

**S Table 2. Patient information retrieved from our in-house cohort.**

Sample	Cohort	Stage	Country	Continent	Age	Gender	AJCC	AJCC_simple	Labeling
S3_043	YuJ_2021	CRC	CHN	Asian	72	F	I	I	Downstream
S5_002	YuJ_2021	CRC	CHN	Asian	50	M	I	I	Downstream
S5_003	YuJ_2021	CRC	CHN	Asian	83	M	II	II	Downstream
S5_006	YuJ_2021	CRC	CHN	Asian	75	M	I	I	Downstream
S5_007	YuJ_2021	CRC	CHN	Asian	58	F	III	III	Downstream
S5_008	YuJ_2021	CRC	CHN	Asian	67	M	IV	IV	Downstream
S5_009	YuJ_2021	CRC	CHN	Asian	89	F	II	II	Downstream
S5_010	YuJ_2021	CRC	CHN	Asian	82	F	II	II	Discard
S5_011	YuJ_2021	CRC	CHN	Asian	71	M	II	II	Downstream
S5_012_merged	YuJ_2021	CRC	CHN	Asian	84	M	III	III	Downstream
S5_013	YuJ_2021	CRC	CHN	Asian	72	F	II	II	Downstream
S5_014	YuJ_2021	CRC	CHN	Asian	61	M	I	I	Discard
S5_015	YuJ_2021	CRC	CHN	Asian	65	M	IV	IV	Downstream
S5_016	YuJ_2021	CRC	CHN	Asian	83	M	II	II	Downstream
S5_017	YuJ_2021	CRC	CHN	Asian	81	M	III	III	Downstream
S5_018	YuJ_2021	CRC	CHN	Asian	74	M	III	III	Downstream
S5_019	YuJ_2021	CRC	CHN	Asian	65	F	IV	IV	Downstream
S5_020	YuJ_2021	CRC	CHN	Asian	72	F	I	I	Downstream
S5_021	YuJ_2021	CRC	CHN	Asian	64	F	I	I	Downstream
S5_022	YuJ_2021	CRC	CHN	Asian	73	M	I	I	Downstream
S5_023	YuJ_2021	CRC	CHN	Asian	68	F	III	III	Downstream
S5_025	YuJ_2021	CRC	CHN	Asian	60	F	III	III	Downstream
S5_026	YuJ_2021	CRC	CHN	Asian	80	F	I	I	Downstream
S5_027	YuJ_2021	CRC	CHN	Asian	84	F	III	III	Discard
S5_028	YuJ_2021	CRC	CHN	Asian	67	M	I	I	Downstream
S5_029	YuJ_2021	CRC	CHN	Asian	79	M	III	III	Downstream
S5_030	YuJ_2021	CRC	CHN	Asian	82	M	IV	IV	Downstream
S5_031	YuJ_2021	CRC	CHN	Asian	84	M	III	III	Downstream
S5_032	YuJ_2021	CRC	CHN	Asian	85	M	II	II	Downstream
S5_034	YuJ_2021	CRC	CHN	Asian	74	F	IV	IV	Downstream
S5_035	YuJ_2021	CRC	CHN	Asian	77	M	II	II	Downstream
S5_037	YuJ_2021	CRC	CHN	Asian	73	F	III	III	Downstream
S5_038	YuJ_2021	CRC	CHN	Asian	67	M	II	II	Downstream
S5_039	YuJ_2021	CRC	CHN	Asian	70	F	II	II	Downstream
S5_040	YuJ_2021	CRC	CHN	Asian	91	M	II	II	Downstream
S5_041	YuJ_2021	CRC	CHN	Asian	64	F	III	III	Discard
S5_042	YuJ_2021	CRC	CHN	Asian	77	M	II	II	Downstream
S5_043	YuJ_2021	CRC	CHN	Asian	63	F	II	II	Discard
S5_045	YuJ_2021	CRC	CHN	Asian	80	M	III	III	Downstream
S5_047	YuJ_2021	CRC	CHN	Asian	43	F	IV	IV	Downstream
S5_052	YuJ_2021	CRC	CHN	Asian	84	F	II	II	Downstream
S5_055	YuJ_2021	CRC	CHN	Asian	81	F	I	I	Downstream
S5_055-2	YuJ_2021	CRC	CHN	Asian	81	F	I	I	Discard
S5_056	YuJ_2021	CRC	CHN	Asian	79	M	IV	IV	Downstream
S5_057	YuJ_2021	CRC	CHN	Asian	92	M	III	III	Downstream
S5_060	YuJ_2021	CRC	CHN	Asian	52	F	I	I	Downstream
S5_061	YuJ_2021	CRC	CHN	Asian	84	M	III	III	Downstream
S5_062	YuJ_2021	CRC	CHN	Asian	96	F	II	II	Downstream
S5_064	YuJ_2021	CRC	CHN	Asian	78	M	I	I	Downstream
S5_066	YuJ_2021	CRC	CHN	Asian	58	F	IV	IV	Discard
S5_068	YuJ_2021	CRC	CHN	Asian	87	F	III	III	Downstream
S5_070	YuJ_2021	CRC	CHN	Asian	59	M	III	III	Downstream
S5_071	YuJ_2021	CRC	CHN	Asian	83	M	II	II	Downstream
S5_072	YuJ_2021	CRC	CHN	Asian	71	M	III	III	Downstream
S5_073	YuJ_2021	CRC	CHN	Asian	85	M	II	II	Downstream
S5_075	YuJ_2021	CRC	CHN	Asian	81	M	III	III	Discard
S5_076	YuJ_2021	CRC	CHN	Asian	82	F	II	II	Discard
S5_077	YuJ_2021	CRC	CHN	Asian	54	F	IV	IV	Downstream
S5_078	YuJ_2021	CRC	CHN	Asian	74	F	II	II	Downstream
S5_080	YuJ_2021	CRC	CHN	Asian	83	F	IV	IV	Discard
S5_082	YuJ_2021	CRC	CHN	Asian	86	F	III	III	Downstream
S5_083	YuJ_2021	CRC	CHN	Asian	69	F	II	II	Downstream
S5_084_merged	YuJ_2021	CRC	CHN	Asian	68	F	III	III	Downstream
S5_085	YuJ_2021	CRC	CHN	Asian	74	M	I	I	Downstream
S5_086	YuJ_2021	CRC	CHN	Asian	67	M	I	I	Downstream

S5_087	YuJ_2021	CRC	CHN	Asian	81	M	II	II	Discard
S5_088	YuJ_2021	CRC	CHN	Asian	56	M	I	I	Downstream
S5_089	YuJ_2021	CRC	CHN	Asian	75	M	I	I	Downstream
S5_091	YuJ_2021	CRC	CHN	Asian	74	M	III	III	Downstream
S5_092	YuJ_2021	CRC	CHN	Asian	61	F	III	III	Downstream
S5_093	YuJ_2021	CRC	CHN	Asian	60	M	III	III	Downstream
S5_094_merged	YuJ_2021	CRC	CHN	Asian	77	M	II	II	Downstream
S5_096	YuJ_2021	CRC	CHN	Asian	70	M	II	II	Downstream
S5_098	YuJ_2021	CRC	CHN	Asian	64	F	III	III	Downstream
S5_099	YuJ_2021	CRC	CHN	Asian	55	M	II	II	Downstream
S5_101	YuJ_2021	CRC	CHN	Asian	89	M	II	II	Downstream
S5_104	YuJ_2021	CRC	CHN	Asian	78	M	IV	IV	Downstream
S6_001	YuJ_2021	CRC	CHN	Asian	65	F	I	I	Downstream
S6_002	YuJ_2021	CRC	CHN	Asian	83	M	II	II	Downstream
S6_003_merged	YuJ_2021	CRC	CHN	Asian	87	F	III	III	Downstream
S6_004	YuJ_2021	CRC	CHN	Asian	75	M	I	I	Downstream
S6_005	YuJ_2021	CRC	CHN	Asian	67	M	IV	IV	Downstream
S6_006	YuJ_2021	CRC	CHN	Asian	89	F	II	II	Downstream
S6_007	YuJ_2021	CRC	CHN	Asian	82	F	II	II	Downstream
S6_008	YuJ_2021	CRC	CHN	Asian	71	M	II	II	Downstream
S6_009	YuJ_2021	CRC	CHN	Asian	84	M	III	III	Downstream
S6_010	YuJ_2021	CRC	CHN	Asian	72	F	II	II	Downstream
S6_011	YuJ_2021	CRC	CHN	Asian	65	M	IV	IV	Discard
S6_012	YuJ_2021	CRC	CHN	Asian	60	F	III	III	Downstream
S6_013	YuJ_2021	CRC	CHN	Asian	64	F	I	I	Discard
S6_014	YuJ_2021	CRC	CHN	Asian	78	M	IV	IV	Downstream
S6_015	YuJ_2021	CRC	CHN	Asian	74	M	III	III	Downstream
S6_016	YuJ_2021	CRC	CHN	Asian	83	M	II	II	Downstream
S6_017	YuJ_2021	CRC	CHN	Asian	62	M	II	II	Downstream
S6_018	YuJ_2021	CRC	CHN	Asian	81	M	III	III	Downstream
S6_019	YuJ_2021	CRC	CHN	Asian	80	M	III	III	Downstream
S6_020	YuJ_2021	CRC	CHN	Asian	86	F	II	II	Downstream
S6_021	YuJ_2021	CRC	CHN	Asian	83	F	IV	IV	Downstream
S6_022	YuJ_2021	CRC	CHN	Asian	64	F	III	III	Downstream
S6_023	YuJ_2021	CRC	CHN	Asian	73	M	I	I	Downstream
S6_024	YuJ_2021	CRC	CHN	Asian	89	M	II	II	Downstream
S6_025	YuJ_2021	CRC	CHN	Asian	81	F	I	I	Downstream
S6_026	YuJ_2021	CRC	CHN	Asian	67	M	I	I	Discard
S6_027	YuJ_2021	CRC	CHN	Asian	62	M	II	II	Downstream
S6_028	YuJ_2021	CRC	CHN	Asian	69	F	II	II	Downstream
S6_029	YuJ_2021	CRC	CHN	Asian	68	F	III	III	Downstream
S6_030	YuJ_2021	CRC	CHN	Asian	57	F	IV	IV	Downstream
S6_031	YuJ_2021	CRC	CHN	Asian	72	F	I	I	Downstream
S6_032	YuJ_2021	CRC	CHN	Asian	68	F	III	III	Downstream
S6_035	YuJ_2021	CRC	CHN	Asian	64	F	III	III	Downstream
S1_001	YuJ_2021	Ctrl	CHN	Asian	54	F	NA	NA	Downstream
S1_002	YuJ_2021	Ctrl	CHN	Asian	57	F	NA	NA	Downstream
S1_003	YuJ_2021	Ctrl	CHN	Asian	63	M	NA	NA	Downstream
S1_004	YuJ_2021	Ctrl	CHN	Asian	59	F	NA	NA	Downstream
S1_005	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Discard
S1_006	YuJ_2021	Ctrl	CHN	Asian	68	M	NA	NA	Downstream
S1_007	YuJ_2021	Ctrl	CHN	Asian	63	M	NA	NA	Downstream
S1_008	YuJ_2021	Ctrl	CHN	Asian	73	F	NA	NA	Downstream
S1_009	YuJ_2021	Ctrl	CHN	Asian	71	M	NA	NA	Downstream
S1_010	YuJ_2021	Ctrl	CHN	Asian	57	F	NA	NA	Discard
S1_011	YuJ_2021	Ctrl	CHN	Asian	61	F	NA	NA	Downstream
S1_012_merged	YuJ_2021	Ctrl	CHN	Asian	59	F	NA	NA	Downstream
S1_013	YuJ_2021	Ctrl	CHN	Asian	65	M	NA	NA	Downstream
S1_014	YuJ_2021	Ctrl	CHN	Asian	60	F	NA	NA	Discard
S1_015	YuJ_2021	Ctrl	CHN	Asian	71	F	NA	NA	Downstream
S1_016	YuJ_2021	Ctrl	CHN	Asian	65	F	NA	NA	Downstream
S1_017	YuJ_2021	Ctrl	CHN	Asian	71	F	NA	NA	Downstream
S1_018	YuJ_2021	Ctrl	CHN	Asian	65	M	NA	NA	Discard
S1_019	YuJ_2021	Ctrl	CHN	Asian	66	M	NA	NA	Downstream
S1_020	YuJ_2021	Ctrl	CHN	Asian	79	F	NA	NA	Downstream
S1_021	YuJ_2021	Ctrl	CHN	Asian	71	M	NA	NA	Downstream
S1_022	YuJ_2021	Ctrl	CHN	Asian	57	M	NA	NA	Downstream

S1_023	YuJ_2021	Ctrl	CHN	Asian	64	M	NA	NA	Downstream
S1_024_merged	YuJ_2021	Ctrl	CHN	Asian	65	M	NA	NA	Downstream
S1_025	YuJ_2021	Ctrl	CHN	Asian	58	M	NA	NA	Downstream
S1_026	YuJ_2021	Ctrl	CHN	Asian	59	M	NA	NA	Downstream
S1_027	YuJ_2021	Ctrl	CHN	Asian	67	M	NA	NA	Downstream
S1_028	YuJ_2021	Ctrl	CHN	Asian	50	M	NA	NA	Discard
S1_029	YuJ_2021	Ctrl	CHN	Asian	61	F	NA	NA	Downstream
S1_030	YuJ_2021	Ctrl	CHN	Asian	47	F	NA	NA	Downstream
S1_031	YuJ_2021	Ctrl	CHN	Asian	52	F	NA	NA	Downstream
S1_032	YuJ_2021	Ctrl	CHN	Asian	51	M	NA	NA	Downstream
S1_033	YuJ_2021	Ctrl	CHN	Asian	63	F	NA	NA	Downstream
S1_034	YuJ_2021	Ctrl	CHN	Asian	68	F	NA	NA	Downstream
S1_035	YuJ_2021	Ctrl	CHN	Asian	55	M	NA	NA	Downstream
S1_036	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Downstream
S1_037	YuJ_2021	Ctrl	CHN	Asian	64	M	NA	NA	Downstream
S1_038	YuJ_2021	Ctrl	CHN	Asian	59	M	NA	NA	Downstream
S1_039	YuJ_2021	Ctrl	CHN	Asian	54	F	NA	NA	Downstream
S1_040	YuJ_2021	Ctrl	CHN	Asian	60	F	NA	NA	Discard
S1_041	YuJ_2021	Ctrl	CHN	Asian	56	M	NA	NA	Downstream
S1_042	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Downstream
S1_043	YuJ_2021	Ctrl	CHN	Asian	75	M	NA	NA	Discard
S1_045	YuJ_2021	Ctrl	CHN	Asian	67	F	NA	NA	Discard
S1_047	YuJ_2021	Ctrl	CHN	Asian	66	M	NA	NA	Downstream
S1_048	YuJ_2021	Ctrl	CHN	Asian	57	F	NA	NA	Downstream
S1_049	YuJ_2021	Ctrl	CHN	Asian	61	F	NA	NA	Downstream
S1_050	YuJ_2021	Ctrl	CHN	Asian	70	F	NA	NA	Downstream
S1_051	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Downstream
S1_052	YuJ_2021	Ctrl	CHN	Asian	61	F	NA	NA	Downstream
S1_053	YuJ_2021	Ctrl	CHN	Asian	64	F	NA	NA	Downstream
S1_054	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Downstream
S1_057	YuJ_2021	Ctrl	CHN	Asian	57	F	NA	NA	Downstream
S1_058	YuJ_2021	Ctrl	CHN	Asian	60	M	NA	NA	Downstream
S1_060_merged	YuJ_2021	Ctrl	CHN	Asian	57	F	NA	NA	Downstream
S1_061	YuJ_2021	Ctrl	CHN	Asian	59	F	NA	NA	Downstream
S1_062_merged	YuJ_2021	Ctrl	CHN	Asian	61	F	NA	NA	Downstream
S1_064	YuJ_2021	Ctrl	CHN	Asian	72	M	NA	NA	Downstream
S1_065	YuJ_2021	Ctrl	CHN	Asian	64	F	NA	NA	Downstream
S1_066	YuJ_2021	Ctrl	CHN	Asian	64	M	NA	NA	Downstream
S1_067	YuJ_2021	Ctrl	CHN	Asian	57	F	NA	NA	Discard
S1_068	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Downstream
S1_069	YuJ_2021	Ctrl	CHN	Asian	65	F	NA	NA	Downstream
S1_070	YuJ_2021	Ctrl	CHN	Asian	58	M	NA	NA	Downstream
S1_071	YuJ_2021	Ctrl	CHN	Asian	65	F	NA	NA	Downstream
S1_072	YuJ_2021	Ctrl	CHN	Asian	76	F	NA	NA	Downstream
S1_073	YuJ_2021	Ctrl	CHN	Asian	65	F	NA	NA	Downstream
S1_074	YuJ_2021	Ctrl	CHN	Asian	63	F	NA	NA	Downstream
S1_077	YuJ_2021	Ctrl	CHN	Asian	67	F	NA	NA	Downstream
S1_078	YuJ_2021	Ctrl	CHN	Asian	68	F	NA	NA	Discard
S1_079	YuJ_2021	Ctrl	CHN	Asian	65	M	NA	NA	Downstream
S1_081	YuJ_2021	Ctrl	CHN	Asian	67	F	NA	NA	Downstream
S1_083	YuJ_2021	Ctrl	CHN	Asian	72	F	NA	NA	Downstream
S1_084	YuJ_2021	Ctrl	CHN	Asian	59	M	NA	NA	Downstream
S1_086	YuJ_2021	Ctrl	CHN	Asian	57	M	NA	NA	Downstream
S1_087	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Discard
S1_088	YuJ_2021	Ctrl	CHN	Asian	65	F	NA	NA	Downstream
S1_089	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Downstream
S1_089-2	YuJ_2021	Ctrl	CHN	Asian	62	F	NA	NA	Downstream
S1_091	YuJ_2021	Ctrl	CHN	Asian	57	M	NA	NA	Downstream
S1_092	YuJ_2021	Ctrl	CHN	Asian	62	M	NA	NA	Downstream
S1_093	YuJ_2021	Ctrl	CHN	Asian	67	M	NA	NA	Downstream
S1_094	YuJ_2021	Ctrl	CHN	Asian	60	F	NA	NA	Downstream
S1_095	YuJ_2021	Ctrl	CHN	Asian	59	F	NA	NA	Downstream
S1_100_merged	YuJ_2021	Ctrl	CHN	Asian	53	F	NA	NA	Downstream
S1_102	YuJ_2021	Ctrl	CHN	Asian	52	F	NA	NA	Downstream
S1_105	YuJ_2021	Ctrl	CHN	Asian	61	F	NA	NA	Downstream
S1_106	YuJ_2021	Ctrl	CHN	Asian	59	M	NA	NA	Downstream
S1_107	YuJ_2021	Ctrl	CHN	Asian	72	F	NA	NA	Downstream

S1_108	YuJ_2021	Ctrl	CHN	Asian	63	M	NA	NA	Downstream
S1_109	YuJ_2021	Ctrl	CHN	Asian	51	M	NA	NA	Downstream
S1_110	YuJ_2021	Ctrl	CHN	Asian	53	F	NA	NA	Downstream
S1_111	YuJ_2021	Ctrl	CHN	Asian	72	M	NA	NA	Downstream
S1_112	YuJ_2021	Ctrl	CHN	Asian	57	M	NA	NA	Downstream
S1_113	YuJ_2021	Ctrl	CHN	Asian	56	F	NA	NA	Downstream
S1_114	YuJ_2021	Ctrl	CHN	Asian	59	M	NA	NA	Downstream
S1_115	YuJ_2021	Ctrl	CHN	Asian	57	F	NA	NA	Downstream
S1_116	YuJ_2021	Ctrl	CHN	Asian	54	F	NA	NA	Downstream
S1_118	YuJ_2021	Ctrl	CHN	Asian	48	F	NA	NA	Downstream
S1_120	YuJ_2021	Ctrl	CHN	Asian	58	F	NA	NA	Downstream
S1_121	YuJ_2021	Ctrl	CHN	Asian	76	M	NA	NA	Downstream
S1_122	YuJ_2021	Ctrl	CHN	Asian	78	F	NA	NA	Discard
S1_123	YuJ_2021	Ctrl	CHN	Asian	72	M	NA	NA	Downstream
S1_124	YuJ_2021	Ctrl	CHN	Asian	76	F	NA	NA	Downstream
S1_125	YuJ_2021	Ctrl	CHN	Asian	58	M	NA	NA	Downstream
S1_126	YuJ_2021	Ctrl	CHN	Asian	58	M	NA	NA	Downstream
S1_127	YuJ_2021	Ctrl	CHN	Asian	63	F	NA	NA	Downstream
S1_128	YuJ_2021	Ctrl	CHN	Asian	69	F	NA	NA	Downstream
S1_130	YuJ_2021	Ctrl	CHN	Asian	67	M	NA	NA	Downstream
S1_132	YuJ_2021	Ctrl	CHN	Asian	65	F	NA	NA	Downstream
S2_005	YuJ_2021	Ctrl	CHN	Asian	60	F	NA	NA	Downstream
S3_096	YuJ_2021	Ctrl	CHN	Asian	66	M	NA	NA	Downstream