Table 2. Benchmark results of DHMOC on real-world datasets.

Dataset	Classifier	Hierarchy	AUC	Precision	Recall	F1	Accuracy
Faecal	LightGBM	DHMOC	**0.857**	**0.677**	**0.670**	**0.667**	**0.677**
		direct	**0.857**	**0.677**	**0.670**	**0.667**	**0.677**
GC	Lasso-Logistic	DHMOC	**0.998**	**0.955**	**0.963**	**0.957**	**0.955**
		direct	0.997	0.950	0.961	0.952	0.950
BRCA	Lasso-Logistic	DHMOC	**0.980**	**0.883**	**0.917**	**0.893**	**0.883**
		direct	0.935	0.714	0.752	0.725	0.714
NCI-scRNA	SVM	DHMOC	**0.999**	**0.980**	**0.980**	**0.980**	0.979
		direct	0.998	0.972	0.973	0.971	**0.982**
Lymphoid	SVM	DHMOC	**0.982**	**0.887**	**0.886**	**0.886**	**0.887**
		direct	0.978	0.882	0.882	0.882	0.882

Note: in column Hierarchy: direct for one-step multi-classifier. DHMOC denotes DHMOC learned classifier.