**PAM50 LumA: N = 721 PAM50 LumB: N = 492** ERK1|ILMN\_1667260 ERK1|ILMN\_1667260 NKI Tier 1: non-ER binding; Tier 2: non-ER bindi NKI Tier 1: non-ER binding; Tier 2: non-ER bindi [<=60] p = 0.12184No detectable trend: [<=60] p = 0.46056No detectable trend: 16 16 [>60] p = 0.13883 |FC|<4 or adjPval>0.01 [>60] p = 0.19805 |FC|<4 or adjPval>0.01 [AII] p = 0.014389[AII] p = 0.0356834 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω ω 9 9 20 40 60 80 20 40 60 80 100 100 Age at diagnosis Age at diagnosis PAM50 Her2: N = 240 **PAM50 Basal: N = 331** ERK1|ILMN\_1667260 ERK1|ILMN\_1667260 NKI Tier 1: non-ER binding; Tier 2: non-ER bindi NKI Tier 1: non-ER binding; Tier 2: non-ER bindi [<=60] p = 0.15969No detectable trend: [<=60] p = 0.42397No detectable trend: 9 9 [>60] p = 0.89611 |FC|<4 or adjPval>0.01 [>60] p = 0.85085 |FC|<4 or adjPval>0.01 [AII] p = 0.34039[AII] p = 0.970574 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 ERK1|ILMN\_1667260

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

