iClust 1: N = 140 iClust 2: N = 72 JAK1|ILMN_1793384 (ER binding) JAK1|ILMN_1793384 (ER binding) [<=60] p = 0.94462No detectable trend: [<=60] p = 0.92827No detectable trend: 16 16 [>60] p = 0.86568[>60] p = 0.12597 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.067853[AII] p = 0.786224 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 JAK1|ILMN_1793384 (ER binding) JAK1|ILMN_1793384 (ER binding) No detectable trend: [<=60] p = 0.44127[<=60] p = 0.10115No detectable trend: 16 16 [>60] p = 0.24136|FC|<4 or adjPval>0.01 [>60] p = 0.18161 |FC|<4 or adjPval>0.01 [AII] p = 0.0072676[AII] p = 0.0188494 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

iClust 5: N = 191 iClust 6: N = 86 JAK1|ILMN_1793384 (ER binding) JAK1|ILMN_1793384 (ER binding) [<=60] p = 0.42647No detectable trend: [<=60] p = 0.8922No detectable trend: 16 16 [>60] p = 0.16808[>60] p = 0.041993 |FC|<4 or adjPval>0.01 |FC|<4 or adjPval>0.01 [AII] p = 0.38029[AII] p = 0.540464 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 7: N = 193 iClust 8: N = 300 JAK1|ILMN_1793384 (ER binding) JAK1|ILMN_1793384 (ER binding) [<=60] p = 0.26745No detectable trend: [<=60] p = 0.0026011 No detectable trend: 16 16 [>60] p = 0.76593|FC|<4 or adjPval>0.01 [>60] p = 0.76253 |FC|<4 or adjPval>0.01 [AII] p = 0.044563[All] p = 0.0556014 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

JAK1|ILMN_1793384 (ER binding)

iClust 9: N = 146 iClust 10: N = 226 JAK1|ILMN_1793384 (ER binding)

