

#### ASXL3 (non-ER binding) ATM (non-ER binding) [<=60] p = 0.20174No detectable trend: [<=60] p = 0.52436No detectable trend: 16 16 [>60] p = 0.27951 [>60] p = 0.18878 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.42068[All] p = 0.397344 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 = 0.95954No detectable trend: [<=60] p = 0.51356No detectable trend: 16 16 [>60] p = 0.52051 [>60] p = 0.52246 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.92699[All] p = 0.536314 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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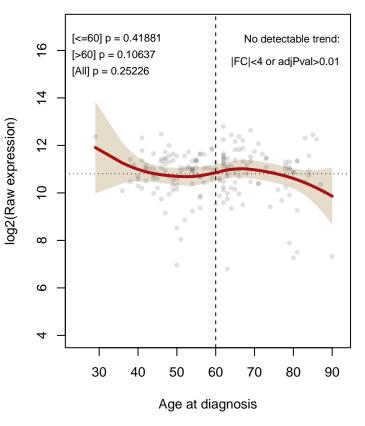
Age at diagnosis

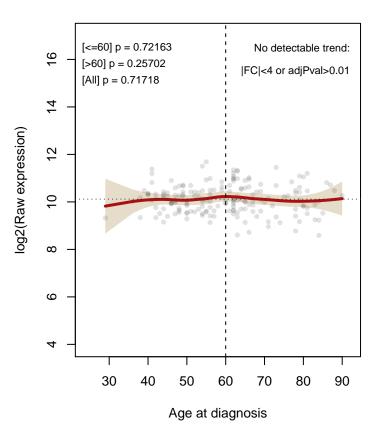
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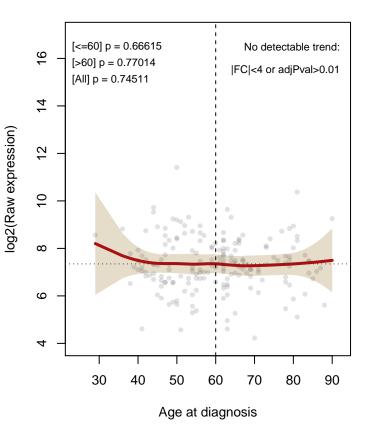
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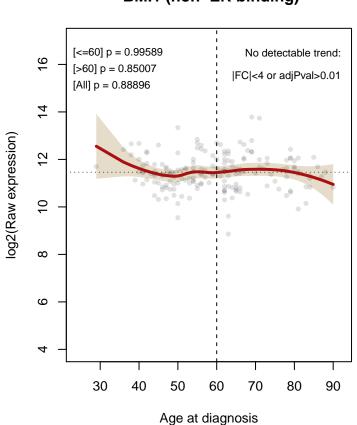




## **BIRC5** (non-ER binding)

**BMI1 (non-ER binding)** 





#### BMX (non-ER binding) **BRCA1** (non-ER binding) [<=60] p = 0.29382No detectable trend: [<=60] p = 0.7874No detectable trend: 16 16 [>60] p = 0.11954 [>60] p = 0.83937 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.13002[All] p = 0.638934 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 70 80 90 30 40 50 60 70 80 90 50 60 Age at diagnosis Age at diagnosis CA9 (non-ER binding) **CBX1** (non-ER binding) [<=60] p = 0.42786No detectable trend: [<=60] p = 0.8921No detectable trend: 16 16 [>60] p = 0.068429 [>60] p = 0.14043 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.25473[All] p = 0.0955344 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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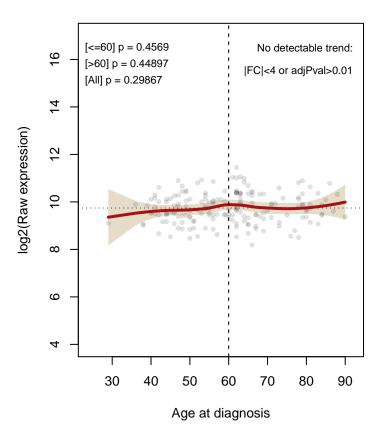
Age at diagnosis

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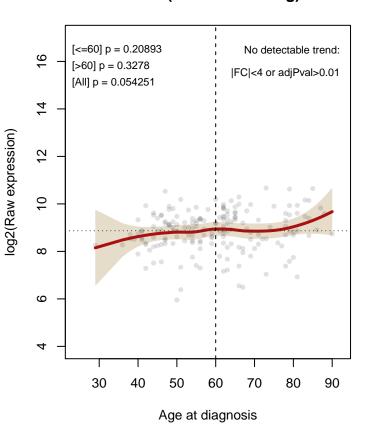
#### CBX4 (non-ER binding)



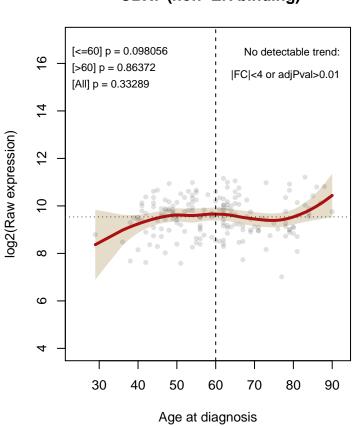
30 40 50 60 70 80 90

Age at diagnosis

## CBX6 (non-ER binding)

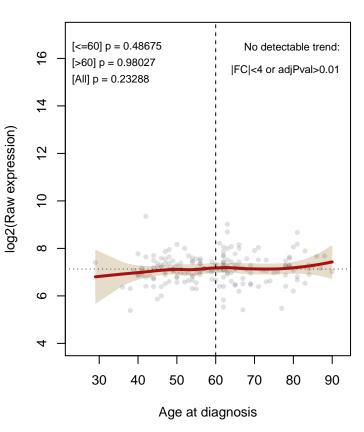


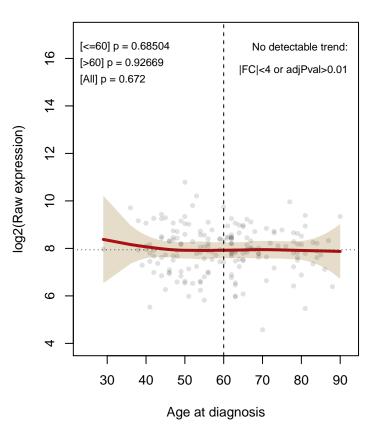
#### CBX7 (non-ER binding)





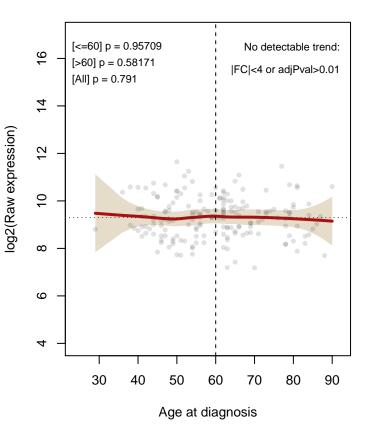
#### oinding) CCNA2 (non-ER binding)

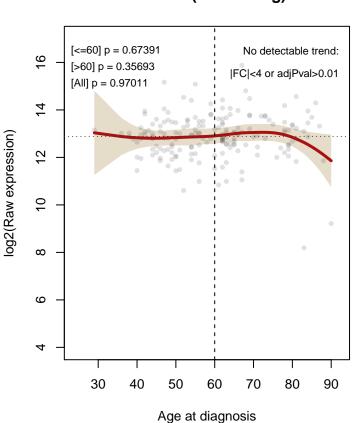


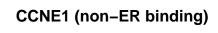


#### CCNB1 (non-ER binding)

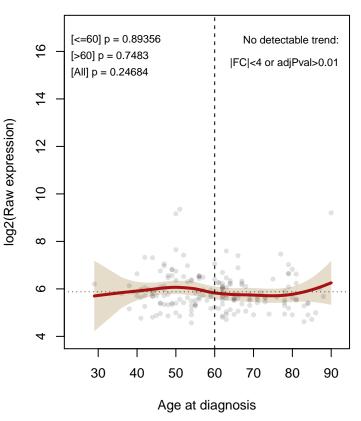
#### **CCND1 (ER binding)**

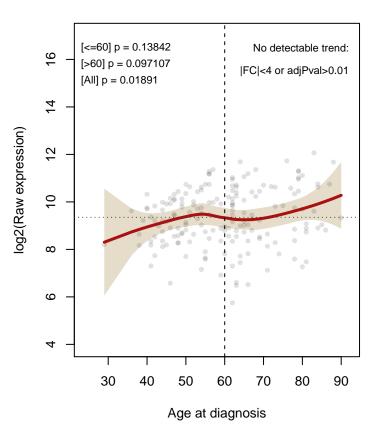






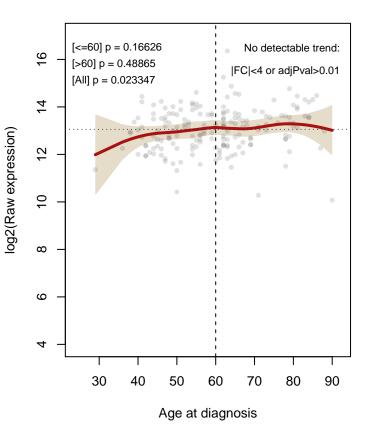
#### CD163 (non-ER binding)

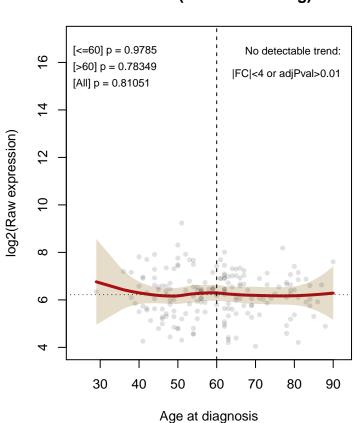


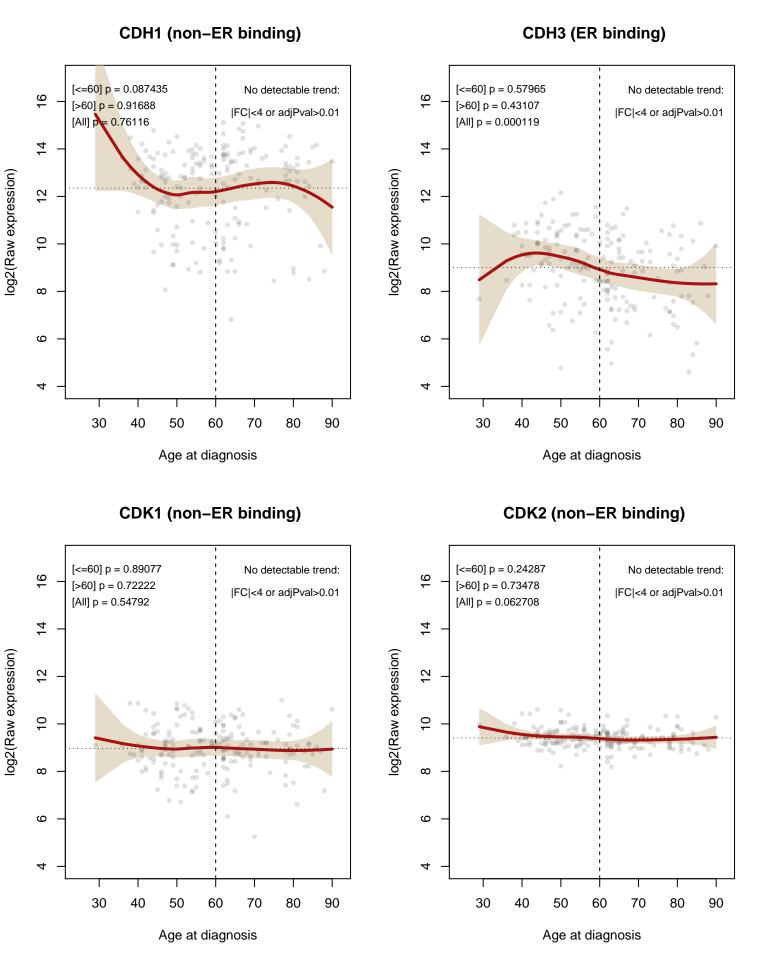


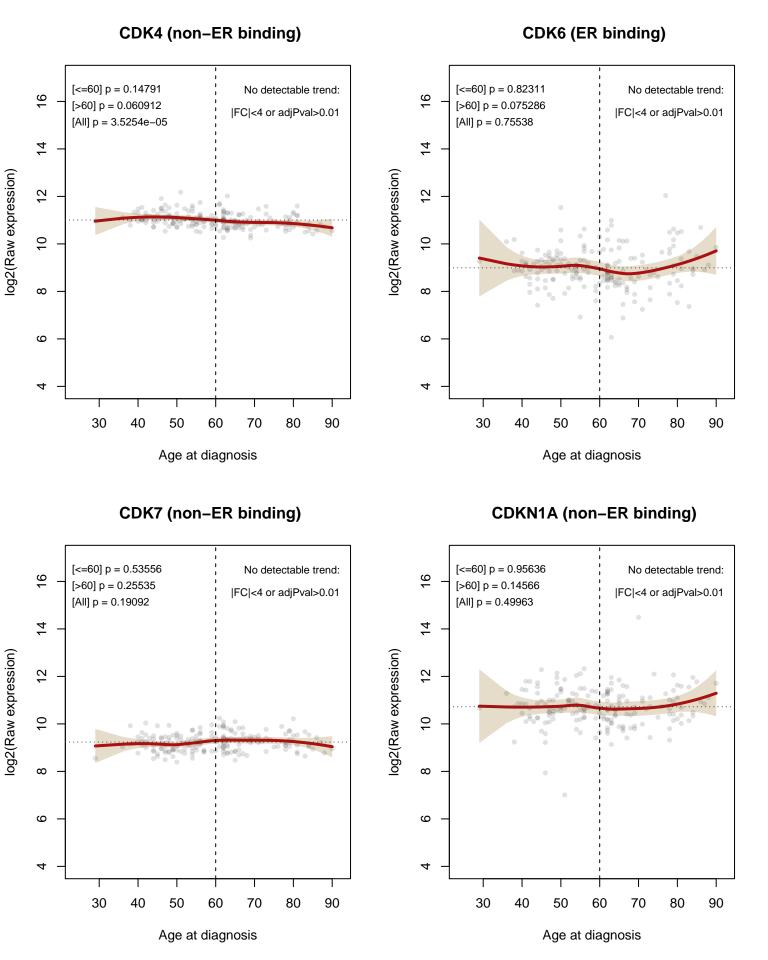
## CD44 (non-ER binding)

CDC25C (non-ER binding)



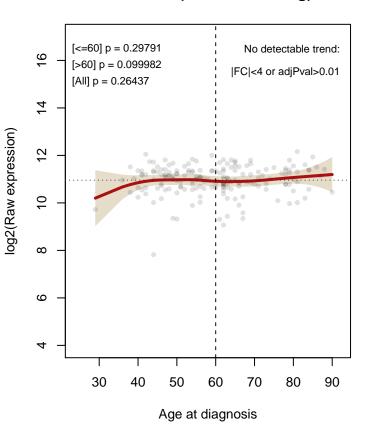


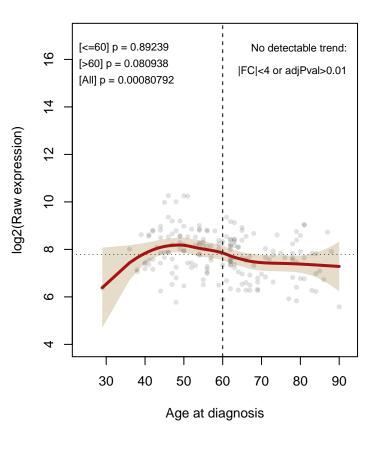




#### CDKN1B (non-ER binding)

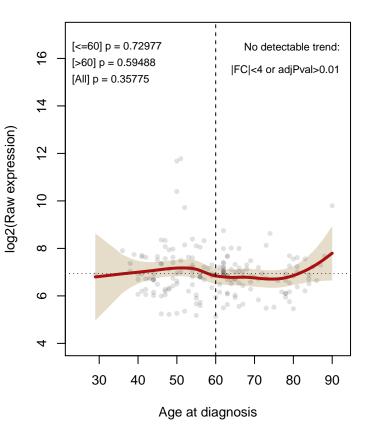
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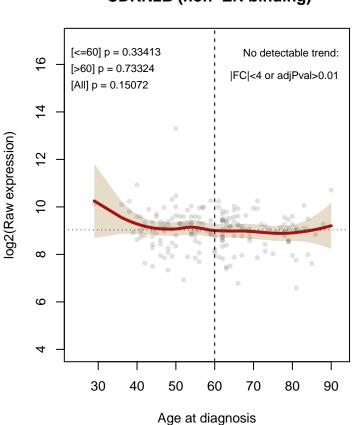


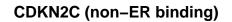


#### CDKN2A (non-ER binding)

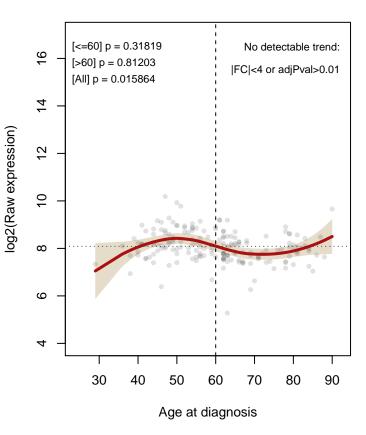
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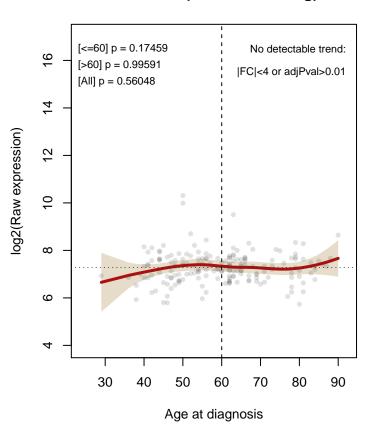






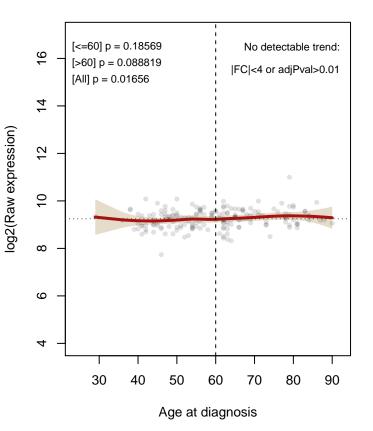
#### CDKN2D (non-ER binding)

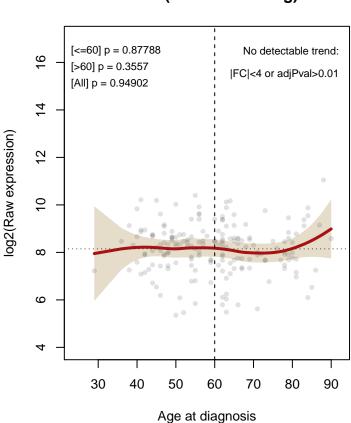




#### CHUK (non-ER binding)

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





#### CLDN3 (non-ER binding)





16

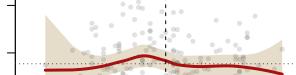
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log2(Raw expression)





Age at diagnosis

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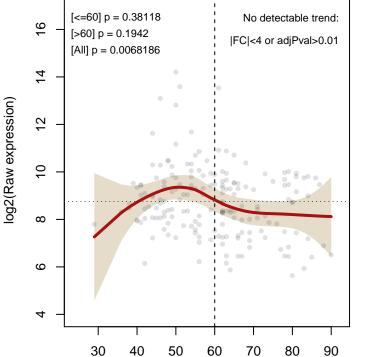
#### **CRYAB** (non-ER binding)

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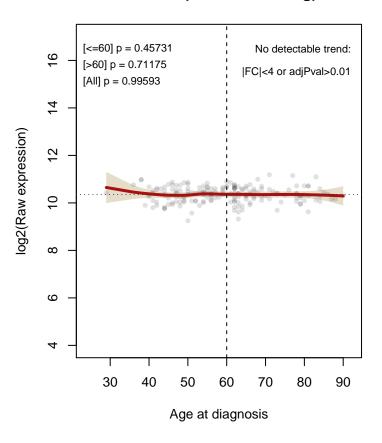
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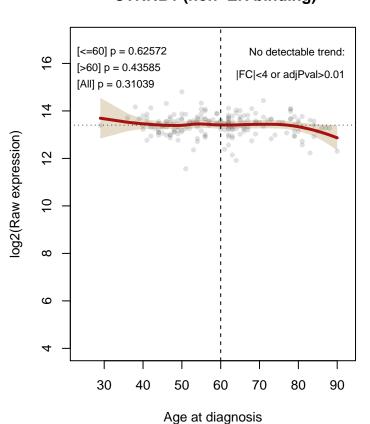


Age at diagnosis

#### CREB1 (non-ER binding)



#### CTNNB1 (non-ER binding)



#### **DLC1 (ER binding)** DMAP1 (non-ER binding) [<=60] p = 0.21226No detectable trend: [<=60] p = 0.27978No detectable trend: 16 16 [>60] p = 0.0074285 [>60] p = 0.2294 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.00021294[All] p = 0.0522324 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 = 0.60564No detectable trend: [<=60] p = 0.091705No detectable trend: 16 16 [>60] p = 0.90528 [>60] p = 0.1876|FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.44718[All] p = 0.000172544 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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#### **DVL1 (non-ER binding) DNMT3B** (non-ER binding) [<=60] p = 0.47913No detectable trend: [<=60] p = 0.51968No detectable trend: 16 16 [>60] p = 0.1384 [>60] p = 0.30678 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.052813[All] p = 0.551024 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 E2F1 (non-ER binding) E2F2 (non-ER binding) [<=60] p = 0.26471No detectable trend: [<=60] p = 0.7806No detectable trend: 16 16 [>60] p = 0.3754 [>60] p = 0.59124 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.52159[All] p = 0.498544 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 $\infty$ $\infty$ 9 9

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Age at diagnosis

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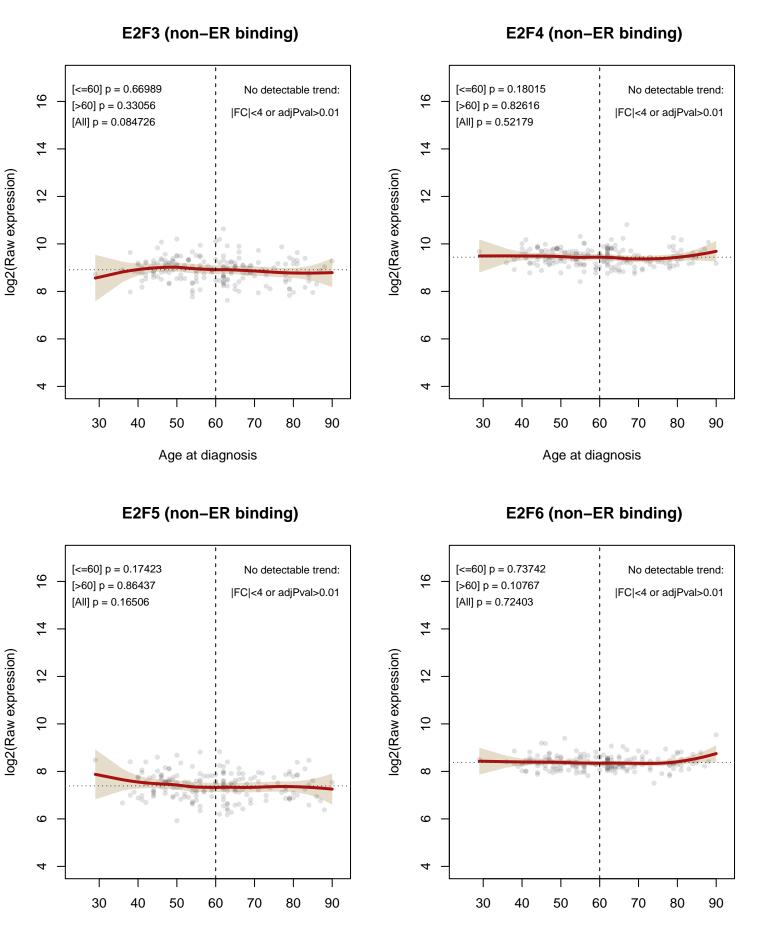
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Age at diagnosis

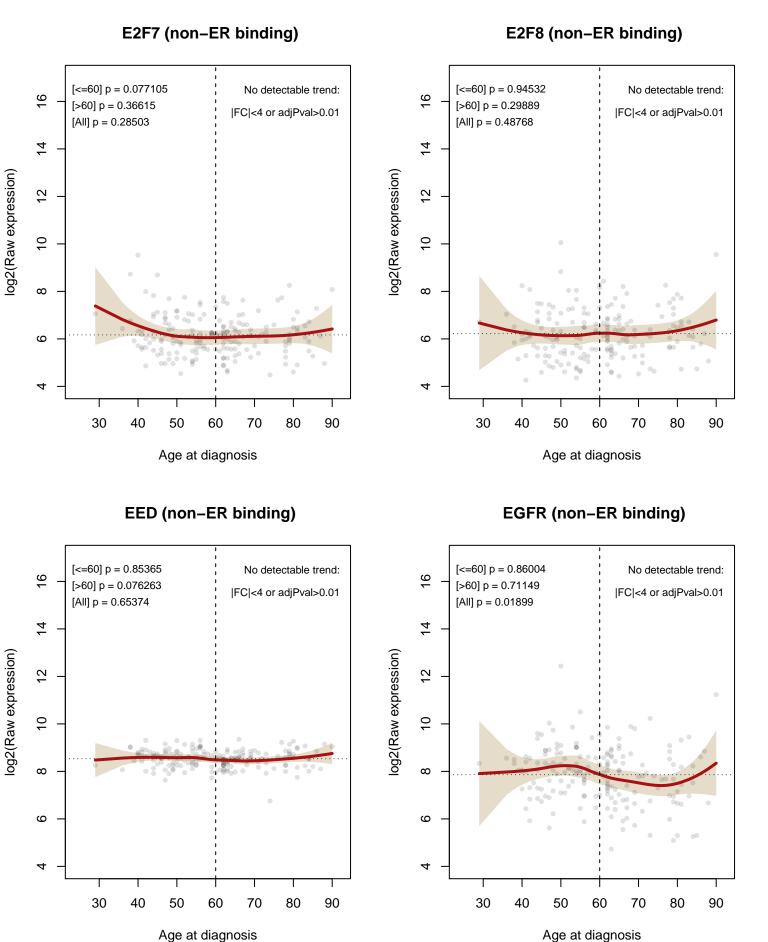
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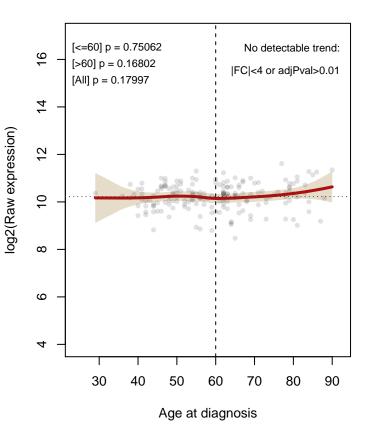
Age at diagnosis

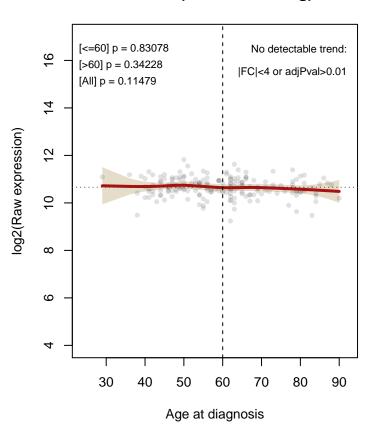
Age at diagnosis





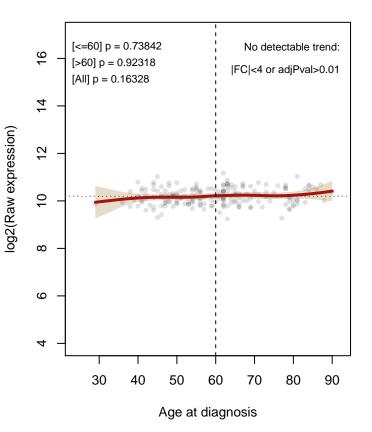
#### EHMT2 (non-ER binding)

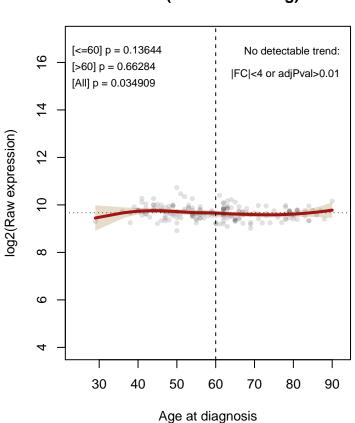




**ELAC2 (non-ER binding)** 

**ELK1 (non-ER binding)** 





#### **EPAS1** (non-ER binding) EP300 (non-ER binding) [<=60] p = 0.9641No detectable trend: [<=60] p = 0.3162 No detectable trend: 16 16 [>60] p = 0.53232 [>60] p = 0.11424 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.46134[All] p = 0.442684 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 = 0.67605No detectable trend: [<=60] p = 0.99188No detectable trend: 16 16 [>60] p = 0.63677 [>60] p = 0.96265 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.76418[All] p = 0.377744 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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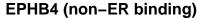
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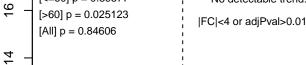
Age at diagnosis

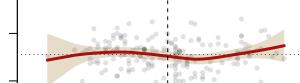
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## [<=60] p = 0.89577No detectable trend:







log2(Raw expression)

log2(Raw expression)

12

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Age at diagnosis

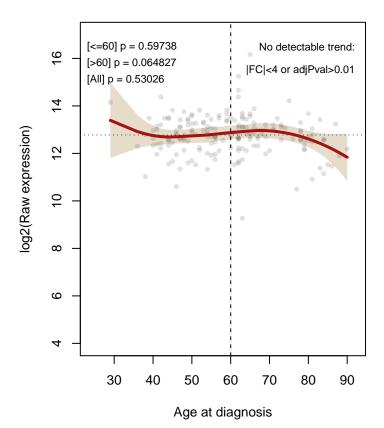
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#### **ERBB2** (non-ER binding)

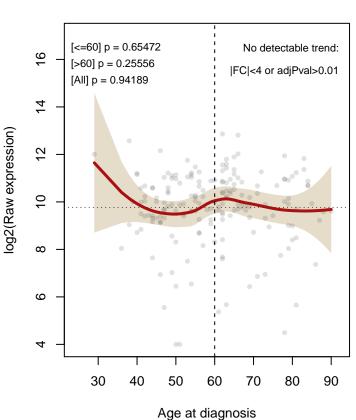


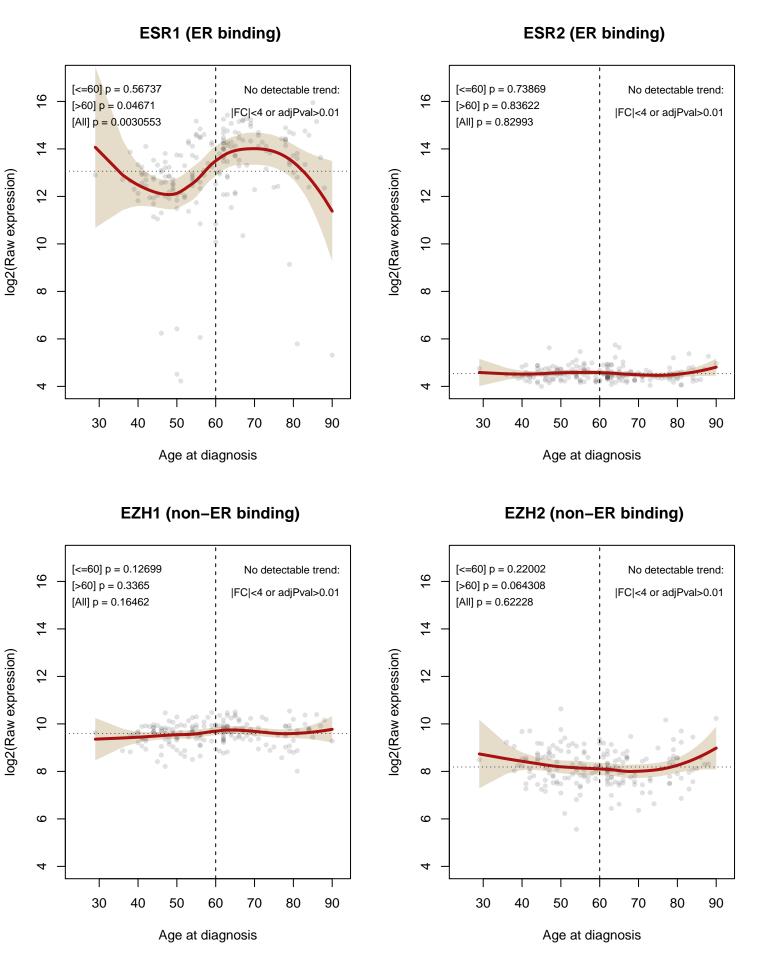
#### ERBB3 (non-ER binding)

[<=60] p = 0.56457No detectable trend: 16 [>60] p = 0.39129 |FC|<4 or adjPval>0.01 [All] p = 0.0873884 12 10 ω 9 30 40 50 60 70 80 90

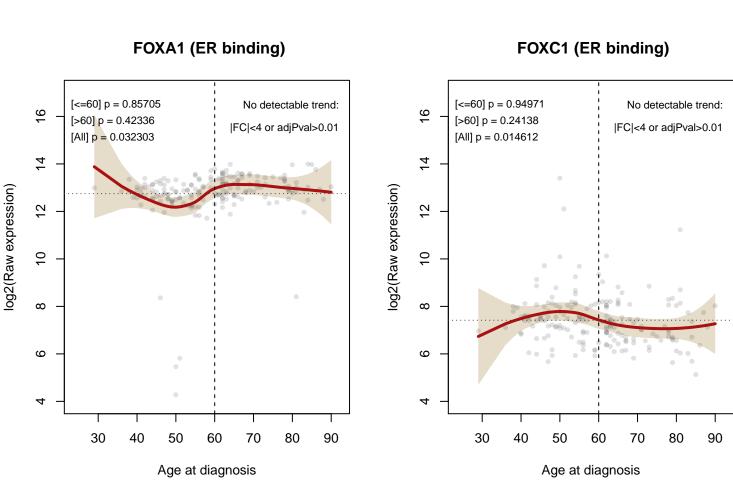
Age at diagnosis

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

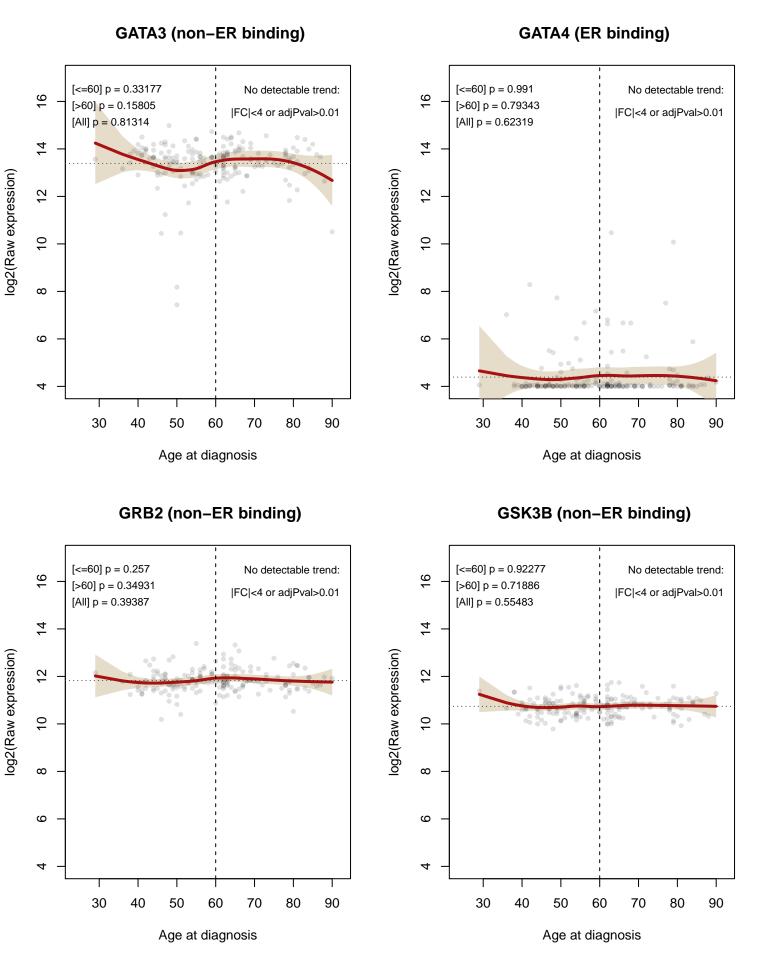


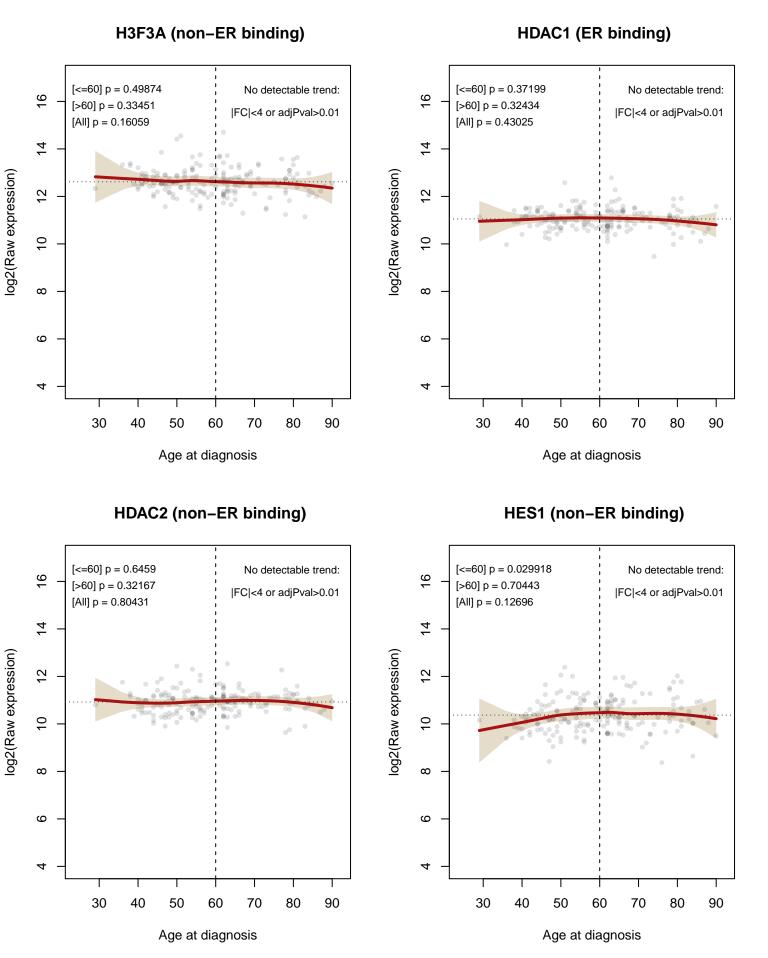


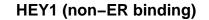
#### FOSL1 (non-ER binding) FOS (non-ER binding) [<=60] p = 0.29676No detectable trend: [<=60] p = 0.86198No detectable trend: 16 16 [>60] p = 0.976[>60] p = 0.69083|FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.7376[All] p = 0.335274 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$ 9 9 30 40 50 60 70 80 90 30 40 50 60 70 Age at diagnosis Age at diagnosis FOXA1 (ER binding) [<=60] p = 0.85705No detectable trend: [<=60] p = 0.94971



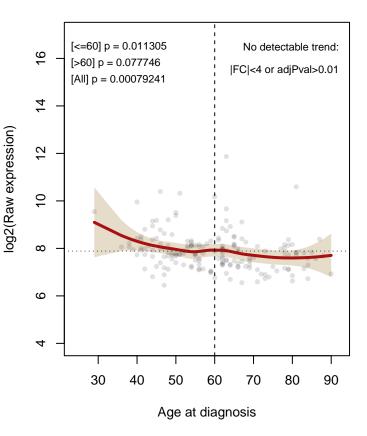
80

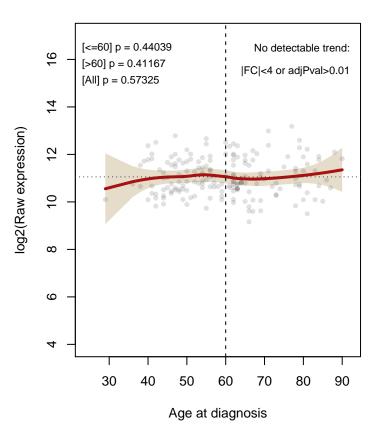






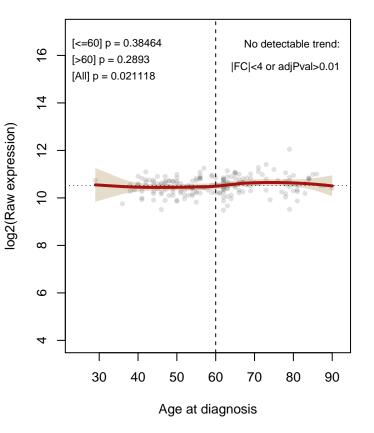
#### HIF1A (non-ER binding)

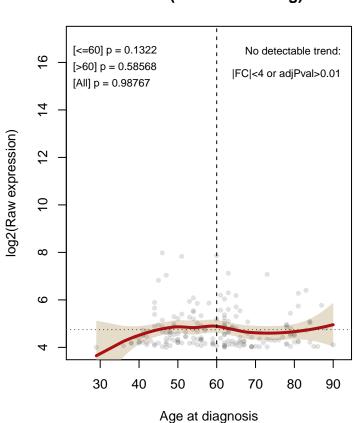




## HIF1AN (non-ER binding)

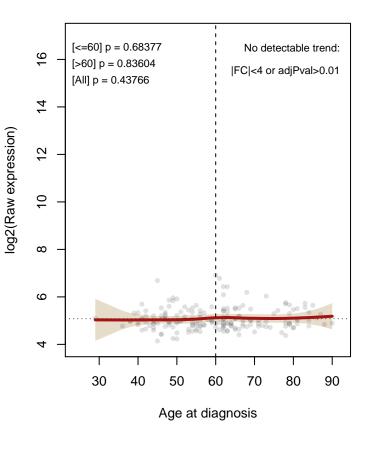
HIF3A (non-ER binding)

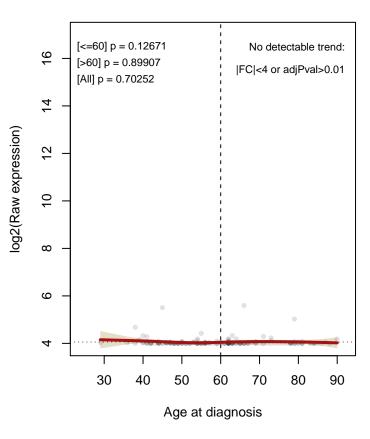




#### **HNF1A** (non-ER binding)

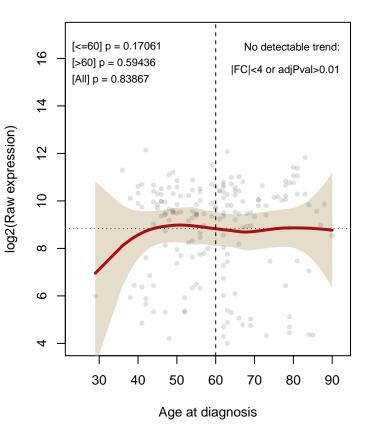
#### HNF1B (non-ER binding)

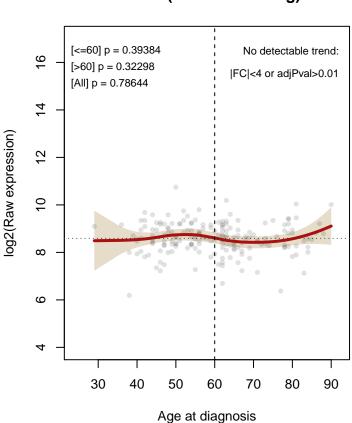




## **HOXC10 (non-ER binding)**

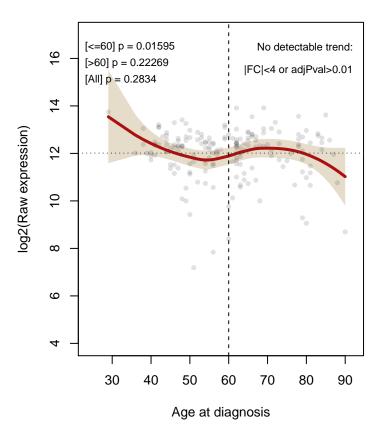
HRAS (non-ER binding)

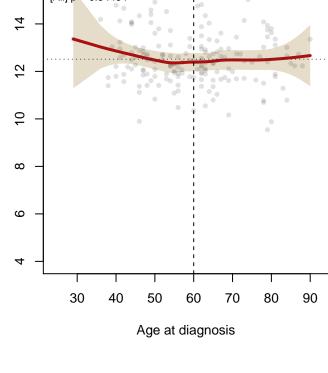




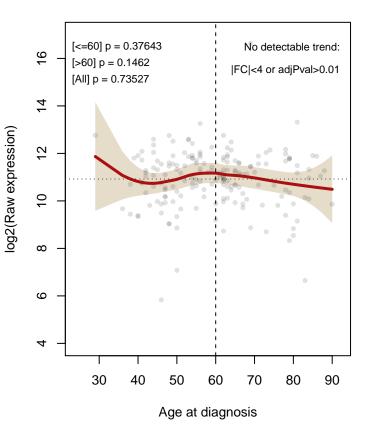
# **HSPB1** (non-ER binding) [<=60] p = 0.010332 No detectable trend: 16 [>60] p = 0.82602 |FC|<4 or adjPval>0.01 [All] p = 0.344844 log2(Raw expression) 12

#### IGF1R (ER binding)

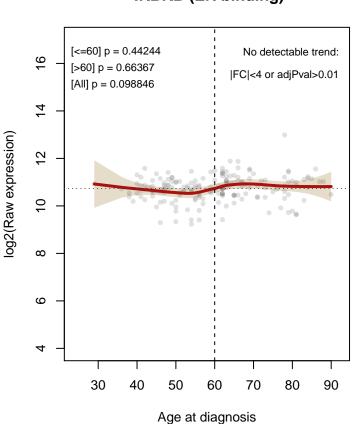




#### IGFBP2 (non-ER binding)

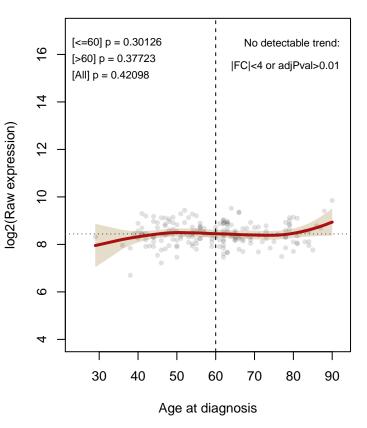


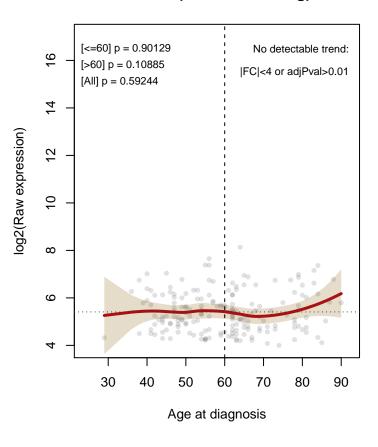
#### **IKBKB (ER binding)**





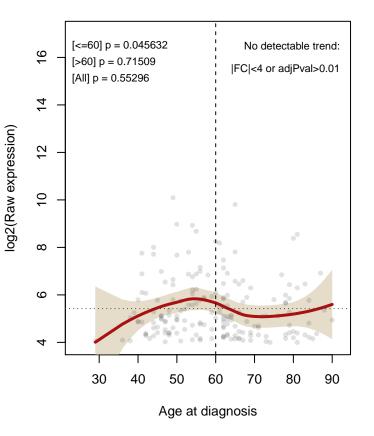
#### IL2RA (non-ER binding)

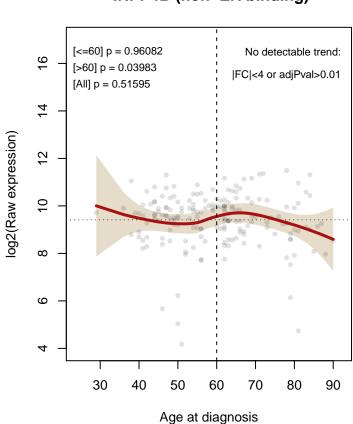


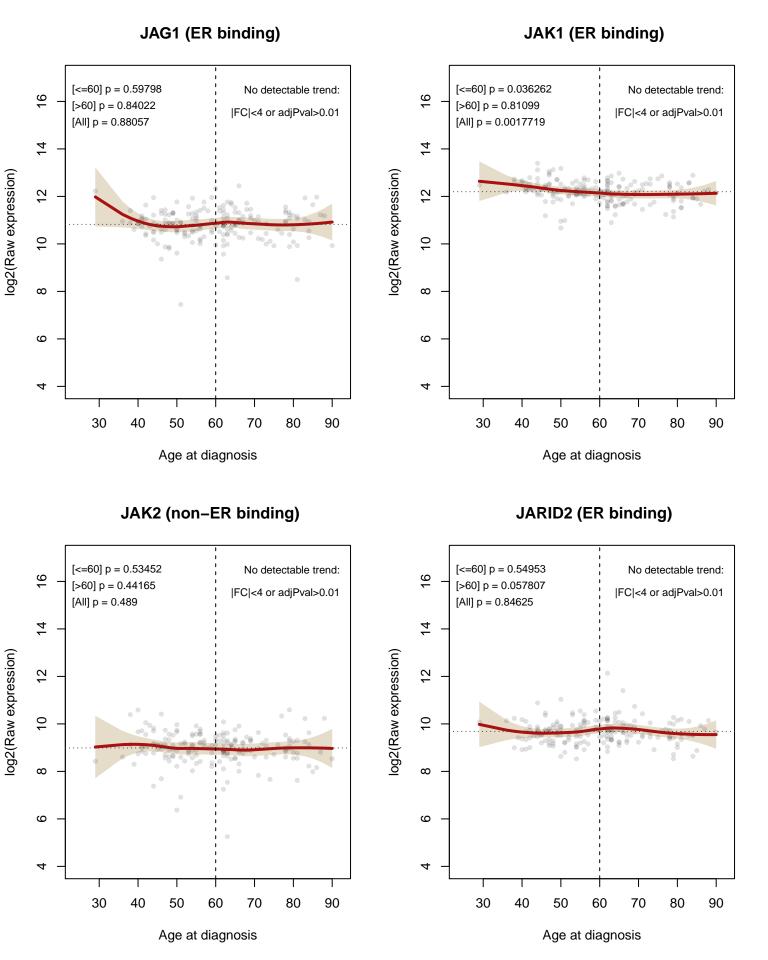


## IL6 (non-ER binding)

#### INPP4B (non-ER binding)

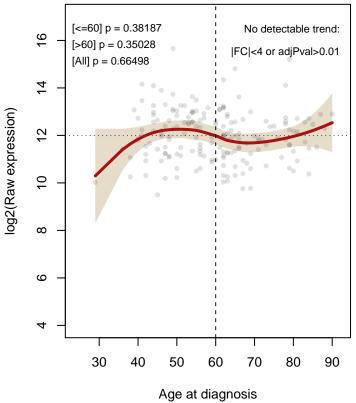


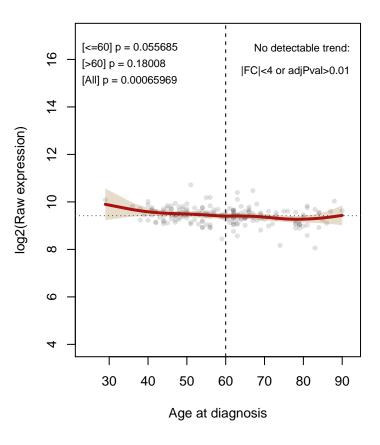






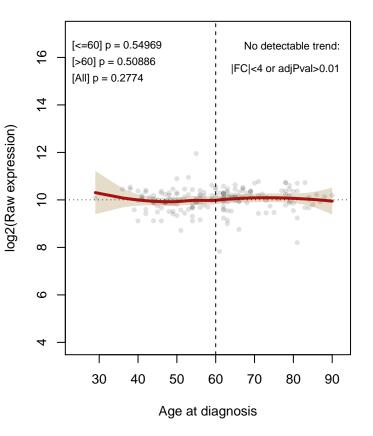
#### KDM2B (non-ER binding)

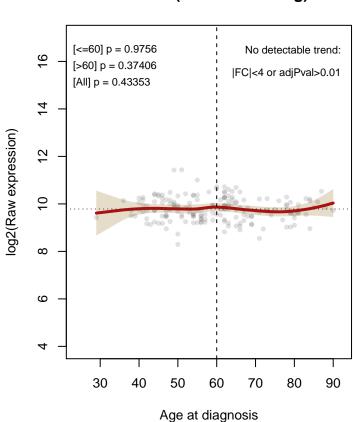




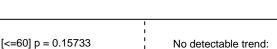
## KDM6A (non-ER binding)

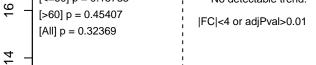
KDM6B (non-ER binding)







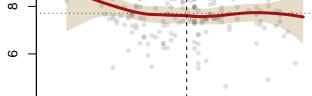






log2(Raw expression)





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Age at diagnosis

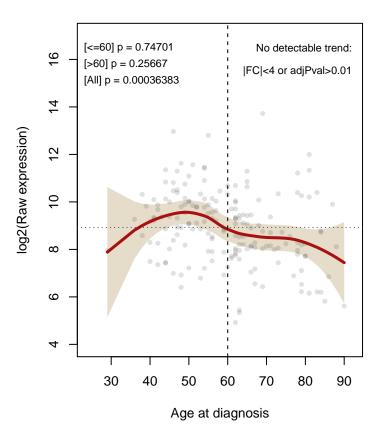
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#### KIT (non-ER binding)

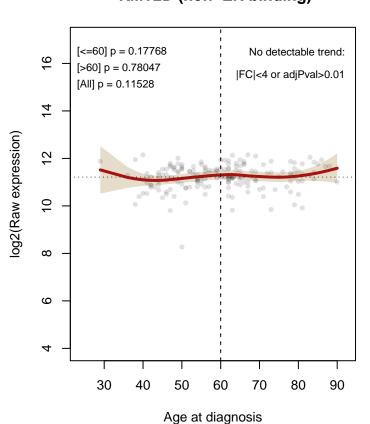


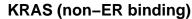
#### KMT2C (non-ER binding)

#### [<=60] p = 0.13083No detectable trend: 16 [>60] p = 0.40345 |FC|<4 or adjPval>0.01 [All] p = 0.155214 log2(Raw expression) 12 10 ω 9 30 40 50 60 70 80 90

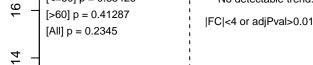
Age at diagnosis

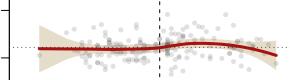
#### KMT2D (non-ER binding)

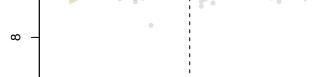




# [<=60] p = 0.85426No detectable trend:





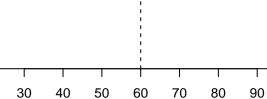


log2(Raw expression)

12

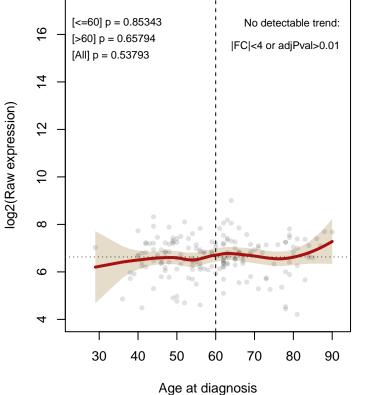
19

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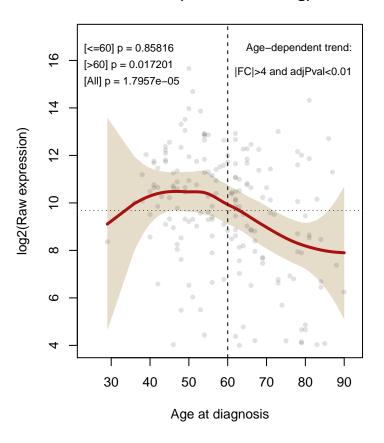


L3MBTL1 (non-ER binding)

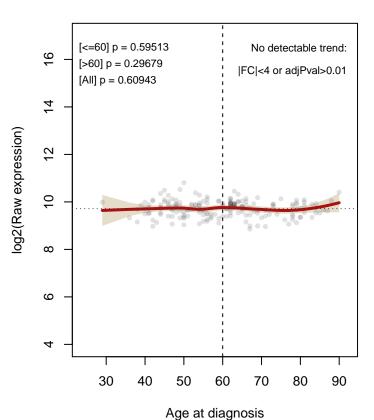
Age at diagnosis



#### KRT5 (non-ER binding)

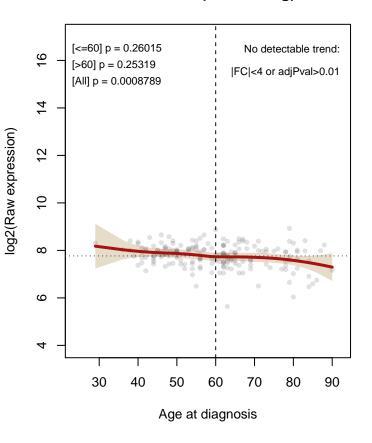


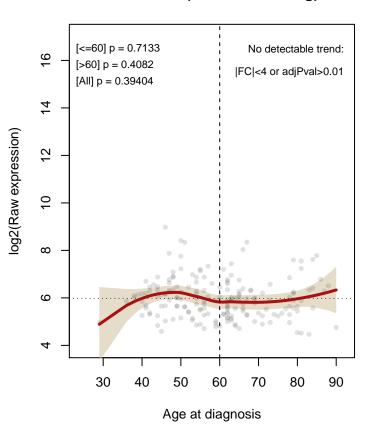
#### L3MBTL2 (non-ER binding)



#### L3MBTL3 (ER binding)

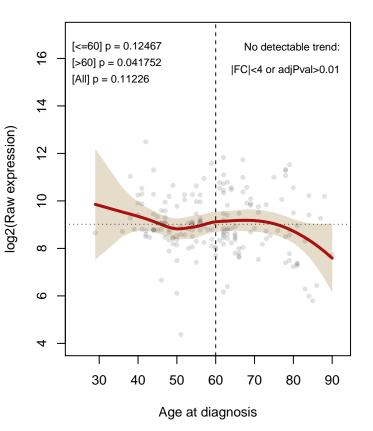
## L3MBTL4 (non-ER binding)

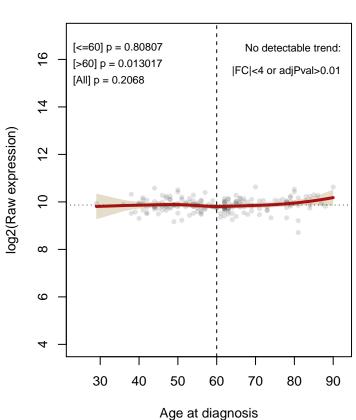




LEF1 (non-ER binding)

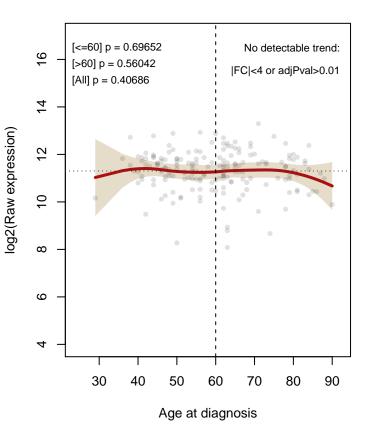
MAP2K1 (non-ER binding)

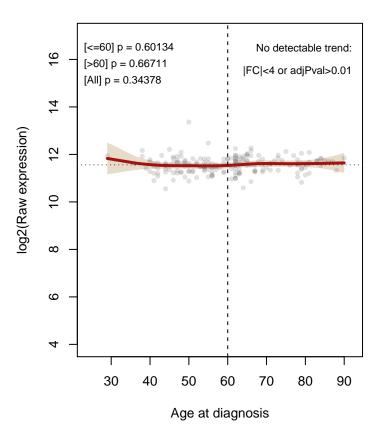






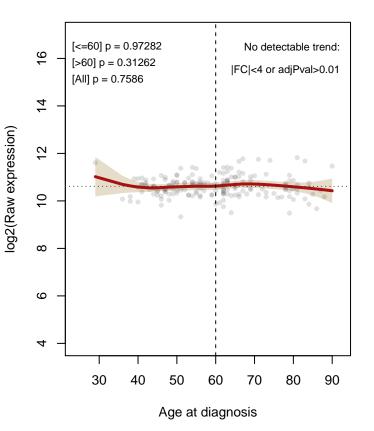
#### MAPK1 (non-ER binding)

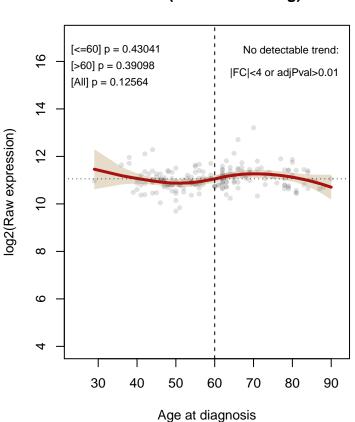


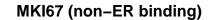


## MAPK3 (non-ER binding)

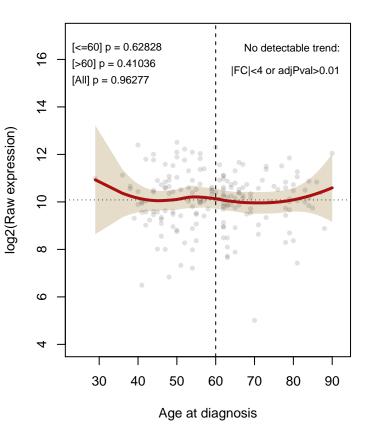
MDM2 (non-ER binding)

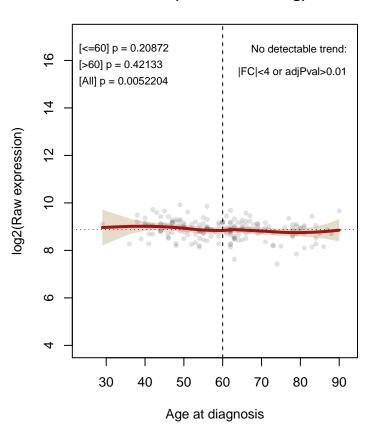






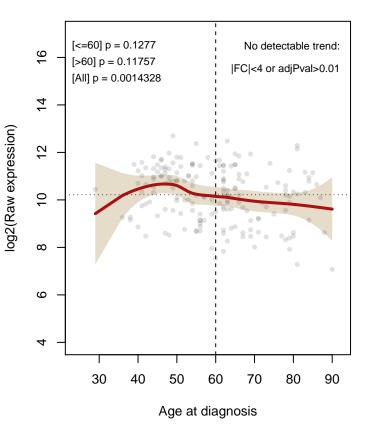
#### MTF2 (non-ER binding)

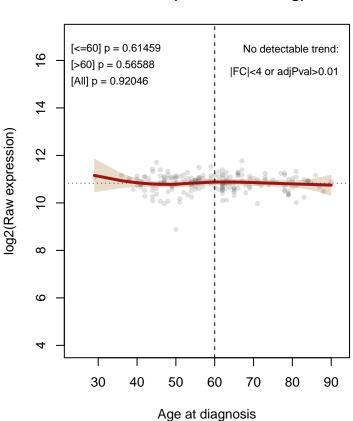




## MYC (non-ER binding)

#### NCOA6 (non-ER binding)





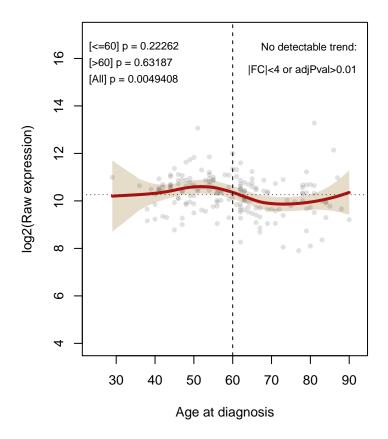
# NCOR1 (non-ER binding) [<=60] p = 0.96548No detectable trend: 16 [>60] p = 0.96772 |FC|<4 or adjPval>0.01 [AII] p = 0.480944 log2(Raw expression) 12

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ω

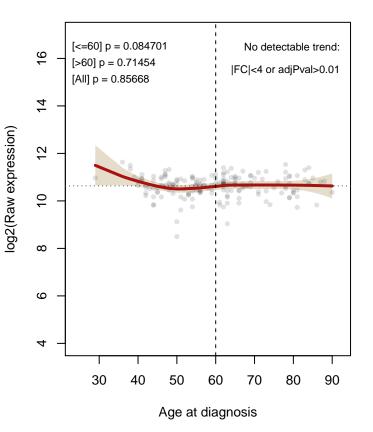
9

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

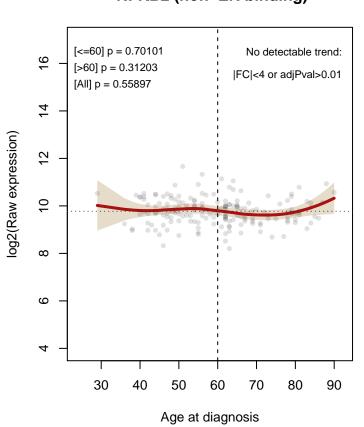


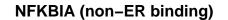
30 40 50 60 70 80 90 Age at diagnosis

# NFKB1 (non-ER binding)

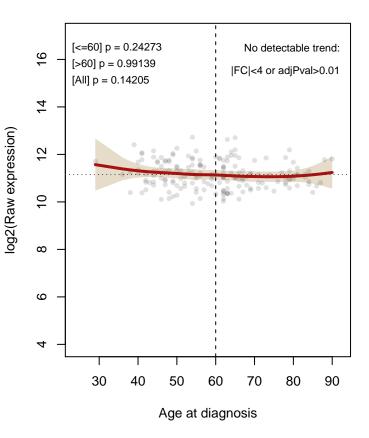


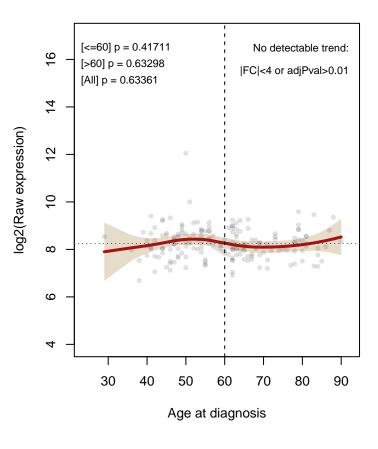
# NFKB2 (non-ER binding)





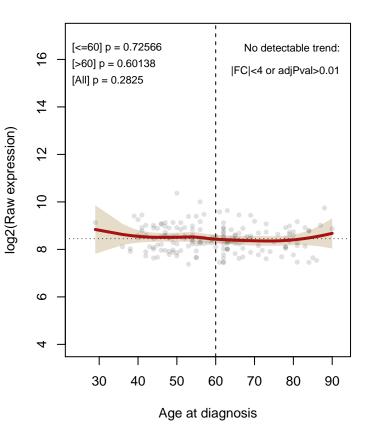
#### NFKBIB (non-ER binding)

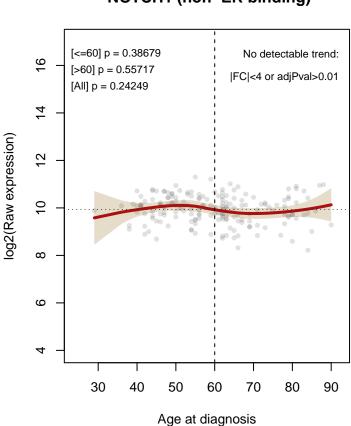




# NFKBIE (non-ER binding)

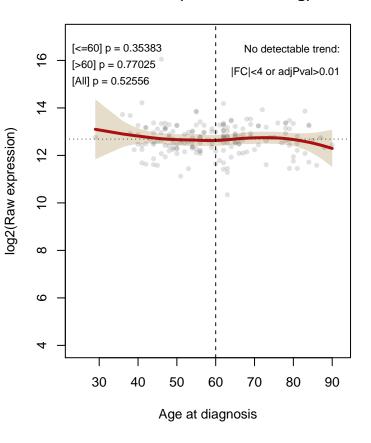
# NOTCH1 (non-ER binding)

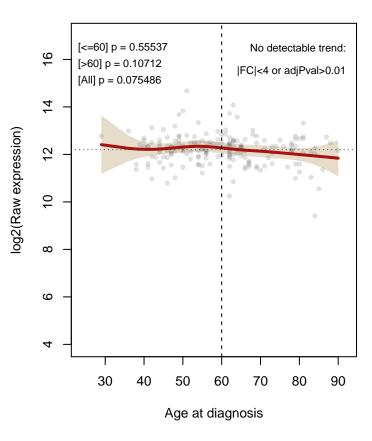




## **NOTCH2** (non-ER binding)

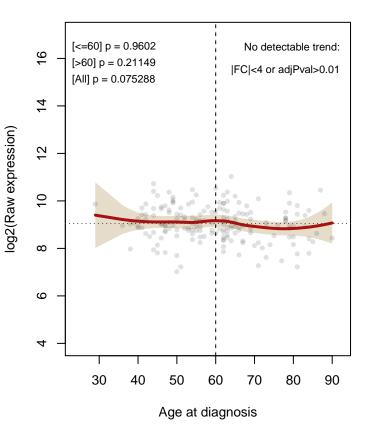
#### NOTCH3 (non-ER binding)

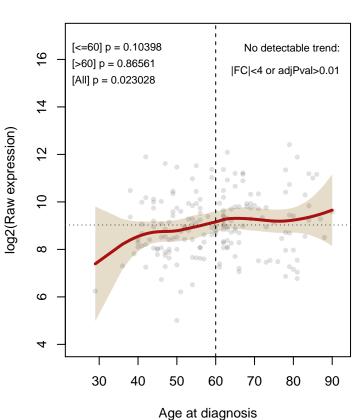




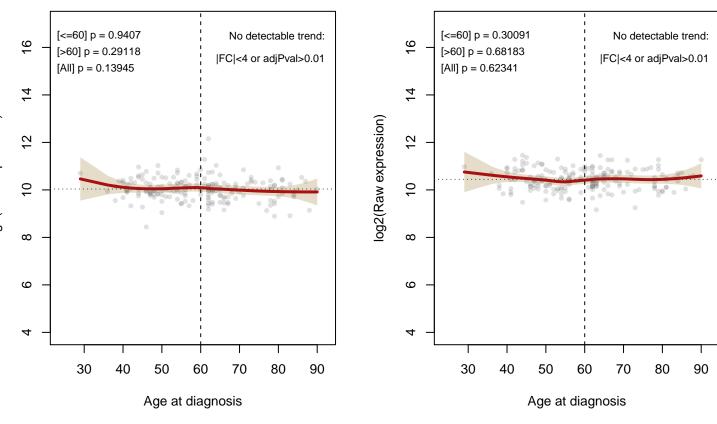
# NOTCH4 (non-ER binding)

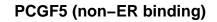
# NR4A2 (non-ER binding)



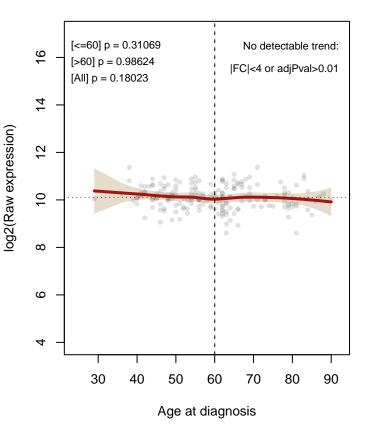


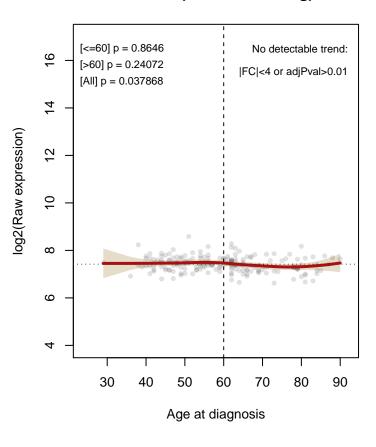
#### PCGF1 (non-ER binding) NRAS (non-ER binding) [<=60] p = 0.031704No detectable trend: [<=60] p = 0.54495No detectable trend: 16 16 [>60] p = 0.61163 [>60] p = 0.58951 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.00591[All] p = 0.69514 4 log2(Raw expression) log2(Raw expression) 12 12 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 PCGF2 (non-ER binding) PCGF3 (non-ER binding) [<=60] p = 0.9407No detectable trend: [<=60] p = 0.30091No detectable trend: 16 16 [>60] p = 0.29118 [>60] p = 0.68183 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.62341[All] p = 0.139454 4 log2(Raw expression) 12 12





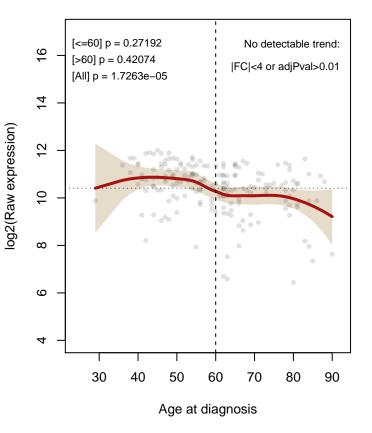
#### PCGF6 (non-ER binding)

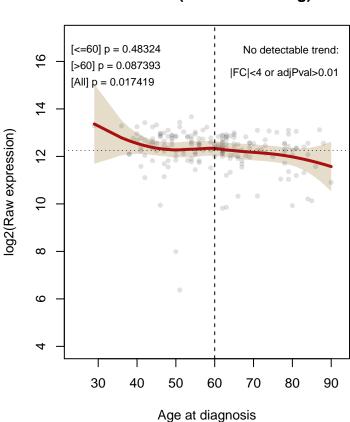




# PDGFRA (non-ER binding)

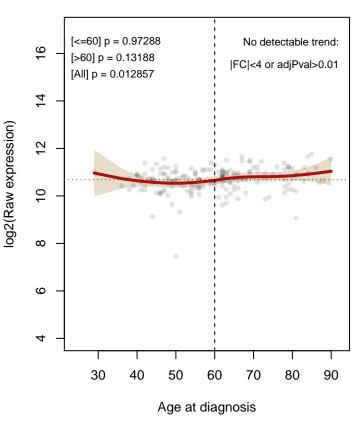
# PDGFRB (non-ER binding)

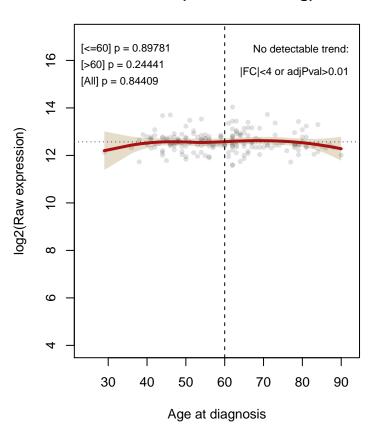






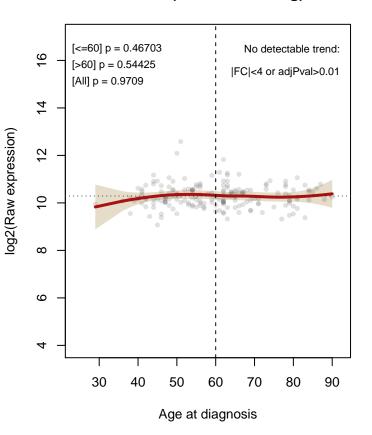
#### PEBP1 (non-ER binding)

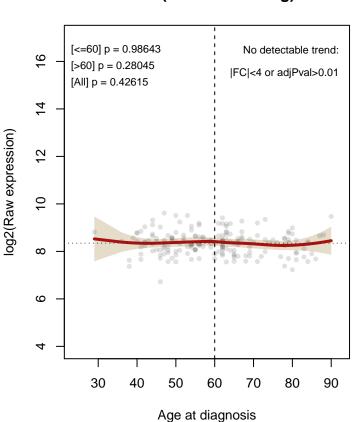


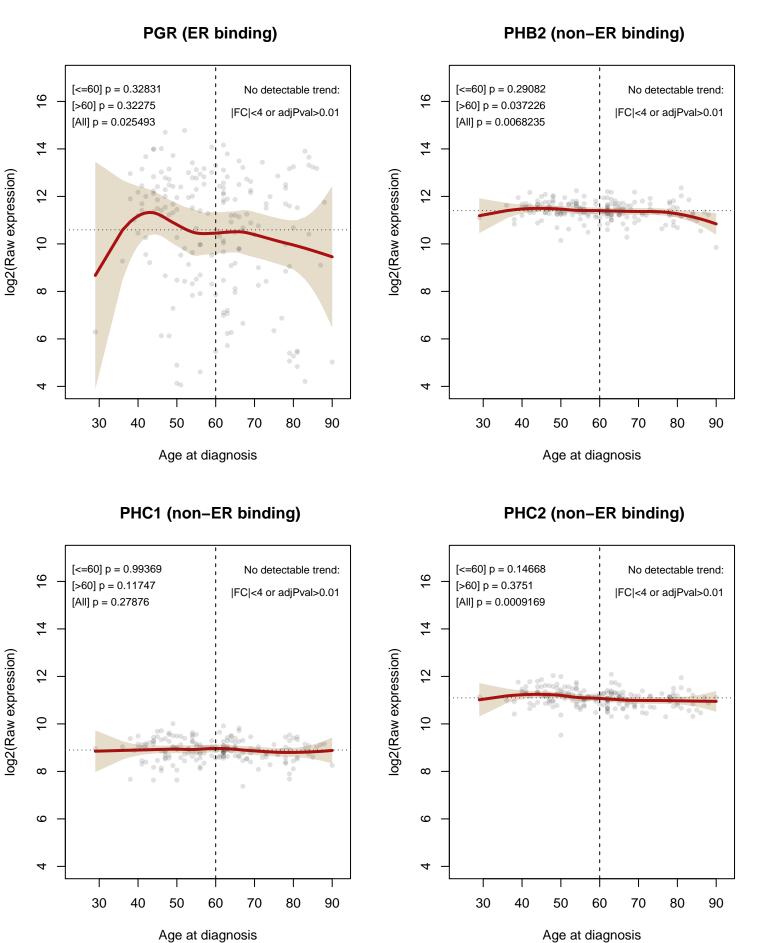


# PELP1 (non-ER binding)

PGP (non-ER binding)







#### PHC3 (non-ER binding) PHF1 (non-ER binding) [<=60] p = 0.72899No detectable trend: [<=60] p = 0.029308No detectable trend: 16 16 [>60] p = 0.3991 [>60] p = 0.83395 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.088828[All] p = 0.33194 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 PHF19 (non-ER binding) PIK3CA (non-ER binding) [<=60] p = 0.83294No detectable trend: [<=60] p = 0.58663No detectable trend: 16 16 [>60] p = 0.20603 [>60] p = 0.65548|FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.021494[All] p = 0.822394 4 log2(Raw expression) log2(Raw expression) 12 12 19 10 $\infty$ ω

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Age at diagnosis

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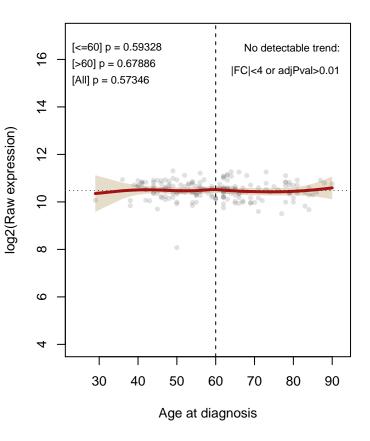
Age at diagnosis

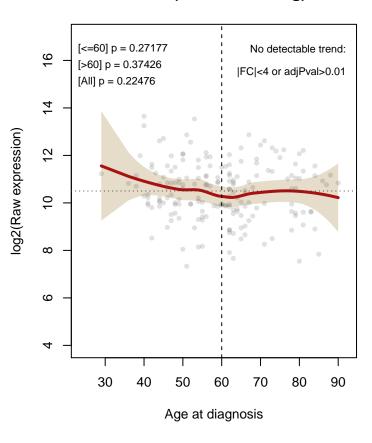
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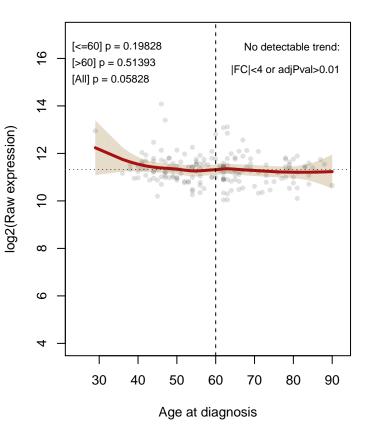
# PLAU (non-ER binding)

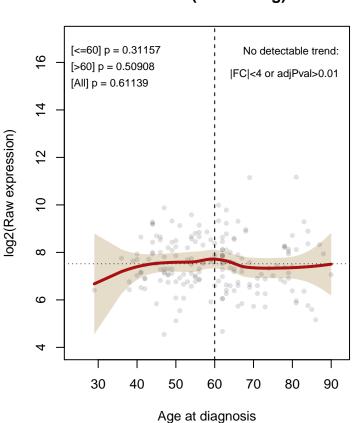




# PODXL (non-ER binding)

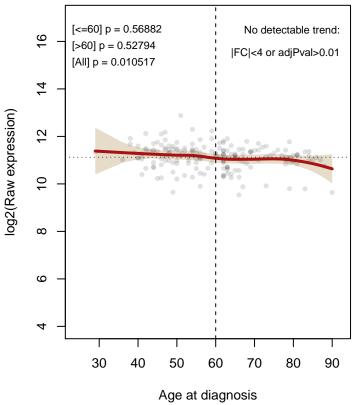
# **PPARG (ER binding)**

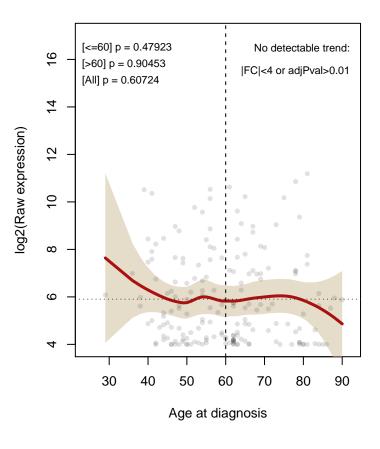






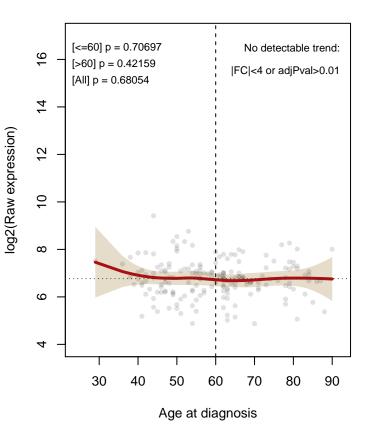
# PYDC1 (non-ER binding)

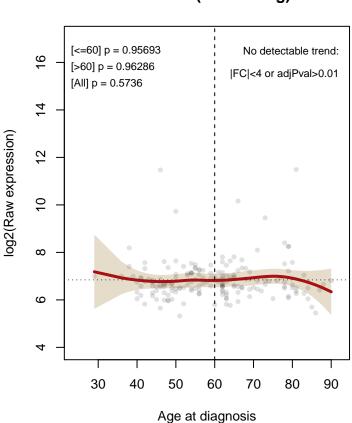




# RAD51 (non-ER binding)

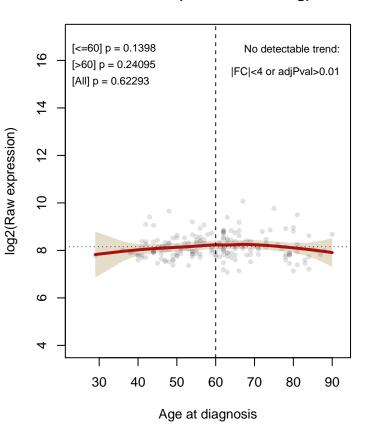
RAD51B (ER binding)

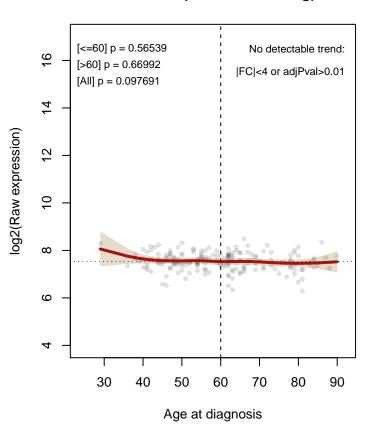




## RAD51C (non-ER binding)

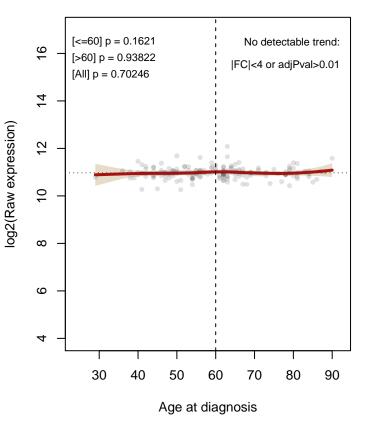
#### RAD51D (non-ER binding)

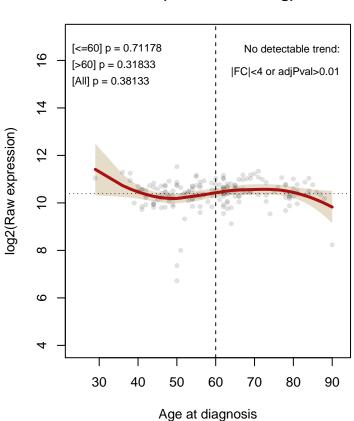




RAF1 (non-ER binding)

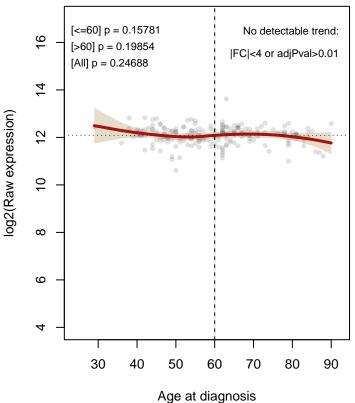
RB1 (non-ER binding)

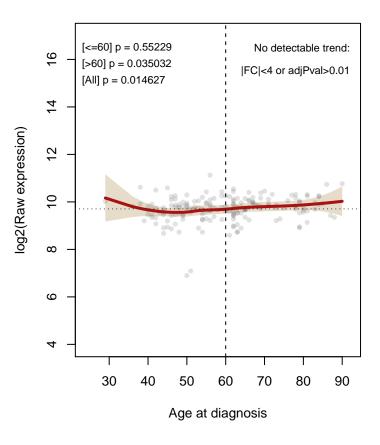






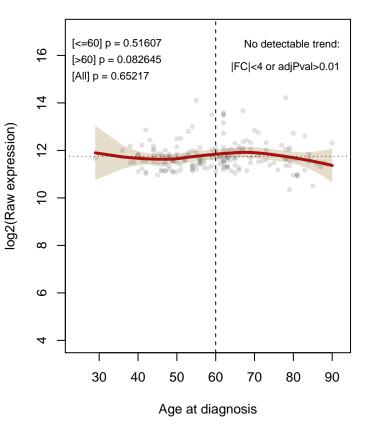
#### RBBP5 (non-ER binding)

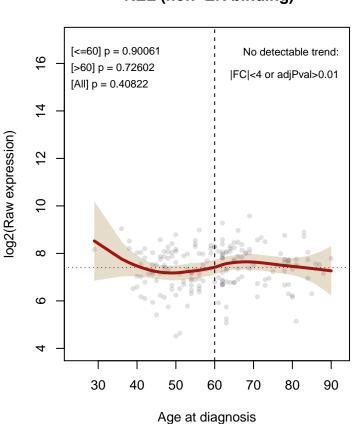


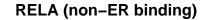


# RBBP7 (non-ER binding)

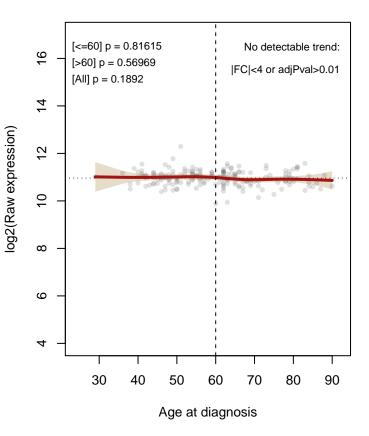
**REL** (non-ER binding)

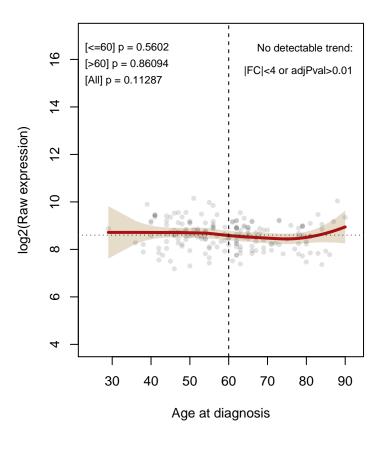






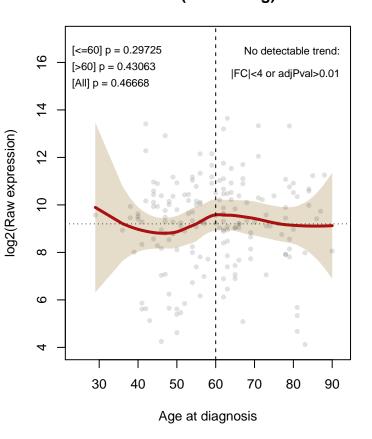
#### **RELB** (non-ER binding)

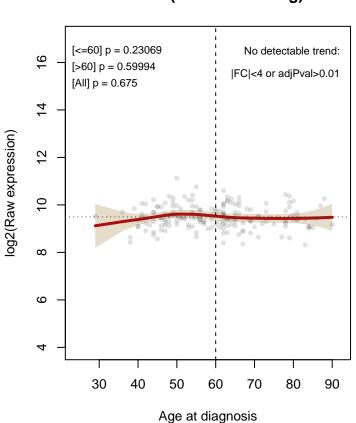


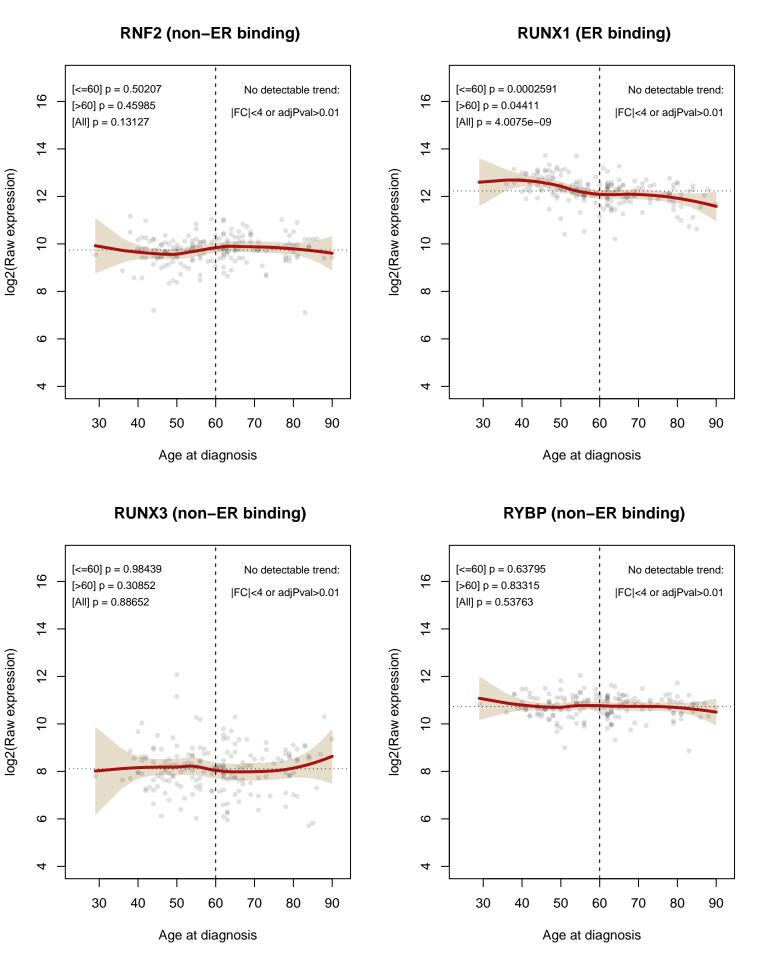


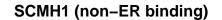
# **RET (ER binding)**

RING1 (non-ER binding)

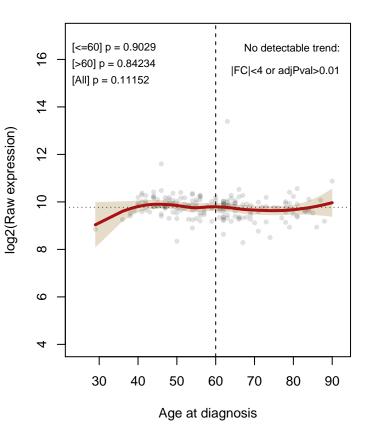


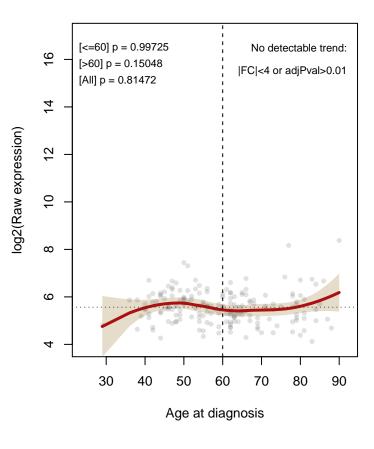






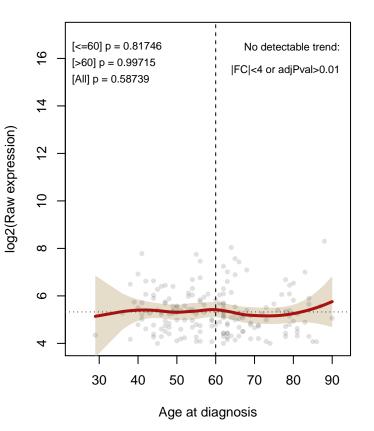
#### SCML2 (non-ER binding)

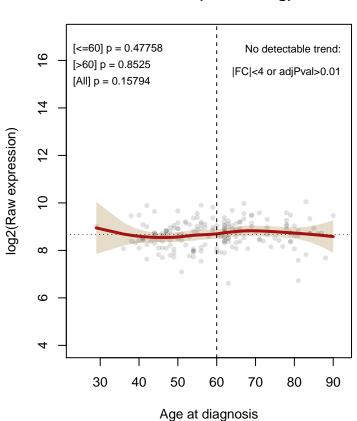




# SCML4 (non-ER binding)

SFMBT1 (ER binding)





#### SFMBT2 (ER binding) SFPQ (non-ER binding) [<=60] p = 0.79158No detectable trend: [<=60] p = 0.29027No detectable trend: 16 16 [>60] p = 0.025898 [>60] p = 0.27223 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.22042[AII] p = 0.00623894 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 $\infty$ $\infty$ 9 9 30 40 50 70 80 90 30 40 50 60 70 80 90 60 Age at diagnosis Age at diagnosis SHC1 (non-ER binding) SIRT1 (non-ER binding) [<=60] p = 0.20007No detectable trend: [<=60] p = 0.47048No detectable trend: 16 16 [>60] p = 0.65493[>60] p = 0.17351 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.06749[AII] p = 0.47474 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$ 9 9

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Age at diagnosis

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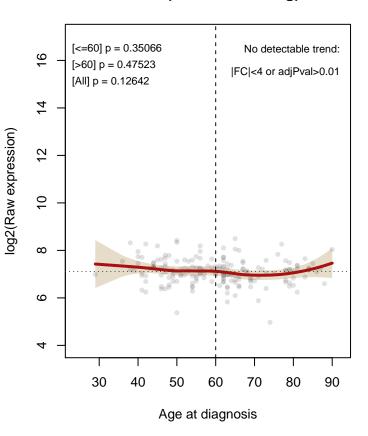
Age at diagnosis

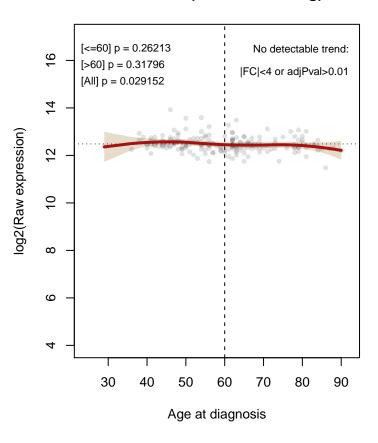
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## SKP2 (non-ER binding)

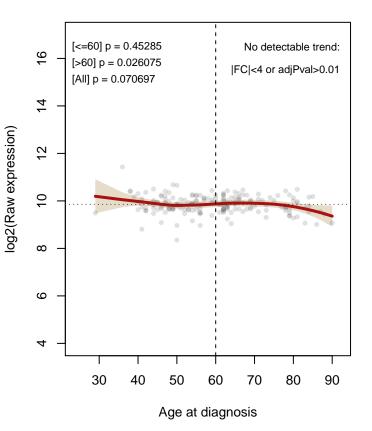
#### SLC25A3 (non-ER binding)

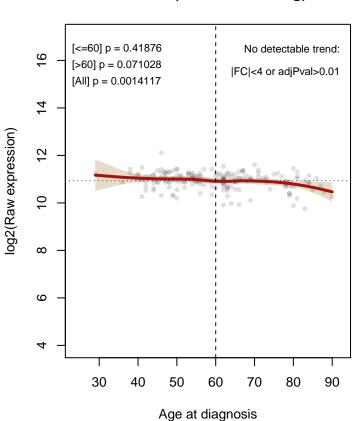




# **SMAD1** (non-ER binding)

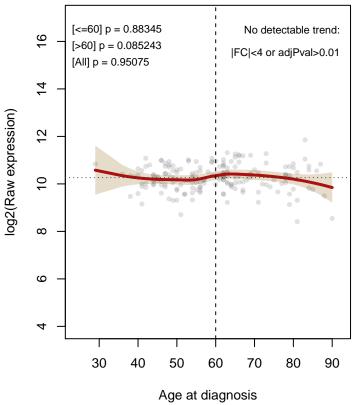
SMAD2 (non-ER binding)

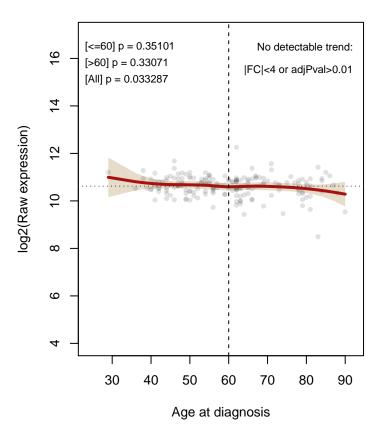




# SMAD3 (ER binding)

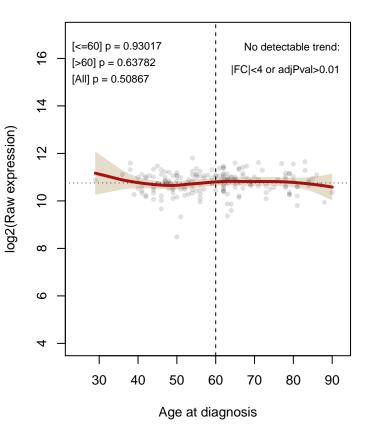
# SMAD4 (non-ER binding)

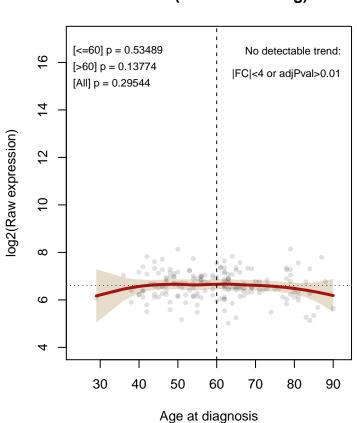




**SMAD5** (non-ER binding)

SMAD6 (non-ER binding)





#### SMAD7 (non-ER binding) SMAD9 (non-ER binding) [<=60] p = 0.4427No detectable trend: [<=60] p = 0.33982No detectable trend: 16 16 [>60] p = 0.084732 [>60] p = 0.090401 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.010276[AII] p = 0.00773564 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 SOS1 (non-ER binding) SOS2 (non-ER binding) [<=60] p = 0.85125No detectable trend: [<=60] p = 0.44266No detectable trend: 16 16 [>60] p = 0.39207[>60] p = 0.8162 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [All] p = 0.43642[All] p = 0.773424 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 $\infty$ $\infty$

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Age at diagnosis

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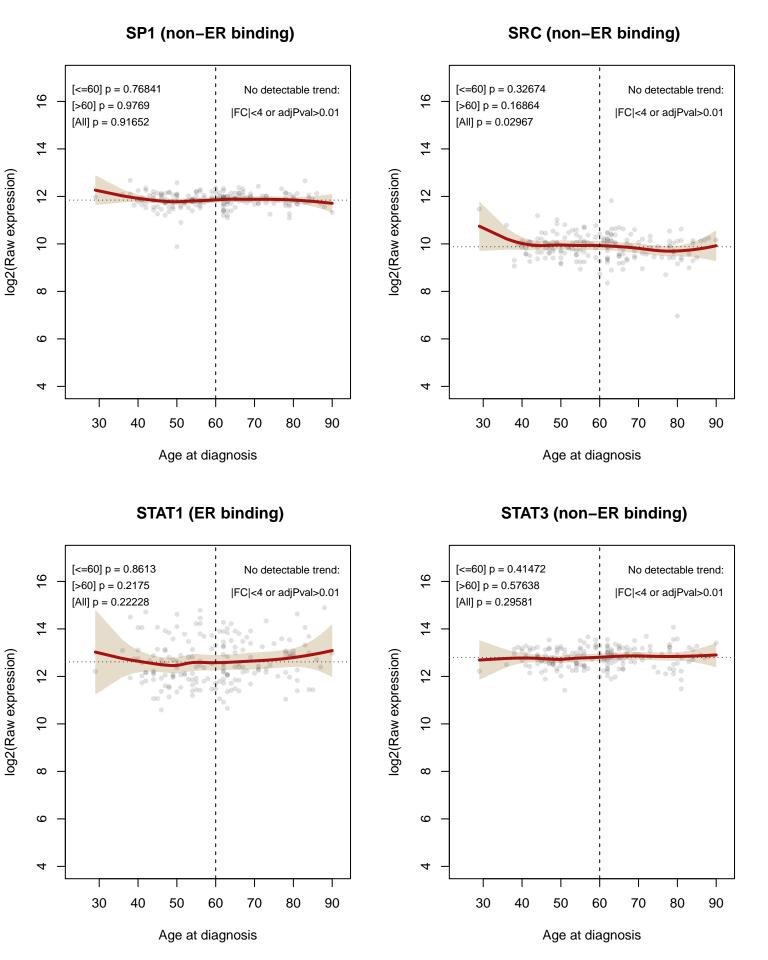
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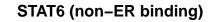
60

Age at diagnosis

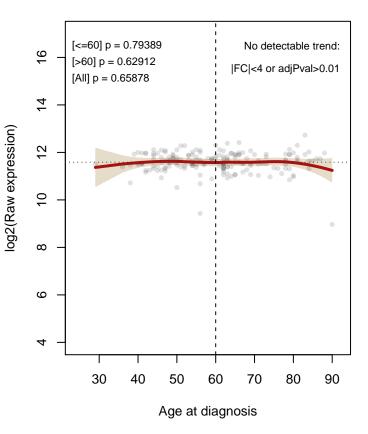
70

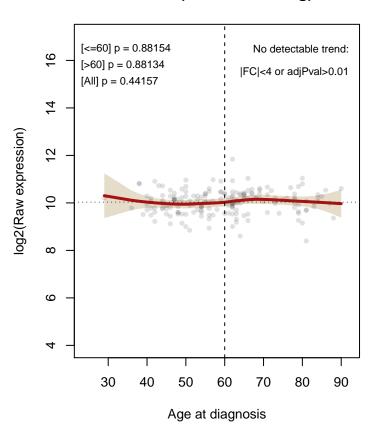
80





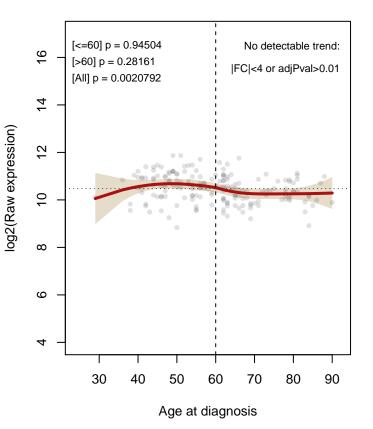
#### SUZ12 (non-ER binding)

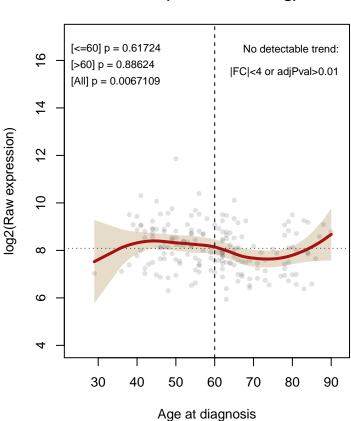




TCF3 (non-ER binding)

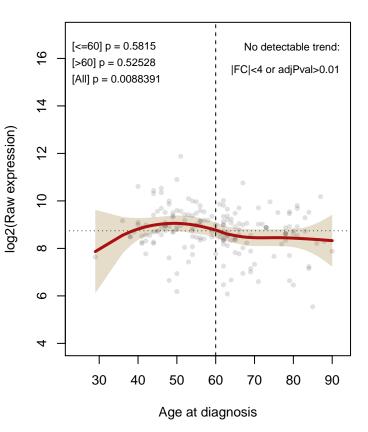
TCF7 (non-ER binding)

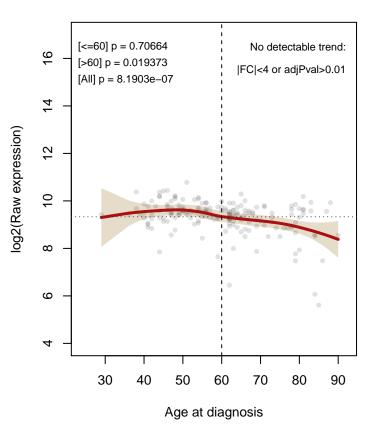






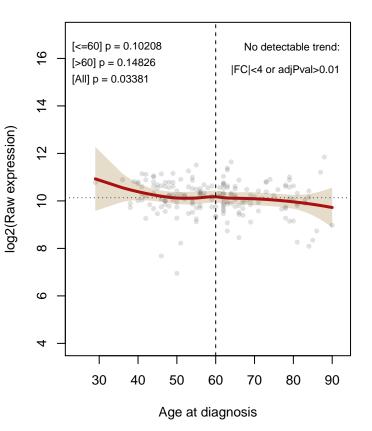
# TCF7L2 (non-ER binding)

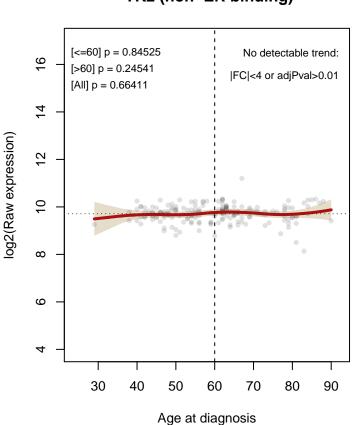


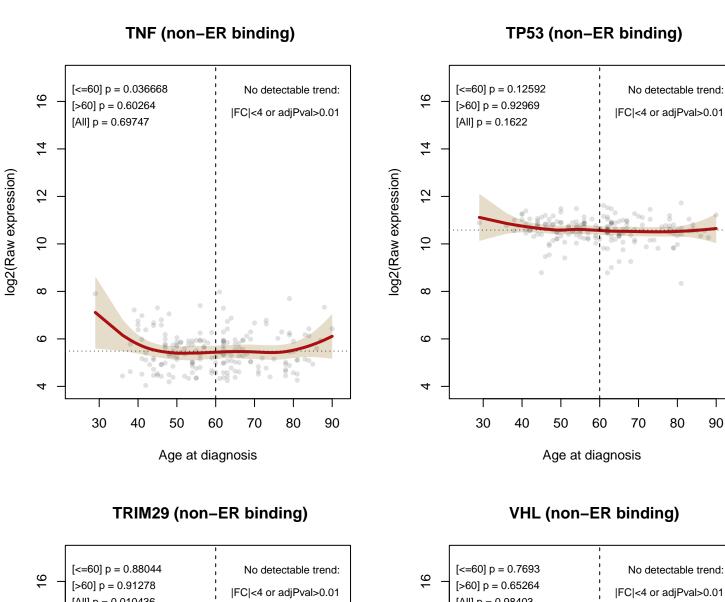


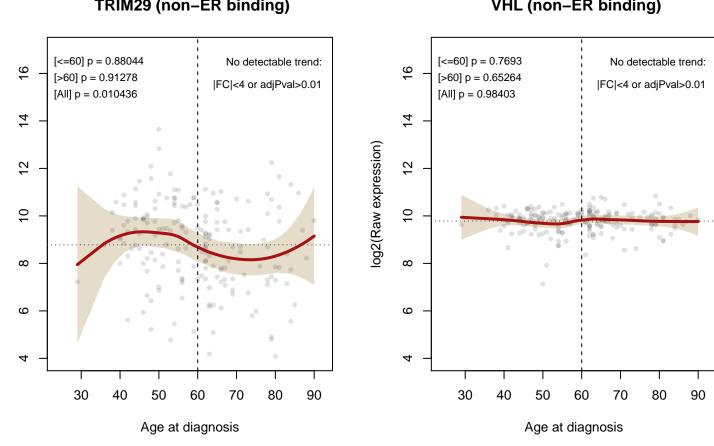
TGFB1 (non-ER binding)

TK2 (non-ER binding)

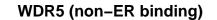




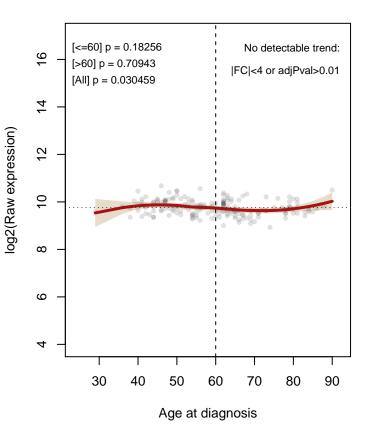


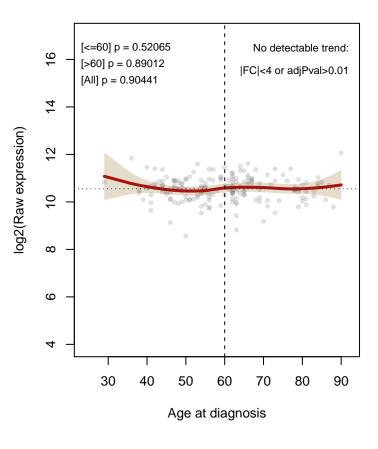


log2(Raw expression)



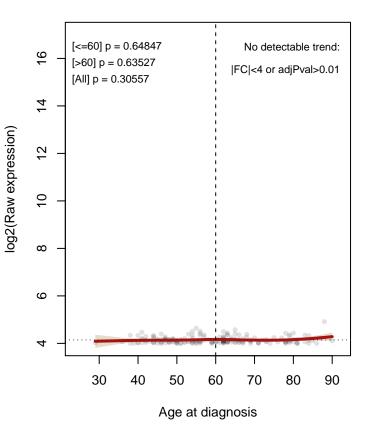
#### WHSC1 (non-ER binding)

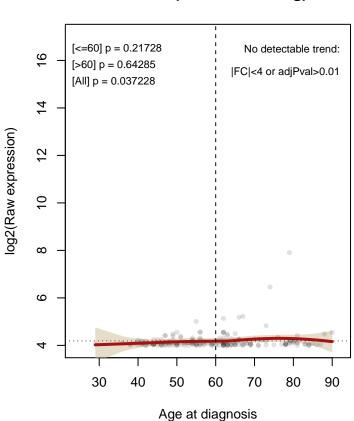


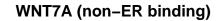


# WNT1 (non-ER binding)

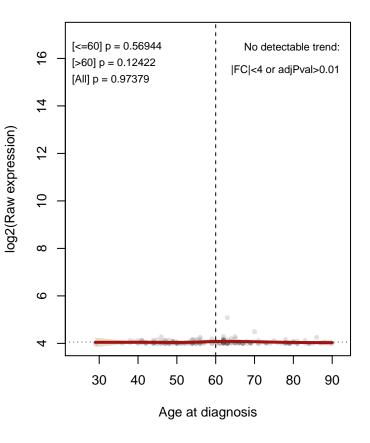
## WNT3A (non-ER binding)

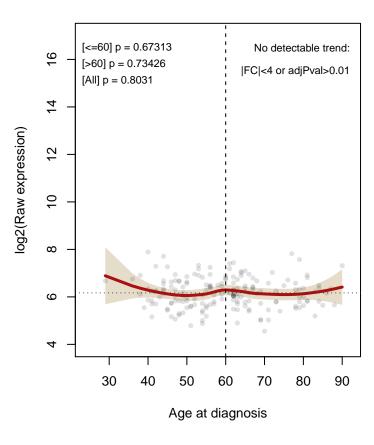






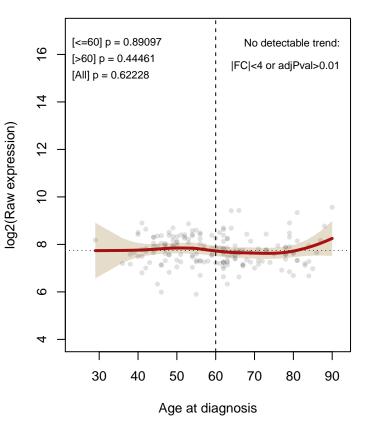
#### XRCC2 (non-ER binding)

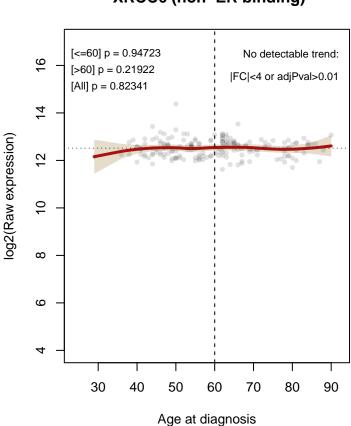




# XRCC3 (non-ER binding)

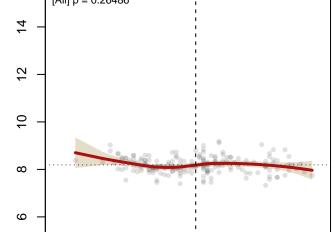
XRCC6 (non-ER binding)





# YAF2 (non-ER binding)

#### 



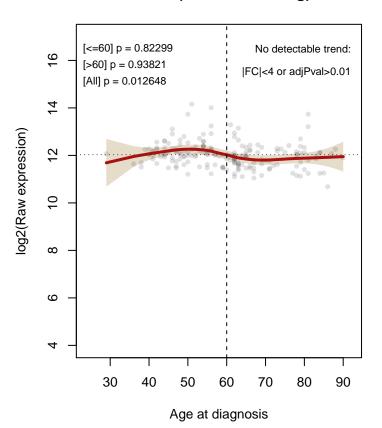
30

40

50

log2(Raw expression)

# YBX1 (non-ER binding)



# YY1 (non-ER binding)

Age at diagnosis

60

70

80

