

Amgen Seminar Series in Chemical Engineering
in
Cherry Auditorium, Kirk Hall, 12:45 PM

Presents on April 19, 2018

**Totally Implantable Biosensor for Metabolic Monitoring and
Manufacturing of Complex Parenterals**

By



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University of Connecticut

This seminar will cover Implantable, miniaturized biosensors for glucose monitoring and as well as aspects of manufacturing of complex parenterals.

The development of a smart biosensor coating (containing drug releasing microspheres in a hydrogel) that prevents the foreign body response and allows long-term functionality of the sensors will be presented along with *in vivo* data covering rodent as well as a large animal model.

Manufacturing of complex parenteral drug products is challenging and is complicated by the need for FDA regulation. Till now the industry has utilized batch style manufacturing methods which tend to be unreliable and result in inconsistent product quality, high defect rate, and long processing times with high economical cost. This has led to product recalls as well as product shortages. The advantages of continuous manufacturing will be discussed along with the platform for continuous manufacturing of liposome products that our team has developed at UConn.

Bio: Dr. Burgess received her B.Sc. degree in Pharmacy from the University of Strathclyde, U.K. (1979) and her Ph.D. in Pharmaceutics from the University of London, U.K. (1984). She was a postdoctoral fellow at the Universities of Nottingham, U.K. (1984-1985) and North Carolina (1985). Dr. Burgess is an elected fellow of AAPS (American Association of Pharmaceutical Scientists), CRS (Controlled Release Society), Association of Pharmaceutical Science and Technology Japan, and of AIMBE (American Institute for Medical Biological Engineering). She served as President of AAPS in 2002 and CRS (Controlled Release Society) in 2009. Dr. Burgess is editor of the International Journal of Pharmaceutics (2009 – to date). She serves on the editorial boards of thirteen international journals. Among many awards and honors Dr. Burgess has received the 2014 AAPS Research Achievement Award in Formulation Design and Development; the 2014 AAPS Outstanding Educator Award; the 2014 CRS Distinguished Service Award; the 2013 AAPS IPEC Ralph Shangraw Memorial Award, for outstanding research in the area of pharmaceutical excipients; First recipient of the CRSI Fellowship, 2010 for outstanding contributions in the area of drug delivery; and the APSTJ Nagai International Woman Scientist Award 2011, from the Japanese Pharmaceutical Science Association. She has over 220 refereed publications, over 560 research presentations, over 280 invited presentations including 22 keynote and plenary addresses.

This series at the University of Rhode Island is made possible through the
generosity of Amgen, West Greenwich, R.I.

Refreshments provided by the Joseph Estrin Endowment.