Clinical Research in Orthopedics

Short Communication

International conference on Biomaterials for bone tissue engineering

Dr. Amir Neshatfar*

Department of Neurology, University of Missouri, Columbia, Missouri, USA, E-mail: Neshatfara@89health.missouri.edu

Bone tissue engineering comprises recent researches and findings in bone and tissue regeneration technologies, stem cells and transplantations and other advancements in biomaterials and tissue science. Bone tissue engineering will be a great platform for researchers, scientists and young researchers to share their current findings in this field of applied science and material sciences. Bone tissue engineering will focus on the latest and exciting innovations in prominent areas of biomaterials and bone & tissue science.

BTE 2020 is basically based on the aim to gather different scientists,researchers, Chemists, Physicians from all around the globe at a place where they can share their expertise on the latest innovation and new technologies and researches in the field of Biomaterials and Bone& tissue science. The esteemed conference was held on, November18-19, 2019 at Abu Dhabi, UAE, which is a good place to hang out with your family.

The BTE 2020 team felt so glad to have:

Dr.AmirNeshatfarfromDepartmentofNeurology,Universityof Missouri,Columbia,Missouri,USA. Hadgivenawonderful talk entitled**TheCharacteristicsofAcuteDisseminatedEncephalomyelitis Can Slightly Vary Based on the Geographical Region.**

ME Conferences is glad to schedule the "International conference on Biomaterials for bone tissue engineering" during **September28-29, 2020** at **Abu Dhabi, UAE**

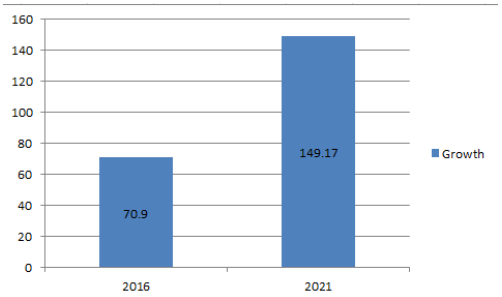
Market Analysis for BTE 2020

Biomaterials research is a major field in Medicine, which is still under research and the advancements are maximizing day by day.Biomaterials are either natural or synthetic substances synthesized in the laboratory using a variety of chemical approaches employing metallic components, polymers, ceramics or composite materials for medical applications. Biomaterials are engineered to interact with the biological system either to treat or replace the damaged organ or a diagnostic one.The field of Tissue Engineering has developed as an important approach to the clinical therapy of damaged bone due to trauma, congenital anomalies or tumor resection.

Global Stem Cells Market:

The global stem cell market is anticipated to succeed in USD fifteen.63billion by 2025, growing at a CAGR of nine.2%, consistent with a brand new report by Grand read analysis, Inc. Augmentation in analysis studies that aim at broadening the utility scope of associated product is anticipated to drive the market growth.

The global tissue engineering market is forecasted to grow at a CAGR of 13% to reach $11.5 billion by 2022 from its current value of $ 5.91 billion in 2017. According to reports, there are more than 900 million surgeries performed for bone reconstruction and replacement.



Global orthopedic TechnologiesMarket Report:

The global orthopedic technologies Market is forecasted to grow at a CAGR of 4.7% to reach $56.2 billion by 2023 from its current value of $41.9 billion in 2017. The report covers the present situation and the growth prospects of the global orthopedic devices market for 2015-2020. To calculate the market size, the report considers the revenue generated from the sales of the following device segments: Trauma and extremities, Spine, Knee, Hip, Foot and ankle.

The report of Global Orthopedic Devices Market 2016-2020, has been prepared based on a full market analysis with inputs from industry experts. The report shows the market landscape and its growth prospects over the coming years.

The global tissue engineering market size was computed at USD 9.9 billion in 2019 and is expected to witness a CAGR of 14.2% from 2020 to 2027. The potential of tissue engineering procedures in treating irreversible damage of tissues has boosted market growth. In addition, a rise in demand for regenerative medicine and tissue engineering procedures to treat damaged tissues further supplements this growth.

Tissue engineering provides alternatives to surgical reconstruction, transplants, and other mechanical devices that are used to repair damaged tissues. cases.

Technological advancements in the field of 3D tissue engineering, such as replacement of embryo cells with stem cells, organ-on-a-chip technology, and use of 3D bioprinters that can efficiently design in vitro implants, are expected to enhance growth. In addition, an increase in government funding for medical and academic research activities would enhance the growth of the market for tissue engineering throughout the forecast period.
For instance, the April 2019 published list for funding for various research, condition, and disease categories (RCDC) from National Institutes of Health (NIH), (U.S.) indicate that funding for stem cell research and regenerative medicine was USD 1.8 and USD 1.0 billion respectively in 2018. The NIH estimates for funding in 2020 for these two areas correspond to USD 1.7 billion, and USD 915 million respectively.

Stem cell therapies have significant potential as therapeutics across various clinical applications. This has resulted in substantial global investments in research and clinical translation. Rapid advances in stem cell research aid in improved disease management. Thus, with an increase in the incidence of cancer, diabetes, and other chronic disorders, research on stem cells has increased.Researchers are reprogramming stem cells to restore the normal function of an organ or design an artificial organ transplant using cultured stem cells. Stem cells find use in various applications; hence, the tissue engineering market is expected to achieve the benefitted outcome. For example, advanced reprogramming technologies that make use of stem cells are expected to replace artificial pacemakers.Orthopedics, musculoskeletal, and spine segment dominated the market for tissue engineering in 2019 owing to a rise in the prevalence of musculoskeletal disorders. The orthopedic regenerative segment includes spine, bone substitutes, and bone grafts. As per the U.S. Medicare and Medicaid facility, there are around 900,000 surgeries every year that require bone replacement or reconstruction. The healthcare burden in U.S. is increased by USD 60 billion owing to the incidence of nearly 15 million fracture cases annually.Furthermore, companies such as Histogenics Corp.; MiMedix Group, Inc.; Genzyme; and DiscGenics have pipeline products with positive results in preclinical and clinical trials. Predicted successful launch of these products during the forecast period is expected to make a significant contribution towards segment growth.The cardiology and vascular segment is computed to register the highest growth rate in the market for tissue engineering over the analysis period owing to a rapid increase in the prevalence of cardiovascular disorders globally.

Moreover, key players are involved in the development of stem cell therapies to repair, restore, and re-vascularize the damaged heart tissues. In addition, gene therapy, advanced biologics, and small molecules are being studied to stimulate the regeneration of damaged heart cells.

Contact Details;
Shelley Walton
Program Manager | BTE 2020