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## Endogenous stem cell mobilization for the treatment of diabetes

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A comprehensive review of the stem cell research literature indicates that bone marrow stem cells (BMSC) constitute the natural repair system of the body and that the number of circulating stem cells appears to be a critical parameter in the effectiveness of stem cell-based tissue repair. On this basis, Endogenous Stem Cell Mobilization (ESCM) emerges as a possible approach to the treatment of a variety of degenerative conditions, including diabetes. BMSC have been shown to have the ability to migrate into the pancreas and to differentiate into functional insulin producing cells and mobilization of BMSC has been shown to rescue streptozotocin induced diabetes in mice. The stem cell mobilizer StemEnhanceTM increased the number of circulating stem cells as well as the number of stem cells that migrated in the pancreas of streptozotocin treated mice, which significantly increased insulin production and reduced fasting blood glucose. This was confirmed in humans where StemEnhanceTM supplementation for 12 weeks decreased fasting blood glucose and HbA1c levels in type-2 diabetes patients. A multi center study is underway to document the effect of plant based stem cell mobilizers on pre-diabetes. Current evidence suggests that ESCM could be an effective approach to prevent or slow down the development of diabetes or in certain cases even reverse diabetes.

## **Biography**

Miguel Guillermo Garber has over 30 years experience in Internal Medicine and Cardiology with expertise in regenerative medicine and research. He has more than 10 years experience working with stem cells, including exploring and developing stem cell therapies for cardiomyopathies, osteoarthritis and regenerative medicine at Stem Cell Therapeutics Department of American Medical Information Group and Clinica Quirurgica Quantum. He is currently serving as a Medical Director of Revitacell and Clinical Director of Regenerative Medicine Department at Humanus. He has made a significant contribution to Stem cell Research.

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