

Patient ID	Tissue biopsy or cells from pleural effusion	Liquid biopsy
	<b>Skin biopsy- Month 15 (Stage IV)</b>	<b>Serum- Month 15 (cfDNA2) (Stage IV)</b>
Pt-28	<b>**BRCA2 c.9976A&gt;T; p. K3326* (65%) Loss/T3</b> <b>**MSH2 c.965G&gt;A; p. G322D (56%) Loss/T3</b> <b>PTEN c.319G&gt;T; p. D107Y (20%) Loss/T2C</b> <b>RB1 c.1959dupA; p. V654fs*14 (6.26%) Loss/T3</b> <b>TP53 c.375G&gt;T; p. T125T (15%) Loss/T3</b>	<b>**BRCA2 c.9976A&gt;T; p. K3326* (57%) Loss/T3</b> <b>**MSH2 c.965G&gt;A; p. G322D (56%) Loss/T3</b> <b>PTEN c.319G&gt;T; p. D107Y (8.3%) Loss/T2C</b> <b>RB1 c.1959dupA; p. V654fs*14 (1.7%) Loss/T3</b> <b>TP53 c.375G&gt;T; p. T125T (6.2 %) Loss/T3</b>
Pt-29	<b>Cells pleural fluid- Month 33 (Stage IV)</b> <b>*ATM c.4324T&gt;C; p. Y1442H (53%) Loss/T3</b> <b>*CASP8 c.152-1_155delGATTA (51%) Loss/T3</b> <b>PALB2 c.2257C&gt;T; p. R753* (4.17%) Loss/T2C</b> <b>ERCC4 c.1243C&gt;T; p. R415* (5%) Loss/T3</b> <b>HERC1 c.6790C&gt;T; p. R2264* (4.44%) Loss/T3</b>	<b>Serum - Month 33 (Stage IV)</b> <b>*ATM c.4324T&gt;C; p. Y1442H (52%) Loss/T3</b> <b>*CASP8 c.152-1_155delGATTA (49%) Loss/T3</b>
Pt-30	<b>Cells pleural effusion- Month 50 (Stage IV)</b> <b>PMS2 c.1239delA; p. D414fs*34 (2.3%) Loss/T2C</b>	<b>Serum - Month 50 (Stage IV)</b> <b>MED12 c.6338_6339insCCA; p. Q2112_Q2113insH (3.3%) T3</b>
Pt-31	<b>Skin biopsy breast- Month 31 (Stage IV)</b> <b>*IRAK4 c.529A&gt;G; p. T177A (61%) Loss/T3</b> <b>TP53 c.602delT; p. L201fs*46 (57%) Loss/T2C</b>	<b>Plasma -Month 25 (Stage IV)</b> <b>*IRAK4 c.529A&gt;G; p. T177A (57%)</b> <b>TP53 c.602delT; p. L201fs*46 (16%) Loss/T2C</b> <b>TP53 c.638G&gt;A; p. R213Q (4.8%) Loss/T2C</b>
Pt-32		<b>Plasma- Month 8 (Stage IIIB)</b>
	<b>No tissue available</b>	<b>*NCOR1 c.6641G&gt;A; p. R2214H (48%) Loss/T3</b>

**Table S3. Germline and somatic variants in Her2+ IBC patients.** Clinically relevant variants are shown. \*\*Germline variants that were confirmed by NGS of normal tissue or whole blood. \*Putative germline variants. In red, pathogenic variants; blue, likely pathogenic; in black, variants from uncertain significance. Variants were also classified according their actionability: T2C indicates potential clinical significance and FDA-approved therapies for different tumor types or investigational therapies (off- label treatments); T3 indicates biomarker is of uncertain clinical significance. Stage of the disease at the time of sample collection is indicated in each case.