

Biomedical Engineering Seminar Series

1st Semester, Academic Year 2017



Date: August 22, 2017

Time: 11.00 AM-12.00 PM

Room 6373, 3rd level, Building 3,
Department of Biomedical Engineering,
Faculty of Engineering;
Mahidol University



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"Nanostructured biomaterial for tissue regeneration and repair"

My research interests are in the area of drug delivery system, nanomedicine, and nanomaterials, particularly nanoparticles and nanofibers. The drug delivery system employing nanomaterials has been widely explored as a cutting-edge technology. Nanomaterials are materials in nanoscopic scale, which can be made of metal, polymer, and so on. Therefore, nanomaterials confer advantages over current materials in various medical applications, including diagnosis, therapeutic, and targeting efficacy. In the past decade, various types of nanomaterials have been discovered and developed as a drug-carrier, organ replacement, and implantable material. Nanoparticles are one of the most promising candidates for nanocarriers in drug delivery system, which can encapsulate, absorb, or conjugate drugs. In addition to chemical drugs, nanoparticles can also carry growth factors, proteins, antibiotics, and DNA and deliver these cargos to specific sites. Furthermore, this strategy also provides a precise, efficient, and controllable release manner at the target sites. Nanoparticles can be chemically synthesized using various materials and each type has its own advantages and applications, for example, on cancer and cardiovascular diseases.



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