

## 論 文 要 旨

Snail1 expression in human colon cancer DLD-1 cells confers  
invasive properties without N-cadherin expression

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The epithelial-mesenchymal transition (EMT) is a fundamental characteristic of carcinoma cells. EMT is generally associated with a change in cellular morphology from cobblestone to spindle shape, reduced expression of epithelial markers such as E-cadherin, and enhanced expression of mesenchymal markers such as N-cadherin. This EMT-associated reciprocal expression of E-cadherin and N-cadherin has been called the “cadherin switch”. Downregulation of E-cadherin enables cells to dissociate from colonies while upregulation of N-cadherin is associated with increased invasiveness. The transcription factor Snail1 induces these changes in various epithelial cell lines, including canine MDCK cells and human A431 cells. In the present study, we introduced a Snail1 expression vector into human DLD-1 cells and isolated stable transfectants. These cells showed changes in morphology, reduced expression of epithelial marker E-cadherin and occludin, and elevated invasion and migration. However, neither expression of N-cadherin protein nor its corresponding mRNA was detected. Therefore, elevated N-cadherin expression is not required for invasiveness of the cells.