Effects of Heated Tobacco Products' Extract from Cigarette Smoke on the Growth of Lung Cancer Stem Cells

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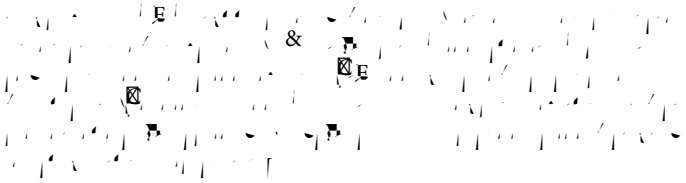
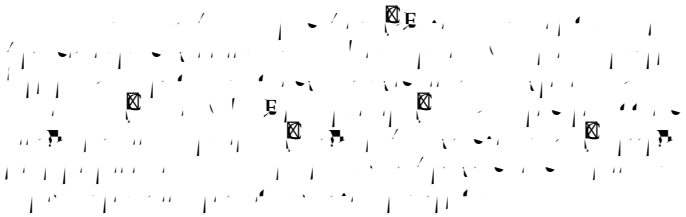
Abstract

Several types of cancer, including lung cancer, have been linked to an increased risk of smoking by epidemiological studies. Cancer stem cells (CSCs), a minor cell population in tumors that contribute to drug resistance and recurrence, are the source of lung cancer. Aerosols made from heated tobacco products (HTPs) contain nicotine and harmful chemicals. However, the available evidence is insu f cient to accurately determine whether HTPs are safer than smoking cigarettes. The e f ects of cigarette smoke extract (CSE) from HTPs on lung CSCs in lung cancer cell lines were the subject of this study. CSEs increased stem cell marker expression and lung CSC proliferation, according to

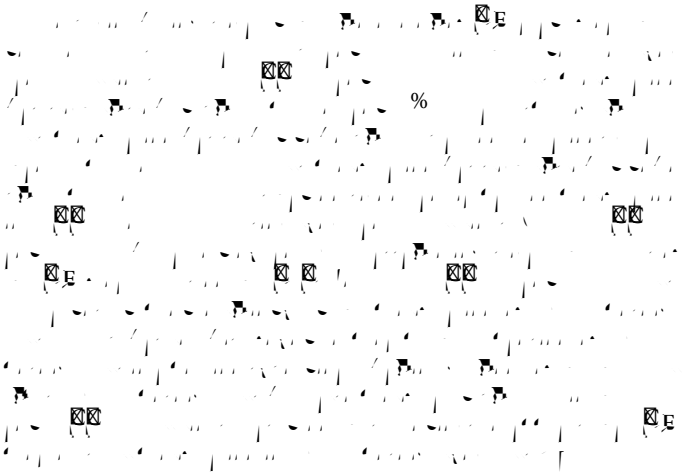


qRT-PCR

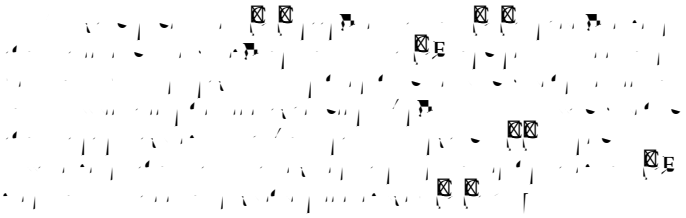


Results

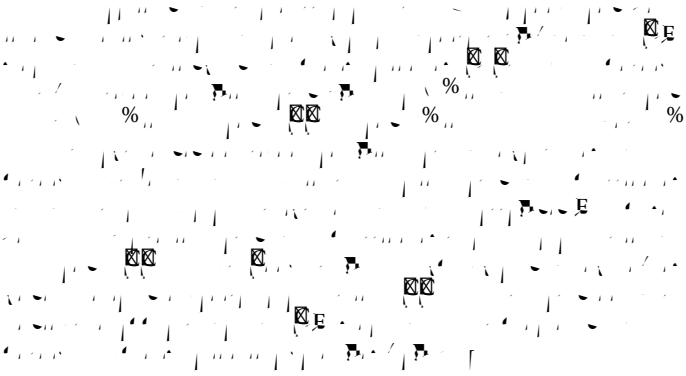
CSE from HTPs induces the proliferation of ALDH-positive cells



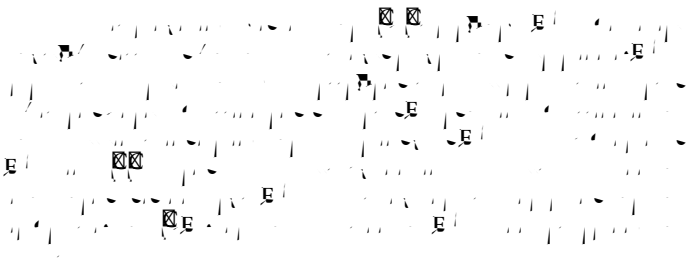
CSE from HTP induces sphere formation



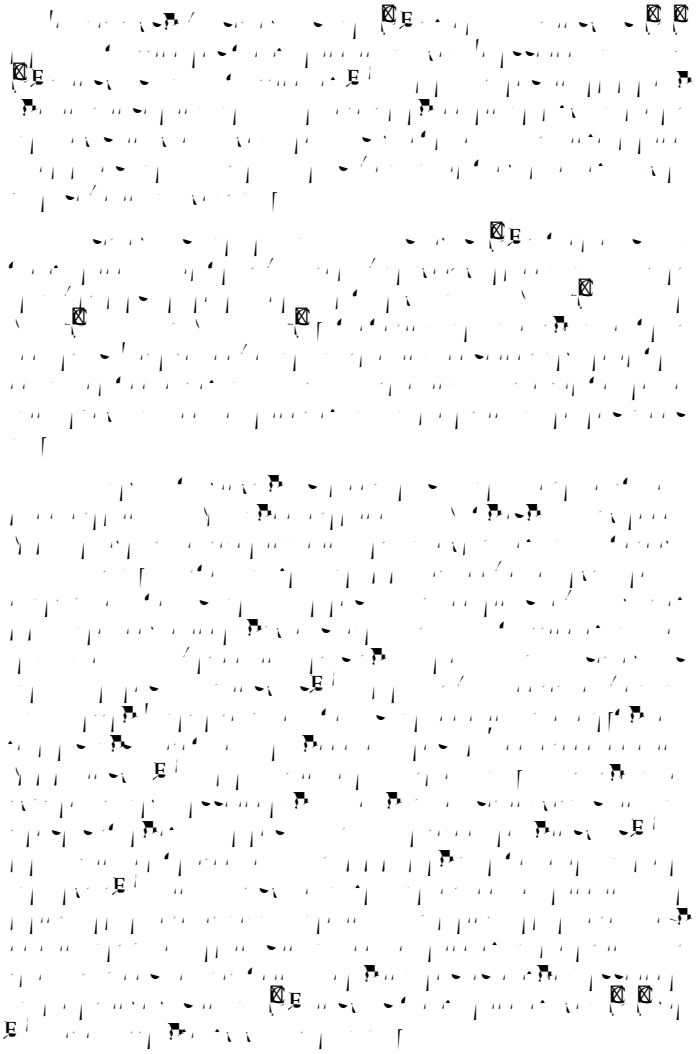
CSE from HTP induces the expression of stem cell markers



CSE from the HTPs induces the expression of EMT markers



Discussion



Acknowledgement

Con ict of Interest

References

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