Acta Scientific Pharmaceutical Sciences

Volume 1 Issue 1 June 2017

Editorial

Cellular Therapies: A Tool of Regenerative Medicine

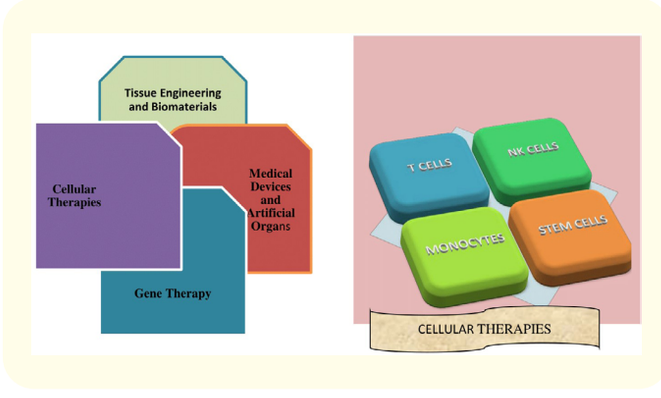
Jaya Agnihotri*

Department of Pharmaceutics, H K College of Pharmacy Oshiwara (W), Mumbai, India

***Corresponding Author:** Jaya Agnihotri, Department of Pharmaceutics, H K College of Pharmacy Oshiwara (W), Mumbai, India.

Received: May 18, 2017; **Published:** June 27, 2017

Regenerative medicine aims to replace tissue or organs that have been upset by ailment, trauma, or hereditary issues to restore or establish normal function. The tools used to comprehend these outcomes are tissue engineering, cellular therapies, and medical devices and artificial organs.



Over the last quarter of a century, cell therapy is the fastest growing segment of the Regenerative Medicine (RM) industry. Pharmaceutical, biopharmaceutical, life science, and healthcare companies are investing heavily in policy and diffidently/vigilantly with their money in regenerative medicine. This field of regenerative medicine has the potential to heal people and turn the health price tag curve toward a more inexpensive long-term solution. Cell therapy technologies and novel methods have already begun to change the practice of medicine and lead to developing a platform of personalized medicine. The use of cells as medicines is a promising and upcoming area of research as they may be able to help the body to regenerate damaged or lost tissue in a host of diseases like Parkinson's, multiple sclerosis, heart disease, liver disease, spinal cord damage, cancer and much more. Rapid advancement is going on in the meadow of stem cell therapy research, and escalating numbers of products will begin reaching the market in the near future. But new cell therapy treatments must fit into a competitive and highly regulated healthcare environment. Succeeding in that environment requires alignment between a company's business model and its manufacturing strategy. Mesenchymal stem cells known to differentiate into a variety of cell types including: osteoblasts (bone cells), chondrocytes (cartilage cells), myocytes (muscle cells) and adipocytes (fat cells), more recently have been shown to be capable of evading the immune system due to lacking MHC Class II antigens, and they can also modulate the immune system and inflammatory cascades, thus enabling tissues and organs to regenerate, as well as suppress immune-related diseases. Thus, there is the indication that this industry, and the related technology, will achieve its potential and address the needs of millions of patients worldwide; in particular those with needs that currently are unmet. Future research priorities and end goal is a sustainable business that will focus on novel cell and bioprocess engineering techniques to improve manufacturing efficiency (robust, scalable processes and methods) to support rapid clinical acceptance of new cell therapies.

Volume 1 Issue 1 June 2017