

Engineering human tissues

BY Prof. Gordana Vunjak-Novakovic

Mikati Foundation Professor of Biomedical Engineering and Medicine, Columbia University

ABSTRACT

Tissue engineering is making major impact on the development of new treatment modalities for regenerative medicine, where functional substitutes of native tissues are used to repair our worn-out, diseased or missing organs. Engineered tissues are also enabling us to study the stem cells in a native-like context of development or regeneration, and to build models of disease and drug screening platforms. These areas have enormous potential for improving human life, while the field is still facing some major challenges. This talk will discuss the state of the art and recent advances in the field, using examples that will range from engineering of anatomical tissue grafts, differentiation of human stem cells, to models of cancer and identification of therapeutic targets.

BIOGRAPHY

Professor Gordana Vunjak-Novakovic is the Mikati Foundation Professor of Biomedical Engineering, and a Professor of Medical Sciences at Columbia University in New York. She directs the Laboratory for Stem Cells and Tissue Engineering, the Stem Cell Imaging Core, and the Bioreactor Core of the national Tissue Engineering Center. The focus of her research is on engineering functional human tissues using stem cells, biomaterials and bioreactors, for regenerative medicine, stem cell research, and study of disease. Among her many recognitions, she is a Fellow of the American Institute for Medical and Biological Engineering, Biomedical Engineering Society, a founding Fellow of Tissue Engineering and Regenerative Medicine, and a member of the National Academy of Engineering.



EVENT DETAILS

DATE:

April 10, 2013

TIME:

11:00 AM

LOCATION:

Babbio 122
Stevens Institute of
Technology

ATTENDANCE:

Public