Supplementary Material

Supplementary Table 1. Haralick Features Computed from GLCM constructed over images with varying gray scale quantization for 2D HeLa dataset

GL		Offset d														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	Sen	69.4	66.3	64.6	67.7	67.1	66.5	64.7	63.9	62.5	65.7	63.6	65.0	66.9	65.0	66.1
	Spe	64.4	59.4	55.7	60.3	60.1	60.0	56.5	57.0	55.7	58.8	56.0	55.3	57.0	56.1	56.6
	MCC	0.21	0.15	0.12	0.17	0.16	0.16	0.13	0.12	0.11	0.15	0.12	0.12	0.14	0.13	0.14
	F-Score	0.29	0.25	0.23	0.26	0.26	0.26	0.24	0.24	0.23	0.25	0.23	0.23	0.24	0.24	0.24
8	Sen	71.7	72.8	67.3	69.7	68.0	68.5	68.6	68.4	70.2	72.4	70.9	71.7	72.3	71.4	73.0
	Spe	65.5	62.5	60.2	62.8	61.0	60.3	61.9	59.4	60.8	62.6	61.7	63.8	61.8	62.7	62.8
	MCC	0.23	0.22	0.17	0.20	0.18	0.17	0.19	0.17	0.19	0.21	0.20	0.22	0.21	0.21	0.22
	F-Score	0.30	0.29	0.26	0.28	0.27	0.26	0.27	0.26	0.27	0.29	0.28	0.29	0.28	0.29	0.29
12	Sen	75.3	72.7	69.9	72.4	72.8	73.1	73.0	72.1	74.4	73.5	72.4	75.0	73.7	74.4	73.8
	Spe	70.6	65.8	65.1	64.9	65.9	66.3	65.4	65.9	66.2	67.1	65.4	65.6	66.1	65.1	65.4
	MCC	0.29	0.24	0.22	0.23	0.24	0.24	0.24	0.24	0.25	0.25	0.23	0.25	0.25	0.24	0.24
	F-Score	0.35	0.31	0.29	0.30	0.31	0.31	0.31	0.31	0.32	0.32	0.30	0.31	0.31	0.31	0.31
16	Sen	77.6	74.0	73.3	73.4	73.8	73.7	73.8	74.4	74.0	76.2	75.6	76.7	75.6	77.5	77.1
	Spe	71.1	68.9	67.8	67.7	67.7	67.0	67.7	67.3	65.5	67.5	67.8	69.1	68.7	70.0	68.8
	MCC	0.31	0.27	0.26	0.26	0.26	0.25	0.26	0.26	0.24	0.27	0.27	0.29	0.28	0.30	0.29
	F-Score	0.36	0.33	0.32	0.32	0.32	0.32	0.32	0.32	0.31	0.33	0.33	0.34	0.34	0.35	0.34
20	Sen	75.5	76.4	74.3	74.7	76.1	76.6	76.5	75.4	78.8	78.7	78.3	77.5	76.7	78.7	77.4
	Spe	70.9	72.4	70.5	69.6	69.8	70.3	69.4	68.7	71.4	73.2	71.0	70.9	71.1	72.1	70.8
	MCC	0.30	0.31	0.29	0.28	0.29	0.30	0.29	0.28	0.32	0.34	0.31	0.31	0.31	0.33	0.31
	F-Score	0.35	0.37	0.34	0.34	0.35	0.35	0.34	0.34	0.37	0.38	0.36	0.36	0.36	0.37	0.36
24	Sen	76.3	74.0	76.2	77.0	74.6	77.2	78.9	76.8	78.0	79.4	80.5	79.6	79.5	79.2	80.4
	Spe	73.5	71.4	72.3	71.6	70.1	71.2	73.5	70.5	70.9	72.3	74.6	72.9	73.8	72.1	74.0
	MCC	0.32	0.29	0.31	0.31	0.28	0.31	0.34	0.30	0.31	0.33	0.36	0.34	0.35	0.33	0.35
	F-Score	0.37	0.35	0.36	0.36	0.34	0.36	0.38	0.35	0.36	0.38	0.40	0.38	0.39	0.37	0.39

Supplementary Table 2. Haralick Features Computed from GLCM constructed over images with varying gray scale quantization for CHO dataset

GL		Offset d														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	**Sen**	78.2	78.5	79.8	82.7	83.3	83.5	84.6	84.3	85.3	83.9	84.8	84.6	85.2	84.3	83.5
	Spe	72.8	74.9	77.4	79.0	78.9	80.2	79.9	80.7	80.2	80.5	80.8	81.4	81.2	81.7	81.1
	MCC	0.40	0.42	0.46	0.50	0.51	0.52	0.53	0.53	0.54	0.53	0.54	0.54	0.55	0.55	0.53
	F-Score	0.51	0.53	0.56	0.59	0.59	0.60	0.61	0.61	0.61	0.61	0.62	0.62	0.62	0.62	0.61
8	**Sen**	82.3	82.1	81.8	83.9	84.8	87.1	86.3	87.0	86.3	87.4	87.0	86.9	86.5	86.2	86.9
	Spe	79.5	80.3	80.2	82.5	83.6	84.7	83.6	86.0	85.2	86.3	84.9	85.1	84.8	85.1	85.3
	MCC	0.50	0.51	0.51	0.55	0.57	0.61	0.59	0.62	0.61	0.63	0.61	0.61	0.60	0.60	0.61
	F-Score	0.59	0.60	0.59	0.63	0.65	0.67	0.65	0.69	0.67	0.69	0.67	0.67	0.67	0.67	0.68
12	**Sen**	84.1	85.2	86.3	86.0	86.4	85.5	86.4	86.9	87.2	87.8	85.9	87.1	87.1	87.5	87.3
	Spe	84.7	85.0	86.6	86.8	87.3	86.8	87.1	87.2	87.5	88.4	87.5	88.3	87.5	88.0	87.8
	MCC	0.58	0.60	0.63	0.63	0.64	0.62	0.64	0.64	0.65	0.67	0.64	0.66	0.65	0.66	0.65
	F-Score	0.65	0.66	0.69	0.69	0.70	0.69	0.70	0.70	0.70	0.72	0.70	0.71	0.70	0.71	0.71
16	**Sen**	85.0	85.7	85.5	85.2	86.9	86.7	87.3	87.7	87.9	87.7	87.4	87.5	87.4	87.1	87.2
	Spe	86.0	85.4	86.2	86.3	87.5	87.6	88.2	88.6	88.2	88.5	88.3	88.1	88.0	88.1	88.4
	MCC	0.61	0.61	0.62	0.61	0.65	0.64	0.66	0.67	0.66	0.67	0.66	0.66	0.66	0.66	0.66
	F-Score	0.67	0.67	0.68	0.68	0.70	0.70	0.72	0.72	0.72	0.72	0.72	0.72	0.71	0.71	0.72
20	**Sen**	83.9	85.2	86.0	87.9	87.5	87.2	87.7	88.4	88.3	87.4	87.8	87.7	88.3	88.8	88.9
	Spe	83.7	85.7	85.8	87.8	87.1	88.0	88.0	88.1	87.7	88.5	88.2	89.0	89.1	89.1	89.5
	MCC	0.57	0.61	0.61	0.66	0.64	0.66	0.66	0.67	0.66	0.66	0.66	0.67	0.68	0.68	0.69
	F-Score	0.64	0.67	0.68	0.71	0.70	0.71	0.72	0.72	0.71	0.72	0.72	0.73	0.73	0.74	0.74
24	**Sen**	83.0	85.9	86.2	87.5	87.3	88.0	87.7	88.7	88.7	88.7	88.4	88.7	88.5	88.4	89.2
	Spe	83.8	86.0	86.1	87.3	88.0	88.0	87.8	89.3	88.9	89.5	88.8	89.1	89.0	89.2	89.4
	MCC	0.56	0.62	0.62	0.65	0.66	0.66	0.66	0.69	0.68	0.69	0.68	0.68	0.68	0.68	0.69
	F-Score	0.64	0.68	0.68	0.71	0.71	0.72	0.71	0.74	0.73	0.74	0.73	0.74	0.73	0.74	0.74

Supplementary Table 3. Haralick Features Computed from GLCM constructed over images with varying gray scale quantization for LOCATE Endogenous dataset

GL		Offset d														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4	**Sen**	76.8	81.8	84.8	80.7	80.9	80.6	79.7	80.2	80.9	82.8	82.1	81.6	82.1	81.2	80.8
	Spe	79.3	82.0	81.7	79.3	77.3	78.2	76.5	77.8	78.6	80.4	80.2	80.5	80.7	80.3	79.3
	MCC	0.38	0.44	0.45	0.40	0.38	0.39	0.37	0.38	0.39	0.43	0.42	0.42	0.42	0.42	0.40
	F-Score	0.41	0.47	0.48	0.43	0.41	0.42	0.40	0.41	0.43	0.45	0.45	0.45	0.45	0.45	0.43
8	**Sen**	85.4	87.7	86.3	88.3	88.4	89.8	88.5	90.4	88.5	89.3	85.2	87.3	87.4	88.2	87.6
	Spe	84.8	86.3	85.8	87.5	86.6	86.9	87.1	86.9	85.5	85.4	85.2	85.9	85.9	85.8	86.1
	MCC	0.50	0.54	0.52	0.56	0.55	0.56	0.55	0.56	0.53	0.53	0.50	0.53	0.53	0.53	0.53
	F-Score	0.52	0.56	0.54	0.58	0.56	0.58	0.57	0.58	0.55	0.55	0.53	0.55	0.55	0.55	0.55
12	**Sen**	86.3	87.2	90.0	88.5	89.2	90.9	88.5	88.1	88.7	87.3	90.5	87.1	89.1	86.7	87.6
	Spe	86.9	87.9	88.2	87.5	86.5	86.4	86.6	86.2	85.1	85.4	87.3	85.4	85.9	85.5	86.5
	MCC	0.54	0.56	0.58	0.56	0.55	0.56	0.55	0.54	0.52	0.52	0.57	0.52	0.54	0.52	0.54
	F-Score	0.56	0.58	0.60	0.58	0.57	0.57	0.57	0.56	0.54	0.54	0.59	0.54	0.56	0.54	0.56
16	**Sen**	89.1	87.8	89.3	90.5	88.2	91.8	89.7	88.4	85.0	86.2	86.0	86.1	88.2	87.3	86.3
	Spe	88.5	88.2	89.2	88.2	87.1	86.7	86.9	86.0	84.3	84.4	85.1	84.5	84.9	86.1	86.2
	MCC	0.58	0.57	0.60	0.59	0.55	0.57	0.56	0.54	0.49	0.50	0.51	0.50	0.52	0.53	0.53
	F-Score	0.60	0.59	0.62	0.60	0.57	0.58	0.58	0.55	0.51	0.52	0.53	0.52	0.54	0.55	0.55
20	**Sen**	87.6	88.5	86.8	87.6	87.6	87.0	87.3	86.7	87.0	86.8	85.8	84.1	84.4	84.4	86.0
	Spe	88.3	88.4	87.9	86.7	85.6	85.9	85.2	85.0	85.0	83.7	84.9	84.7	85.5	85.1	86.2
	MCC	0.57	0.58	0.56	0.54	0.53	0.53	0.52	0.51	0.51	0.49	0.50	0.49	0.50	0.50	0.53
	F-Score	0.59	0.60	0.58	0.56	0.54	0.55	0.54	0.53	0.53	0.51	0.53	0.51	0.53	0.52	0.55
24	**Sen**	86.4	88.1	87.8	87.6	88.2	87.7	89.5	87.3	88.8	88.0	88.7	87.0	86.4	83.9	85.3
	Spe	88.4	88.9	88.5	87.2	86.9	86.5	86.9	86.1	86.1	85.6	87.0	84.8	86.2	85.4	86.5
	MCC	0.56	0.58	0.58	0.55	0.55	0.54	0.56	0.53	0.54	0.53	0.56	0.51	0.53	0.50	0.53
	F-Score	0.59	0.60	0.59	0.57	0.57	0.56	0.58	0.55	0.56	0.55	0.57	0.53	0.55	0.52	0.55