

## Supplementary Online Content

Yang D, Khan S, Sun Y; et al. Association of *BRCA1* and *BRCA2* mutations with survival, chemotherapy sensitivity, and gene mutator phenotype in patients with ovarian cancer. *JAMA*. 2011;303(14):1557-1565.

**eFigure 1.** Flowchart of Chemotherapy Response Analysis

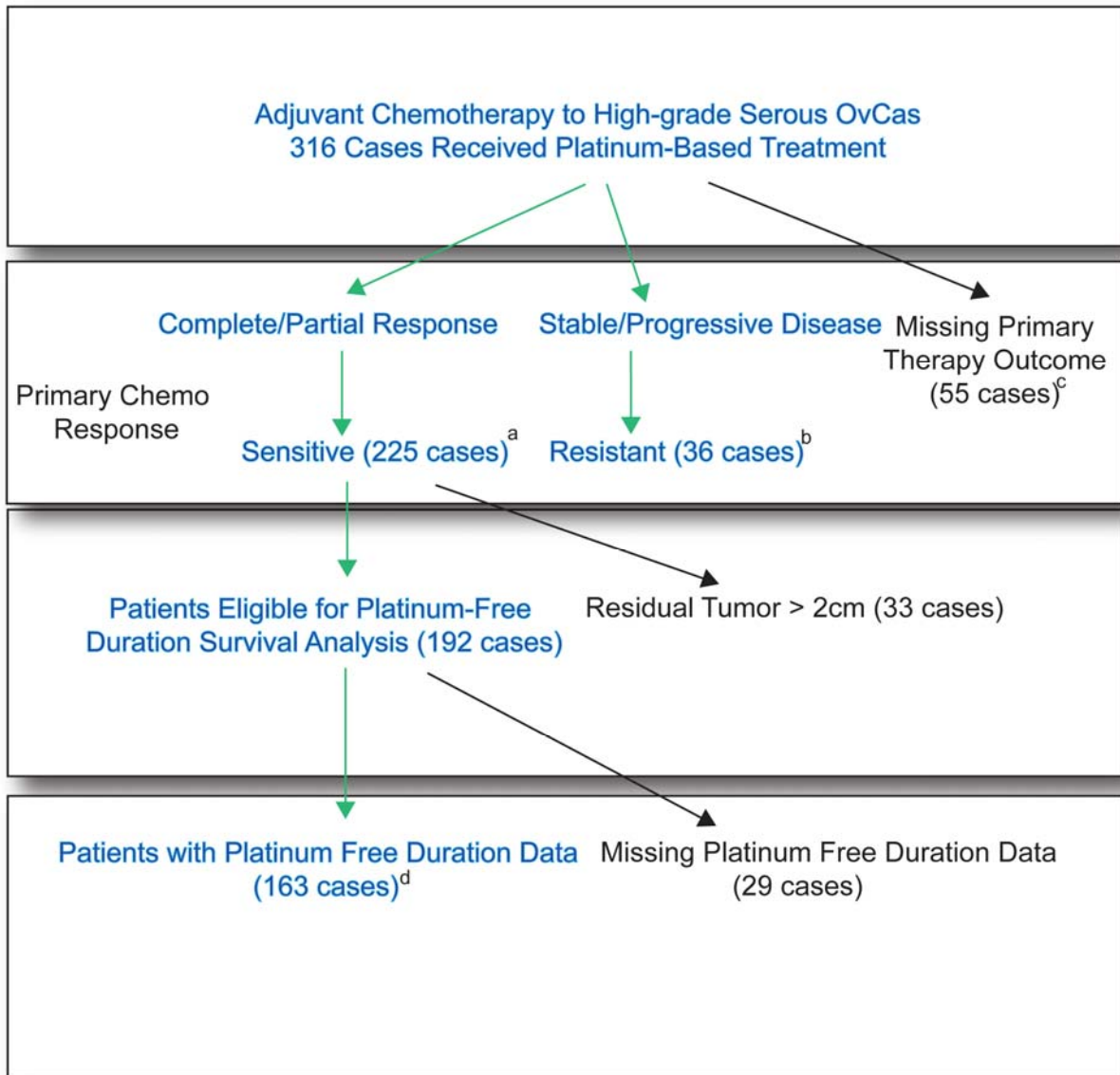
**eFigure 2.** *BRCA* Status, Clinical Stage, Tumor Grade, and Chemo-Response

**eTable 1.** Functional Categories Enriched With Differentially Mutated Genes Between *BRCA2* Mutated and Wild-Type *BRCA* Cases

**eTable 2.** Kaplan-Meier Estimates for Overall Survival and Progression-Free Survival in Months for *BRCA2*-Mutated and *BRCA1*-Hypermethylated Groups

This supplementary material has been provided by the authors to give readers additional information about their work.

**eFigure 1.** Flowchart of Chemotherapy Response Analysis



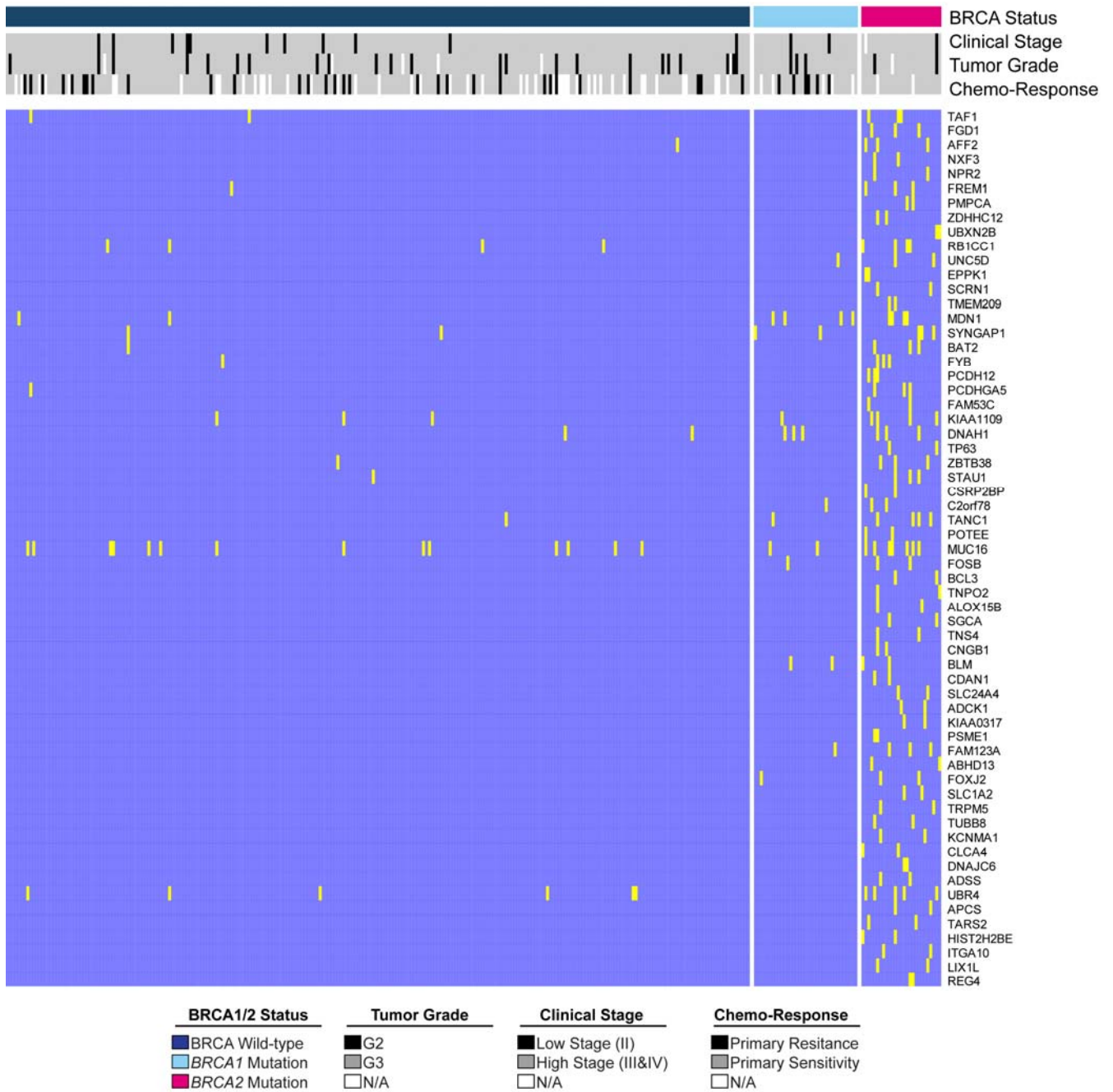
a: including 175 BRCA wild type, 24 BRCA1 mutated, 25 BRCA2 mutated and one BRCA1 and 2 mutated cases.

b: including 30 BRCA wild type and 6 BRCA1 mutated cases.

c: including 47 BRCA wild type, 5 BRCA1 mutated, 2 BRCA2 mutated and one BRCA1 and 2 mutated cases.

d: including 129 BRCA wild type, 15 BRCA1 mutated, 18 BRCA2 mutated and one BRCA1 and 2 mutated cases.

**eFigure 2. BRCA Status, Clinical Stage, Tumor Grade, and Chemo-Response**



**eTable 1.** Functional Categories Enriched With Differentially Mutated Genes Between *BRCA2* Mutated and Wild-Type *BRCA* Cases

Term	Count <sup>@</sup>	% <sup>#</sup>	P <sup>*</sup>
GO:0065003~macromolecular complex assembly	8	13.11	0.01
GO:0009628~response to abiotic stimulus	6	9.84	0.01
GO:0043933~macromolecular complex subunit organization	8	13.11	0.01
GO:0006913~nucleocytoplasmic transport	4	6.56	0.01
GO:0051169~nuclear transport	4	6.56	0.01
GO:0034622~cellular macromolecular complex assembly	5	8.20	0.02
GO:0010604~positive regulation of macromolecule metabolic process	8	13.11	0.02
GO:0009314~response to radiation	4	6.56	0.03
GO:0042770~DNA damage response, signal transduction	3	4.92	0.03
GO:0006606~protein import into nucleus	3	4.92	0.03
GO:0051170~nuclear import	3	4.92	0.03
GO:0030850~prostate gland development	2	3.28	0.04
GO:0045941~positive regulation of transcription	6	9.84	0.04
GO:0034504~protein localization in nucleus	3	4.92	0.04
GO:0010259~multicellular organismal aging	2	3.28	0.04
GO:0010628~positive regulation of gene expression	6	9.84	0.04
GO:0032270~positive regulation of cellular protein metabolic process	4	6.56	0.04
GO:0051247~positive regulation of protein metabolic process	4	6.56	0.04
GO:0046632~alpha-beta T cell differentiation	2	3.28	0.04
GO:0042771~DNA damage response, signal transduction by p53 class mediator resulting in induction of apoptosis	2	3.28	0.05

<sup>@</sup>: Number of differentially mutated genes annotated in the functional category.

<sup>#</sup>: Percentage of differentially mutated genes annotated in the functional category.

<sup>\*</sup>: P value is calculated by Fisher's exact test.

**eTable 2.** Kaplan-Meier Estimates for Overall Survival and Progression-Free Survival in Months for *BRCA2*-Mutated and *BRCA1*-Hypermethylated Groups

	Overall survival			Progression free survival			
	No.	Median (month)	95% CI	<i>P</i> *	Median (month)	95% CI	<i>P</i> *
<i>BRCA2</i> mutation	27	86.8	53.88-119.70	.010	28.6	7.09-50.03	.002
<i>BRCA1</i> methylation	33	41.5	36.54-46.42		14.8	12.08-17.42	

\*Log rank (Mantel-Cox) *P*-value comparing *BRCA2* mutations vs. *BRCA1* methylations  
 Abbreviations: CI, confidence interval; OS, overall survival; PFS, progression-free survival