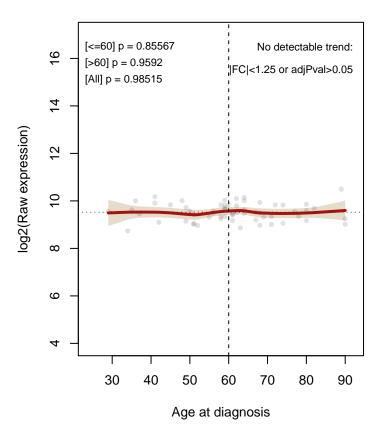




# JUN (non–ER binding)

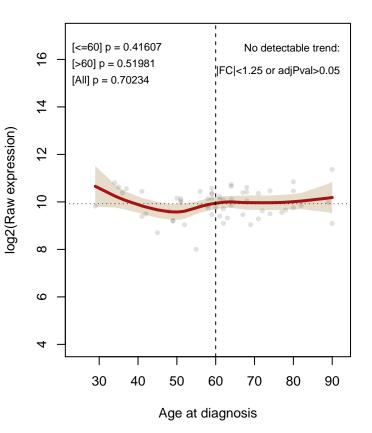
#### KDM2B (non-ER binding)

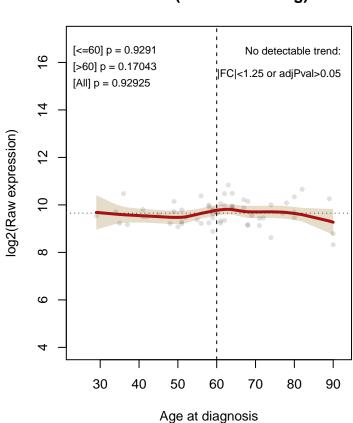




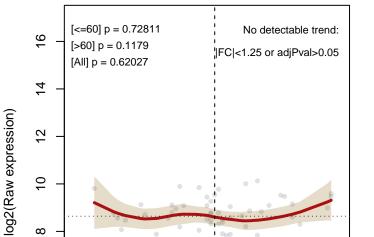
#### KDM6A (non-ER binding)

KDM6B (non-ER binding)

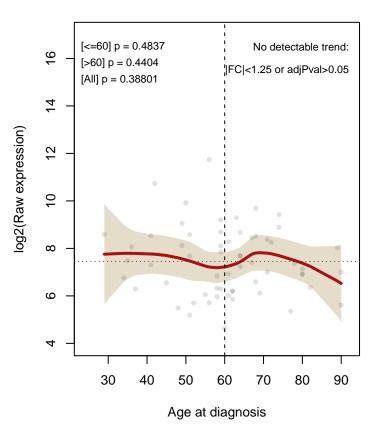






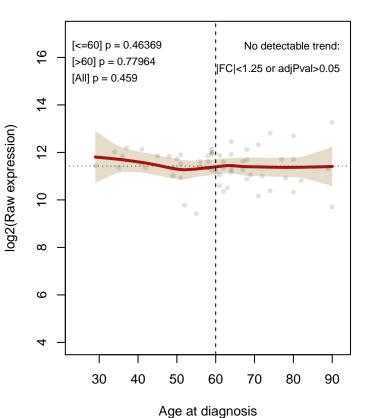


#### KIT (non-ER binding)

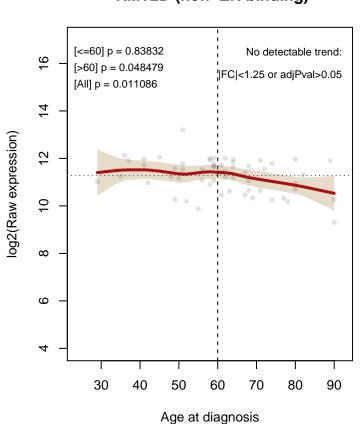


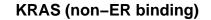
## KMT2C (non-ER binding)

Age at diagnosis

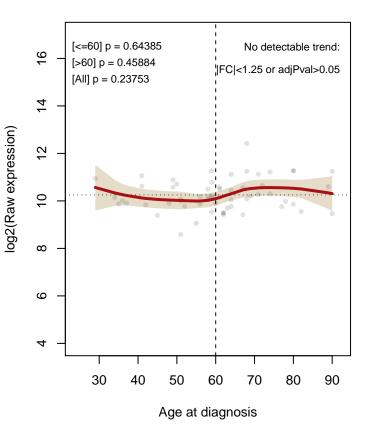


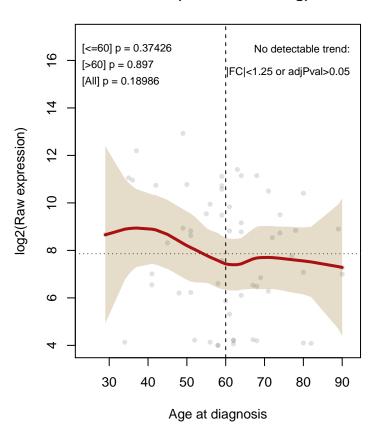
#### KMT2D (non-ER binding)





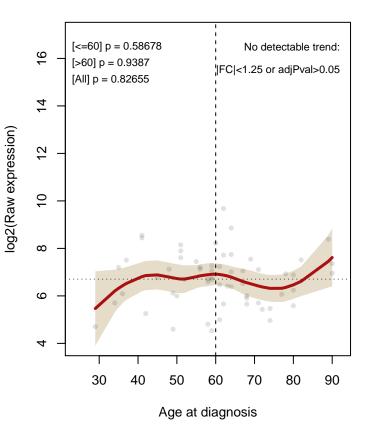
#### KRT5 (non-ER binding)

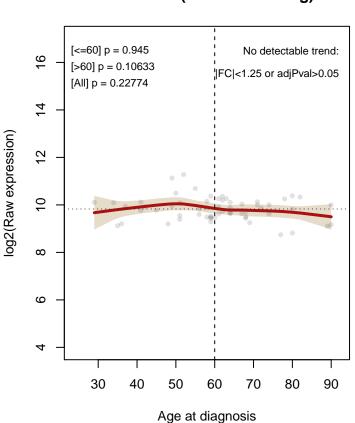




#### L3MBTL1 (non-ER binding)

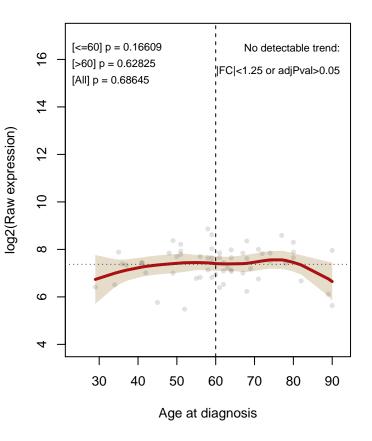
#### L3MBTL2 (non-ER binding)

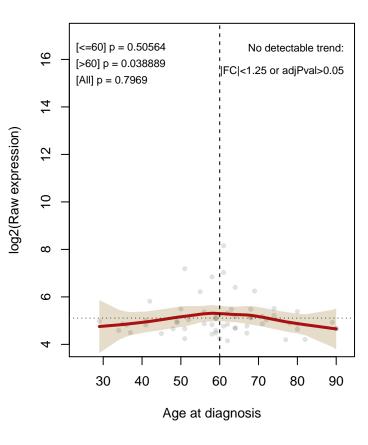




#### L3MBTL3 (ER binding)

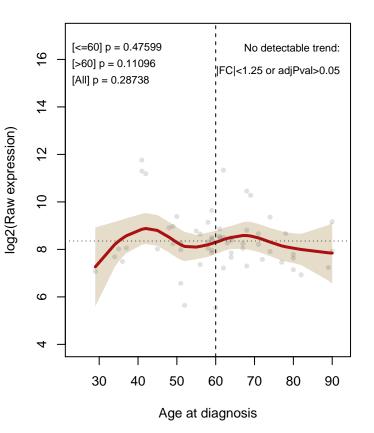
#### L3MBTL4 (non-ER binding)

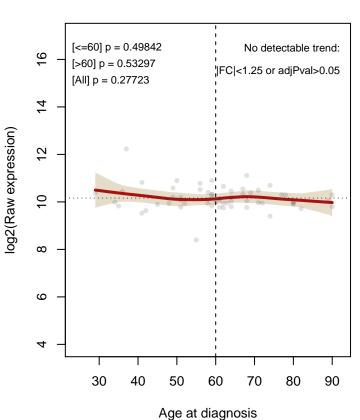




#### LEF1 (non-ER binding)

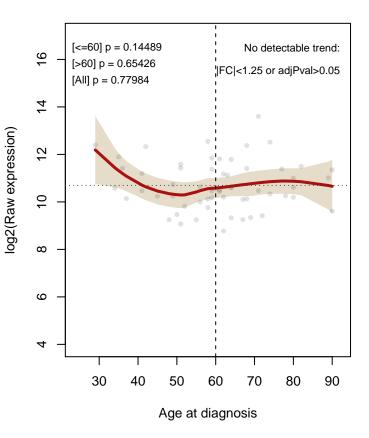
MAP2K1 (non-ER binding)

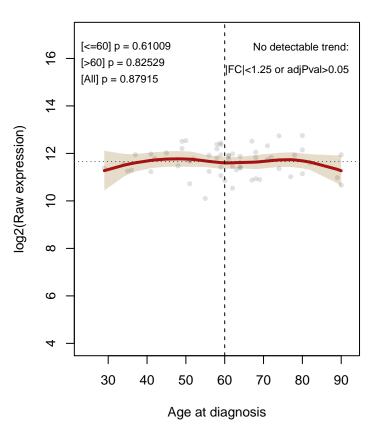






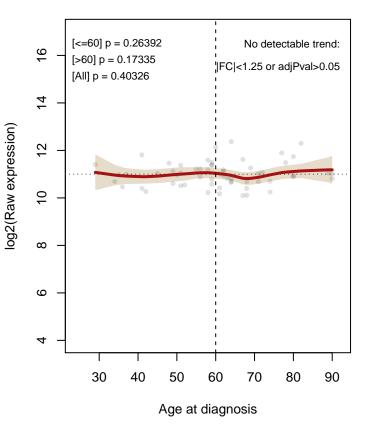
#### MAPK1 (non-ER binding)

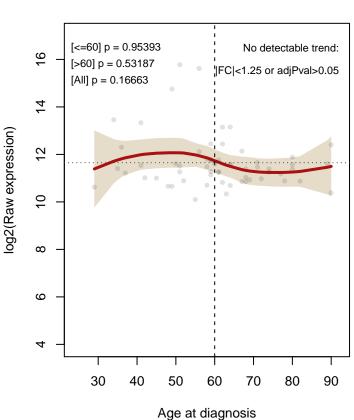


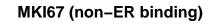


## MAPK3 (non-ER binding)

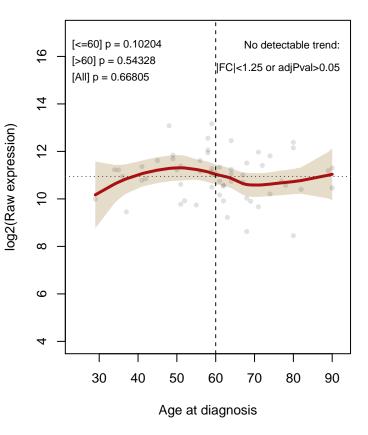
#### MDM2 (non-ER binding)

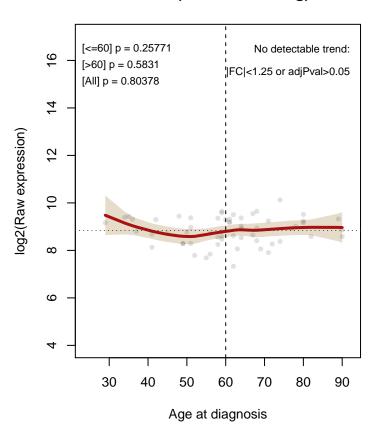






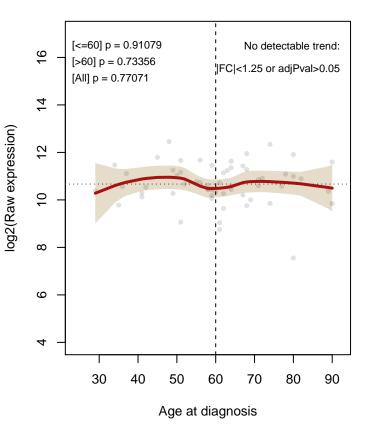
#### MTF2 (non-ER binding)

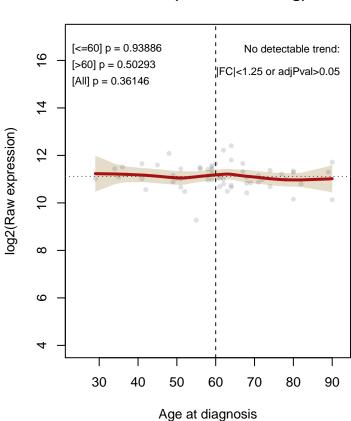




#### MYC (non-ER binding)

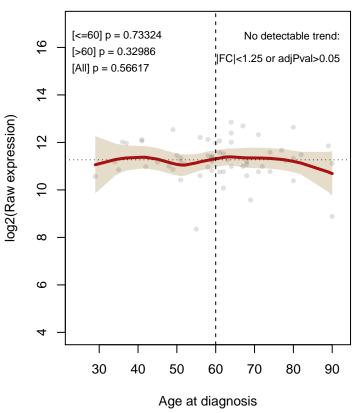
NCOA6 (non-ER binding)

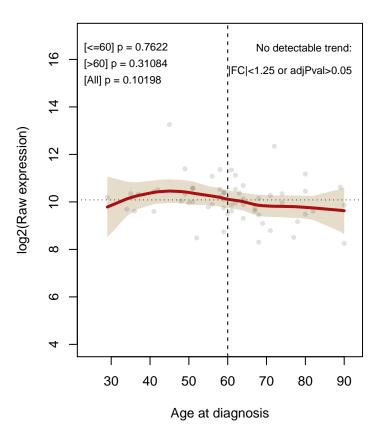






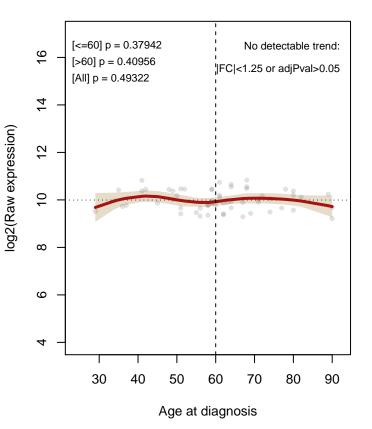
### **NES (non-ER binding)**

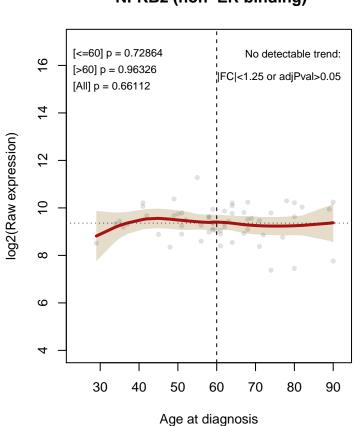




### NFKB1 (non-ER binding)

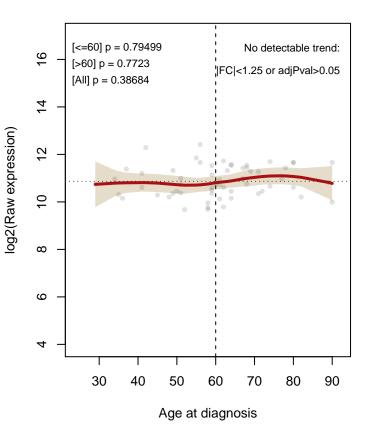
### NFKB2 (non-ER binding)

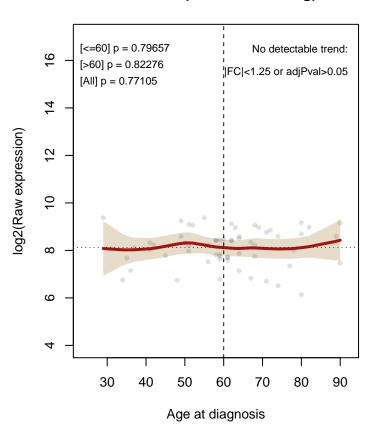






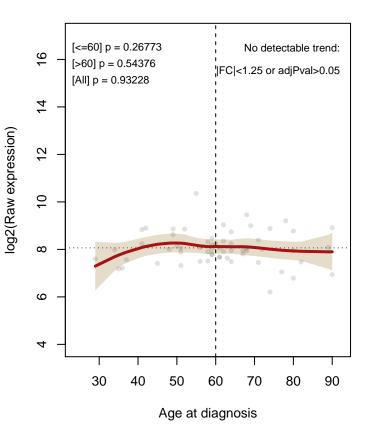
### NFKBIB (non-ER binding)

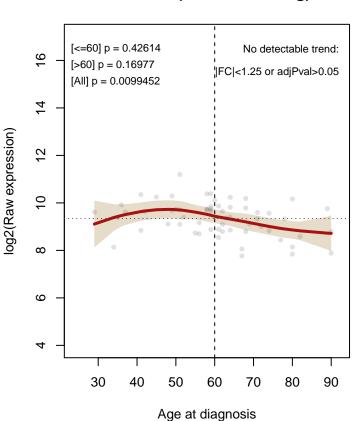




# **NFKBIE** (non-ER binding)

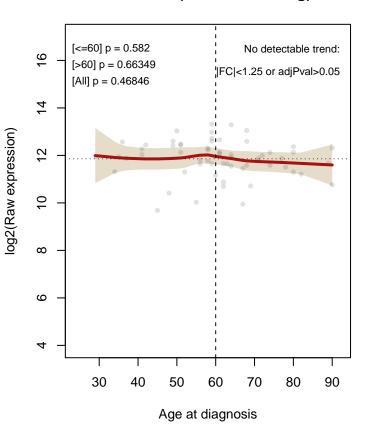
### NOTCH1 (non-ER binding)

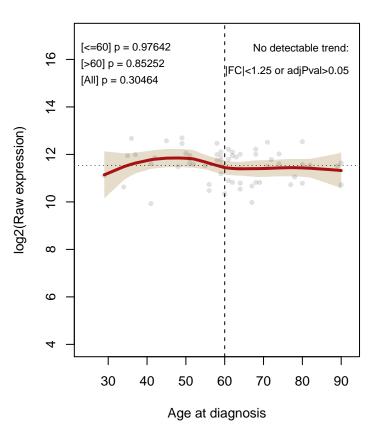




### NOTCH2 (non-ER binding)

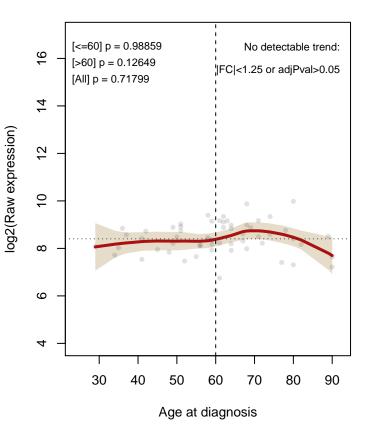
### NOTCH3 (non-ER binding)

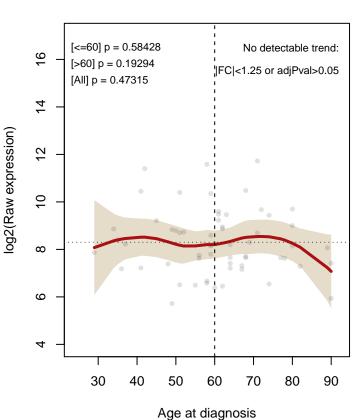


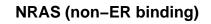


### NOTCH4 (non-ER binding)

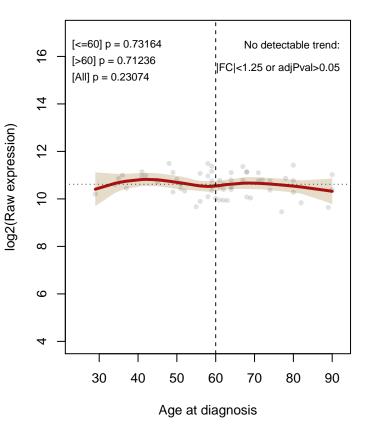
### NR4A2 (non-ER binding)

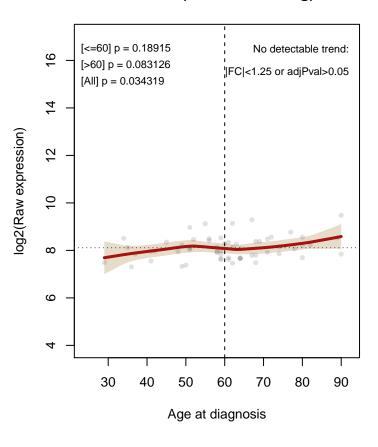






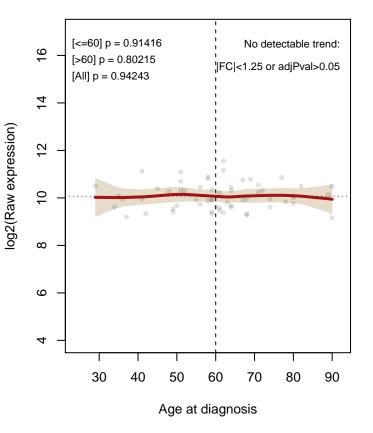
### PCGF1 (non-ER binding)

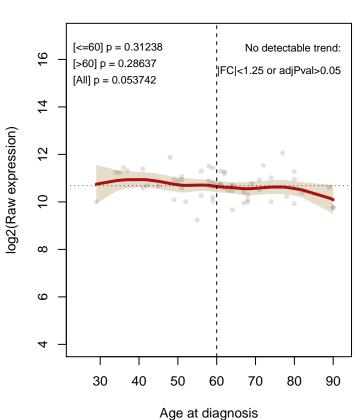




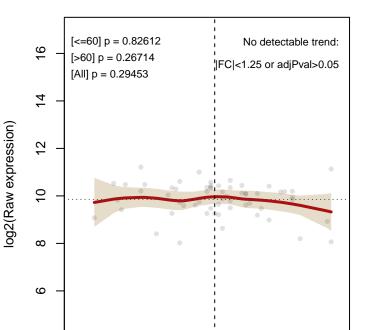
### PCGF2 (non-ER binding)

### PCGF3 (non-ER binding)

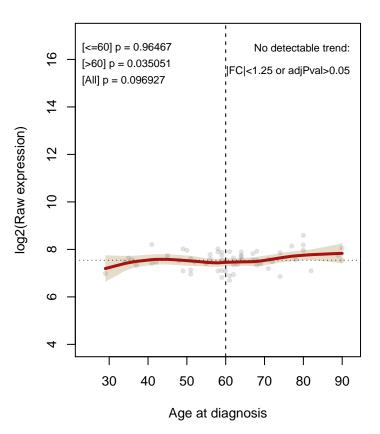






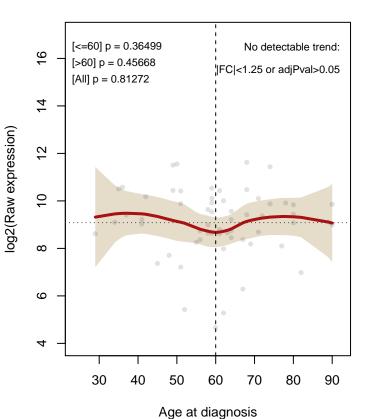


### PCGF6 (non-ER binding)

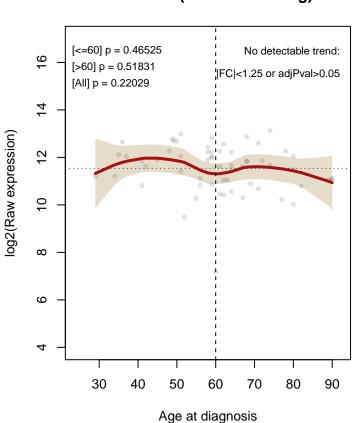


### PDGFRA (non-ER binding)

Age at diagnosis

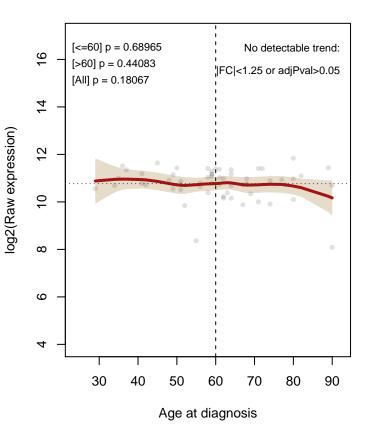


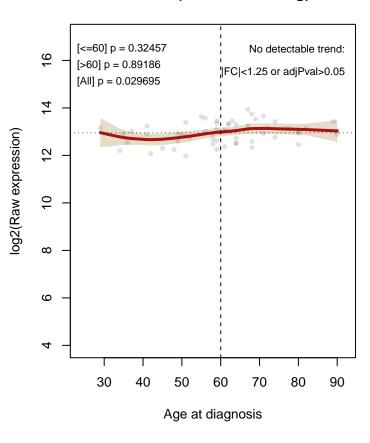
# PDGFRB (non-ER binding)





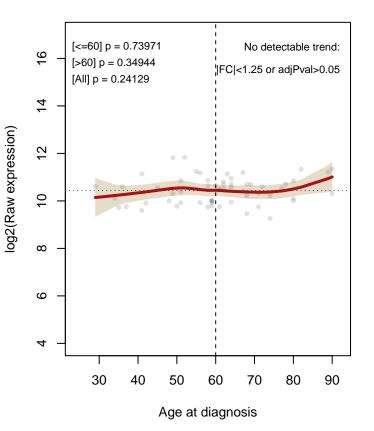
### PEBP1 (non-ER binding)

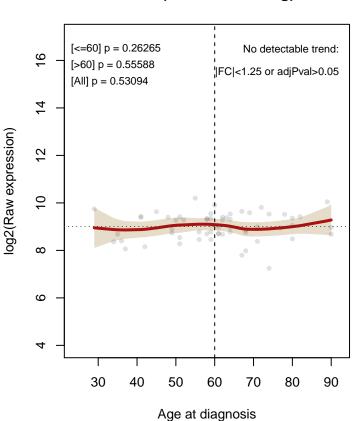


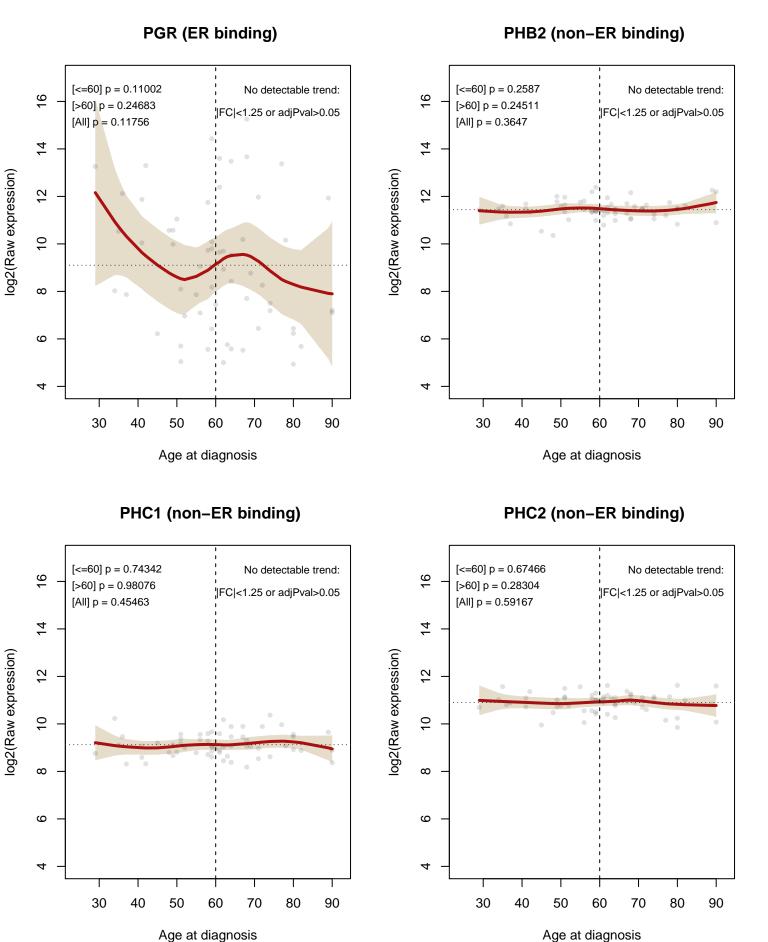


PELP1 (non-ER binding)

PGP (non-ER binding)







### PHC3 (non-ER binding) PHF1 (non-ER binding) [<=60] p = 0.73179No detectable trend: [<=60] p = 0.78378No detectable trend: 16 16 [>60] p = 0.98326 [>60] p = 0.38314 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [All] p = 0.67113[AII] p = 0.92784 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 = 0.61202No detectable trend: [<=60] p = 0.44199No detectable trend: 16 16 [>60] p = 0.55718 [>60] p = 0.70526|FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [All] p = 0.53658[All] p = 0.0840164 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

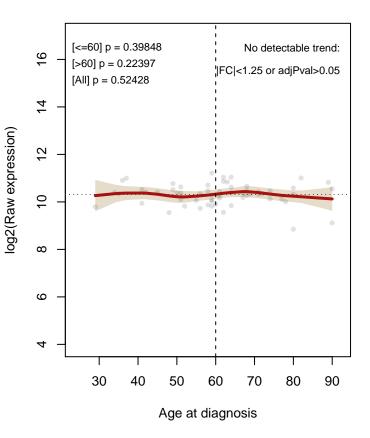
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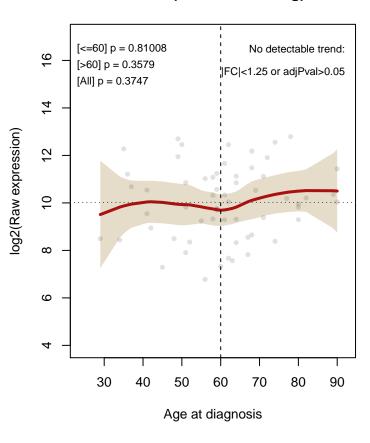
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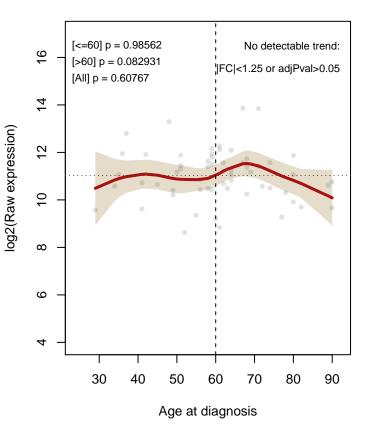
### PLAU (non-ER binding)

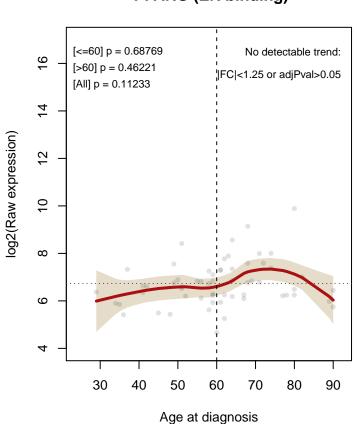




### PODXL (non-ER binding)

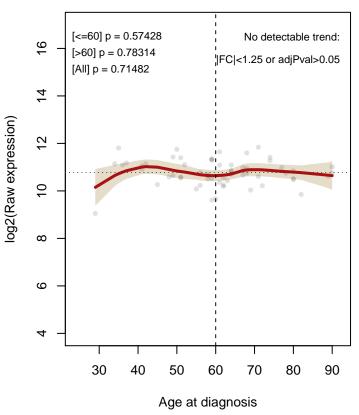
### **PPARG (ER binding)**

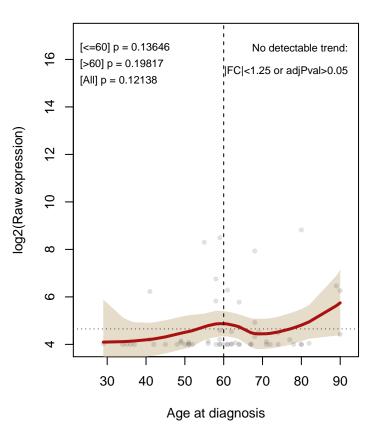






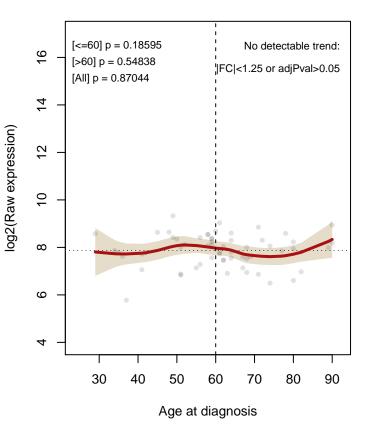
### **PYDC1** (non-ER binding)

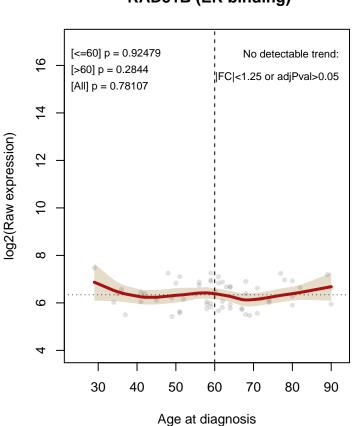




# RAD51 (non-ER binding)

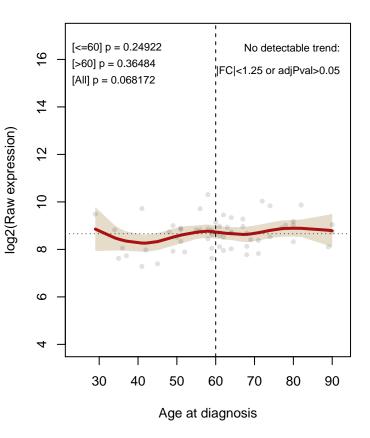
RAD51B (ER binding)

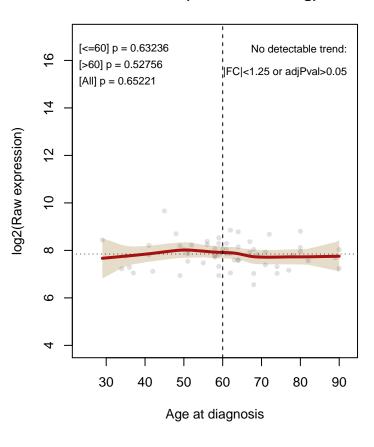




### RAD51C (non-ER binding)

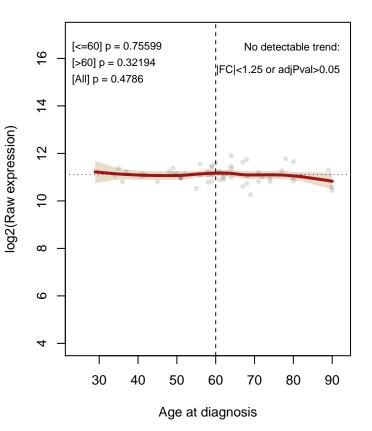
### RAD51D (non-ER binding)

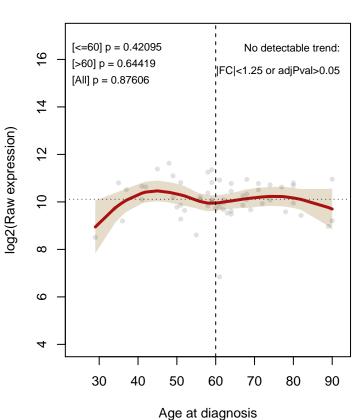


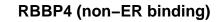


RAF1 (non-ER binding)

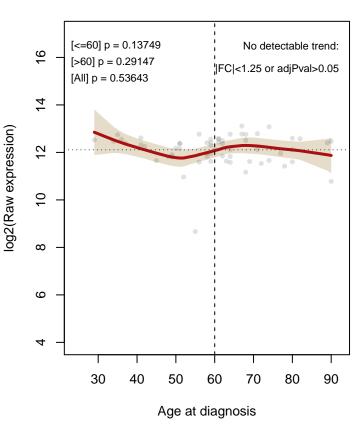
RB1 (non-ER binding)

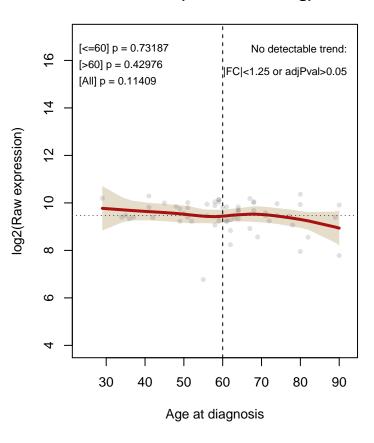






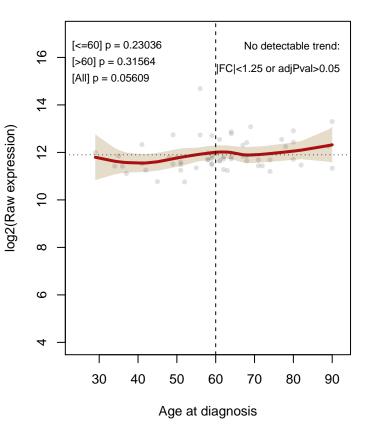
### RBBP5 (non-ER binding)

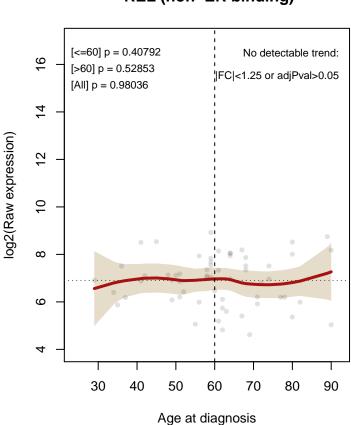


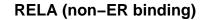


RBBP7 (non-ER binding)

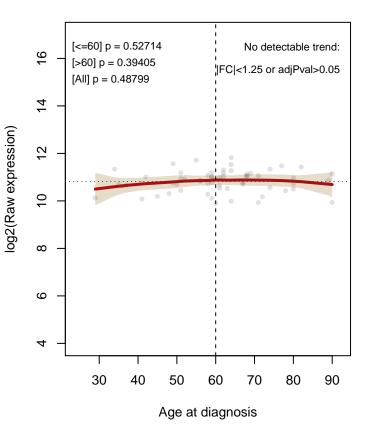
**REL** (non-ER binding)

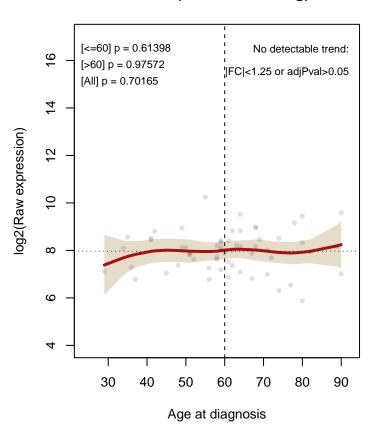






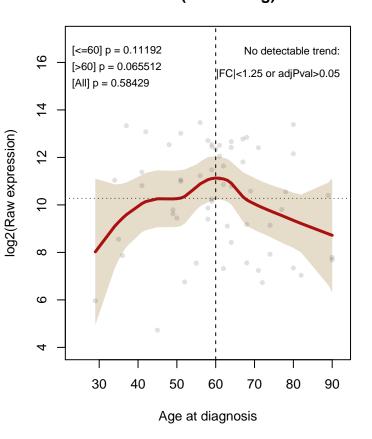
### **RELB** (non-ER binding)

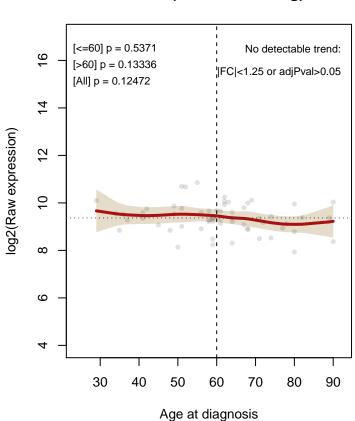




# **RET (ER binding)**

### RING1 (non-ER binding)





### RNF2 (non-ER binding) **RUNX1 (ER binding)** [<=60] p = 0.59694No detectable trend: [<=60] p = 0.010356 No detectable trend: 16 16 [>60] p = 0.4497 [>60] p = 0.73913 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [All] p = 0.87655[All] p = 0.0406124 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 = 0.85988No detectable trend: [<=60] p = 0.27077No detectable trend: 16 16 [>60] p = 0.99931 [>60] p = 0.93782 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.66388[All] p = 0.917834 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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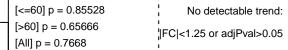
Age at diagnosis

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### SCMH1 (non-ER binding)





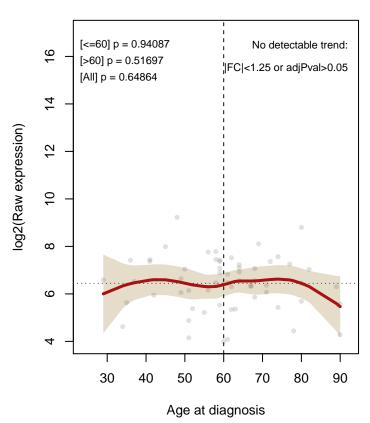
log2(Raw expression)



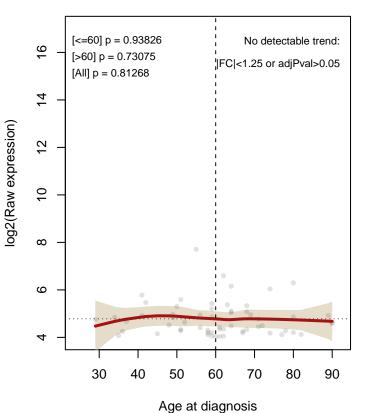


# Age at diagnosis

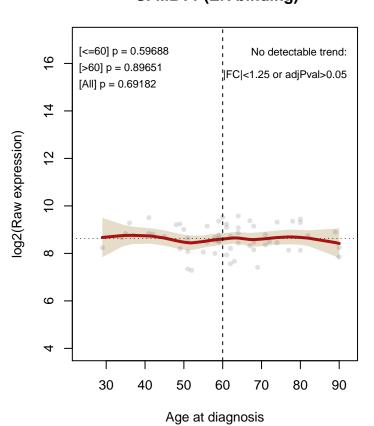
SCML2 (non-ER binding)



### SCML4 (non-ER binding)



### SFMBT1 (ER binding)



### SFMBT2 (ER binding) SFPQ (non-ER binding) [<=60] p = 0.634No detectable trend: [<=60] p = 0.12637No detectable trend: 16 16 [>60] p = 0.65192 [>60] p = 0.29904 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.61886[All] p = 0.263294 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 = 0.49077 No detectable trend: [<=60] p = 0.1707No detectable trend: 16 16 [>60] p = 0.17279 [>60] p = 0.24765 |FC|<1.25 or adjPval>0.05 |FC|<1.25 or adjPval>0.05 [AII] p = 0.26789[All] p = 0.258464 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

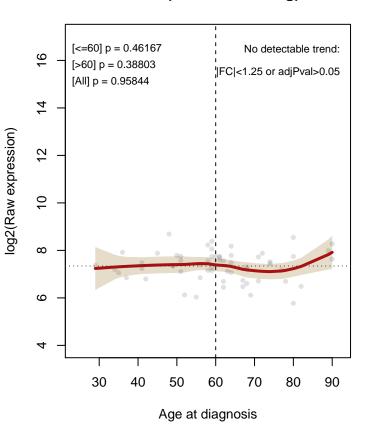
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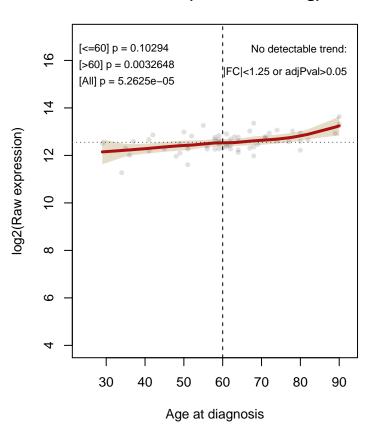
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### SKP2 (non-ER binding)

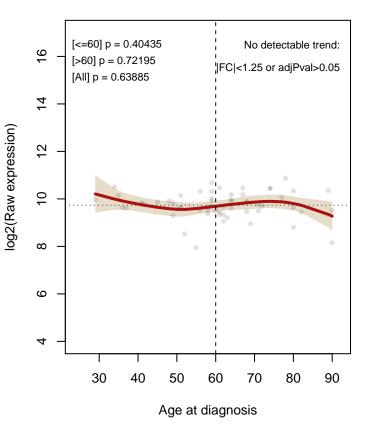
### SLC25A3 (non-ER binding)

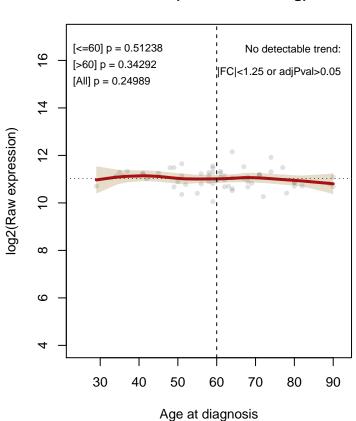




### SMAD1 (non-ER binding)

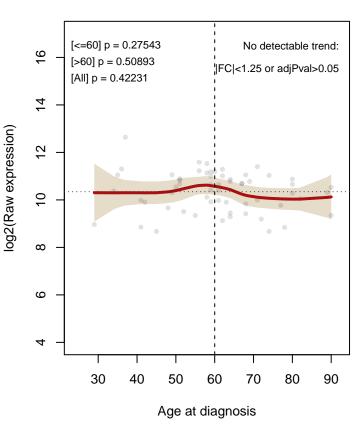
### SMAD2 (non-ER binding)

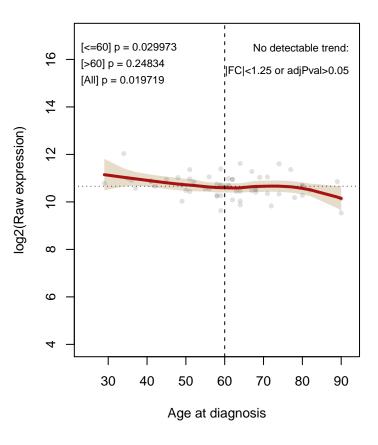






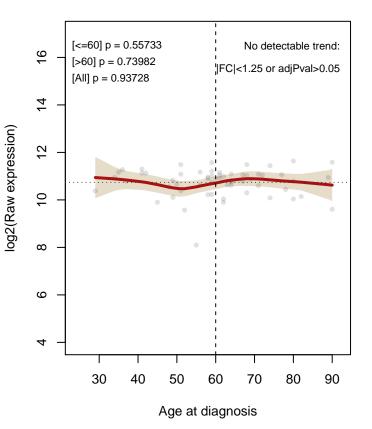
### SMAD4 (non-ER binding)

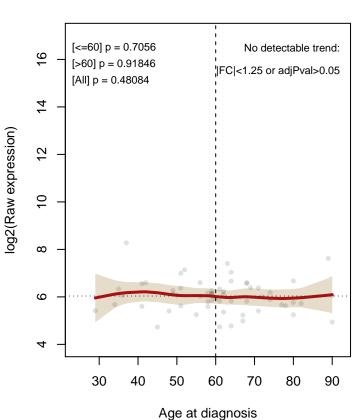


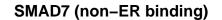


### SMAD5 (non-ER binding)

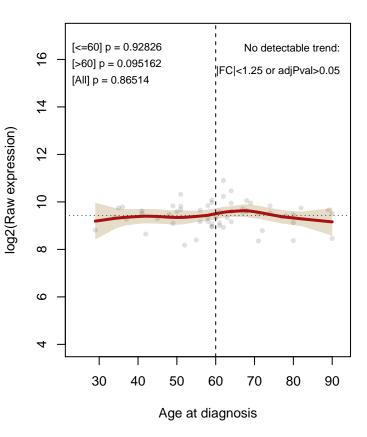
### SMAD6 (non-ER binding)

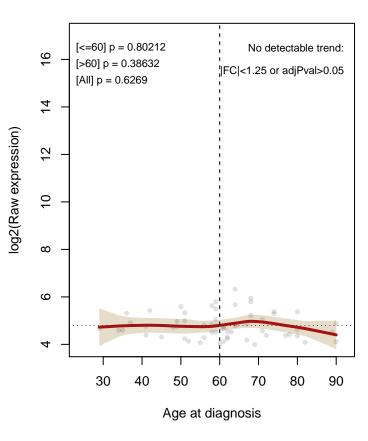






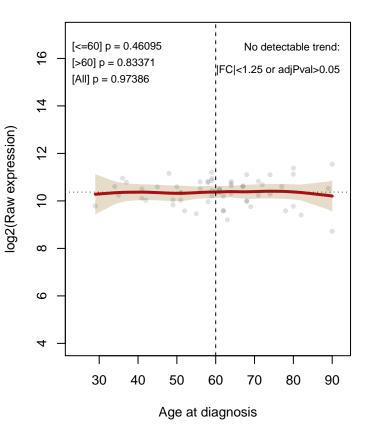
### SMAD9 (non-ER binding)

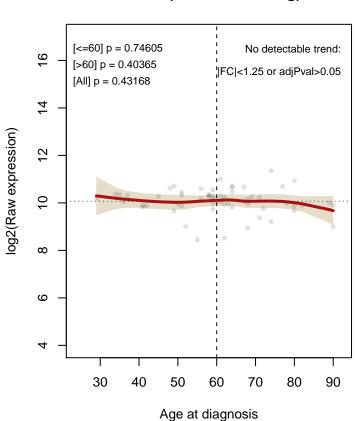


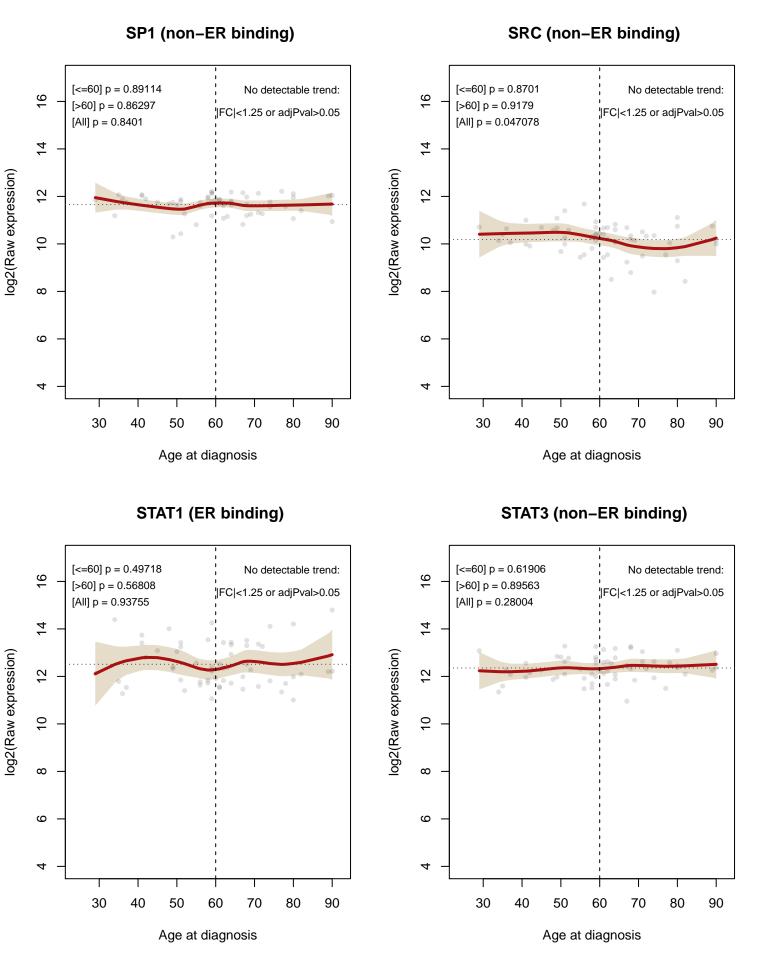


SOS1 (non-ER binding)

SOS2 (non-ER binding)

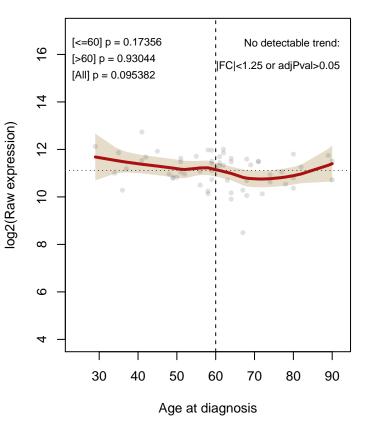


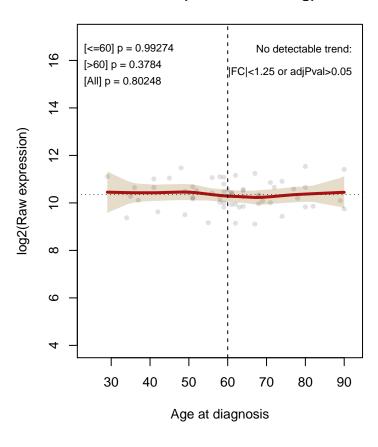






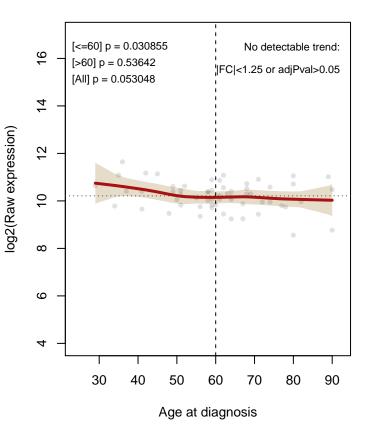
### SUZ12 (non-ER binding)

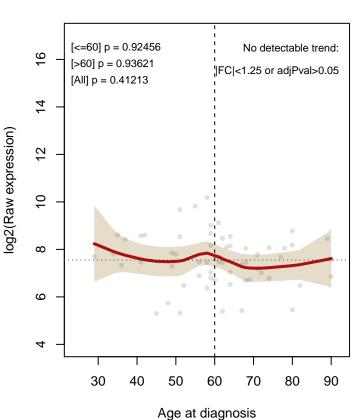




TCF3 (non-ER binding)

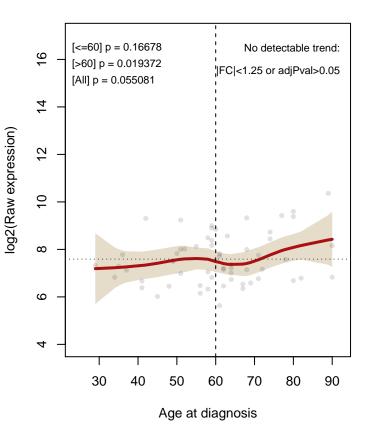
TCF7 (non-ER binding)

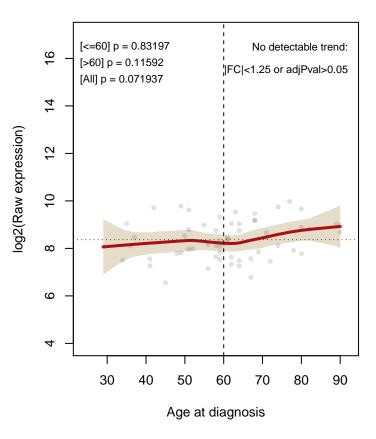






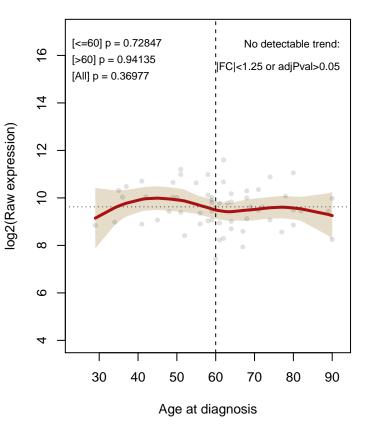
### TCF7L2 (non-ER binding)

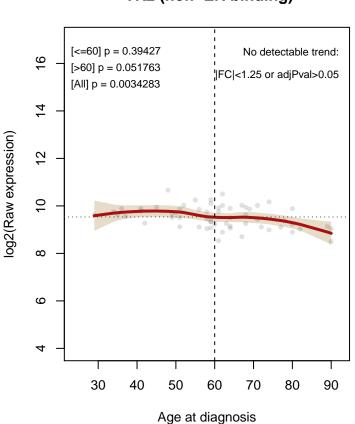


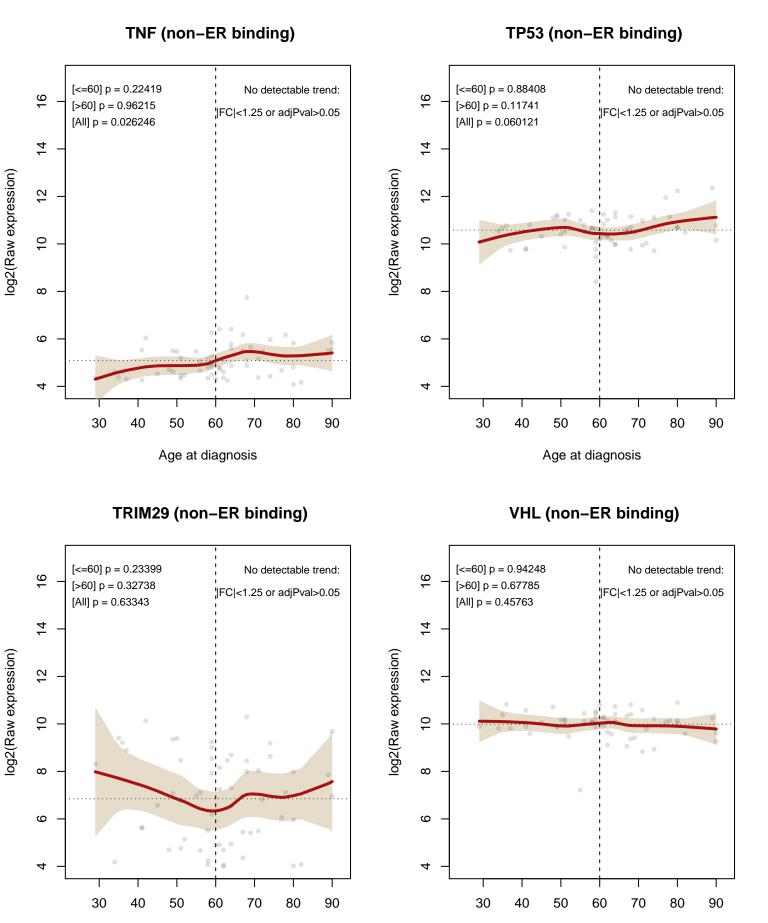


TGFB1 (non-ER binding)

TK2 (non-ER binding)

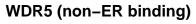




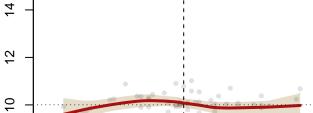


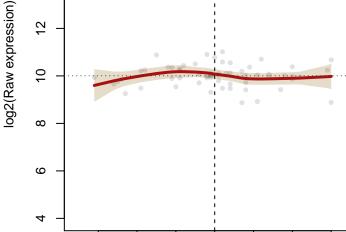
Age at diagnosis

Age at diagnosis



### [<=60] p = 0.14656No detectable trend: 16 [>60] p = 0.75402 |FC|<1.25 or adjPval>0.05 [All] p = 0.83019





50

30

40

Age at diagnosis

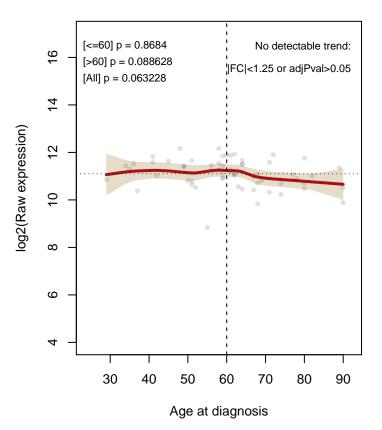
60

70

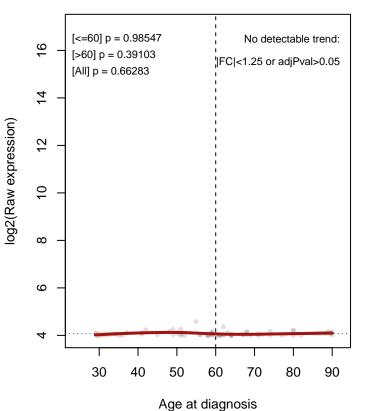
80

90

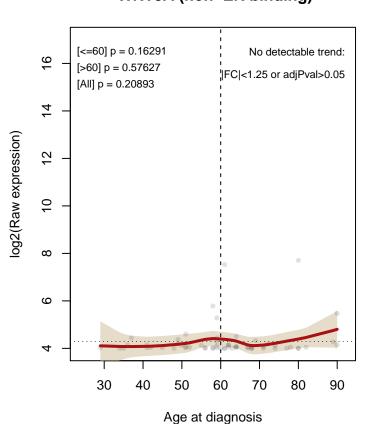
### WHSC1 (non-ER binding)

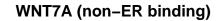


### WNT1 (non-ER binding)

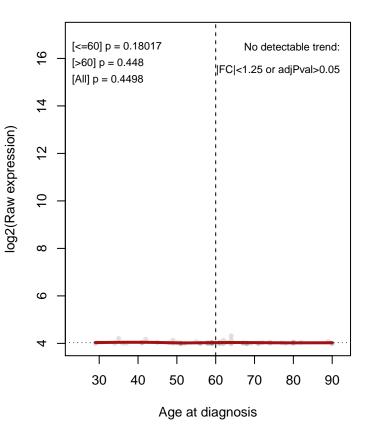


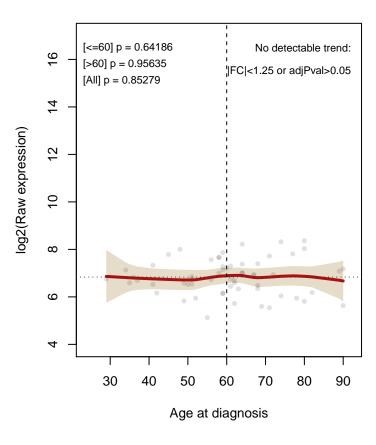
### WNT3A (non-ER binding)





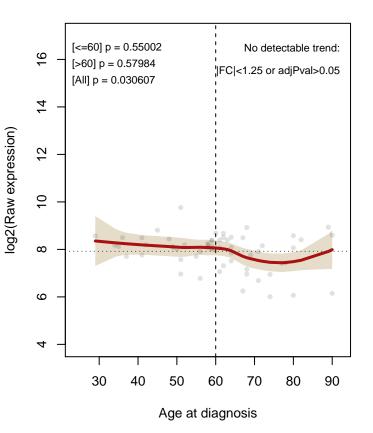
### XRCC2 (non-ER binding)

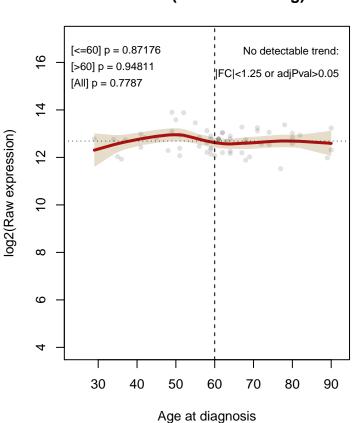




# XRCC3 (non-ER binding)

XRCC6 (non-ER binding)

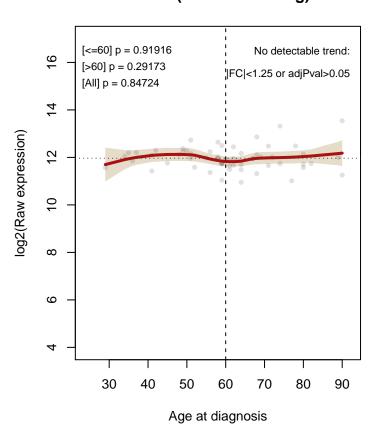




### YAF2 (non-ER binding)

# 

### YBX1 (non-ER binding)



### YY1 (non-ER binding)

Age at diagnosis

