

**Supplementary Table 2: Summary of clinical, pathologic and immunohistochemical features and molecular subtypes according to the histologic subtypes of the 17 metaplastic breast cancers included in the study.**

		Histologic Subtype		
		Chondroid (n=7)	Spindle (n=5)	Squamous (n=5)
Median age at diagnosis (range)		71 (50-74)	56 (45-77)	48 (33-77)
Median tumor size (cm, range)		3.2 (1.2-9.0)	5.5 (2.0-24)	3.1 (1.4-5.0)
pT stage	1c	3	1	1
	2	3	1	4
	3	1	2	0
	4b	0	1	0
pN stage	0	6	4	5
	1a	1	0	0
	2a	0	1	0
M stage	0	7	4	5
	N/A	0	1	0
Histologic grade*	2	2	0	0
	3	5	5	5
Triple-negative phenotype**	No	0	0	0
	Yes	7	5	5
CK5/6	0	1	3	0
	1+	2	0	0
	2+	0	0	2
	3+	4	2	3
EGFR	0	0	0	0
	1+	3	1	0
	2+	1	3	3
	3+	1	1	2
	NP	2	0	0
CK14	0	0	2	0
	1+	0	0	0
	2+	2	2	0
	3+	5	1	5
CK17	0	3	3	0
	1+	4	0	1
	2+	0	2	3
	3+	0	0	1
PTEN	0	0	2	2
	1+	3	1	2
	2+	4	2	1
p53	0	1	0	0
	1+	0	1	0
	2+	2	1	0
	3+	0	2	4
	NP	4	1	1
c-KIT	0	0	0	0
	1+	3	2	3
	2+	2	2	1
	3+	0	0	0
	NP	2	1	1
p63	0	4	2	3
	1+	0	3	1
	2+	0	0	1
	3+	0	0	0
	NP	3	0	0
Molecular Subtype***	Basal-like	4	0	2
	Claudin-low	1	5	2
	Normal breast-like	2	0	1

CK, cytokeratin; EGFR: epidermal growth factor receptor; NP, not performed; \*, according to Nottingham grading index; \*\*, triple-negative phenotype: lack of estrogen receptor, progesterone receptor and HER2 expression;\*\*\*, PAM50/ Claudin-low molecular subtype classification was retrieved from Weigelt et al. Immunohistochemical results were scored semi-quantitatively based on intensity (0: no staining; 1+: weak; 2+: moderate; 3+: strong) and percentage of positive cells in parentheses. For PTEN expression, normal epithelium and stroma served as an internal control, and tumor immunoreactivity was scored using a semi-quantitative system: score 0 = no immunoreaction; score 1 = reduced intensity of immunoreaction compared to normal epithelium; and score 2 = intensity equal to normal epithelium.