iClust 1: N = 140 iClust 2: N = 72 HEY1|ILMN\_1788203 (non-ER binding) HEY1|ILMN\_1788203 (non-ER binding) [<=60] p = 0.88856No detectable trend: [<=60] p = 0.064797No detectable trend: 16 16 [>60] p = 0.11198 [>60] p = 0.25516 |FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.40908[AII] p = 0.481384 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω ω 9 9 20 40 60 80 100 20 40 60 80 100 Age at diagnosis Age at diagnosis iClust 3: N = 294 iClust 4: N = 344 HEY1|ILMN\_1788203 (non-ER binding) HEY1|ILMN\_1788203 (non-ER binding) [<=60] p = 0.44708No detectable trend: [<=60] p = 0.8779No detectable trend: 16 16 [>60] p = 0.39815 |FC|<1.25 or adjPval>0.01 [>60] p = 0.61225 |FC|<1.25 or adjPval>0.01 [AII] p = 0.19689[AII] p = 0.20324 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω ω 9 9 20 20 40 60 80 100 40 60 80 100 Age at diagnosis Age at diagnosis

iClust 5: N = 191 iClust 6: N = 86 HEY1|ILMN\_1788203 (non-ER binding) HEY1|ILMN\_1788203 (non-ER binding) [<=60] p = 0.99772No detectable trend: [<=60] p = 0.26162No detectable trend: 16 16 [>60] p = 0.95681 [>60] p = 0.4325 |FC|<1.25 or adjPval>0.01 |FC|<1.25 or adjPval>0.01 [AII] p = 0.052385[AII] p = 0.510394 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω ω 9 9 20 20 40 60 80 100 40 60 80 100 Age at diagnosis Age at diagnosis iClust 7: N = 193 iClust 8: N = 300 HEY1|ILMN\_1788203 (non-ER binding) HEY1|ILMN\_1788203 (non-ER binding) [<=60] p = 0.81582No detectable trend: [<=60] p = 0.3164No detectable trend: 16 16 [>60] p = 0.27493|FC|<1.25 or adjPval>0.01 [>60] p = 0.30758|FC|<1.25 or adjPval>0.01 [AII] p = 0.43269[AII] p = 0.0647574 4 Raw Expression (4, 16) Raw Expression (4, 16) 12 12 10 10 ω ω 9 9 20 40 60 80 100 20 40 60 80 100 Age at diagnosis Age at diagnosis

iClust 9: N = 146 HEY1|ILMN\_1788203 (non-ER binding)

iClust 10: N = 226 HEY1|ILMN\_1788203 (non-ER binding)

