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**Title:** Exhaled MMP-9 in lung cancer

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**Body:** Background: MMP-9 has been recognized in several types of tumour development and progression, including lung cancer, for its role in the degradation and remodelling of lung tissue. Furthermore, increased MMP-9 has been commonly described in the serum and airways of non small cell lung cancer (NSCLC) patients. Objective: The aim of this study was to investigate, for the first time, MMP-9 in the exhaled breath condensate (EBC) of NSCLC patients. Participants: We enrolled 40 NSCLC patients and 40 controls affected by transudative pleural effusion. Measurements: MMP-9 concentrations were measured in the EBC, whole blood (WB) and pleural effusion (PE) of all the subjects under study using EIA kits. Results: MMP-9 levels were found to be significantly higher in EBC, WB and PE of NSCLC patients compared with controls. A positive correlation was observed between MMP-9 in EBC, cigarettes smoked and stage of cancer. Conclusion: Exhaled MMP-9 was elevated in NSCLC patients, especially during tumour progression, and could represent a suitable non-invasive marker in the diagnosis and monitoring of lung cancer.