**PAM50 LumA: N = 721 PAM50 LumB: N = 492** PHD2|ILMN\_1749892 PHD2|ILMN\_1749892 NKI Tier 1: non-ER binding; Tier 2: ER binding NKI Tier 1: non-ER binding; Tier 2: ER binding [<=60] p = 0.0088948 [<=60] p = 0.017619 No detectable trend: No detectable trend: 16 16 [>60] p = 0.40962[>60] p = 0.40893 |FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.28957[AII] p = 0.000939824 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω  $\infty$ 9 20 40 60 80 100 20 40 60 80 100 Age at diagnosis Age at diagnosis **PAM50 Basal: N = 331** PAM50 Her2: N = 240PHD2|ILMN\_1749892 PHD2|ILMN\_1749892 NKI Tier 1: non-ER binding; Tier 2: ER binding NKI Tier 1: non-ER binding; Tier 2: ER binding [<=60] p = 0.18838No detectable trend: [<=60] p = 0.36613No detectable trend: 16 16 [>60] p = 0.26014 |FC|<1.25 or adjPval>0.01 [>60] p = 0.25474 |FC|<1.25 or adjPval>0.01 [AII] p = 0.090922[All] p = 0.0448574 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10  $\infty$  $\infty$ 9

20

40

60

Age at diagnosis

80

100

20

40

60

Age at diagnosis

80

100

PAM50 Normal: N = 202 PHD2|ILMN\_1749892

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

