Telomeres and our health

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Shortening of the telomere at the chromosome ends is recognized to inhibit the lifespan of human cells and provoke a signal for the ignition of cellular senescence. To continually proliferate with proper DNA replication and to minimize cellular disturbance, cells must rebuild and sustain telomere length. Telomerase can achieve this due to its reverse transcriptase activity. Eventhough all somatic cells have the telomerase gene, the activity itself is surpressed at the regulatory element at birth. The telomerase enzyme is suggested to be an essential factor in cell immortalization. In this review, we discuss the structure and function of telomere and telomerase and their roles in cell immortalization and aging, simultaneously the experimental studies of telomerase assays and disease. Finally, we discuss the potential use of inhibitors of telomerase in humans and the role it plays in “youthful aging”.

Biography

Joshua Dunsky has been practicing as a chiropractic Physician for 17 years in the Metro West area Boston, Massachusetts. He is the Clinic Director of Dunsky Rehabilitation and Spine Center and Boston Scoliosis Specialists in Framingham Massachusetts, a wellness center that has a focus on peripheral neuropathy, spinal degeneration, scoliosis and the GUT. He has lectured extensively on Neuropathy, Scoliosis and Telomere Science in relation to aging and disease. He presented Telomere Science as a Speaker at the Anti-Aging/Preventative Medicine Conference London 2013. He was the past President and Founder of the New England Spinal Decompression Association, LLC (2006), President and Founder of the American Spinal Decompression Association, LLC (2006) and President of The American Cancer Society, South Middlesex Chapter (2003-2005). He is a member of the American Academy of Pain Management and American Academy of Anti-Aging Physicians.

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