



Singapore-MIT Alliance for Research and Technology



From Biomolecules to Biofilms

Focused Seminar Series on Biomolecules and Biofilms

11 April — 6 June 2016, Level 5 Seminar Room, Enterprise Wing @ UTown, S'138602

Seminar 4: Bacterial Biofilms and Therapeutic strategies

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Singapore MIT Alliance for Research and Technology

Date: 9 May 2016, Monday

Time: 4pm to 5pm



Venue: Perseverance Room, Enterprise Wing Level 5 @ UTown

Abstract

Microbial biofilms pose a challenge in clinical and industrial settings. The challenge presented by biofilm infections is the remarkable resistance to both host immune response as well as available therapies. Biofilms allow microorganisms to trap nutrients and withstand hostile environment conditions a key feature for their survival. The exact compositions of biofilm matrices differ greatly between different microorganisms and growth conditions under which biofilms are formed but generally consist of exopolysaccharides, proteins, and nucleic acids. Most of the chronic bacterial infections are biofilm associated and they are recalcitrant to antimicrobial therapy. As such, novel strategies or more effective agents to prevent biofilm formation with clinical efficacy and safety are of great interest. In this work the prevention of biofilm formation was investigated with selective combination therapy.

Biography

Dr. Sreelatha Sarangapani is currently a postdoctoral associate in Biosystems and Micromechanics Interdisciplinary Research Group of Singapore-MIT Alliance for Research and Technology (SMART). Her current research focuses on understanding the molecular machinery of focal adhesion proteins by single molecule force manipulation and combined with fluorescence techniques to reveal the mechanistic details in the signal transduction pathway.