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**Biography**

Kampon Sriwatanakul is the president of Vita Stem Co. Ltd., Bangkok and an internationally recognized pioneer of stem cell therapy. He is currently engaged in research and development projects related to application of mesenchymal stem cell in the anti-aging and regenerative medicine.

[drsrikul@gmail.com](mailto:drsrikul@gmail.com)**APPLICATIONS OF STEM CELL TECHNOLOGY IN ANTI-AGING MEDICINE**

At present there is no convincing evidence that existing “antiaging” treatments can slow aging or increase longevity. However, a variety of experiments in both animals and humans indicate that aging rates and life expectancy can be altered. General strategies that appear promising include interventions that reduce oxidative stress and cell replacement therapies can deal with specific age-related pathologies. Telomere length (TL) in blood cells is considered as a molecular marker of ageing. Circulating cell-free DNA (cfDNA) and unconjugated bilirubin (UCB) are dynamic blood constituents that need to be further explored. As we age, and in certain diseased states our cellular ability to translate a transcribed mRNA code into a functional protein, is impaired. Although the genesis of this clinical condition can be somewhat complex, it is characterized by intra-cellular protein accumulation. This accumulation not only decreases cellular function, but also impedes the translational capacity of the cell. We believe the primary etiology of this is a decrease in Chaperone Protein function inside the cell. In this paper we report that cellular aging is marked by an increase in both circulating HSP70 and cfDNA, which are significantly correlated to each other.

