

Self-supervised contrastive learning on attribute and topology graphs for predicting relationships among lncRNAs, miRNAs and diseases

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Supplementary Table 1 (ST1). Hyper-parameters on LDA, MDA and LMI prediction tasks under dataset 1 and dataset 2.

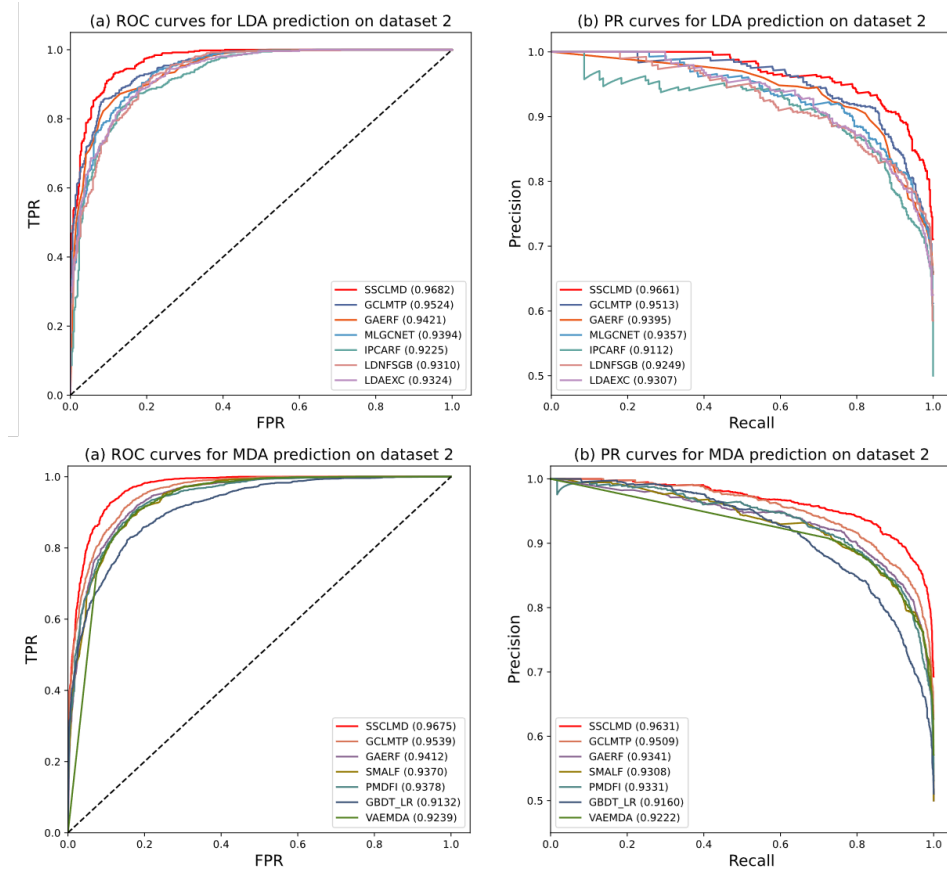
	Tasks	k	α	θ	Nhid1	Nhid2	λ	Epoch	lr	Dropout
Dataset 1	LDA	22	0.9	0.6	256	128	1	80	0.0005	0.5
	MDA	26	0.9	0.5	512	256	0.1	80	0.0005	0.5
	LMI	30	0.5	0.5	512	256	0.1	80	0.0005	0.5
Dataset 2	LDA	18	0.9	0.5	256	128	1	80	0.0005	0.5
	MDA	26	0.9	0.7	512	256	0.1	80	0.0005	0.5
	LMI	34	0.5	0.5	512	256	1	80	0.0005	0.5

Supplementary Table 2 (ST2). The top 10 predicted BC-related lncRNA and miRNA candidates on dataset 2.

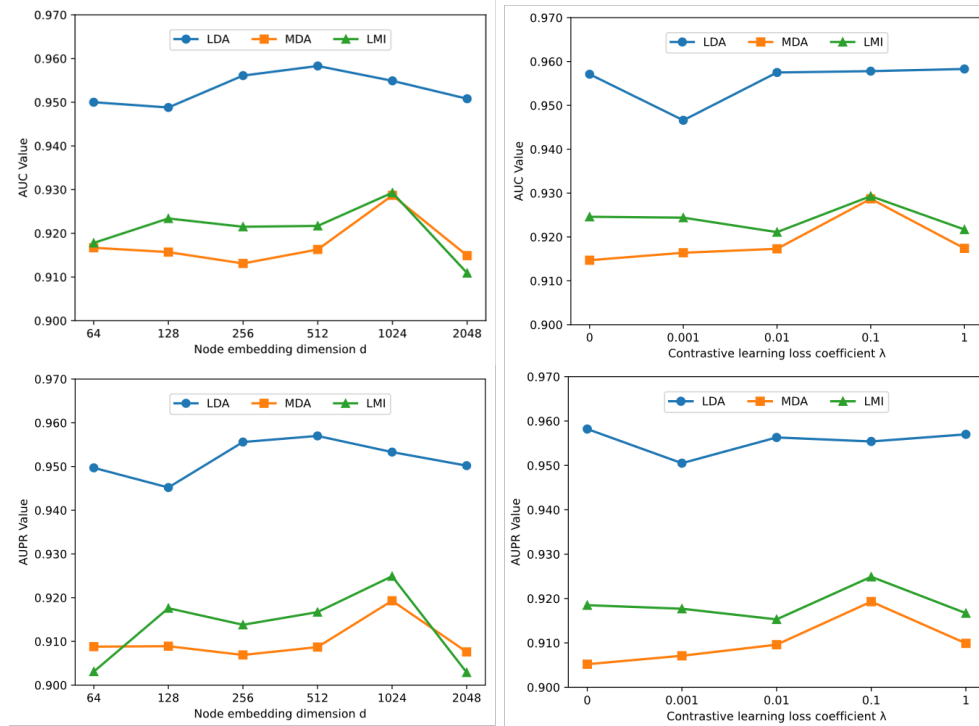
Rank	LncRNA	Evidence	Rank	MiRNA	Evidence
1	MIR17HG	PMID: 36943627	1	hsa-mir-150	HMDD v4.0, dbDEMC v3.0
2	BANCR	LncRNADisease v3.0, Lnc2Cancer v3.0	2	hsa-mir-15b	HMDD v4.0, dbDEMC v3.0
3	HULC	LncRNADisease v3.0, Lnc2Cancer v3.0	3	hsa-mir-142	HMDD v4.0, dbDEMC v3.0
4	TUG1	LncRNADisease v3.0, Lnc2Cancer v3.0	4	hsa-mir-192	HMDD v4.0, dbDEMC v3.0
5	WT1-AS	LncRNADisease v3.0	5	hsa-mir-181c	HMDD v4.0, dbDEMC v3.0
6	MIR155HG	Unconfirmed	6	hsa-mir-144	HMDD v4.0, dbDEMC v3.0
7	TUSC7	LncRNADisease v3.0	7	hsa-mir-181d	HMDD v4.0, dbDEMC v3.0
8	DLEU2	Unconfirmed	8	hsa-mir-106a	HMDD v4.0, dbDEMC v3.0
9	GHET1	LncRNADisease v3.0, Lnc2Cancer v3.0	9	hsa-mir-378a	HMDD v4.0, dbDEMC v3.0
10	LINC01133	LncRNADisease v3.0, Lnc2Cancer v3.0	10	hsa-mir-424	HMDD v4.0, dbDEMC v3.0

Supplementary Table 3 (ST3). The top 10 predicted BC-related lncRNAs and miRNA candidates on dataset 1.

Rank	LncRNA	Evidence	Rank	MiRNA	Evidence
1	FER1L4	PMID: 31332783	1	hsa-mir-211	HMDD v4.0 dbDEMC v3.0
2	MIR4435-2HG	PMID: 36105009	2	hsa-mir-186	HMDD v4.0 dbDEMC v3.0
3	FTX	Unconfirmed	3	hsa-mir-28	HMDD v4.0 dbDEMC v3.0
4	MIR100HG	PMID: 33088216	4	hsa-mir-19b-2	Unconfirmed
5	LINC-PINT	PMID: 32632453	5	hsa-mir-181d	HMDD v4.0 dbDEMC v3.0
6	TUSC7	PMID: 35296964	6	hsa-mir-454	HMDD v4.0 dbDEMC v3.0
7	LINC00261	PMID: 33274565	7	hsa-mir-216a	HMDD v4.0 dbDEMC v3.0
8	HNF1A-AS1	PMID: 32319789	8	hsa-mir-136	HMDD v4.0 dbDEMC v3.0
9	MIR17HG	PMID: 36943627	9	hsa-mir-181a-1	Unconfirmed
10	DGCR5	PMID: 32521856	10	hsa-mir-138-2	Unconfirmed



Supplementary Figure 1 (SF1). ROC and PR curves of SSCLMD and other baseline methods for LDA and MDA prediction on dataset 2.



Supplementary Figure 2 (SF2). Parameter sensitivity analysis of node embedding dimensions d , and contrastive learning loss coefficient λ on dataset 1.