

SEMTE

seminar

Biomodulatory
Materials

School for Engineering of Matter, Transport and Energy

abstract

As the biomaterials community tackles grand challenges like intracellular drug delivery and complex tissue regeneration, strategies employing inert biomaterials serving a singular function are suboptimal. Instead novel, multi-dimensional strategies need to be developed to achieve the next series of breakthroughs in biomaterials-based research. One new paradigm is the exploitation of the physicochemical properties of biomaterials to directly modulate cell and host responses. These biomodulatory materials can be used individually or in combination with bioactive factors to produce desired outcomes in a variety of biomedical fields. In this seminar, I will present my graduate and postdoctoral research on designing and utilizing biomodulatory materials in musculoskeletal tissue engineering and immunoengineering.



Dr. Bret Ulery

Institute for Molecular Engineering
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biosketch

Bret Ulery is currently a Postdoctoral Scholar in the Institute for Molecular Engineering at the University of Chicago in Dr. Matthew Tirrell's research group. He completed his graduate research with Dr. Balaji Narasimhan at Iowa State University and received his Ph.D. in Chemical Engineering with a Graduate Minor in Immunobiology in 2010. Following completion of his doctoral studies, he spent two years as a Postdoctoral Fellow under the advisement of Dr. Cato Laurencin at the University of Connecticut Health Center.



October 3, 2013 at 9:30am in Biodesign Auditorium (B105)