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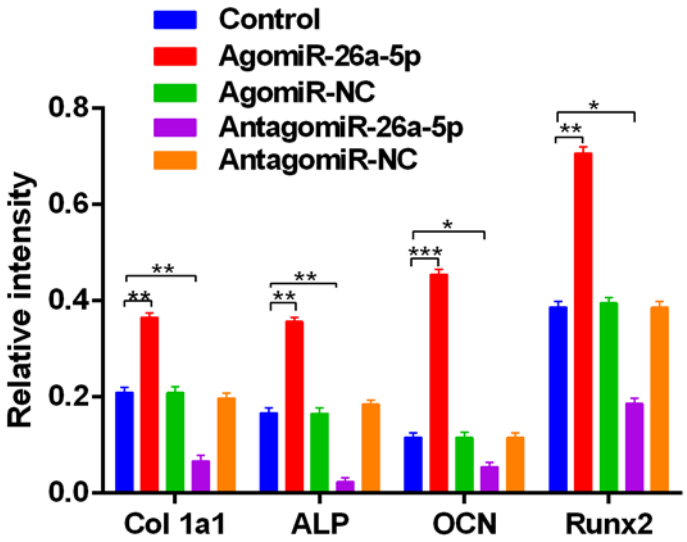
Supplemental Information

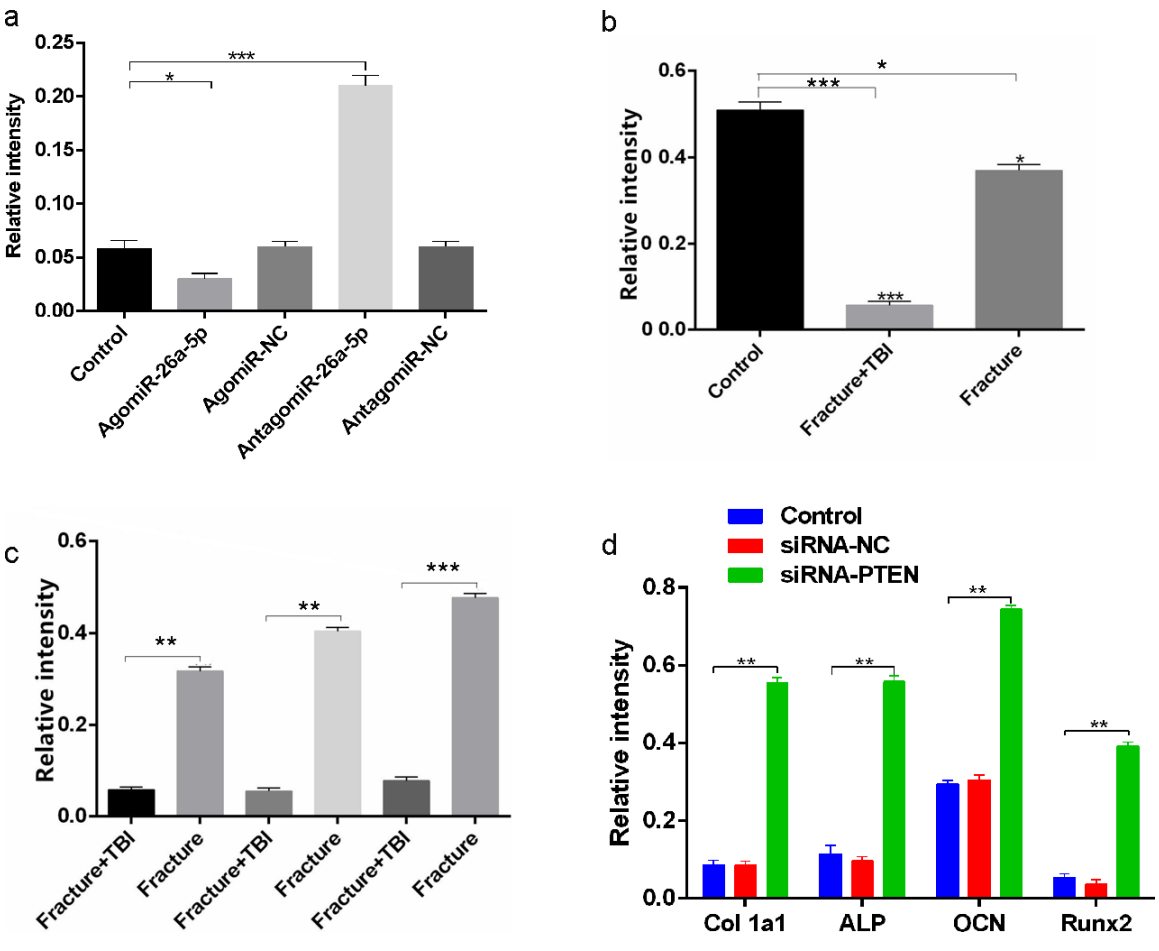
miRNA-26a-5p Accelerates Healing via Downregulation of PTEN in Fracture Patients with Traumatic Brain Injury

Yuan Xiong, Faqi Cao, Liangcong Hu, Chenchen Yan, Lang Chen, Adriana C. Panayi, Yun Sun, Wu Zhou, Peng Zhang, Qipeng Wu, Hang Xue, Mengfei Liu, Yi Liu, Jing Liu, Abudula Abududilibaier, Bobin Mi, and Guohui Liu

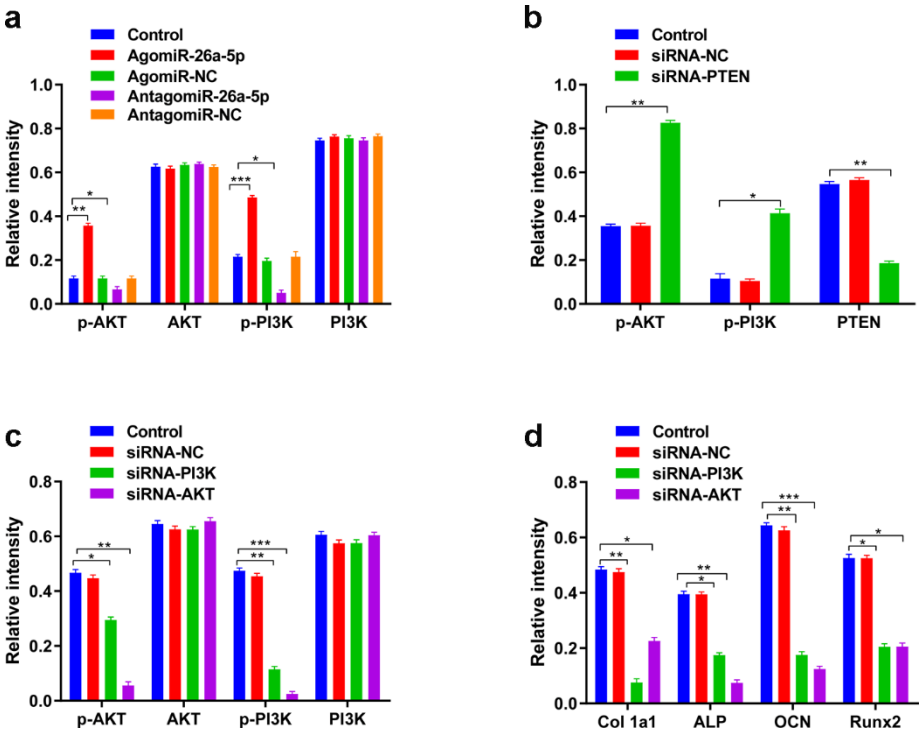
Supplemental Materials



Supplementary Fig. 1 (Respond to Fig.3F). The relative intensity of western blotting analysis of ALP, Col1a1, OCN and Runx2 protein levels in MC3T3-E1 cells treated using agomiR-NC, agomiR-26a-5p, antagomiR-NC, antagomiR-26a-5p or the corresponding controls for 48h.*p＜0.05, **p＜0.01, ***p＜0.001.

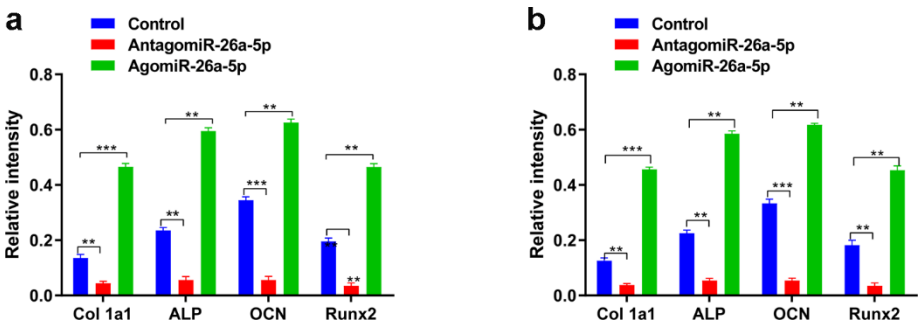


Supplementary Fig. 2. (Respond to Fig.4 D, E, F, H) The relative intensity of western blotting analysis. (a) Relative intensity of western blotting of PTEN expression in control, agomiR-NC, agomiR-26a-5p, antagomiR-NC and antagomiR-26a-5p groups. (b) Relative intensity of western blotting of PTEN expression in patients from control, fracture + TBI and fracture groups. (c) Relative intensity of western blotting of PTEN expression in mice from fracture + TBI and fFracture groups. (d) Relative intensity of western blotting of Col1a1, ALP, OCN, and Runx2 expression following control, siRNA-NC, and siRNA-PTEN transfection. *p＜0.05, **p＜0.01, ***p＜0.001.



Supplementary Fig. 3 (Respond to Fig.5A, B, C, H). The relative intensity of western blotting analysis. (a) Relative intensity of western blotting of p-AKT, AKT, p-PI3K, and PI3K expression in control, agomiR-NC, agomiR-26a-5p, antagomiR-NC and antagomiR-26a-5p groups. (b) Relative intensity of western blotting of p-AKT, AKT, p-PI3K, and PI3K expression following control, siRNA-NC, and siRNA-PTEN transfection. (c) Relative intensity of western blotting of p-AKT, AKT, p-PI3K, and PI3K expression following control, siRNA-NC, siRNA-PI3K, and siRNA-AKT transfection. (d) Relative intensity of western blotting of Col1a1, ALP, OCN, and Runx2 expression following control, siRNA-NC, siRNA-PI3K, and siRNA-AKT transfection.

*p＜0.05, **p＜0.01, ***p＜0.001.



Supplementary Fig. 4. (Respond to Fig.6F, G) The relative intensity of western blotting analysis. (a) Relative intensity of western blotting of Col1a1, ALP, OCN, and Runx2 expression in control, antagomiR-26a-5p, and agomiR-26a-5p groups on days 14. (b) Relative intensity of western blotting of Col1a1, ALP, OCN, and Runx2 expression in control, antagomiR-26a-5p, and agomiR-26a-5p groups on days 21. *p＜0.05, **p＜0.01, ***p＜0.001.

Patient	Gender (M/F)	Age (year)	Ethnic group	Fracture (Y/N)	Fracture position	TBI (Y/N)	GCS	Time from injury to operation (day)
1	M	44	Han	N	-	N	15	-
2	M	44	Han	N	-	N	15	-
3	M	30	Han	N	-	N	15	-
4	M	32	Han	N	-	N	15	-
5	M	38	Han	N	-	N	15	-
6	M	45	Han	N	-	N	15	-
7	M	45	Han	Y	Tibia	N	15	7
8	M	45	Han	Y	Tibia	N	15	6
9	M	42	Han	Y	Femur	N	14	7
10	M	31	Han	Y	Humerus	N	14	5
11	M	31	Han	Y	Humerus	N	14	6
12	M	42	Han	Y	Radius	N	15	5
13	M	36	Han	Y	Tibia	Y	8	9
14	M	44	Han	Y	Femur	Y	10	8
15	M	45	Han	Y	Vertebra	Y	9	9
16	M	41	Han	Y	Lumbar	Y	8	9
17	M	30	Han	Y	Patella	Y	10	9
18	M	33	Han	Y	Vertebra	Y	12	10

Supplementary table 1. Clinical information of the patients included in the study. Abbreviation: M, Male; F, Female; Y, Yes; N, No; TBI, Traumatic brain injury; GCS, Glasgow coma scale.