



भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

TEQIP Workshop on:
Tissue engineering: Biomaterials and stem cells for
manufacturing of biological tissues (Lab-based training program)
Indian Institute of Technology, Hyderabad

About the workshop

Tissue engineering, as defined by Langer and Vacanti is "an interdisciplinary field that applies the principles of engineering and life sciences toward the development of biological substitutes that could restore, maintain, or improve tissue function or a whole organ". The term was defined by Prof. Langer, a chemical and biomedical engineer; and Dr. Vacanti, a doctor by profession, by using three basic components for making tissue *in vitro* for human use: biomaterials, cells, and growth factors. This workshop will provide an overview of fundamentals and applications of the three individual components of tissue engineering. Special emphasis will be on Lab-based training for stem cell culture, biomaterial property study, and study of cell-biomaterial interaction by assays, imaging, and biotechnology experiments. The participant will be offered hands on sessions on each of these techniques.

This workshop is designed for material scientists to learn about cell technology methods; and biomedical and biotechnology researchers to learn about material- stem cell interaction. We hope that the workshop will benefit faculty and researchers from Materials Science Engineering, Biomedical Engineering, Chemical Engineering, Biotechnology, and other related domains.

Date: 18-23 July 2016

Venue: IIT Hyderabad

The workshop comprised of few contributed lectures by IITH faculty. However, the main attraction for the participants is that they can do hands-on-training on a number of protocols involving biocompatibility testing of biomaterials, cell culture, DNA analysis, real time PCR, cell imaging, and cell-biomaterial interactions.

The schedule and planning of the workshop will be announced shortly in the website. If you have any queries, please feel free to email on teqip-te@iith.ac.in or contact any of the following coordinators. Further details of the workshop can also be obtained at <http://www.iith.ac.in/teqip/upcoming/TE/index.html>.

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