



## Role of Visualization in Stem Cell Characterization

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**Abstract :** Stem cells are very promising for regenerative medicine due to their self renewal and differentiation potentials. To be used for patients the stem cells should be fully characterized. Characterization of the stem cells includes visualization of cell morphology whether in fresh conditioned, in situ staining or staining of cell suspension. Moreover, visualization gives an insight of cell property whether the cells are adherent or non adherent, and whether the cells are forming clones or a monolayer. Surface marker or senescent staining combined with visualization may determine the type of stem cell or senescent condition, and visualization of induced stem cells can show their differentiation capacity.

**Keywords:** staining, stem cell, characterization, differentiation, senescence.