NRF2 attenuates EMT by regulating the expression of snail in ovarian cancer

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Epithelial-Mesenchymal Transition (EMT) is a phenotype conversion that plays a critical role in the development of cancer progression. It is known that snail could regulate the progression of EMT. Nuclear factor erythroid 2 related factor 2 (NRF2), a key regulator of antioxidant defense system, protects cells against oxidative stress. We discovered overexpression of NRF2 is poor prognosis in human ovarian cancer patient’s tissue section by tissue microarray. In this study, expression of NRF2 in A2780, TOV-21G, TOV-112D and ES-2 human ovarian cancer cell lines and virus transformed human ovarian cell line A2780 was examined by qPCR and western blot. NRF2 expression was further studied in A2780 and transfection cell lines. By Western blot analysis, the performance of the NRF2 and snail is consistent in shNRF2 of A2780 cell lines. Down-regulation of NRF2 could increase cisplatin sensitivity and decrease cell migration and invasion. Therefore, we suggested NRF2 attenuates EMT by regulating the expression of snail in ovarian cancer.

Biography
Yu-Chieh Lee has completed her PhD from Taipei Medical University, Taiwan and Postdoctoral studies from Taipei Medical University Hospital of Gynaecology. She is interested in chemotherapy response biomarker, predictive biomarker chemotherapy and cancer biology.

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