

**Supplementary 2 RFS and OS Data.**

**RFS data**

Variance	SNAI1				SNAI2				SNAI3			
	No. of patients (n)		HR (%95 CI)	P-value	No. of patients (n)		HR (%95 CI)	P-value	No. of patients (n)		HR (%95 CI)	P-value
	Low exp	High exp			Low exp	High exp			Low exp	High exp		
<b>All patients</b>	2640	1311	1.16 (1.03-1.3)	0.011	2949	1002	1.15 (1.01-1.3)	0.03	1282	482	0.51 (0.42-0.63)	3.4x10 <sup>-11</sup>
<b>Grade</b>												
1	220	125	1.5 (0.89-2.52)	0.12	85	260	0.62 (0.36-1.09)	0.093	79	29	0.41 (0.09-1.85)	0.23
2	505	396	1.34 (1.05-1.7)	0.017	580	321	0.79 (0.6-1.02)	0.072	151	76	0.67 (0.38-1.18)	0.16
3	546	357	1.18 (0.95-1.47)	0.14	646	257	1.42 (1.13-1.79)	0.0026	168	276	0.66 (0.48-0.9)	0.0074
<b>ER status</b>												
ER+	1416	645	1.27 (1.07-1.51)	0.0054	763	1298	1.1 (0.93-1.31)	0.25	548	214	0.73(0.52-1.03)	0.071
ER-	541	260	1.14 (0.9-	0.28	390	411	1.52 (1.21-	3x10 <sup>-4</sup>	197	150	0.55 (0.39-0.79)	0.00089

			1.45)				1.91)					
<b>PR status</b>												
PR+	403	186	1.45 (1.01- 2.08)	0.041	372	217	0.81 (0.56- 1.18)	0.27	188	301	1.57 (1.03- 2.38)	0.034
PR-	257	292	1.73 (1.28- 2.34)	0.00031	366	183	1.53 (1.13- 2.05)	0.0049	225	147	0.59 (0.4- 0.86)	0.006
<b>HER2 status</b>												
HER2+	137	115	1.21 (0.78- 1.88)	0.38	151	101	1.89 (1.23- 2.93)	0.0035	38	112	0.69 (0.39- 1.23)	0.21
HER2-	488	312	1.49 (1.15- 1.94)	0.0027	529	271	1.43 (1.09- 1.86)	0.0092	407	228	0.47 (0.33- 0.66)	1.4x10 <sup>-5</sup>
<b>Lymph node status</b>												
positive	744	389	1.54 (1.26- 1.89)	1.8x10 <sup>-5</sup>	831	302	1.29 (1.04- 1.6)	0.021	488	236	0.64 (0.48- 0.85)	0.0017
negative	1410	610	1.27 (1.07- 1.52)	0.0074	1232	788	1.23 (1.04- 1.46)	0.017	371	125	0.56 (0.33- 0.94)	0.026
<b>TP53 status</b>												
mut	61	127	1.58 (0.9-	0.11	124	64	1.44 (0.89-	0.14	36	96	0.45 (0.25- 0.81)	0.0068

			2.76)				2.33)					
wild	134	139	2.21 (1.42- 3.46)	0.00034	203	70	0.67 (0.39- 1.14)	0.14	56	26	0.36 (0.11- 1.21)	0.085
<b>Pietenpol subtype</b>												
Basal like 1	127	44	0.72 (0.4- 1.27)	0.26	127	44	1.53 (0.91- 2.56)	0.11	77	28	0.41 (0.18- 0.93)	0.027
Basal like 2	27	49	2.64 (1.13- 6.16)	0.019	44	32	0.59 (0.28- 1.25)	0.17	38	14	0.15 (0.03- 0.66)	0.0045
Immunomodulatory	54	149	1.87 (0.87- 4.03)	0.1	50	153	1.68 (0.78- 3.61)	0.18	45	65	0.53 (0.23- 1.22)	0.13
Mesenchymal	68	109	0.62 (0.41- 0.96)	0.03	129	48	0.72 (0.43- 1.2)	0.21	67	34	0.39 (0.2- 0.76)	0.004
Mesenchymal stem like	41	22	1.51 (0.69- 3.34)	0.3	29	34	1.51 (0.67- 3.37)	0.31	8	25	0.5 (0.17- 1.49)	0.21
Luminal androgen receptor	-	-	-	-	105	98	1.47 (0.98- 2.22)	0.061	47	53	0.39 (0.22- 0.67)	0.00049

<b>systemically untreated patients</b>												
include	504	506	1.25 (1.01-1.55)	0.039	734	276	0.84 (0.66-1.07)	0.16	42	19	0.34 (0.08-1.51)	0.14
exclude	1365	516	0.84 (0.7-1.01)	0.062	630	1251	1.24 (1.05-1.46)	0.012	529	222	0.42 (0.32-0.56)	2.3x10 <sup>-10</sup>
<b>Endocrine therapy</b>												
any	2640	1311	1.16 (1.03-1.3)	0.011	2949	1002	1.15 (1.01-1.3)	0.03	1282	482	0.51 (0.42-0.63)	3.4x10 <sup>-11</sup>
include	751	313	1.29 (1-1.66)	0.051	731	333	0.84 (0.64-1.11)	0.23	224	111	0.67 (0.4-1.13)	0.13
exclude	729	887	1.28 (1.08-1.53)	0.0055	896	720	1.2 (1.01-1.43)	0.036	175	100	0.7 (0.43-1.12)	0.13
tamoxifen only	575	234	1.46 (1.08-1.97)	0.013	280	529	0.78 (0.58-1.04)	0.088	50	111	2.62 (0.76-8.99)	0.11
<b>Chemotherapy</b>												
any												
include	398	400	1.33	0.04	542	256	1.47	0.0061	224	142	0.69 (0.46-	0.084

			(1.01-1.74)				(1.11-1.94)				1.05)	
exclude	1007	866	1.28 (1.08-1.51)	0.0037	1382	491	0.84 (0.69-1.02)	0.08	72	171	2.09 (1.02-4.29)	0.04
adjuvant only	272	322	1.37 (1-1.86)	0.047	418	176	1.39 (1.02-1.92)	0.039	111	144	0.72 (0.45-1.15)+L16	0.17
neoadjuvant only	76	147	0.71 (0.41-1.24)	0.23	132	91	1.95 (1.12-3.39)	0.015	32	79	0.6 (0.28-1.3)	0.19

#### OS data

Variance	SNAI1				SNAI2				SNAI3			
	No. of patients (n)		HR (%95 CI)	P-value	No. of patients (n)		HR (%95 CI)	P-value	No. of patients (n)		HR (%95 CI)	P-value
	Low exp	High exp			Low exp	High exp			Low exp	High exp		
<b>All patients</b>	833	569	1.44 (1.16-1.78)	0.00082	402	1000	0.84 (0.67-1.06)	0.14	419	207	0.68 (0.48-0.97)	0.031
<b>Grade</b>												
1	44	117	0.49 (0.19-1.28)	0.14	111	50	2.1 (0.85-5.18)	0.098	5	21	0 (0-Inf)	0.00017
2	278	109	1.55 (1-2.42)	0.049	107	280	0.6 (0.38-0.94)	0.023	35	29	2.81 (0.85-9.34)	0.078
3	238	265	1.38 (0.99-1.92)	0.058	371	132	1.65 (1.17-	0.004	91	113	0.42 (0.25-	0.000

							2.34)	3			0.72)	96
<b>ER status</b>												
ER+	310	238	1.8 (1.26-2.57)	0.001	203	345	0.65 (0.45-0.93)	0.018	26	83	0.53 (0.24-1.18)	0.11
ER-	181	70	1.57 (0.97-2.53)	0.062	183	68	1.92 (1.21-3.07)	0.0052	24	55	0.39 (0.19-0.8)	0.0072
<b>PR status</b>												
PR+	32	51	4.99 (0.62-39.95)	0.093	61	22	3.17 (0.84-11.91)	0.071				
PR-	66	23	2.76 (1.09-7)	0.026	55	34	1.53 (0.6-3.87)	0.37				
<b>HER2 status</b>												
HER2+	88	41	1.84 (0.9-3.78)	0.09	95	34	1.84 (0.91-3.75)	0.086	9	17	2.52 (0.54-11.77)	0.22
HER2-	97	33	1.74 (0.66-4.54)	0.26	92	38	2.16 (0.92-5.08)	0.072	15	47	0.29 (0.1-0.82)	0.013
<b>Lymph node status</b>												
positive	213	100	1.68 (1.14-2.5)	0.0087	136	177	0.6 (0.4-0.88)	0.0084	48	129	0.5 (0.29-0.85)	0.0085
negative	270	324	1.92 (1.28-2.85)	0.0012	445	149	1.59 (1.07-2.34)	0.019	77	45	1.33 (0.53-3.31)	0.54
<b>TP53 status</b>												
mut	64	47	1.31 (0.61-2.84)	0.49	31	80	0.53 (0.25-1.16)	0.11	16	40	0.27 (0.07-1.02)	0.038
wild	85	102	2.31 (1.12-4.77)	0.02	46	141	0.37 (0.19-0.71)	0.0018				

<b>Pietenpol subtype</b>													
Basal like 1	34	24	2.19 (0.72-6.7)	0.16	41	17	2.56 (0.86-7.65)	0.082	10	27	0.12 (0.02-0.62)	0.0025	
Basal like 2	27	11	10.08 (2.57-39.46)	4.9x10 <sup>-5</sup>	9	29	0.19 (0.05-0.66)	0.0035	13	15	0.51 (0.12-2.17)	0.36	
Immunomodulatory	29	71	7.14 (0.95-53.69)	0.026	53	47	0.56 (0.21-1.49)	0.24	14	45	0.29 (0.08-1.12)	0.056	
Mesenchymal	54	19	1.51 (0.67-3.41)	0.32	39	34	2.13 (0.95-4.8)	0.061	30	14	0.31 (0.09-1.1)	0.056	
Mesenchymal stem like	–	–	–	–	–	–	–	–	–	–	–	–	
Luminal androgen receptor	–	–	–	–	23	60	0.65 (0.32-1.35)	0.25	16	22	0.33 (0.12-0.9)	0.024	
<b>systemically untreated patients</b>													
include	161	221	2.04 (1.25-3.34)	0.0038	144	238	1.37 (0.85-2.2)	0.19	–	–	–	–	
exclude	299	174	1.29 (0.89-1.86)	0.18	192	281	0.61 (0.42-0.88)	0.0082	–	–	–	–	
<b>Endocrine therapy</b>													
any	833	569	1.44 (1.16-1.78)	0.00082	402	1000	0.84 (0.67-1.06)	0.14	419	207	0.68 (0.48-0.97)	0.031	
include	139	76	1.38 (0.8-2.4)	0.24	101	114	0.47 (0.27-	0.006	–	–	–	–	

							0.82)	5				
exclude	308	323	1.59 (1.12-2.25)	0.008 6	459	172	1.36 (0.95-1.95)	0.094	-	-	-	-
tamoxifen only	94	52	2.41 (1.2-4.84)	0.011	69	77	0.6 (0.3-1.21)	0.15	-	-	-	-
<b>Chemotherapy</b>												
any												
include	157	143	1.48 (0.9-2.43)	0.12	218	82	1.43 (0.85-2.41)	0.17	-	-	-	-
exclude	200	349	1.83 (1.23-2.73)	0.002 7	160	389	0.68 (0.47-0.97)	0.034	-	-	-	-
adjuvant only	109	54	1.46 (0.8-2.69)	0.22	114	49	1.38 (0.75-2.53)	0.3	-	-	-	-
neoadjuvant only	102	54	1.7 (0.8-3.62)	0.17	59	97	0.54 (0.25-1.15)	0.11	-	-	-	-