SUPPLEMENTARY DATA

The Application of miRTarBase

Prominent examples of miRTarBase used in recent papers include the following. The study of Hyun Jung Park suggested the major role of 3'untranslated region shortening in repressing tumor-suppressor genes *in trans* by disrupting ceRNA crosstalk (1). Dietrich et al. observed that KRAS is dysregulated in hepatocellular carcinoma due to the loss of tumor-suppressor miRNA-622, thereby promoting tumor progression and sorafenib sensitivity and resistance (2). Radovich et al. used multi-platform analyses of thymic epithelial tumors to discover the high prevalence of GTF2I mutations, which might provide substantial clinical implications for research on drug development for patients with thymic epithelial tumors in the future (3). Furthermore, a study published in *Science* worked on spatiotemporal transcriptomic divergence across human and macaque brain development and provided insights into the pathogenesis of neuropsychiatric disorders. Owing to the observation that many known biomarkers related with ischemic stroke are not disease-specific (4), Ceren Eyileten et al. performed bioinformatic analysis to find promising miRNAs for clinical application in ischemic stroke (5).

SUPPLEMENTARY FIGURE

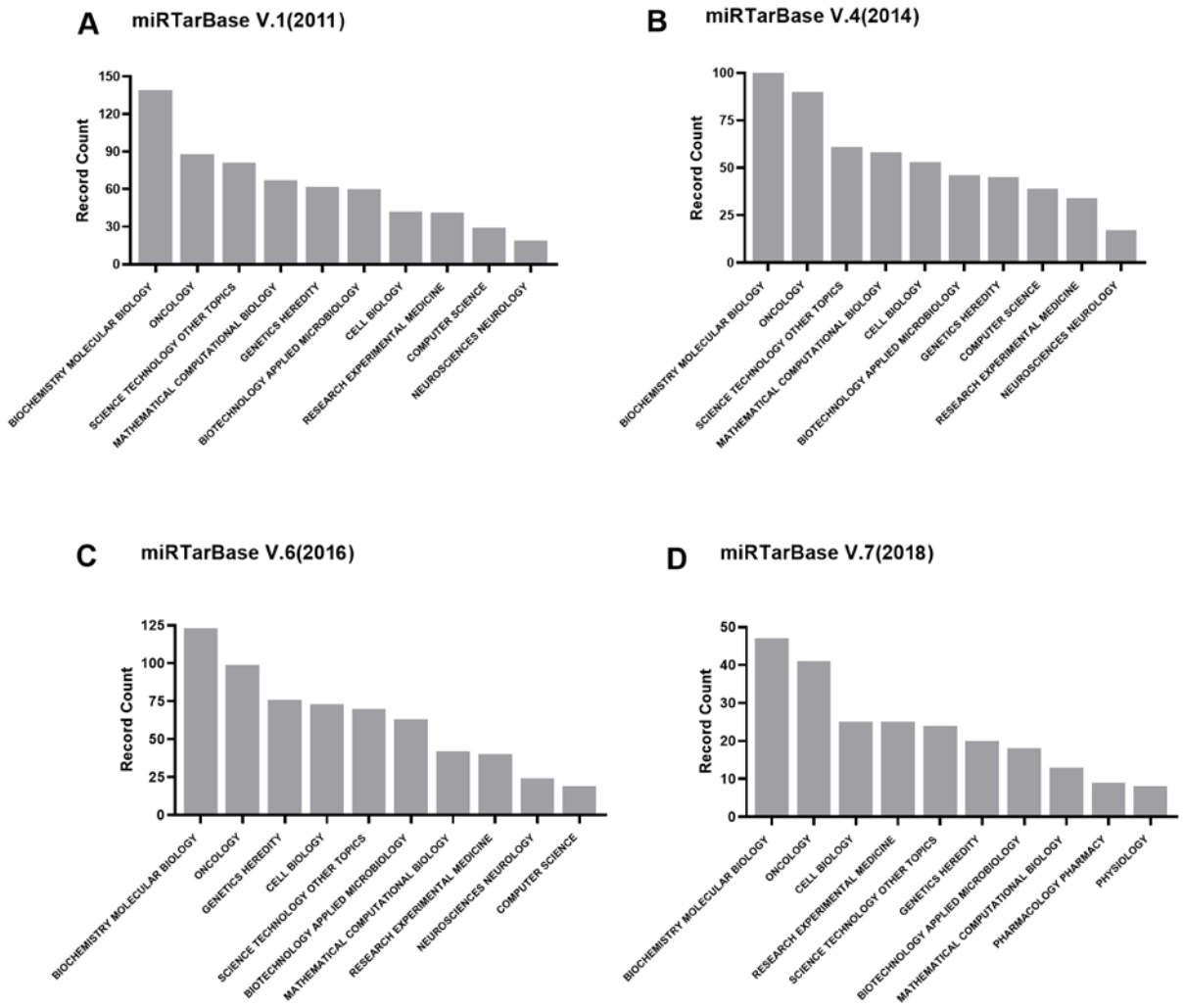

Figure S1. Research area distribution of citing papers from the Web of Science Core Collection based on all releases of miRTarBase.

SUPPLEMENTARY TABLE

Table S1. Update MTI datasets validated by high throughput HITS-CLIP or PAR-CLIP sequencing.

Source	NGS method	Species	RBP	Accession	Samples	Tissue/cell line	Treatment/Name
Benway, C.J., et al. Am J Transplant 2018 (6)	PAR-CLIP	Human	AGO2	GSE98670	GSM2609180	HK-2	HK-2 AGO2-PAR-CLIP Veh1
					GSM2609181		HK-2 AGO2-PAR-CLIP Veh2
					GSM2609182		HK-2 AGO2-PAR-CLIP CsA1
					GSM2609183		HK-2 AGO2-PAR-CLIP CsA2
Bottini, S., et al. Nat Commun 2017 (7)	HITS-CLIP	Mouse	AGO2	GSE89027	GSM2357624	P19	CLIP_AGO2_LET7_1
					GSM2357625		CLIP_AGO2_LET7_2
					GSM2357626		CLIP_AGO2_LET7_3
					GSM2357627		CLIP_AGO2_siSFPQ_1
					GSM2357628		CLIP_AGO2_siSFPQ_2
					GSM2357629		CLIP_AGO2_siSFPQ_3
					GSM2357630		CLIP_AGO2_siSFPQ_LET7_1
					GSM2357631		CLIP_AGO2_siSFPQ_LET7_2
					GSM2357632		CLIP_AGO2_siSFPQ_LET7_3
			SFPQ		GSM2357633		CLIP_SFPQ_1
					GSM2357634		CLIP_SFPQ_2
					GSM2357635		CLIP_SFPQ_3
					GSM2357636		CLIP_SFPQ_siSFPQ_1
					GSM2357637		CLIP_SFPQ_siSFPQ_2
					GSM2357638		CLIP_SFPQ_siSFPQ_3
Rayon-Estrada, V., et al. Proc Natl Acad Sci USA 2017 (8)	HITS-CLIP	Mouse	AGO2	GSE58798	GSM1419779	BMDM	CLIP_BMDM_WT1
					GSM1419780		CLIP_BMDM_WT2
					GSM1419781		CLIP_BMDM_WT3
					GSM1419782		CLIP_BMDM_KO1
					GSM1419783		CLIP_BMDM_KO2
					GSM1419784		CLIP_BMDM_KO3
Li, Y., et al. J Mol Biol 2018 (9)	HITS-CLIP	Human	AGO2	GSE102319	GSM2734703	T-REx-293	Ago2CLIP_gl3.1_rep1
					GSM2734704		Ago2CLIP_dsiHuR2_rep1
					GSM2734705		Ago2CLIP_dsiHuR5_rep1
					GSM2734706		Ago2CLIP_gl3.1_rep2
					GSM2734707		Ago2CLIP_dsiHuR2_rep2
					GSM2734708		Ago2CLIP_dsiHuR5_rep2

					GSM2734709		Ago2CLIP_gl3.1_rep3
					GSM2734710		Ago2CLIP_dsiHuR2_rep3
					GSM2734711		Ago2CLIP_dsiHuR5_rep3
					GSM2734712		Ago2CLIP_gl3.1_rep4
					GSM2734713		Ago2CLIP_dsiHuR2_rep4
					GSM2734714		Ago2CLIP_dsiHuR5_rep4
					GSM2734715		Ago2CLIP_gl3.1_rep5
					GSM2734716		Ago2CLIP_dsiHuR2_rep5
					GSM2734717		Ago2CLIP_dsiHuR5_rep5
			HuR	GSE102320	GSM2734718	293T and 293T NoDice	HuRCLIP_293T_rep1
					GSM2734719		HuRCLIP_293T_NoDice_2-20_rep1
					GSM2734720		HuRCLIP_293T_NoDice_4-25_rep1
					GSM2734721		HuRCLIP_293T_rep2
					GSM2734722		HuRCLIP_293T_NoDice_2-20_rep2
					GSM2734723		HuRCLIP_293T_NoDice_4-25_rep2
					GSM2734724		HuRCLIP_293T_rep3
					GSM2734725		HuRCLIP_293T_NoDice_2-20_rep3
					GSM2734726		HuRCLIP_293T_NoDice_4-25_rep3
Pillman, K.A., et al. EMBO J 2018 (10)	HITS-CLIP	Human	QKI	GSE111188	GSM3025020	HMLE	QKI_techrep1_mon
					GSM3025021		QKI_techrep1_dim
					GSM3025022		QKI_techrep2_mon
					GSM3025023		QKI_techrep2_dim
					GSM3025024		QKI_techrep2_dim_SSIV
					GSM3025025		QKI_techrep3_mon
					GSM3025026		QKI_techrep3_dim
					GSM3025027		SizeMatchedInput_techrep1
					GSM3025028		SizeMatchedInput_techrep2
Sarshad, A.A., et al. Mol Cell 2018 (11)	PAR-CLIP	Mouse	AGO	GSE108795	GSM2913321	ESC and MT	ESC_Cyto
					GSM2913322		ESC_Nucl
					GSM2913323		MT_Cyto
					GSM2913324		MT_Nucl
Moro, A., et al. Nat Cell Biol 2019 (12)	HITS-CLIP	Human	AGO2	GSE99686	GSM2650176	HUVEC and HUAEC	Arteries_E1
					GSM2650177		Arteries_E3
					GSM2650178		Arteries_L1
					GSM2650179		Veins_E2
					GSM2650180		Veins_E3
					GSM2650181		Veins_L2

Xu, P., et al. Blood 2019 (13)	HITS-CLIP	Mouse	AGO	GSE104357	GSM2796019	Fetal Liver	1WT
					GSM2796020		9WT
					GSM2796021		10WT
					GSM2796022		3KO
					GSM2796023		12KO
					GSM2796024		13KO
					GSM2796025		2WT-IgG
					GSM2796026		6WT-IgG
					GSM2796027		11WT-IgG
					GSM2796028		4KO-IgG
					GSM2796029		8KO-IgG
					GSM2796030		14KO-IgG
Gagnon, J.D., et al. Cell Rep 2019 (14)	HITS-CLIP	Mouse	AGO2	GSE130655	GSM3746477	CD4	Th2_miR29KO_1.1
					GSM3746478		Th2_miR29WT_1.1
					GSM3746479		Th2_miR29KO_2.1
					GSM3746480		Th2_miR29KO_2.2
					GSM3746481		Th2_miR29KO_2.3
					GSM3746482		Th2_miR29WT_2.1
					GSM3746483		Th2_miR29WT_2.2
					GSM3746484		Th2_miR29WT_2.3
					GSM3746485		Th2_miR29WT_3.1
					GSM3746486		Th2_miR29KO_4.1
					GSM3746487		Th2_miR29KO_4.2
					GSM3746488		Th2_miR29KO_4.3
					GSM3746489		Th2_miR29WT_4.1
					GSM3746490		Th2_miR29WT_4.2
					GSM3746491		Th2_miR29WT_4.3
					GSM3746492		Th2_B6_2hrStim
					GSM3746493		Th2_B6_6hrStim
					GSM3746494		Th2_B6_NoRestim
					GSM3746495		Th17_miR29KO_1.1
					GSM3746496		Th17_miR29WT_1.1

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