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Yusuf M. Khan, Ph.D.

## ***Regenerative Engineering: New Avenues for Tissue Repair***

***Presented by: Dr. Yusuf Khan, Assistant Professor, University of Connecticut Health Center; New England Musculoskeletal Institute, Department of Orthopedic Surgery, Department of Chemical, Materials & Biomolecular Engineering, Biomedical Engineering Program.***

The field of Regenerative Engineering has been defined as the integration of materials science and tissue engineering with stem and developmental cell biology and regenerative medicine toward the regeneration of complex tissues, organs, or organ systems. Regenerative engineering has elements of tissue engineering, regenerative medicine, and morphogenesis but is distinct from these individual disciplines in that regenerative engineering focuses specifically on the integration and subsequent response of stem cells to biomaterials. Of particular interest to regenerative engineering is the regeneration of the interface between different tissue types using integrated graft systems. Further, regenerative engineering seeks to develop and evaluate biomaterials with the specific focus of stem cell interaction and response. The work of Dr. Cato Laurencin's laboratories, which includes novel polymer synthesis for advanced biomaterials, controlled drug delivery applications, and scaffold-based regeneration of bone, ligament, tendon, cartilage, blood vessel, and nerve, will be discussed. Given the progress in each of these areas the challenge of, and preliminary strategies to integrate these individual tissues into one complex organ through regenerative engineering-based integrated graft systems, will also be discussed.

**Tuesday, September 22, 2009**

**Networking Reception 4:30 – 5:30 PM**

**Presentation 5:30 – 7:00 PM**

**Low Learning Center, University of Connecticut Health Center,  
263 Farmington Avenue, Farmington, CT**

**Free parking!**

**Directions: <http://www.uchc.edu/directions/home.html#driving>**

**NO CHARGE TO ATTEND, BUT IT WOULD BE APPRECIATED IF YOU RESERVE IN ADVANCE**

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