

Supplementary Table 3: Fulfillment of HDGC criteria

ID	Proband cancer type-age	Proband breast tumor histology	(1) families with two or more patients with gastric cancer at any age, one confirmed DGC	(2) individuals with DGC before the age of 40	(3) families with diagnoses of both DGC and LBC (one diagnosis before the age of 50)	Fulfillment of HDGC criteria
411599	no cancer		yes	no	breast tumor histology unavailable	yes
464388	breast-41	not provided	yes	no	breast tumor histology unavailable	yes
350350	breast-51	IDC	yes	yes	breast tumor histology unavailable	yes
464775	gastric-16		no	yes	breast tumor histology unavailable	yes
437795	gastric-20		no	yes	breast tumor histology unavailable	yes
376493	gastric-22		no	yes	breast tumor histology unavailable	yes
474436	gastric-29		yes	yes	breast tumor histology unavailable	yes
266279	gastric-30		no	yes	breast tumor histology unavailable	yes
Yale-12	gastric-30		no	yes	breast tumor histology unavailable	yes
483450	gastric-38		yes	yes	breast tumor histology unavailable	yes
496309	gastric-50		yes	yes	breast tumor histology unavailable	yes
286978	gastric-50		yes	no	breast tumor histology unavailable	yes
272818	gastric-51		yes	no	breast tumor histology unavailable	yes
378761	gastric-58 breast-49	IDC	yes	no	breast tumor histology unavailable	yes

177280	gastric-68		yes	yes	breast tumor histology unavailable	yes
423629	no cancer		yes	yes	breast tumor histology unavailable	yes
496303	no cancer		yes	yes	breast tumor histology unavailable	yes
Yale-4726	no cancer		yes	yes	breast tumor histology unavailable	yes
436667	gastric-25		incomplete information	yes	incomplete information	yes
277949	CRC-55		no	yes	no	yes
423389	gastric-23		yes	yes	no	yes
248408	gastric-25		yes	yes	no	yes
Yale-3374	gastric-26 breast-26	mixed ductal and lobular features	yes	yes	no	yes
Yale-6295	gastric-31		yes	yes	no	yes
351546	gastric-35		yes	yes	no	yes
255454	gastric-39		yes	yes	no	yes
Yale-905	gastric-42		yes	no	no	yes
Yale-4749	gastric-43		yes	no	no	yes
494186	gastric-46		yes	yes	no	yes
146758	gastric-49		yes	yes	no	yes
310200	gastric-54		yes	no	no	yes
415532	gastric-63		yes	yes	no	yes
387029	gastric-68		yes	no	no	yes
468710	no cancer		yes	yes	no	yes
430588	no cancer		yes	yes	no	yes
412903	pancreas-56		yes	yes	no	yes
308845	breast-37	ILC	no	yes	yes	yes
277096	breast-45	ILC	no	no	yes	yes
427912	breast-46	ILC	no	yes	yes	yes
144261	breast-47	ILC	yes	yes	yes	yes
427129	breast-47	ILC	no	no	yes	yes
188262	breast-53	ILC	no	yes	yes	yes

303524	breast-55	ILC	no	yes	yes	yes
378992	breast-56	ILC	no	yes	yes	yes
465749	breast-61	ILC	no	yes	yes	yes
270796	gastric-58 breast-43	ILC, DCIS	yes	yes	yes	yes
326920	breast-27	not provided	no	no	no	no
383956	breast-31	not provided	no	no	no	no
305977	breast-32	IDC	no	no	no	no
254214	breast-36	IDC, DCIS	no	no	no	no
246373	breast-38	IDC	no	no	no	no
292100	breast-39	not provided	no	no	no	no
432971	breast-39	IDC	no	no	no	no
170199	breast-40	ILC	no	no	no	no
269557	breast-42	IDC	no	no	no	no
289070	breast-42	ILC	no	no	no	no
271298	breast-43	IDC	no	no	no	no
295925	breast-43	ILC	no	no	no	no
274590	breast-43	ILC	no	no	no	no
477357	breast-46	ILC	no	no	no	no
414884	breast-46	ILC, pleiomorphic signet cell	no	no	no	no
475165	breast-47	IDC	no	no	no	no
343892	breast-49	ILC	no	no	no	no
288929	breast-50	IDC	no	no	no	no
336812	breast-50	IDC, ILC	no	no	no	no
299440	breast-51	ILC	no	no	no	no
278530	breast-54	ILC	no	no	no	no
451642	breast-54	ILC	no	no	no	no
172418	breast-54	ILC	no	no	no	no
370653	breast-55	IDC	no	no	no	no
318795	breast-56	IDC	no	no	no	no
266750	breast-60	ILC	no	no	no	no
471579	breast-65	ILC	no	no	no	no
467745	breast-66	IDC	no	no	no	no
399582	breast-69	ILC	no	no	no	no

482512	breast-70	not provided	no	no	no	no
365930	breast-73	IDC	no	no	no	no
468634	breast-77	DCIS	no	no	no	no
259996	breast-78	ILC	no	no	no	no
479391	CRC-23		no	no	no	no
444638	CRC-42		no	no	no	no
323915	gastric-43		no	no	no	no
367316	gastric-61		no	no	no	no
490925	no cancer		no	no	no	no
360812	no cancer		no	no	no	no
Yale-1147	no cancer		no	no	no	no
432240	no cancer		no	no	no	no
291207	no cancer		no	no	no	no
486370	no cancer		no	no	no	no
408846	no cancer		no	no	no	no
320475	no cancer		no	no	no	no
480928	no cancer		no	no	no	no
163055	no cancer		no	no	no	no
497524	no cancer		no	no	no	no
357746	no cancer		no	no	no	no
257406	no cancer		no	no	no	no
437507	no cancer		no	no	no	no
379160	ovarian-48		no	no	no	no
298749	thyroid-26		no	no	no	no
432401	breast-60	IDC	no	no	breast tumor histology unavailable	incomplete information
344629	breast-72	ILC	no	no	age gastric cancer incomplete	incomplete information
377291	breast-30	IDC	no	no	breast tumor histology unavailable	incomplete information
322176	no cancer		no	no	breast tumor histology unavailable	incomplete information
370264	breast-45	IDC	no	no	breast tumor histology unavailable	incomplete information

414469	breast-56	not provided	no	age gastric cancer incomplete	breast tumor histology unavailable	incomplete information
429623	breast-58	invasive mammary carcinoma	no	no	breast tumor histology unavailable	incomplete information
347411	CRC-39		no	no	breast tumor histology unavailable	incomplete information
302627	gastric-67		no	no	breast tumor histology unavailable	incomplete information
424470	no cancer		no	no	breast tumor histology unavailable	incomplete information
303122	no cancer		no	no	breast tumor histology unavailable	incomplete information
Yale-1018	no cancer		no	no	breast tumor histology unavailable	incomplete information
494133	breast-74	ILC	incomplete information	no	incomplete information	incomplete information
432353	no cancer		no	gastric ca age unavailable	no	incomplete information