

#### ASXL3 (non-ER binding) ATM (non-ER binding) [<=60] p = 0.40667No detectable trend: [<=60] p = 0.5111No detectable trend: 16 16 [>60] p = 0.38385 [>60] p = 0.00047518 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.047805[All] p = 0.0694474 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$ 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis ATR (non-ER binding) **AXIN1 (ER binding)** [<=60] p = 0.61264No detectable trend: [<=60] p = 0.91077No detectable trend: 16 16 [>60] p = 0.00045735 [>60] p = 0.015557 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.022647[AII] p = 0.000727984 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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Age at diagnosis

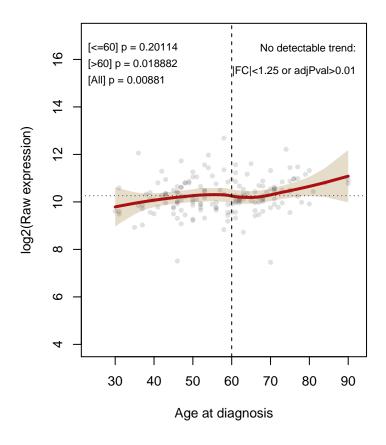
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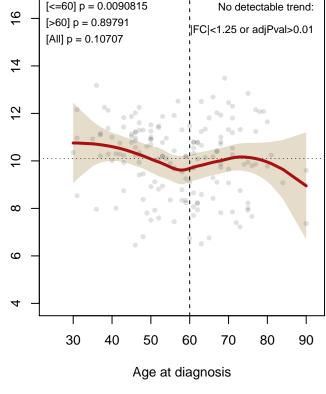
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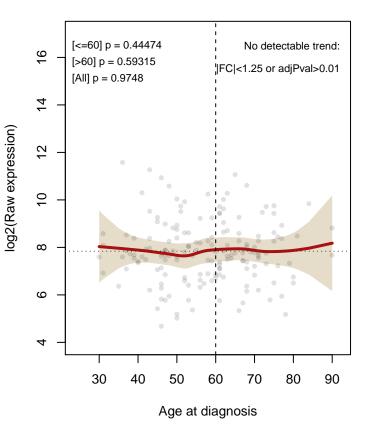
# **BCL2 (non-ER binding)** [<=60] p = 0.0090815 16 [>60] p = 0.89791 [All] p = 0.107074 log2(Raw expression) 12

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

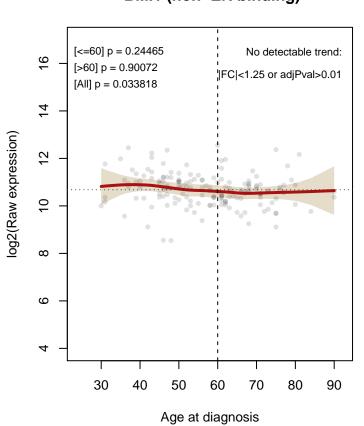




#### BIRC5 (non-ER binding)



**BMI1 (non-ER binding)** 



#### BMX (non-ER binding) **BRCA1** (non-ER binding) [<=60] p = 0.97954No detectable trend: [<=60] p = 0.40367No detectable trend: 16 16 [>60] p = 0.3256 [>60] p = 0.23195 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.21115[All] p = 0.632764 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 $\infty$ $\infty$ 9 9 30 50 70 80 90 30 40 50 60 70 80 90 40 60 Age at diagnosis Age at diagnosis CA9 (non-ER binding) **CBX1** (non-ER binding) [<=60] p = 0.03286No detectable trend: [<=60] p = 0.99786No detectable trend: 16 16 [>60] p = 0.37439 [>60] p = 0.0062245 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.31779[AII] p = 0.0910644 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 $\infty$ $\infty$

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Age at diagnosis

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Age at diagnosis

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# **CBX2** (non-ER binding) [<=60] p = 0.39024No detectable trend: 16 [>60] p = 0.67271 FC|<1.25 or adjPval>0.01 [All] p = 0.279914 log2(Raw expression) 12

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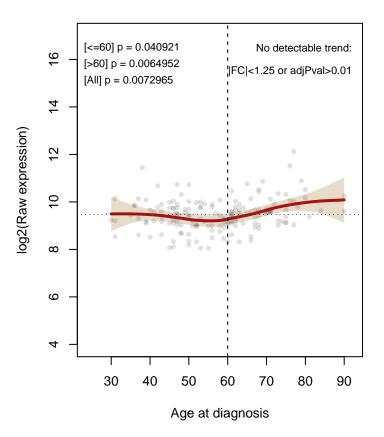
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#### **CBX4** (non-ER binding)



CBX6 (non-ER binding)

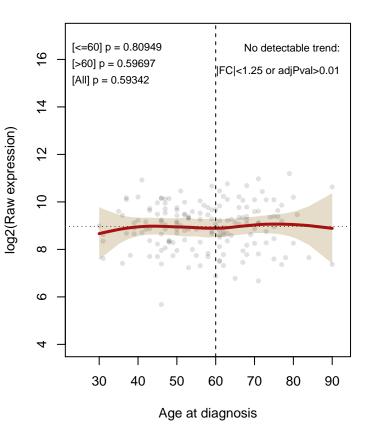
Age at diagnosis

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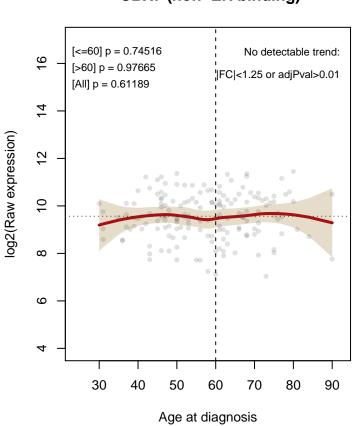
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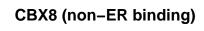
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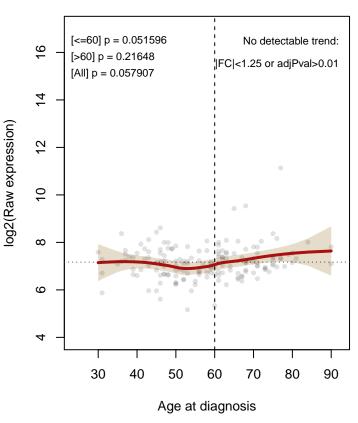


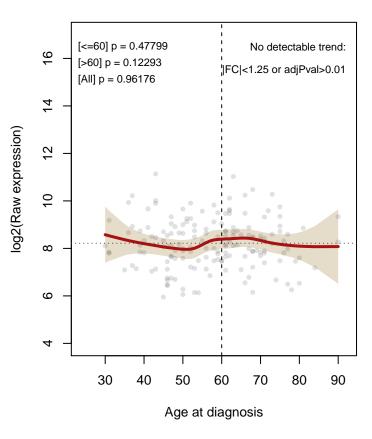
#### **CBX7 (non-ER binding)**





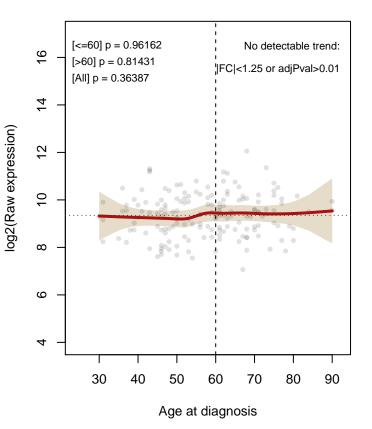
#### CCNA2 (non-ER binding)

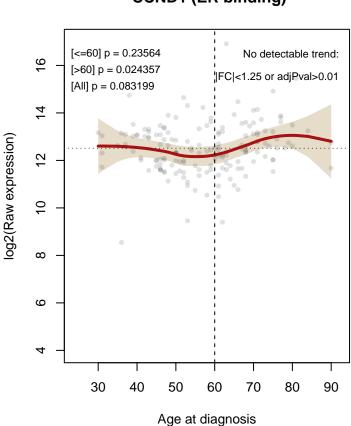




#### CCNB1 (non-ER binding)

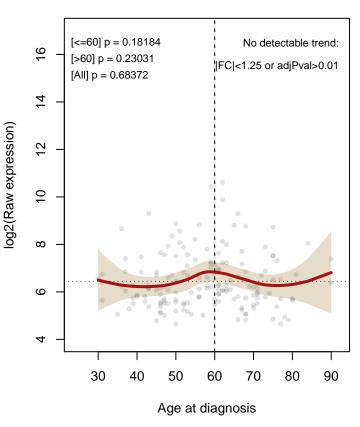
#### **CCND1 (ER binding)**

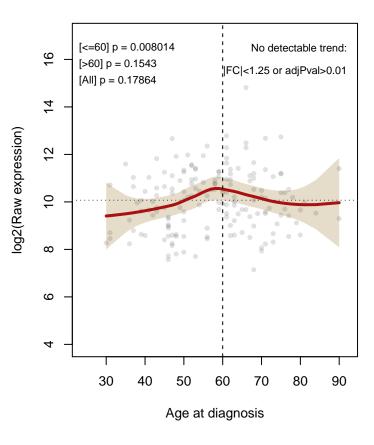






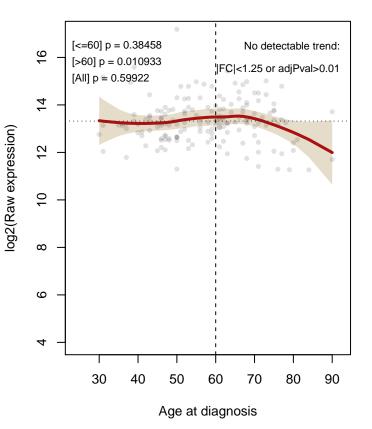
#### CD163 (non-ER binding)

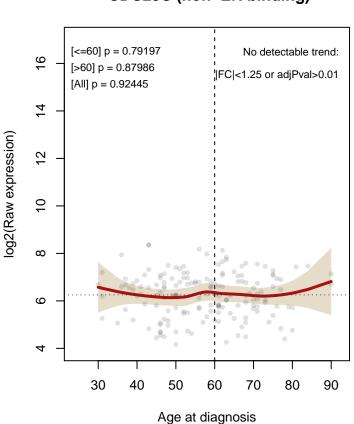


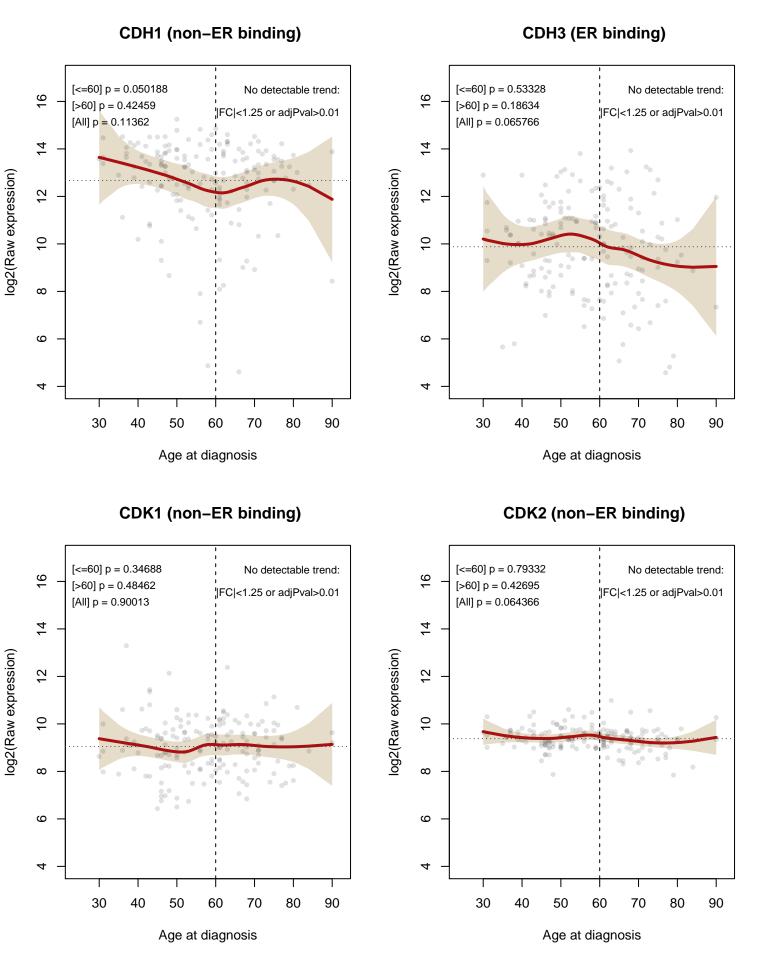


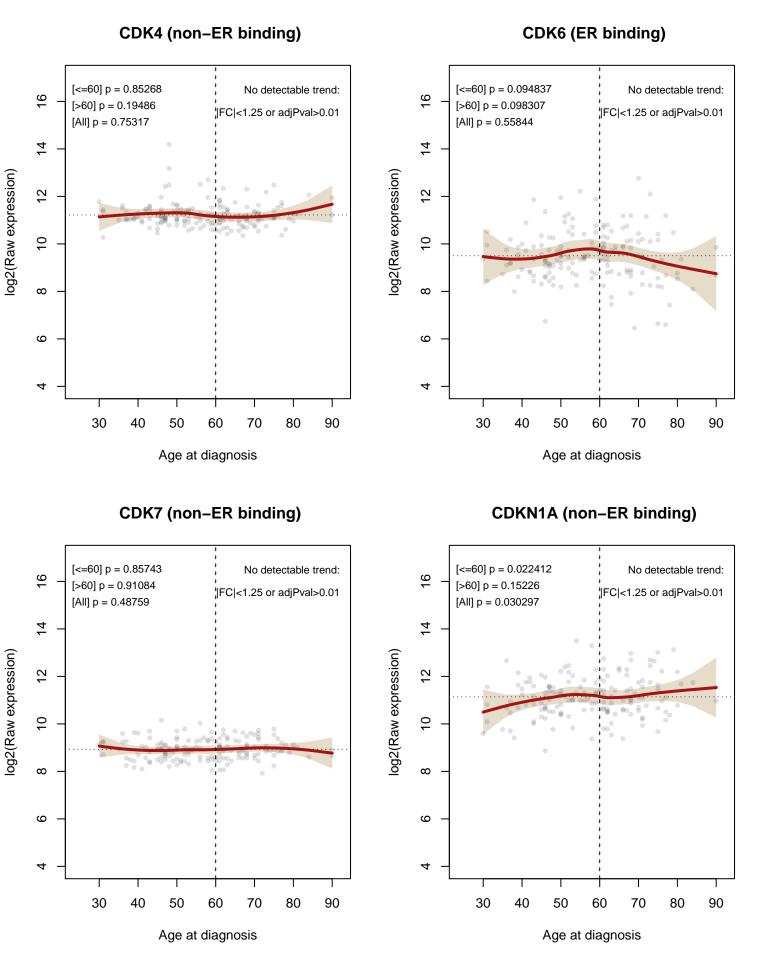
CD44 (non-ER binding)

CDC25C (non-ER binding)



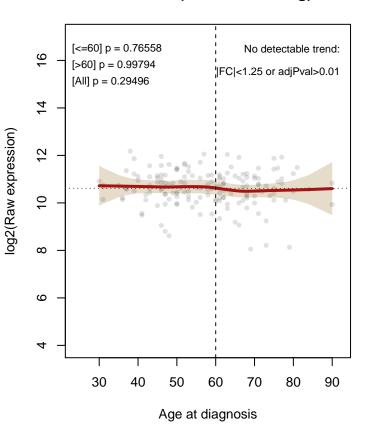


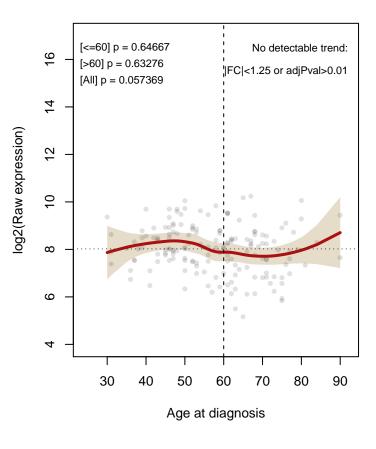




#### CDKN1B (non-ER binding)

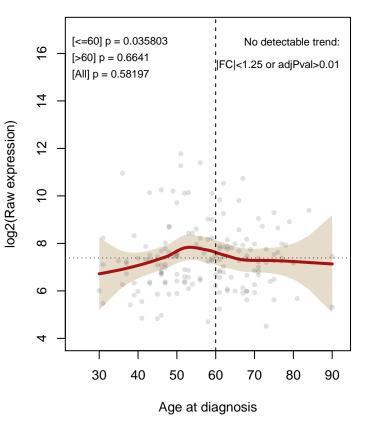
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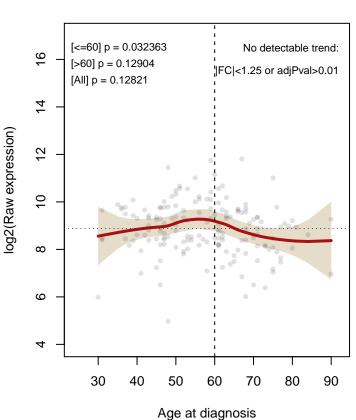




#### CDKN2A (non-ER binding)

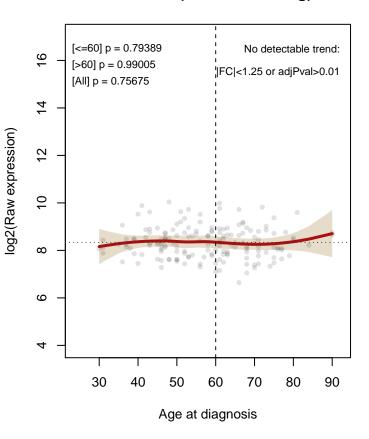
#### CDKN2B (non-ER binding)

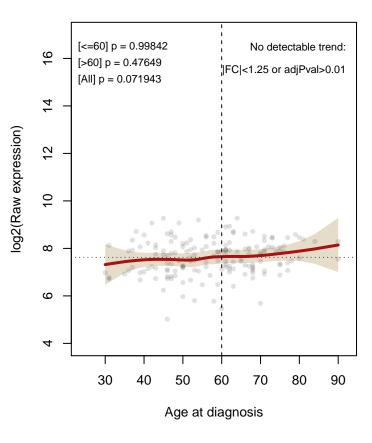




#### CDKN2C (non-ER binding)

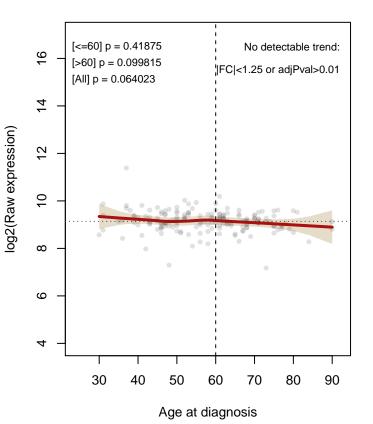
#### CDKN2D (non-ER binding)

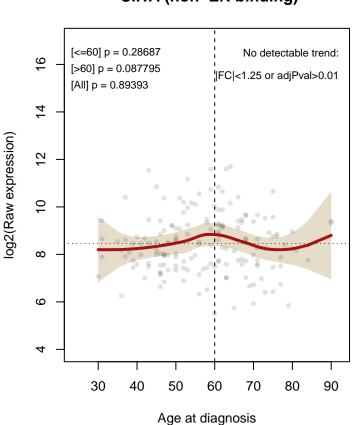




#### CHUK (non-ER binding)

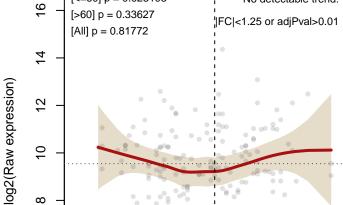
#### **CIITA (non-ER binding)**



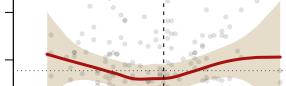


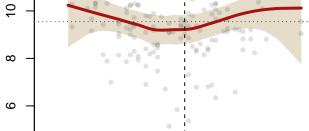
#### CLDN3 (non-ER binding)

#### [<=60] p = 0.023193 No detectable trend:



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Age at diagnosis

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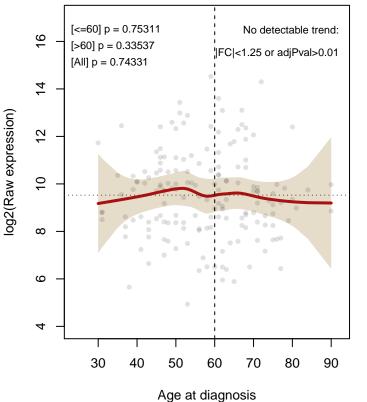
## **CRYAB** (non-ER binding)

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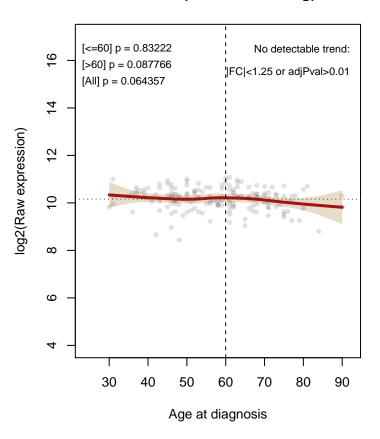
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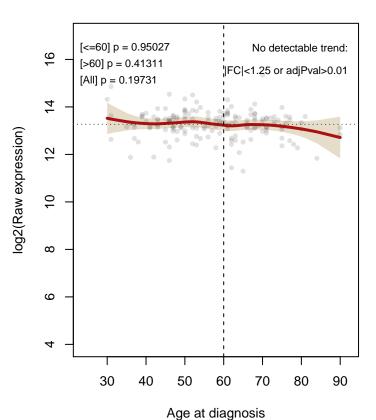
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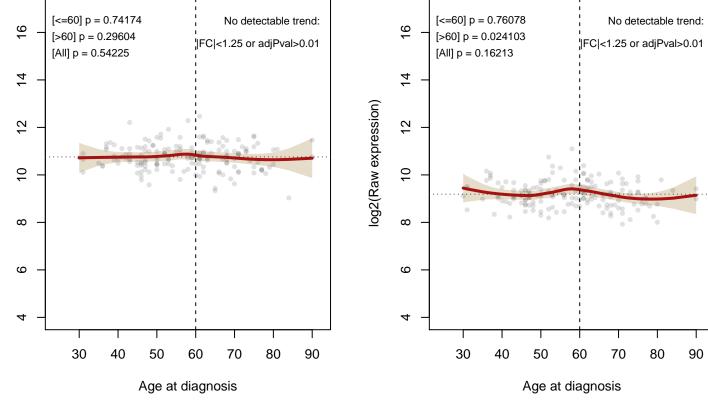
#### CREB1 (non-ER binding)



#### CTNNB1 (non-ER binding)

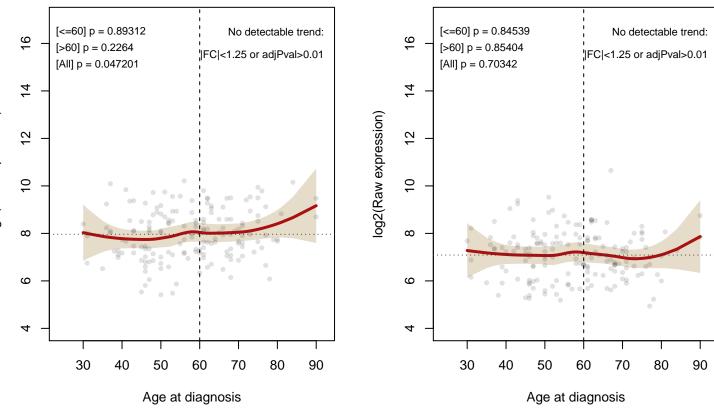


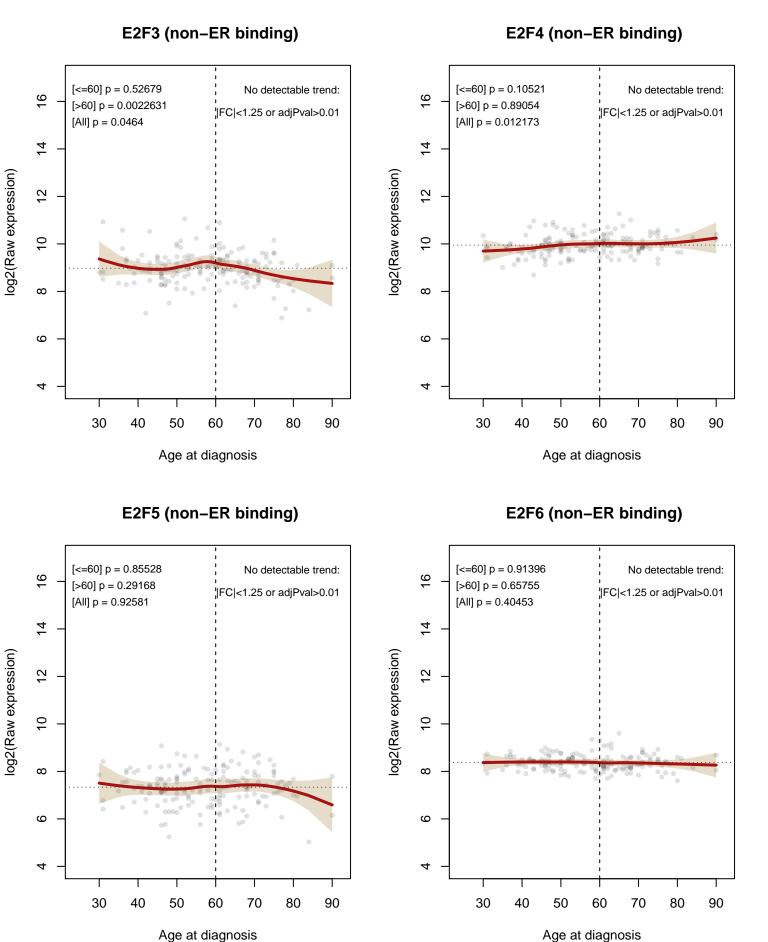
#### **DLC1 (ER binding)** DMAP1 (non-ER binding) [<=60] p = 0.14524No detectable trend: [<=60] p = 0.91061No detectable trend: 16 16 [>60] p = 0.32924 [>60] p = 0.14359 |FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.034483[All] p = 0.267024 4 log2(Raw expression) log2(Raw expression) 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 **DNMT1** (non-ER binding) **DNMT3A (non-ER binding)** [<=60] p = 0.74174 No detectable trend: [<=60] p = 0.7607816 16 [>60] p = 0.024103 [>60] p = 0.29604 FC|<1.25 or adjPval>0.01 [All] p = 0.54225[All] p = 0.162134 4 log2(Raw expression) 12 12 10 10

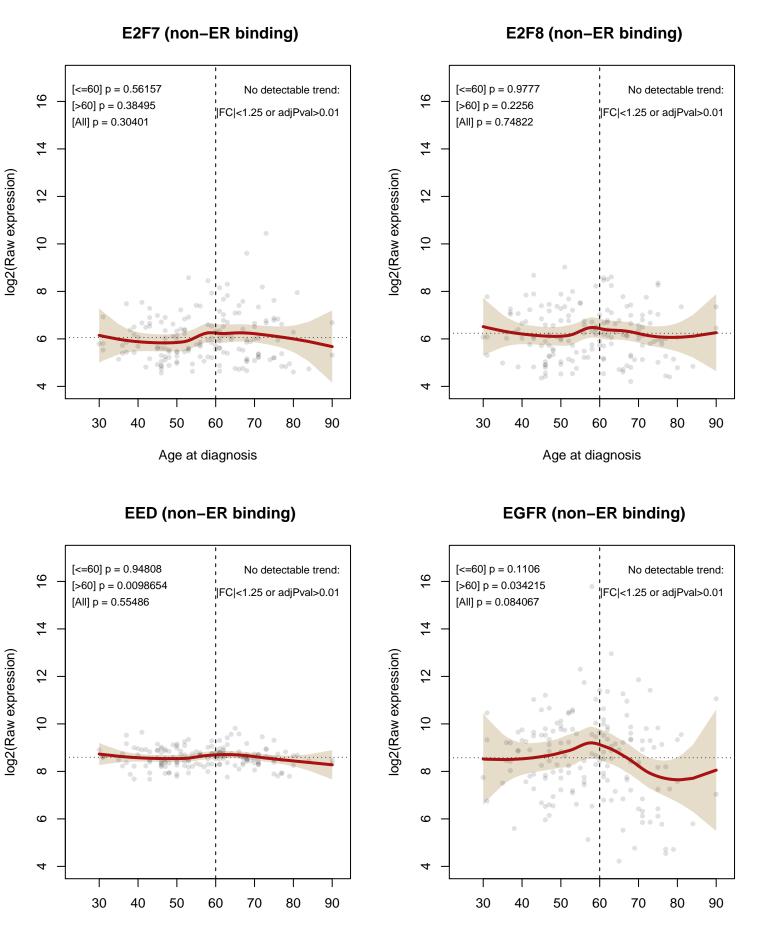


#### **DVL1 (non-ER binding) DNMT3B** (non-ER binding) [<=60] p = 0.99274No detectable trend: [<=60] p = 0.68028No detectable trend: 16 16 [>60] p = 0.58589 [>60] p = 0.0043341 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.009149[All] p = 0.501214 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 $\infty$ ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 Age at diagnosis Age at diagnosis E2F1 (non-ER binding) E2F2 (non-ER binding) [<=60] p = 0.89312No detectable trend: [<=60] p = 0.8453916 16 [>60] p = 0.2264 [>60] p = 0.85404 FC|<1.25 or adjPval>0.01 [All] p = 0.047201[All] p = 0.703424 4 log2(Raw expression) 12 12

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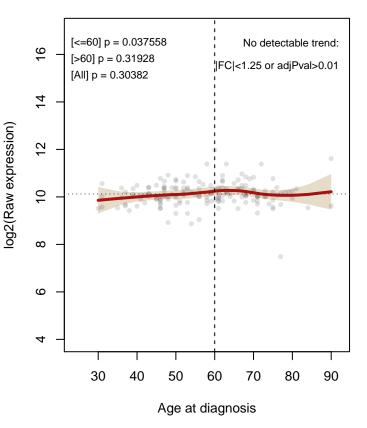


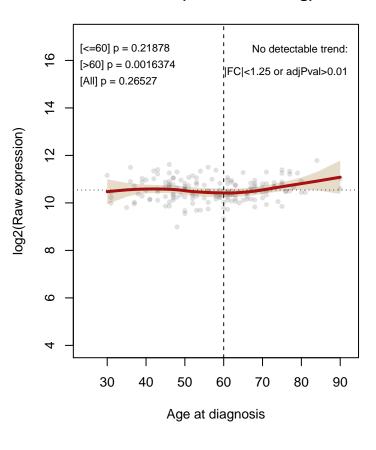
Age at diagnosis

Age at diagnosis



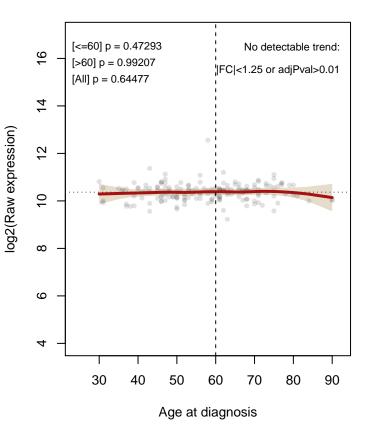
#### EHMT2 (non-ER binding)

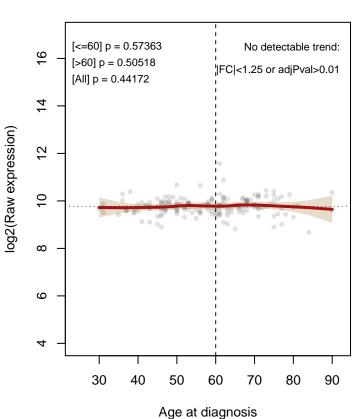




#### **ELAC2 (non-ER binding)**

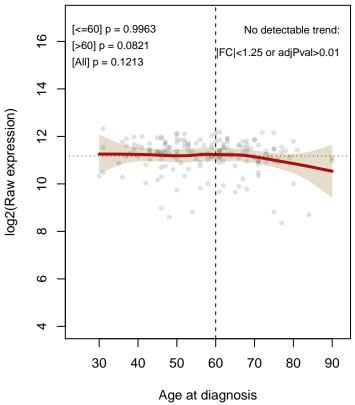
#### **ELK1 (non-ER binding)**

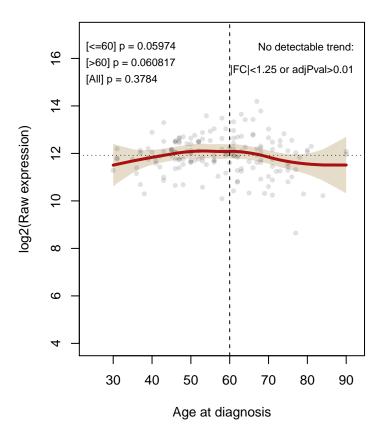




# EP300 (non-ER binding)

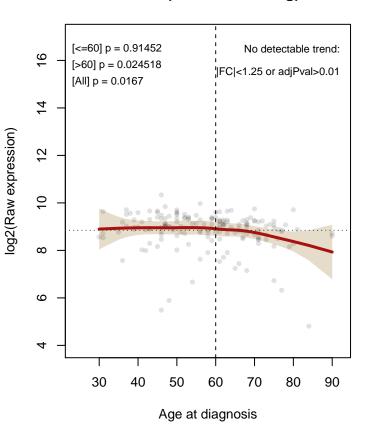
#### **EPAS1** (non-ER binding)

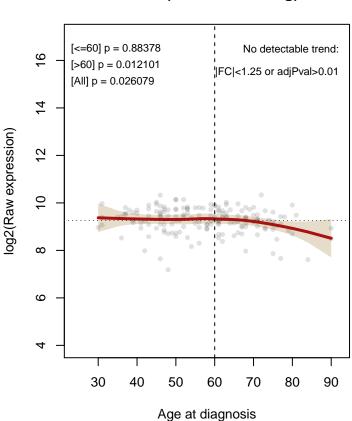




**EPC1 (non-ER binding)** 

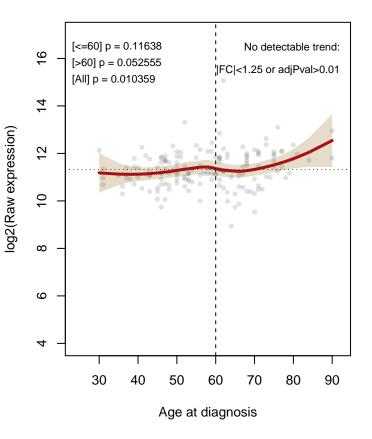
**EPC2 (non-ER binding)** 

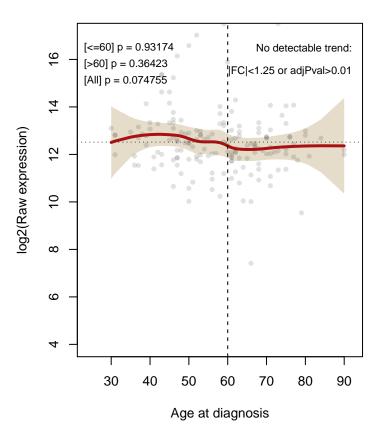






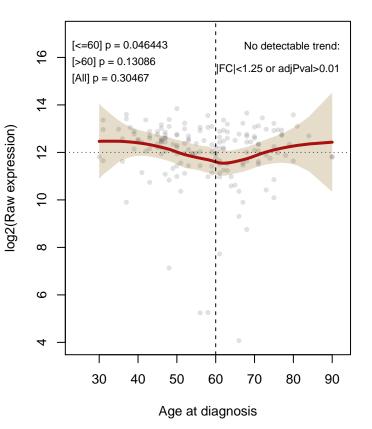
#### ERBB2 (non-ER binding)

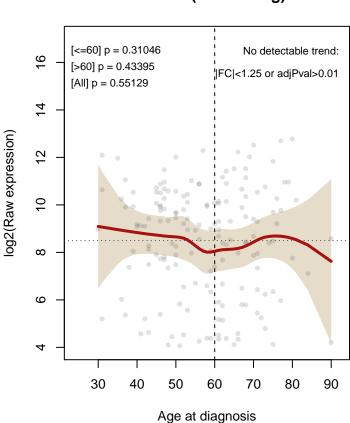


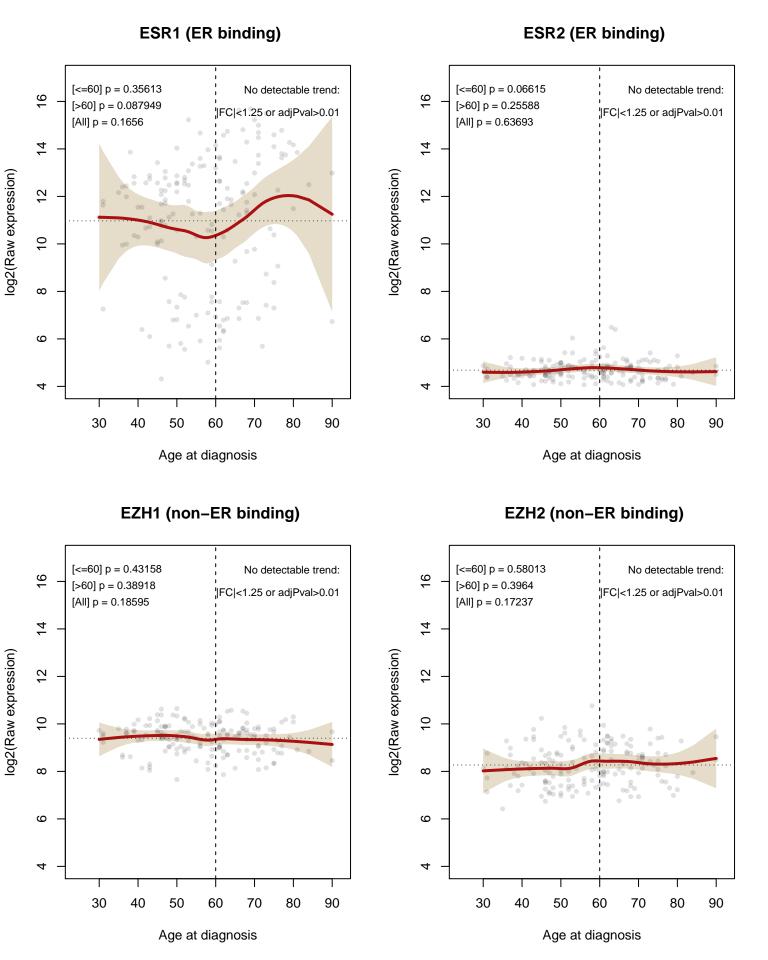


#### ERBB3 (non-ER binding)

**ERBB4 (ER binding)** 







## FOS (non-ER binding) [<=60] p = 0.4141 No detectable trend: 16 [>60] p = 0.78006 FC|<1.25 or adjPval>0.01 [AII] p = 0.185344 log2(Raw expression) 12

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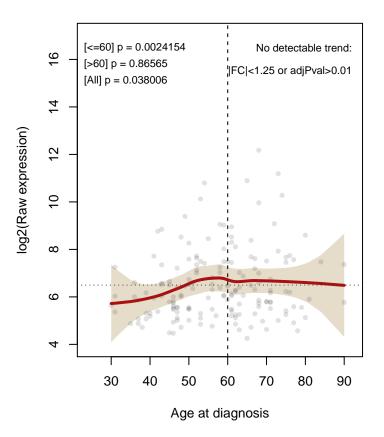
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#### FOSL1 (non-ER binding)



Age at diagnosis

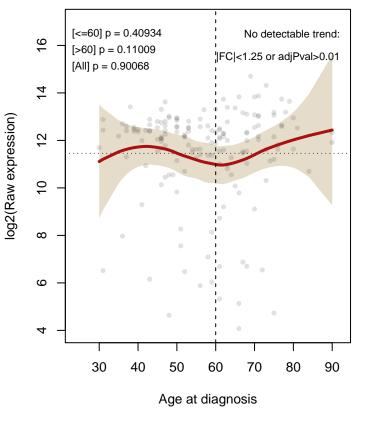
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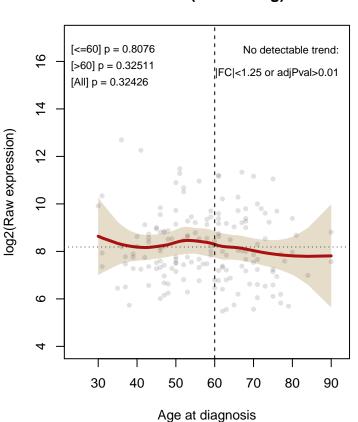
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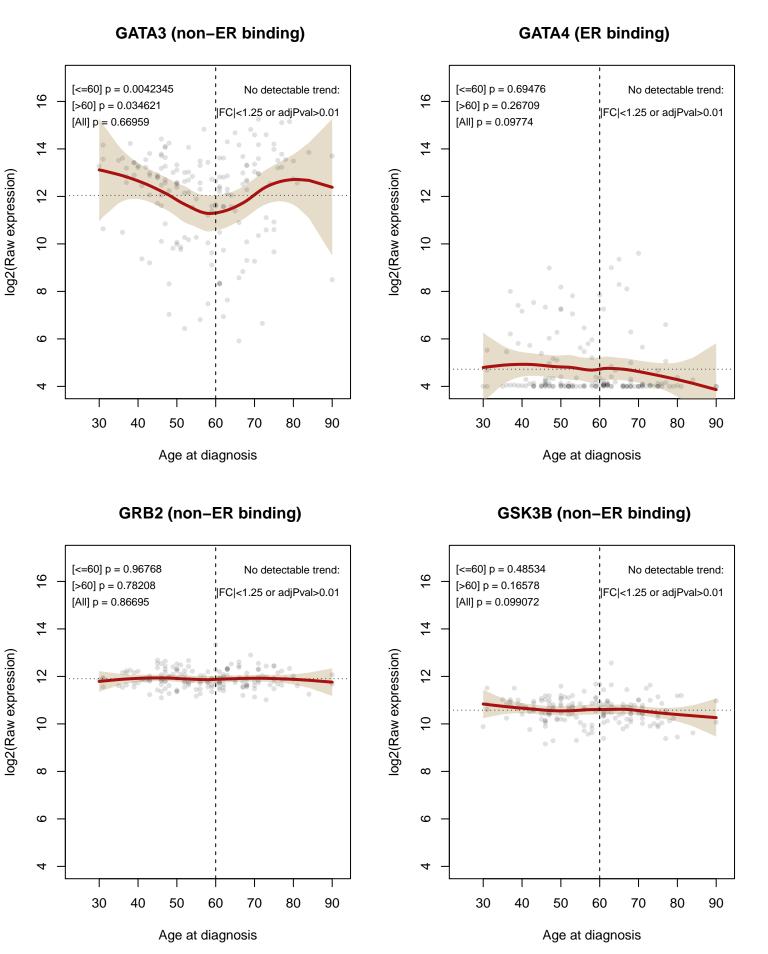
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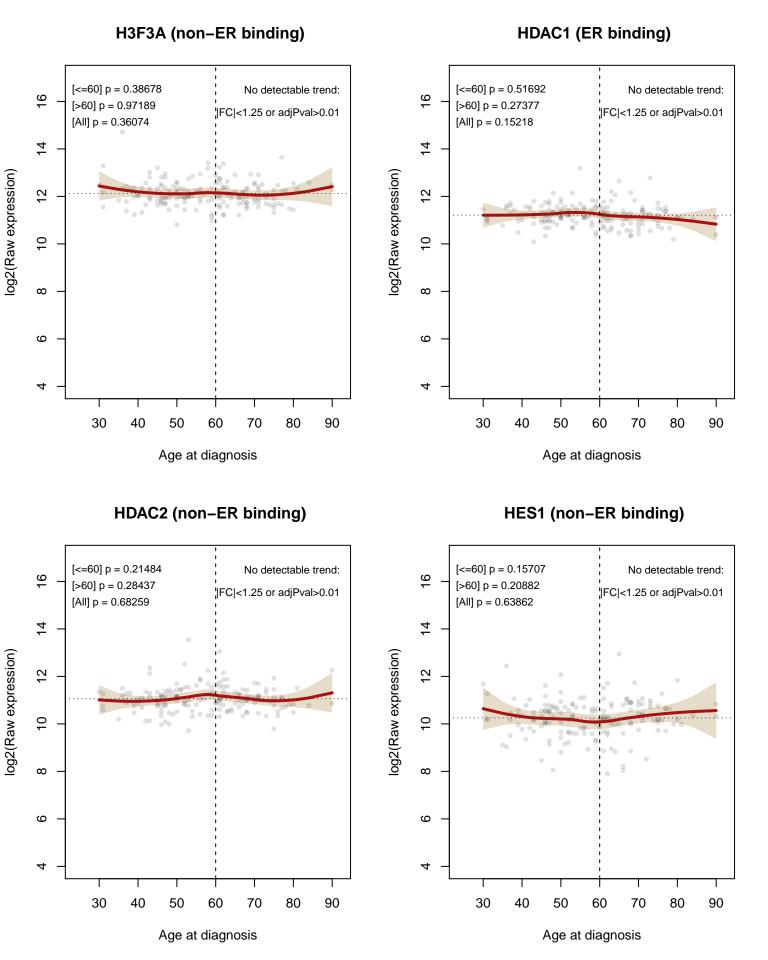
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**FOXC1 (ER binding)** FOXA1 (ER binding)



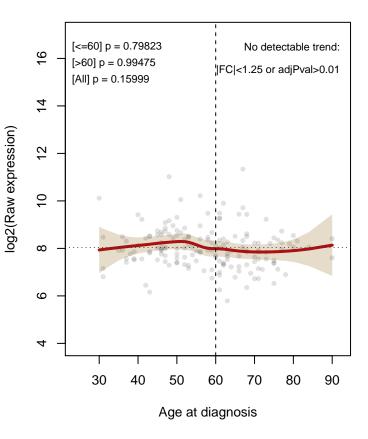


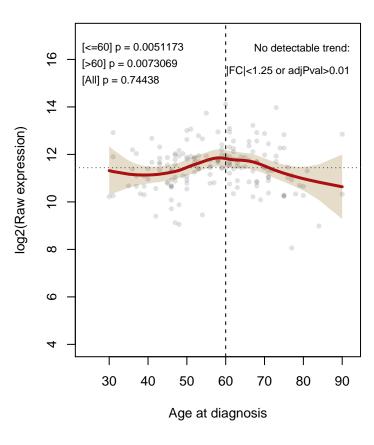






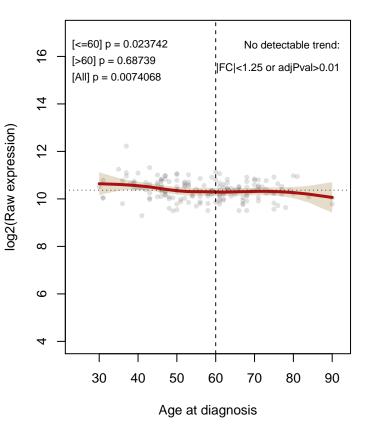
#### HIF1A (non-ER binding)

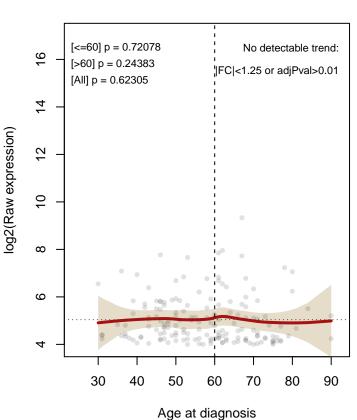




#### HIF1AN (non-ER binding)

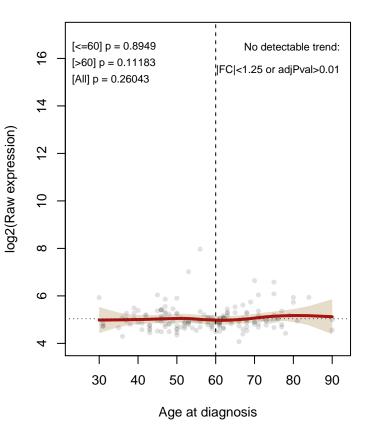
#### HIF3A (non-ER binding)

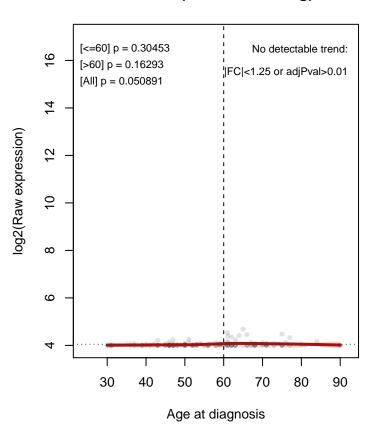






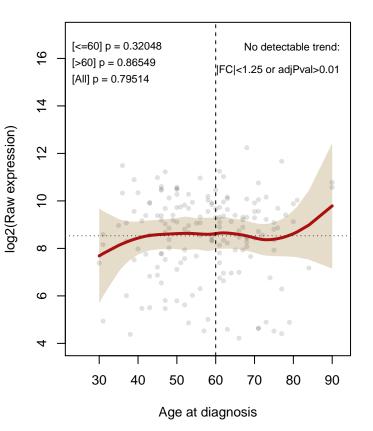
#### HNF1B (non-ER binding)

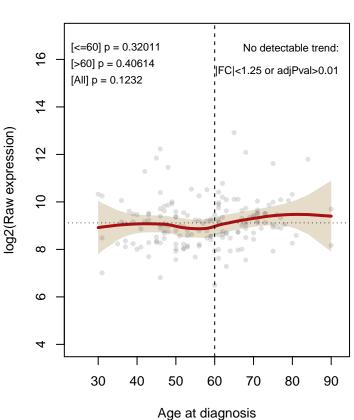




#### **HOXC10 (non-ER binding)**

#### HRAS (non-ER binding)





#### **HSPB1** (non-ER binding) IGF1R (ER binding) [<=60] p = 0.70579No detectable trend: [<=60] p = 0.5004No detectable trend: 16 16 [>60] p = 0.024216 [>60] p = 0.48609FC|<1.25 or adjPval>0.01 FC|<1.25 or adjPval>0.01 [AII] p = 0.022096[All] p = 0.108574 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω $\infty$ 9 9 30 40 50 70 80 90 30 40 50 60 70 80 90 60 Age at diagnosis Age at diagnosis IGFBP2 (non-ER binding) **IKBKB (ER binding)** [<=60] p = 0.093984No detectable trend: [<=60] p = 0.2389No detectable trend: 16 16 [>60] p = 0.067002 [>60] p = 0.2996 FC|<1.25 or adjPval>0.01 FC|<1.25 or adjPval>0.01 [All] p = 0.59914[All] p = 0.0387314 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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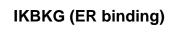
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Age at diagnosis

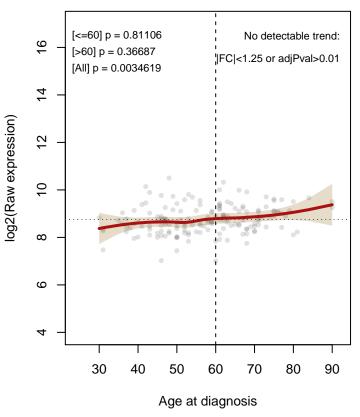
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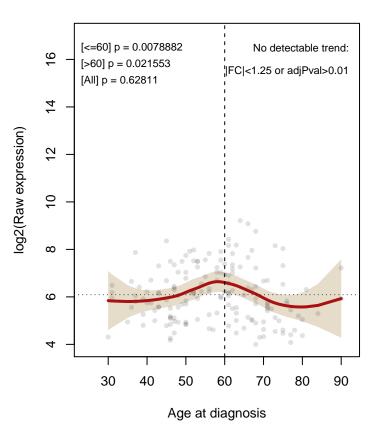
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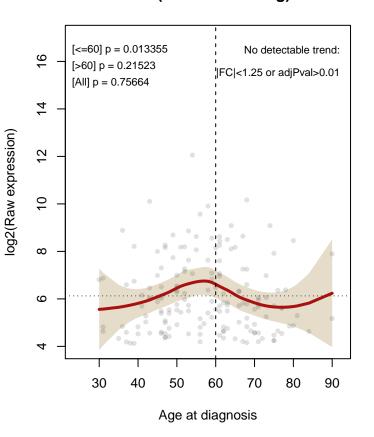
#### IL2RA (non-ER binding)

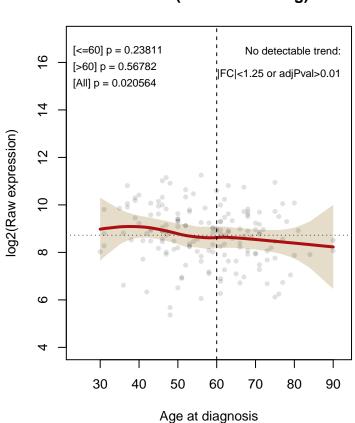


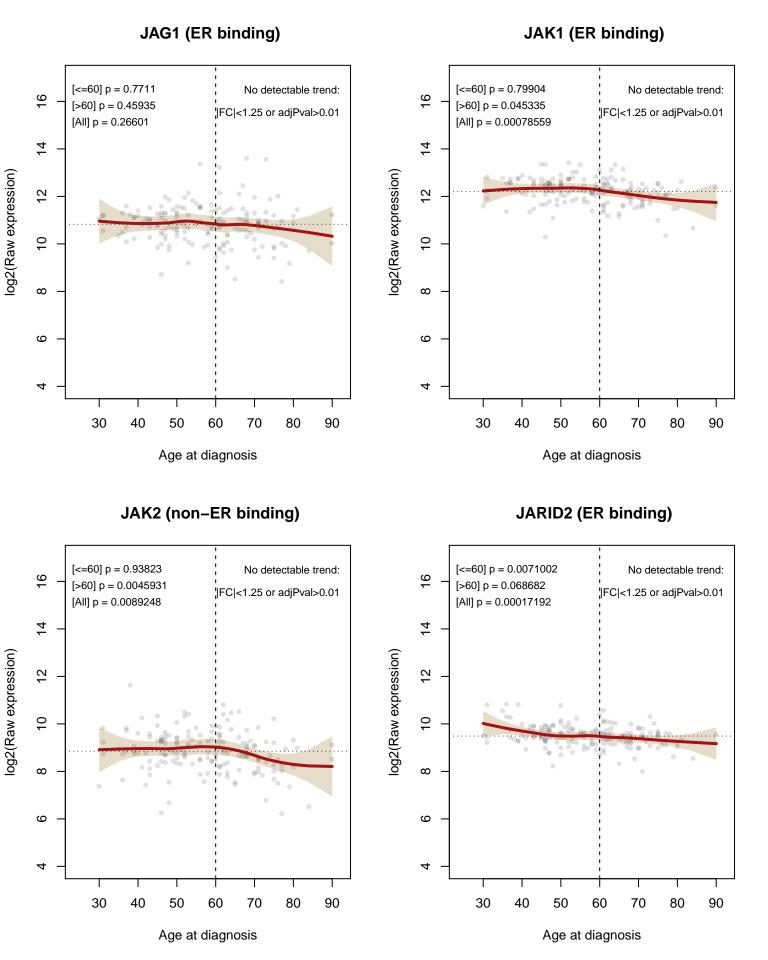


#### IL6 (non-ER binding)

**INPP4B** (non-ER binding)

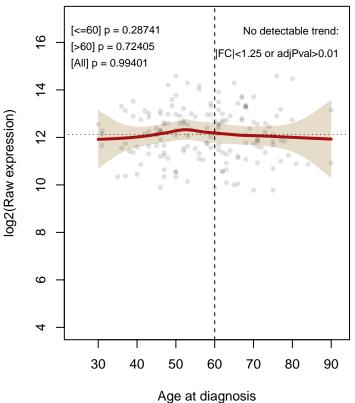


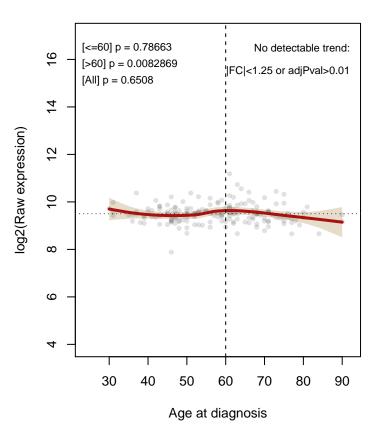






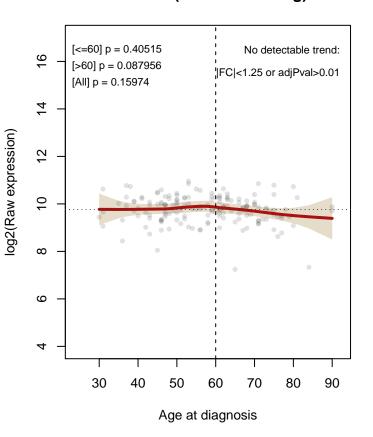
#### KDM2B (non-ER binding)

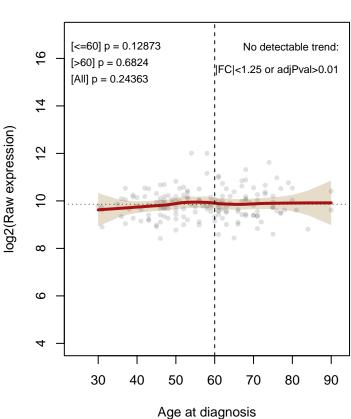


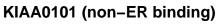


#### KDM6A (non-ER binding)

KDM6B (non-ER binding)





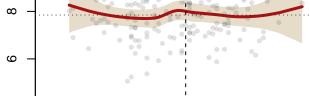






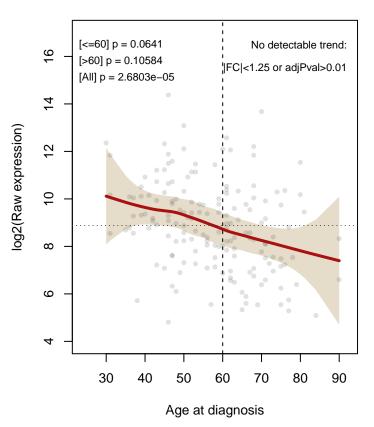
log2(Raw expression)



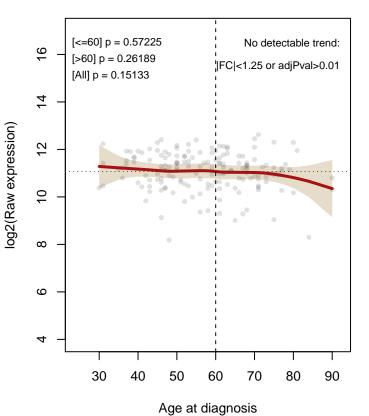


Age at diagnosis

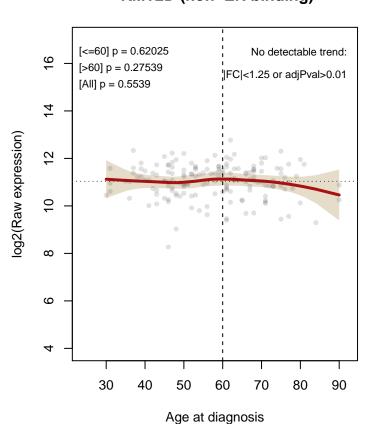
#### KIT (non-ER binding)



#### KMT2C (non-ER binding)

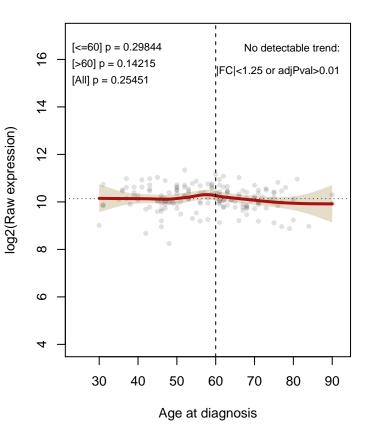


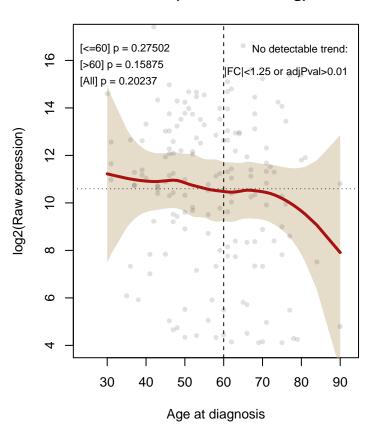
#### KMT2D (non-ER binding)





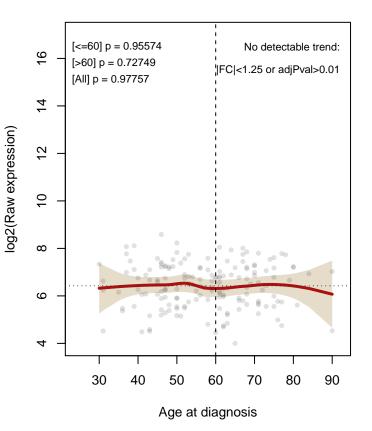
#### KRT5 (non-ER binding)

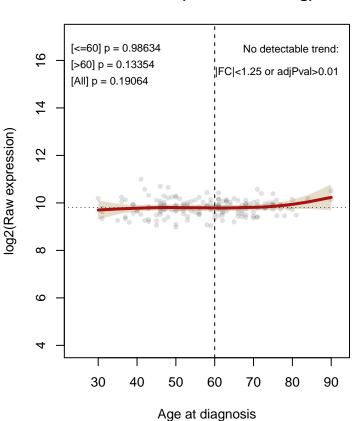




#### L3MBTL1 (non-ER binding)

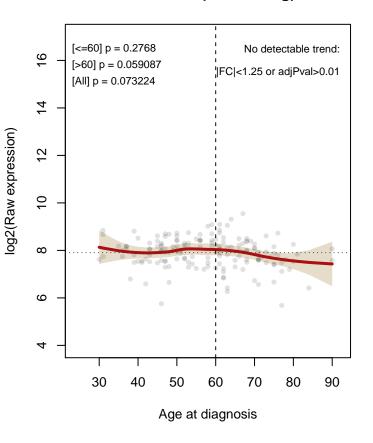
#### L3MBTL2 (non-ER binding)

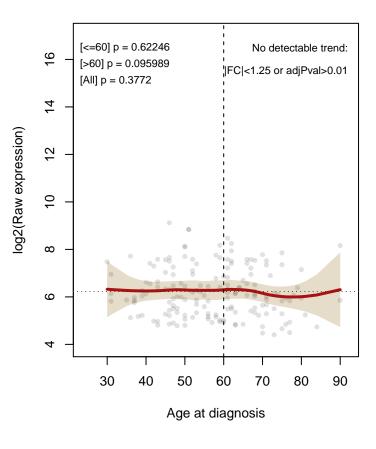




#### L3MBTL3 (ER binding)

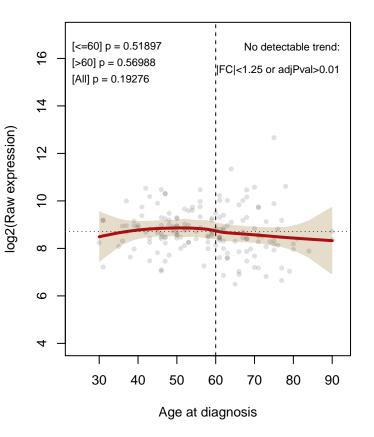
### L3MBTL4 (non-ER binding)

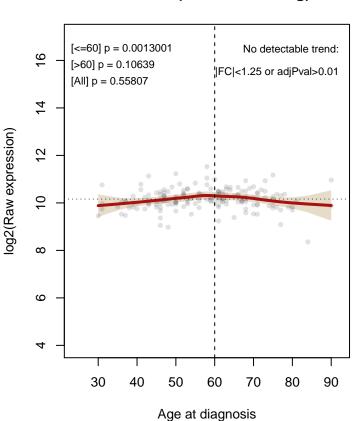




#### LEF1 (non-ER binding)

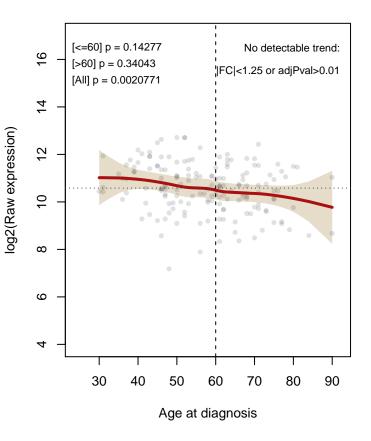
#### MAP2K1 (non-ER binding)

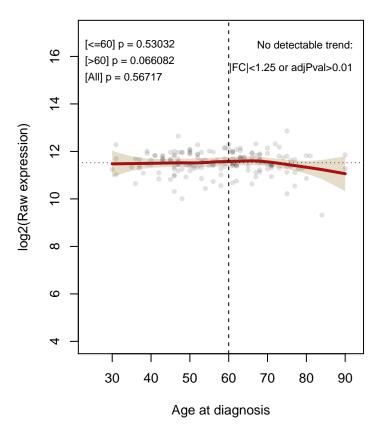






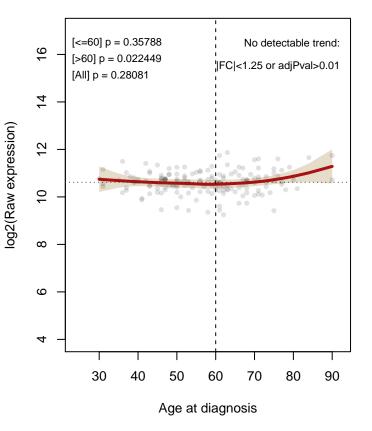
#### MAPK1 (non-ER binding)

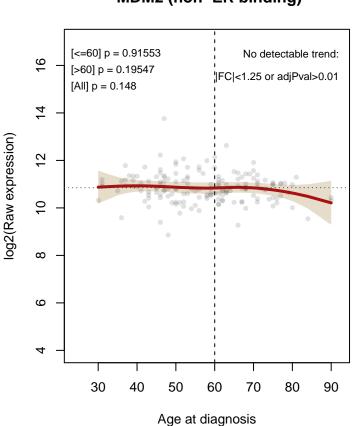




#### MAPK3 (non-ER binding)

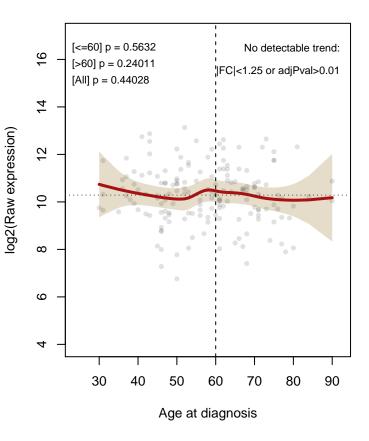
MDM2 (non-ER binding)

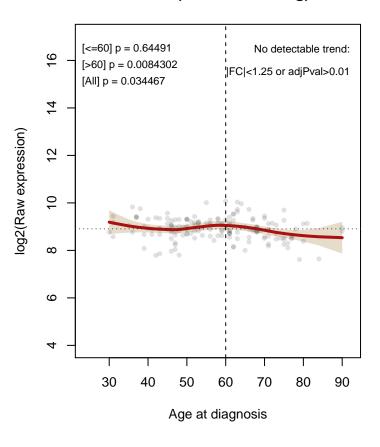






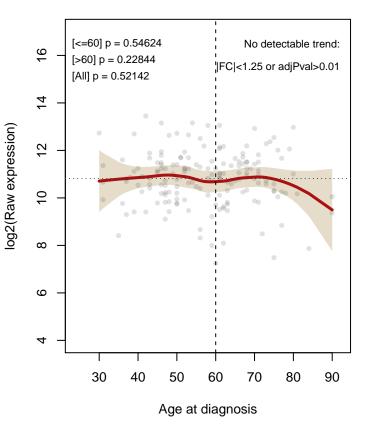
#### MTF2 (non-ER binding)

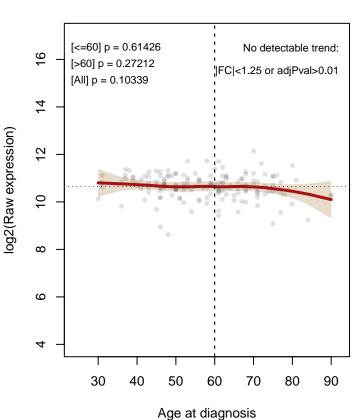




#### MYC (non-ER binding)

#### NCOA6 (non-ER binding)





#### NCOR1 (non-ER binding) **NES (non-ER binding)** [<=60] p = 0.97414No detectable trend: [<=60] p = 0.3443No detectable trend: 16 16 [>60] p = 0.098245 [>60] p = 0.46091 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.085719[All] p = 0.146354 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 NFKB1 (non-ER binding) NFKB2 (non-ER binding) [<=60] p = 0.3712No detectable trend: [<=60] p = 0.49772No detectable trend: 16 16 [>60] p = 0.36979 [>60] p = 0.85175 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.17343[AII] p = 0.598994 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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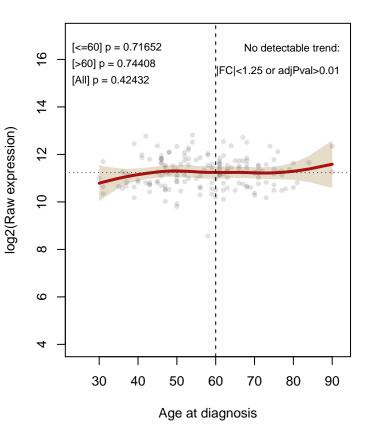
Age at diagnosis

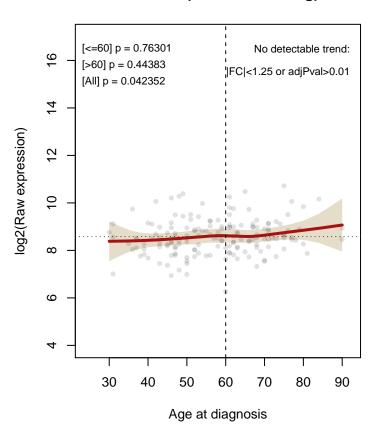
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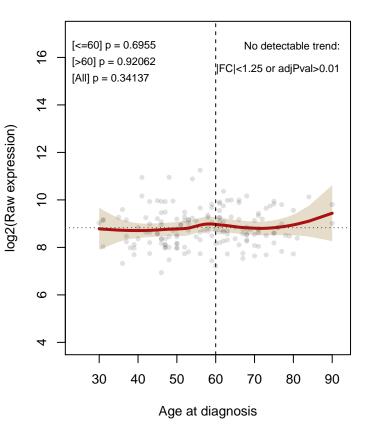
#### NFKBIB (non-ER binding)

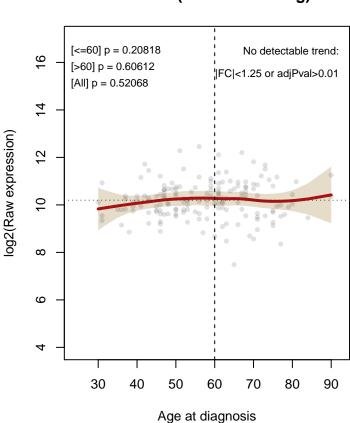




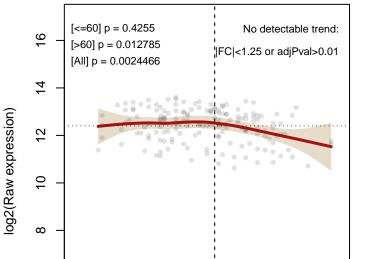
#### NFKBIE (non-ER binding)

#### **NOTCH1** (non-ER binding)

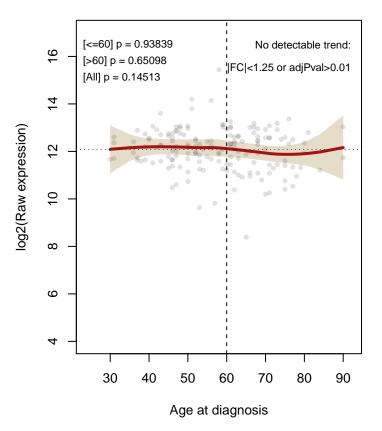




#### NOTCH2 (non-ER binding)

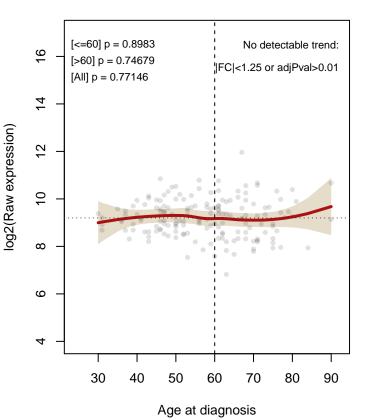


#### NOTCH3 (non-ER binding)

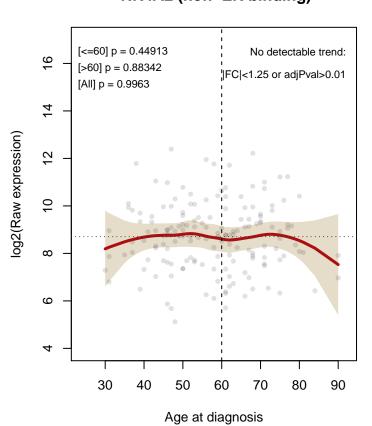


#### NOTCH4 (non-ER binding)

Age at diagnosis

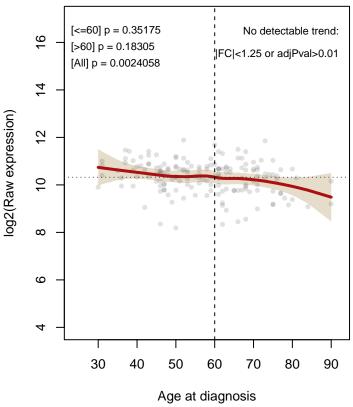


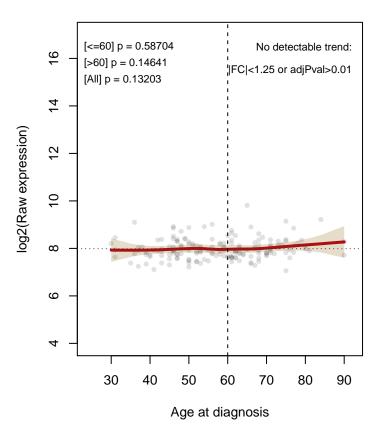
#### NR4A2 (non-ER binding)



### NRAS (non-ER binding)

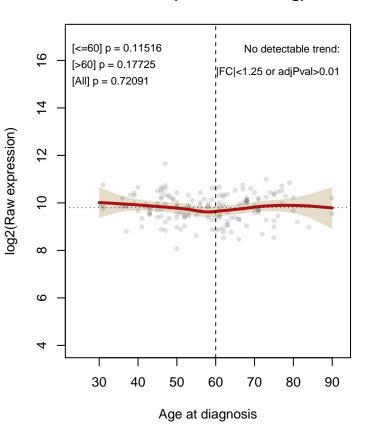
#### PCGF1 (non-ER binding)

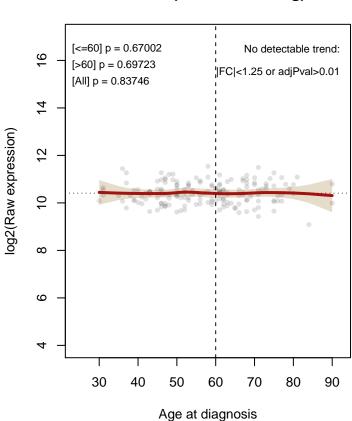




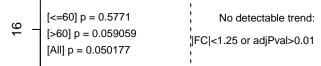
PCGF2 (non-ER binding)

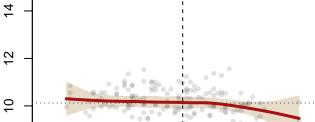
PCGF3 (non-ER binding)







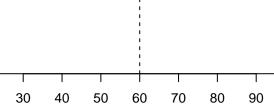


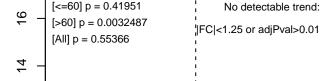


# ω

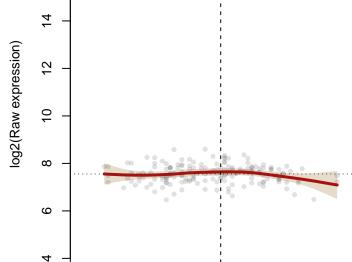
log2(Raw expression)

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PCGF6 (non-ER binding)



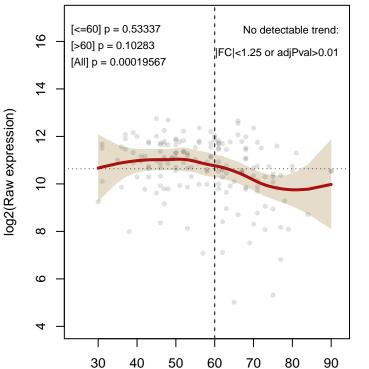
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#### PDGFRA (non-ER binding)

Age at diagnosis



Age at diagnosis

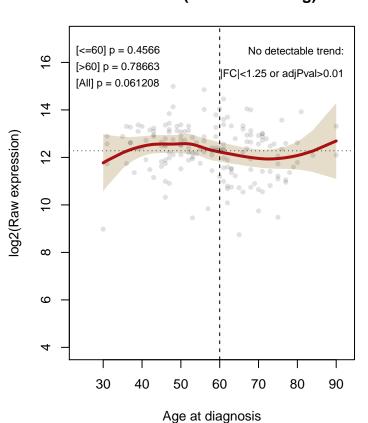
#### PDGFRB (non-ER binding)

Age at diagnosis

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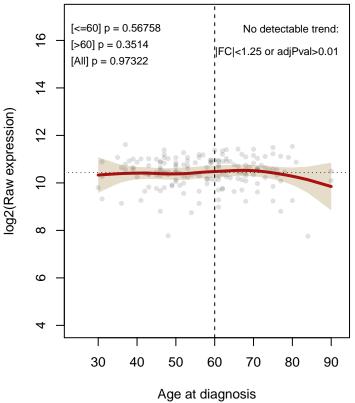
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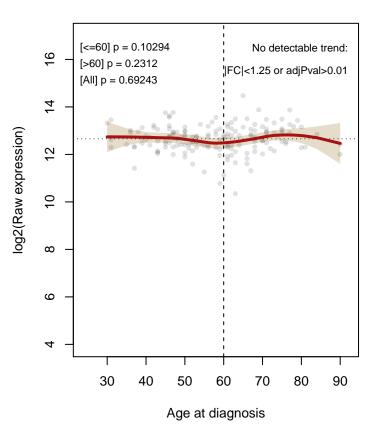
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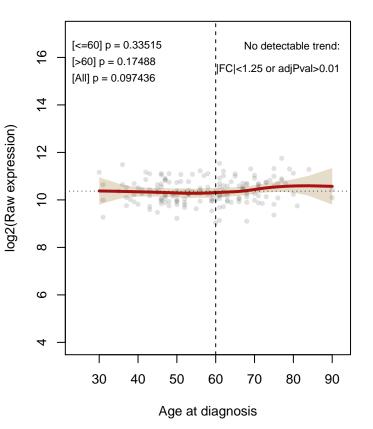
#### PEBP1 (non-ER binding)

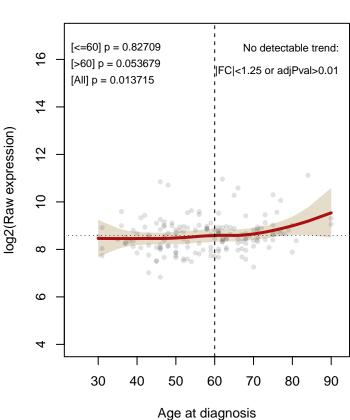


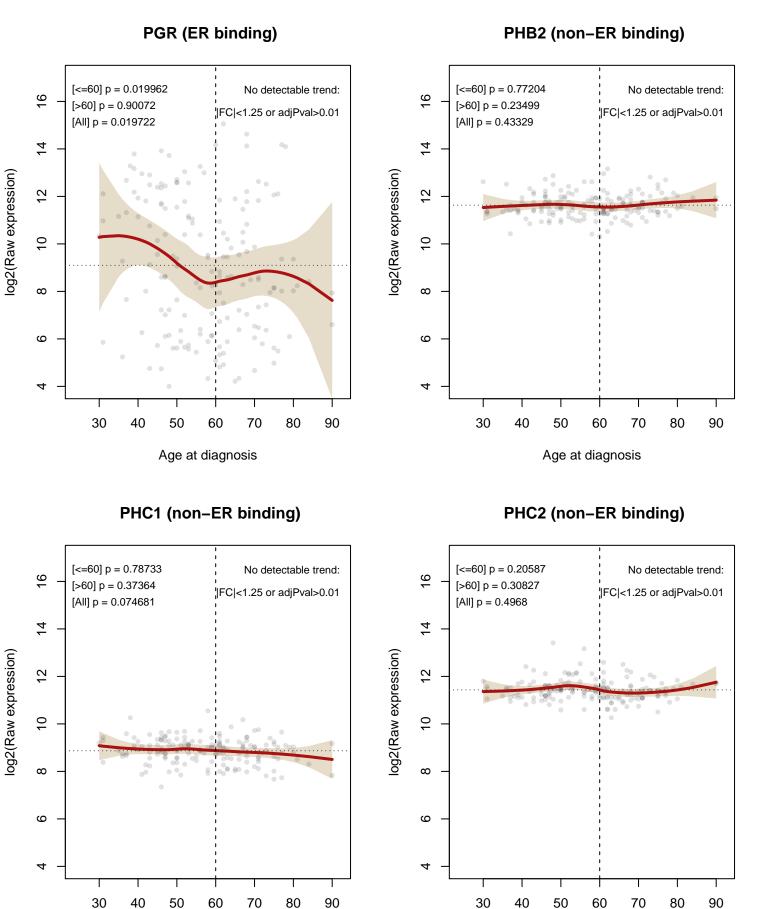


PELP1 (non-ER binding)

PGP (non-ER binding)



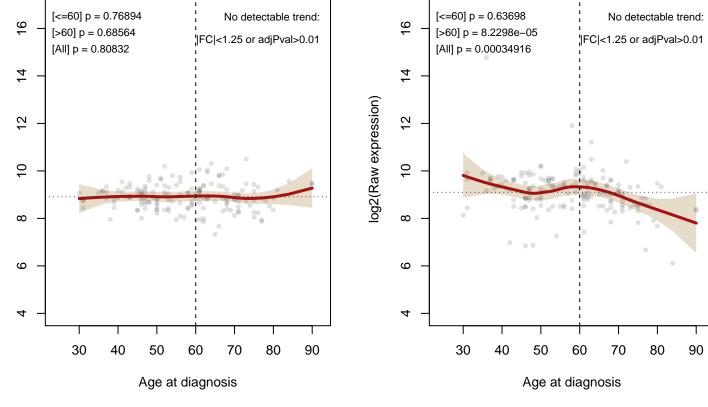




Age at diagnosis

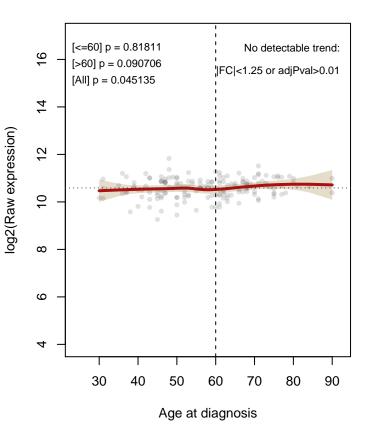
Age at diagnosis

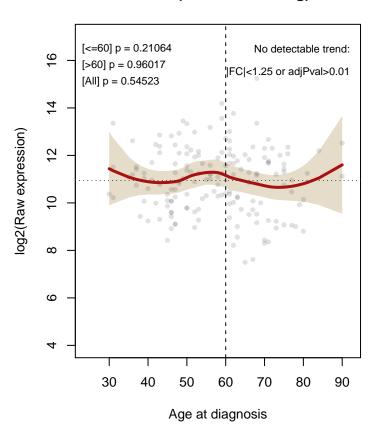
#### PHC3 (non-ER binding) PHF1 (non-ER binding) [<=60] p = 0.91457No detectable trend: [<=60] p = 0.42558No detectable trend: 16 16 [>60] p = 0.010024 [>60] p = 0.25561 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.064228[AII] p = 0.0567964 4 log2(Raw expression) log2(Raw expression) 12 12 19 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis PHF19 (non-ER binding) PIK3CA (non-ER binding) [<=60] p = 0.76894No detectable trend: [<=60] p = 0.63698No detectable trend: 16 16 [>60] p = 0.68564[>60] p = 8.2298e-05 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.80832[AII] p = 0.000349164 4 log2(Raw expression) 12 12





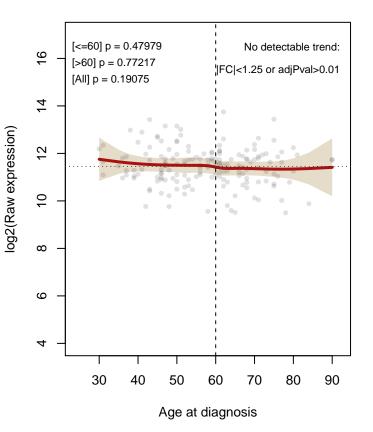
#### PLAU (non-ER binding)

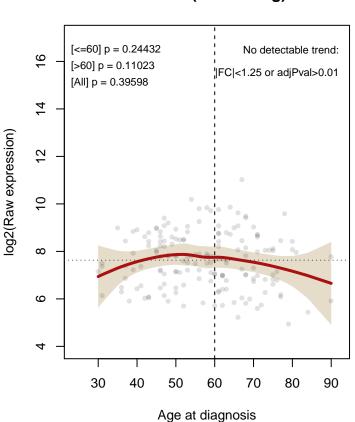




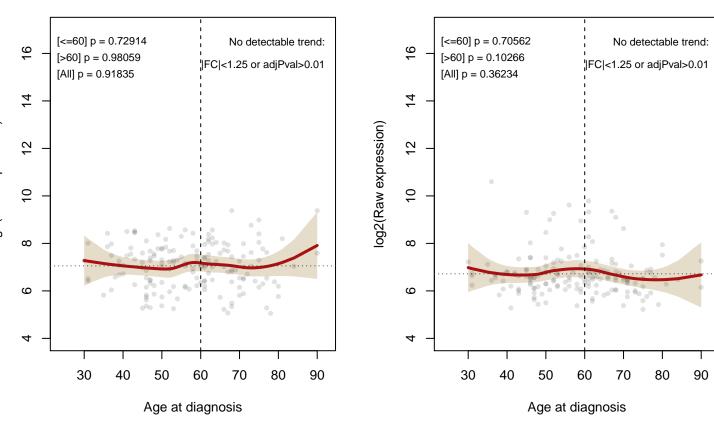
#### PODXL (non-ER binding)

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



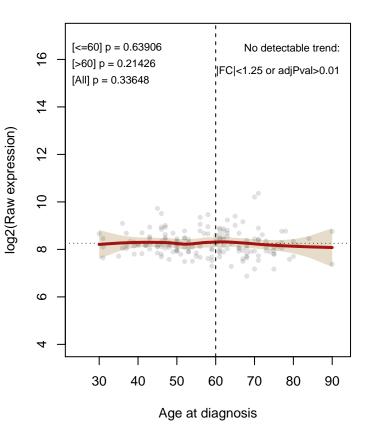


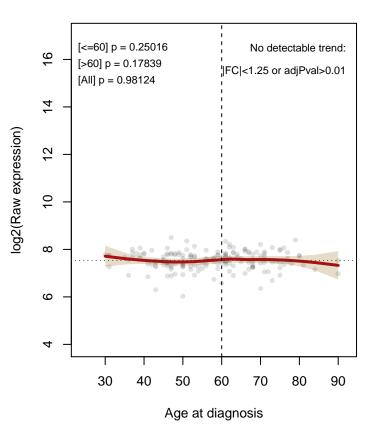
#### **PYDC1** (non-ER binding) PTEN (non-ER binding) [<=60] p = 0.19446No detectable trend: [<=60] p = 0.45301No detectable trend: 16 16 [>60] p = 0.019116 [>60] p = 0.19984 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.00028504[AII] p = 0.059024 4 log2(Raw expression) log2(Raw expression) 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 RAD51 (non-ER binding) RAD51B (ER binding) [<=60] p = 0.72914No detectable trend: [<=60] p = 0.70562No detectable trend: 16 16 [>60] p = 0.10266 [>60] p = 0.98059 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.91835[All] p = 0.362344 4 log2(Raw expression)



#### RAD51C (non-ER binding)

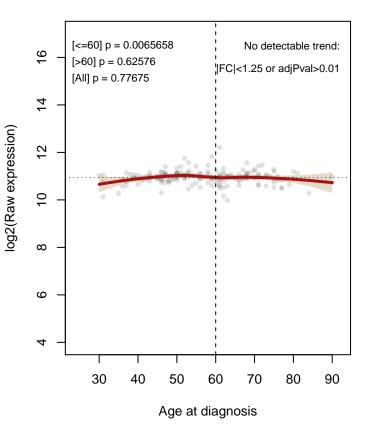
#### RAD51D (non-ER binding)

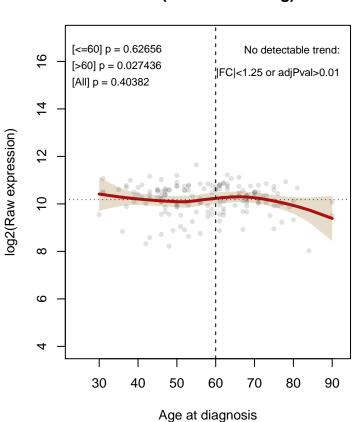




RAF1 (non-ER binding)

**RB1 (non-ER binding)** 





#### RBBP4 (non-ER binding) RBBP5 (non-ER binding) [<=60] p = 0.92888No detectable trend: [<=60] p = 0.97991No detectable trend: 16 16 [>60] p = 0.045665 [>60] p = 0.068536 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.0031877[All] p = 0.112944 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 RBBP7 (non-ER binding) **REL** (non-ER binding) [<=60] p = 0.39981No detectable trend: [<=60] p = 0.91615 No detectable trend: 16 16 [>60] p = 0.020672 [>60] p = 0.037788 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.45318[All] p = 0.122024 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω

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Age at diagnosis

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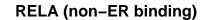
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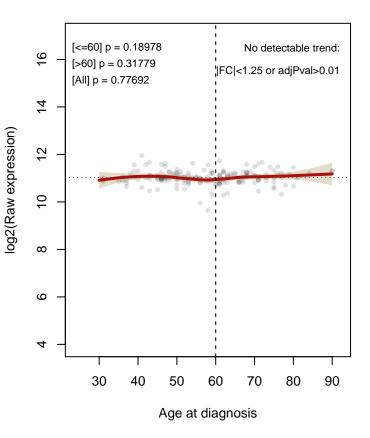
Age at diagnosis

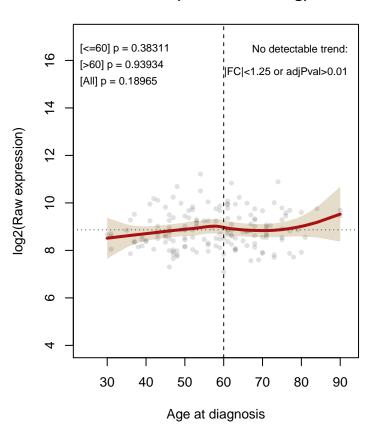
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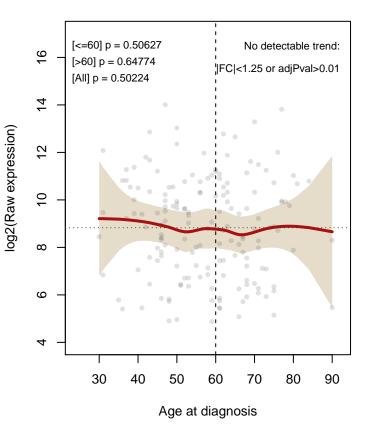
#### **RELB** (non-ER binding)

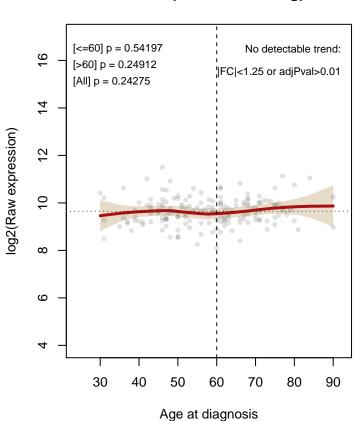


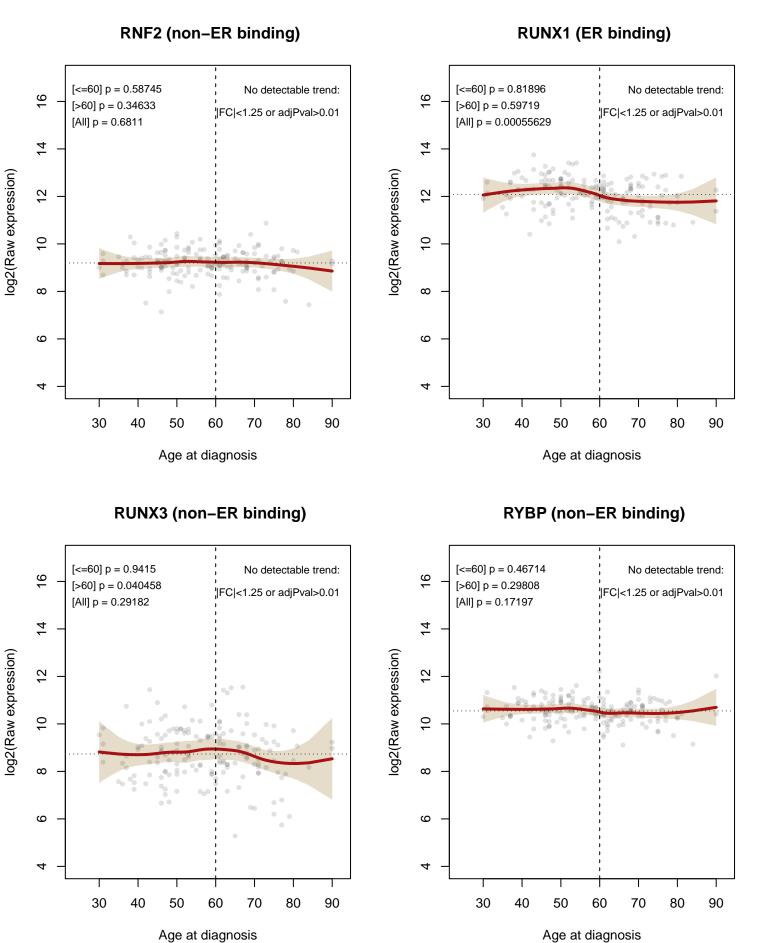


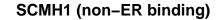
**RET (ER binding)** 

#### RING1 (non-ER binding)

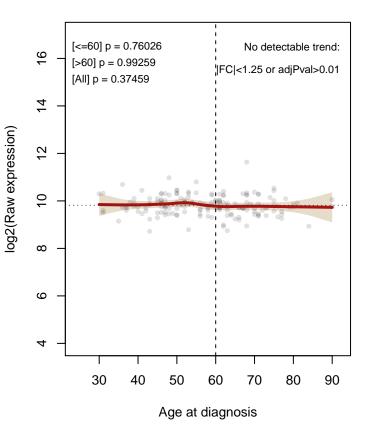


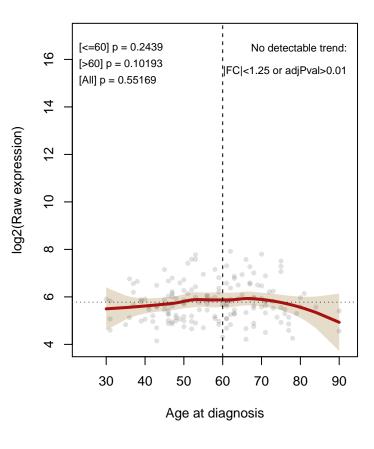






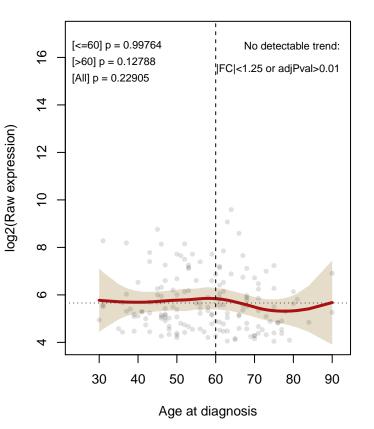
#### SCML2 (non-ER binding)

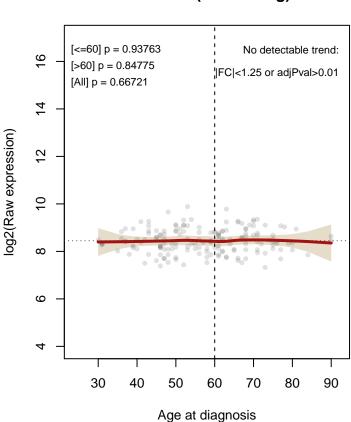




#### SCML4 (non-ER binding)

SFMBT1 (ER binding)





#### SFMBT2 (ER binding) SFPQ (non-ER binding) [<=60] p = 0.54164No detectable trend: [<=60] p = 0.8443No detectable trend: 16 16 [>60] p = 0.072376 [>60] p = 0.22766 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.030762[AII] p = 0.18434 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 SHC1 (non-ER binding) SIRT1 (non-ER binding) [<=60] p = 0.04297 No detectable trend: [<=60] p = 0.74849No detectable trend: 16 16 [>60] p = 0.059343 [>60] p = 0.99356 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.93289[All] p = 0.0712754 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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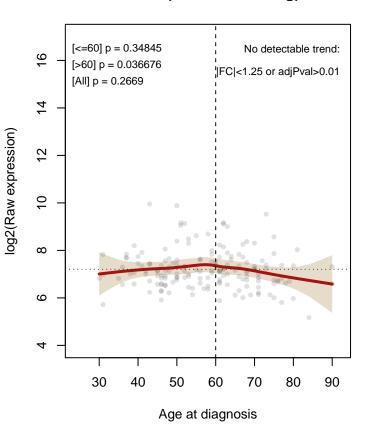
Age at diagnosis

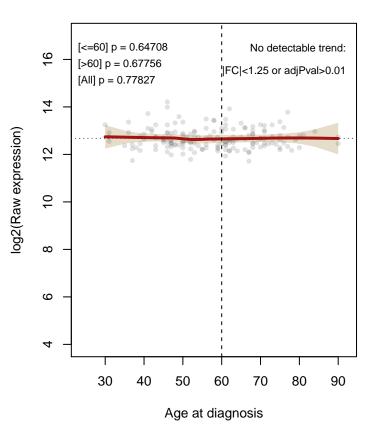
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#### SKP2 (non-ER binding)

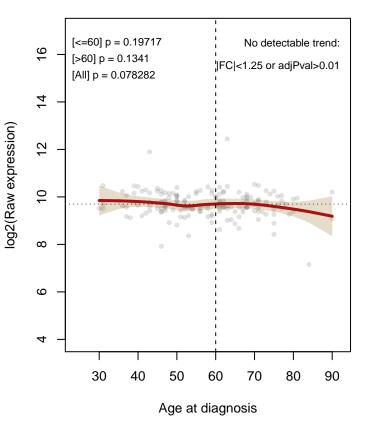
#### SLC25A3 (non-ER binding)

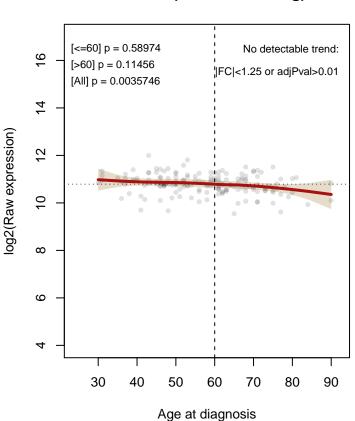




#### SMAD1 (non-ER binding)

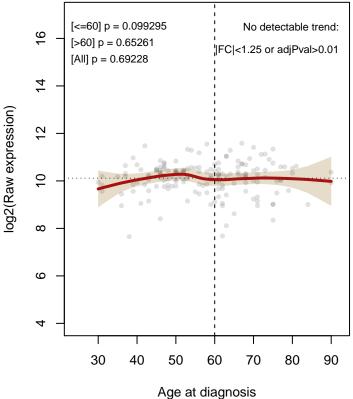
#### SMAD2 (non-ER binding)

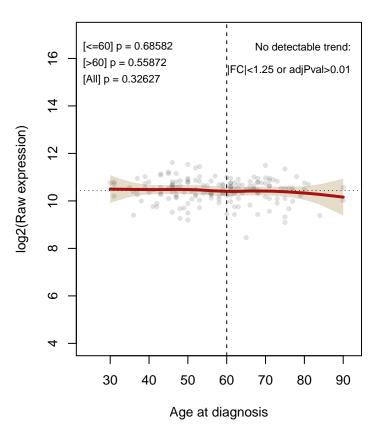




## SMAD3 (ER binding)

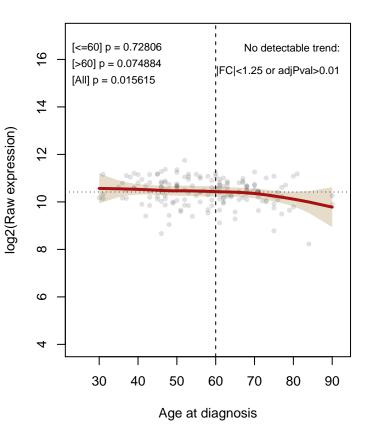
#### SMAD4 (non-ER binding)

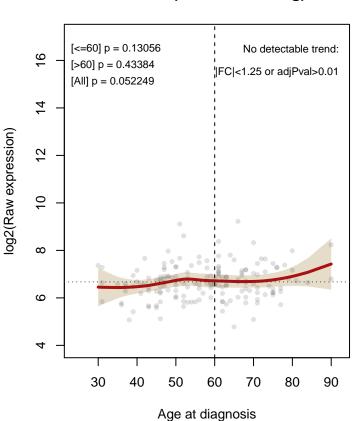




#### **SMAD5** (non-ER binding)

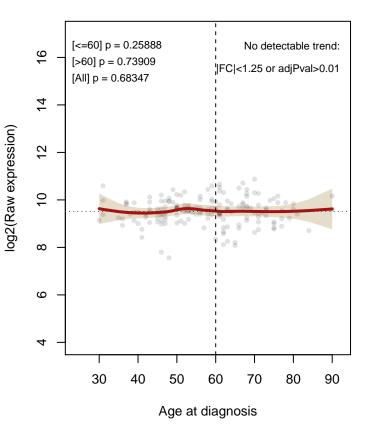
SMAD6 (non-ER binding)

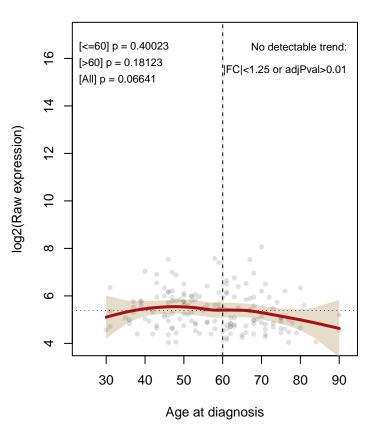






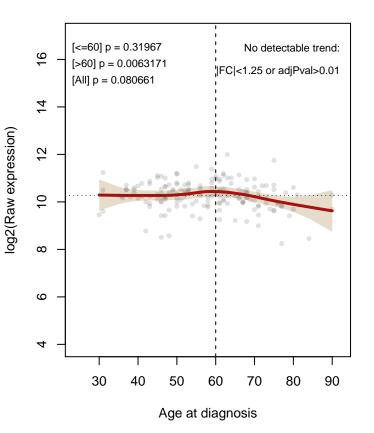
#### SMAD9 (non-ER binding)

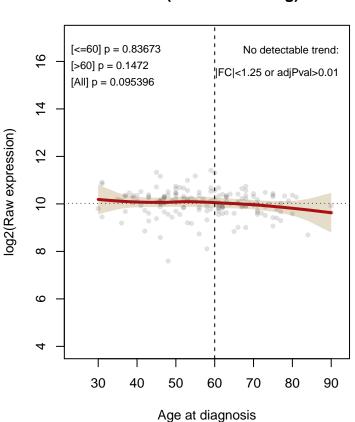


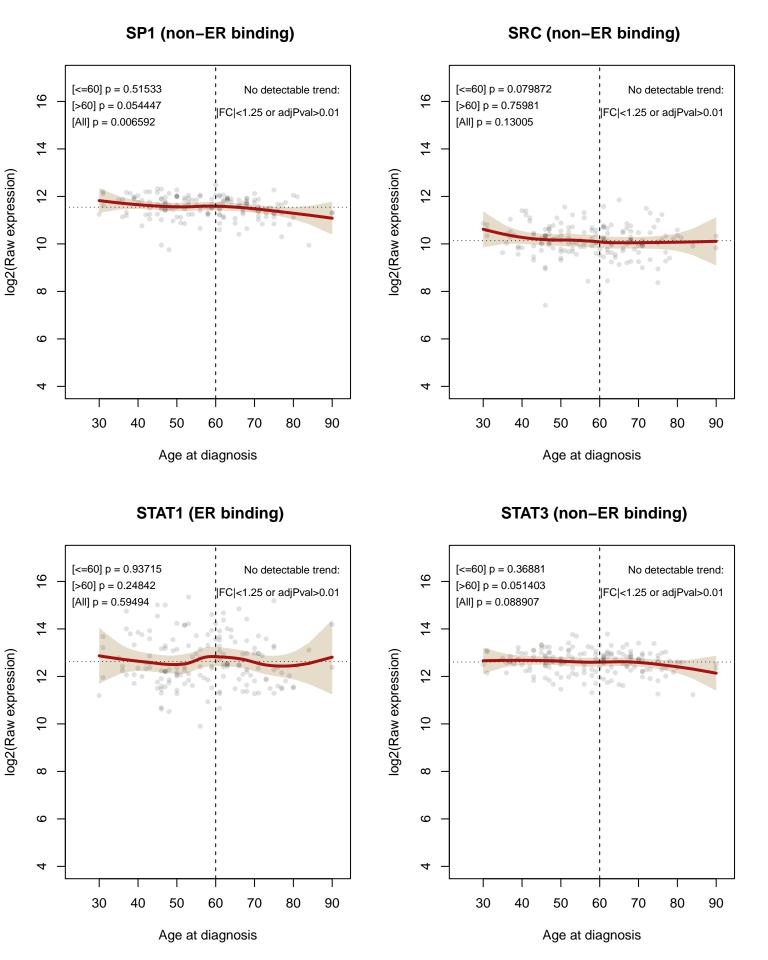


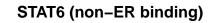
#### SOS1 (non-ER binding)

#### SOS2 (non-ER binding)

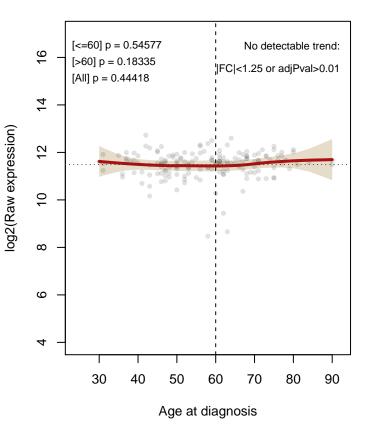


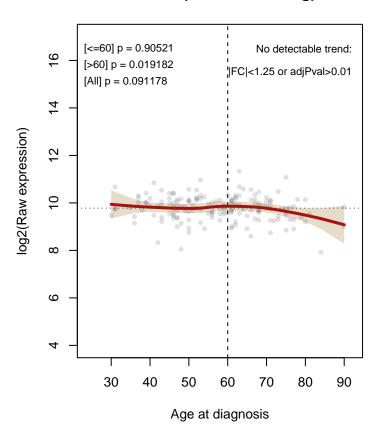






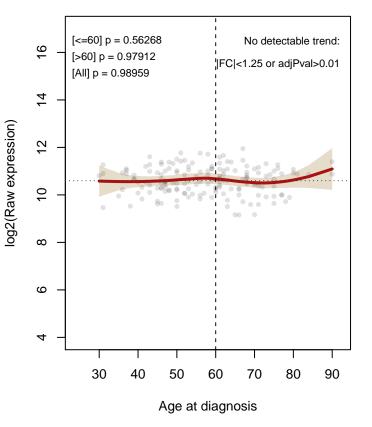
#### SUZ12 (non-ER binding)

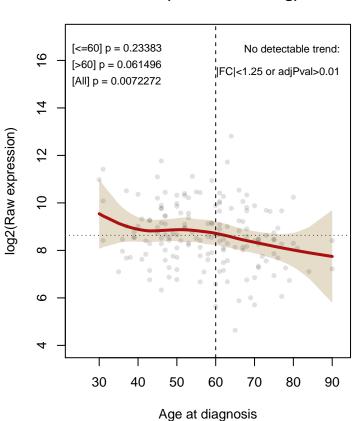




TCF3 (non-ER binding)

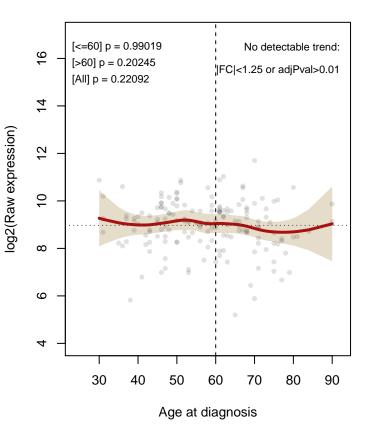
TCF7 (non-ER binding)

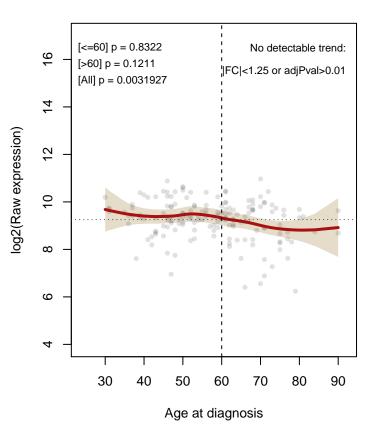






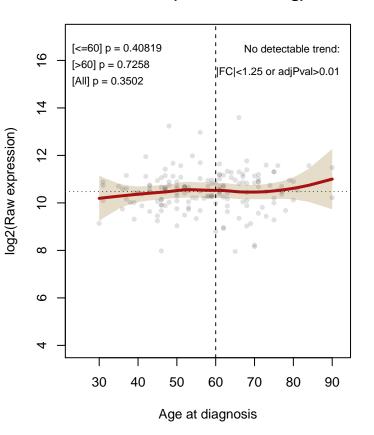
#### TCF7L2 (non-ER binding)

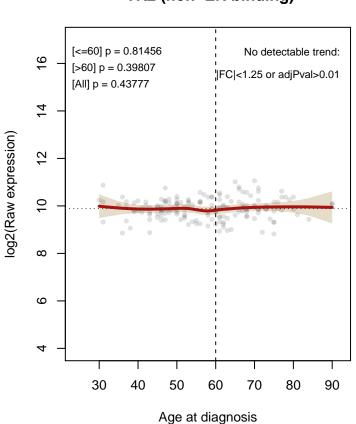


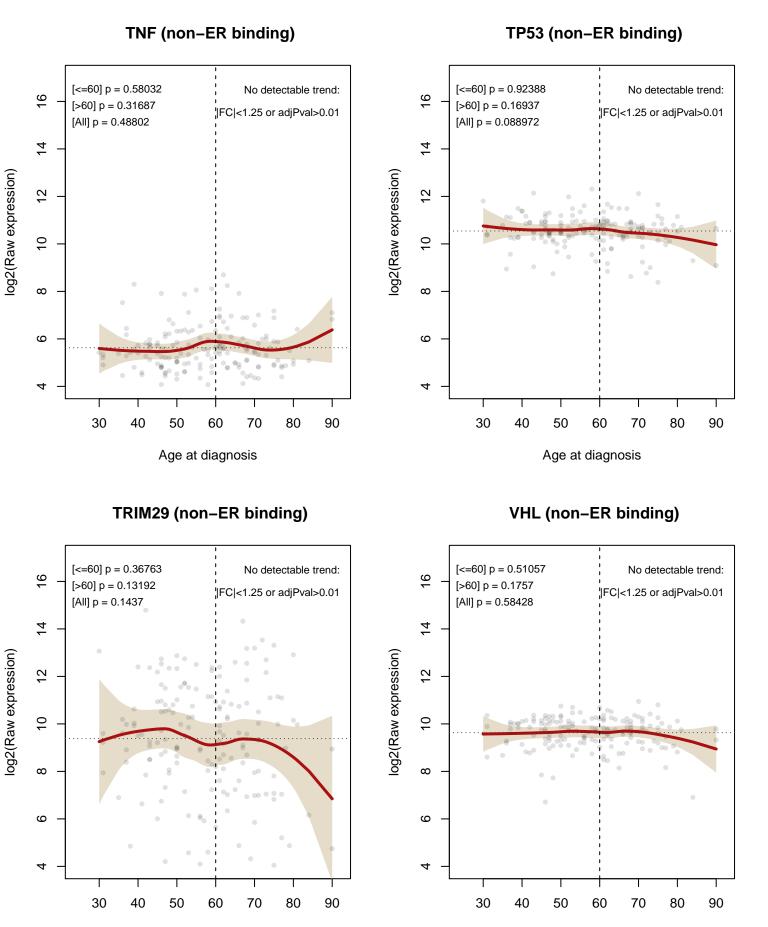


#### TGFB1 (non-ER binding)

TK2 (non-ER binding)

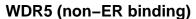




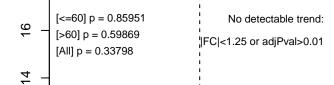


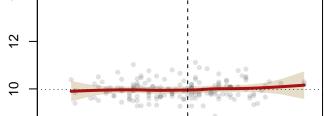
Age at diagnosis

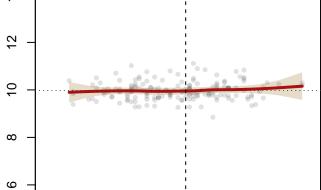
Age at diagnosis











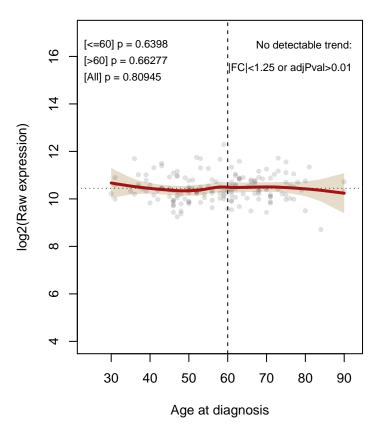
30

40

50

log2(Raw expression)

WHSC1 (non-ER binding)



WNT1 (non-ER binding)

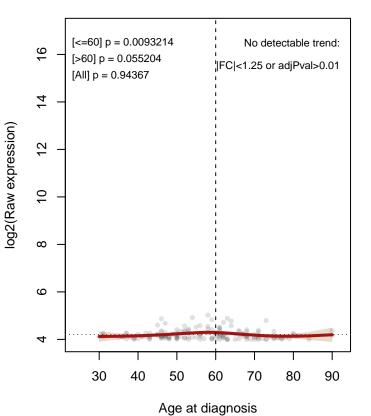
Age at diagnosis

60

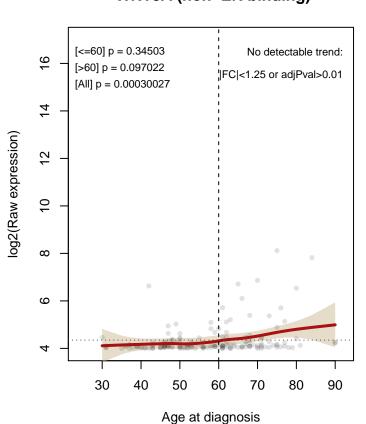
70

80

90

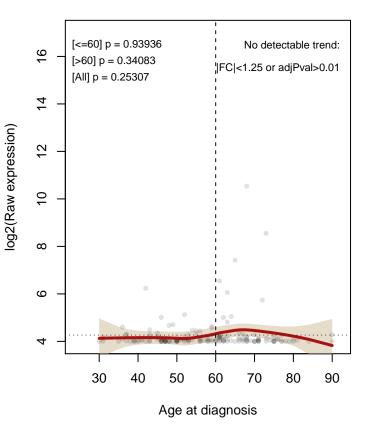


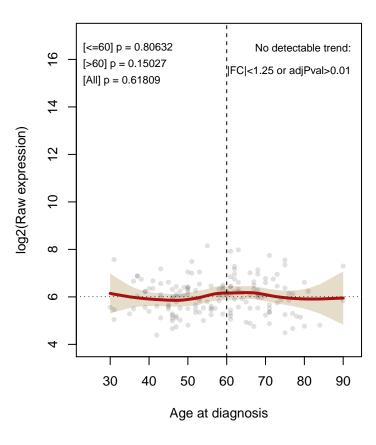
#### WNT3A (non-ER binding)





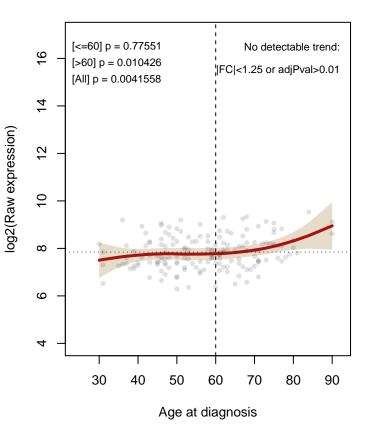
#### XRCC2 (non-ER binding)

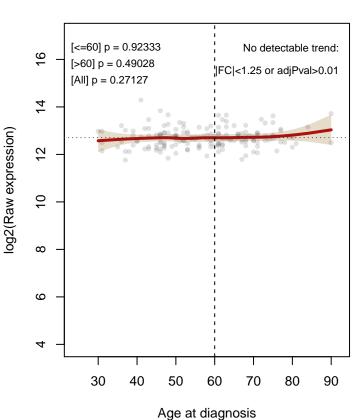




#### XRCC3 (non-ER binding)

XRCC6 (non-ER binding)





#### YAF2 (non-ER binding)

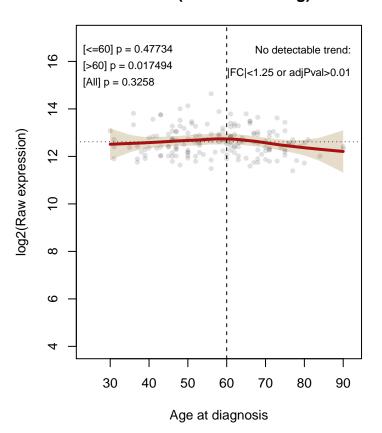
# 90 - [<=60] p = 0.15353 | No detectable trend: |FC|<1.25 or adjPval>0.01 | FC|<1.25 or adjPval>0.01 | No detectable trend: |FC|<1.25 or

30

40

50

#### YBX1 (non-ER binding)



#### YY1 (non-ER binding)

Age at diagnosis

60

70

80

