## Membrane type 1-matrix metalloproteinase induces

## epithelial-to-mesenchymal transition in esophageal squamous cell

## carcinoma: Observations from clinical and in vitro analyses

Lijuan Pang<sup>1#</sup>, Qiuxiang Li<sup>1</sup>, Shugang Li<sup>2</sup>, Jianwei He<sup>3</sup>, Weiwei Cao<sup>1</sup>, Jiaojiao Lan<sup>1</sup>, Bin Sun<sup>4</sup>, Hong Zou<sup>1</sup>, Chengyan Wang<sup>1</sup>, Ruixue Liu<sup>1</sup>, Cuilei Wei<sup>1</sup>, Yutao Wei<sup>5</sup>, Yan Qi<sup>1</sup>, Jianming Hu<sup>1</sup>, Weihua Liang<sup>1</sup>, Wen Jie Zhang<sup>1</sup>, Mei Wan<sup>6</sup>, Feng Li<sup>1\*</sup>

 <sup>1</sup>Department of Pathology and Key Laboratory of Xinjiang Endemic and Ethnic Diseases (Ministry of Education), Shihezi University School of Medicine, Shihezi 832002, Xinjiang, China
<sup>2</sup>Department of Public Health, Medical School, Shihezi University School of Medicine, Shihezi 832002, Xinjiang, China
<sup>3</sup>Department of Clinical Laboratory, First Affiliated Hospital to Shihezi University School of Medicine, Shihezi 832008, Xinjiang, China
<sup>4</sup>Department of Stomatology, First Affiliated Hospital to Shihezi University School of Medicine, Shihezi 832008, Xinjiang, China
<sup>5</sup>Department of Thoracic and Cardiovascular Surgery, First Affiliated Hospital to Shihezi University School of Medicine, Shihezi 832008, Xinjiang, China.
<sup>6</sup>Department of Orthopedic Surgery, Johns Hopkins University School of Medicine, Baltimore, MD 21205, USA

## # First author: Dr. Lijuan Pang, M.D, Ph.D E-mail: ocean123456@163.com

\***Corresponding author: Dr. Feng Li, M.D, Ph.D** Department of Pathology and Key Laboratory of Xinjiang Endemic and Ethnic Diseases (Ministry of Education), Shihezi University School of Medicine (E-mail: lifeng7855@126.com)

Supplement Table S1. Relationship between MT1-MMP protein expression and the clinical, pathological features in xinjiang Kazakh ESCC.

Parameters	cases	MT1-MMP expression		р
		-	+	
Gender				
male	55	2	53	0.629
female	33	2	31	
Age (years)				
<60	41	1	40	0.62
$\geq 60$	47	3	44	
Histopathological Grading	25	1	24	0.55
Well	54	2	52	
Moderate	9	1	8	
poor				
Lymph node metastasis	31	2	29	0.611
Negative (No)	57	2	55	
Positive (N1)				
Fibrous membranes				
Absent	49	3	46	0.626
Present	39	1	38	
Stage				
I+IIA	29	0	29	0.371
IIB	35	2	33	
III+IV	24	2	22	