



The OSU Department of Chemical and Biomolecular Engineering Graduate Program

Cordially invites you to attend a seminar on

Targeted Nanoparticulate Systems in Cancer and Atherosclerosis

Thursday, May 22, 11:30 a.m.

Room 207 Koffolt Labs, 140 W. 19th Avenue
Reception before the Seminar in Room 336 Koffolt Labs, at 11:00 a.m.

Lisa Brannon-Peppas
Professor
Department of Biomedical Engineering
The University of Texas at Austin

Abstract

Targeted delivery of therapeutic and imaging agents for the detection and treatment of cancer promises to reduce dose-limiting side effects and improve treatment outcomes by controlling the spatial and temporal distribution of the drug in vivo. Passive targeting of nano-scaled drug carriers, such as nanoparticles, takes advantage of the highly-permeable vasculature and deficient lymphatics of tumor tissue. Active targeting to disease-specific molecular targets offers a novel strategy for increasing the specificity of drug delivery to the diseased tissue. Targeting is also possible for detection and treatment of coronary disease, as the nanoparticles will naturally be circulating in the blood stream. Our recent work includes injectable nanoparticles for the targeted delivery of chemotherapeutic agents and imaging agents in a variety of physical and chemical structures, but all share a common theme of biodegradability and targetability.

Bio

Dr. Lisa Brannon-Peppas, Ph.D., is a Research Professor in the Department of Biomedical Engineering and College of Pharmacy, Director of the Center of Biological and Medical Engineering and Entrepreneur in Residence for UT Austin (512-471-4348, peppas@mail.utexas.edu). Prior to joining the University, she founded and served as President of Biogel Technology, Inc., a privately held, multimillion dollar company founded in 1991 and specializing in research and development of polymers, biomaterials and systems for drug delivery. She is an internationally known expert in the fields of biomaterials and drug delivery. In this capacity she has served as a member or chair of numerous panels of federal agencies such as the National Institutes of Health and the National Science Foundation.

Dr. Brannon-Peppas' research contributions have been made in the areas of biomaterials, controlled drug delivery, drug targeting, biodegradable materials and structure-property relationships of polymers. Her more recent research efforts have focused on targeted drug delivery to the vascular system and breast cancer cells. In addition to the commercial ventures of her company, her research has been funded by grants from the National Institutes of Health, the National Science Foundation and the Breast Cancer Initiative of the Army Medical and Materiel Command and other organizations. For her research and entrepreneurial achievements she has been included in the Who's Who in America, Who's Who in Engineering, International Who's Who of Women, and American Men and Women of Science among others.

Dr. Brannon-Peppas was educated in chemical engineering and received her B.S. from Rice University (1984), and her M.S. and Ph.D. degrees from Purdue University (1986 and 1988, respectively).