

**Table S13.** BRCA1/2 classification results using the standard clinical variables ER, PR, HER2, TNBC (ER-/PR-/HER2-) and age of onset of disease.

	No. of samples	Sensitivity (TP)	Specificity (TN)	Accuracy <sup>a</sup>	p-value <sup>b</sup>
<b>BRCA1 vs. Sporadic</b>					
ER	33 vs. 128	0.58 (19)	0.84 (107)	0.71	5.1×10 <sup>-6</sup>
PR	33 vs. 128	0.79 (26)	0.62 (79)	0.70	3.2×10 <sup>-5</sup>
HER2	33 vs. 128	0.91 (30)	0.16 (21)	0.54	4.1×10 <sup>-1</sup>
Age of onset (>50 years)	33 vs. 128	0.64 (21)	0.80 (103)	0.72	2.1×10 <sup>-6</sup>
<b>BRCA2 vs. Sporadic</b>					
ER	22 vs. 128	0.09 (2)	0.84 (107)	0.46	5.3×10 <sup>-1</sup>
PR	22 vs. 128	0.27 (6)	0.62 (79)	0.44	4.7×10 <sup>-1</sup>
HER2	22 vs. 128	0.05 (1)	0.84 (107)	0.44	2.0×10 <sup>-1</sup>
Age of onset (>50 years)	22 vs. 128	0.77 (21)	0.80 (103)	0.79	2.3×10 <sup>-7</sup>
<b>Basal-like BRCA1 vs. Basal-like Sporadic</b>					
Age of onset (>50 years)	20 vs. 10	0.70 (14)	1.00 (10)	0.85	3.0×10 <sup>-4</sup>
<b>LumB BRCA1 vs. LumB Sporadic</b>					
Age of onset (>50 years)	9 vs. 48	0.33 (3)	0.75 (36)	0.54	6.9×10 <sup>-1</sup>
<b>LumB BRCA2 vs. LumB Sporadic</b>					
Age of onset (>50 years)	16 vs. 48	0.75 (12)	0.75 (36)	0.75	6.8×10 <sup>-4</sup>

<sup>a</sup> Mean balanced accuracy

<sup>b</sup> Fisher's exact test

Abbreviations: TP, true positive; TN, true negative