

## Cancer stem cells in melanoma: A complex problem

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Cancer progression in humans is difficult to infer because we do not routinely sample patients at multiple stages of their disease. The identification of cancer stem cell (CSC) subpopulations inside tumors opens a new perspective on cancer development, since it implies that tumors can only be eradicated by targeting CSCs. Several markers have been proposed in the literature to identify CSCs both in breast and melanoma but no consensus has been reached, leading to the hypothesis that the CSC phenotype might be dynamically switched. Herein we provide quantitative evidence of CSCs in melanoma discussing the complex network regulating their biological functions.

### Biography:

Caterina La Porta is a Research associate professor of General Pathology at University of Milan, visiting scientist in many university and institutes, she is group leader of the Molecular Oncology Laboratory at the University of Milan and co-founder of the Center for Complexity & Biosystems at the same University. The focus of her group is to understand cancer progression and related mechanical properties. The group is also investigating the mechanisms underlining neurodegenerative pathologies.