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Dental Pulp Stem Cells (DPSCs) and Tissue Regeneration: Mechanisms Mediated by Direct, Paracrine or Autocrine Effects

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Message from the Guest Editors

A new source of mesenchymal stem cells, the so-called dental-pulp-derived stem cells (DPSCs), could represent an important tool for regenerative medicine. DPSCs have also been shown to influence the angiogenesis process, for example through the release of secretory factors or by differentiating into vascular and/or perivascular cells. Given their differentiation and trans-differentiation ability towards specialized cells, when properly implanted into a microenvironment they can also be involved in the regeneration and repair of tissue damaged by traumas, degenerative diseases and pathogens. The second and maybe even more important property that could expand the horizon of regenerative medicine is related to DPSCs' immuno-modulatory functions. As matter of fact, this Special Issue aim to focus on the underlying mechanism of the regenerative potential of DPSCs that could be obtained by: (1) injured tissue substitution by differentiated DPSCs and/or (2) the de novo regeneration capability of endogenous stem cells induced by stem niche remodeling mediated by DPSCs secreted factors.



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Message from the Editor-in-Chief

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