AEBP2 (non-ER binding) AKT1 (ER binding) [<=60] p = 0.30847No detectable trend: [<=60] p = 0.65079No detectable trend: 16 16 [>60] p = 0.19876 [>60] p = 0.046761 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.32129[All] p = 0.13814 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 **AKT2 (non-ER binding) AKT3 (non-ER binding)** [<=60] p = 0.9851No detectable trend: [<=60] p = 0.68355No detectable trend: 16 16 [>60] p = 0.045112 [>60] p = 0.44882 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.12621[All] p = 0.000145814 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9

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Age at diagnosis

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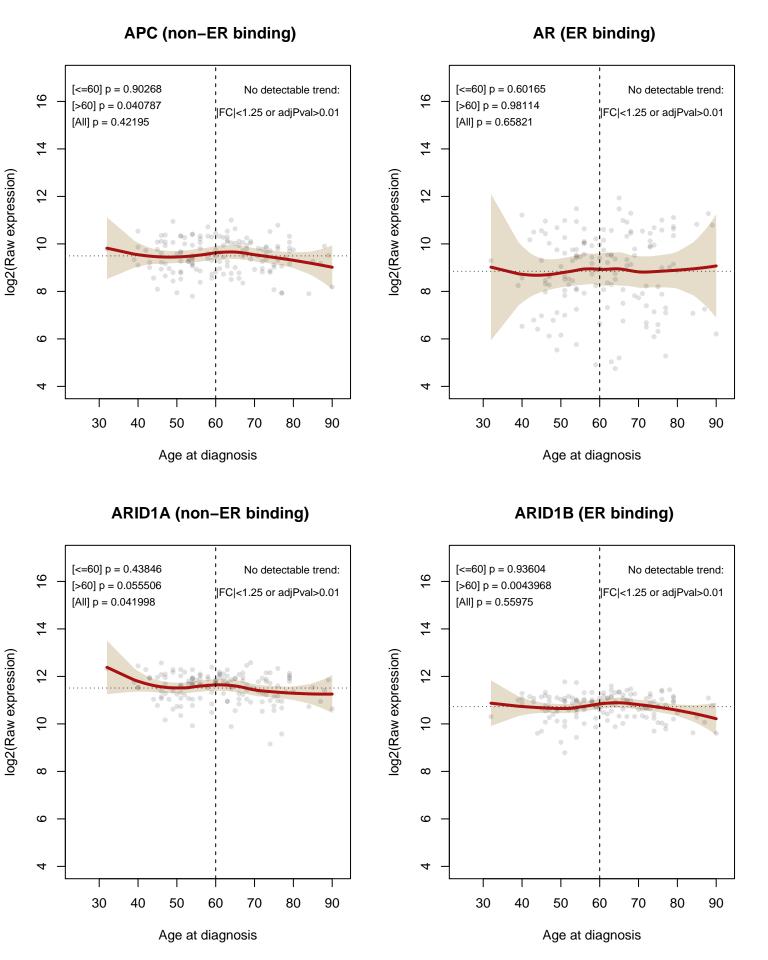
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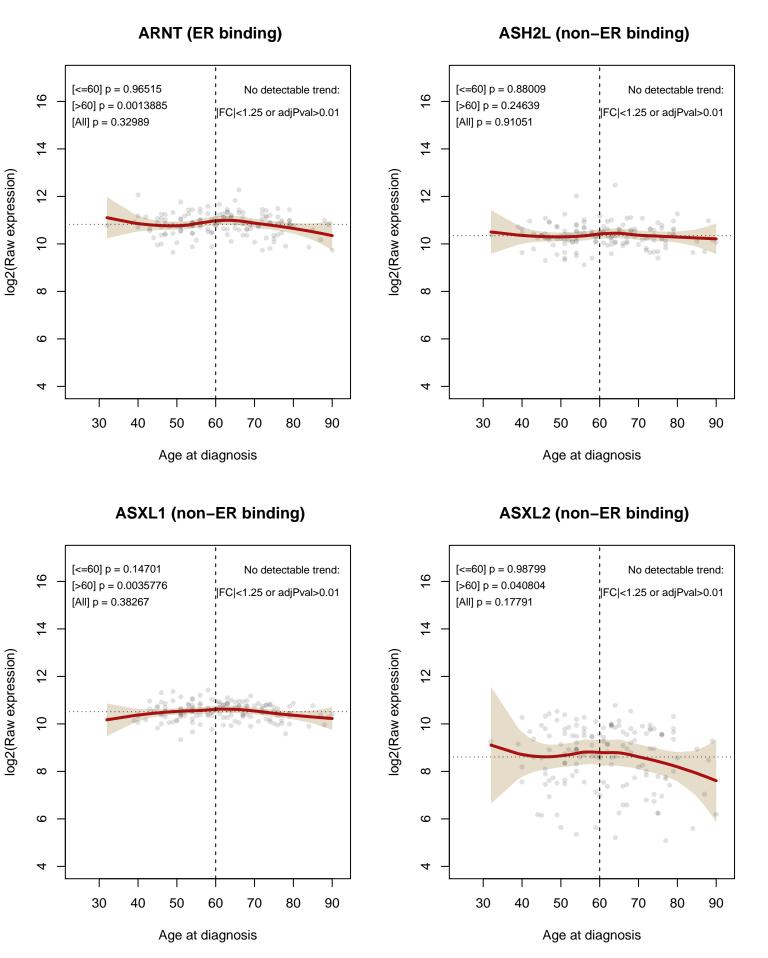
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Age at diagnosis

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ASXL3 (non-ER binding) ATM (non-ER binding) [<=60] p = 0.6431 No detectable trend: [<=60] p = 0.48641No detectable trend: 16 16 [>60] p = 0.16994 [>60] p = 0.0030197 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.57801[All] p = 0.0300134 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 = 0.13554No detectable trend: [<=60] p = 0.8665No detectable trend: 16 16 [>60] p = 0.010819 [>60] p = 0.42729 |FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.10085[All] p = 0.598124 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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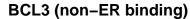
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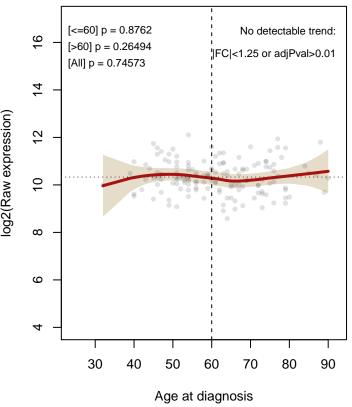
Age at diagnosis

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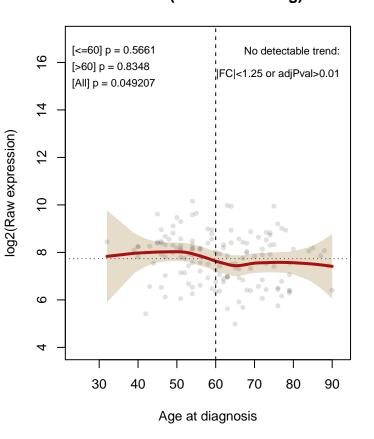
BCL2 (non-ER binding) [<=60] p = 0.15077No detectable trend: 16 16 [>60] p = 0.52408 |FC|<1.25 or adjPval>0.01 [AII] p = 0.602364 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90



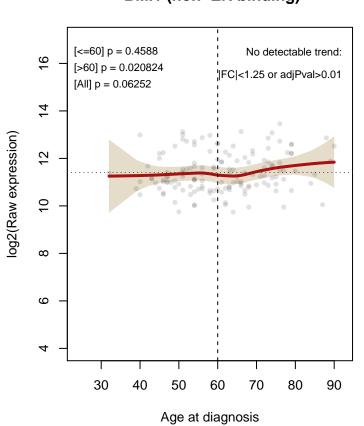


BIRC5 (non-ER binding)

Age at diagnosis



BMI1 (non-ER binding)



BMX (non-ER binding) **BRCA1** (non-ER binding) [<=60] p = 0.58034No detectable trend: [<=60] p = 0.93144No detectable trend: 16 16 [>60] p = 0.12793 [>60] p = 0.43545 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.22031[All] p = 0.0162424 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 70 80 90 30 40 50 60 70 80 90 60 Age at diagnosis Age at diagnosis CA9 (non-ER binding) **CBX1** (non-ER binding) [<=60] p = 0.81018No detectable trend: [<=60] p = 0.40096No detectable trend: 16 16 [>60] p = 0.26043[>60] p = 0.55393 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.039462[All] p = 0.982614 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9

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Age at diagnosis

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Age at diagnosis

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CBX2 (non-ER binding) **CBX4** (non-ER binding) [<=60] p = 0.14365No detectable trend: [<=60] p = 0.29164No detectable trend: 16 16 [>60] p = 0.031621 [>60] p = 0.36516 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.0064708[All] p = 0.219424 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis CBX6 (non-ER binding) **CBX7 (non-ER binding)** [<=60] p = 0.10087No detectable trend: [<=60] p = 0.31814 No detectable trend: 16 16 [>60] p = 0.64894[>60] p = 0.072072 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.37546[All] p = 0.153854 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9

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Age at diagnosis

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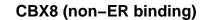
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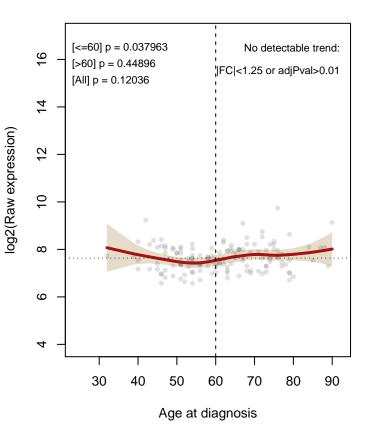
Age at diagnosis

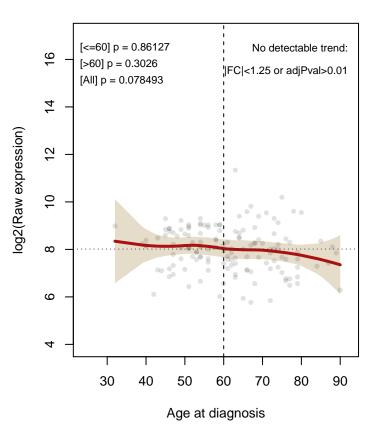
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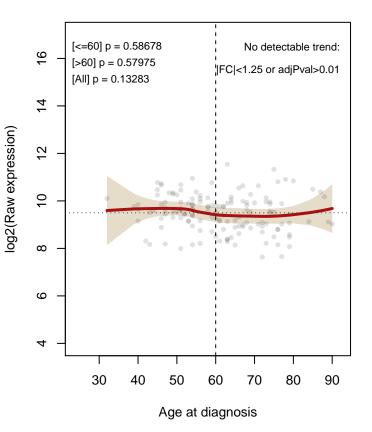
CCNA2 (non-ER binding)

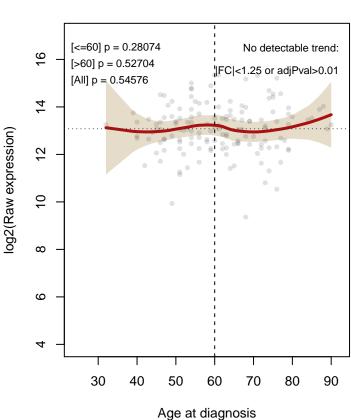




CCNB1 (non-ER binding)

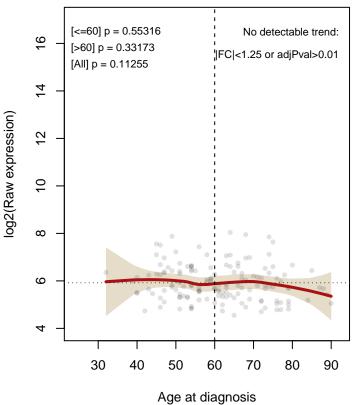
CCND1 (ER binding)

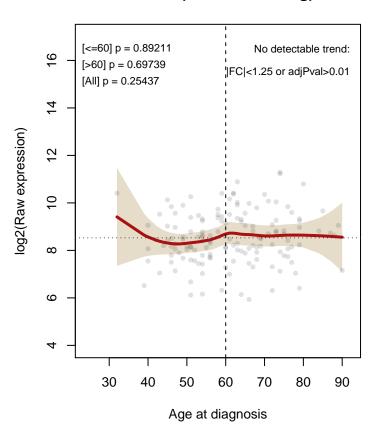






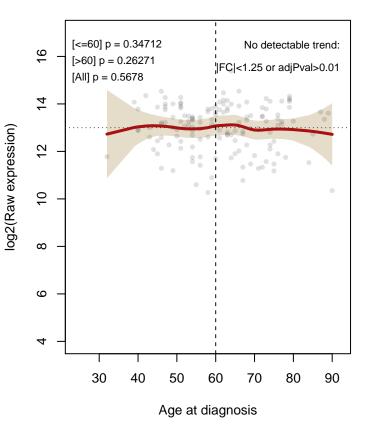
CD163 (non-ER binding)

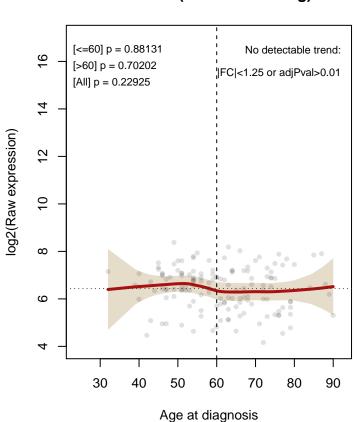


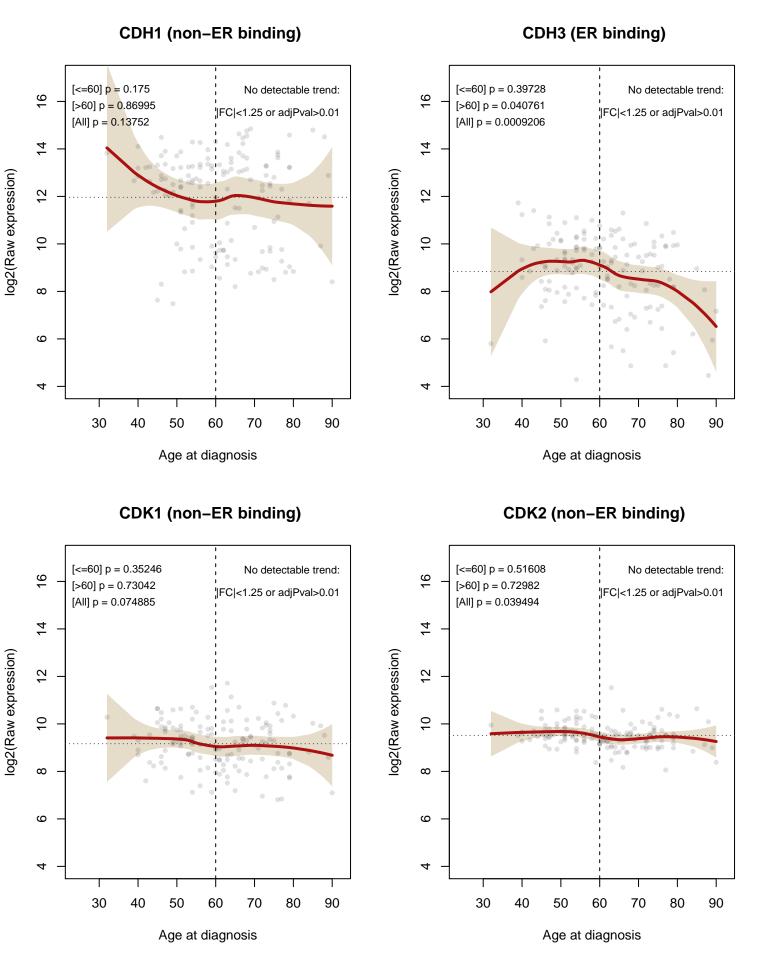


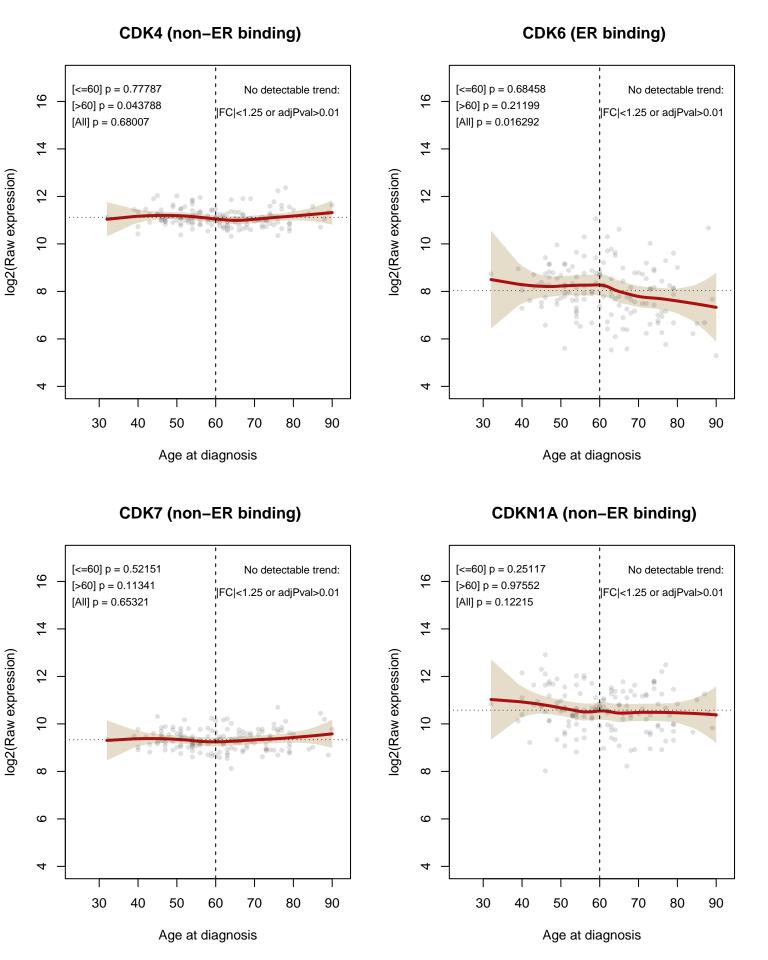
CD44 (non-ER binding)

CDC25C (non-ER binding)



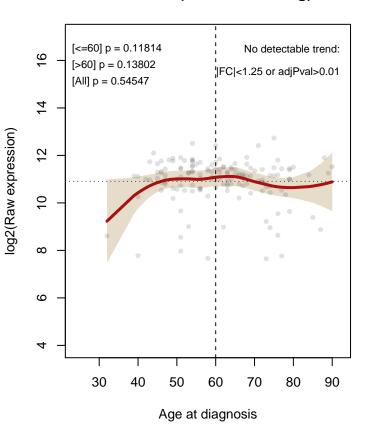


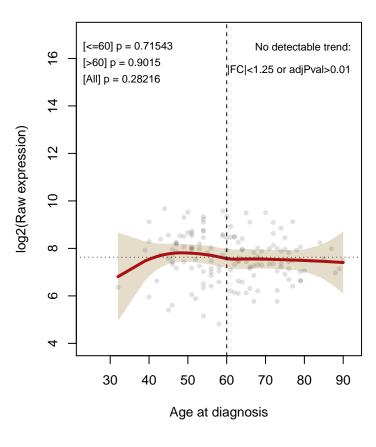




CDKN1B (non-ER binding)

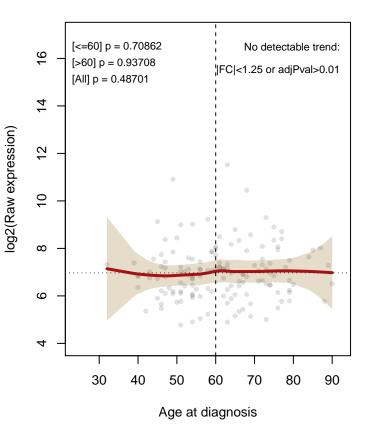
CDKN1C (non-ER binding)

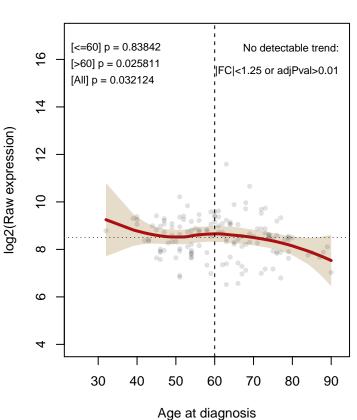


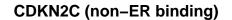


CDKN2A (non-ER binding)

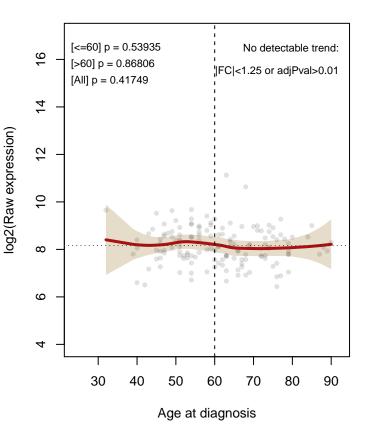
CDKN2B (non-ER binding)

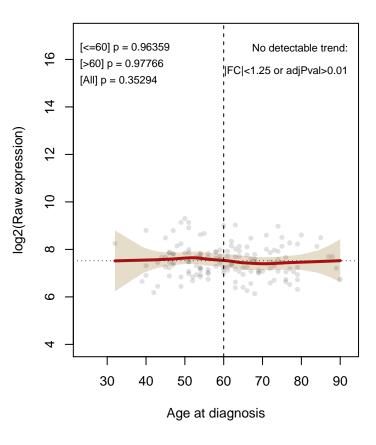






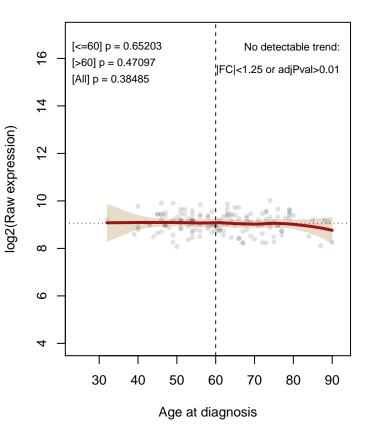
CDKN2D (non-ER binding)

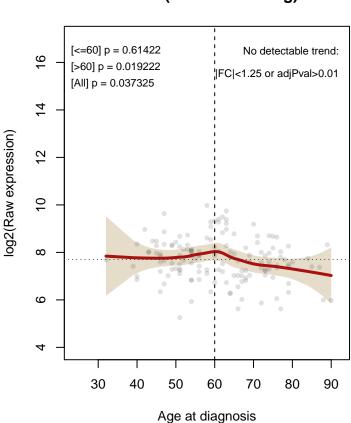




CHUK (non-ER binding)

CIITA (non-ER binding)



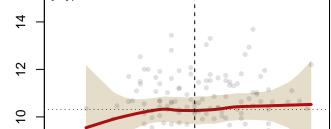


CLDN3 (non-ER binding)

[<=60] p = 0.40437No detectable trend: [>60] p = 0.58749 FC|<1.25 or adjPval>0.01 [All] p = 0.32664

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log2(Raw expression)





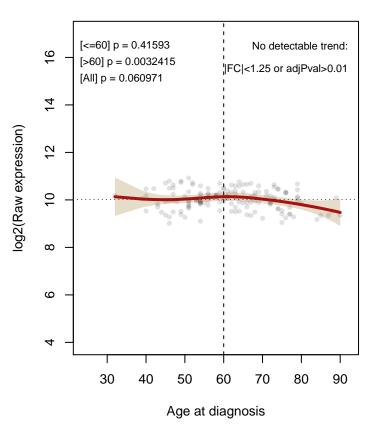
Age at diagnosis

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CREB1 (non-ER binding)

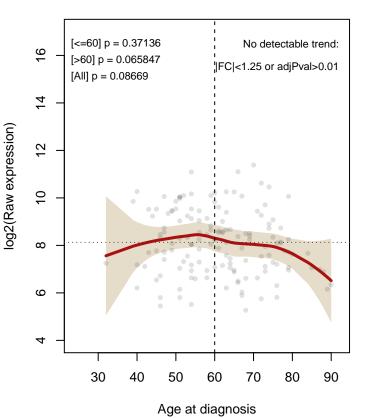


CRYAB (non-ER binding)

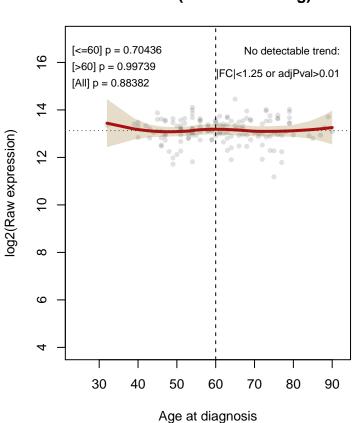
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CTNNB1 (non-ER binding)



DLC1 (ER binding) DMAP1 (non-ER binding) [<=60] p = 0.027561Age-dependent trend: [<=60] p = 0.71046No detectable trend: 16 16 [>60] p = 0.14033 [>60] p = 0.22018 |FC|>1.25 and adjPval<0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.26955[AII] p = 6.1615e - 064 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 = 0.2423No detectable trend: [<=60] p = 0.22838No detectable trend: 16 16 [>60] p = 0.19136 [>60] p = 1.6033e-05 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.016858[All] p = 0.0180794 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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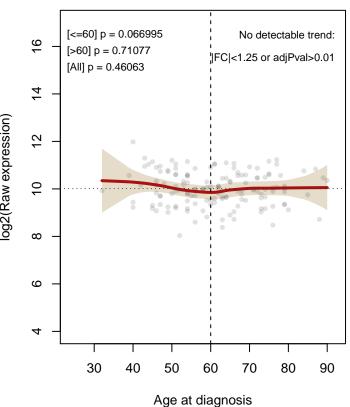
Age at diagnosis

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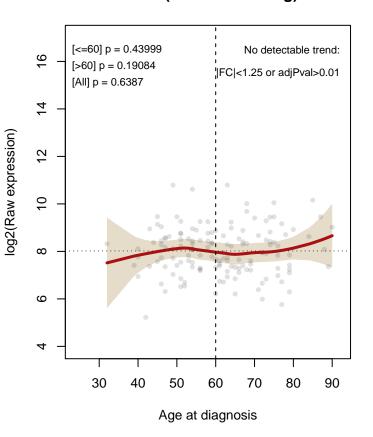
DNMT3B (non-ER binding) [<=60] p = 0.55564No detectable trend: 16 [>60] p = 0.057117 FC|<1.25 or adjPval>0.01 [All] p = 0.363164 log2(Raw expression) log2(Raw expression) 12 10 ω 9 30 40 50 60 70 80 90

DVL1 (non-ER binding)

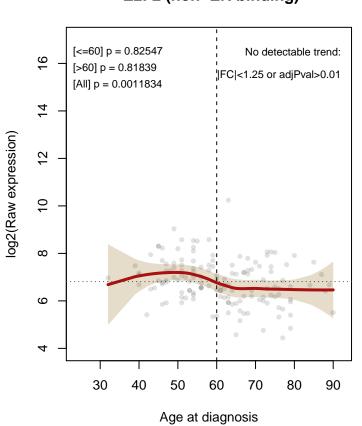


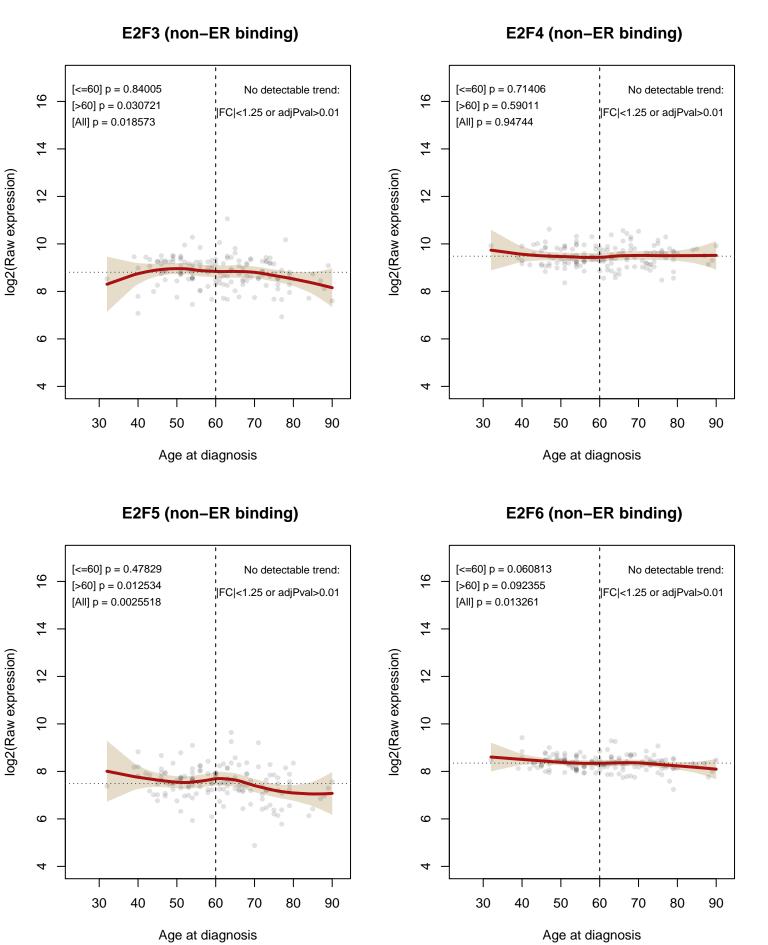
E2F1 (non-ER binding)

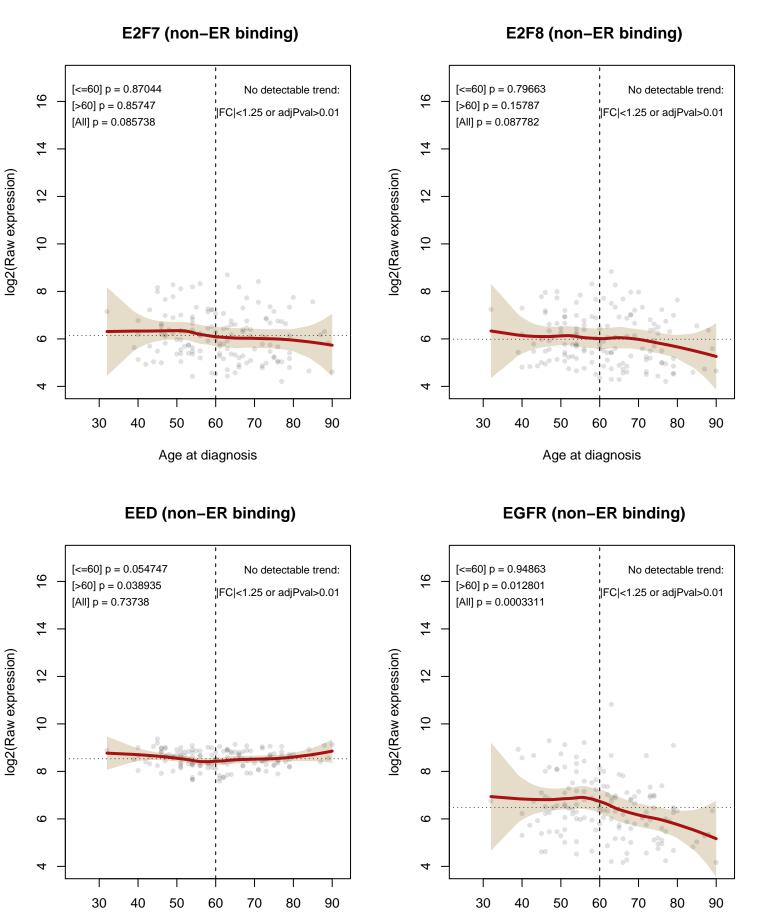
Age at diagnosis



E2F2 (non-ER binding)





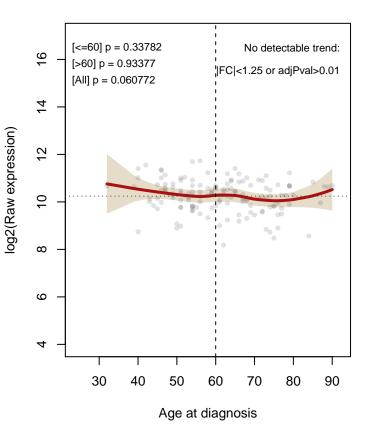


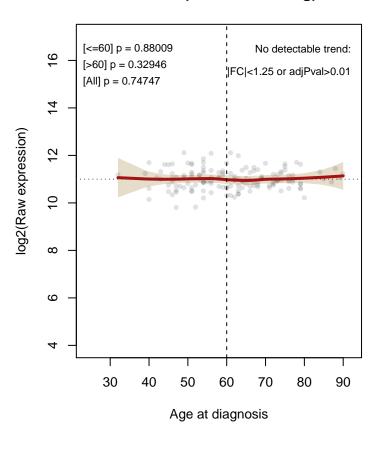
Age at diagnosis

Age at diagnosis



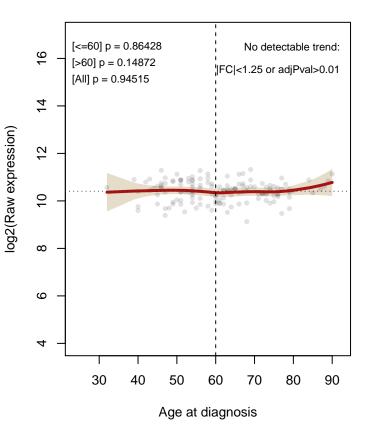
EHMT2 (non-ER binding)

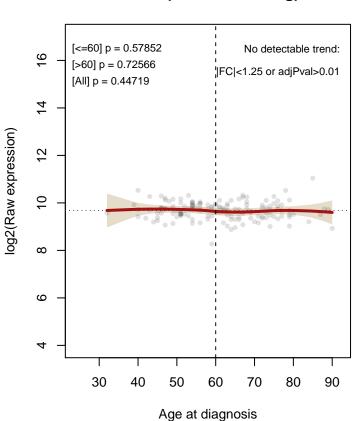




ELAC2 (non-ER binding)

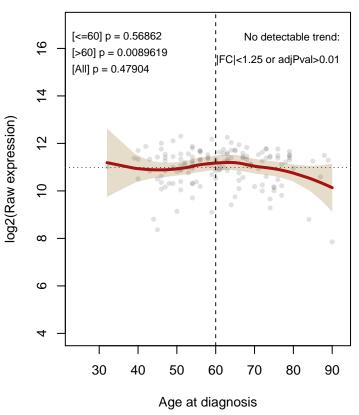
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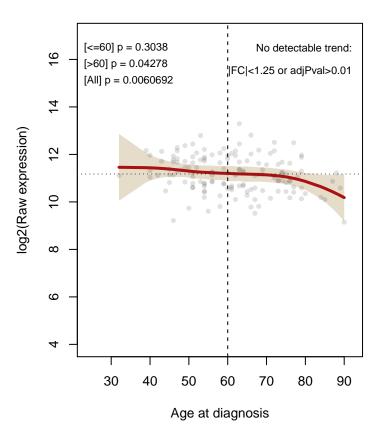






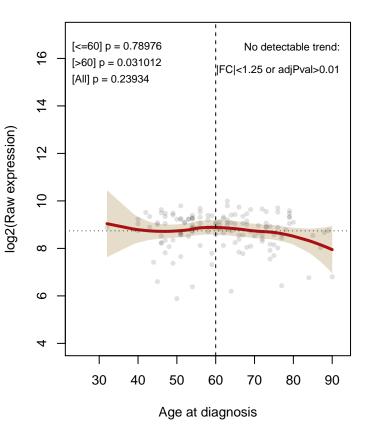
EPAS1 (non-ER binding)

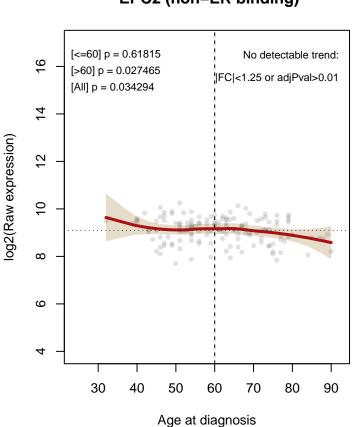


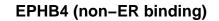


EPC1 (non-ER binding)

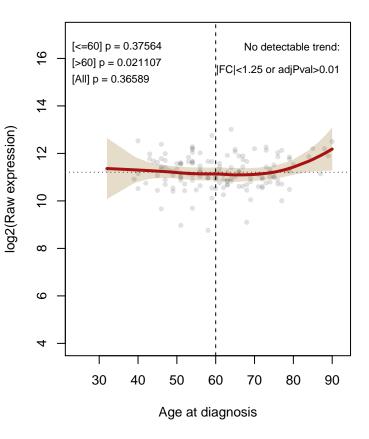
EPC2 (non-ER binding)

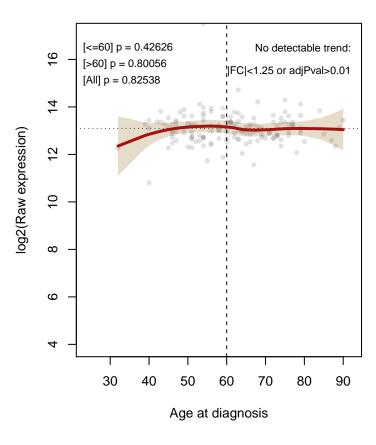






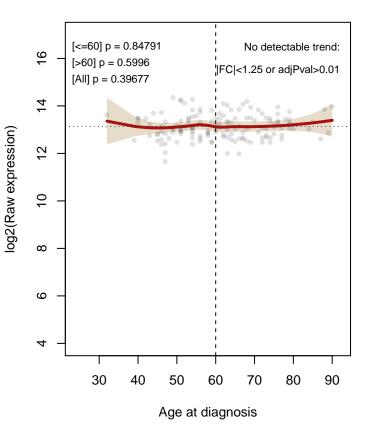
ERBB2 (non-ER binding)

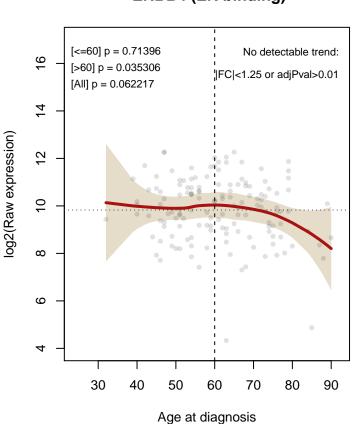


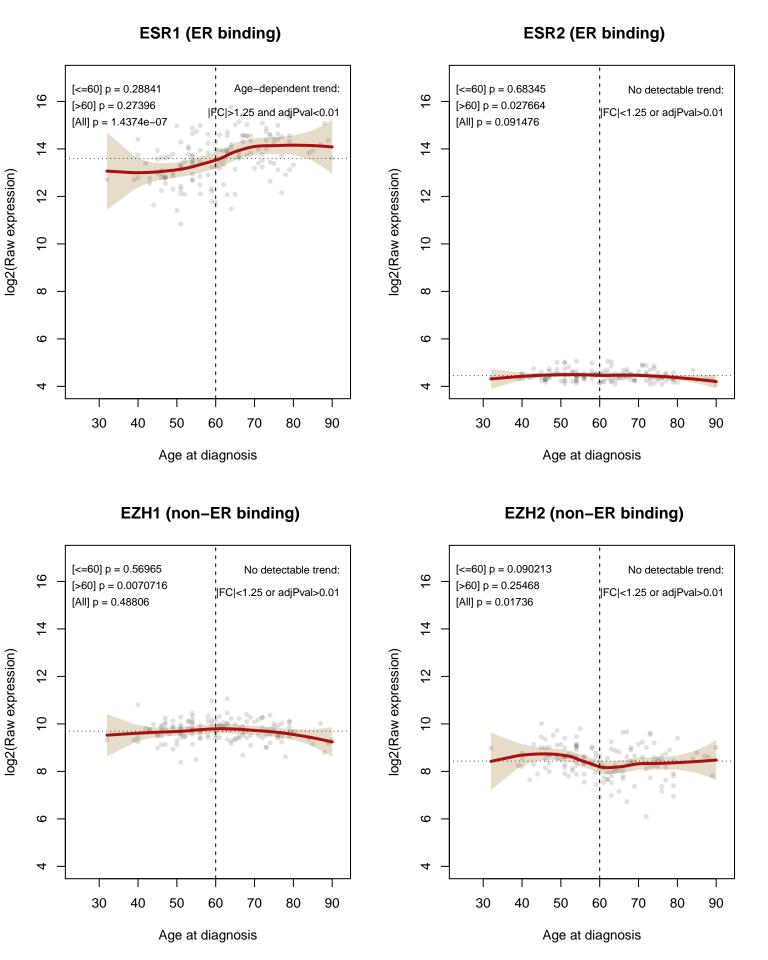


ERBB3 (non-ER binding)

ERBB4 (ER binding)







FOSL1 (non-ER binding) FOS (non-ER binding) [<=60] p = 0.93292No detectable trend: [<=60] p = 0.84627No detectable trend: 16 16 [>60] p = 0.863[>60] p = 0.75864 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.12587[AII] p = 0.866984 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis **FOXC1 (ER binding)** FOXA1 (ER binding) [<=60] p = 0.76096No detectable trend: [<=60] p = 0.23536No detectable trend: 16 16 [>60] p = 0.24209 [>60] p = 0.54805FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.1511[All] p = 0.291284 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω

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Age at diagnosis

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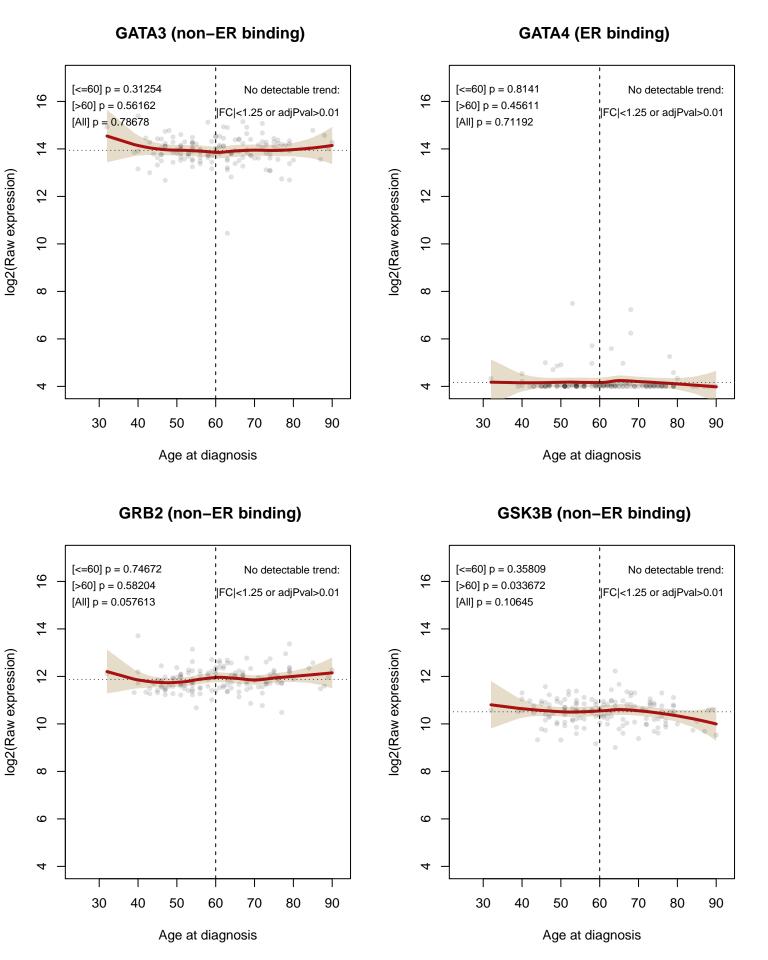
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Age at diagnosis

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H3F3A (non-ER binding) **HDAC1 (ER binding)** [<=60] p = 0.33329No detectable trend: [<=60] p = 0.0407No detectable trend: 16 16 [>60] p = 0.26652 [>60] p = 0.33226 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.75607[AII] p = 0.901074 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 **HDAC2** (non-ER binding) **HES1 (non-ER binding)** [<=60] p = 0.69716No detectable trend: [<=60] p = 0.23543No detectable trend: 16 16 [>60] p = 0.5602 [>60] p = 0.3036 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.89303[All] p = 0.0125944 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9

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Age at diagnosis

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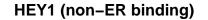
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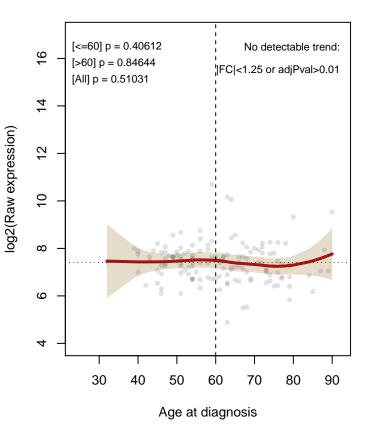
Age at diagnosis

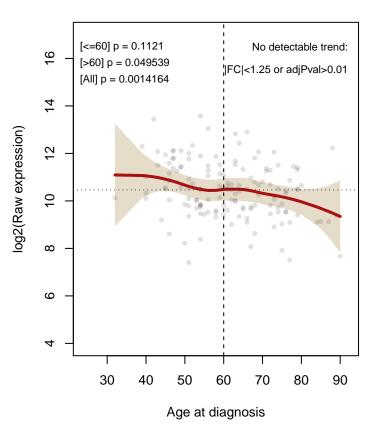
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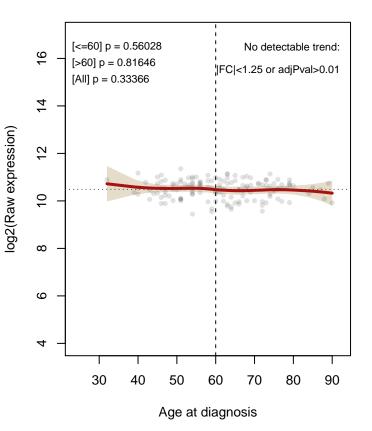
HIF1A (non-ER binding)

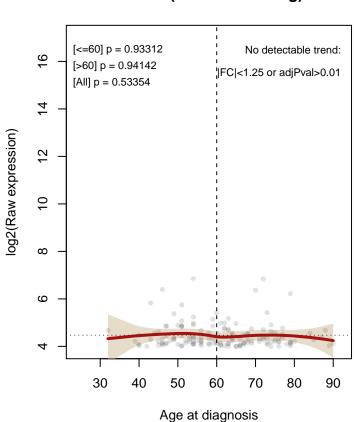




HIF1AN (non-ER binding)

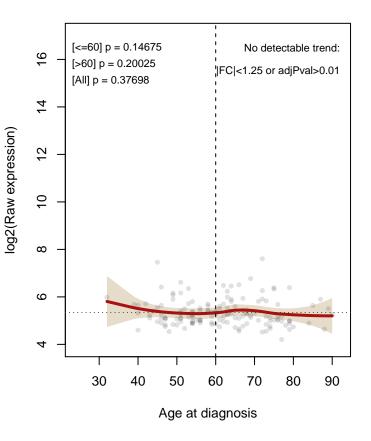
HIF3A (non-ER binding)

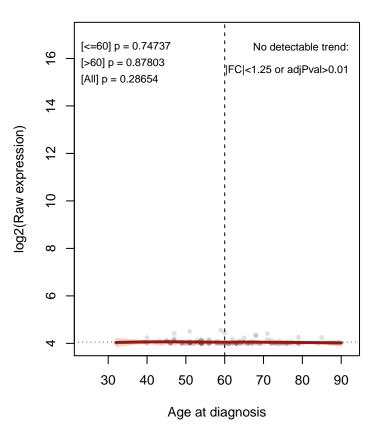




HNF1A (non-ER binding)

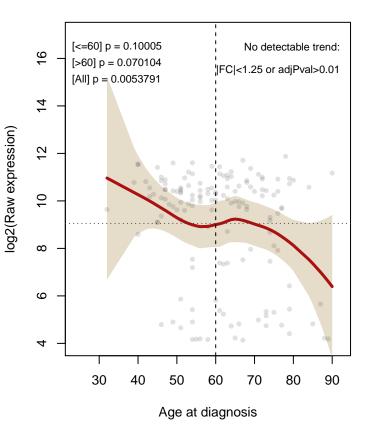
HNF1B (non-ER binding)

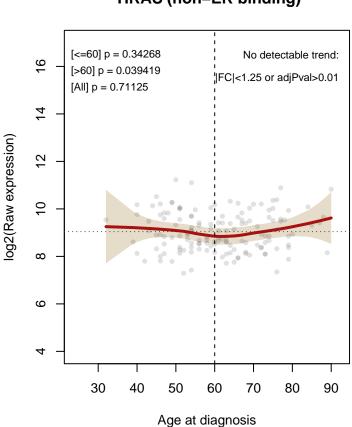




HOXC10 (non-ER binding)

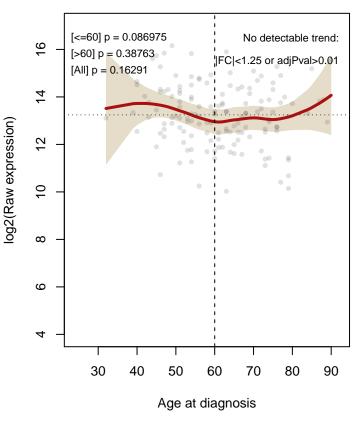
HRAS (non-ER binding)

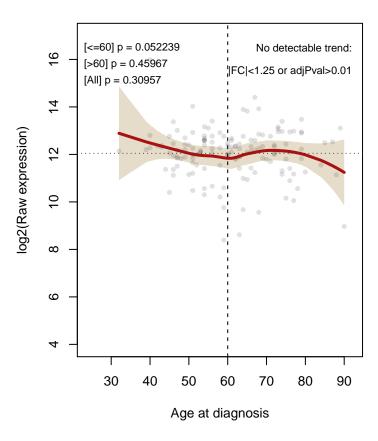






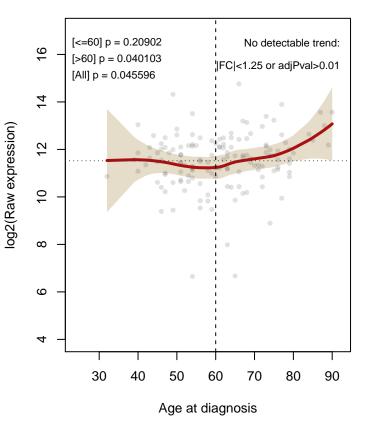
IGF1R (ER binding)

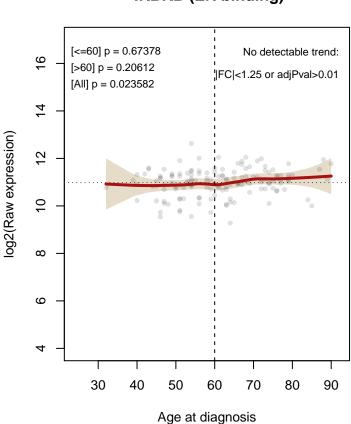




IGFBP2 (non-ER binding)

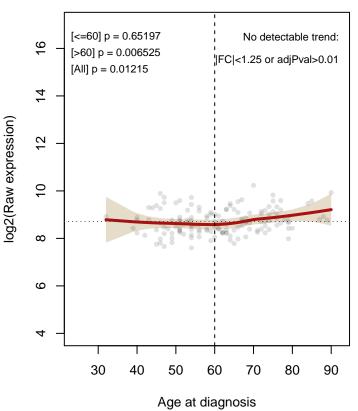
IKBKB (ER binding)

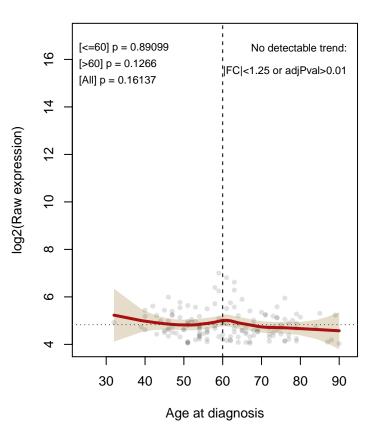






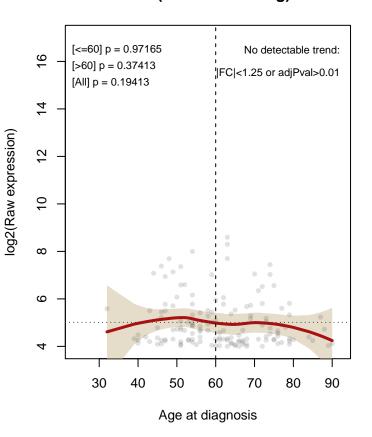
IL2RA (non-ER binding)

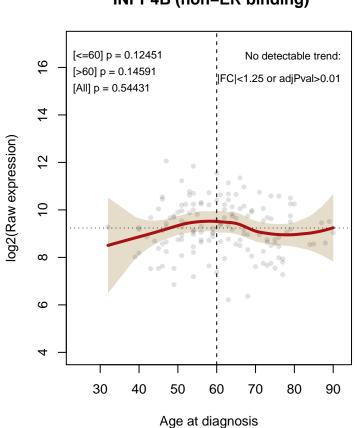


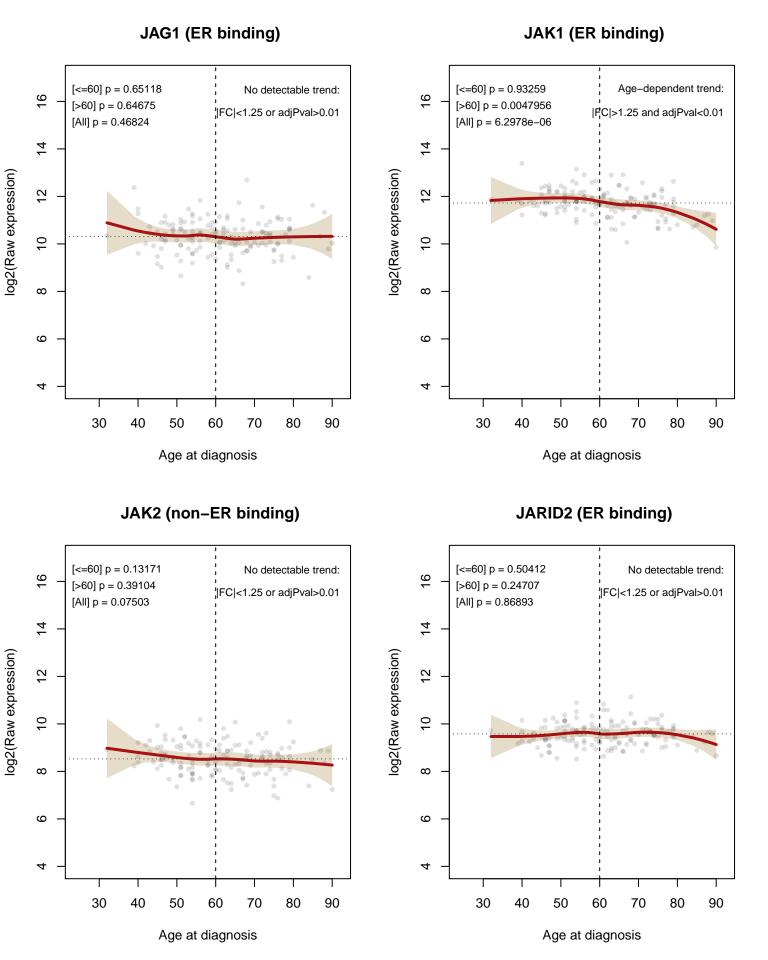


IL6 (non-ER binding)

INPP4B (non-ER binding)

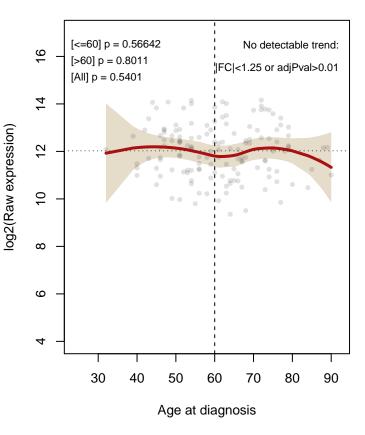


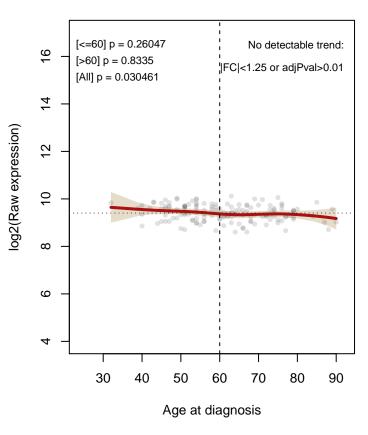






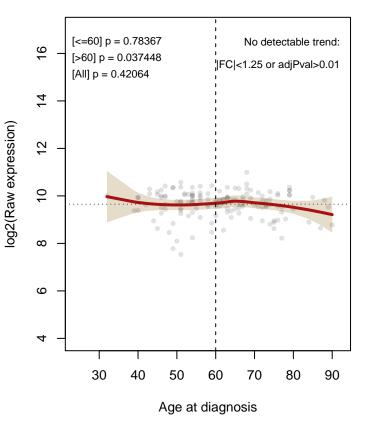
binding) KDM2B (non–ER binding)

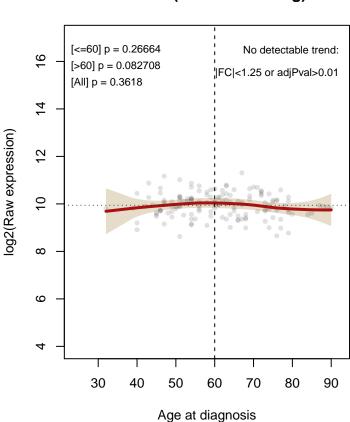




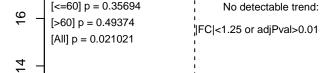
KDM6A (non-ER binding)

KDM6B (non-ER binding)







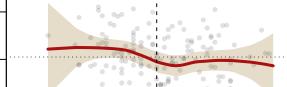


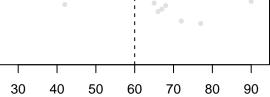


log2(Raw expression)

ω

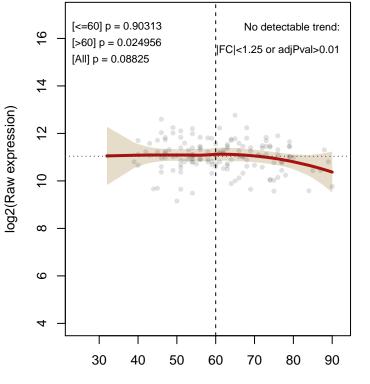
9





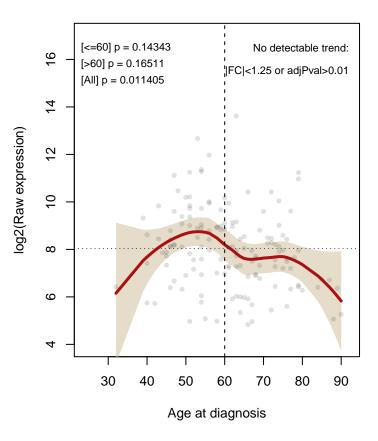
KMT2C (non-ER binding)

Age at diagnosis

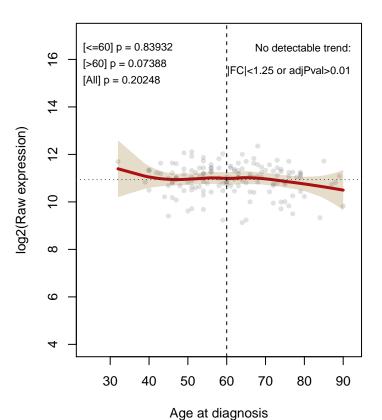


Age at diagnosis

KIT (non-ER binding)

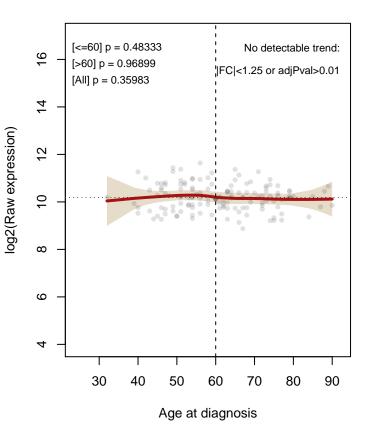


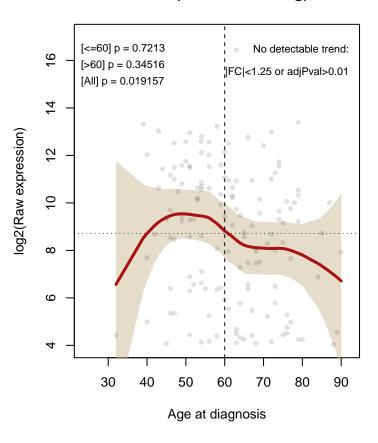
KMT2D (non-ER binding)





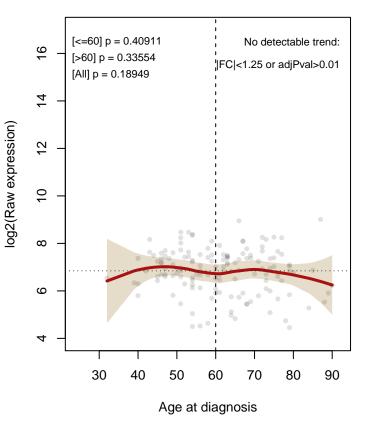
KRT5 (non-ER binding)

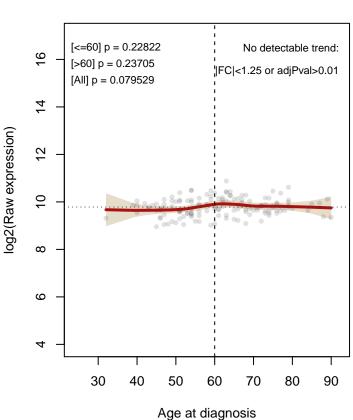




L3MBTL1 (non-ER binding)

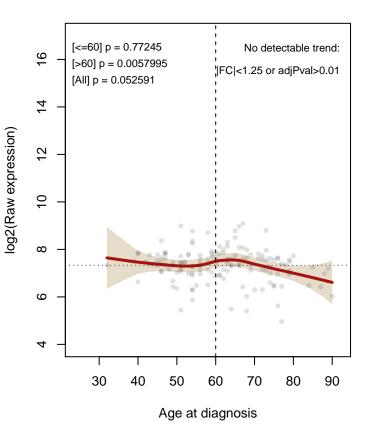
L3MBTL2 (non-ER binding)

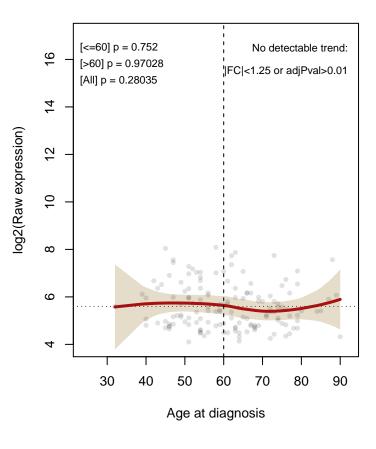




L3MBTL3 (ER binding)

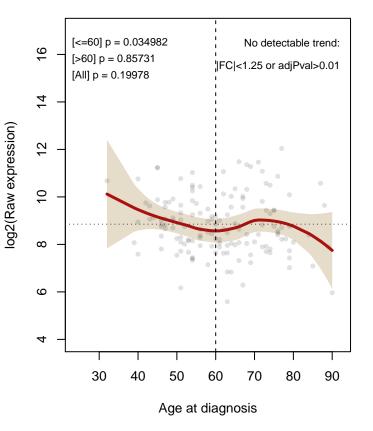
L3MBTL4 (non-ER binding)

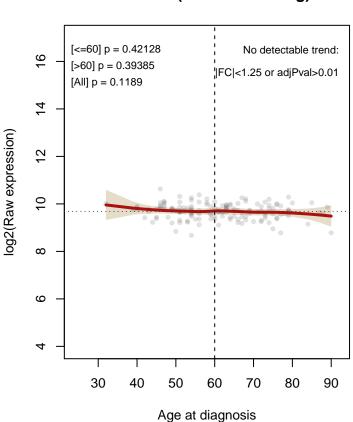




LEF1 (non-ER binding)

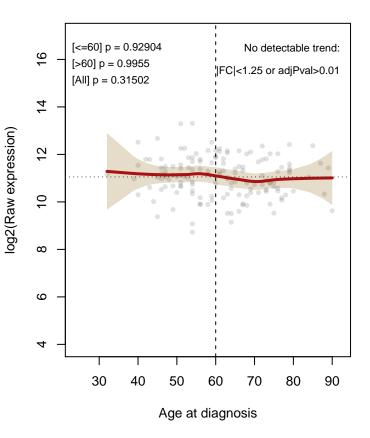
MAP2K1 (non-ER binding)

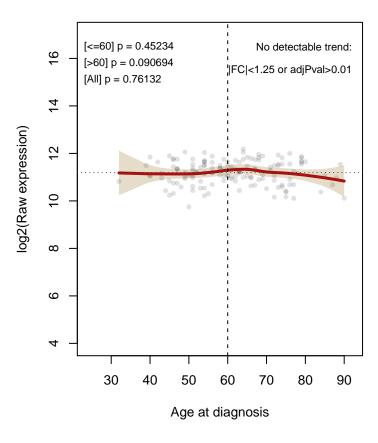






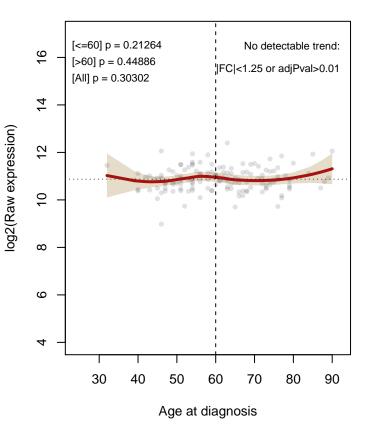
MAPK1 (non-ER binding)

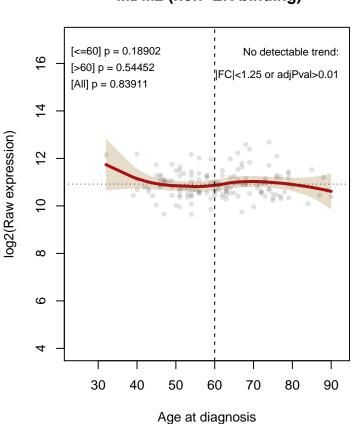




MAPK3 (non-ER binding)

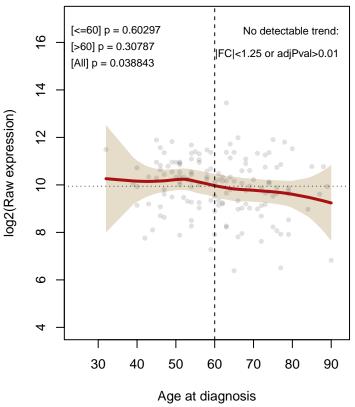
MDM2 (non-ER binding)

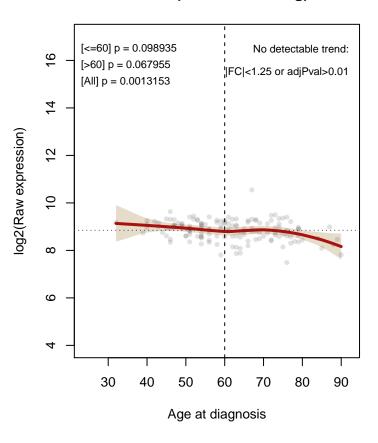






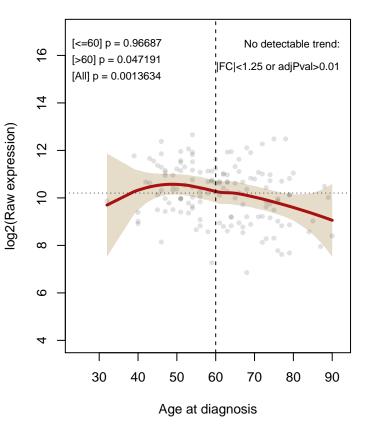
MTF2 (non-ER binding)

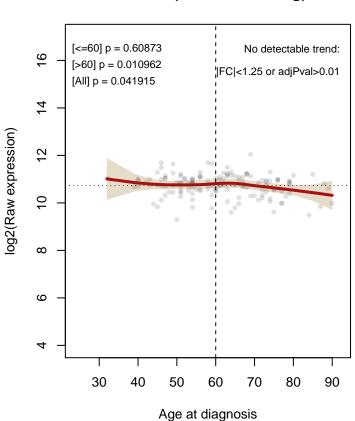


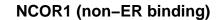


MYC (non-ER binding)

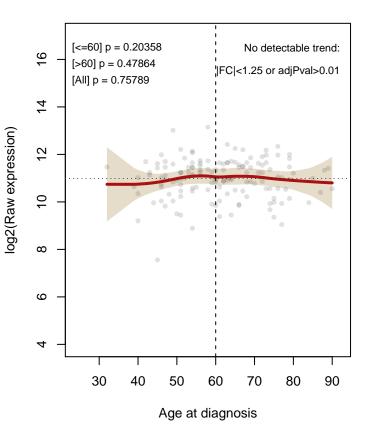
NCOA6 (non-ER binding)

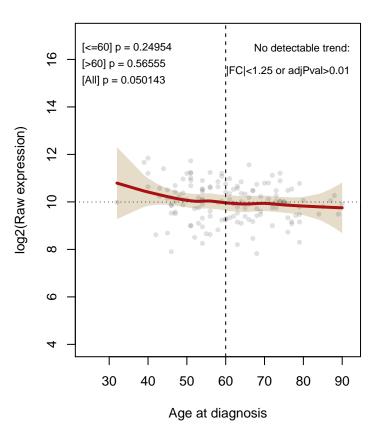






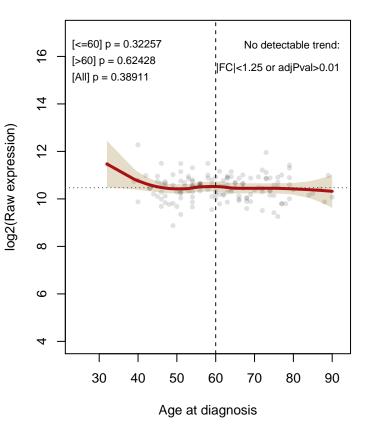
NES (non-ER binding)

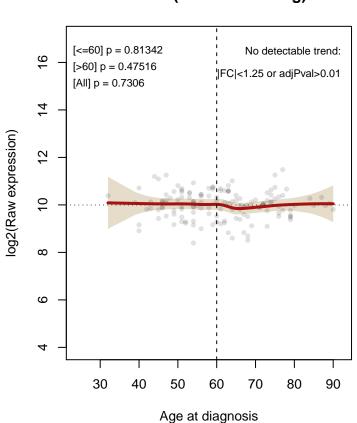




NFKB1 (non-ER binding)

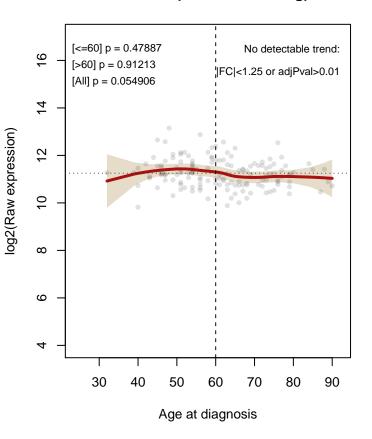
NFKB2 (non-ER binding)

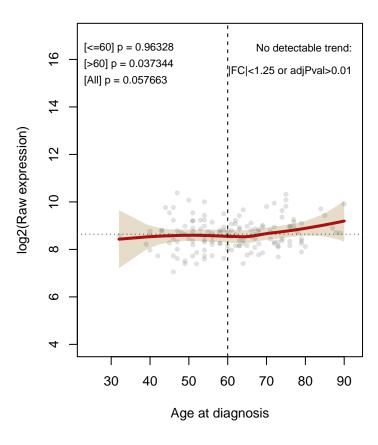




NFKBIA (non-ER binding)

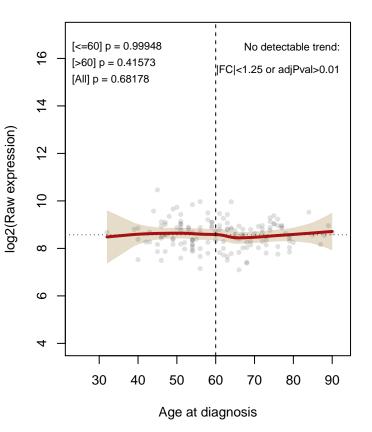
NFKBIB (non-ER binding)

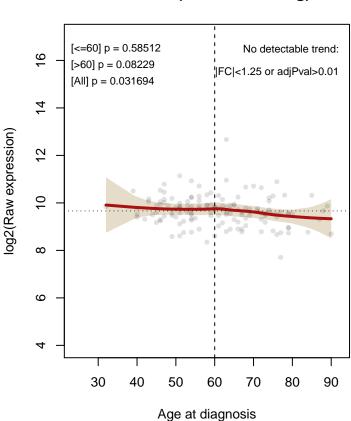




NFKBIE (non-ER binding)

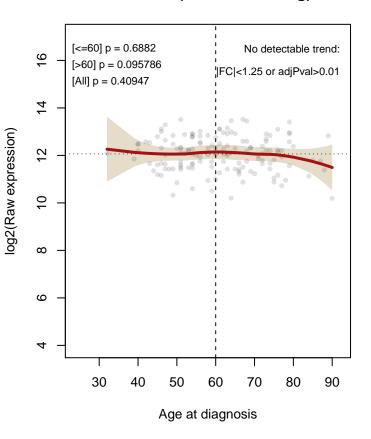
NOTCH1 (non-ER binding)

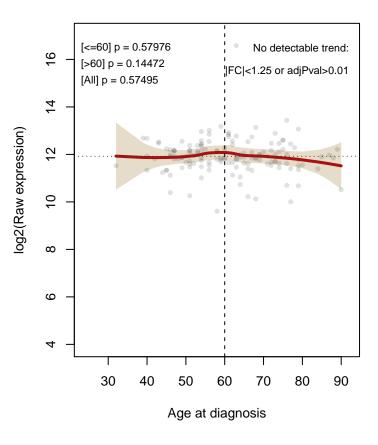




NOTCH2 (non-ER binding)

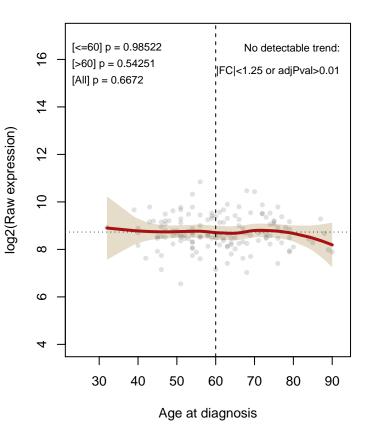
NOTCH3 (non-ER binding)

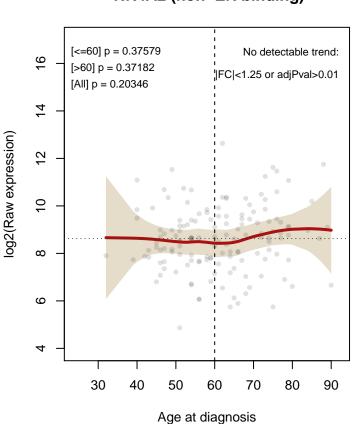




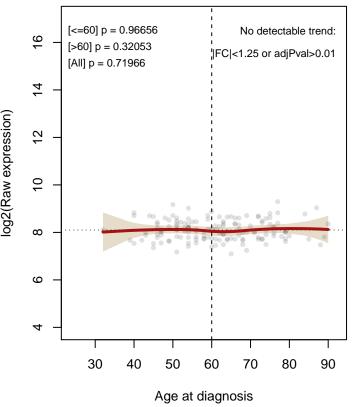
NOTCH4 (non-ER binding)

NR4A2 (non-ER binding)



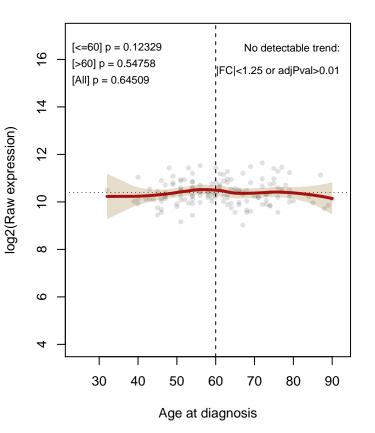


PCGF1 (non-ER binding)

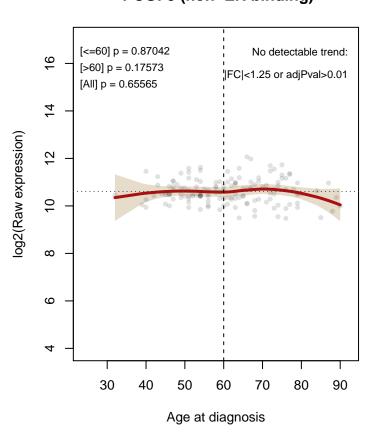


PCGF2 (non-ER binding)

Age at diagnosis

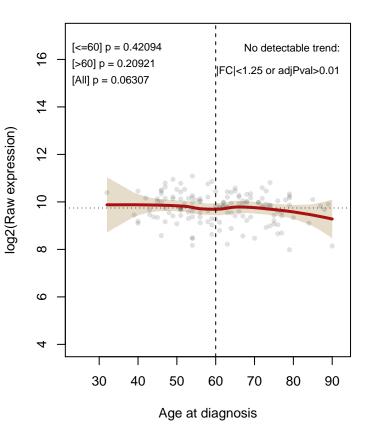


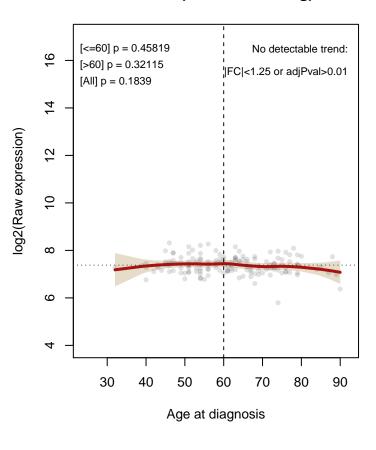
PCGF3 (non-ER binding)





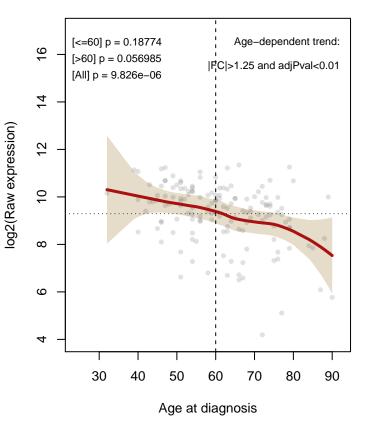
PCGF6 (non-ER binding)

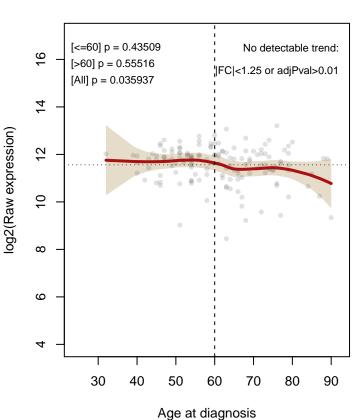




PDGFRA (non-ER binding)

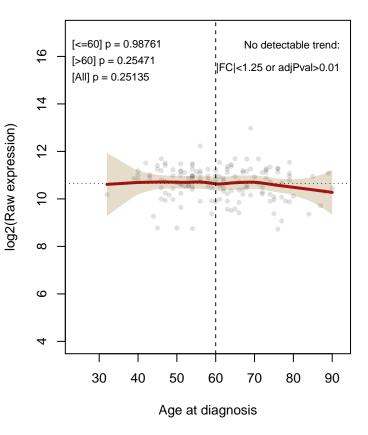
PDGFRB (non-ER binding)

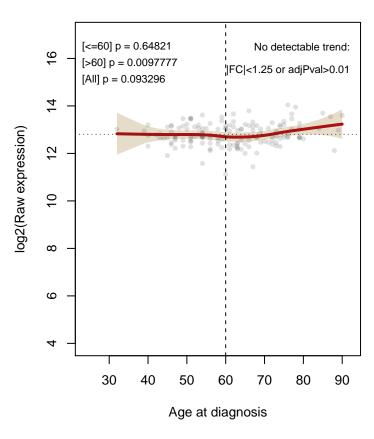






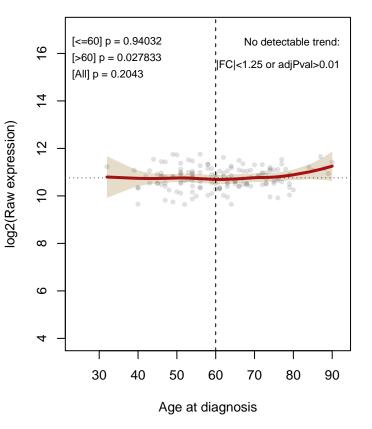
PEBP1 (non-ER binding)

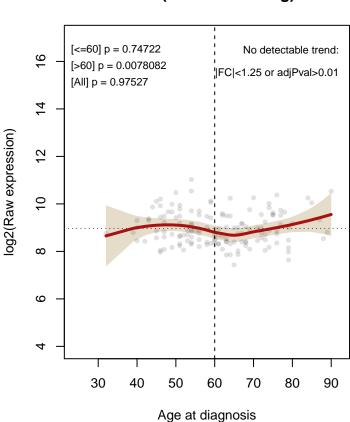


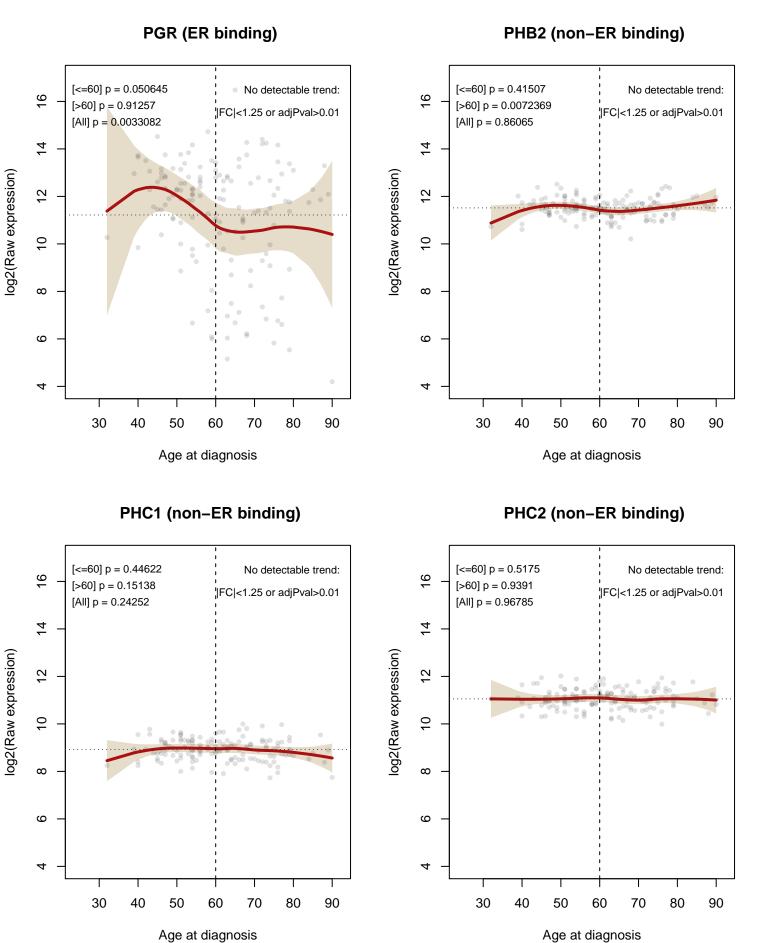


PELP1 (non-ER binding)

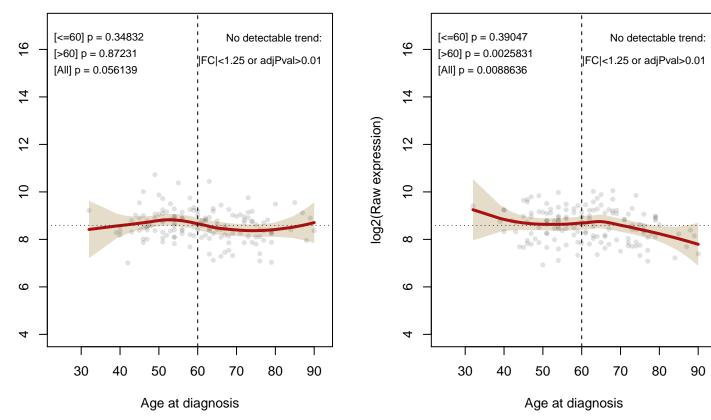
PGP (non-ER binding)





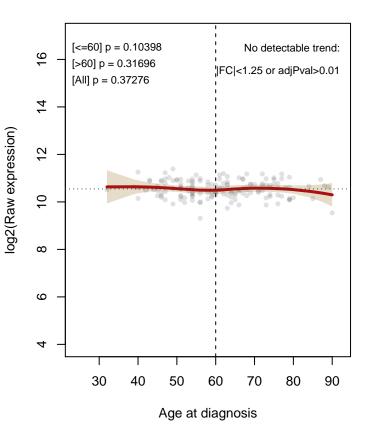


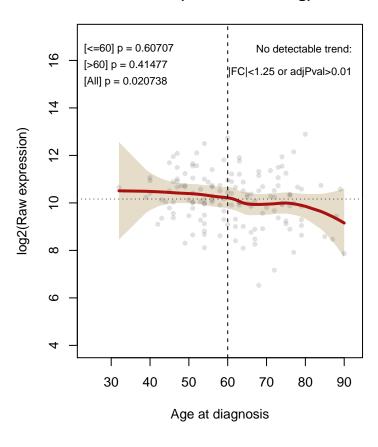
PHC3 (non-ER binding) PHF1 (non-ER binding) [<=60] p = 0.7815No detectable trend: [<=60] p = 0.052505No detectable trend: 16 16 [>60] p = 0.019576 [>60] p = 0.023712 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.768[All] p = 0.0128374 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis PHF19 (non-ER binding) PIK3CA (non-ER binding) [<=60] p = 0.34832No detectable trend: [<=60] p = 0.39047No detectable trend: 16 16 [>60] p = 0.87231 [>60] p = 0.0025831 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.056139[AII] p = 0.00886364 4 log2(Raw expression) 12 12





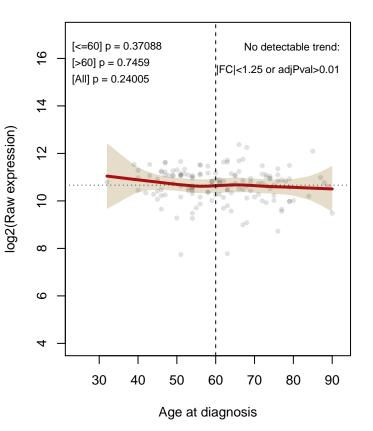
PLAU (non-ER binding)

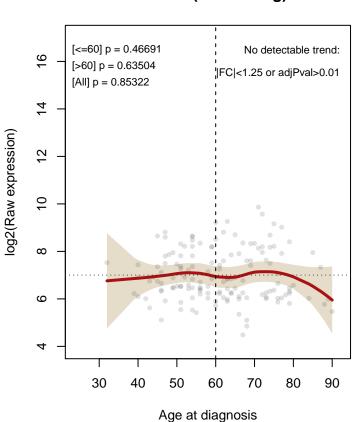


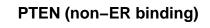


PODXL (non-ER binding)

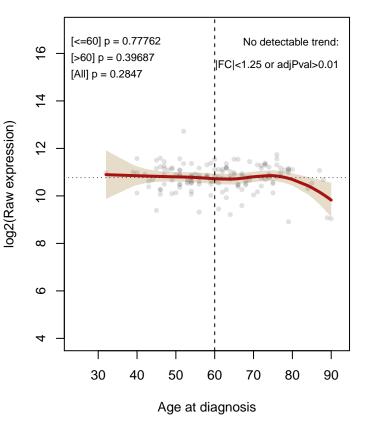
PPARG (ER binding)

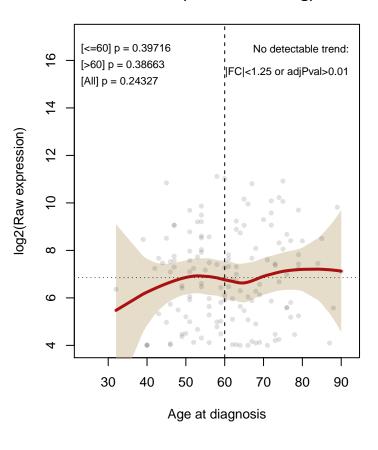






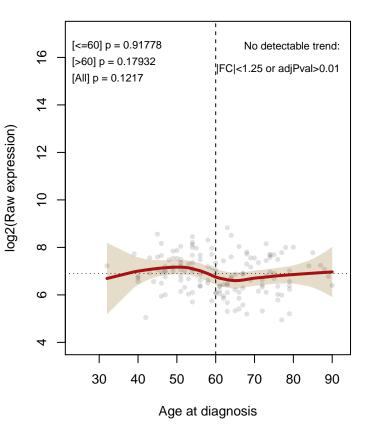
PYDC1 (non-ER binding)

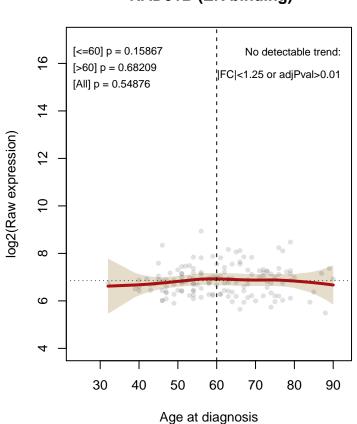




RAD51 (non-ER binding)

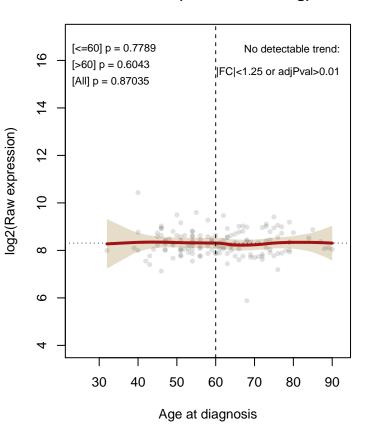
RAD51B (ER binding)

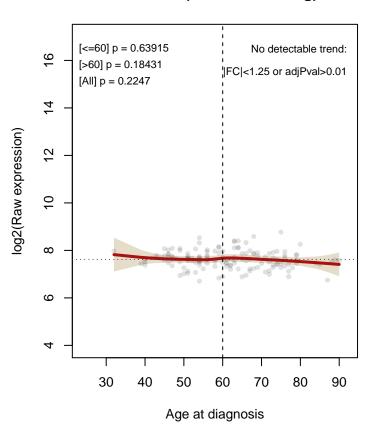




RAD51C (non-ER binding)

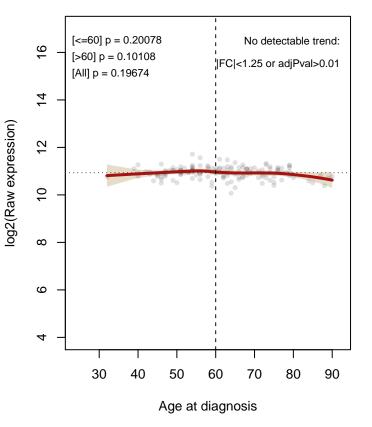
RAD51D (non-ER binding)

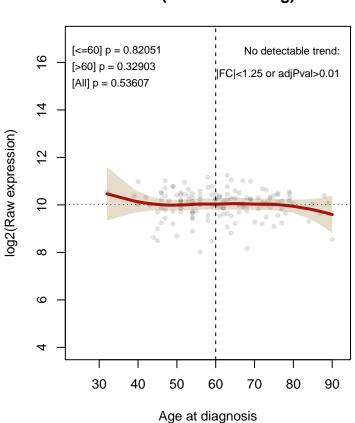


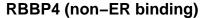


RAF1 (non-ER binding)

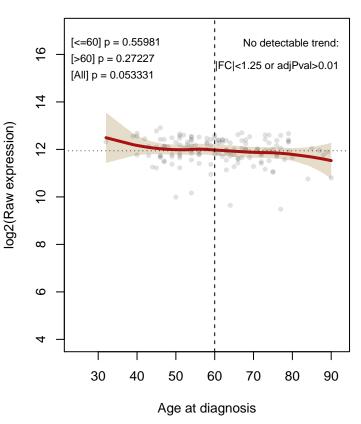
RB1 (non-ER binding)

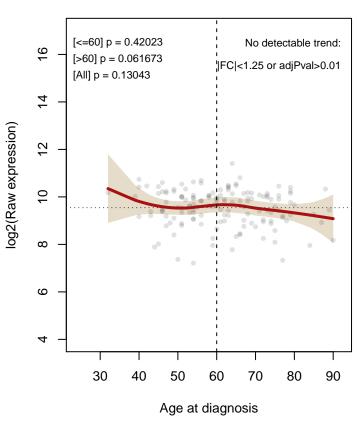






RBBP5 (non-ER binding)



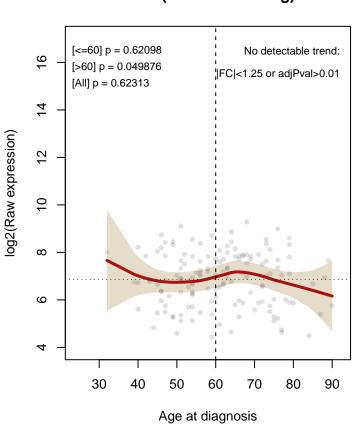


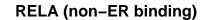
RBBP7 (non-ER binding)

[<=60] p = 0.16872 No detectable trend: 16 [>60] p = 0.52612 FC|<1.25 or adjPval>0.01 [AII] p = 0.312354 log2(Raw expression) 12 10 ω 9 30 40 50 60 70 80 90

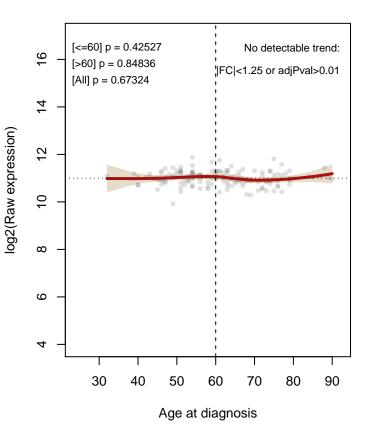
Age at diagnosis

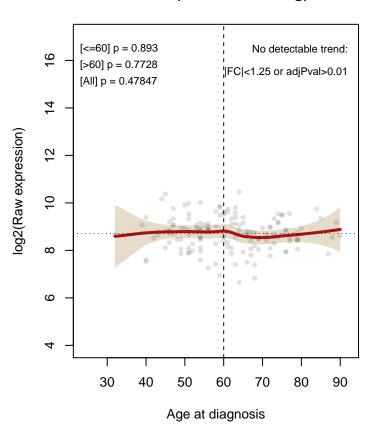
REL (non-ER binding)





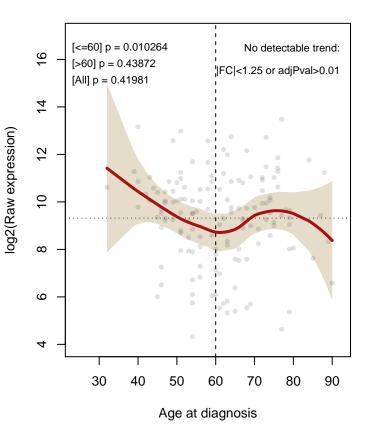
RELB (non-ER binding)

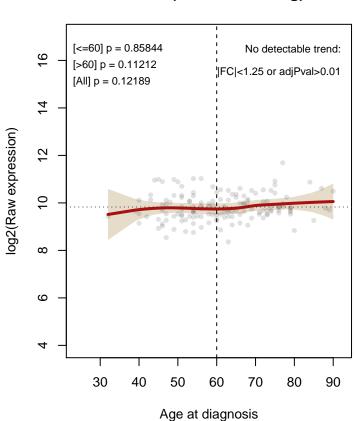




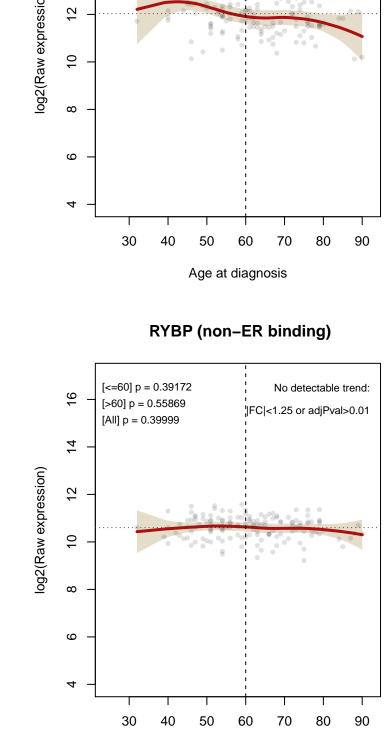
RET (ER binding)

RING1 (non-ER binding)



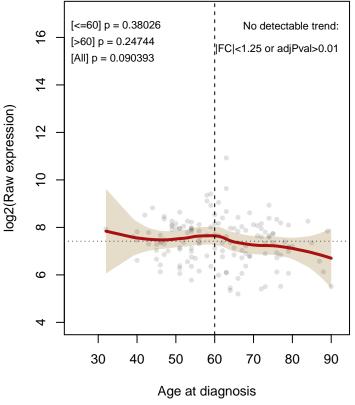


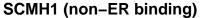
RNF2 (non-ER binding) **RUNX1 (ER binding)** [<=60] p = 0.59419No detectable trend: [<=60] p = 0.03961416 16 [>60] p = 0.26151 [>60] p = 0.096972 FC|<1.25 or adjPval>0.01 |FC|>1.25 and adjPval<0.01 [AII] p = 0.050172[AII] p = 2.2157e - 054 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 Age at diagnosis **RUNX3 (non-ER binding)** [<=60] p = 0.38026No detectable trend: [<=60] p = 0.39172



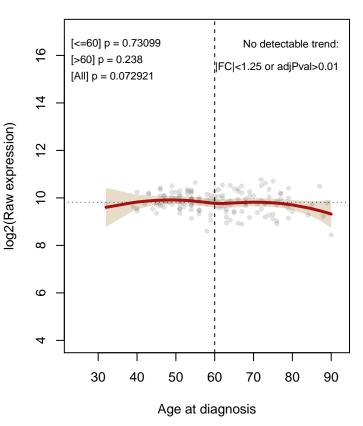
Age at diagnosis

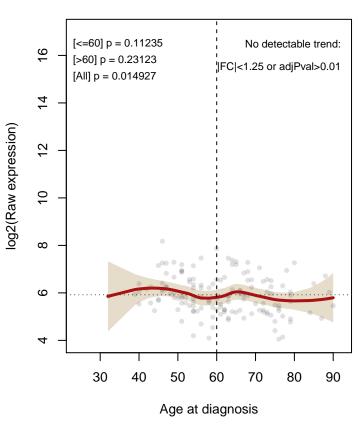
Age-dependent trend:



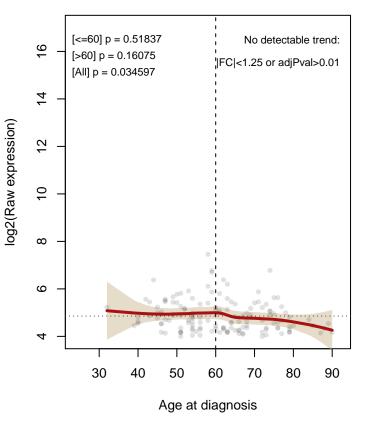


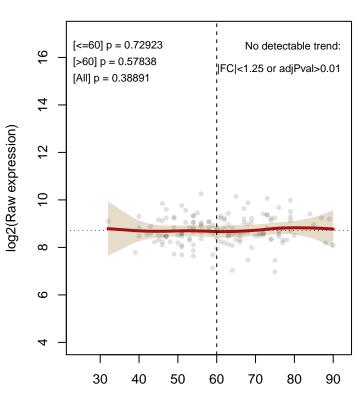
SCML2 (non-ER binding)





SCML4 (non-ER binding)





Age at diagnosis

SFMBT1 (ER binding)

SFMBT2 (ER binding) SFPQ (non-ER binding) [<=60] p = 0.78283No detectable trend: [<=60] p = 0.013506Age-dependent trend: 16 16 [>60] p = 0.67691 [>60] p = 0.22485 FC|<1.25 or adjPval>0.01 |FC|>1.25 and adjPval<0.01 [All] p = 0.12561[All] p = 1.488e - 054 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 90 Age at diagnosis Age at diagnosis SHC1 (non-ER binding) SIRT1 (non-ER binding) [<=60] p = 0.12545No detectable trend: [<=60] p = 0.58997No detectable trend: 16 16 [>60] p = 0.85615 [>60] p = 0.19349 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [All] p = 0.61885[All] p = 0.398434 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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60

Age at diagnosis

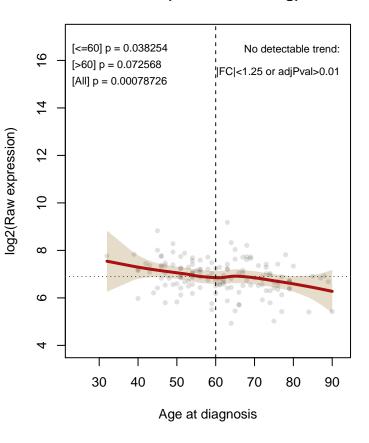
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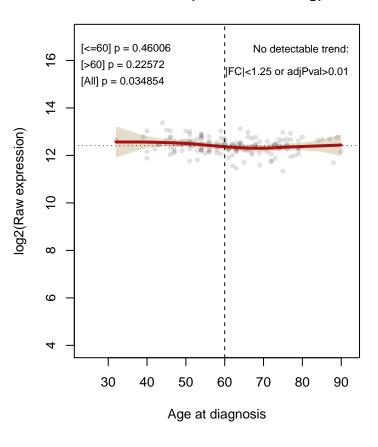
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SKP2 (non-ER binding)

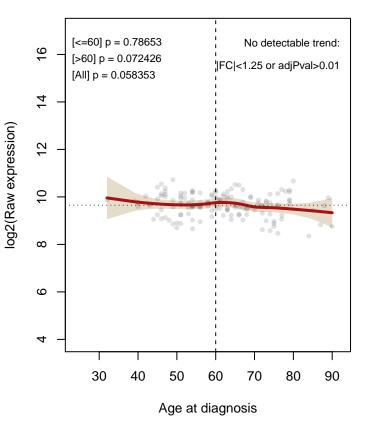
SLC25A3 (non-ER binding)

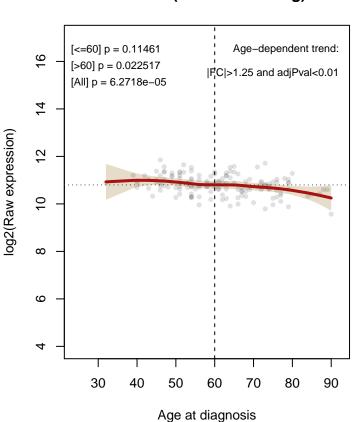




SMAD1 (non-ER binding)

SMAD2 (non-ER binding)





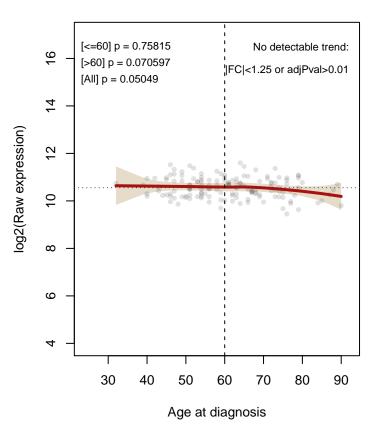
SMAD3 (ER binding) No detectable trend: [<=60] p = 0.17616 [>60] p = 0.090746 [All] p = 0.71964 No detectable trend: [FC|<1.25 or adjPval>0.01

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SMAD4 (non-ER binding)



SMAD5 (non-ER binding)

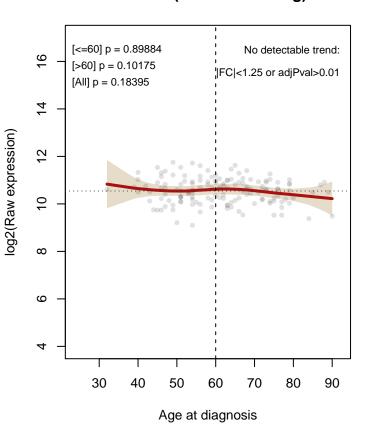
Age at diagnosis

60

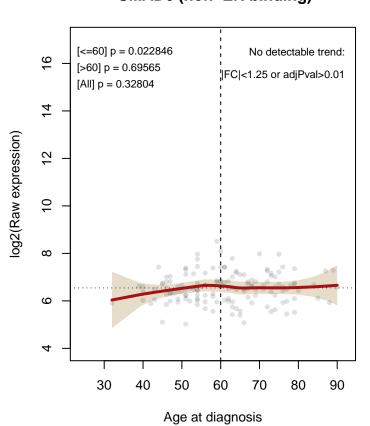
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90

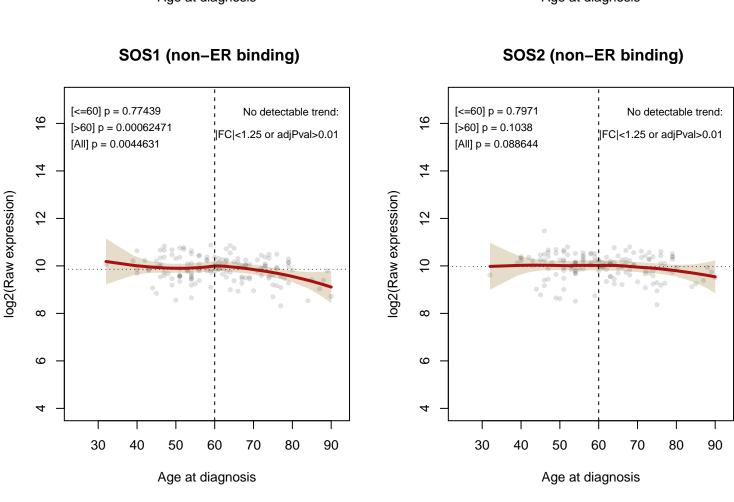


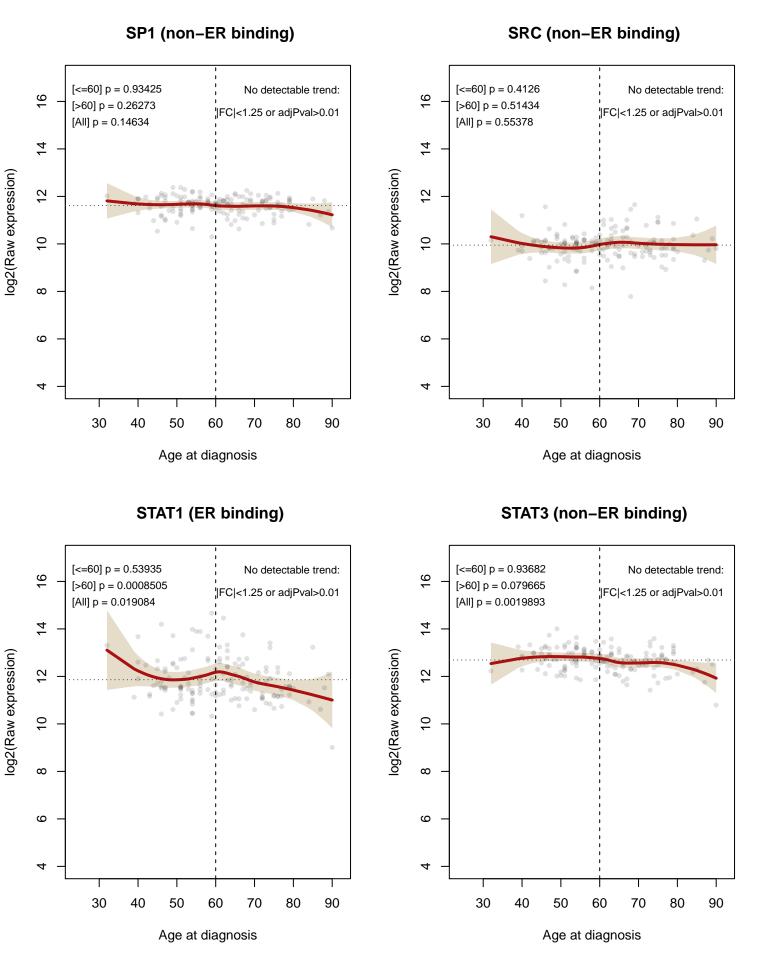
SMAD6 (non-ER binding)

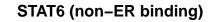


SMAD7 (non-ER binding) SMAD9 (non-ER binding) [<=60] p = 0.6617No detectable trend: [<=60] p = 0.86032No detectable trend: 16 16 [>60] p = 0.65655 [>60] p = 0.0057483 FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.31817[AII] p = 0.00269654 4 log2(Raw expression) log2(Raw expression) 12 12 10 10 ω ω 9 9 30 40 50 60 70 80 90 30 40 50 60 70 80 Age at diagnosis Age at diagnosis SOS1 (non-ER binding)

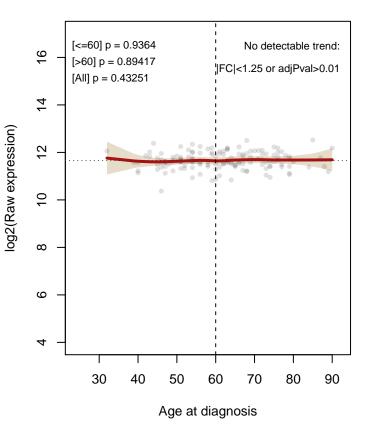
90

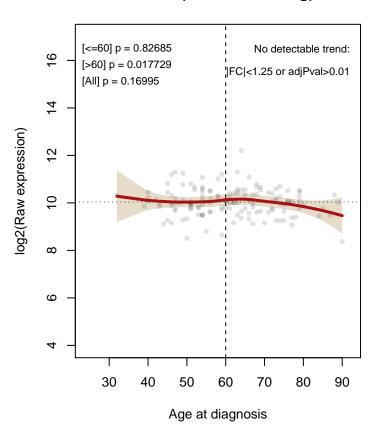






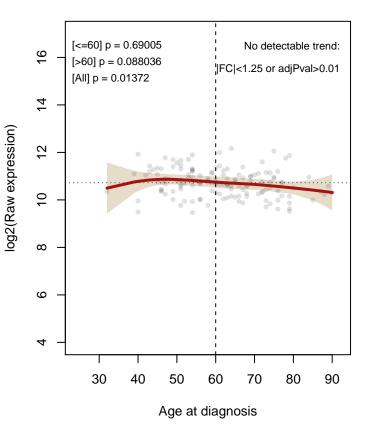
SUZ12 (non-ER binding)

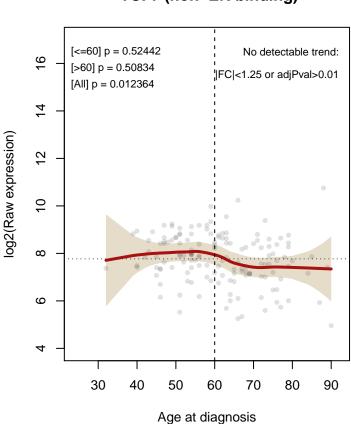




TCF3 (non-ER binding)

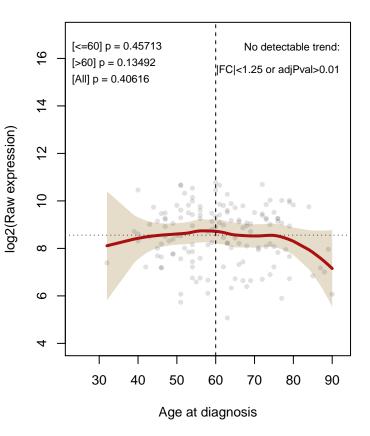
TCF7 (non-ER binding)

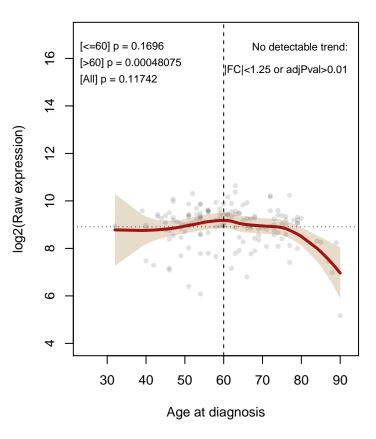






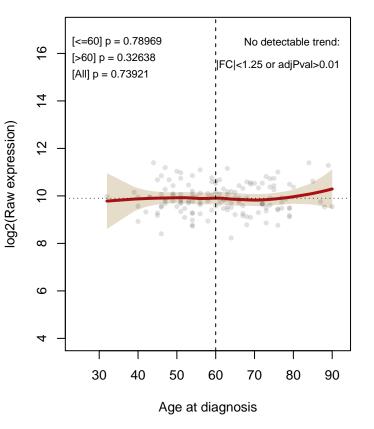
TCF7L2 (non-ER binding)

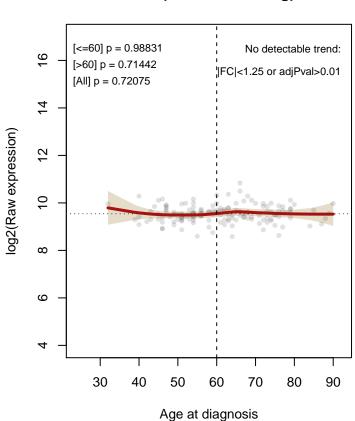


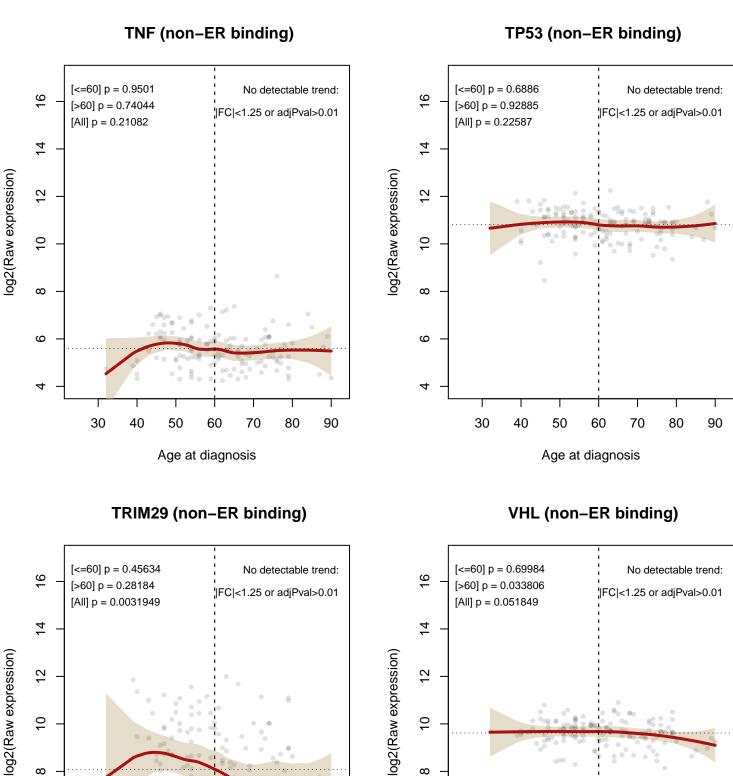


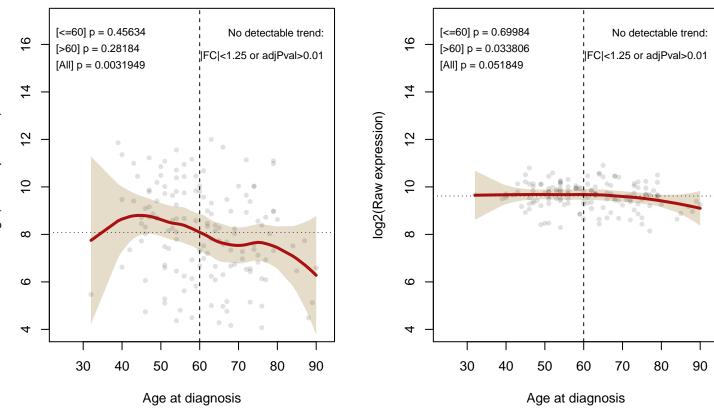
TGFB1 (non-ER binding)

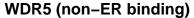
TK2 (non-ER binding)





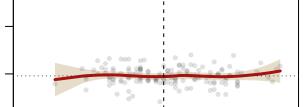






[<=60] p = 0.43752No detectable trend:



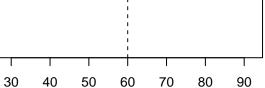


19 ω

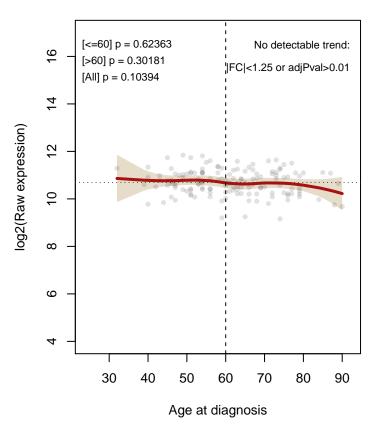
log2(Raw expression)

12

9

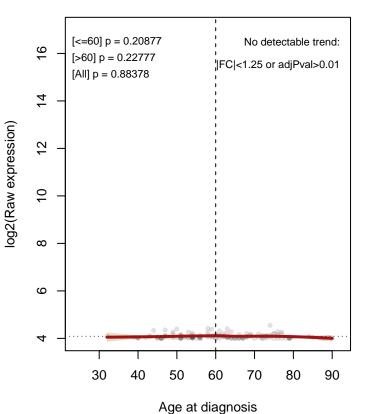


WHSC1 (non-ER binding)

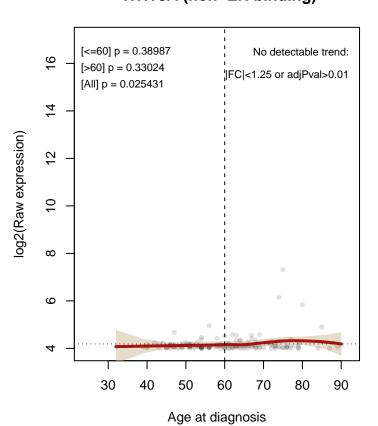


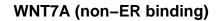
WNT1 (non-ER binding)

Age at diagnosis

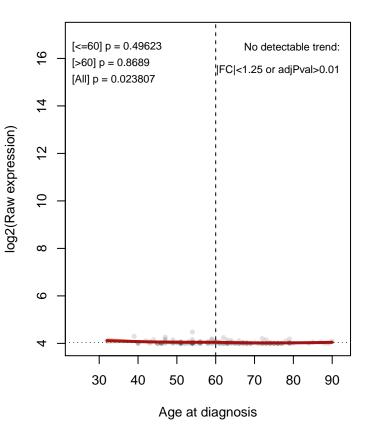


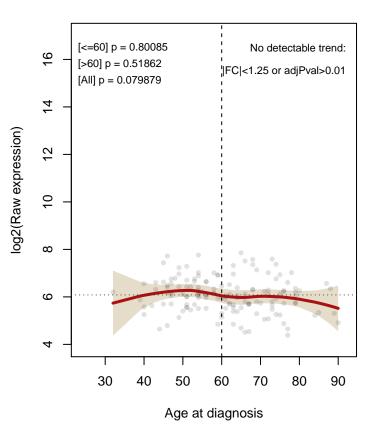
WNT3A (non-ER binding)





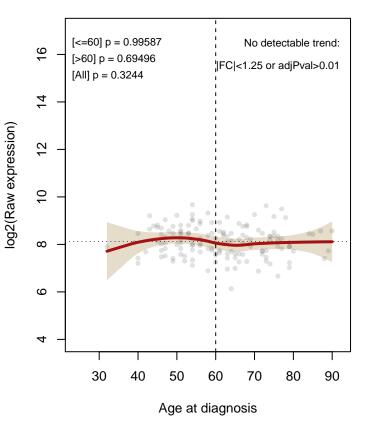
XRCC2 (non-ER binding)

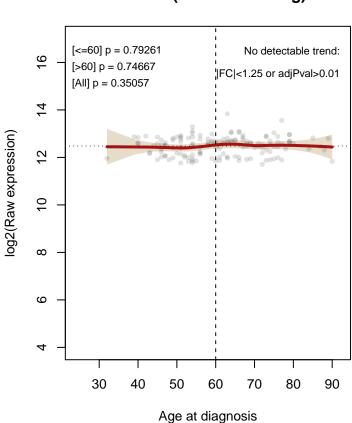




XRCC3 (non-ER binding)

XRCC6 (non-ER binding)





YAF2 (non-ER binding)

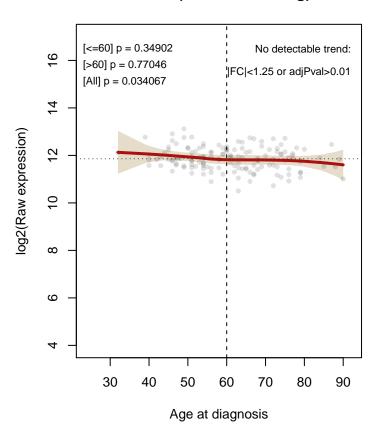
90 - [<=60] p = 0.052009 | No detectable trend: | FC|<1.25 or adjPval>0.01 | FC|<1.25 or adjPval>0.01 | No detectable trend: | FC|<1.25 or adjPval

30

40

50

YBX1 (non-ER binding)



YY1 (non-ER binding)

Age at diagnosis

60

70

80

90

