

Using ozone therapy to promote anti-ageing in stem cell medicine

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At the biotic level, ageing results from the impact of the accumulation of a wide variety of molecular and cellular damage over time. Ozone is a topic of great interest, and its mechanism of action is largely accredited to the fact that it is a gas with three oxygen atoms instead of two. Several studies have reported that there are available ways of ozone delivery and when delivered, it can get to the root cause (cells) of the main condition. Extracorporeal Blood Oxygenation and Ozonation (EBO2) is used to investigate whether ozone therapy is an appropriate anti-ageing technique in stem cells. Using EBO2, blood will first undergo a comprehensive filtration, after which it will pass through another chamber where it is saturated with ozone. Ozone is a form of oxygen, but not like the oxygen we breathe. It is oxygen that is reconstructed when it is exposed to high amounts of electricity. Ozone will be utilized as a therapeutic agent and administered to patients in a clinical setting after which they will be monitored to see how anti-ageing is promoted. Ozone therapy has many potential benefits including increasing stem cell proliferation and mobilization, balancing blood pressure, removing excess cholesterol and fat from the bloodstream. These potential benefits hold the idea to prevent the imbalances in tissue homeostasis and decrease organ regenerative capacity, this will in turn slow down the ageing process. As ageing gradually decreases physical and mental capacity, there is a growing risk of disease and ultimately death. Hence, finding effective means to slow down the ageing process will reduce the risk of diseases and even death.

Biography

Anthony A Gyan is currently a student at the University of Ghana where he is receiving his bachelor's degree in Animal Biology with Biochemistry. Due to his passion for stem cell biology, he has accomplished the international workshop in cellular-based products for Regenerative medicine and has officially become a member of the International Society for Stem Cell Application. It is his passion to bring contribution to the field of Stem Cell and Regenerative Medicine as it is the future of medicine, as such he is on the track to becoming a top researcher in the field.