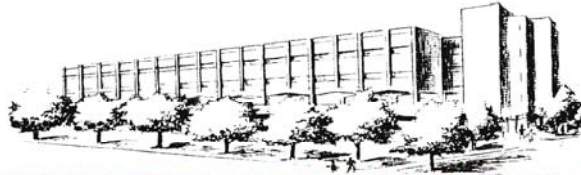


UNIVERSITY OF CONNECTICUT



INSTITUTE OF MATERIALS SCIENCE

POLYMER PROGRAM SEMINAR

“Gelation of Stomach Mucus and its Relevance to Motility of the Ulcer Causing Bacterium”

**Prof. Rama Bansil
Boston University**

**Friday, October 30, 2009
11 AM, IMS Room 20**

Abstract

In this talk, I will describe the underlying biophysical mechanisms involved in the remarkable ability of the mucus lining of the stomach for protecting the stomach from being digested by the acidic gastric juices that it secretes. These remarkable physical properties can be attributed to the presence of a high molecular weight glycoprotein found in mucus, called mucin, which forms a gel under acidic pH preventing the acid from diffusing back. A model of gelation based on the interplay of hydrophobic and electrostatic interactions will be discussed. Molecular Dynamics simulation studies of folding and aggregation of mucin domains provide further support for this model.

In the second part of the talk I will address the question, “ How does H. Pylori, the bacterium that causes ulcers, move across the mucus layer”. Stay tuned for the surprising answer.

**Coffee will be served at 10:45AM outside the seminar room.*

**For further information, please contact YH Chudy at 860.486.3582 or yhchudy@ims.uconn.edu*

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