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Editorial

Tissue Regeneration in Dentistry

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Recently, various studies for tissue engineering have been conducted successfully to explore a new era of tissue defect treatment. To this end, three essential factors were examined extensively, that is, cells to be transplanted, signaling molecules, and scaffold. Currently, undifferentiated mesenchymal stem cells (MSCs) or the differentiated forms are transplanted with the appropriate scaffolds, producing excellent tissue regeneration. In addition, it is demonstrated that various signaling molecules such as basic FGF, BDNF, BMP, and TGF-beta are available for new tissue formation.

Under such background, a special issue on tissue regeneration in dentistry was designed to summarize the current status of tissue regeneration. Thus, we have invited authors to submit original research and review articles that seek the nature of tissue regeneration and the relevant factors. As the results, various interesting and scientifically significant papers have been accepted. These studies are categorized into MSCs and/or dental MSCs and the relevant factors, cellular responses to various signaling molecules and biomaterials, *in vivo* studies for tissue regeneration in animal models with artificially created tissue defects, and confirmation for the safety of tissue regeneration with ethical consideration.

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