"Biomaterial, Biosensor and Microfluidics Technologies for Medical Applications".

6th-7th May 2023

The objective for this conference is to bring world class academicians/scientists/clinicians to the nation to enhance biomaterial research and entrepreneurship in this critically important area. The conference will be on Biomaterials, Biosensors and Microfluidics Technologies for Medical applications. This is a highly growing research area with the potential of advancing diagnostic tools as well as new therapies for serious clinical conditions effecting the nation. This conference will bring world leading researchers in that field and will contribute to establishment of a translational research center in the field. We also hope such a high level conference will enhance the awareness from local educational institutions on establishing teaching programs in the field.

There will be different sessions in the conference such as Bioprinting and Scaffold Technologies for Tissue Engineering, Nanomaterials for Immunotherapy and Targeted Drug Delivery, Biosensing Technologies, Implant Technologies and Medical Devices, and Lab-on-a-Chip/Organ-on-a-Chip Applications. Target audience is healthcare practitioners, students in health related areas, researchers in health related areas, and academicians in health related areas.

General learning objectives can be listed as per below:

- Become familiar with the basics of biomaterials, biosensors, nanomedicine
- Become knowledgeable about the latest developments in biomaterials, biosensors, nanomedicine fields
- Become knowledgeable about specialized fields such as tissue engineering, immunotherapy, lab-on-a-chip applications which are expected to impact the healthcare practice in near future.

Sessions and Learning Objectives

Day 1 Session 1: Plenary Speeches for the Themes of the Conference

Duration is 1 hour 45 minutes

This session include keynote lectures for the themes of the conference. Learning objectives here are to introduce the conference themes to the audience and to make them familiar with topics such as biomaterials, biosensors, tissue engineering, medical implants, and nanomedicine.

Day 1 Session 2: Bioprinting and Scaffold Technologies for Tissue Engineering 1

Duration is 1 hour

This session is on Tissue Engineering. Learning objectives here are to show the audience importance and potential promise of Tissue Engineering by demonstrating a variety of different applications with 3D bioprinting and cell culture scaffolds.

Day 1 Session 3: Bioprinting and Scaffold Technologies for Tissue Engineering 2

Duration is 1 hour 40 minutes

This session is continuation of the previous session and it is on Tissue Engineering. Learning objectives here are to show the audience importance and potential promise of Tissue Engineering by demonstrating a variety of different applications with 3D bioprinting and cell culture scaffolds.

Day 1 Session 4: Nanomaterials for Immunotherapy and Targeted Drug Delivery

Duration is 2 hours

This session is about nanomaterials that are used for immunotherapy and targeted drug delivery applications. Learning objectives here are to show the audience importance and potential promise of nanomedicine by demonstrating a variety of different applications within the fields of immunotherapy and targeted drug delivery

Day 2 Session 1: Biosensing Technologies 1

Duration is 1 hour 55 minutes

This session is about biosensing and biosensor technologies. Learning objectives here are to make the audience aware of the importance of biosensing by showing them a variety of biosensing applications to detect biological signals from the body and from samples.

Day 2 Session 2: Biosensing Technologies 2

Duration is 1 hour 50 minutes

This session is continuation of the previous session and it is about biosensing and biosensor technologies. Learning objectives here are to make the audience aware of the importance of biosensing by showing them a variety of biosensing applications to detect biological signals from the body and from samples.

Day 2 Session 3: Implant Technologies and Medical Devices

Duration is 1 hour 20 minutes

This session is on new implant technologies and medical devices. Learning objectives for this session are to introduce the attendees regarding the latest developments in biomaterial technologies for producing novel implants and medical devices

Day 2 Session 4: Lab on a chip/ Organ on a chip

Duration is 1 hour 40 minutes

This session is about Lab on a chip/ Organ on a chip applications. Learning objectives for this session are to introduce the attendees the novel concepts of Lab on a chip/ Organ on a chip, latest discoveries in that area where these technologies are applied to disease diagnosis.