

Supplementary Table 2. Summary of basic characteristics of 23+1 datasets

ID	GEO Series	No. of Pat.	treatment	clinical outcome	other clinical info	cancer type	platform
1	GSE17920	130	doxorubicin bleomycin vinblastine dacarbazine	relapse or not	Yes	Hodgkin lymphoma	GPL570
2	GSE16446	120	epirubicin	pcr or npcr	Yes	Breast Cancer	GPL570
3	GSE4779	102	5-fluorouracil epirubicin cyclophosphamide	pcr or npcr	Yes	Breast cancer	GPL570
4	GSE20194	230	paclitaxel 5-fluorouracil cyclophosphamide doxorubicin	pcr or rd	Yes	Breast Cancer	GPL96
5	GSE20271	178	paclitaxel 5-fluorouracil doxorubicin cyclophosphamide	pcr or rd	Yes	Breast Cancer	GPL96
6	GSE19615	115	doxorubicin cyclophosphamide paclitaxel	DMF time	Yes	Breast cancer	GPL570
7	GSE12093	136	tamoxifen	DFS time	NA (Yes in paper)	Breast Cancer	GPL96
8	GSE17705	298	tamoxifen	relapse free survival	Yes	Breast Cancer	GPL96
9	GSE2990	189	tamoxifen	DFS time	Yes	Breast Cancer	GPL96
10	GSE6532	255	tamoxifen	survival time	Yes	Breast Cancer	GPL96and97and570
11	GSE1456	159	cyclophosphamide methotrexate 5-fluorouracil megesterol tamoxifen goserelin	DFS time Survival time	Yes	Breast Cancer	GPL96and97
12	GSE17538/GSE17536	244	cyclophosphamide	DFS time	Yes	Colon cancer	GPL570
13	GSE9891/GSE9899	285	paclitaxel cisplatin carboplatin	Time to relapse	Yes	Ovarian cancer	GPL570
14	GSE24080	340/214	total therapy 2/3 Dexamethasone (0,0,0) velcade (1,1,1) thalidomide (0,0,0)	Yes	Yes	Multiple myeloma	GPL570
15	GSE10255	100/60	methotrexate (1,1,1) (two level of doses)	white blood cell count	NA	ALL	GPL96

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16	GSE2351/GSE635	129	prednisolone (0,0,1) vincristine (0,1,1) daunorubicin (0,1,1) asparaginase (0,1,1)	LC50 value	Yes	ALL	GPL96
17	GSE12995	175	cyclophosphamide cytarabine mercaptopurine vincristine asparaginase methotrexate Dexamethasone doxorubicin thioguanine prednisolone	Yes	Yes	ALL	GPL96
18	GSE11877	207	cyclophosphamide cytarabine mercaptopurine vincristine asparaginase methotrexate Dexamethasone doxorubicin thioguanine prednisolone	Yes	Yes	ALL	GPL570
19	GSE12417	163/79	cytarabine thioguanine daunorubicin cyclophosphamide G-CSF busulfan cytarabine daunorubicin etoposide valspodar cyclophosphamide	Yes	Yes	AML	GPL96and570
20	GSE10846	181/233	doxorubicin vincristine prednisolone cyclophosphamide rituximab	Yes	Yes	DLBCL	GPL570

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21	GSE11318	203	doxorubicin vincristine prednisolone cyclophosphamide	Yes	Yes	DLBCL	GPL570
22	GSE17372/GSE10864	217	doxorubicin vincristine cyclophosphamide prednisolone rituximab	Yes	Yes	AIDS related lymphoma	GPL570

Drug regimen in red is not applicable to MPI prediction model.