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Supplemental Information

MicroRNA-411 Downregulation Enhances Tumor Growth by Upregulating MLLT11 Expression in Human Bladder Cancer

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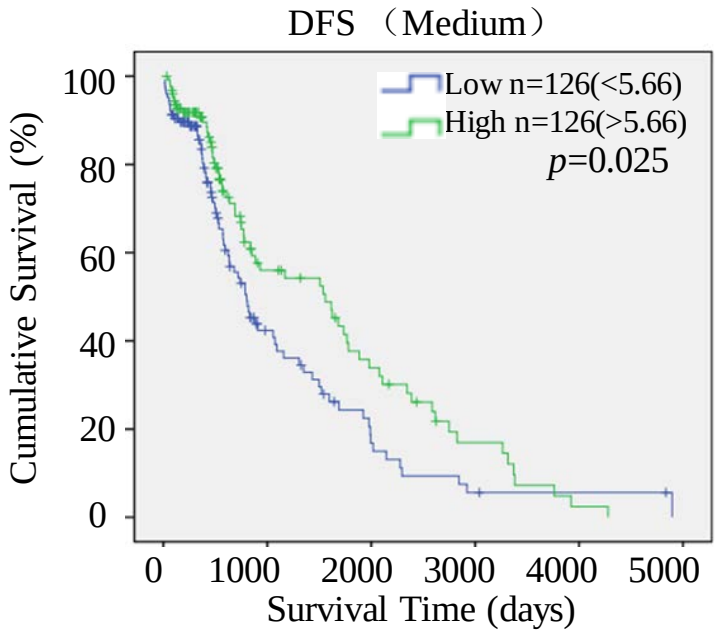
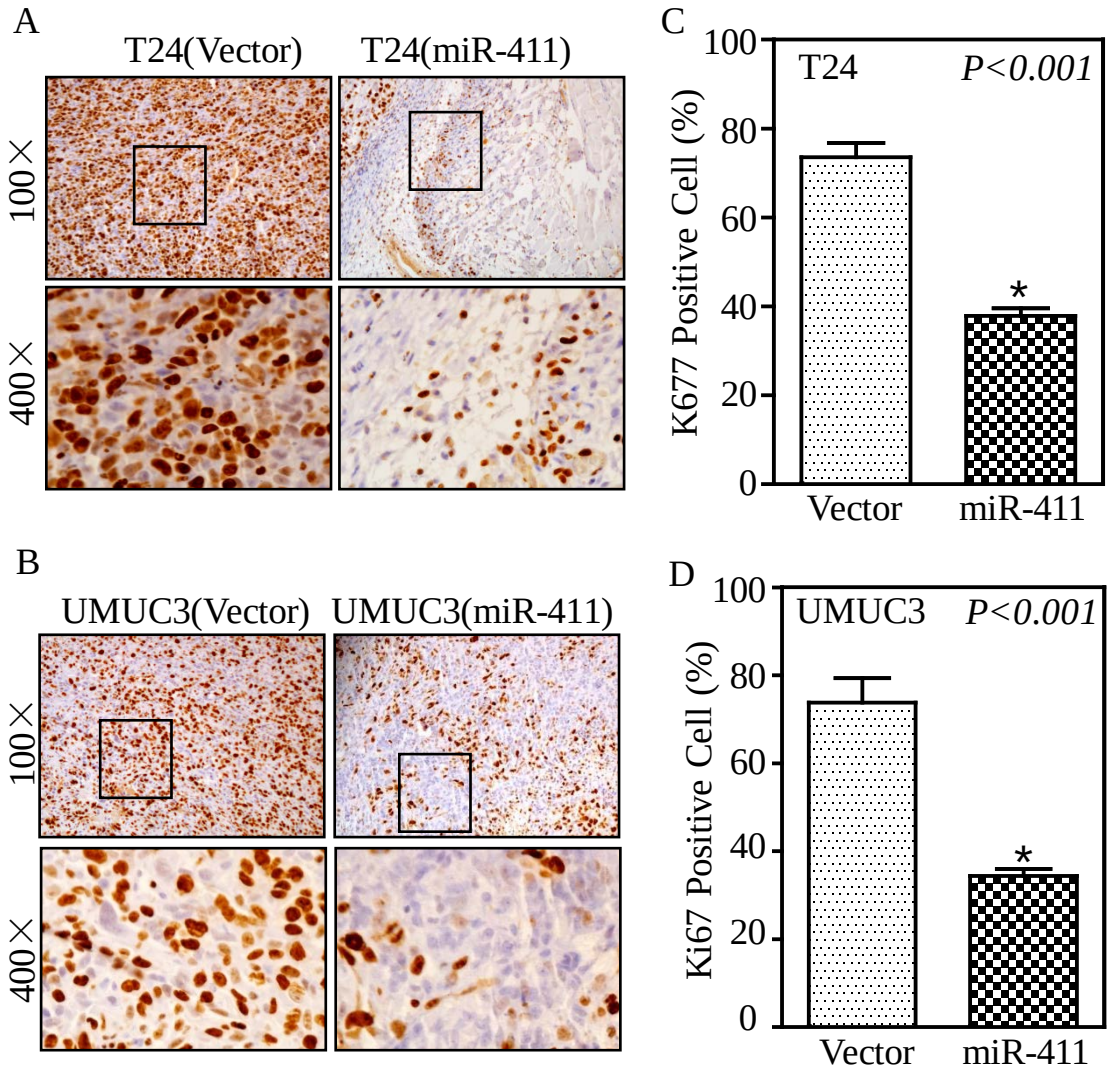
Figure. S1



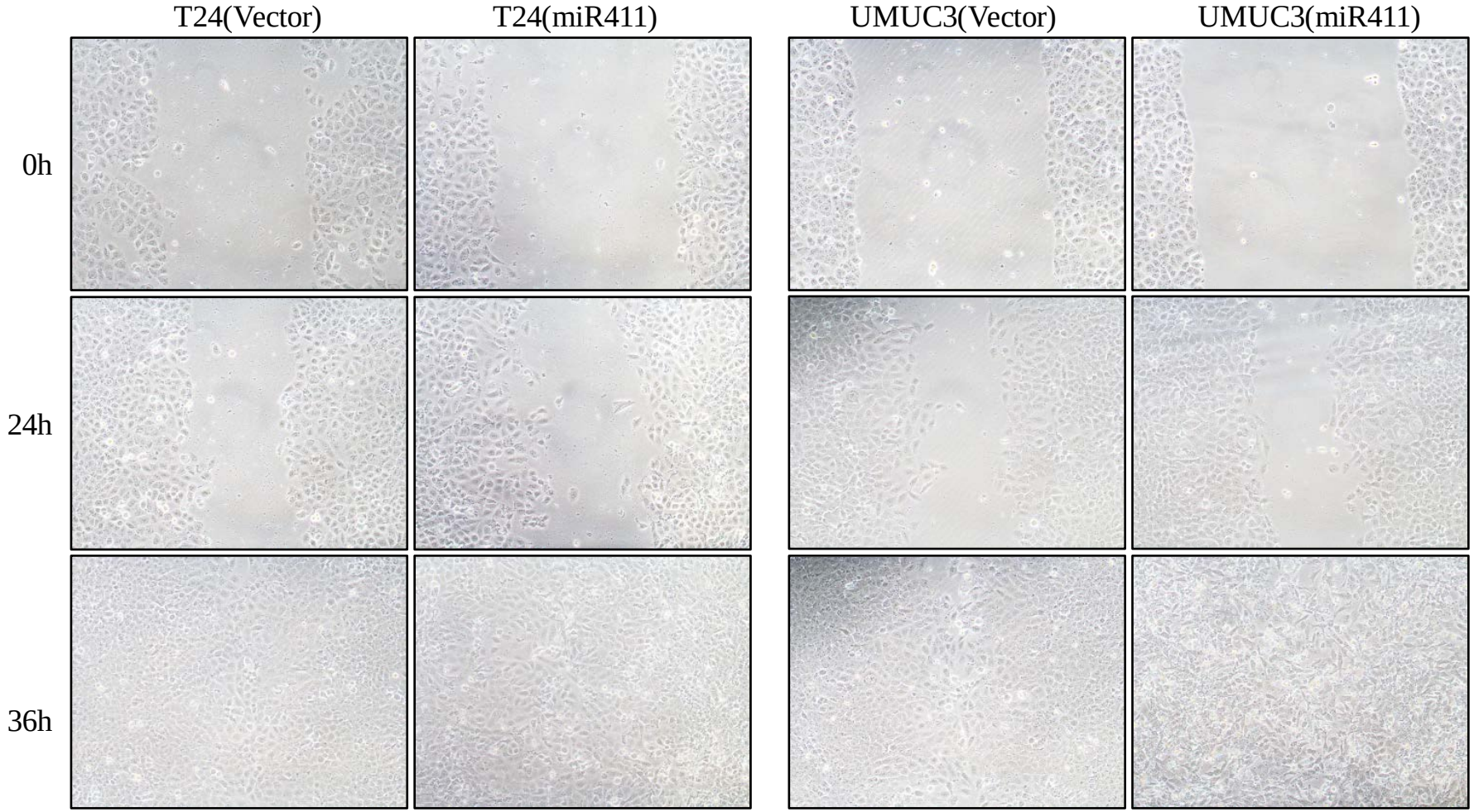
Kaplan-Meier estimation of disease-free survival (DFS) in bladder cancer (BC) patients from the TCGA database. Disease free survival (DFS) curves showing that in patients with high miR-411 expression (n=126) tend to associate with better DFS; lower expression of miR-411 (n=126) was associated with shorter survival, so it may be as a marker of poor prognosis in patients with BC.

Figure. S2



(A & B) Immunohistochemistry (IHC) assays were performed to assess Ki67 expression in BC tissues collected from nude mice as described in Figure 6A. IHC images were captured using the Nikon Eclipse Ni microsystem (Nikon DS-Ri2, Japan). **(C & D)** Ki67 protein expression levels were analyzed by calculating the integrated IOD/area using Image-Pro Plus version 6.0. Results are presented as the mean ± SD from the tissues. The Student's *t*-test was used to determine the *P*-values. The asterisk (*) indicates a significant decrease compared with the tissues from the vector control group (*P < 0.05).

Figure. S3



The wound-healing assay was used to assess the effect of miR-411 on the migration of BC cells. T24 (miR-411), UMUC3 (miR-411), and vector control cells were seeded into 6-well plates at 6×10^5 cells per well. When cell confluence reached 90–100%, wounds were made using sterile tips. Images were acquired under an inverted microscope at the indicated times. The results showed that miR-411 had no obvious effect on the migration of BC cells.

Table 1. The 19 pairs patients' information including gender, days, the expression of miR-411 in tumor and adjacent tissue from TGCG data base.

Number	gender	birth_days_to	death_days_to	ajcc_pathologic_tumor_stage	tumour miR-411	noraml miR-411
TCGA-BL-A13J	MALE	-23927	81	Stage IV	16.1098833	9.68621836
TCGA-BT-A20N	MALE	-26456	795	Stage III	13.4517207	30.9950393
TCGA-BT-A20Q	MALE	-26778	593	Stage IV	12.1364648	15.2916962
TCGA-BT-A20R	FEMALE	-28987	154	Stage IV	23.5597966	73.4015587
TCGA-BT-A20U	FEMALE	-25761	263	Stage III	31.3435686	22.6703622
TCGA-BT-A20W	MALE	-26078	254	Stage II	10.8311577	51.689674
TCGA-BT-A2LA	MALE	-20032	[Not Applicable]	Stage III	1.62326631	22.7400318
TCGA-BT-A2LB	FEMALE	-26846	[Not Applicable]	Stage III	5.4847868	17.5174484
TCGA-CU-A0YN	MALE	-21927	393	Stage III	14.3181775	11.2115452
TCGA-CU-A0YR	MALE	-30674	[Not Applicable]	Stage IV	4.10612534	7.61957182
TCGA-GC-A3BM	MALE	-25609	[Not Applicable]	Stage II	2.75374507	15.2496704
TCGA-GC-A3WC	FEMALE	-29295	[Not Applicable]	Stage III	14.6011788	13.7484504
TCGA-GC-A6I3	FEMALE	-32873	[Not Applicable]	Stage IV	3.14922641	18.0853465
TCGA-GD-A2C5	FEMALE	-19498	[Not Applicable]	Stage IV	16.4416242	43.6814397
TCGA-GD-A3OP	FEMALE	-30956	[Not Applicable]	Stage IV	19.389785	28.8838832
TCGA-GD-A3OQ	MALE	-17682	[Not Applicable]	Stage IV	7.22709356	23.8788442
TCGA-K4-A3WV	FEMALE	-28444	[Not Applicable]	Stage II	5.03676099	10.6575936
TCGA-K4-A54R	FEMALE	-21601	[Not Applicable]	Stage II	3.63193661	11.4343729
TCGA-K4-A5RI	MALE	-24614	[Not Applicable]	Stage III	5.17100252	15.3760964

Table 2. The information of bladder cancer patients including case number, gender, age, stage.

case(NO.#)	geneder	age	stage	case(NO.#)	geneder	age	stage
1#	male	48	T1	18#	male	61	Tis
2#	male	61	T1	19#	male	68	T1
3#	male	78	Tis	20#	male	60	Tis
4#	male	66	T2b	21#	male	54	T1
5#	male	70	T3	22#	male	79	T1
6#	male	64	T2b	23#	male	53	T2b
7#	male	57	T1	24#	male	66	T2b
8#	male	60	T3	25#	male	81	T2b
9#	male	72	T2b	26#	male	59	Ta
10#	male	68	T1	27#	male	57	Tis
11#	male	54	T2b	28#	male	61	T4
12#	male	57	T3	29#	male	59	T1
13#	male	75	T1	30#	male	68	T4
14#	male	70	T2a	31#	male	58	T3
15#	female	65	T2b	32#	male	57	T1
16#	male	75	T1	33#	male	58	Ta
17#	female	74	T4				