



Identification of two glioblastoma-associated stromal cell subtypes with different carcinogenic properties in histologically normal surgical margins.

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Titre	Identification of two glioblastoma-associated stromal cell subtypes with different carcinogenic properties in histologically normal surgical margins.
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Auteur	Clavreul, Anne [1], Etcheverry, Amandine [2], Tétaud, Clément [3], Rousseau, Audrey [4], Avril, Tony [5], Henry, Cécile [6], Mosser, Jean [7], Menei, Philippe [8]
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Résumé en anglais	<p>Glioblastoma (GB) is a highly infiltrative tumor recurring within a few centimeters of the resection cavity in 85 % of cases, even in cases of complete tumor resection and adjuvant chemo/radiotherapy. We recently isolated GB-associated stromal cells (GASCs) from the GB peritumoral zone, with phenotypic and functional properties similar to those of the cancer-associated fibroblasts present in the stroma of carcinomas. In particular, GASCs promote blood vessel development and have tumor-promoting effects on glioma cells in vitro and in vivo. In this study, we characterized these cells further, by analyzing the transcriptome and methylome of 14 GASC and five control stromal cell preparations derived from non-GB peripheral brain tissues. We identified two subtypes of GASCs in surgical margins in GB patients: GASC-A and GASC-B. GASC-B promoted the development of tumors and endothelium, whereas GASC-A did not. A difference in DNA methylation may underlie these two subtypes. We identified various proteins as being produced in the procarcinogenic GASC-B. Some of these proteins may serve as prognostic factors for GB and/or targets for anti-glioma treatment. In conclusion, in this era of personalized therapy, the status of GASCs in GB-free surgical margins should be taken into account, to improve treatment and the prevention of recurrence.</p>
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- [1] <http://okina.univ-angers.fr/anne.clavreul/publications>
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=10356](http://okina.univ-angers.fr/publications?f[author]=10356)
- [3] <http://okina.univ-angers.fr/c.tetaud/publications>
- [4] <http://okina.univ-angers.fr/a.rou/publications>
- [5] [http://okina.univ-angers.fr/publications?f\[author\]=6985](http://okina.univ-angers.fr/publications?f[author]=6985)
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