



A service of the [U.S. National Library of Medicine](#)  
and the [National Institutes of Health](#)

Select **19287454**

---

1: [Oncogene](#). 2009 Mar 16. [Epub ahead of print]



**Distinct pools of cancer stem-like cells coexist within human glioblastomas and display different tumorigenicity and independent genomic evolution.**

[Piccirillo SG](#), [Combi R](#), [Cajola L](#), [Patrizi A](#), [Redaelli S](#), [Bentivegna A](#), [Baronchelli S](#), [Maira G](#), [Pollo B](#), [Mangiola A](#), [Dimeco F](#), [Dalprà L](#), [Vescovi AL](#).

[1] 1Department of Biotechnology and Biosciences, University of Milan-Bicocca, Milan, Italy [2] 2Unit of Cancer Stem Cell Biology, StemGen Spa, University of Milan-Bicocca, Milan, Italy.

Glioblastomas (GBMs) contain transformed, self-maintaining, multipotent, tumour-initiating cancer stem cells, whose identification has radically changed our perspective on the physiology of these tumours. Currently, it is unknown whether multiple types of transformed precursors, which display alternative sets of the complement of properties of true cancer stem cells, can be found in a GBM. If different subsets of such cancer stem-like cells (CSCs) do exist, they might represent distinct cell targets, with a differential therapeutic importance, also depending on their characteristics and lineage relationship. Here, we report the presence of two types of CSCs within different regions of the same human GBM. Cytogenetic and molecular analysis shows that the two types of CSCs bear quite diverse tumorigenic potential and distinct genetic anomalies, and, yet, derive from common ancestor cells. This provides critical information to unravel the development of CSCs and the key molecular/genetic components underpinning tumorigenicity in human GBMs. *Oncogene* advance online publication, 16 March 2009; doi:10.1038/onc.2009.27.

PMID: 19287454 [PubMed - as supplied by publisher]

---