**PAM50 LumA: N = 721 PAM50 LumB: N = 492** p18INK4C|ILMN\_2359332 p18INK4C|ILMN\_2359332 NKI Tier 1: non-ER binding; Tier 2: ER binding NKI Tier 1: non-ER binding; Tier 2: ER binding [<=60] p = 0.23537[<=60] p = 0.40205No detectable trend: No detectable trend: 16 16 [>60] p = 0.17963 [>60] p = 0.29834 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.02881[AII] p = 0.927264 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω  $\infty$ 9 9 20 40 60 80 100 20 40 60 80 100 Age at diagnosis Age at diagnosis PAM50 Her2: N = 240**PAM50 Basal: N = 331** p18INK4C|ILMN\_2359332 p18INK4C|ILMN\_2359332 NKI Tier 1: non-ER binding; Tier 2: ER binding NKI Tier 1: non-ER binding; Tier 2: ER binding [<=60] p = 0.31328No detectable trend: [<=60] p = 0.38484No detectable trend: 16 16 [>60] p = 0.70275|FC|<4 or adjPval>0.01 [>60] p = 0.66614 |FC|<4 or adjPval>0.01 [AII] p = 0.92284[All] p = 0.135144 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω ω 9 9

20

40

60

Age at diagnosis

80

100

20

40

60

Age at diagnosis

80

100

PAM50 Normal: N = 202 p18INK4C|ILMN\_2359332

NKI Tier 1: non-ER binding; Tier 2: ER binding

