

RUTGERS' CENTER FOR DERMAL RESEARCH (CDR)
INSIGHTS SESSION

Guest speaker: Prof. P. Somasundaran

Columbia University, Director of the Langmuir Center for Colloids & Interfaces
and founding director of the National Science Foundation Industry/University
Cooperative Center for Advanced Studies in Novel Surfactants (IUCS)

June 8th, 2015

***“New possibilities of greener chemicals for sustainable and
benign consumer products”***



Professor Somasundaran received his M.S. and Ph.D. from the University of California at Berkeley and his Bachelor of Engineering from the Indian Institute of Science in 1961. Before joining Columbia University, he worked for the International Minerals and Chemical Corporation and Reynolds Industries. He was appointed the first La von Duddleson Krumb Professor in the Columbia University School of Engineering and Applied Science, and the first Director of the Langmuir Center for Colloids & Interfaces and founding director of the National Science Foundation Industry/University Cooperative Center for Advanced Studies in Novel Surfactants (IUCS). The Center encompasses detailed structure-property assessment of several classes of surface-active molecules including oligomeric, polymeric, and bio-molecules. The aim of the IUCS is to develop and characterize novel surfactants.

ABSTRACT / New possibilities of greener chemicals for sustainable and benign consumer products

A “touch me not” plant folding up rapidly upon being attacked or a lotus leaf rolling off water beads are examples of phenomena in which the nanostructure of adsorbed layers and colloidal regimes play the governing role. Dynamics of these structures provide inspiration for designing new materials and processing schemes using them. In this talk, applications of such structures for control of wettability, flocculation/dispersion, lubrication, moisture control and biosurface modification will be explored following a discussion of methods developed for monitoring surfactant/polymer/protein aggregates in solutions and at biosurfaces. This will include mechanisms of interaction and the phase behavior of polyelectrolyte-surfactant systems in the presence of fatty acids and investigation of interactions of surfactants and skin using drying stress as well as using Raman spectroscopy, to understand the effects of surfactants on the protein/lipid structure.

LOCATION: Life Sciences Building Rutgers - The State University of New Jersey,
145 Bevier Road, Piscataway, New Jersey 08854, New Jersey Center for
Biomaterials Suite - Conference Room 102

TIME: 5:30PM

HOST: Bozena B. Michniak-Kohn, Ph.D., M.R.Pharm.S. Director, Center for
Dermal Research, Professor of Pharmaceutics, Ernest Mario School of
Pharmacy