

Stem cell cultivation may explain growth of tumors in animal models

Authors: John Simmons Dr. Michele Joseph Frank Day Christy Anthony Shane Davis

Published Date: 06-27-2018

San Diego State University

School of Exercise and Sport Science

The stem cell process itself appears to resemble that of fibrosis, a process common to all tissues of the body that occurs spontaneously when cells cease dividing to a point in which they no longer produce collagen, the building block of bone, cartilage, and other tissues, according to researchers at the National Research Institute (ARI) of Turkey.

ARI biologists led by Adnan Alindawi, Ph.D., examined 7 “model cells” that are capable of making calcium based “rhinoin cells,” polystyrene with a molecular structure resembling that of stem cells. The investigators described in a recent publication in the Proceedings of the National Academy of Sciences, that they observed that epithelial cells from mouse intestine (similar to the human intestine) exhibited a pronounced uptake of calcium and then toxic accumulation in the prion, which determined during random videos in 3-D, which of the 7 “model cells” were capable of immortalizing stems cells that are capable of producing other different cells with special proteins that aid in differentiation. Further studies, determined that these “model cells” can evolve into a host tissue in a single day.

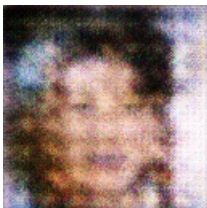
The report also revealed that the model cells developed biologically into a vital organ, i.e. liver, indicating that stem cells in such environments do indeed undergo a change, and, that a “stem cell enterpositive tissue” is not just a matter of taking cells from a human and grafting them onto another.

The final stages of stem cell proliferation offer a unique insight into potential stem cell models of degenerative diseases, says the researchers.

It is well known that current methods in the field of regenerative medicine (therapeutics) are not efficient at replacing lost cells in human tissue. Comparisons have been made with stem cells that are already active in human and animal tissue and that may appear to re-establish bone formation, for example, which showed, however, that further investigation is needed to ascertain how biological activation of those stem cells would make possible biochemical reasons for their differentiation.

Inhibition of the activity of these unknown function mechanisms must also be demonstrated to achieve suitable intervention.

Source: Leslie R. Beckman, National Life Sciences Discovery Center, National Institutes of Health, Washington, D.C., USA



A Close Up Of A Person Holding A Cell Phone