#### **AEBP2 (non-ER binding) AKT1 (ER binding)** [<=60] p = 0.2458No detectable trend: [<=60] p = 0.6599No detectable trend: 16 16 [>60] p = 0.011364 [>60] p = 0.76996|FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [AII] p = 0.28801[All] p = 0.0346834 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 **AKT2 (non-ER binding)** AKT3 (non-ER binding) [<=60] p = 0.98925No detectable trend: [<=60] p = 0.41989No detectable trend: 16 16 [>60] p = 0.60709 [>60] p = 0.69641 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.25763[All] p = 0.814554 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$

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Age at diagnosis

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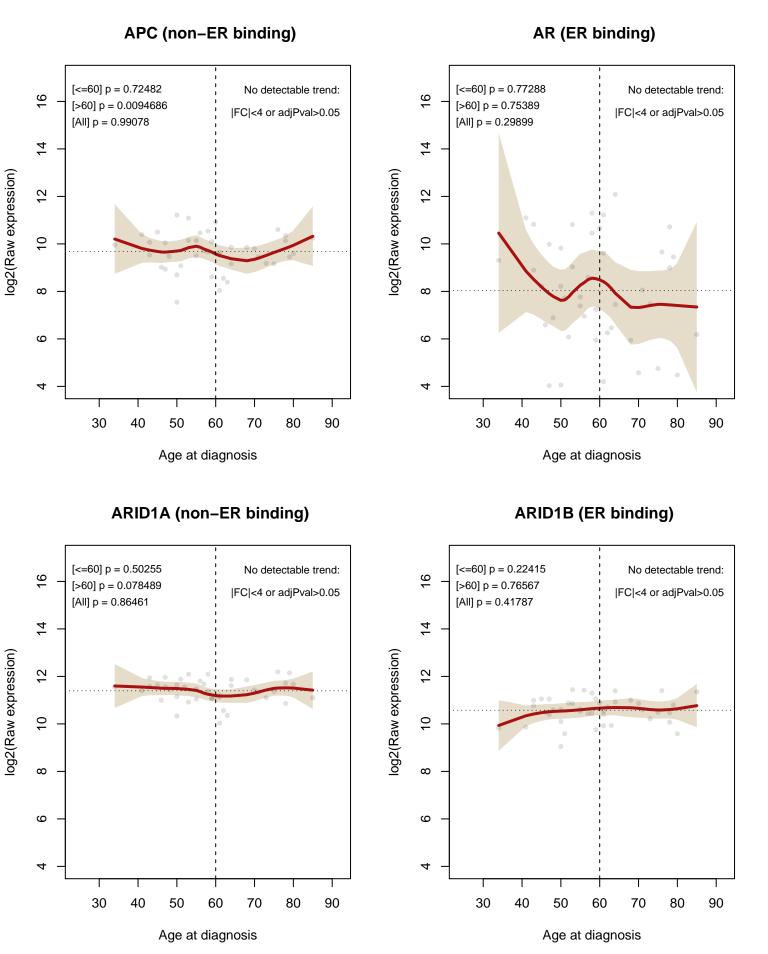
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Age at diagnosis

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#### **ARNT (ER binding)** ASH2L (non-ER binding) [<=60] p = 0.67496No detectable trend: [<=60] p = 0.43151No detectable trend: 16 16 [>60] p = 0.28836 [>60] p = 0.27587 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.46379[All] p = 0.256764 4 log2(Raw expression) log2(Raw expression) 12 12 19 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 **ASXL1** (non-ER binding) ASXL2 (non-ER binding) [<=60] p = 0.63057No detectable trend: [<=60] p = 0.65744No detectable trend: 16 16 [>60] p = 0.23419 [>60] p = 0.01905 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [AII] p = 0.48328[All] p = 0.55484 4 log2(Raw expression) log2(Raw expression) 12 12 19 10 $\infty$ $\infty$ 9 9

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Age at diagnosis

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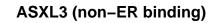
60

Age at diagnosis

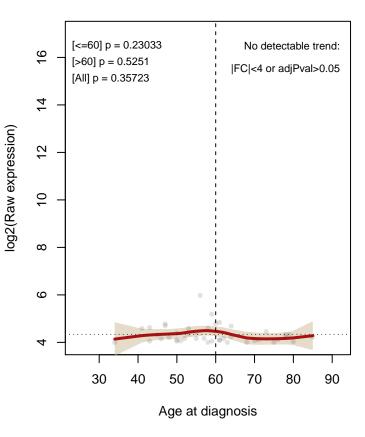
70

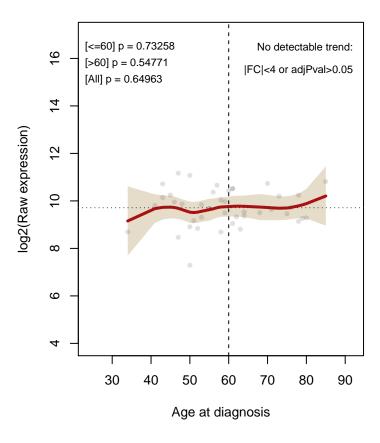
80

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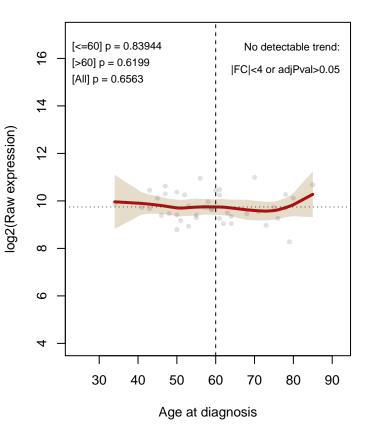
### ATM (non-ER binding)

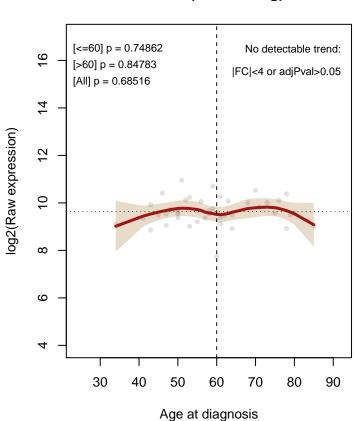




ATR (non-ER binding)

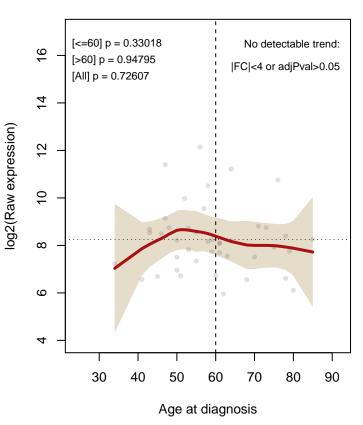
**AXIN1 (ER binding)** 

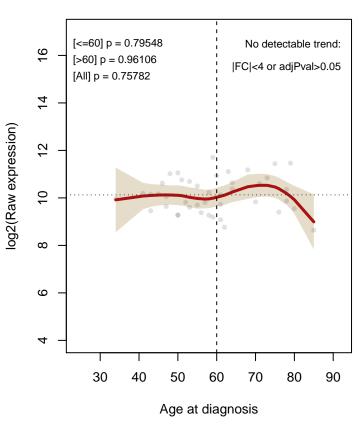






# **BCL3 (non-ER binding)**

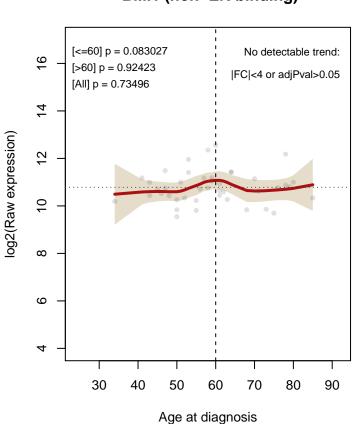


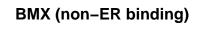


BIRC5 (non-ER binding)

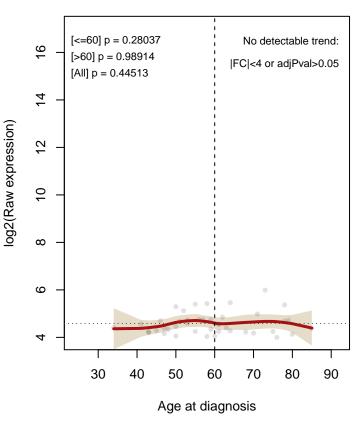
[<=60] p = 0.15181 No detectable trend: 16 [>60] p = 0.16276 |FC|<4 or adjPval>0.05 [AII] p = 0.302874 log2(Raw expression) 12 10 ω 9 30 40 50 60 70 80 90 Age at diagnosis

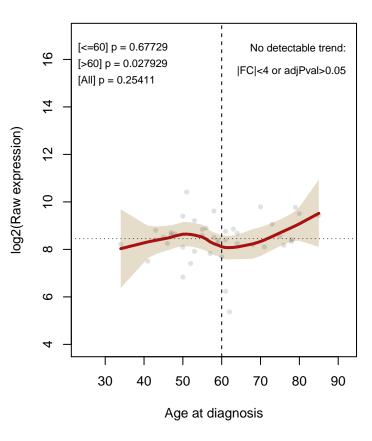
# **BMI1 (non-ER binding)**





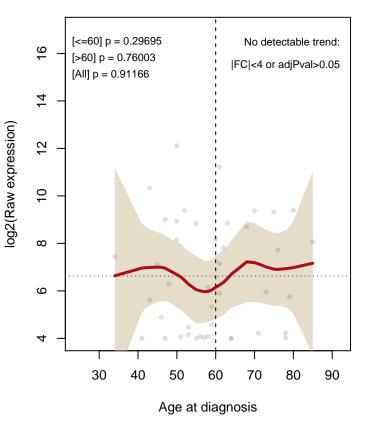
### BRCA1 (non-ER binding)

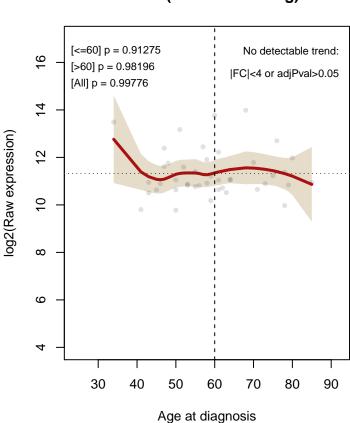


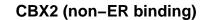


CA9 (non-ER binding)

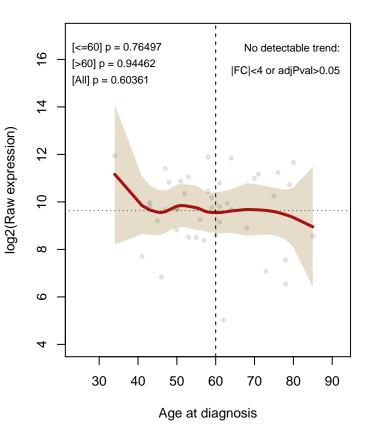
**CBX1** (non-ER binding)

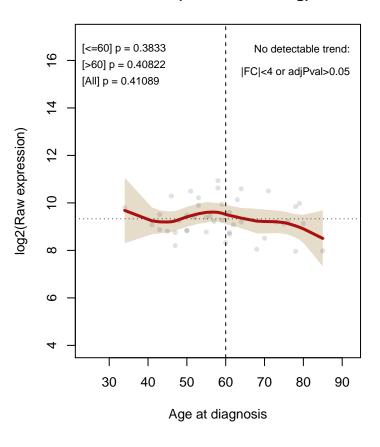






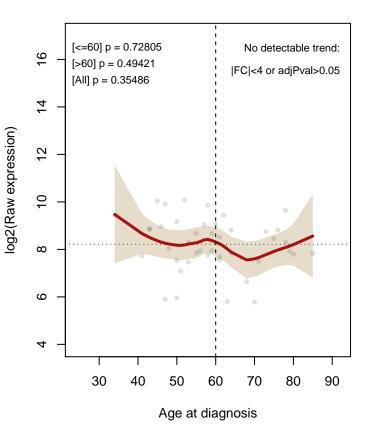
#### CBX4 (non-ER binding)

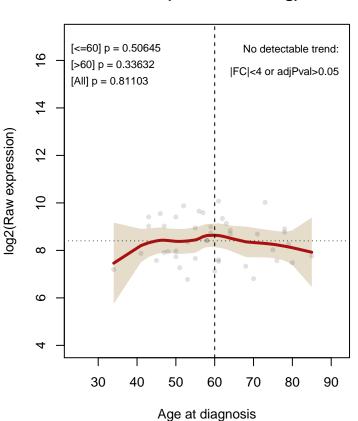




**CBX6** (non-ER binding)

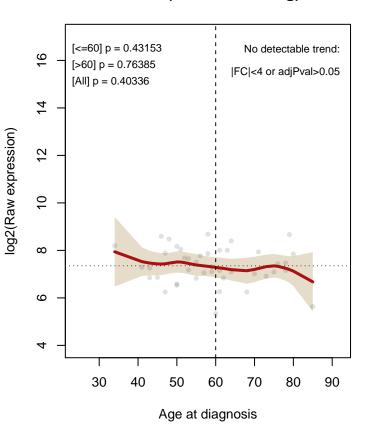
**CBX7 (non-ER binding)** 

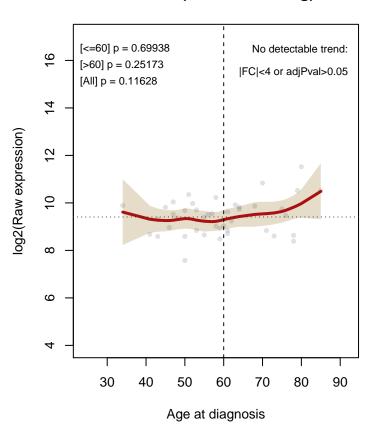




### **CBX8** (non-ER binding)

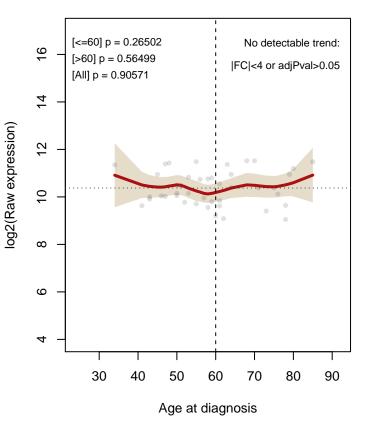
#### CCNA2 (non-ER binding)

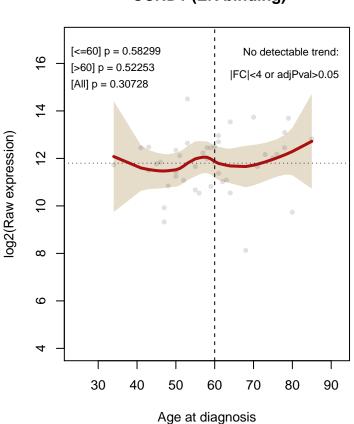




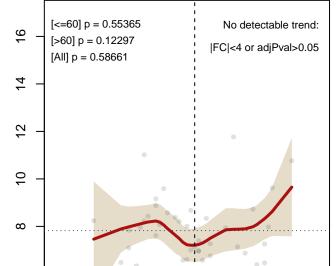
# CCNB1 (non-ER binding)

## **CCND1 (ER binding)**





### **CCNE1** (non-ER binding)



log2(Raw expression)

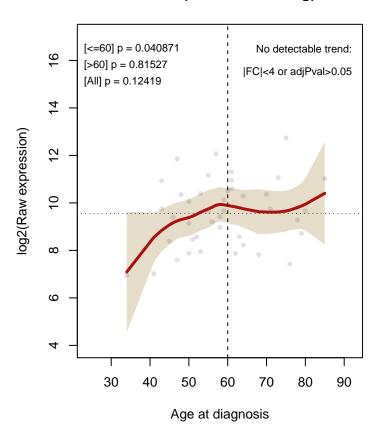
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### CD163 (non-ER binding)



CD44 (non-ER binding)

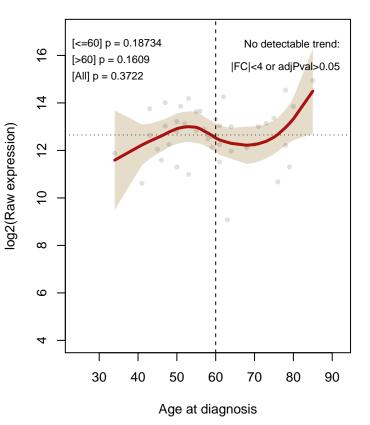
Age at diagnosis

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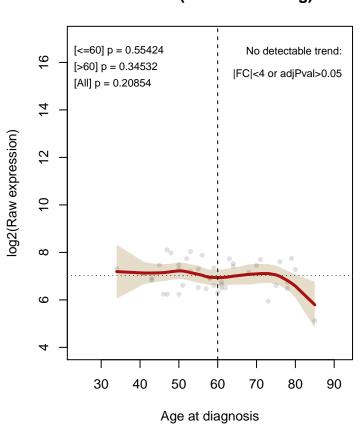
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# CDC25C (non-ER binding)



#### CDH1 (non-ER binding) CDH3 (ER binding) [<=60] p = 0.18408No detectable trend: [<=60] p = 0.37332No detectable trend: 16 16 [>60] p = 0.19701 [>60] p = 0.74285 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [AII] p = 0.45675[All] p = 0.45834 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 CDK1 (non-ER binding) CDK2 (non-ER binding) [<=60] p = 0.64682No detectable trend: [<=60] p = 0.44No detectable trend: 16 16 [>60] p = 0.23978 [>60] p = 0.85158 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.72752[All] p = 0.412384 4 log2(Raw expression) log2(Raw expression) 12 12 19 10 ω $\infty$ 9 9

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Age at diagnosis

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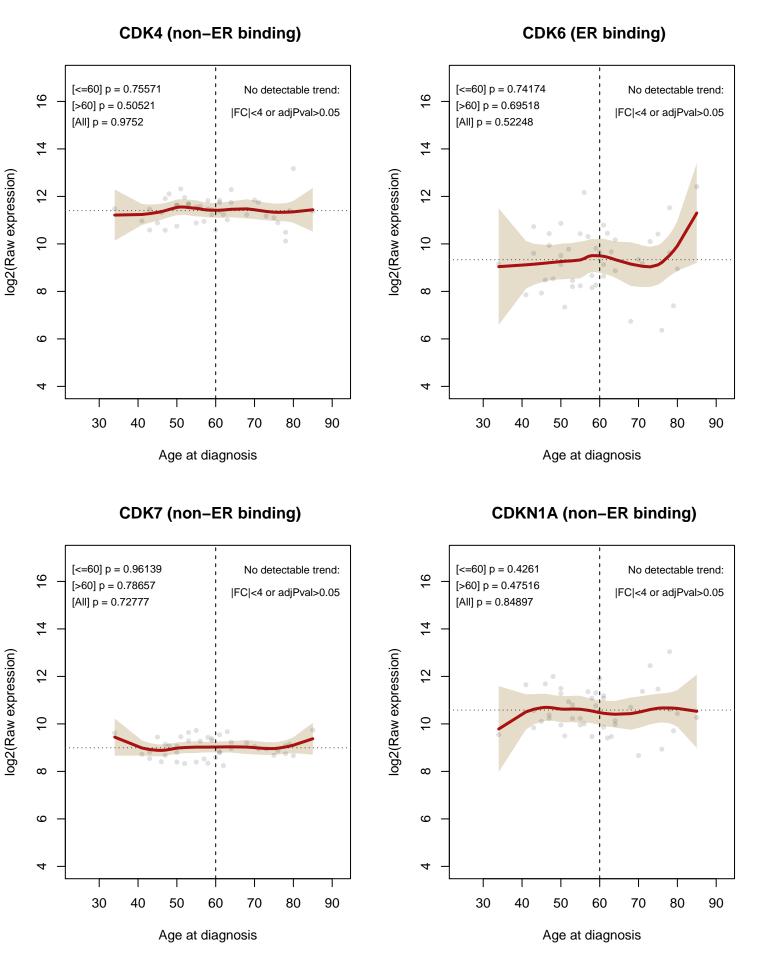
60

Age at diagnosis

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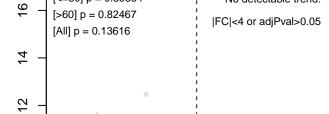
80

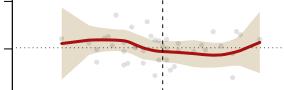
90



#### CDKN1B (non-ER binding)

# [<=60] p = 0.39354 No detectable trend:





log2(Raw expression)

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Age at diagnosis

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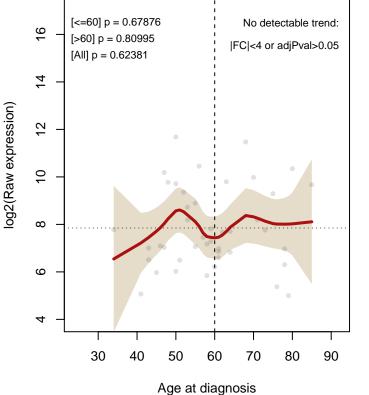
# CDKN2A (non–ER binding)

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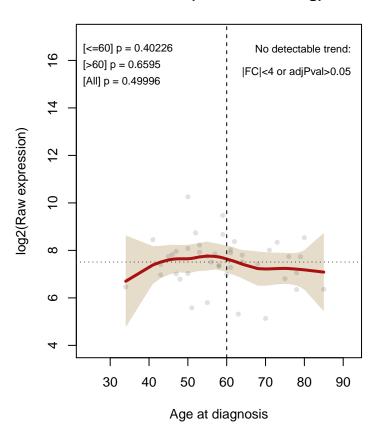
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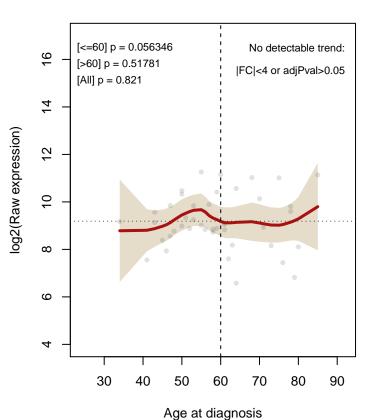
90



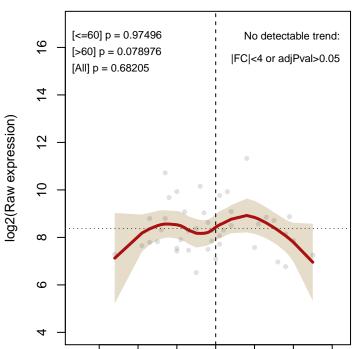
#### CDKN1C (non-ER binding)



## CDKN2B (non-ER binding)



### CDKN2C (non-ER binding)

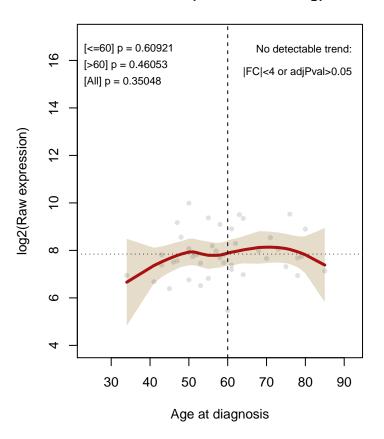


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### CDKN2D (non-ER binding)



# CHUK (non-ER binding)

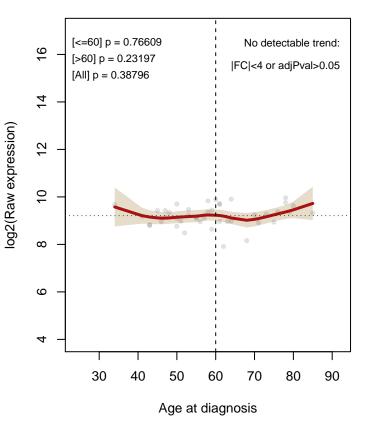
Age at diagnosis

60

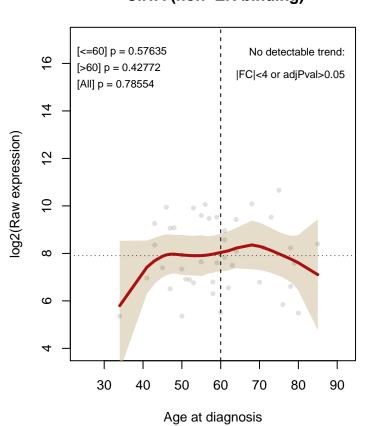
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# CIITA (non-ER binding)

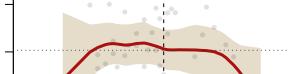


#### CLDN3 (non-ER binding)





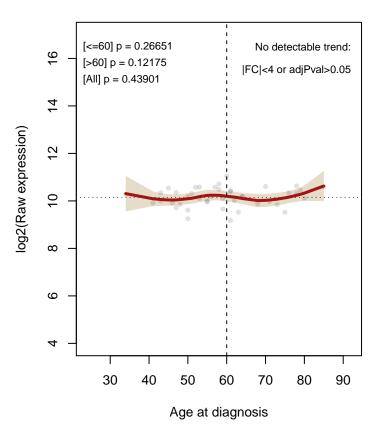
log2(Raw expression)



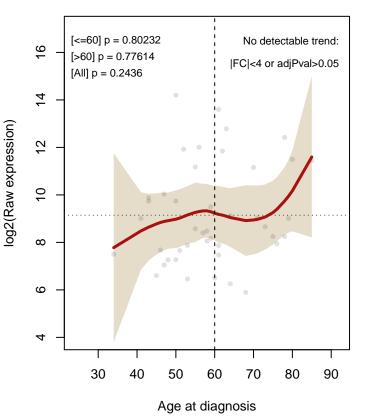
# $\infty$

Age at diagnosis

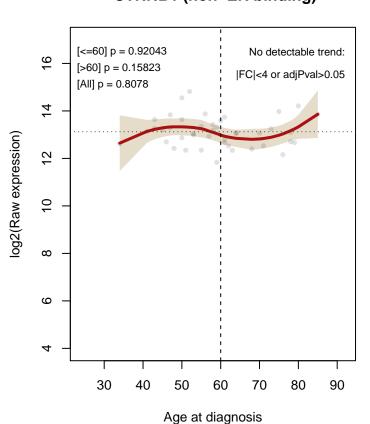
## CREB1 (non-ER binding)



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

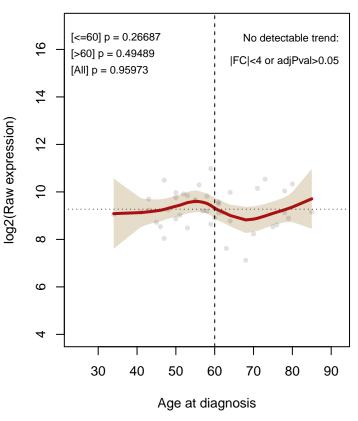


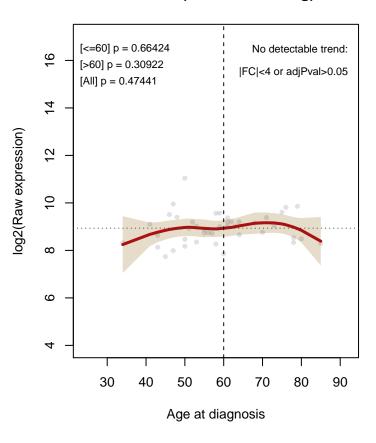
# CTNNB1 (non-ER binding)





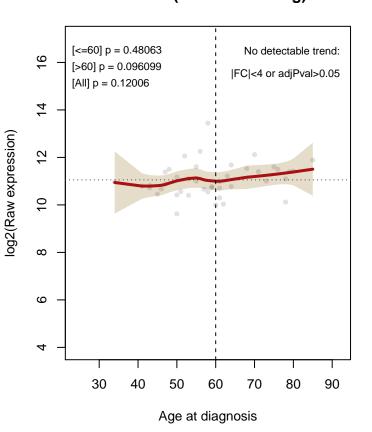
#### DMAP1 (non-ER binding)

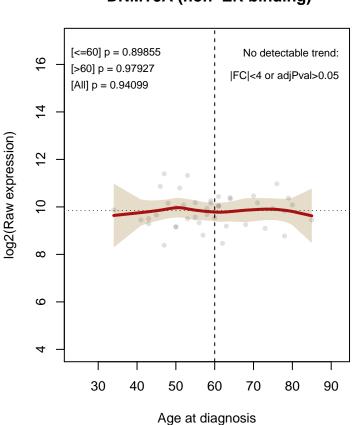


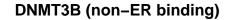


# **DNMT1** (non-ER binding)

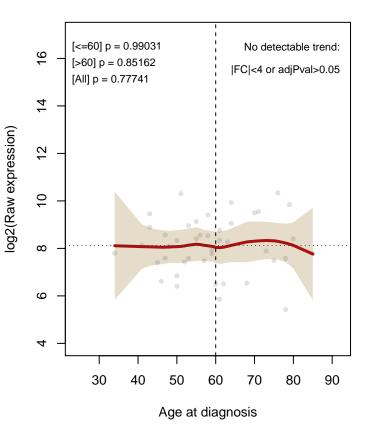
**DNMT3A (non-ER binding)** 

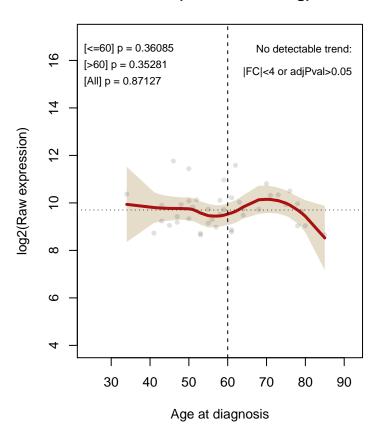






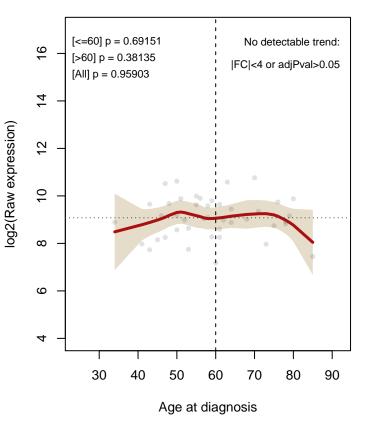
### DVL1 (non-ER binding)

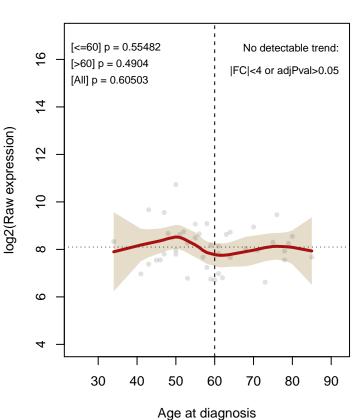


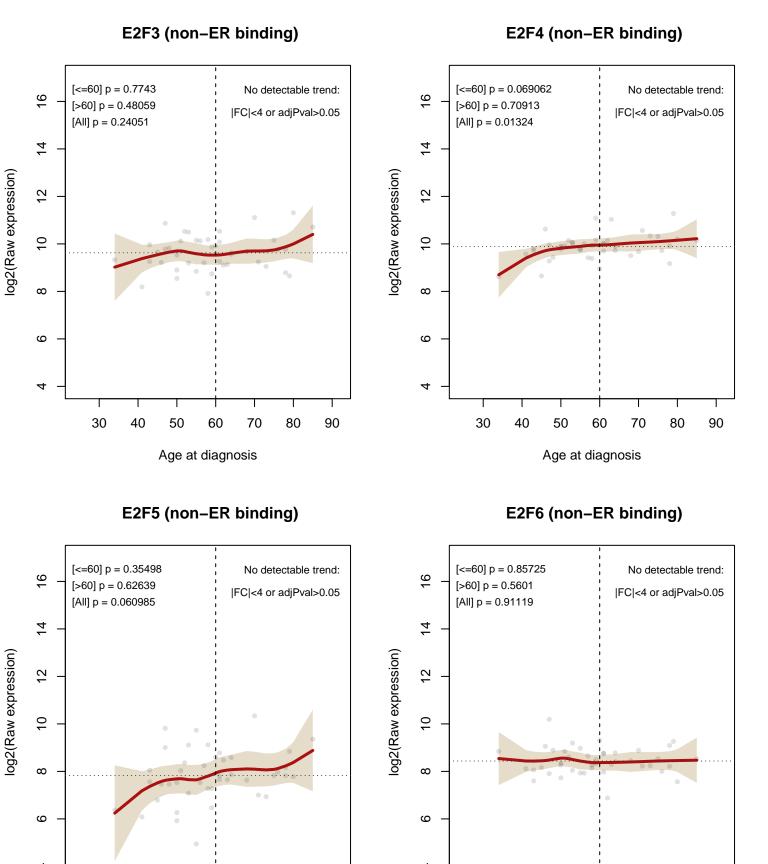


E2F1 (non-ER binding)

E2F2 (non-ER binding)

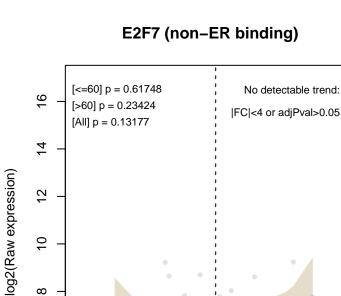






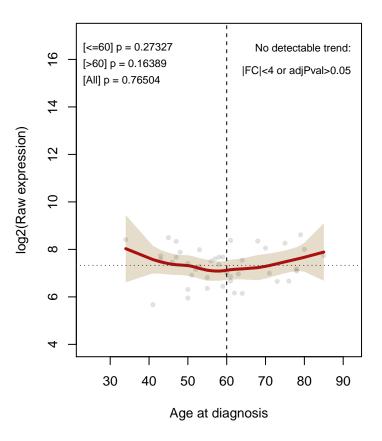
Age at diagnosis

Age at diagnosis



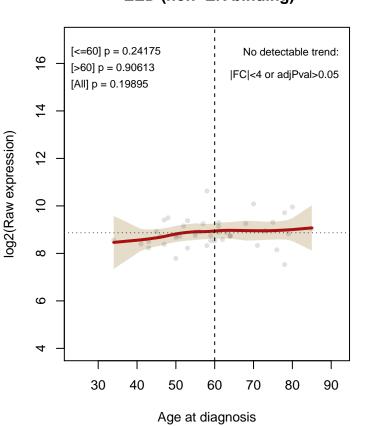
 $\infty$ 

### E2F8 (non-ER binding)

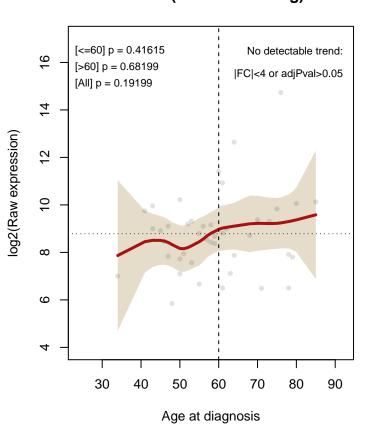


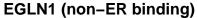
**EED (non-ER binding)** 

Age at diagnosis

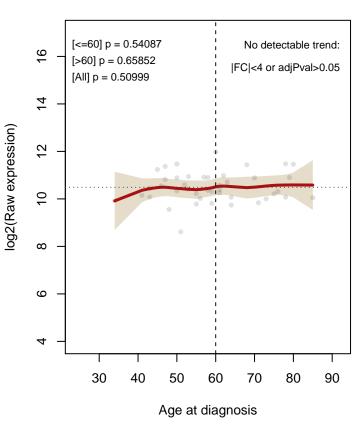


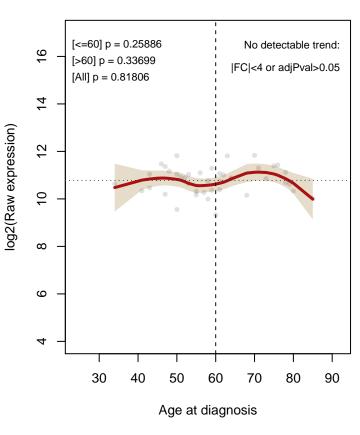
# EGFR (non-ER binding)





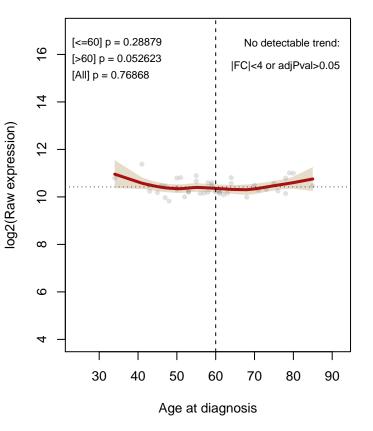
# **EHMT2** (non-ER binding)

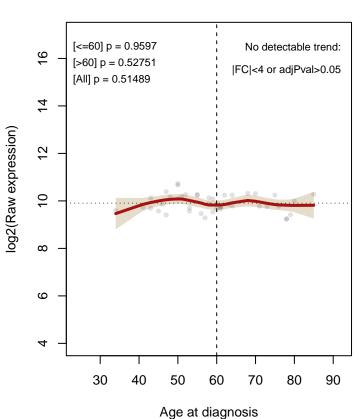


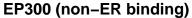


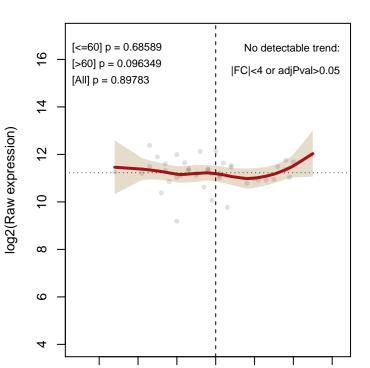
**ELAC2** (non-ER binding)

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

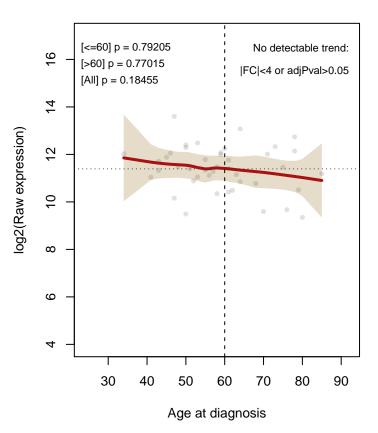






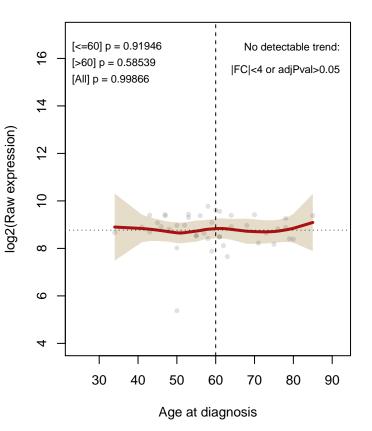


### **EPAS1** (non-ER binding)

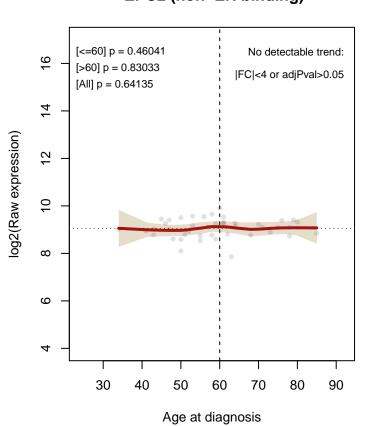


# **EPC1** (non-ER binding)

Age at diagnosis

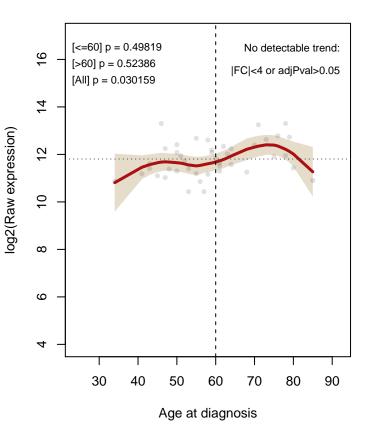


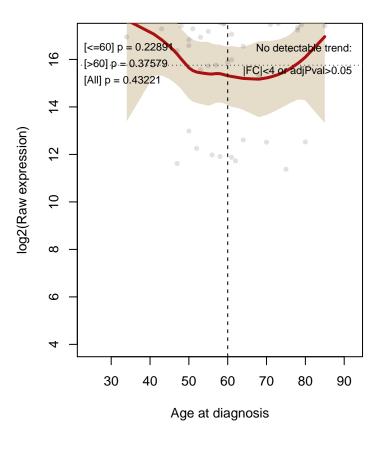
# **EPC2** (non-ER binding)



### **EPHB4** (non-ER binding)

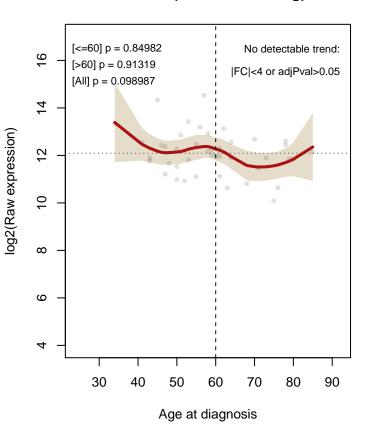
### ERBB2 (non-ER binding)

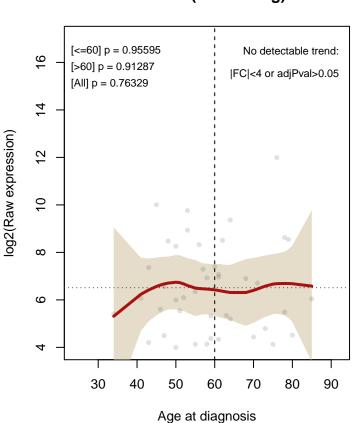


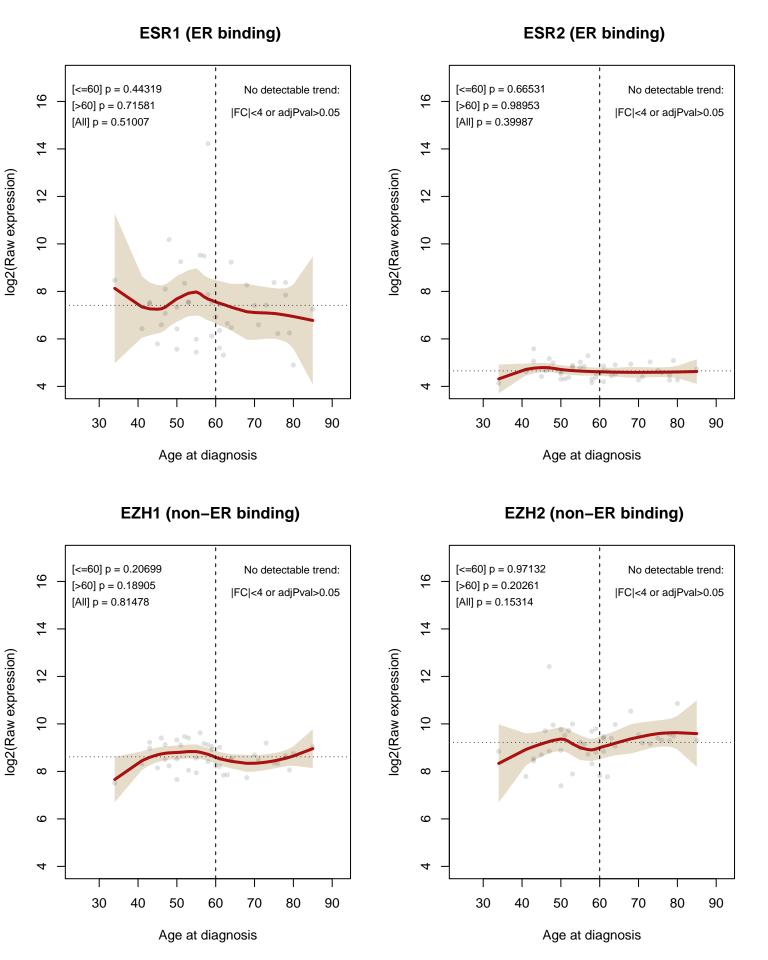


# ERBB3 (non-ER binding)

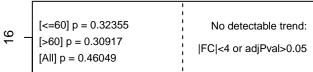
**ERBB4 (ER binding)** 

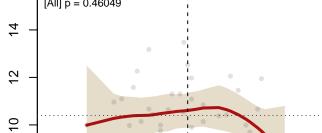












log2(Raw expression)



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Age at diagnosis

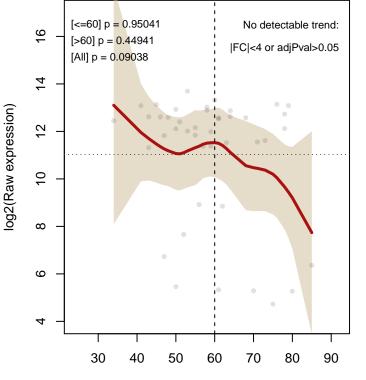
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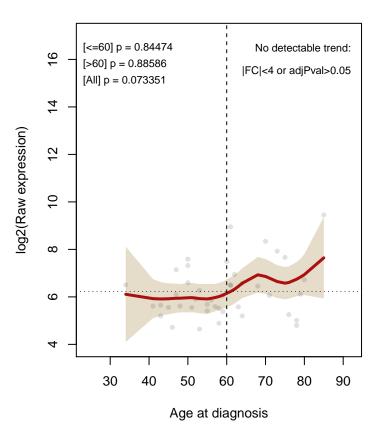
90

# **FOXA1 (ER binding)**

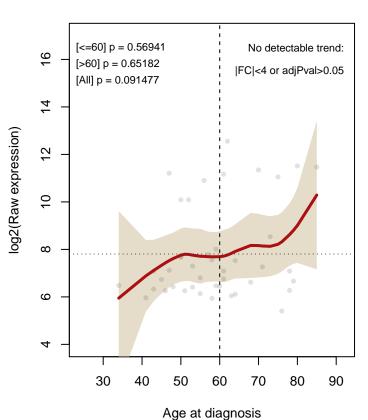


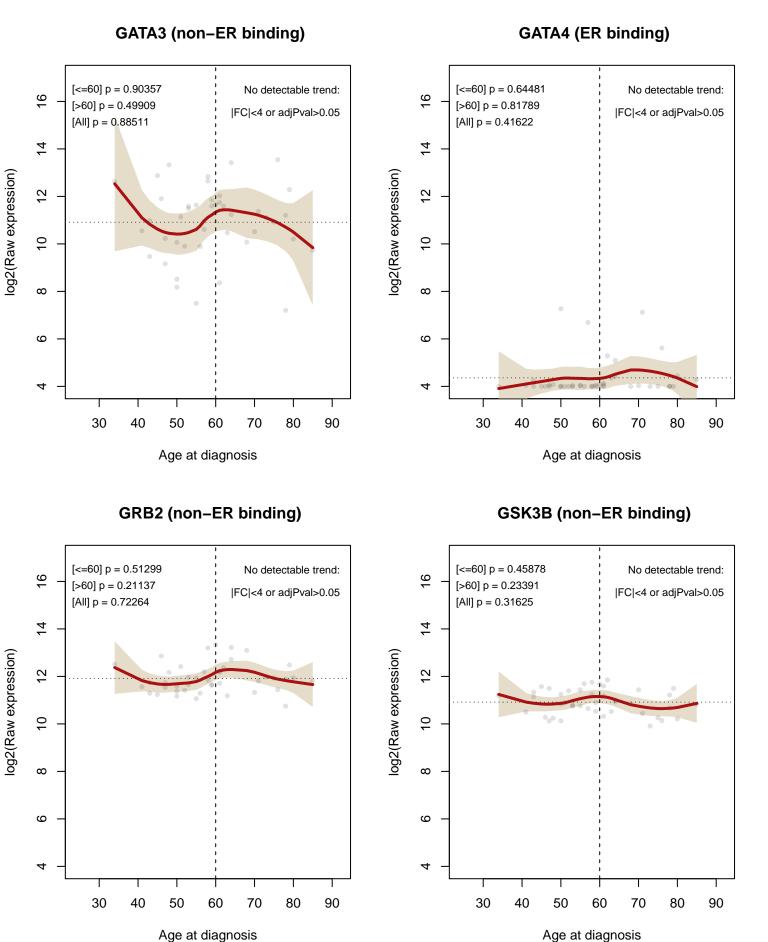
Age at diagnosis

## FOSL1 (non-ER binding)



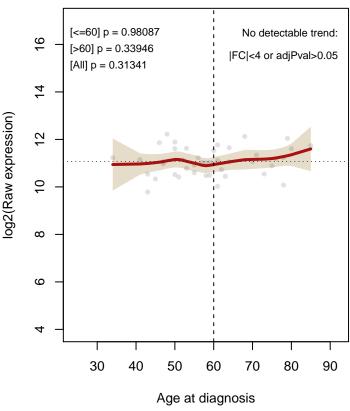
## **FOXC1 (ER binding)**



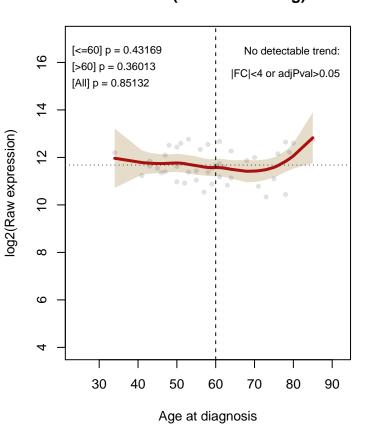


### H3F3A (non-ER binding) [<=60] p = 0.93401No detectable trend: 16 16 [>60] p = 0.16886 |FC|<4 or adjPval>0.05 [All] p = 0.526134 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 $\infty$ $\infty$ 9 9 30 40 50 60 70 80 90 Age at diagnosis

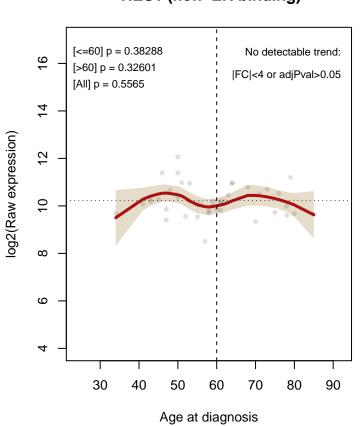
# **HDAC1 (ER binding)**



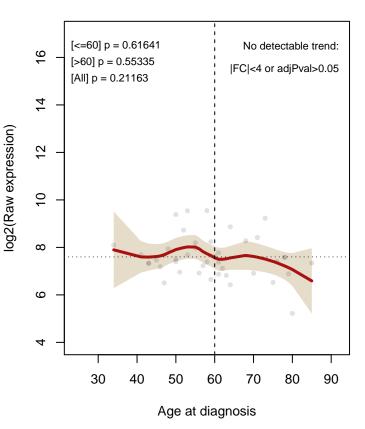
**HDAC2** (non-ER binding)

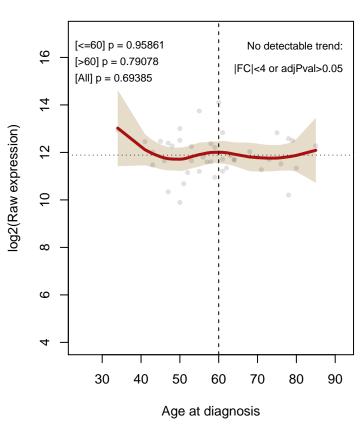


**HES1 (non-ER binding)** 



### **HEY1 (non-ER binding)**

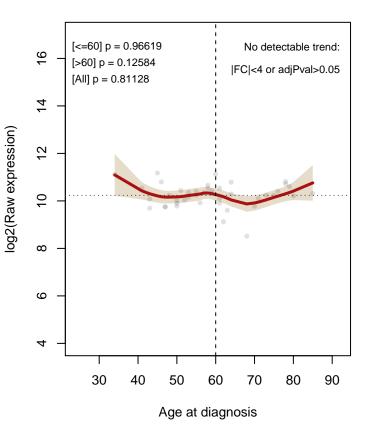


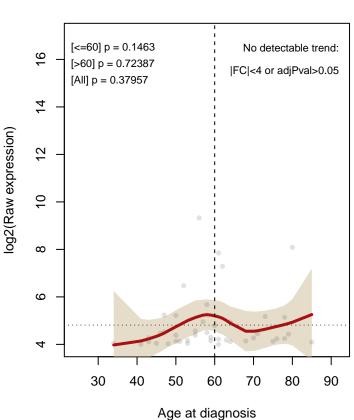


HIF1A (non-ER binding)

# HIF1AN (non-ER binding)

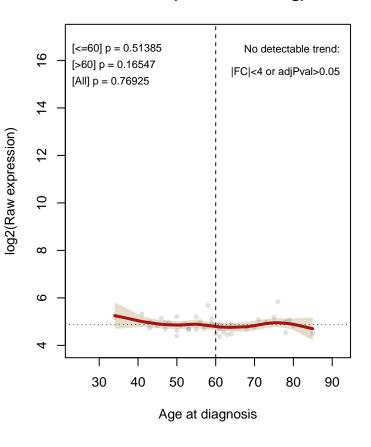
# HIF3A (non-ER binding)

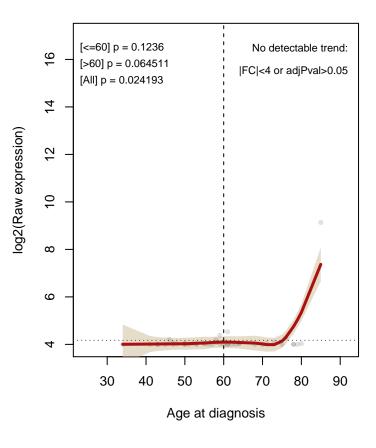




#### **HNF1A** (non-ER binding)

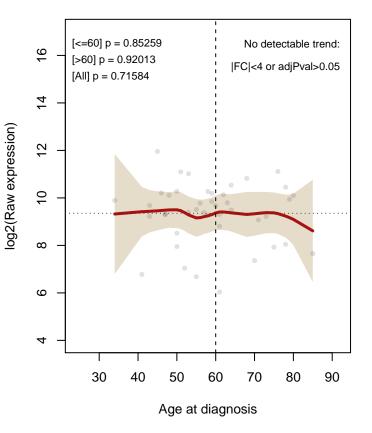
### HNF1B (non-ER binding)

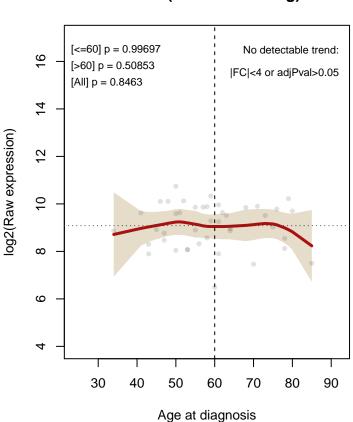


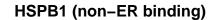


# **HOXC10 (non-ER binding)**

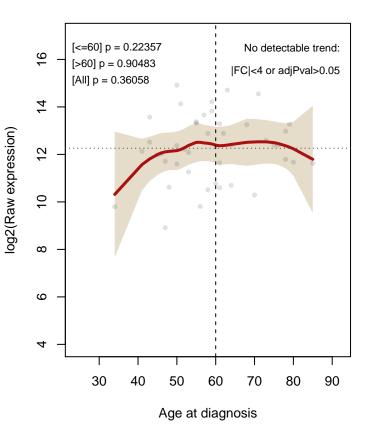
### HRAS (non-ER binding)

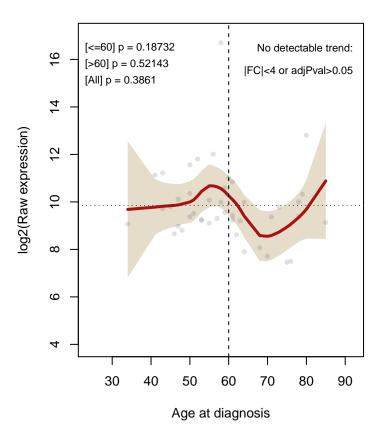






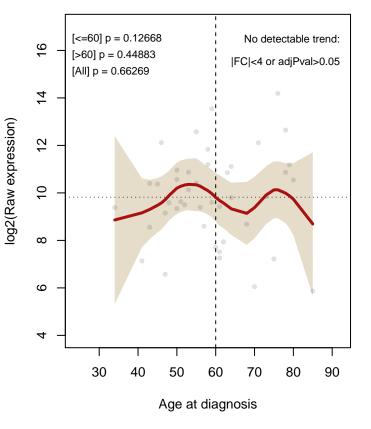
### IGF1R (ER binding)

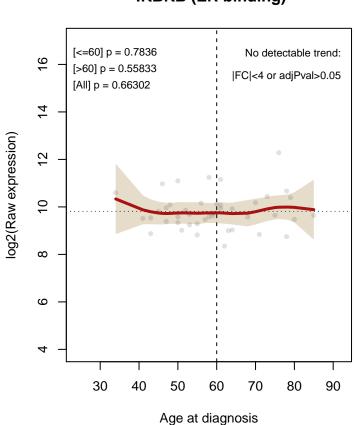




# IGFBP2 (non-ER binding)

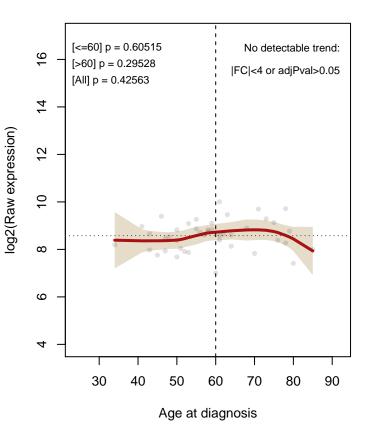
### IKBKB (ER binding)

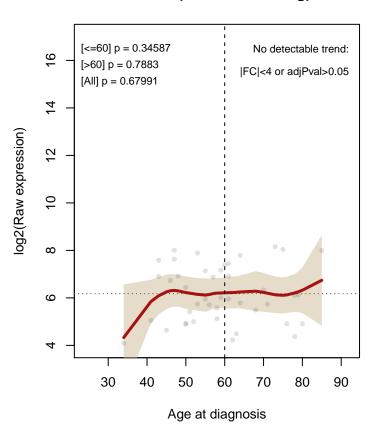






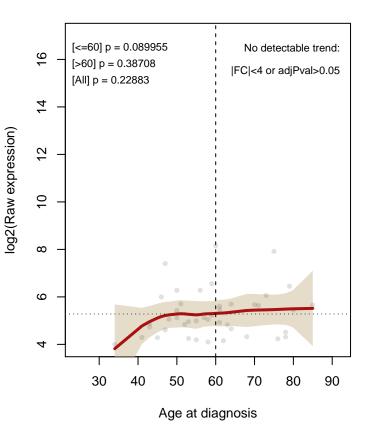
#### IL2RA (non-ER binding)

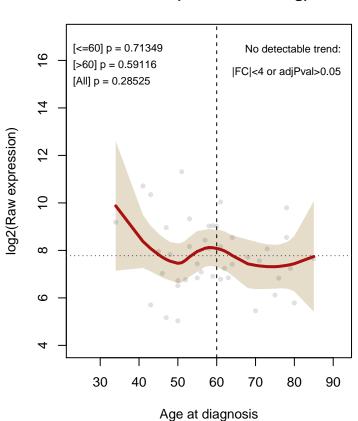


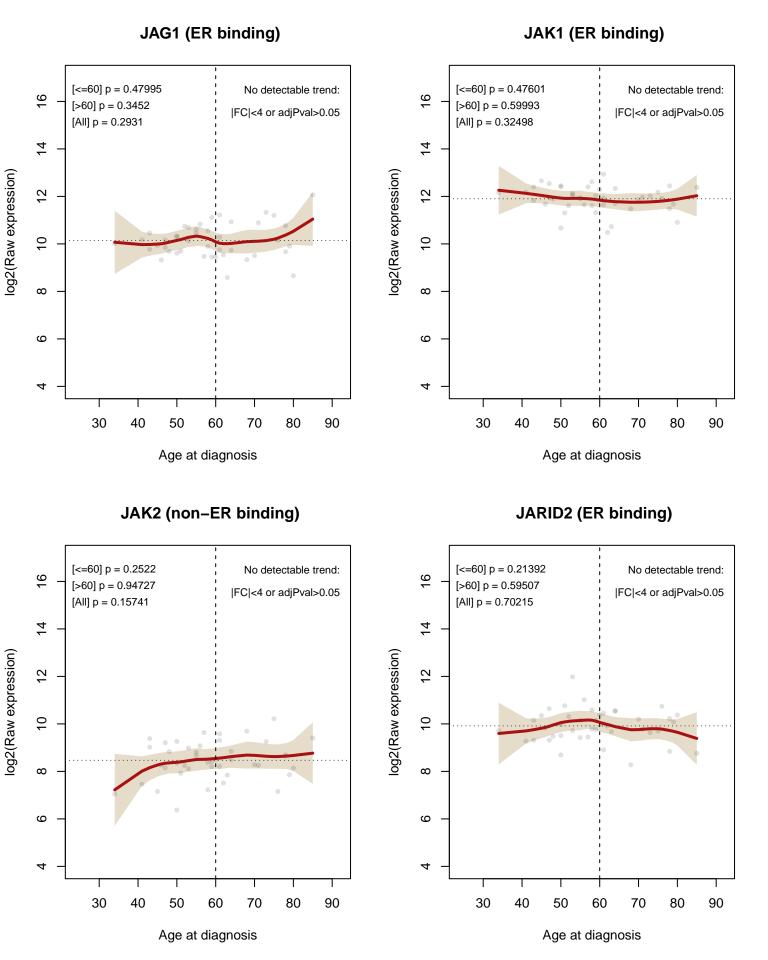


# IL6 (non-ER binding)

**INPP4B** (non-ER binding)







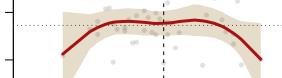






ω

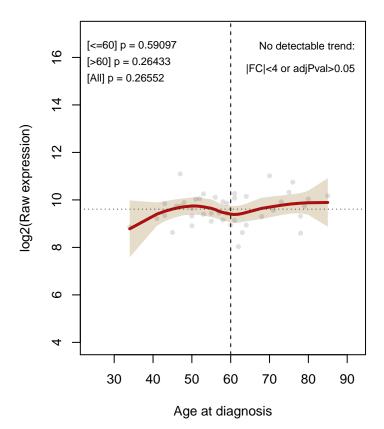
log2(Raw expression)



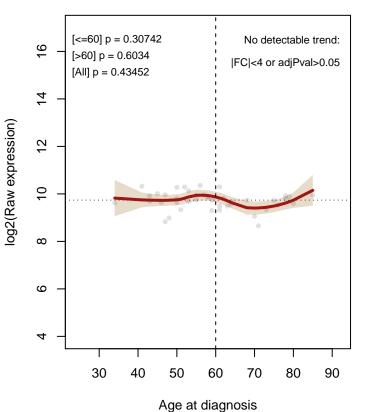


Age at diagnosis

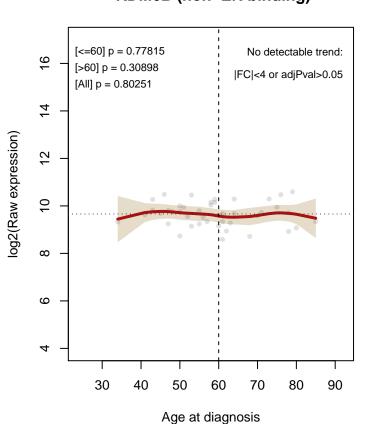
### KDM2B (non-ER binding)



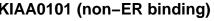
### KDM6A (non-ER binding)

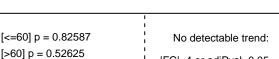


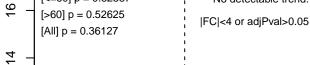
# KDM6B (non-ER binding)



### KIAA0101 (non-ER binding)









log2(Raw expression)



Age at diagnosis

60

70

80

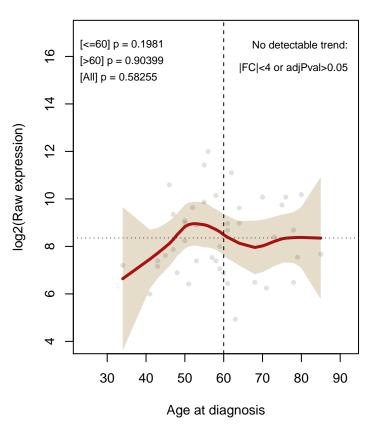
90

50

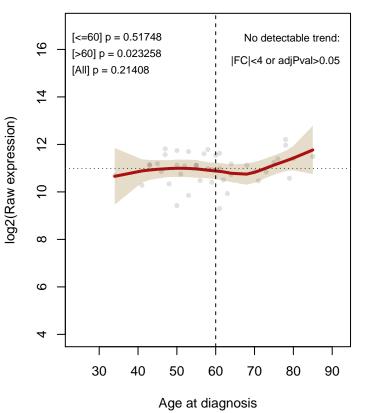
30

40

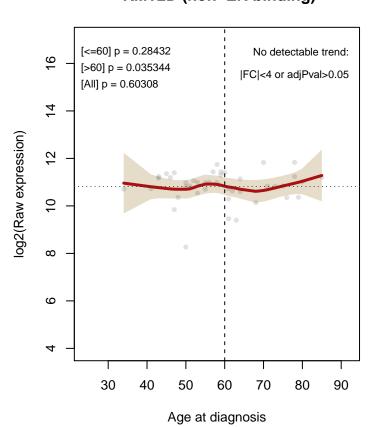
KIT (non-ER binding)



# KMT2C (non-ER binding)

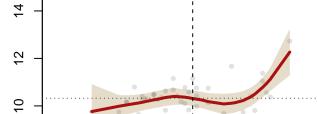


### KMT2D (non-ER binding)



#### KRAS (non-ER binding)





16

log2(Raw expression)





50

30

40

60

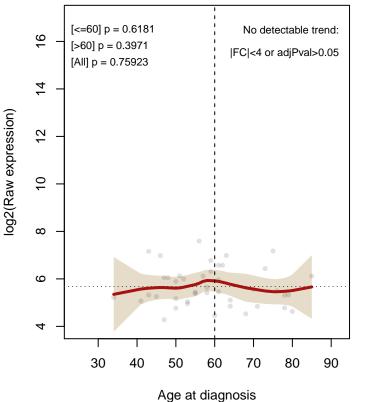
Age at diagnosis

L3MBTL1 (non-ER binding)

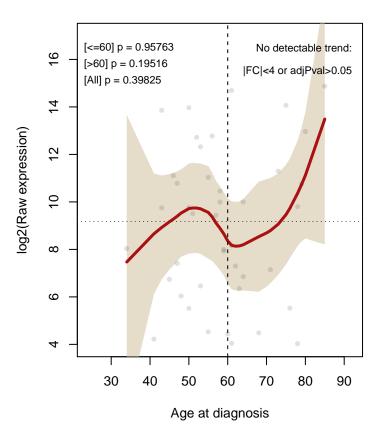
70

80

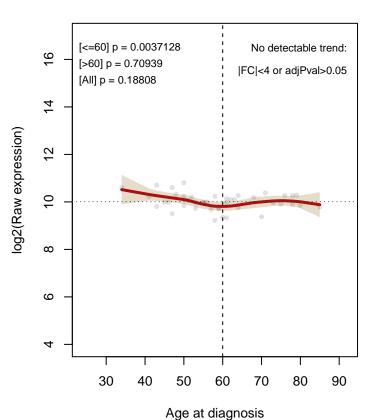
90



### KRT5 (non-ER binding)

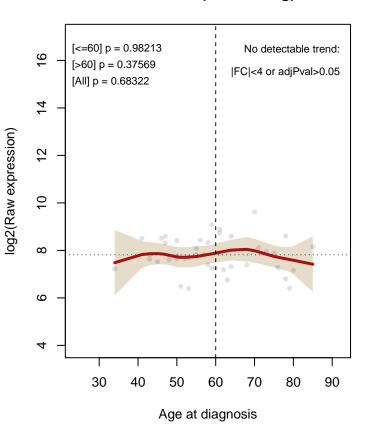


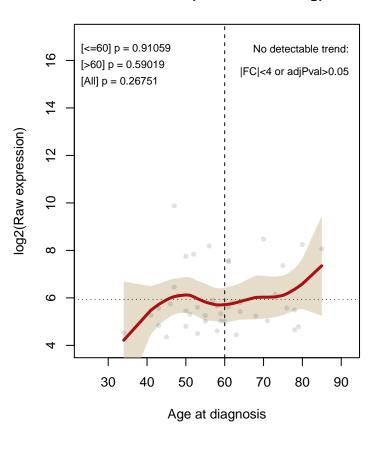
## L3MBTL2 (non-ER binding)



### L3MBTL3 (ER binding)

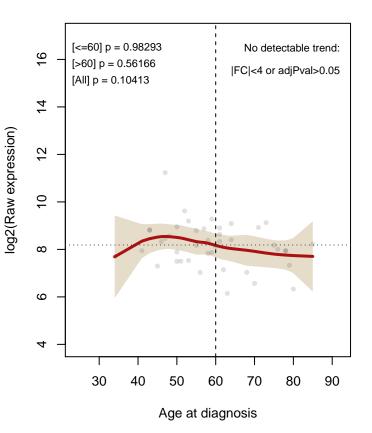
### L3MBTL4 (non-ER binding)

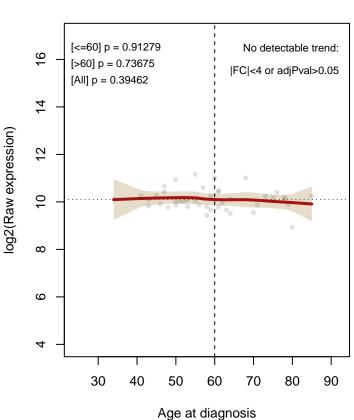




# LEF1 (non-ER binding)

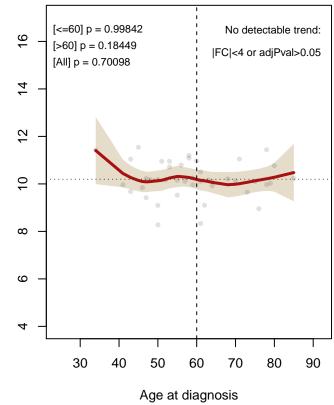
MAP2K1 (non-ER binding)



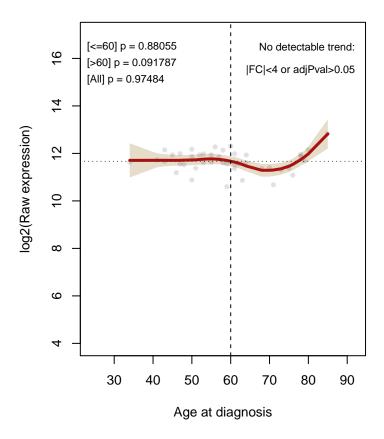


### MAP3K1 (non-ER binding)

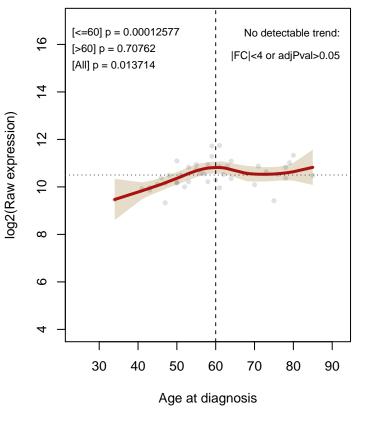
# MAPK1 (non-ER binding)



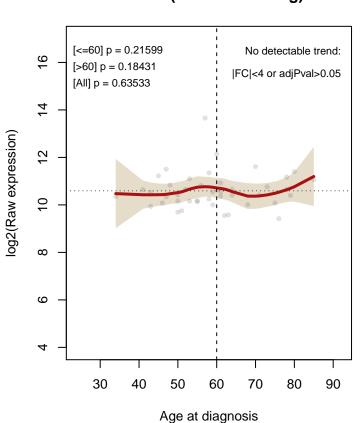
log2(Raw expression)



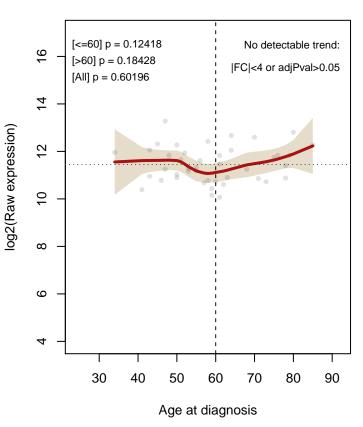
# MAPK3 (non-ER binding)

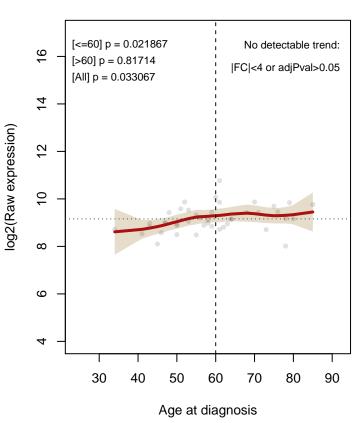


# MDM2 (non-ER binding)







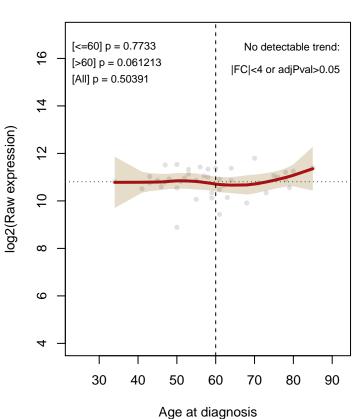


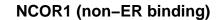
MTF2 (non-ER binding)

# MYC (non-ER binding)

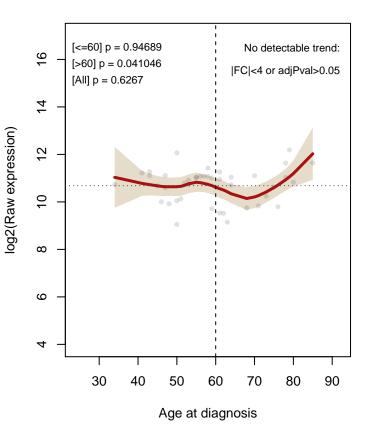
# [<=60] p = 0.14476No detectable trend: 16 [>60] p = 0.9387|FC|<4 or adjPval>0.05 [All] p = 0.883324 log2(Raw expression) 12 10 ω 9 30 40 50 60 70 80 90 Age at diagnosis

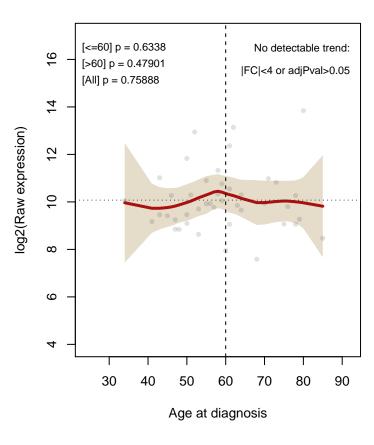
# NCOA6 (non-ER binding)





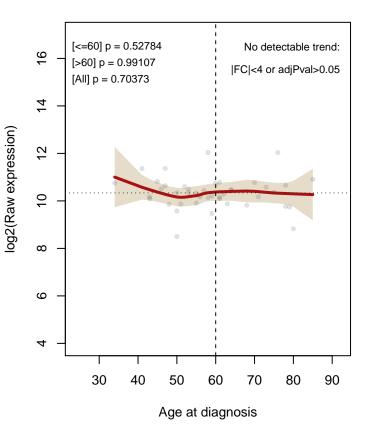
#### NES (non-ER binding)

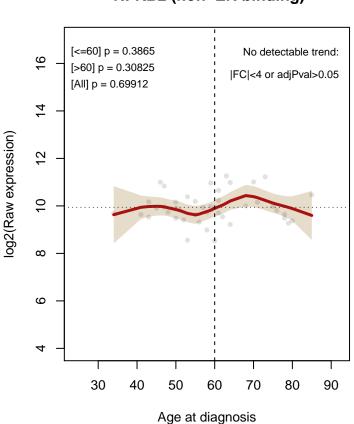




# NFKB1 (non-ER binding)

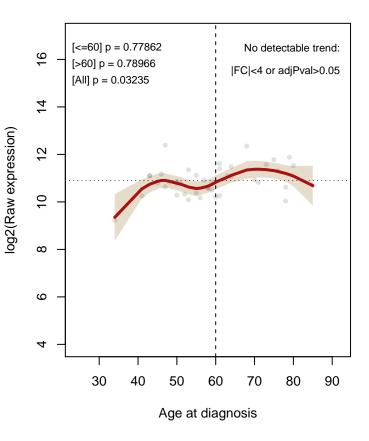
# NFKB2 (non-ER binding)

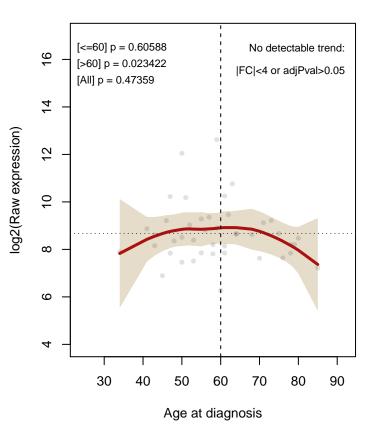




#### NFKBIA (non-ER binding)

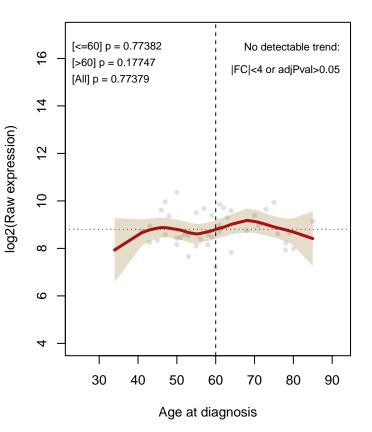
## NFKBIB (non-ER binding)

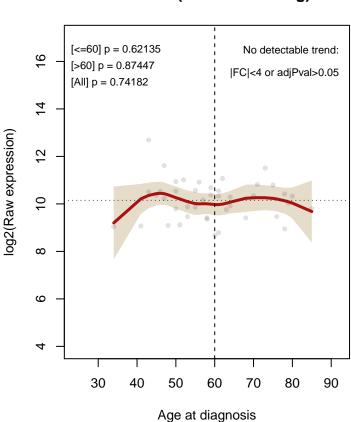




# **NFKBIE** (non-ER binding)

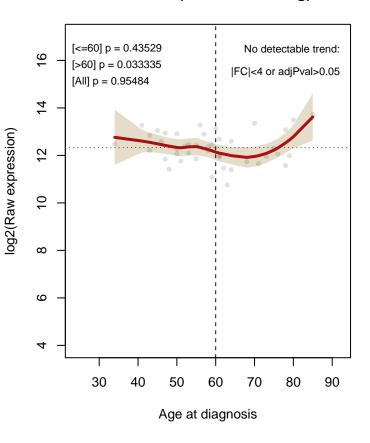
# NOTCH1 (non-ER binding)

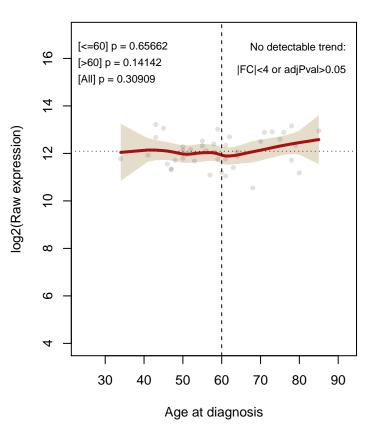




## NOTCH2 (non-ER binding)

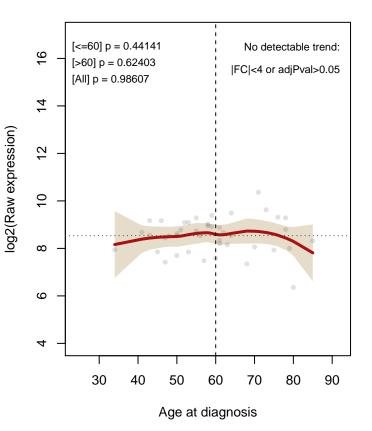
# NOTCH3 (non-ER binding)

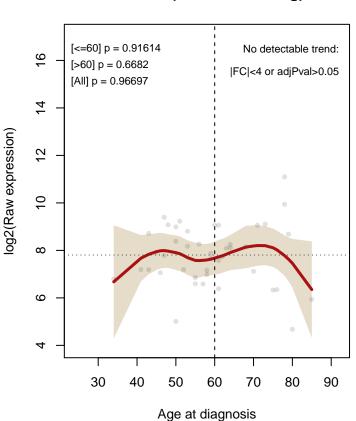




# NOTCH4 (non-ER binding)

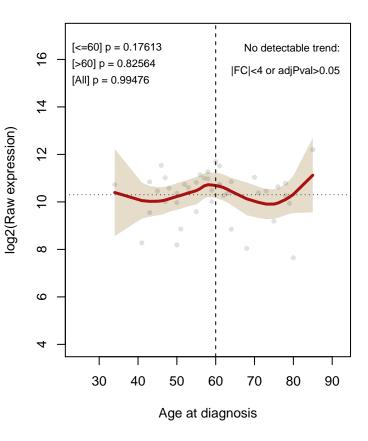
## NR4A2 (non-ER binding)

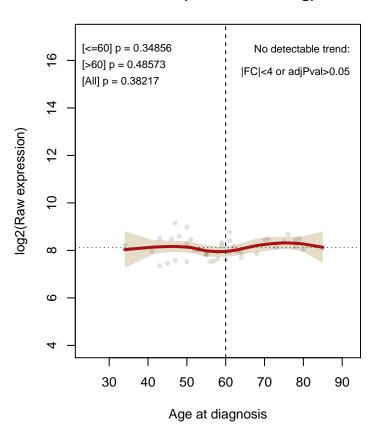




#### NRAS (non-ER binding)

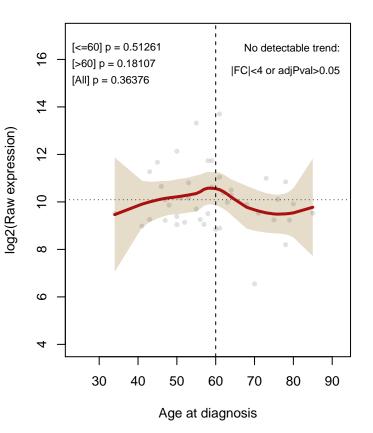
#### PCGF1 (non-ER binding)

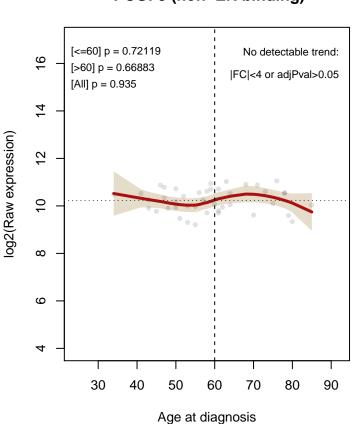




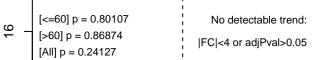
# PCGF2 (non-ER binding)

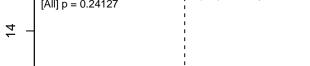
# PCGF3 (non-ER binding)

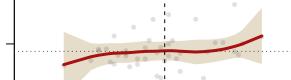




#### PCGF5 (non-ER binding)







log2(Raw expression)

log2(Raw expression)

12

19

30

40



50

Age at diagnosis

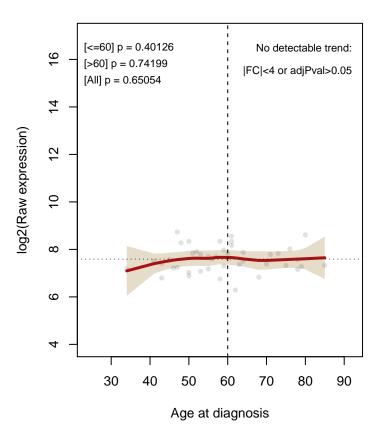
60

70

80

90

#### PCGF6 (non-ER binding)

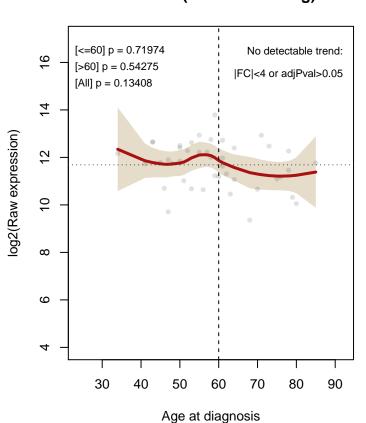


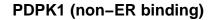
# PDGFRA (non-ER binding)

# [<=60] p = 0.25967No detectable trend: 16 [>60] p = 0.37079 |FC|<4 or adjPval>0.05 [All] p = 0.315844 12 19 ω 9 30 40 50 60 70 80 90

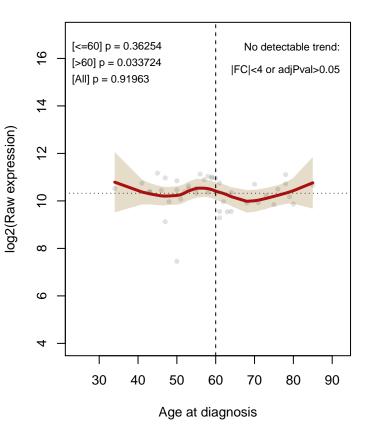
Age at diagnosis

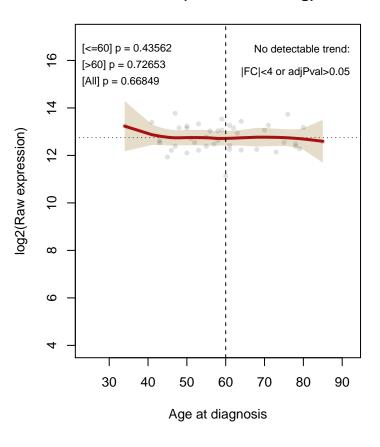
# PDGFRB (non-ER binding)





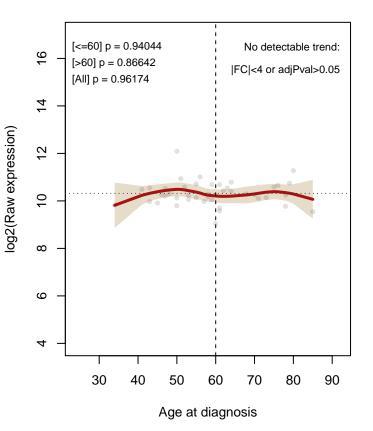
#### PEBP1 (non-ER binding)

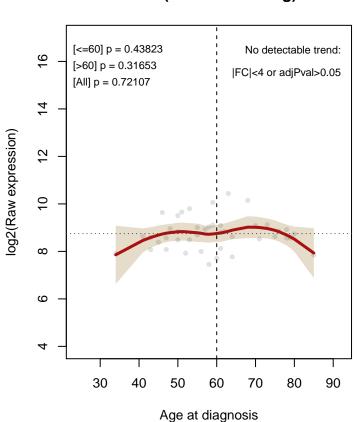


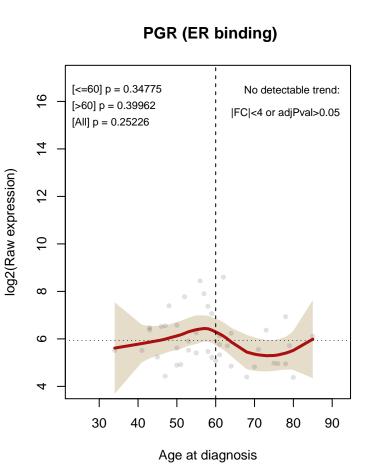


PELP1 (non-ER binding)

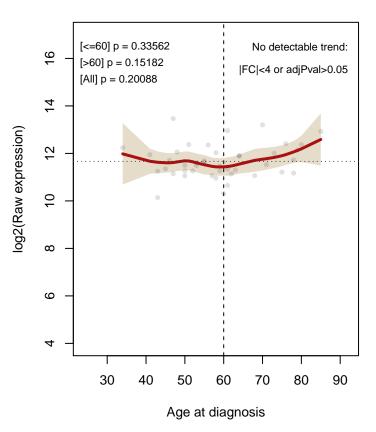
PGP (non-ER binding)



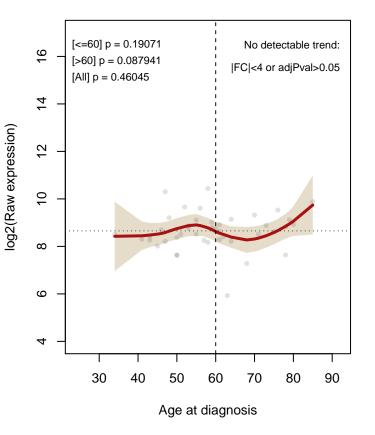




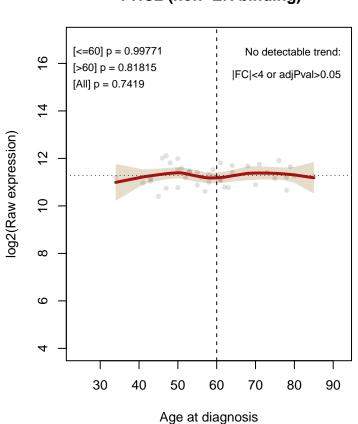
# PHB2 (non-ER binding)

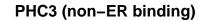


PHC1 (non-ER binding)

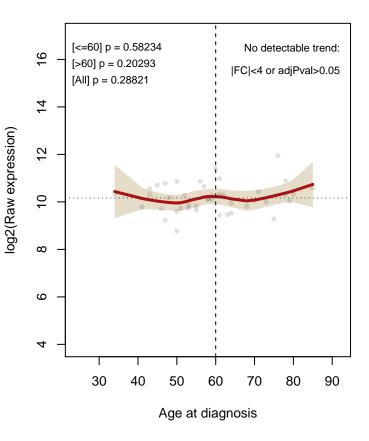


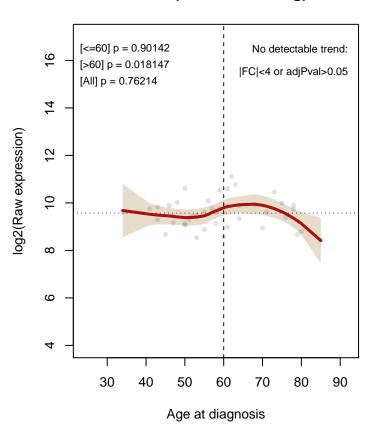
PHC2 (non-ER binding)





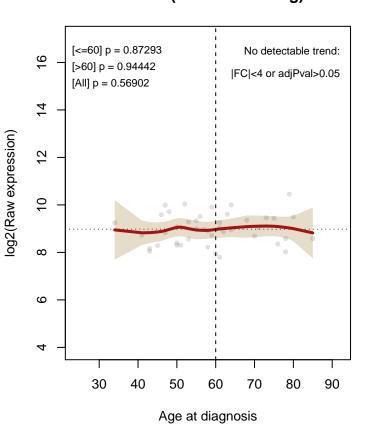
#### PHF1 (non-ER binding)

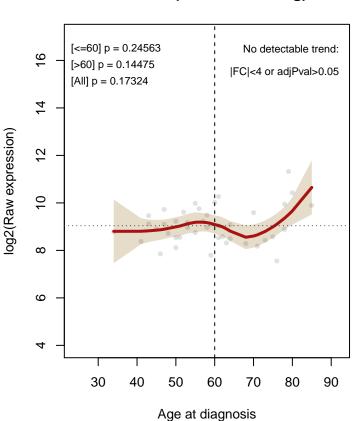




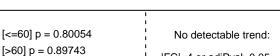
# PHF19 (non-ER binding)

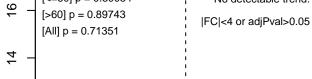
# PIK3CA (non-ER binding)





#### PIP5K1C (non-ER binding)







log2(Raw expression)

12

19

30

40



50

Age at diagnosis

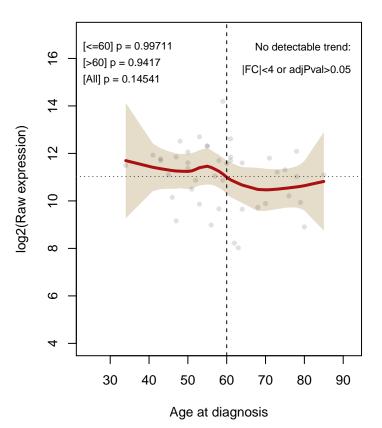
60

70

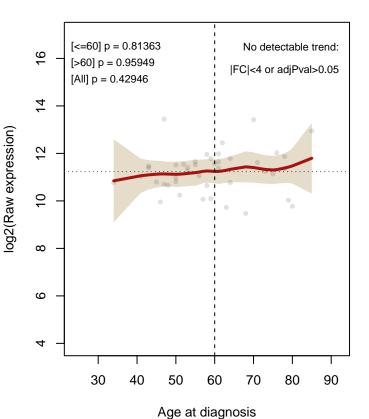
80

90

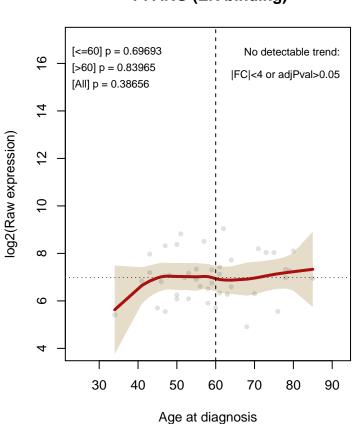
# PLAU (non-ER binding)

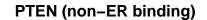


# PODXL (non-ER binding)

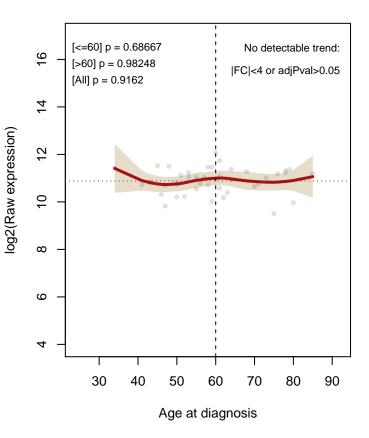


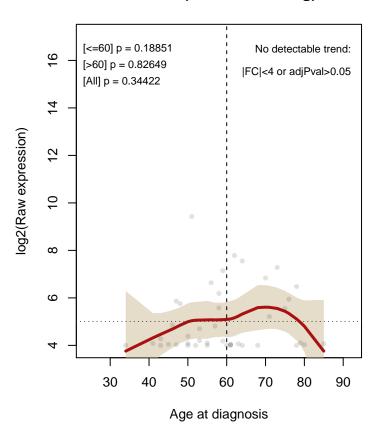
# **PPARG (ER binding)**





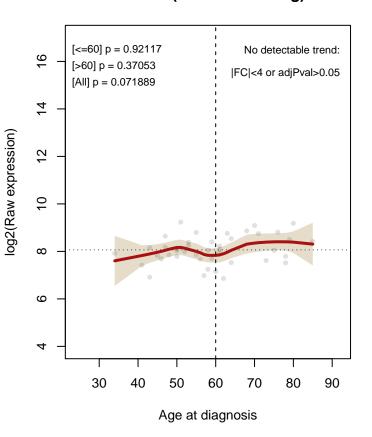
### **PYDC1** (non-ER binding)

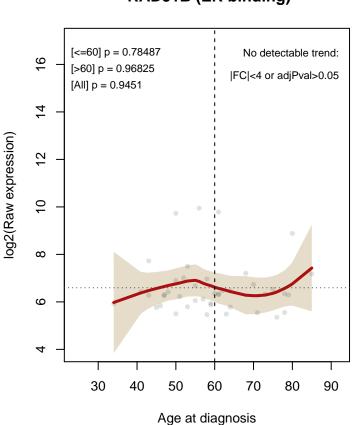




# RAD51 (non-ER binding)

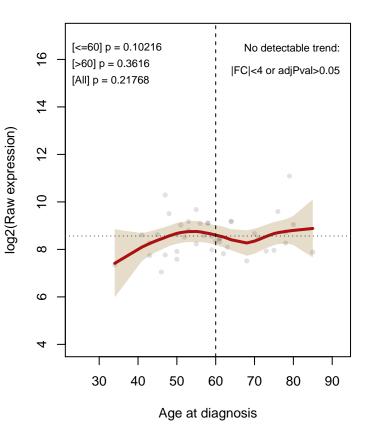
# RAD51B (ER binding)

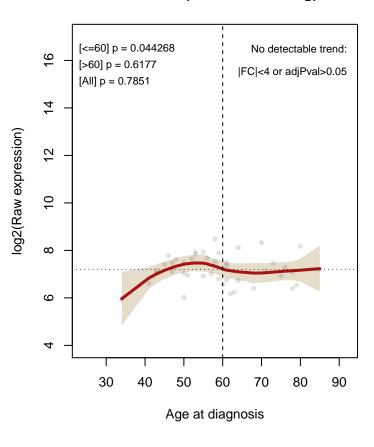




#### RAD51C (non-ER binding)

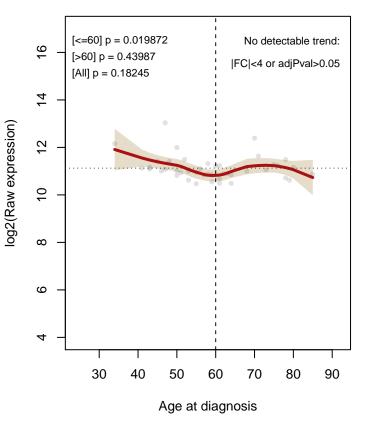
#### RAD51D (non-ER binding)

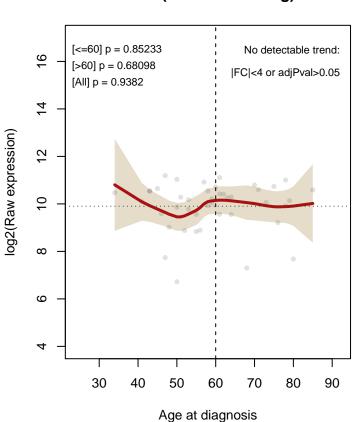


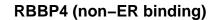


RAF1 (non-ER binding)

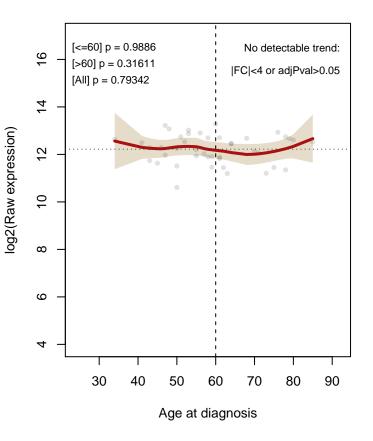
RB1 (non-ER binding)

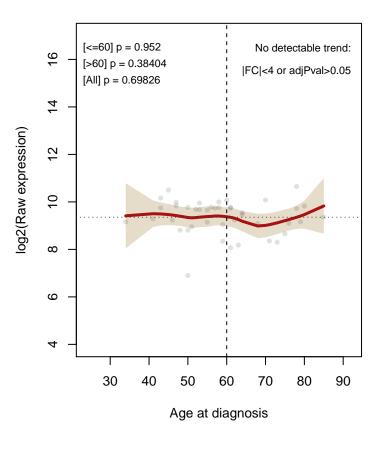






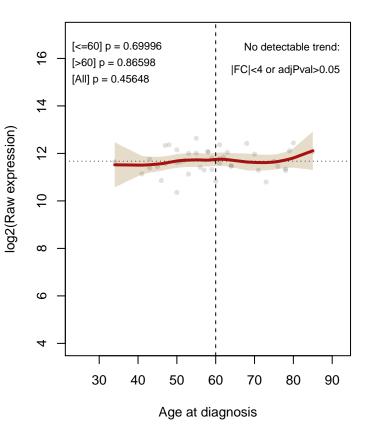
#### RBBP5 (non-ER binding)

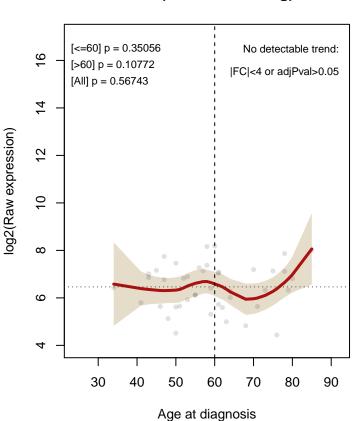


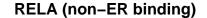


# RBBP7 (non-ER binding)

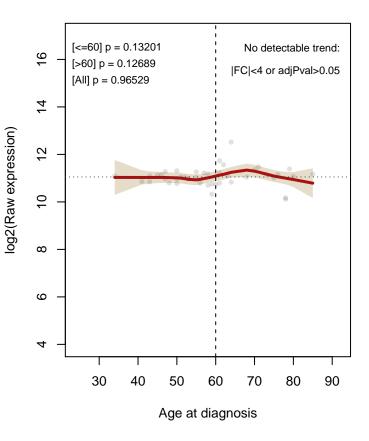
# **REL** (non-ER binding)

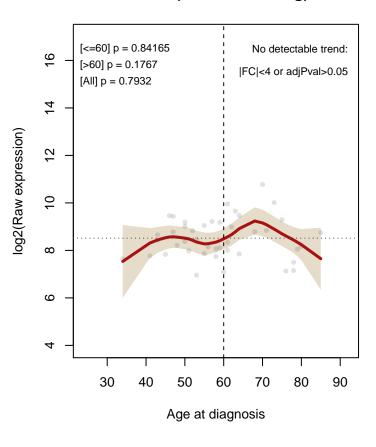






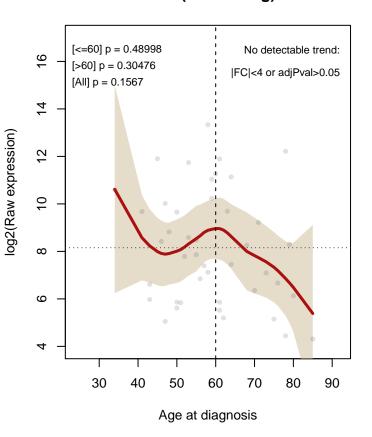
#### **RELB** (non-ER binding)

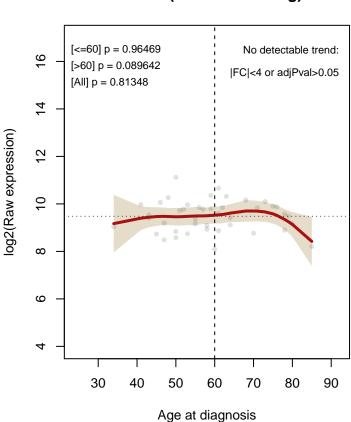


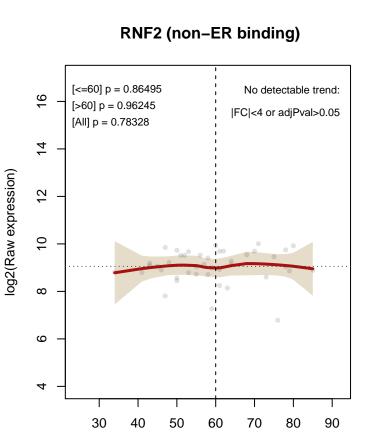


# **RET (ER binding)**

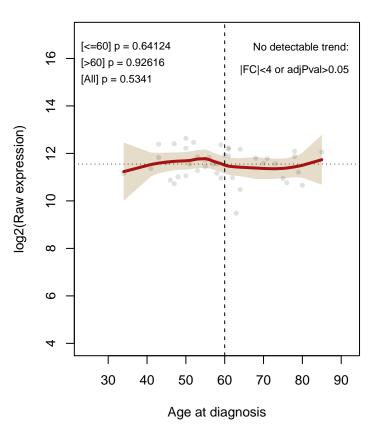
RING1 (non-ER binding)





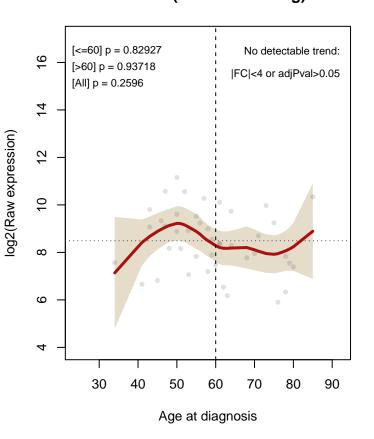


# **RUNX1 (ER binding)**

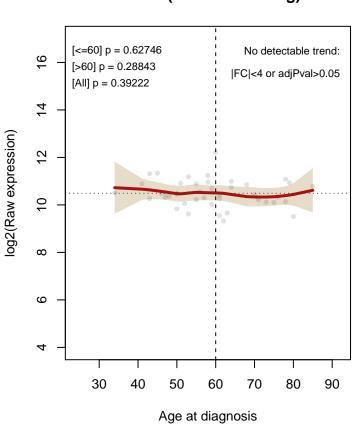


**RUNX3 (non-ER binding)** 

Age at diagnosis

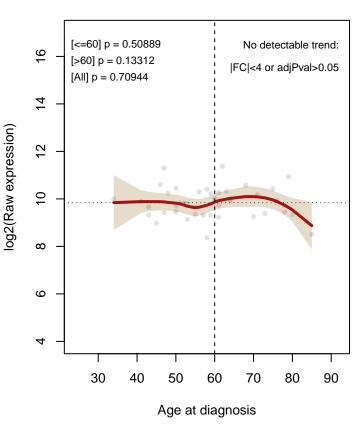


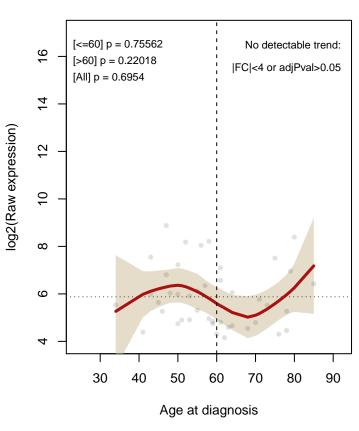
# RYBP (non-ER binding)



#### SCMH1 (non-ER binding)

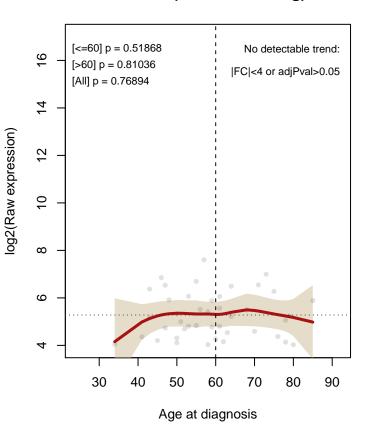
# SCML2 (non-ER binding)

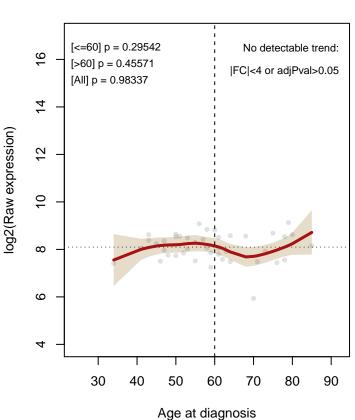




# SCML4 (non-ER binding)

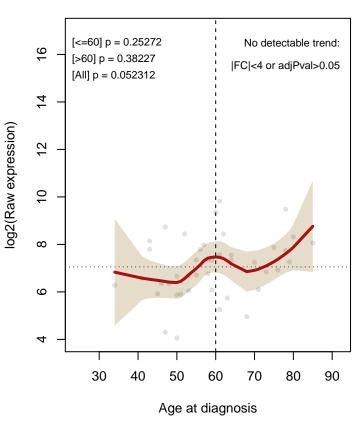
# SFMBT1 (ER binding)

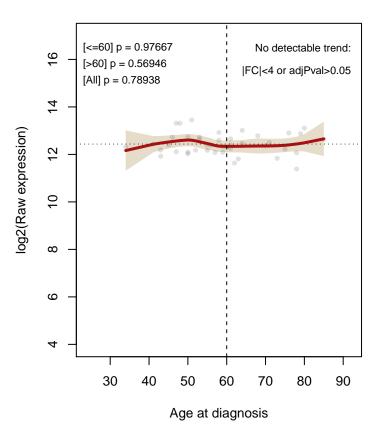






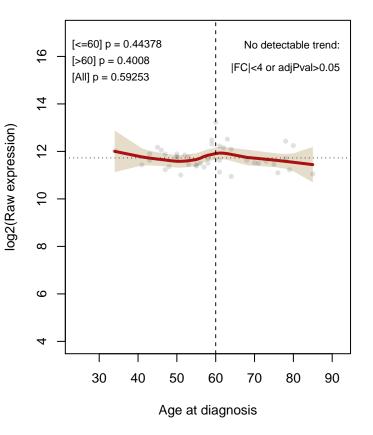
## SFPQ (non-ER binding)

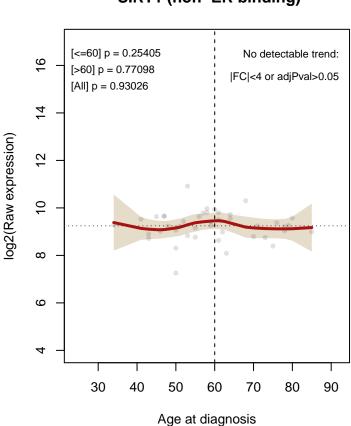




SHC1 (non-ER binding)

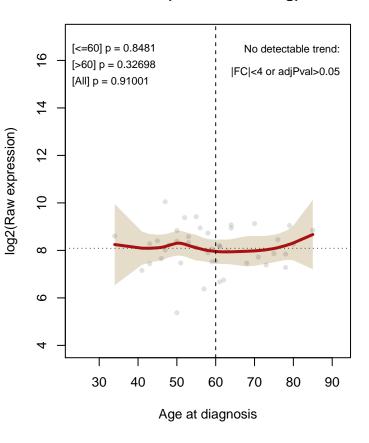
SIRT1 (non-ER binding)

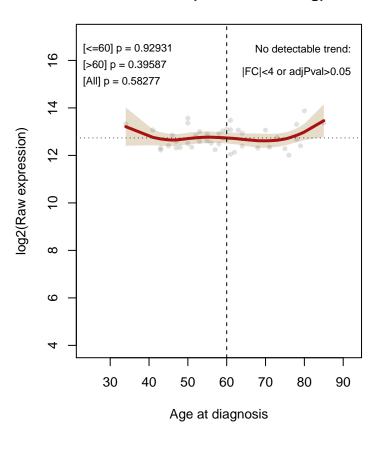




#### SKP2 (non-ER binding)

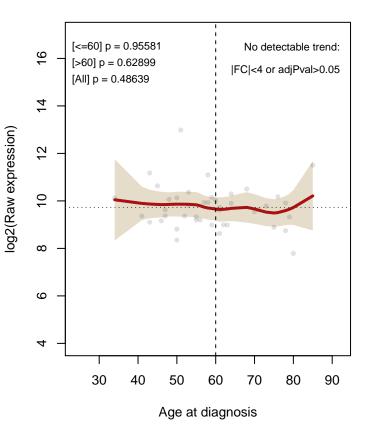
#### SLC25A3 (non-ER binding)

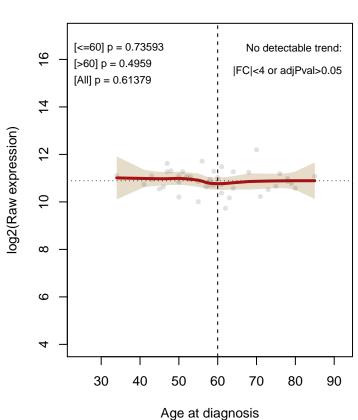




# SMAD1 (non-ER binding)

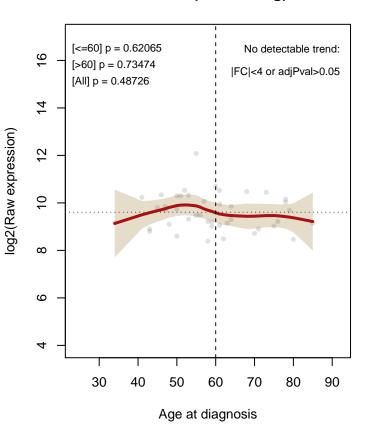
# SMAD2 (non-ER binding)

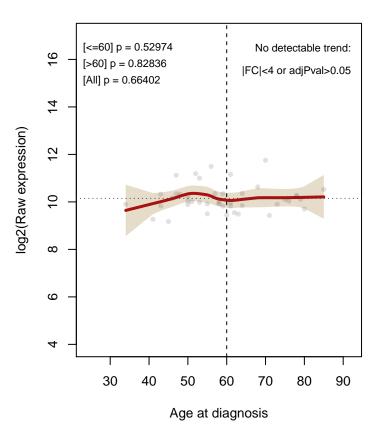




## **SMAD3 (ER binding)**

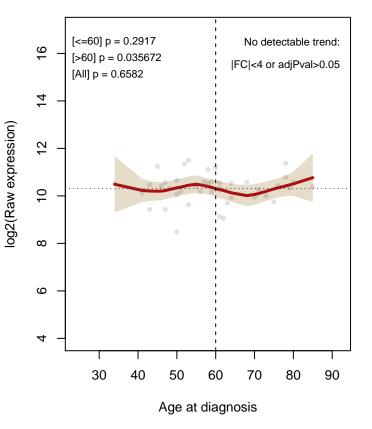
## SMAD4 (non-ER binding)

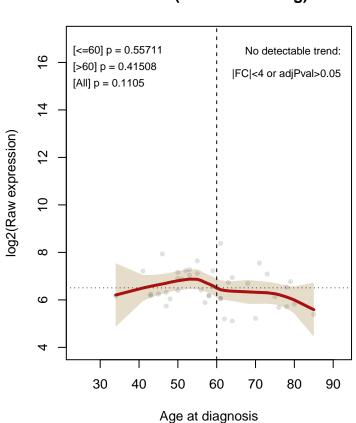




# **SMAD5** (non-ER binding)

# SMAD6 (non-ER binding)





#### SMAD7 (non-ER binding)

# [<=60] p = 0.94618No detectable trend:





# 10

log2(Raw expression)

12



50

30

40

Age at diagnosis

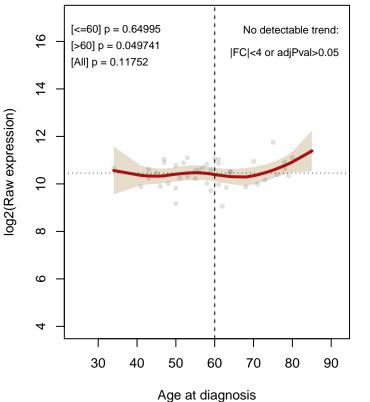
# SOS1 (non-ER binding)

60

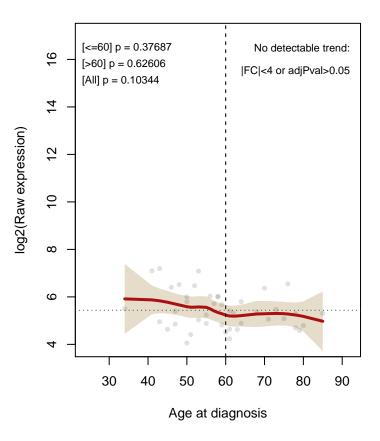
70

80

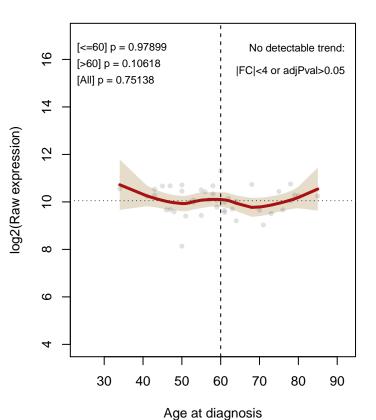
90



## SMAD9 (non-ER binding)



# SOS2 (non-ER binding)



#### SP1 (non-ER binding) SRC (non-ER binding) [<=60] p = 0.81475No detectable trend: [<=60] p = 0.36521No detectable trend: 16 16 [>60] p = 0.21075 [>60] p = 0.73374 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.61157[All] p = 0.477834 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 STAT3 (non-ER binding) STAT1 (ER binding) [<=60] p = 0.11088No detectable trend: [<=60] p = 0.89192No detectable trend: 16 16 [>60] p = 0.77788 [>60] p = 0.11979 |FC|<4 or adjPval>0.05 |FC|<4 or adjPval>0.05 [All] p = 0.16242[All] p = 0.995034 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

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40

50

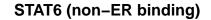
60

Age at diagnosis

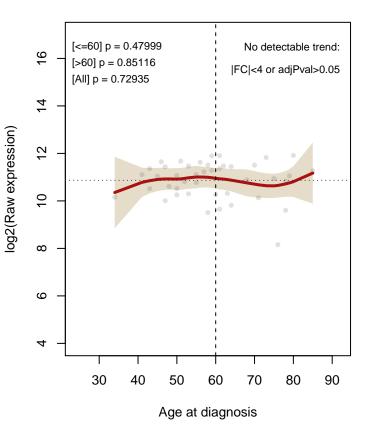
70

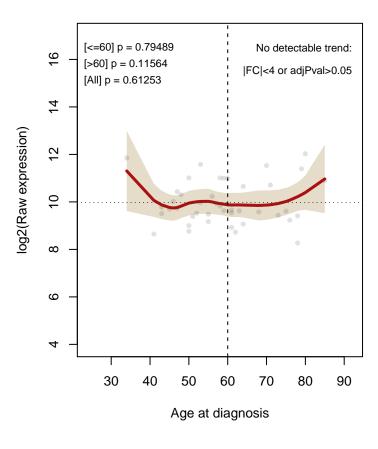
80

90



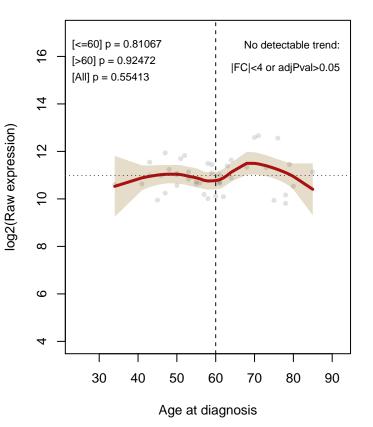
#### SUZ12 (non-ER binding)

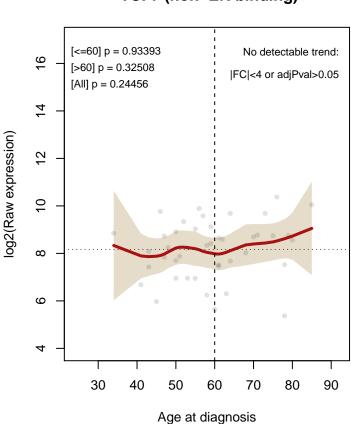




# TCF3 (non-ER binding)

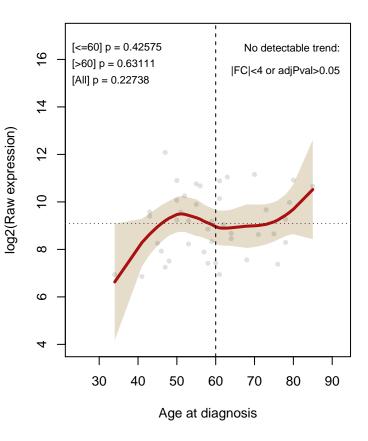
TCF7 (non-ER binding)

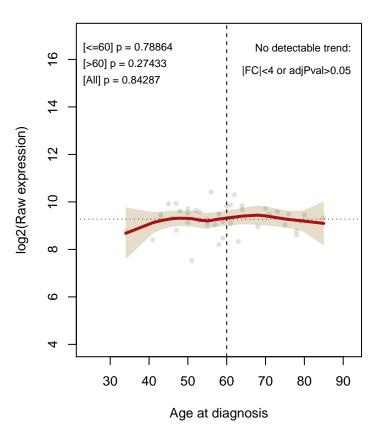






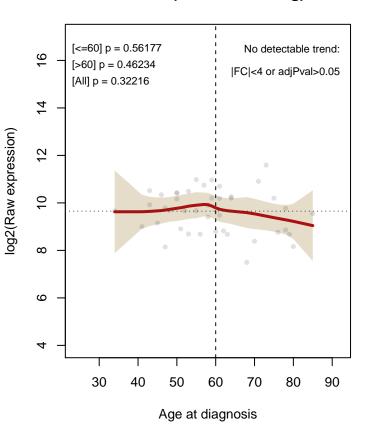
## TCF7L2 (non-ER binding)

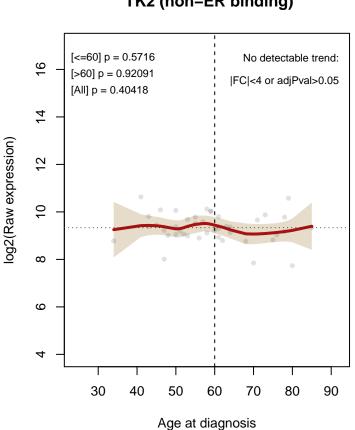


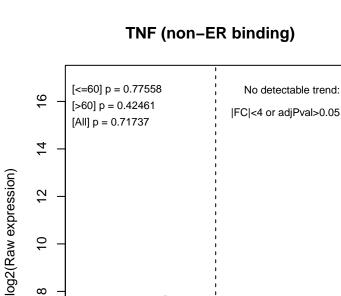


# TGFB1 (non-ER binding)

TK2 (non-ER binding)

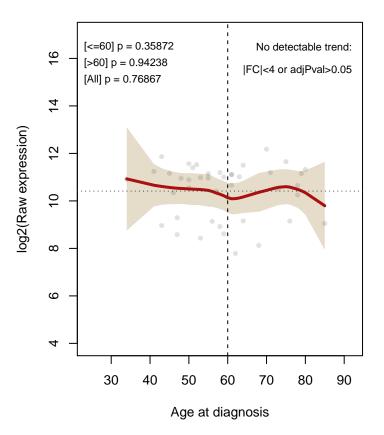






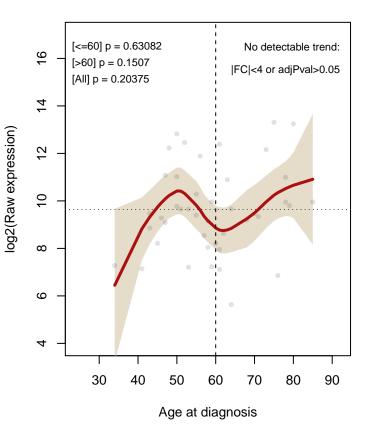
 $\infty$ 

# TP53 (non-ER binding)

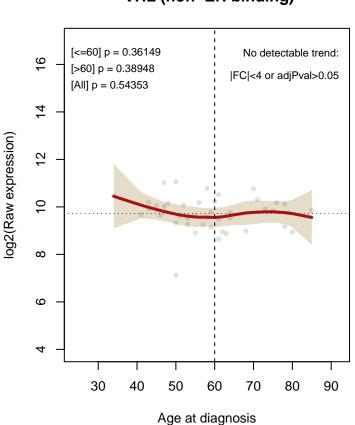


Age at diagnosis

TRIM29 (non-ER binding)



VHL (non-ER binding)

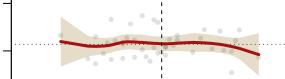


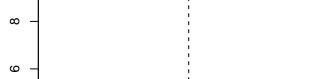


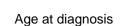




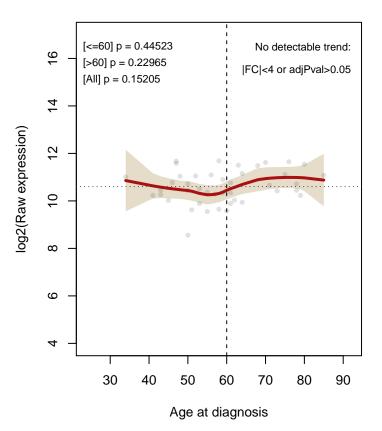
log2(Raw expression)







# WHSC1 (non-ER binding)

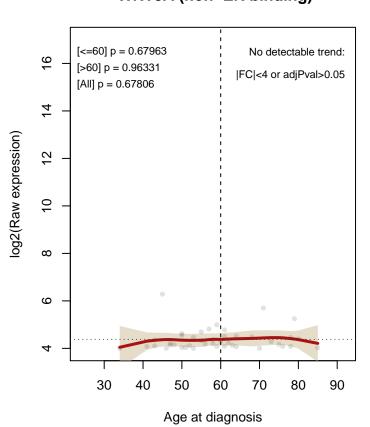


# WNT1 (non-ER binding)

# [<=60] p = 0.44465 No detectable trend: [>60] p = 0.79905 |FC|<4 or adjPval>0.05 [All] p = 0.92301log2(Raw expression) ω

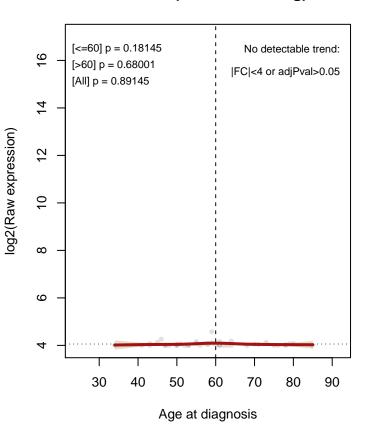
Age at diagnosis

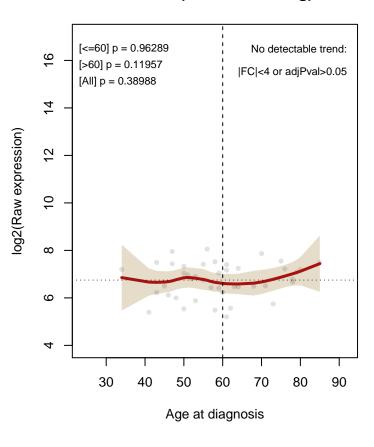
# WNT3A (non-ER binding)



## WNT7A (non-ER binding)

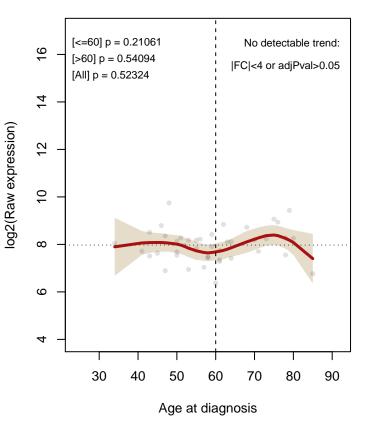
#### XRCC2 (non-ER binding)

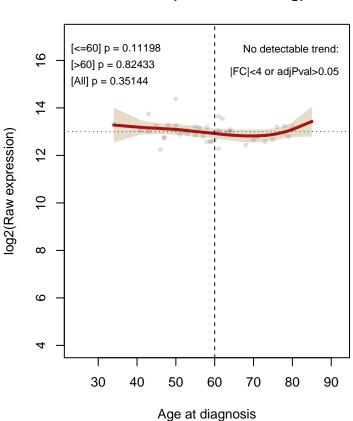




# XRCC3 (non-ER binding)

# XRCC6 (non-ER binding)

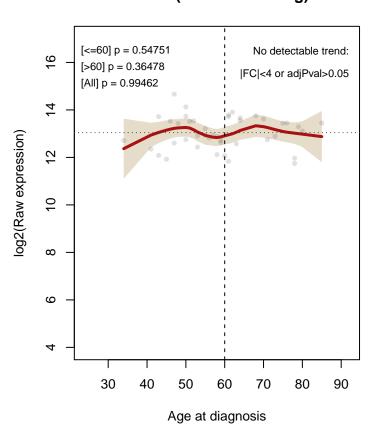




## YAF2 (non-ER binding)

# 

### YBX1 (non-ER binding)



# YY1 (non-ER binding)

Age at diagnosis

