PAM50 LumA: N = 721 PAM50 LumB: N = 492 HER4|ILMN_1653728 HER4|ILMN_1653728 NKI Tier 1: non-ER binding; Tier 2: ER binding NKI Tier 1: non-ER binding; Tier 2: ER binding [<=60] p = 0.85371[<=60] p = 0.32638No detectable trend: No detectable trend: 16 16 [>60] p = 0.40327|FC|<1.25 or adjPval>0.01 [>60] p = 0.52034 |FC|<1.25 or adjPval>0.01 [AII] p = 0.00096939[All] p = 0.195564 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω ∞ 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** HER4|ILMN_1653728 HER4|ILMN_1653728 NKI Tier 1: non-ER binding; Tier 2: ER binding NKI Tier 1: non-ER binding; Tier 2: ER binding [<=60] p = 0.27991 [<=60] p = 0.30573No detectable trend: No detectable trend: 16 16 [>60] p = 0.41226|FC|<1.25 or adjPval>0.01 [>60] p = 0.23159 |FC|<1.25 or adjPval>0.01 [AII] p = 0.70129[AII] p = 0.0559044 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω ∞ 9

20

40

60

Age at diagnosis

80

100

20

40

60

Age at diagnosis

80

100

PAM50 Normal: N = 202 HER4|ILMN_1653728

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

