## GPR26: A marker for primary glioblastoma?

Alan N. Carter, Clare L. Cole, Adam G. Playle, Emma J. Ramsay and Amal A. Shervington
*Brain Tumour North West, Faculty of Science, University of Central Lancashire, Preston, UK*
Received 21 June 2007; accepted 8 October 2007. Available online 26 October 2007.

### Abstract

Glioblastomas are highly malignant brain tumours; they have been described as one of the most deadly human cancers. Two conceptual classifications of the condition exist: primary (de novo), which does not exhibit prior disease and secondary glioblastoma, which develops from a pre-existing glioma. This study investigates whether GPR26 is differentially transcribed in glioblastoma tissue from patients of different ages, in order to define a candidate genetic marker. The transcriptional profile of GPR26 was compared in nine samples: seven glioblastoma tissues and two normal brain tissues using PCR. Despite GPR26 being present in the glioblastoma tissues, it was not transcribed in any of the four cell lines tested. GPR26 transcription ratios were compared between normal and cancerous samples, also age categories ≤50 and >60 years were compared. Results suggested differential transcription of GPR26, which is significantly less transcribed in tissues from older patients, implied by a p-value of 0.03. This study has identified GPR26 to be a genetic indicator of primary glioblastoma, suggesting that it could be a suppressor of primary glioblastoma development.

### Keywords:

Primary glioblastoma; Secondary glioblastoma; G protein coupled receptor 26 (GPR26)

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