BILKENT UNIVERSITY

unam - INSTITUTE of MATERIALS SCIENCE & NANOTECHNOLOGY

FACULTY OF SCIENCE

MATERIALS SCIENCE and NANOTECHNOLOGY GRADUATE PROGRAM SEMINAR

"Synthetic Biology: Promises and Challenges"

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Synthesis transformed chemistry in the 19th century which resulted in the development of pharmaceuticals, detergents, plastics and many other products that we heavily depend on in our daily lives. Today's biology is on the verge of a similar revolution. There is an emerging and exciting new field called Synthetic Biology which can be defined as designing or re-engineering of biological parts, devices and systems. Building on the advancements in genetic engineering, biochemistry and cell biology, this new interdisciplinary scientific endeavor uses basic engineering concepts such as abstraction and standardization with the aim of developing foundational technologies to make the engineering of living systems easier.

In this talk, synthetic biology's potential to solve the major global problems of the 21st century and some of the key challenges on the road will be addressed. Driving forces and technology behind the field as well as success stories from both academia and industry will also be discussed with examples. Finally, on-going research projects in synthetic biology and cell biology at the Middle East Technical University Synthetic Biology Research Group (METU SYBORG) will be summarized.

Date : April 22, 2011 (Friday)
Time : 15:40
Place : Faculty of Science Building, A Block, Seminar Room (SA 240)