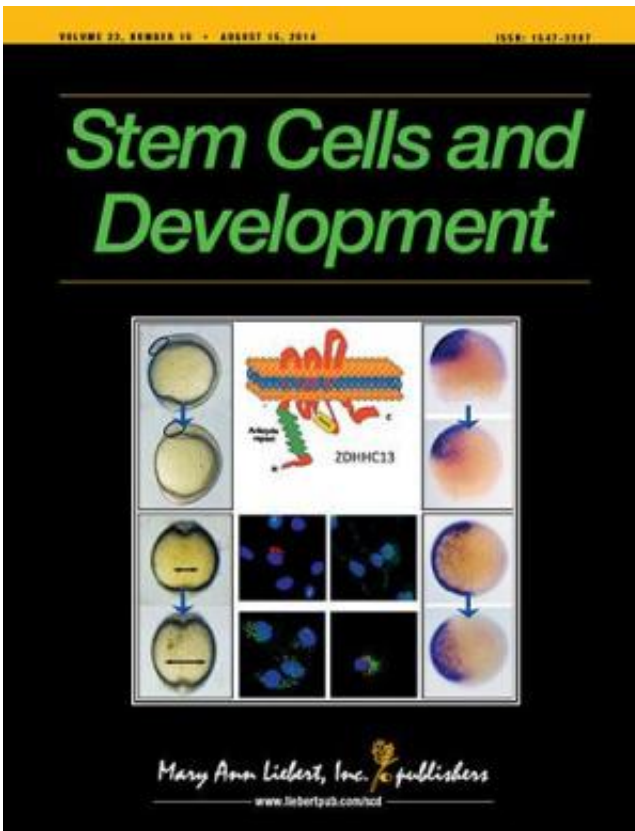


Conclusive evidence on role of circulating mesenchymal stem cells in organ injury

August 21 2014



Credit: 2014, Mary Ann Liebert, Inc., publishers

Mesenchymal stem cells (MSCs) are present in virtually every type of human tissue and may help in organ regeneration after injury. But the theory that MSCs are released from the bone marrow into the blood stream following organ damage, and migrate to the site of injury, has

long been debated. M.J. Hoogduijn and colleagues provide conclusive evidence to resolve the controversy over the mobilization and migration of MSCs in humans in a new study published in *Stem Cells and Development*.

In "[No Evidence for Circulating Mesenchymal Stem Cells in Patients with Organ Injury](#)," Hoogduijn and coauthors from Erasmus University Medical Center (Rotterdam, The Netherlands), describe the results of studies to detect MSCs in the blood of healthy individuals, of patients with end-stage renal disease, of patients with end-stage liver disease, and of [heart transplant patients](#) with organ rejection. Whereas they did not find MSCs in the circulation of these individuals, they did report the presence of MSCs in the blood of a patient suffering from severe trauma with multiple fractures. In the trauma patient, the circulating MSCs likely derived from disruption of the [bone marrow](#) caused by the fractures.

"We can add the simple but elegant work of Martin Hoogduijn to the pantheon of studies in [stem cell research](#) that skewer a long treasured tenet of faith and consign it to mythology," says Editor-in-Chief Graham C. Parker, PhD, The Carman and Ann Adams Department of Pediatrics, Wayne State University School of Medicine, Detroit, MI.

More information: The article is available on the *Stem Cells and Development* [website](#).

Provided by Mary Ann Liebert, Inc

Citation: Conclusive evidence on role of circulating mesenchymal stem cells in organ injury (2014, August 21) retrieved 31 December 2022 from <https://medicalxpress.com/news/2014-08-conclusive-evidence-role-circulating->

[mesenchymal.html](#)

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.