



DigiCare® Monograph Series

## Understanding Adult Stem Cells

The Very Key for Repair of Injuries, Degeneration, Infections & Toxins

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**Introduction:** The more we learn about

Adult Stem Cells (ASCs) and what they can do, the more we realize that they are the very key to repairing and rejuvenating the human body from old injuries, past infections, and long-term toxin exposure. Indeed, as *telomeres* are strengthened, *DNA* strands lengthened, and *ATP* brought to a roaring blaze by stimulated *Mitochondria*, ASCs slow (and reverse) the aging process, and restore us closer to the ideal of our DNA blueprint. Treatments, supplementation, and lifestyle changes that bring out and direct more ASCs in a given patient should be the objective of every worthwhile clinical approach. Hence, a wide array of therapies and practices could fit into the ASC template. Our purpose here is to present a brief review of the natural systems that are set in motion when we take advantage of the body's own ability to restore our body's health and well-being.

### DNA: Your Genome “Time Capsule”

In 1886, biologist Robert Altmann saw for the first time under a microscope what he called “bioblasts” or “the engines of life”. These “engines” were organelles called *Mitochondria* and the energy they generated is called **adenosine triphosphate (ATP)**.

It was not until the invention of electron microscopy in 1962 that scientists were able to actually see the microscopic components of these “little animals” (as they were called by earlier scientists from the nineteenth century). Mitochondria, they discovered, are microscopic organelles of *foreign* origin that contain their own DNA apart from our body's own DNA. In fact, they are the only organelle in the human body that is *not* an original part of us. We cannot live without them for more than mere minutes, yet they can turn on us on a dime and wreak the havoc we call *autoimmune disease* when conditions are less than to their liking (low cellular pH, environmental toxins, or deficiency in oxygen, water, and nutrients).

The mission of Mitochondria is to read our DNA Blueprint and keep our cells matching the specifications of the blueprint. When we are children it assures that we develop to our fullest potential; when we are older it reaches back in time and strives to maintain us to our DNA specifications.

One's DNA record represents what I call our “**Human Genome Time Capsule**”, meaning our genes are the product of the survivors of our bloodline—the “best of the best”, if you will. We were not destined to be sickly, spend our last ten years of life in convalescence or on umpteen side effect laden medications. We were meant to maintain robust health by empowering the body's far superior immunological and restorative processes to the very end of life itself. Indeed we were meant to pass on to the next generation an enhanced and improved genetic roadmap for them to follow.

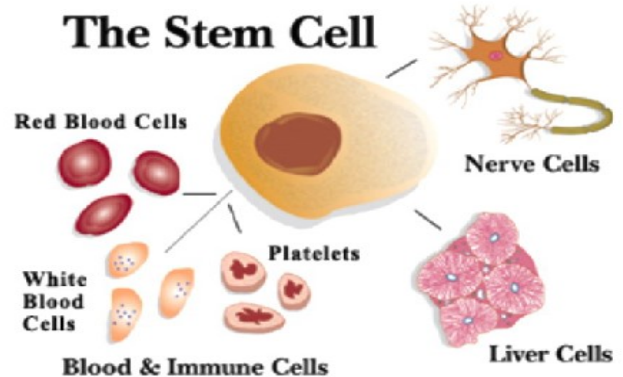
### Enter Adult Stem Cells

So, the Mitochondria of our cells produce “energy packets” called ATP, which searches for the missing elements required to make us whole. Our immunology guides the ATP by alerting where bone, cartilage, soft tissues, etc. need repair—often detected in the form of pain and/or inflammation.

ATP relies upon **Cytokines** to guide its work. If we're heal-

ing, anti-inflammatory cytokines will be released. If we're *not*, proinflammatory cytokines will be released. When the proinflammatory kind are released, an entire cascade of restorative processes are set in motion. But if we artificially turn off proinflammatory cytokines with, say, long term prednisone or addictive opioid pain medication, the healing process stops and we continue to decline while being none the wiser of our true health state.

To empower the Adult Stem Cells (ASCs) to convert into the needed tissue (cartilage, bone, myelin, skin, blood vessels, etc.) one must have supplementation of the building blocks or nutrients to finish the ASC conversion process. Once that happens, and attention to the site of lesion is fostered by deep cold laser, medical massage, medical grade essential oils, negative ion pulses, and other gentle therapies, healing begins and will continue 24/7 until 1) the therapeutic stimulus ceases, or 2) the Mitochondria receive immunological signals that the injured site now matches the DNA blueprint. An example of this is: no matter damaging the inju-



ry one might incur on their fingers, short of amputation or severe burn, their fingerprint will always grow back according to one's DNA blueprint! In the case of degenerated discs of the spine, worn cartilage in the knees, destruction of bone in the hips or shoulders, or even serious neuropathy of the legs and feet, the good news is that under an effective treatment program, one's ASCs can repair just about any and all of the damage and return the body back to a fully functioning state better than surgery or drugs could begin to accomplish.

**Note: Other Monographs by Dr. Chartrand cover how one may benefit from adult stem cell healing with cutting edge treatment approaches. For more information, contact: DigiCare Behavioral Research, 820 W. Cottonwood Lane, Suite #6, Casa Grande, AZ 85122, (520)509-6380.**

### Resources for Further Study

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