COURSE : Sliding friction on bacterial biofilm

Summer Program

COURSE TUTOR

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COURSE OVERVIEW

One of the kinetic characteristics of tissues is that the histologic junctions function smoothly. A friction is involved at all histologic interfaces such as between foods and the visceral surface or suspended particle matter and pulmonary tissue. Animal tissue interfaces consist of a three-dimensional gel network filled with a synovial fluid and have friction coefficients. The state of the gel is neither solid nor liquid but it has some features of both. Because of its specific structure, the gel exhibits a variety of unique behaviors, such as phase transitions, specific adsorption equilibrium, the presence of unfrozen water, and chemomechanical behavior. Previous studies on the interaction between chrysotile and cells have been performed in solvents and not on elastic surfaces. Here, I will lecture you the effect of shear stress on the surface of agar on *Escherichia coli* cells in the presence of chrysotile fibers as a model of elastic tissue when exposed to chrysotile.

TEXTBOOKS AND READINGS

The recommendation text for microbiology is basically "The Microbial World" by R.Y. Stanier et al.

COMMUNICATIONS

The course tutor’s details are as follows:

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