



Past Conference of Tissue Engineering 2019

Dr. Vahideh Masr, E-mail: dft.masr@yahoo.com

Conference

Tissue Engineering 2019 invites participants from all over the world to meet its global experts. The prestigious conference is scheduled during on 14-15 October, 2019 in Singapore city, Singapore. The theme of the conference is "Novel Perspectives on Tissue Engineering". Being a pioneer in this field Meetings International (Meetings Int.) produces high quality conferences, meetings, symposia and workshops in all major fields of science, technology and medicine. The key strategic objective of conferences is to create a communication bridge in science and medical research between academia, and industry. Tissue Engineering focus on building a long-term partnerships with our speakers, delegates and sponsors thus ensuring that our programs are not only relevant but are also connected to the real world limitations, challenges and opportunities which faced by our customers. The aim of the meeting is to provide a platform to academicians, researchers, industrial expertise and practitioners from multiple disciplines to debate and deliberate on social changes which are encompassed by innovation and technology. Tissue Engineering Conference focuses on understanding the ability to generate living tissue ex vivo/in-vivo for various therapeutic applications like replacement therapy, through materials development, biochemical manipulations, cell culture, and genetic engineering.

Working under the theme "Novel Perspectives on Tissue Engineering" we sought to bring together a unique international mix of large and medium medical and clinical research and diagnostic companies, leading universities and research institutions under one roof. It is a perfect platform to share experiences, foster collaborations across industry and academia and evaluate emerging innovations around the globe. Tissue Engineering Conference mainly focuses on spreading the emerging techniques related to tissue engineering and regenerative medicine.

Why to Attend???

Join your peers around the world focused on tissue engineering and related advances. It is a golden opportunity to reach the largest assemblage of participants from the Tissue Engineering and Regenerative Medicine departments, scientists,

researchers, doctors, medical colleges, healthcare professionals, founders and employees, hospital and health services, clinical investigators, pharmaceutical companies, laboratory members, training institutions, support organizers, data management companies and make a splash with a new research work on tissue engineering. The two days event provides name recognition with world-renowned speakers, recent research and the newest updates in tissue engineering thus acting as hallmarks of this conference.

- Lectures from renowned speakers
- Keynote forums by prominent professors, doctors
- Open innovation challenges
- Poster presentations by young researchers
- Global networking sessions with 50+ countries
- Novel techniques to benefit your research
- Best platform for global business and networking opportunities
- Meet the editors of referred journals, society and association members across the globe
- Excellent platform to showcase the attest products and formulations in tissue engineering field

Target Audience:

- Biotechnologist
- Pharmacologists
- Academicians
- Physicians
- Academic Scientists
- Industry Professionals
- Diagnostic Laboratory Professionals
- Business Professionals
- Postdoctoral Fellows And Trainees
- Hospitals and Health Services
- Scientists and Researchers organizers
- Tissue Engineering Associations And Societies
- Undergraduate & Postgraduate Students
- Directors, Heads and Professors of Medicine departments

Annual Next-Gen Tissue Engineering & Regenerative Medicine Conference will be an encouraging moment to meet people in the experimentation field, herewith it takes pleasure in opening a doorway to encounter the ability in the field, young researchers and potential world-renowned speakers, the most recent approaches.

Tissue Engineering Conference will offer its participants with an unmatched attendee experience. In addition to the many scientific sessions and take-home case study examples, you will leave this event with many other evidence based practice from the workshops and symposiums arranged during the conference. We hope you all join us in Singapore in October.

Session-1: Tissue Engineering

It is an interdisciplinary field comprise of life sciences, bio-engineered materials and physiochemical factors which alters the health for betterment and personal satisfaction of individuals across the globe. It is a science of repair or replacement of damaged tissues or organs thus restoring the functioning of an organ. It employs natural or synthetic scaffolds to mimic the action of the human organs.

Session-2: Tissue Materials and Process

The therapeutic materials used for tissue engineering must not be toxic to the human biological system. These materials contains therapeutic agents and bioactive molecules which promotes tissue repair, it also provides tailored mechanical support, bone and tissue regeneration and many are also designed to encourage a controlled drug release, thus ensuring the therapeutic drug remains in the system for longer. The materials commonly used for these process includes biodegradable and bioactive polymers, ceramics and composites.

Session-3: Regenerative and Personalized Medicine

It is a novel field of therapeutic technique wherein personalized prescriptions or medications are provided to an individual. Pharmacogenomics and cellular therapy comprises together for the development of personalized therapy. The basis of regenerative medicines lies on the various forms of stems cells like, mesenchymal stem cells, pluripotent stem cells and embryonic stem cells which has a property of indefinite regeneration. Among the above mentioned the pluripotent stem cells are found to be a suitable candidate for personalized medicine.

Session-4: Scaffolds Used In Tissue Engineering

Biodegradability and biocompatibility are the most important features for a scaffold to be used in tissue engineering. The materials should contain sufficient porosity, a proper architecture and an adequate pore size are necessary to facilitate cell seeding and diffusion throughout the whole structure of both dividing cells and nutrients. Scaffolds are of excessive importance in clinical medicine, it is a forthcoming

field and typically related with conditions involving organ disease or failure.

Session-5: Biomaterials and Bioengineering

The progressive evolution of bioengineered materials has led to a versatile field of study and has increased their utility for therapeutic purpose. Biomaterials have revolutionized the areas like bioengineering and tissue engineering for the development of novel approach to combat life threatening diseases. Together with biomaterials, stem cell technology is also mostly used to improve the existing healthcare facilities.

Session-6: Biopharmaceutical and Biomedicine

Medicine based on the application of the principles of the natural sciences and especially biology and biochemistry and the medical drugs produced using biotechnology process. It including proteins (antibodies), nucleic acids (DNA, RNA or antisense oligonucleotides) used for therapeutic or in vivo diagnostic purposes, and are produced by means other than direct extraction from a native (non-engineered) biological source.

Session-7: Bone and Cartilage Tissue Engineering

The tissue engineering technology has centered on bone graft substitute for the engineering of musculoskeletal tissues, such as bone and cartilages. The primary concern of these substitutes to be used in bone grafting is biodegradability of the scaffolds. Currently tissue engineering strategies have included cell and gene therapy. Tissue engineering of musculoskeletal tissues is a rapid developing field. The availability of growth factors and the expanding knowledge base concerning the genetics and regulation of bone formation have developed new materials for tissue-engineering applications.

Session-8: Skin Tissue Engineering

The skin is the largest organ of the human body which serves as a protecting barrier to the environment and promotes hydration retention and thermal regulation. Extreme loss of skin may occur due to various forms of injury or illness which might result in an ample physiological imbalance and it leads to major disability or even death. Tissue-engineered skin (TES) alternates signify a logical beneficial option for the treatment of severe and all chronic skin injuries.

Session-9: Bioartificial Organs

Tissue or engineered devices incorporated into the human body for replacement of a natural organ, interfacing with natural tissue are known as bioartificial organ. It combines biomaterials and biological cells for full replacement of patient failure organs. The commonly engineered bioartificial organs



are bioartificial kidney devices, combining biomaterials and kidney epithelial cells for improved blood detoxification, bioartificial pancreas devices, combining encapsulation of pancreatic cells for treatment of diabetes, bioartificial lungs for studying lung regeneration.

Session-10: Stem Cell Engineering (SCE)

The remarkable improvement in the field of stem cell research has set the foundation for cell based treatments of disease which cannot be cured by conventional medicines. The capability of self-renewal and segregate into other forms of cells signify stem cells as borderlines of regenerative medicine. Progresses in gene editing and tissue engineering machinery have permitted the ex vivo remodeling of stem cells grown into 3D organoids and tissue structures for personalized uses.

Session-11: Cancer Stem Cells

The idea that cancer is primarily driven by a smaller population of stem cells has important implications. They can divide and renovate themselves for long periods and are capable of give rise to specialised cells. They can therefore summarize tumour heterogeneity as they can be found in tumours. Research so far has proposed they also have multi drug and radiotherapy resistance. Hence there may be more similarities between cancer stem cells and normal stem cells.

Session-12: Novel Approaches in Guided Tissue Regeneration

Tissue engineering represents one of the most exciting advances in regenerative medicine. Guide Tissue Regeneration is defined as the procedures of attempting to regenerate lost periodontal structures through differential tissue responses. It lays emphasize on the development of both hard tissue as well as soft tissues of the periodontal supplement. With the help of GTR, 3-dimensional tissues that accurately integrate with a patient's body are been produced.