Gene expression profiles of bladder cancers: evidence for a striking effect of in vitro cell models on gene patterns.

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Résumé en anglais	In order to assess the effect of in vitro models on the expression of key genes known to be implicated in the development or progression of cancer, we quantified by real-time quantitative PCR the expression of 28 key genes in three bladder cancer tissue specimens and in their derived cell lines, studied either as one-dimensional single cell suspensions, two-dimensional monolayers or three-dimensional spheroids. Global analysis of gene expression profiles showed that in vitro models had a dramatic impact upon gene expression. Remarkably, quantitative differences in gene expression of 2-63-fold were observed in 24 out of 28 genes among the cell models. In addition, we observed that the in vitro model which most closely mimicked in vivo mRNA phenotype varied with both the gene and the patient. These results provide evidence that mRNA expression databases based on cancer cell lines, which are studied to provide a rationale for selection of therapy on the basis of molecular characteristics of a patient's tumour, must be carefully interpreted.
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[1] http://okina.univ-angers.fr/publications?f[author]=10940
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