METABRIC BrCa Age Dependent Fisher Exact Tests on NKI ER binding

July 23, 2018

FET Tables All Cases

All Cases, n = 1992, FDR = 0.01

Table 1: FET Table All Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	635	2240	2875
Row(%)	22.09%	77.91%	15.17%
Column(%)	17.34%	14.65%	
Tier 2 Only			
N	799	2406	3205
Row(%)	24.93%	75.07%	16.91%
Column(%)	21.81%	15.74%	
Not ER binding			
N	2229	10641	12870
Row(%)	17.32%	82.68%	67.92%
Column(%)	60.85%	69.61%	
Total	3663	15287	18950
	19.33%	80.67%	

Table 2: FET Statistics All Cases, FDR = 0.01

Statistics	Value
p.value	2.9e-24
alternative	two.sided

FET Tables by IntClust subgroups

IntClust1, n = 140, FDR = 0.01

Table 3: FET Table IntClust1 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	1	2874	2875
Row(%)	0.03%	99.97%	15.17%
Column(%)	20.00%	15.17%	
Tier 2 Only			
N	2	3203	3205
Row(%)	0.06%	99.94%	16.91%
Column(%)	40.00%	16.91%	
Not ER binding			
N	2	12868	12870
Row(%)	0.02%	99.98%	67.92%
Column(%)	40.00%	67.92%	
Total	5	18945	18950
	0.03%	99.97%	

Table 4: FET Statistics IntClust1 Cases, FDR = 0.01

Statistics	Value
p.value	0.19
alternative	two.sided

IntClust2, n = 72, FDR = 0.01

Table 5: FET Table IntClust2 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Tier 2 Only			
N	0	3205	3205
Row(%)	0.00%	100.00%	16.91%
Not ER binding			
N	0	12870	12870
Row(%)	0.00%	100.00%	67.92%
Total	0	18950	18950

Table 6: FET Statistics IntClust2 Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided

IntClust3, n = 294, FDR = 0.01

Table 7: FET Table IntClust3 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	99	2776	2875
Row(%)	3.44%	96.56%	15.17%
Column(%)	14.62%	15.19%	
Tier 2 Only			
N	161	3044	3205
Row(%)	5.02%	94.98%	16.91%
Column(%)	23.78%	16.66%	
Not ER binding			
N	417	12453	12870
Row(%)	3.24%	96.76%	67.92%
Column(%)	61.60%	68.15%	
Total	677	18273	18950
	3.57%	96.43%	

Table 8: FET Statistics IntClust3 Cases, FDR = 0.01

Statistics	Value
p.value	1.6e-05
alternative	two.sided

IntClust4, n = 344, FDR = 0.01

Table 9: FET Table IntClust4 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	49	2826	2875
Row(%)	1.70%	98.30%	15.17%
Column(%)	11.92%	15.24%	
Tier 2 Only			
N	88	3117	3205
Row(%)	2.75%	97.25%	16.91%
Column(%)	21.41%	16.81%	
Not ER binding			
N	274	12596	12870
Row(%)	2.13%	97.87%	67.92%
Column(%)	66.67%	67.94%	
Total	411	18539	18950
	2.17%	97.83%	

Table 10: FET Statistics IntClust4 Cases, FDR = 0.01

Statistics	Value
p.value	0.019
alternative	two.sided

IntClust5, n = 191, FDR = 0.01

Table 11: FET Table IntClust5 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Column(%)	0.00%	15.17%	
Tier 2 Only			
N	1	3204	3205
Row(%)	0.03%	99.97%	16.91%
Column(%)	25.00%	16.91%	
Not ER binding			
N	3	12867	12870
Row(%)	0.02%	99.98%	67.92%
Column(%)	75.00%	67.91%	
Total	4	18946	18950
	0.02%	99.98%	

Table 12: FET Statistics IntClust5 Cases, FDR = 0.01

Statistics	Value
p.value	0.79
alternative	two.sided

IntClust6, n = 86, FDR = 0.01

Table 13: FET Table IntClust6 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Tier 2 Only			
N	0	3205	3205
Row(%)	0.00%	100.00%	16.91%
Not ER binding			
N	0	12870	12870
Row(%)	0.00%	100.00%	67.92%
Total	0	18950	18950

Table 14: FET Statistics IntClust6 Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided

IntClust7, n = 193, FDR = 0.01

Table 15: FET Table IntClust7 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	1	2874	2875
Row(%)	0.03%	99.97%	15.17%
Column(%)	10.00%	15.17%	
Tier 2 Only			
N	2	3203	3205
Row(%)	0.06%	99.94%	16.91%
Column(%)	20.00%	16.91%	
Not ER binding			
N	7	12863	12870
Row(%)	0.05%	99.95%	67.92%
Column(%)	70.00%	67.91%	
Total	10	18940	18950
	0.05%	99.95%	

Table 16: FET Statistics IntClust7 Cases, FDR = 0.01

Statistics	Value
p.value	0.9
alternative	two.sided

IntClust8, n = 300, FDR = 0.01

Table 17: FET Table IntClust8 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	67	2808	2875
Row(%)	2.33%	97.67%	15.17%
Column(%)	13.45%	15.22%	
Tier 2 Only			
N	118	3087	3205
Row(%)	3.68%	96.32%	16.91%
Column(%)	23.69%	16.73%	
Not ER binding			
N	313	12557	12870
Row(%)	2.43%	97.57%	67.92%
Column(%)	62.85%	68.05%	
Total	498	18452	18950
	2.63%	97.37%	

Table 18: FET Statistics IntClust8 Cases, FDR = 0.01

Statistics	Value
p.value	0.00042
alternative	two.sided

IntClust9, n = 146, FDR = 0.01

Table 19: FET Table IntClust9 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Column(%)	0.00%	15.17%	
Tier 2 Only			
N	0	3205	3205
Row(%)	0.00%	100.00%	16.91%
Column(%)	0.00%	16.91%	
Not ER binding			
N	1	12869	12870
Row(%)	0.01%	99.99%	67.92%
Column(%)	100.00%	67.91%	
Total	1	18949	18950
	0.01%	99.99%	

Table 20: FET Statistics IntClust9 Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided

IntClust10, n = 226, FDR = 0.01

Table 21: FET Table IntClust10 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Tier 2 Only			
N	0	3205	3205
Row(%)	0.00%	100.00%	16.91%
Not ER binding			
N	0	12870	12870
Row(%)	0.00%	100.00%	67.92%
Total	0	18950	18950

Table 22: FET Statistics IntClust10 Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided

FET Tables by PAM50 subgroups

PAM50 Basal, n = 331, FDR = 0.01

Table 23: FET Table PAM50 Basal Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Tier 2 Only			
N	0	3205	3205
Row(%)	0.00%	100.00%	16.91%
Not ER binding			
N	0	12870	12870
Row(%)	0.00%	100.00%	67.92%
Total	0	18950	18950

Table 24: FET Statistics PAM50 Basal Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided

PAM50 Her2, n = 240, FDR = 0.01

Table 25: FET Table PAM50 Her2 Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Column(%)	0.00%	15.18%	
Tier 2 Only			
N	5	3200	3205
Row(%)	0.16%	99.84%	16.91%
Column(%)	45.45%	16.90%	
Not ER binding			
N	6	12864	12870
Row(%)	0.05%	99.95%	67.92%
Column(%)	54.55%	67.92%	
Total	11	18939	18950
	0.06%	99.94%	

Table 26: FET Statistics PAM50 Her2 Cases, FDR = 0.01

Statistics	Value
p.value	0.036
alternative	two.sided

PAM50 LumA, n = 721, FDR = 0.01

Table 27: FET Table PAM50 LumA Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	347	2528	2875
Row(%)	12.07%	87.93%	15.17%
Column(%)	17.26%	14.92%	
Tier 2 Only			
N	462	2743	3205
Row(%)	14.41%	85.59%	16.91%
Column(%)	22.97%	16.19%	
Not ER binding			
N	1202	11668	12870
Row(%)	9.34%	90.66%	67.92%
Column(%)	59.77%	68.88%	
Total	2011	16939	18950
	10.61%	89.39%	

Table 28: FET Statistics PAM50 LumA Cases, FDR = 0.01

Statistics	Value
p.value	9.5e-17
alternative	two.sided

PAM50 LumB, n = 492, FDR = 0.01

Table 29: FET Table PAM50 LumB Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	169	2706	2875
Row(%)	5.88%	94.12%	15.17%
Column(%)	20.41%	14.93%	
Tier 2 Only			
N	169	3036	3205
Row(%)	5.27%	94.73%	16.91%
Column(%)	20.41%	16.75%	
Not ER binding			
N	490	12380	12870
Row(%)	3.81%	96.19%	67.92%
Column(%)	59.18%	68.31%	
Total	828	18122	18950
	4.37%	95.63%	

Table 30: FET Statistics PAM50 LumB Cases, FDR = 0.01

Statistics	Value
p.value	2.3e-07
alternative	two.sided

PAM50 Normal, n = 202, FDR = 0.01

Table 31: FET Table PAM50 Normal Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Tier 2 Only			
N	0	3205	3205
Row(%)	0.00%	100.00%	16.91%
Not ER binding			
N	0	12870	12870
Row(%)	0.00%	100.00%	67.92%
Total	0	18950	18950

Table 32: FET Statistics PAM50 Normal Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided

FET Tables by ER/HER2 status

ER- HER2-, n = 335, FDR = 0.01

Table 33: FET Table ER- HER2- Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	2	2873	2875
Row(%)	0.07%	99.93%	15.17%
Column(%)	13.33%	15.17%	
Tier 2 Only			
N	2	3203	3205
Row(%)	0.06%	99.94%	16.91%
Column(%)	13.33%	16.92%	
Not ER binding			
N	11	12859	12870
Row(%)	0.09%	99.91%	67.92%
Column(%)	73.33%	67.91%	
Total	15	18935	18950
	0.08%	99.92%	

Table 34: FET Statistics ER- HER2- Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided

ER- HER2+, n = 139, FDR = 0.01

Table 35: FET Table ER- HER2+ Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Tier 2 Only			
N	0	3205	3205
Row(%)	0.00%	100.00%	16.91%
Not ER binding			
N	0	12870	12870
Row(%)	0.00%	100.00%	67.92%
Total	0	18950	18950

Table 36: FET Statistics ER- HER2+ Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided

ER+ HER2-, n = 1408, FDR = 0.01

Table 37: FET Table ER+ HER2- Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	351	2524	2875
Row(%)	12.21%	87.79%	15.17%
Column(%)	14.96%	15.20%	
Tier 2 Only			
N	546	2659	3205
Row(%)	17.04%	82.96%	16.91%
Column(%)	23.27%	16.01%	
Not ER binding			
N	1449	11421	12870
Row(%)	11.26%	88.74%	67.92%
Column(%)	61.76%	68.78%	
Total	2346	16604	18950
	12.38%	87.62%	

Table 38: FET Statistics ER+ HER2- Cases, FDR = 0.01

Statistics	Value
p.value	9.2e-17
alternative	two.sided

ER+ HER2+, n = 110, FDR = 0.01

Table 39: FET Table ER+ HER2+ Cases, FDR = 0.01

ER binding	Age association Age associated	Not age associated	Total
Tier 1			
N	0	2875	2875
Row(%)	0.00%	100.00%	15.17%
Tier 2 Only			
N	0	3205	3205
Row(%)	0.00%	100.00%	16.91%
Not ER binding			
N	0	12870	12870
Row(%)	0.00%	100.00%	67.92%
Total	0	18950	18950

Table 40: FET Statistics ER+ HER2+ Cases, FDR = 0.01

Statistics	Value
p.value	1
alternative	two.sided