

Supporting Information

Figure S1. Map of study sites and numbers (%) of patients recruited at each site (per-protocol set; $n = 205$)

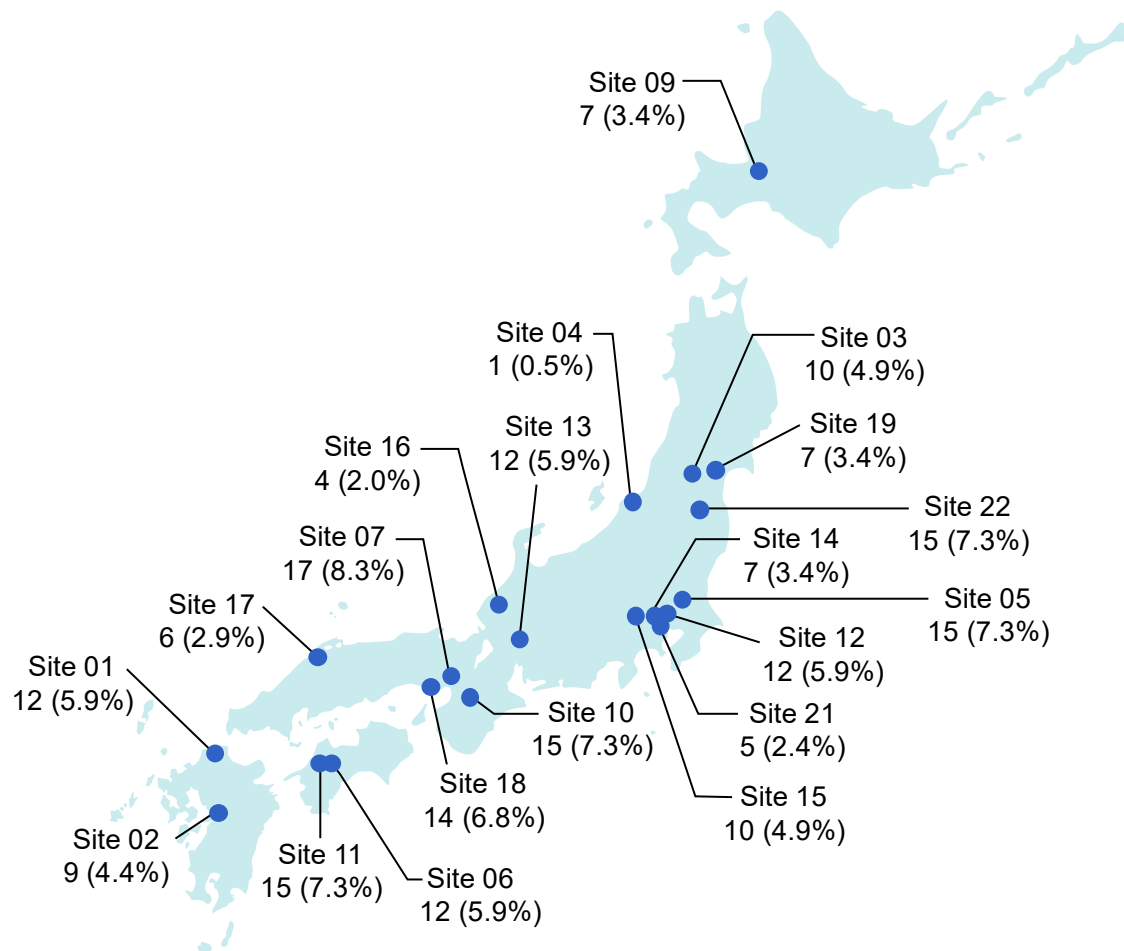
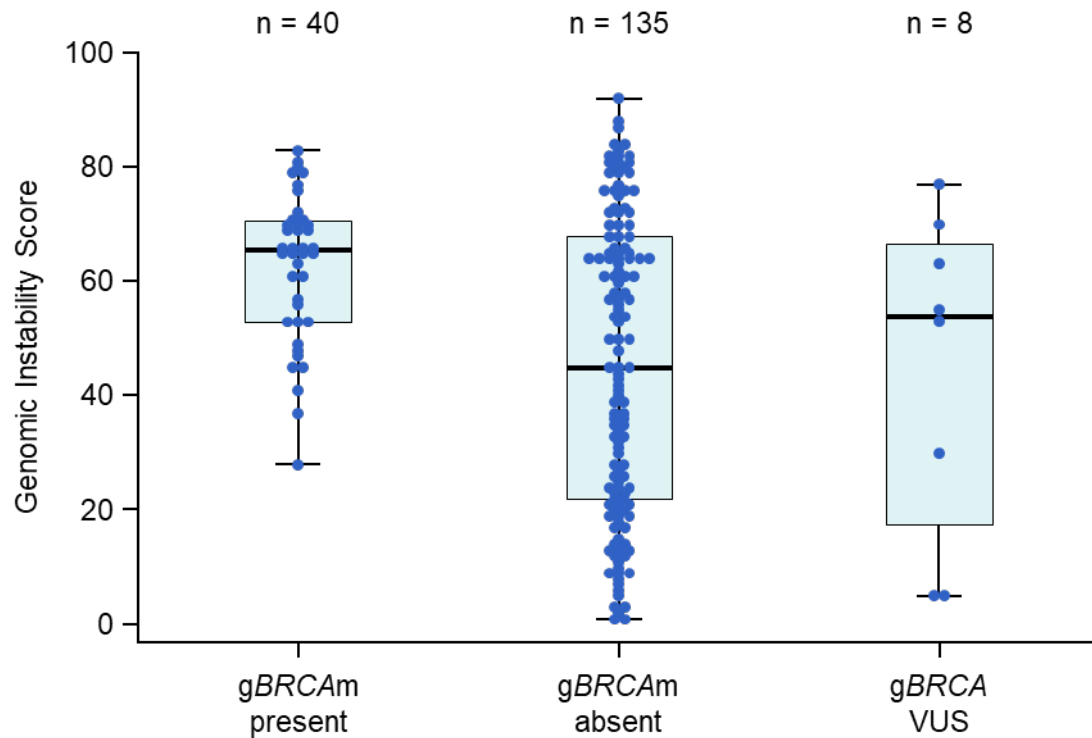


Figure S2. Genomic instability score distribution by gBRCAm present, absent, or VUS status (per-protocol set; $n = 205$)



Q3	70.5	68.0	66.5
Median	65.5	45.0	54.0
Q1	53.0	22.0	17.5

gBRCAm, germline *BRCA* mutation; Q1, quartile 1; Q3, quartile 3; VUS, variant of uncertain significance.

The circles indicate each patient by mutation. In the box plot, the box height indicates the interquartile range, with Q1 at the bottom and Q3 at the top, and the midline indicates the median.

Table S1. List of study sites and numbers (%) of patients recruited at each site

Site		<i>n</i> = 205^a <i>n</i> (%)
Site 01	Hospital of the University of Occupational and Environmental Health	12 (5.9)
Site 02	Kumamoto University Hospital	9 (4.4)
Site 03	Yamagata University Hospital	10 (4.9)
Site 04	Niigata University Medical & Dental Hospital	1 (0.5)
Site 05	University of Tsukuba Hospital	15 (7.3)
Site 06	Ehime University Hospital	12 (5.9)
Site 07	Kansai Rosai Hospital	17 (8.3)
Site 09	Sapporo Medical University Hospital	7 (3.4)
Site 10	Nara Medical University Hospital	15 (7.3)
Site 11	National Hospital Organization Shikoku Cancer Center	15 (7.3)
Site 12	The University of Tokyo Hospital	12 (5.9)
Site 13	Gifu University Hospital	12 (5.9)
Site 14	Keio University Hospital	7 (3.4)
Site 15	Japanese Red Cross Musashino Hospital	10 (4.9)
Site 16	University of Fukui Hospital	4 (2.0)
Site 17	Shimane University Hospital	6 (2.9)
Site 18	Kobe City Medical Center General Hospital	14 (6.8)
Site 19	Tohoku University Hospital	7 (3.4)
Site 21	The Jikei University Hospital	5 (2.4)
Site 22	Fukushima Medical University Hospital	15 (7.3)

^aPer-protocol set.

Table S2. Demographic and clinical characteristics of patients

	<i>n</i> = 205 ^a <i>n</i> (%)
Patient factors	
Age, years	
Mean (SD)	59.4 (10.9)
<50	41 (20.0)
≥50 to <65	84 (41.0)
≥65	80 (39.0)
Menopausal status	
Post-menopausal	151 (73.7)
Pre-menopausal	51 (24.9)
Unknown	3 (1.5)
Neoadjuvant chemotherapy	
Yes	39 (19.0)
No	166 (81.0)
Ovarian cancer factors	
Surgical method	
Laparotomy	82 (40.0)
Primary debulking surgery	76 (37.1)
Interval debulking surgery	35 (17.1)
Laparoscopy	10 (4.9)
Others	2 (1.0)
Cancer type	
Epithelial ovarian	171 (83.4)
Primary peritoneal	20 (9.8)
Fallopian tube	14 (6.8)
Histology	
High-grade serous carcinoma	163 (79.5)
Endometrioid carcinoma	26 (12.7)
Clear-cell carcinoma	13 (6.3)
Others	3 (1.5)
FIGO Stage	
III	137 (66.8)
IV	68 (33.2)

SD, standard deviation; *FIGO*, International Federation of Gynecology and Obstetrics.

Values are *n* (%) unless otherwise stated.

^aPer-protocol set.

Table S3. Variant description of tBRCAm

Variant type	<i>n</i> = 205^a
	<i>n</i> (%)
tBRCA1m	36 (17.6)
Sequencing variants	34 (16.6)
Nonsense	15 (7.3)
Frameshift	14 (6.8)
Missense	3 (1.5)
Splicing-intronic	2 (1.0)
Large rearrangements	2 (1.0)
Deletion	2 (1.0)
tBRCA2m	19 (9.3)
Sequencing variants	19 (9.3)
Nonsense	8 (3.9)
Frameshift	8 (3.9)
Splicing-intronic	3 (1.5)

tBRCA, tumor BRCA; *m*, mutation.

A patient can have a mutation in several categories.

^aPer-protocol set.

Table S4. Prevalence of tBRCAm by medical history of cancer

Medical history	<i>n</i> = 205^a	tBRCA1m <i>n</i> (%)	tBRCA2m <i>n</i> (%)
Breast cancer	18	9 (50.0)	1 (5.6)
Ovarian cystoma	4	1 (25.0)	0
Endometriosis	3	1 (33.3)	0
Pelvic inflammatory disease	1	0	0
Ovarian cyst	1	0	0
Other cancer	11	2 (18.2)	1 (9.1)
Thyroid cancer	3	1 (33.3)	0
Gastric cancer	2	1 (50.0)	0
Uterine cancer	2	0	1 (50.0)
Colon cancer	1	1 (100.0)	0
Renal cancer	1	0	0
Leukemia	1	0	0
Endometrial cancer	1	0	0
Brain neoplasm	1	0	0

tBRCA, tumor BRCA; *m*, mutation.

Percentages were calculated for each cancer type.

^aPer-protocol set.

Table S5. Prevalence of tBRCAm by family history of cancer

Medical history	<i>n</i> = 205^a	tBRCA1m <i>n</i> (%)	tBRCA2m <i>n</i> (%)
Breast cancer	30	12 (40.0)	5 (16.7)
Ovarian cancer	17	10 (58.8)	3 (17.6)
Pancreatic cancer	12	2 (16.7)	1 (8.3)
Prostate cancer	11	1 (9.1)	0
Other cancer	111	22 (19.8)	13 (11.7)
Gastric cancer	40	8 (20.0)	7 (17.5)
Lung neoplasm malignant	31	5 (16.1)	4 (12.9)
Uterine cancer	14	3 (21.4)	1 (7.1)
Colorectal cancer	14	3 (21.4)	0
Colon cancer	7	2 (28.6)	2 (28.6)
Hepatic cancer	7	2 (28.6)	0
Bladder cancer	6	2 (33.3)	1 (16.7)
Leukemia	5	1 (20.0)	0
Skin cancer	4	1 (25.0)	0
Bile duct cancer	4	0	0
Lymphoma	4	0	0
Cervix carcinoma	3	1 (33.3)	0
Renal cancer	3	1 (33.3)	0
Esophageal carcinoma	3	1 (33.3)	0
Neoplasm malignant	2	1 (50.0)	1 (50.0)
Rectal cancer	2	1 (50.0)	0
Gallbladder cancer	2	0	2 (100.0)
Endometrial cancer	2	0	0
Testis cancer	1	1 (100.0)	0
Laryngeal cancer	1	1 (100.0)	0
Genital neoplasm malignant female	1	0	1 (100.0)
Brain neoplasm	1	0	0
Malignant melanoma	1	0	0
Osteosarcoma	1	0	0
Lip/oral cavity cancer	1	0	0
Hematopoietic neoplasm	1	0	0

tBRCA, tumor BRCA; *m*, mutation.

Percentages were calculated for each cancer type.

^aPer-protocol set.

Table S6. List of study sites and investigators who participated in the CHRISTELLE study

Study sites	Investigators
Hospital of the University of Occupational and Environmental Health	Hiroshi Harada
Kumamoto University Hospital	Takeshi Motohara
Yamagata University Hospital	Tsuyoshi Ohta
Niigata University Medical & Dental Hospital	Kosuke Yoshihara
University of Tsukuba Hospital	Ayumi Shikama
Ehime University Hospital	Takashi Matsumoto
Kansai Rosai Hospital	Kimihiko Ito
Okayama University Hospital	Keiichiro Nakamura
Sapporo Medical University Hospital	Motoki Matsuura
Nara Medical University Hospital	Ryuji Kawaguchi
National Hospital Organization Shikoku Cancer Center	Kazuhiro Takehara
The University of Tokyo Hospital	Mayuyo Mori
Gifu University Hospital	Saki Murase
Keio University Hospital	Tatsuyuki Chiyoda
Japanese Red Cross Musashino Hospital	Satoshi Umezawa
University of Fukui Hospital	Hideaki Tsuyoshi
Shimane University Hospital	Seiya Sato
Kobe City Medical Center General Hospital	Nobutaka Hayashi
Tohoku University Hospital	Hideki Tokunaga
Shizuoka Cancer Center	Nobuhiro Kado
The Jikei University Hospital	Nozomu Yanaihara
Fukushima Medical University Hospital	Takafumi Watanabe