




RENUUE

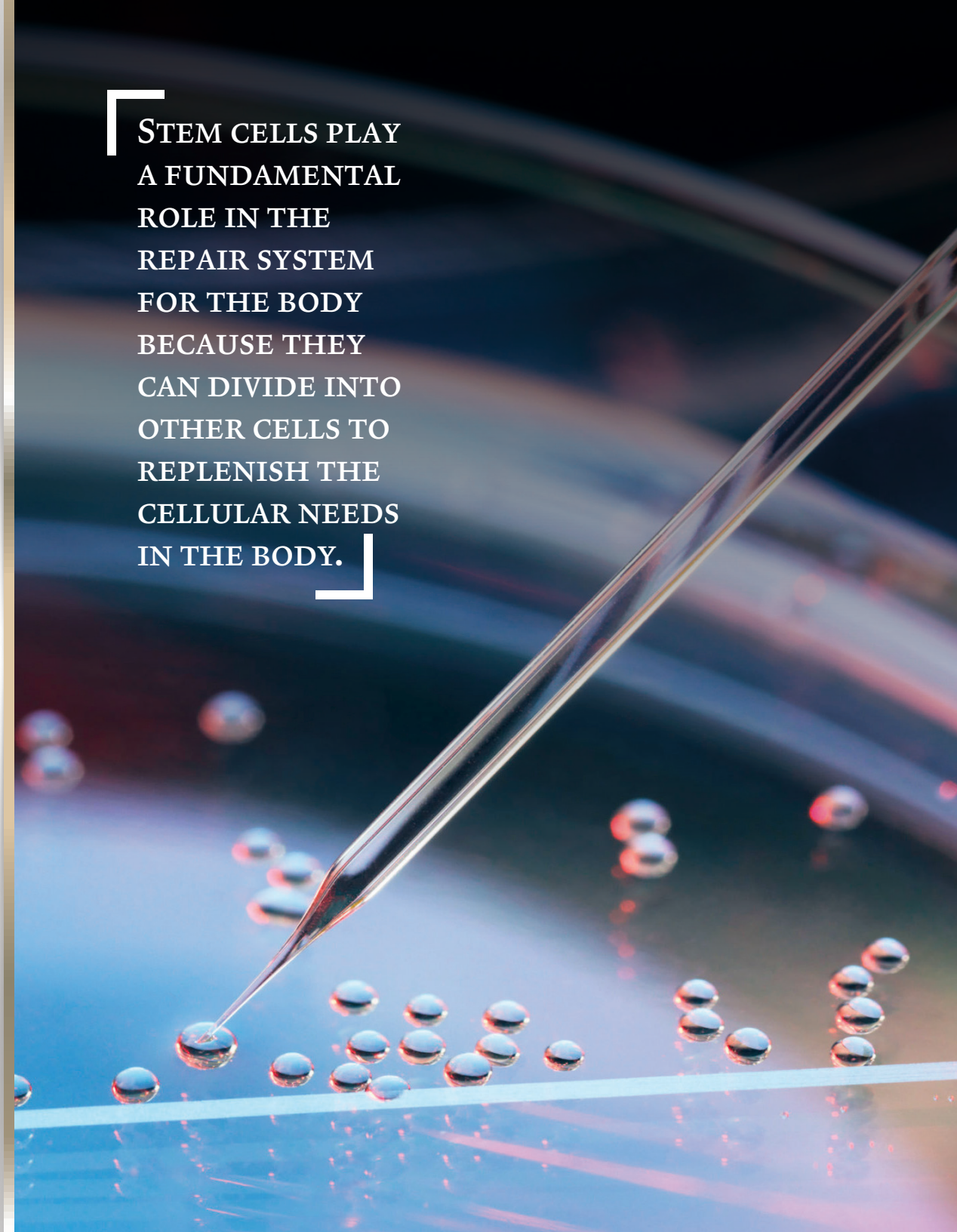
ELEVATE YOUR QUALITY OF LIFE



Significance of Stem Cell Therapy

The *Stem Cells* (SCs) are pluripotent cells that can differentiate into different types of cells in the body. *Stem Cells* play a fundamental role in the repair system for the body because they can divide into other cells to replenish the cellular needs in the body. When SCs divide, each new derivative cell can either become a different specialized cell or remain as it was before.

Most commonly, SCs divide into brain cells, red blood cells, or muscle cells. *Stem Cells* are different from the other cells because they are unspecialized, can give rise to complex cells, and divide/renew themselves in the long term. ♦



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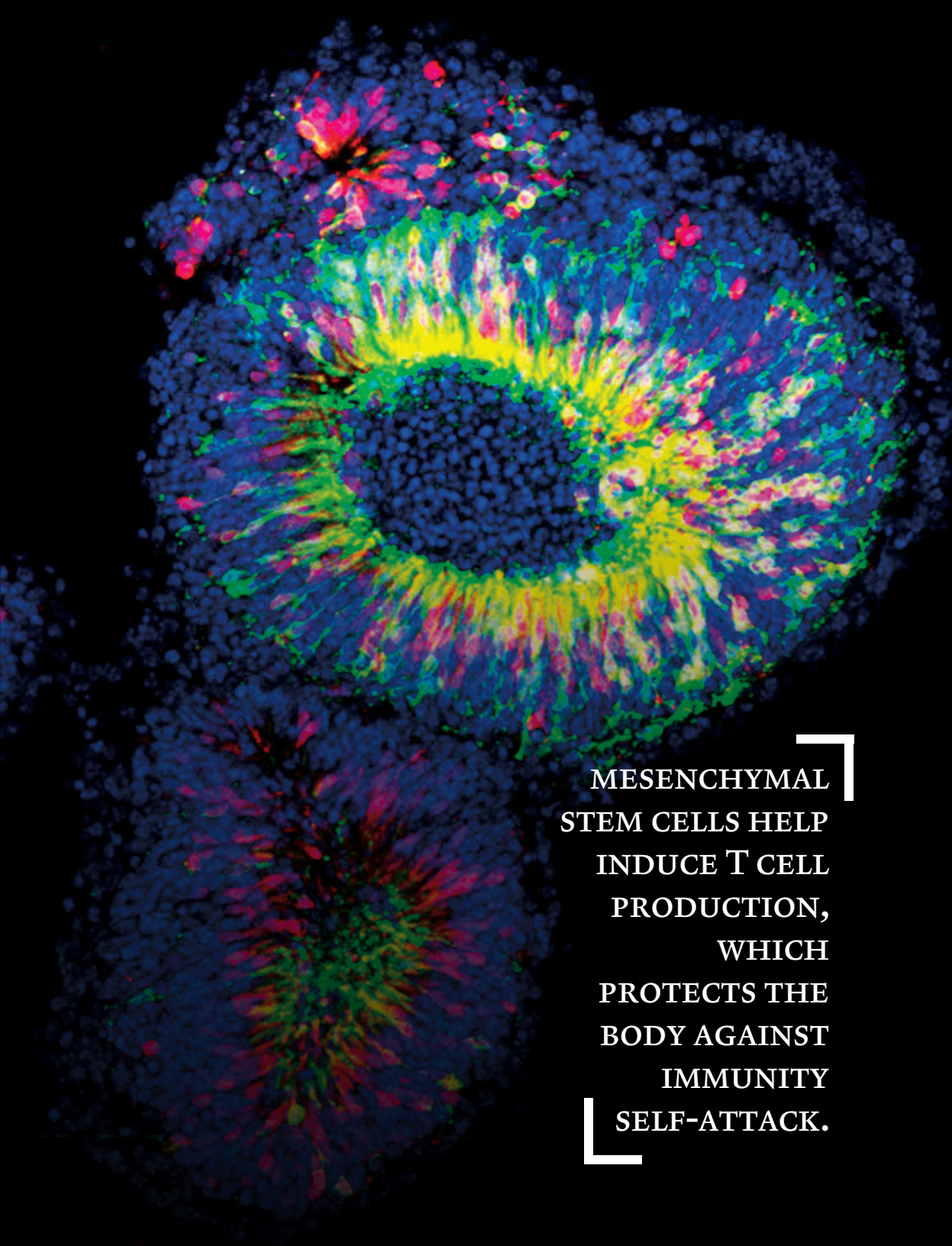
Stem Cells Therapy for Autoimmune Diseases

Autoimmune diseases are conditions that occur due to abnormal actions of the immune system. In these diseases, the body's immune system fights against the healthy cells and kills them. *Stem Cell Therapy* has the potential to induce healing activities in humans and animals for different autoimmune diseases. Besides tissue healing, *Stem Cells* can modulate the immune system to delay or inhibit pathological responses.

Mesenchymal Stem Cells fight against the inflamed tissues while producing potent anti-inflammatory agents. Anti-inflammatory mediators act not to suppress the immunity in the whole body, but to the specific targeted area. In addition, *Mesenchymal Stem Cells* help induce T cell production, which protects the body against immunity self-attack.◆



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Stem Cell Therapy for Musculoskeletal Diseases

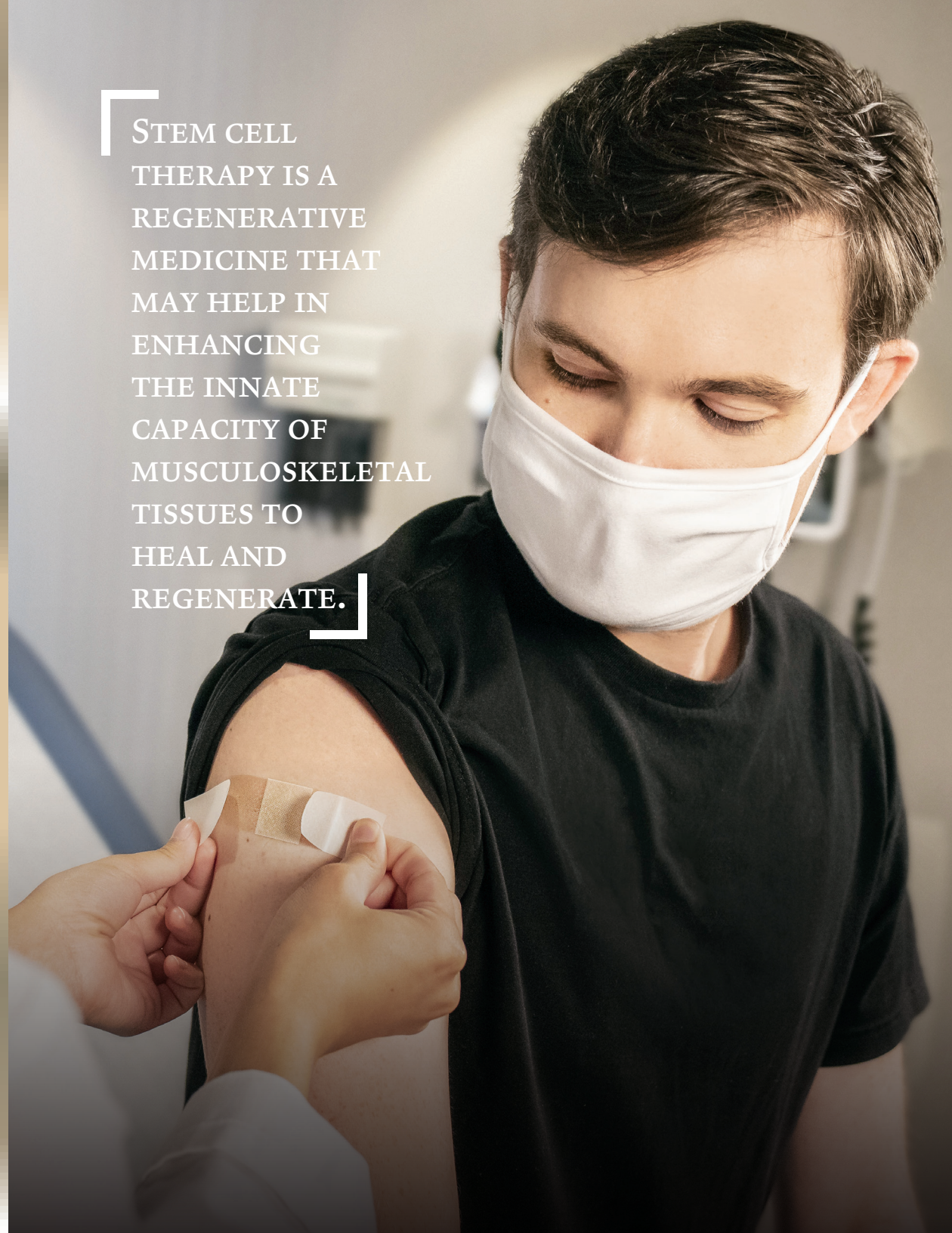
Musculoskeletal Disorders account for the increased disease burden around the world. For several musculoskeletal pathologies, neither surgical intervention nor conservative management provide appropriate treatment.

Stem Cell Therapy is a *Regenerative Medicine* option to enhance the innate capacity of musculoskeletal tissues to heal and *Regenerate*.

Osteoarthritis (OA), although an autoimmune disease, has musculoskeletal symptoms. In this disease, chondrocytes or cartilage cells tend to deteriorate. *SCT* can help with the regeneration of chondrocytes to help decrease OAs progression.

In the case of intervertebral discs' degeneration, *SCT* can also help with enhanced intervertebral disc tissue regeneration. *Mesenchymal Stem Cells* are the best treatment alternative for the regeneration of meniscal tissue, which provides a cushion for longer bones and joints. ♦

STEM CELL THERAPY IS A REGENERATIVE MEDICINE THAT MAY HELP IN ENHANCING THE INNATE CAPACITY OF MUSCULOSKELETAL TISSUES TO HEAL AND REGENERATE.





STEM CELL
THERAPY
HELPS DELAY
NEUROLOGICAL
DETERIORATION,
REDUCE
BRAIN EDEMA,
APOPTOSIS
INHIBITION,
AND REDUCED
INFLAMMATORY
INFILTRATIONS.



Stem Cell Therapy for Neurological Diseases

For *different Neurological Diseases such as Parkinson's, Alzheimer's, Batters, Multiple Sclerosis, Cerebral Palsy, Spinal Cord Injury, and Neurodegenerative diseases, Stem Cell Therapy* has the best prognosis. Most of these diseases occur due to damage of the brain cells caused by contamination of the blood-brain barrier or congenital malformations.

Neurological Diseases result in causing muscular paralysis and other muscular weakness, which affect locomotion and mobility.

Moreover, in *Alzheimer's and Parkinson's disease*, protein accumulation and dopamine abnormality causes memory issues and muscular problems.



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Stroke is the most common *Neurological Disease* which causes the death of neuronal cells. Neuronal cells have less capability or potential to regenerate in comparison to other cells. *Stem Cell Therapy* helps delay neurological deterioration, reduce brain edema, apoptosis inhibition, and reduced inflammatory infiltrations. One session of *Mesenchymal Stem Cell Transplantation* can help in improving the recovery from the damage due to ischemic stroke.◆

Takeaway:

With the innovation in the treatment regimen, the discovery of *Stem Cell Therapy* has brought a breakthrough in the medical field. *Stem Cell Therapy* is replacing most traditional treatment options because they have more potential for a good prognosis.◆



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Additional Information Resources



<https://onlinelibrary.wiley.com/doi/full/10.1002/jnr.22054>



<https://www.nature.com/articles/nrn809>



<https://www.sciencedirect.com/science/article/pii/S1931524410001507>



<https://www.sciencedirect.com/science/article/pii/B9780128098806000540>



<https://arthritis-research.biomedcentral.com/articles/10.1186/ar2128>



https://scielo.conicyt.cl/scielo.php?pid=S0716-97602012000300008&script=sci_arttext



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