Special Issue

Stem Cell Dysfunction in Diabetes: Causes, Consequences, and Therapeutics for Regenerative Medicine

Message from the Guest Editor

Over the years, numerous studies have demonstrated that diabetic complications are the result of molecular alteration, mainly induced by hyperglycemia, in a wide range of cell types, including stem cells. Stem cells and progenitor cells, through their ability to self-renew and commit to specialized effector cells, play an integral role in the maintenance of tissue homeostasis and repair. Their functional aberrations, which seem to persist even after return to normoglycemia (hyperglycemic memory), have direct implications on tissue function and in the pathogenesis of diabetic complication. For this Special Issue of Applied Sciences, the following topics are welcomed: molecular and epigenetic mechanisms involved in diabetic stem cell dysfunction; consequences of diabetic stem cell alterations in regenerative medicine; and new therapeutic and molecular strategies in treating stem cells dysfunction. Further innovative proposals will be evaluated.

Guest Editor

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Deadline for manuscript submissions

closed (30 September 2020)



Applied Sciences

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Impact Factor 2.5 CiteScore 5.3



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multidimensional network.

Editor-in-Chief

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