Institute of Medical Biology
A*STAR

Seminar Announcement

- All Are Welcome -

Speaker: **Prof Robert E. Guldberg**
The Petit Director's Chair in Bioengineering and Bioscience
Executive Director, Parker H. Petit Institute for Bioengineering and Bioscience
Professor, George W. Woodruff School of Mechanical Engineering
Georgia Institute of Technology, USA

Title: **Restoring Function to Damaged Musculoskeletal Tissues**

Date : **28 March 2012 (Wednesday)**

Time : **11am – 12pm**

Venue: **Breakthrough Theatrette, Matrix Level 4, Biopolis**

Host : **Dr Simon Cool**
(Tel: 64070176, email: simon.cool@imb.a-star.edu.sg)

Abstract of the Seminar:

Injured and degenerated musculoskeletal tissues collectively represent the most common cause of pain and functional disability worldwide. Therapeutic strategies to restore function to damaged tissues are often complicated by high in vivo biomechanical forces, infection, ischemia, advanced age or disease. Rigorous evaluation of new regenerative approaches requires preclinical models that simulate challenging clinical scenarios in combination with outcome measures that provide quantitative assessment of functional restoration. An emerging regenerative strategy involves delivery of spatiotemporal cues designed to enhance endogenous repair mechanisms, thereby promoting functional restoration of damaged or degenerated tissues. This talk will introduce several models of bone, cartilage, vascular, and muscle injury and present data on the ability of biomaterials-based deployment of biological and biophysical cues to restore limb function.

About the Speaker:

Dr. Guldberg is a Professor of Mechanical Engineering and Biomedical Engineering at the Georgia Institute of Technology and holds the Parker H. Petit Director's Chair in Bioengineering and Bioscience. He has published over 140 book chapters and journal articles focused on musculoskeletal growth and development, functional regeneration following traumatic injury, and degenerative diseases, including skeletal fragility and osteoarthritis. In November 2009, he was appointed Executive Director of the Institute for Bioengineering and Bioscience at Georgia Tech after serving as Associate Director since 2004. Dr. Guldberg is a Fellow of the American Institute for Medical and Biological Engineering and also currently serves as Chair of the Musculoskeletal Tissue Engineering Study Section at NIH and Chair of the North American Chapter of the Tissue Engineering and Regenerative Medicine International Society (TERMIS-NA).