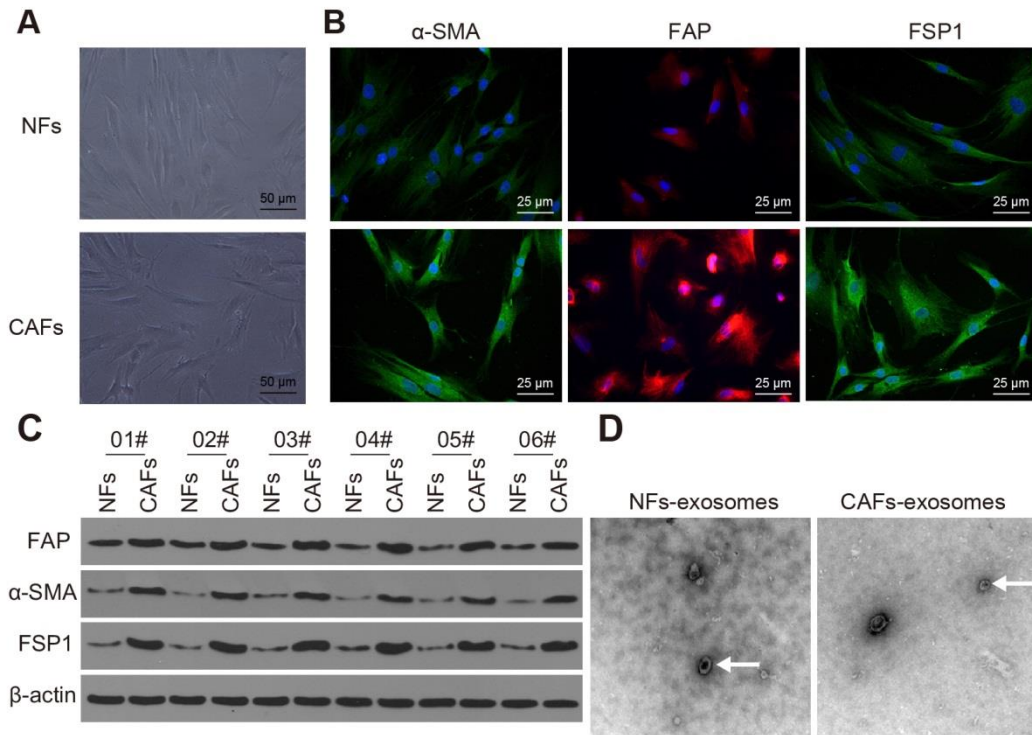


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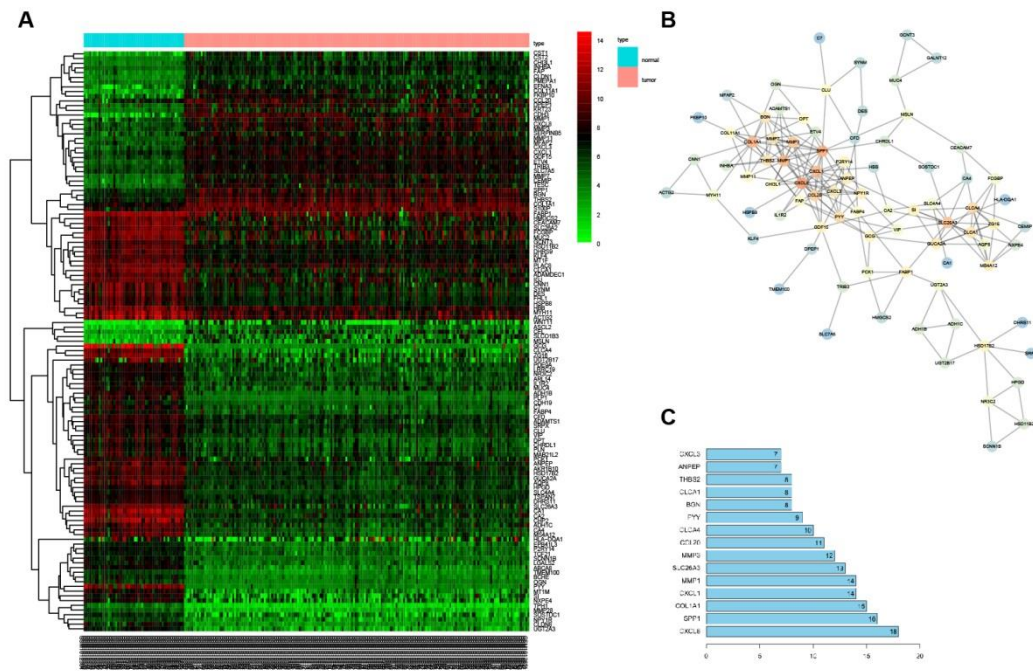
## **Supplemental information**

**Exosomal miR-590-3p derived  
from cancer-associated fibroblasts  
confers radioresistance in colorectal cancer**

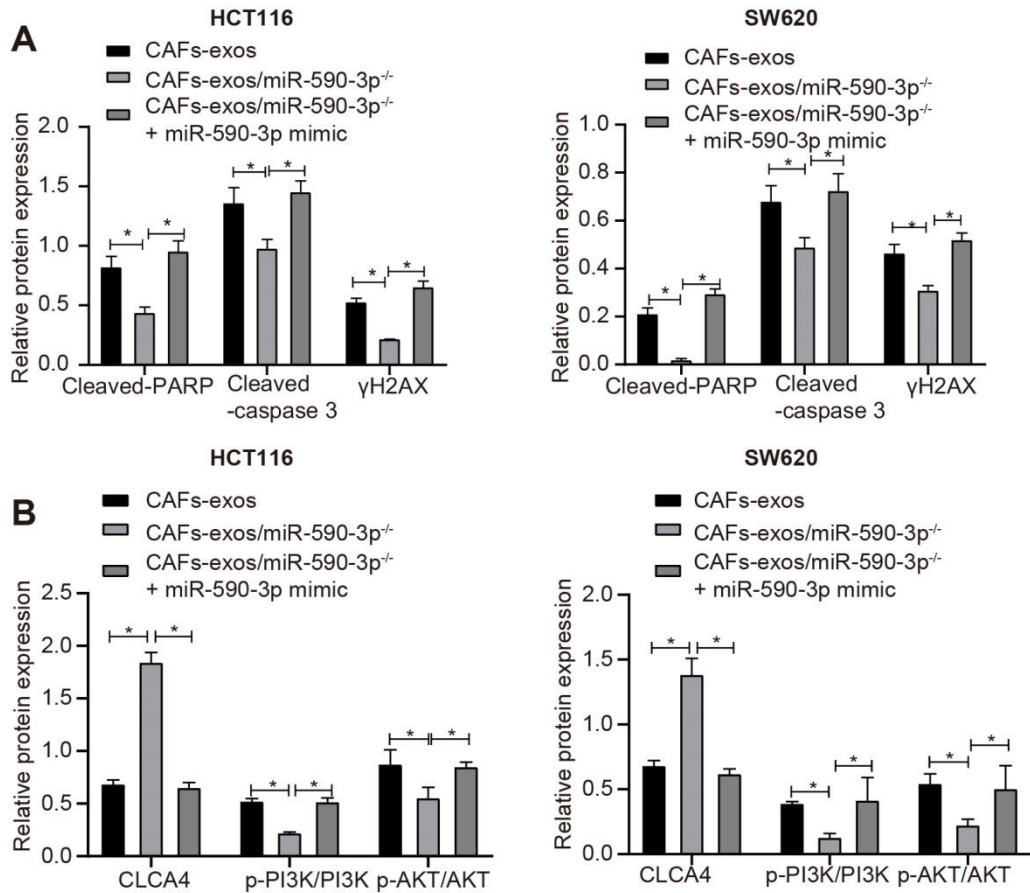
**Xijuan Chen, Yingqiang Liu, Qinglan Zhang, Baoxing Liu, Yan Cheng, Yonglei Zhang, Yanan Sun, and Junqi Liu**



**Figure S1.** CAF-exos facilitate resistance of CRC cells to irradiation. A, Microscope observation of primary CAFs and NFs derived from CRC tissues and corresponding normal colorectal mucosa. Bar = 50  $\mu$ m (n = 6). B, Expressions of  $\alpha$ -SMA, FSP-1, and FAP in CAFs and NFs tested by immunofluorescence assay. Bar = 25  $\mu$ m. C, Expressions of  $\alpha$ -SMA, FSP-1, and FAP in CAFs and NFs tested by Western blot analysis. D, Representative TEM image of NF-exos and CAF-exos (Bar = 50  $\mu$ m), the white arrow refers to exosomes.



**Figure S2.** A, A heat map of differentially expressed genes in the GSE41258 dataset. The ordinate represents the differentially expressed gene; the dendrogram on the left refers to the gene expression cluster; each rectangle corresponds to a sample expression value; the histogram at the upper right refers to color gradation. B, An interaction network graph of differentially expressed genes, in which each circle represents a gene, the darker color reflects the higher degree values of genes in the network graph and the higher degree of core. C, PPI network and quantification of degree value. The abscissa represents the degree value (the number of interacting genes in each gene in the network diagram), and the ordinate represents gene.



**Figure S3.** A: Western blot analysis of Cleaved-PARP, Cleaved-caspase 3,  $\gamma$  H2AX expression in HCT116 and SW620 cells upon treatment with CAF-exos, CAF-exos + miR-590-3p mimic. B: Western blot analysis of CLCA4 and PI3K/AKT in HCT116 and SW620 cells upon treatment with CAF-exos, CAF-exos + miR-590-3p mimic and corresponding quantification. \*  $p < 0.05$ . Data (mean  $\pm$  standard deviation) among groups were analyzed by ANOVA followed by Tukey's post test. The experiment was repeated three times independently.