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New Study Indicates Bone Marrow Protein to be the Target for Improving Stem Cell Transplants

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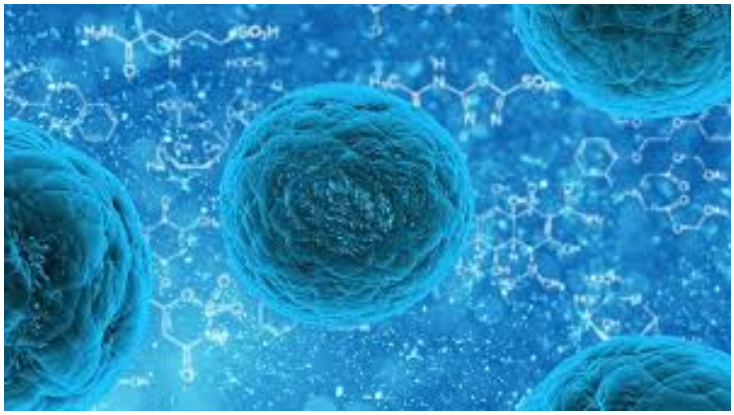
A study by Penn Dental Medicine and Technical University of Dresden has identified an important regulator of this process, a protein called Del-1.



Singapore – Bone marrow contains hematopoietic stem cells, the precursors to every blood cell type. These cells spring into action following bone marrow transplants, bone marrow injury and during systemic infection, creating new blood cells, including immune cells, in a process known as hematopoiesis.

A study by **Penn Dental Medicine** and **Technical University of Dresden** has identified an important regulator of this process, a protein called Del-1. Targeting it, the researchers noted, could potentially improve stem cell transplants for both donors and recipients. There may also be ways to modulate levels of Del-1 in patients with certain blood cancers to enhance immune cell production. The findings are reported in ***The Journal of Clinical Investigation***.

"Because the hematopoietic stem cell niche is so important for the creation of bone marrow and blood cells and because Del-1 is a soluble protein and easily manipulated, one can see that it could be a target in many potential applications," said senior author **George Hajishengallis**, Thomas W. Evans Centennial Professor of Microbiology at Penn Dental Medicine.

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