breast cancer cell lines, this gene showed an indication of a reciprocal expression with \textit{BRC1}, with which it shares a bi-directional promoter (Xu et al., 1997b; Suen and Goss, 1999). However, it was decreased in primary breast cancer cell cultures, though much less than the NBR1 1A and 1B isoforms. The reason for the discrepancy between permanent cell lines and short-term cultures is not clear. The possible effect of the cell culture conditions on the expression of the studied genes could be evaluated by re-examination of their mRNA levels in fresh tumour specimens.

It has been known for some time that the expression of \textit{BRC1} is regulated during the cell cycle, with elevated levels at G1/S transition and during the S phase (Gudas et al., 1996; Vaughn et al., 1996). At present, experiments are in progress in our laboratory to compare the mRNA levels of NBR2 and NBR1 genes during the cell cycle of normal and malignant cells, with the idea that a possible temporal deregulation of these genes during the cell cycle could possibly result in decreased expression of the non-mutated copy of \textit{BRC1} tumour suppressor gene.

References


