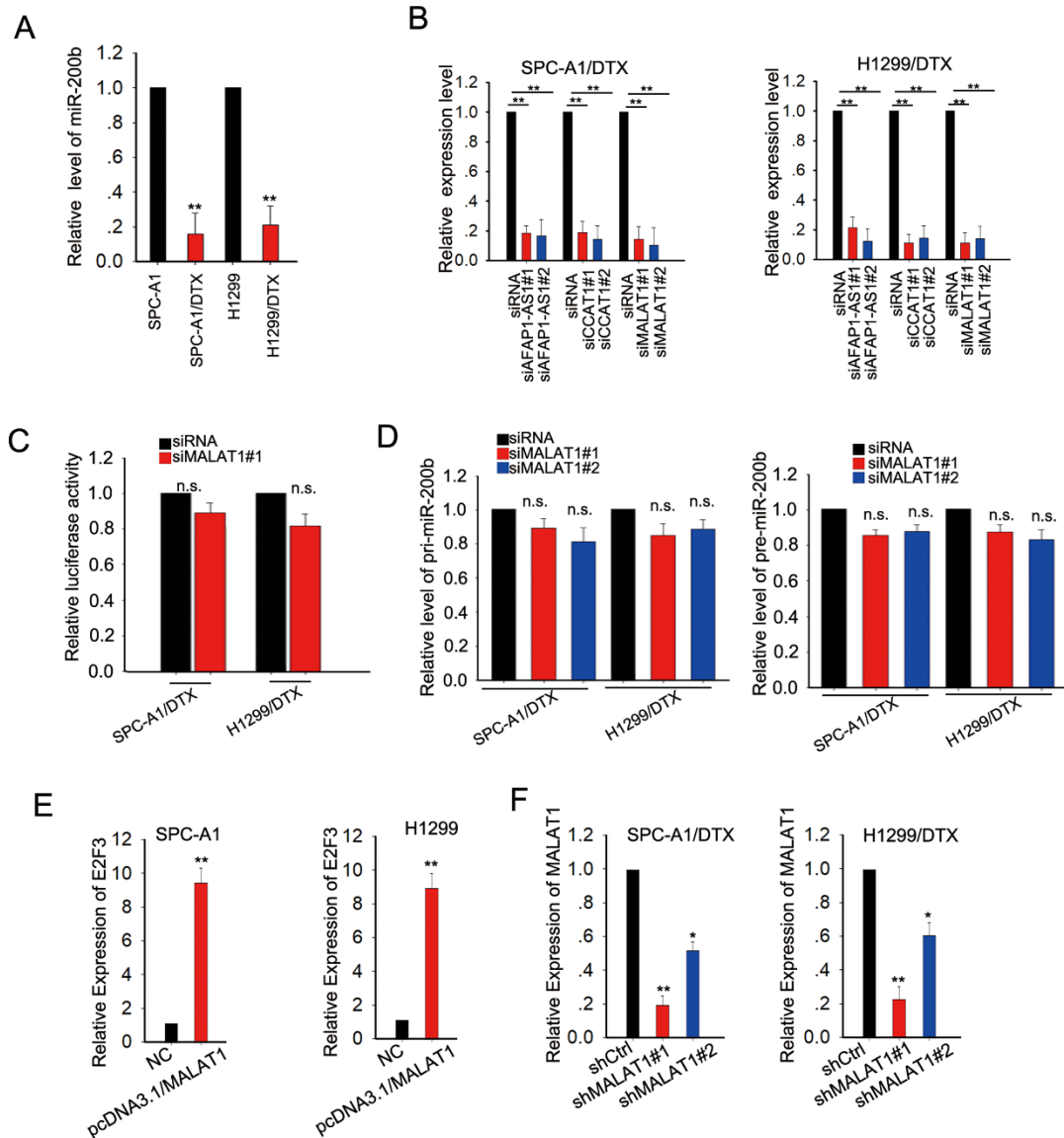


**OMTN, Volume 14**

**Supplemental Information**

**TFAP2C-Activated MALAT1 Modulates  
the Chemoresistance of Docetaxel-Resistant  
Lung Adenocarcinoma Cells**

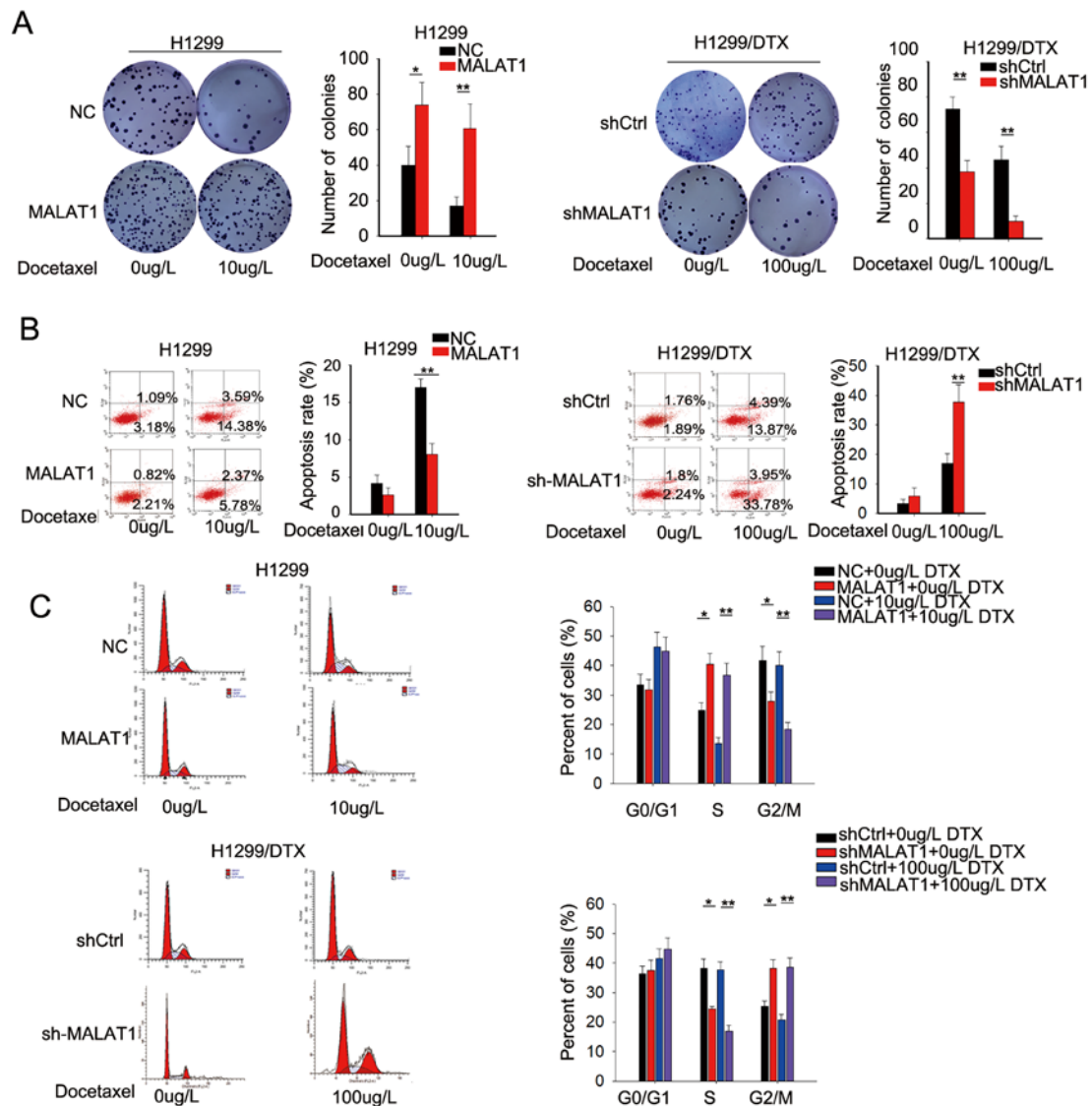
**Jing Chen, Xiaobei Liu, Yichen Xu, Kai Zhang, Jiayuan Huang, Banzhou Pan, Dongqin Chen, Shiyun Cui, Haizhu Song, Rui Wang, Xiaoyuan Chu, Xiaoli Zhu, and Longbang Chen**



### Supplementary Figure S1. The effects of

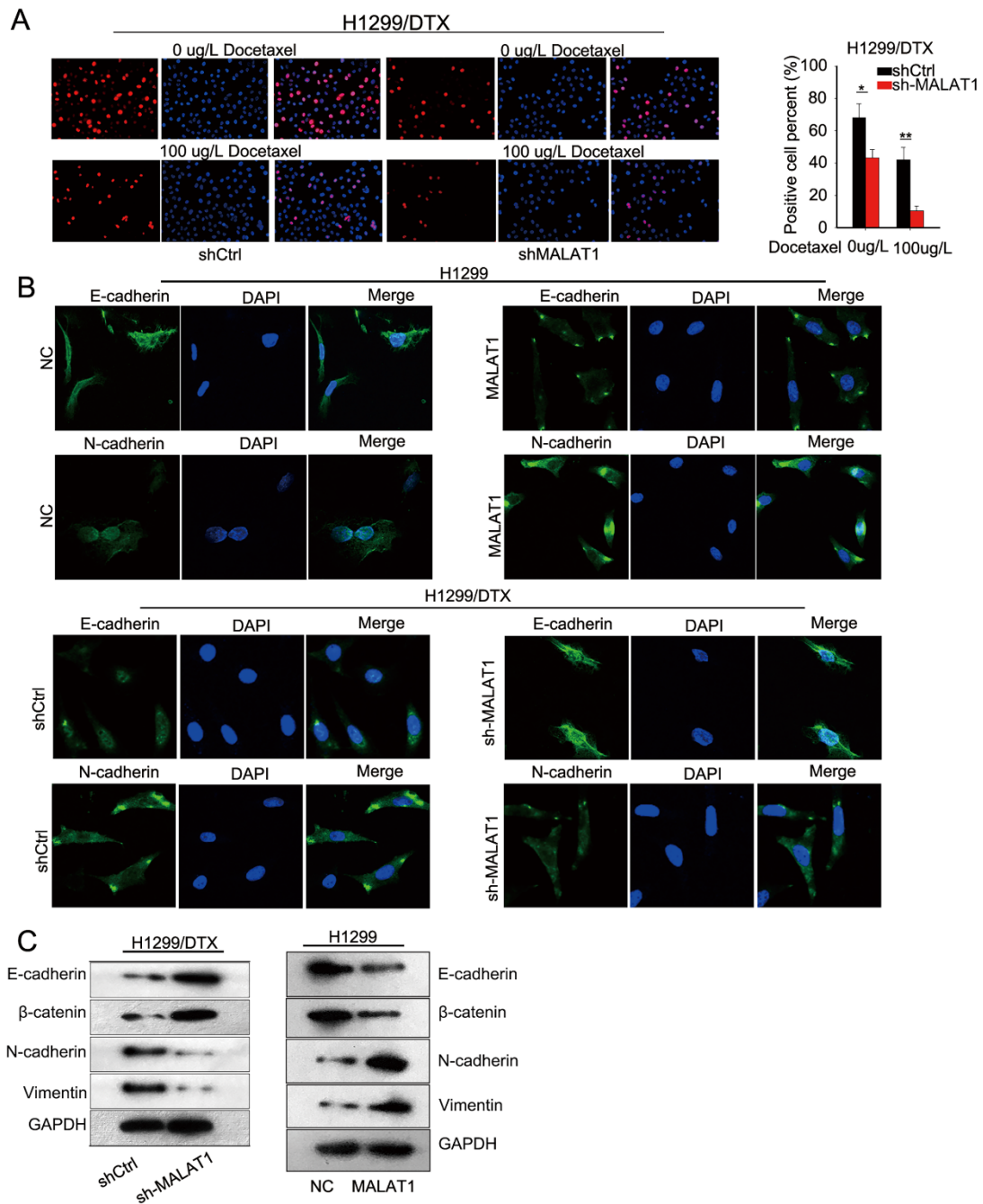
A. The miR-200b expression level in SPC-A1/DTX (H1299/DTX) and parental SPC-A1 (H1299) cells was determined by qRT-PCR. B. The knockdown efficiency of siRNAs specific to AFAP1-AS1, CCAT1 or MALAT1 was determined by qRT-PCR. C. The effect of MALAT1 knockdown on the miR-200b gene promoter activity was measured by luciferase reporter activity. D. The effect of MALAT1 knockdown on the expression levels pri-miR-200b and pre-miR-200b was measured by qRT-PCR. E. The transfection efficiency of pcDNA3.1/MALAT1 in parental cells and MALAT1-specific

shRNAs in DTX-resistant LUAD cells. \*\*P < 0.01; n.s: no significance.



### Supplementary Figure S2.

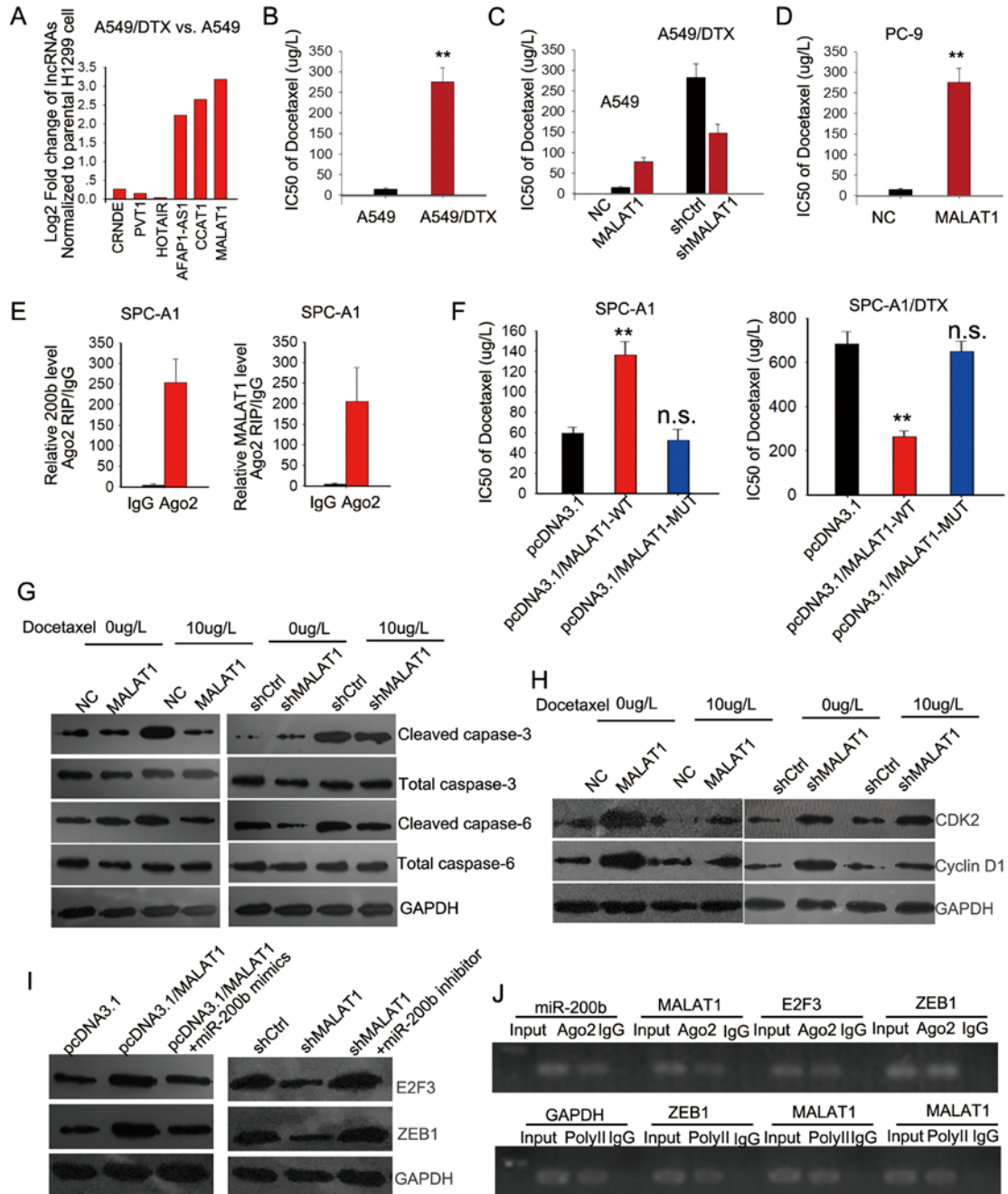
A. Representative colony formation results in H1299 cells transfected with MALAT1 expression vector and H1299/DTX cells transfected with MALAT1 shRNA. B-C. Flow cytometric analysis of apoptosis and cell cycle in H1299 cells transfected with pcDNA3.1 or pcDNA3.1/MALAT1 with or without treatment of DTX; or in H1299/DTX cells transfected with shRNA or shMALAT1 with or without treatment of DTX. \*P < 0.05, \*\*P < 0.01.



**Supplementary Figure S3.**

A. EdU proliferation assay in MALAT1-overexpressed H1299 cells or MALAT1-downregulated H1299/DTX cells. B. Immunofluorescence E-cadherin and N-cadherin staining was conducted in shRNA- or shMALAT1-transfected SPC-A1/DTX cells and pcDNA3.1- or pcDNA3.1/MALAT1-transfected SPC-A1 cells. C. E-cadherin and N-cadherin expression in shRNA- or shMALAT1-transfected H1299/DTX cells and

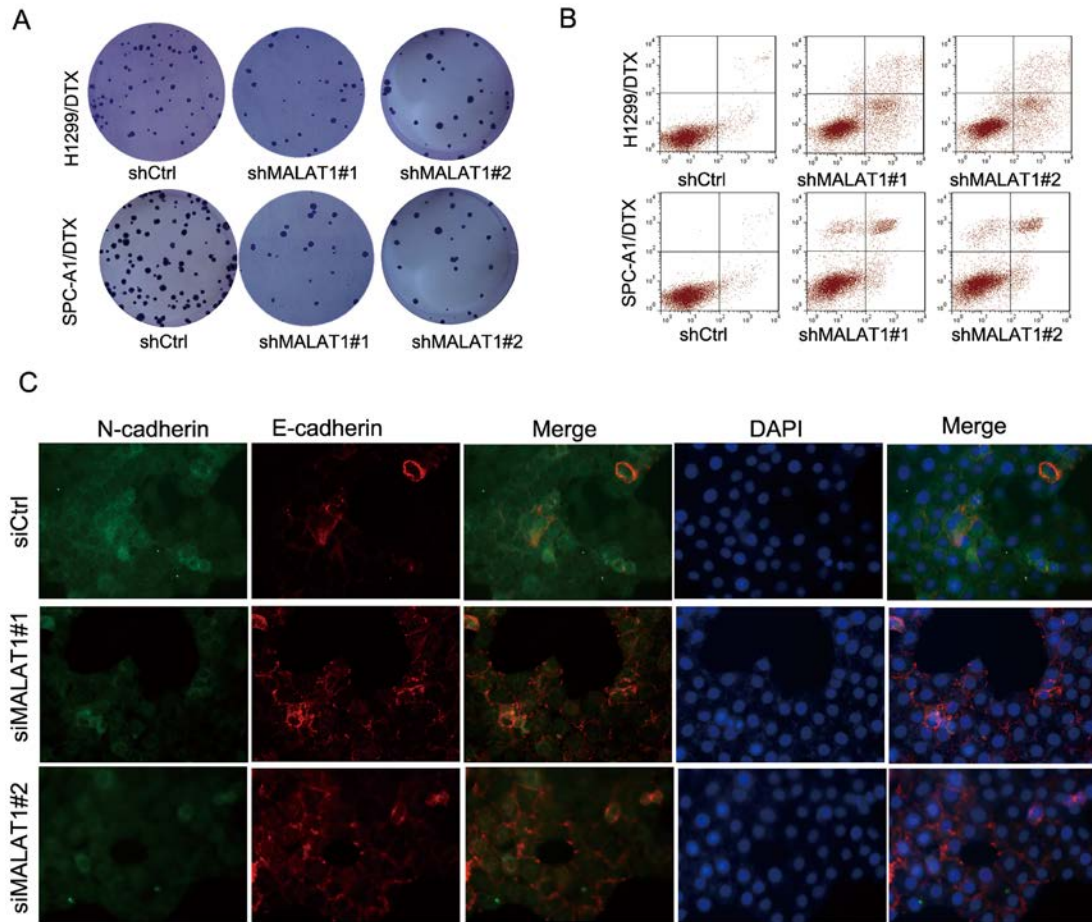
pcDNA3.1- or pcDNA3.1/MALAT1-transfected H1299 cells was determined by western blotting. \*P < 0.05, \*\*P < 0.01.



#### Supplementary Figure S4.

A. The fold change of six lncRNAs in A549/DTX and A549 cells. B. The IC<sub>50</sub> of A549 and A549/DTX cells was tested with MTT assay. C. The IC<sub>50</sub> was determined in A549

cell transfected with MALAT1 expression vector and NC or A549/DTX cell transfected with shMALAT1 and shCtrl. D. The IC<sub>50</sub> value of PC-9 cell transfected with MALAT1 expression vector or NC. E. The interaction between MALAT1 and miR-200b in SPC-A1 cell was detected by RIP assay. F. The IC<sub>50</sub> was examined in SPC-A1 cell transfected with pcDNA/MALAT1-WT, pcDNA/MALAT1-MUT or pcDNA-NC as well as in SPC-A1 cell transfected with shMALAT1-WT, shMALAT1-MUT or shCtrl. G-H. The expression levels of proteins related with cell cycle progress and apoptosis were tested by western blot analysis. I. The effects of MALAT1 and miR-200b on the protein levels of E2F3 and ZEB1 were determined by western blotting. J. Up: the gelling results for the qRT-PCR products of miRNA and mRNA; bottom: the DNA fragments for ChIP assay. \*\*P < 0.01; n.s: no significance.



### Supplementary Figure S5

A-C. Cell proliferation, apoptosis and EMT process were detected in SPC-A1/DTX and H1299/DTX cells transfected with shCtrl, shMALAT1#1 and shMALAT1#2.