

Longevity Medical Institute® Publishes Peer-Reviewed Review on MSCs for Inflammaging and Chronic Inflammation

New review synthesizes current evidence demonstrating how stem cells modulate chronic inflammation, a biological driver of aging and many age-related diseases.

SAN JOSÉ DEL CABO, BAJA CALIFORNIA SUR, MEXICO, July 19, 2026

/EINPresswire.com/ -- Longevity Medical Institute® today announced the publication of a new peer-reviewed systematic review examining the role of mesenchymal stem cells (MSCs) in reducing chronic inflammation and addressing inflammaging—the persistent, low-grade inflammatory state increasingly recognized as one of the fundamental mechanisms underlying biological aging and many chronic diseases.



The review, "Mesenchymal Stromal Cells as Modulators of Chronic Inflammation, Inflammaging, and Age-Related Disease: A Systematic Review," has been published in the [Journal of Clinical and Biomedical Advances](#) (ISSN: 3066-716X). DOI: 10.63620/MKJCBA.2026.1059

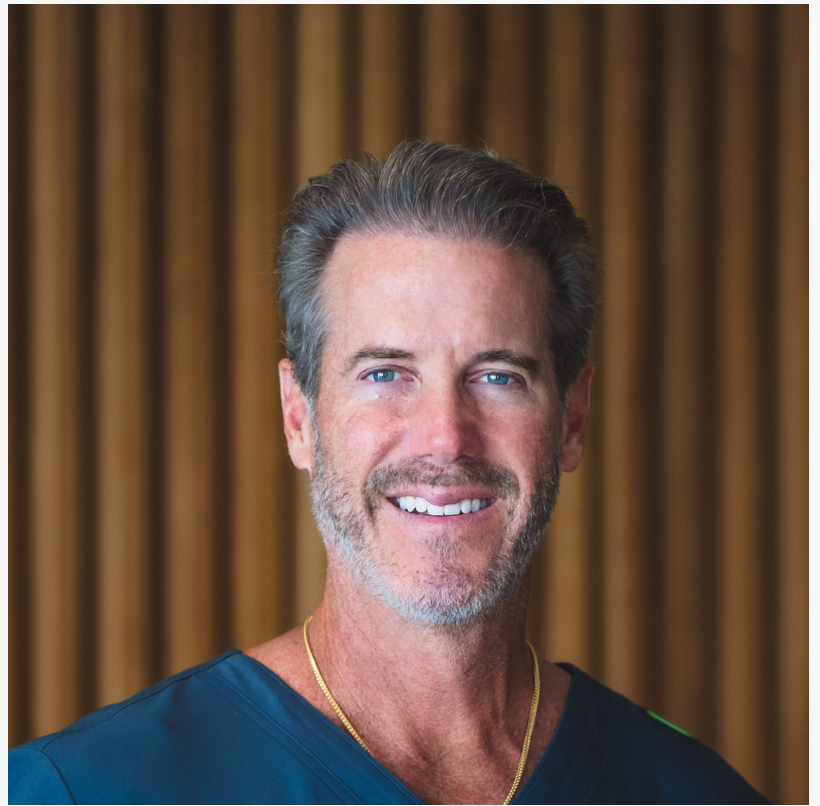
The systematic review evaluated preclinical and clinical evidence investigating the effects of [MSC therapy](#) on inflammatory biomarkers and immune signaling pathways associated with aging and chronic disease. Conducted in accordance with PRISMA 2020 guidelines, the review analyzed studies identified through PubMed, Embase, Scopus, Web of Science, and the Cochrane Library.

Across the studies reviewed, MSC therapy consistently demonstrated the ability to reduce key pro-inflammatory cytokines—including IL-6, TNF- α , IL-1 β , and C-reactive protein—while increasing anti-inflammatory mediators such as IL-10. These immunomodulatory effects were frequently associated with improvements in clinical outcomes across a variety of disease models

and patient populations.

"Chronic inflammation has emerged as one of the most important biological processes driving aging and many of the diseases that reduce both lifespan and healthspan," said [Dr. Kirk Sanford](#), Founder and CEO of Longevity Medical Institute. "This review demonstrates that mesenchymal stem cells consistently influence many of the inflammatory pathways associated with aging, supporting their potential as an important area for continued clinical investigation."

Unlike therapies designed to target a single inflammatory molecule, MSCs exert broad immunomodulatory effects through multiple complementary mechanisms. Research reviewed in the publication describes how MSCs regulate both innate and adaptive immune responses by suppressing excessive inflammatory signaling, promoting regulatory immune cells, shifting macrophages toward tissue-repair phenotypes, and secreting a wide range of bioactive factors that support tissue healing and immune balance.



Dr. Kirk Sanford

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The authors note that inflammaging is increasingly recognized as a common biological denominator across numerous age-related conditions, including cardiovascular disease, metabolic disorders, neurodegenerative diseases, musculoskeletal degeneration, and frailty. Rather than treating these diseases independently, therapies capable of modulating chronic inflammation may have the potential to influence multiple aspects of healthy aging simultaneously.

The publication adds to Longevity Medical Institute's growing body of peer-reviewed research evaluating the safety and clinical applications of mesenchymal stromal cells in regenerative medicine. Recent publications from the Institute have examined MSC therapy for knee osteoarthritis, diabetic foot ulcers, COVID-19, and overall safety across a broad range of clinical indications.

About Longevity Medical Institute

Longevity Medical Institute is an advanced regenerative medicine, diagnostics, and healthy aging center located in San José del Cabo, Mexico. The Institute combines comprehensive diagnostics—including advanced laboratory testing, full-body MRI, cardiac imaging, and precision health assessments—with evidence-based regenerative medicine, cellular therapies, hyperbaric oxygen therapy, peptides, and personalized longevity programs. The Institute's multidisciplinary team is committed to advancing both patient care and scientific research through peer-reviewed publications and ongoing clinical innovation.

To learn more, visit www.longevity-institute.com.

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