Seminar

Department of Biomedical Engineering
香港城市大學
City University of Hong Kong

Rational design of antimicrobial peptides & polymers for topical infections

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Date: 25 September 2023 (Monday)
Time: 2:30 p.m.
Venue: B5208, 5/F, Blue Zone, YEUNG

Abstract

Antimicrobial resistance (AMR) is considered as a clinical superchallenge of this century and a major global health crisis. The evolution of AMR undermines the years of development of antimicrobials and resulted in infectious disease that was once treatable becomes non-responsive to the antimicrobial therapy. regimen causing substantial economic burden. More worrisome is the fact that only few new antimicrobials have been developed/approved over the last few years which is not keeping in pace with the emergence of antibiotic-resistant pathogens. In this talk, I will highlight the need for antimicrobials for the treatment of ocular infections and our collaborative effort in addressing this global challenge through the design of cell selective antimicrobial peptides and polymers.

Biography

Associate Professor Lakshminarayanan Rajamani is the Co-Head of the Ocular Infections & Anti-Microbials Research Group at the Singapore Eye Research Institute (SERI). He holds joint appointments at the Department of Pharmacy at the National University of Singapore (NUS) as well as at the Academic Clinical Program in Ophthalmology & Visual Science program at the Duke – NUS. He received his PhD degree from the Department of Chemistry at the National University of Singapore in 2003. He received numerous awards such the prestigious Singapore Millennium Foundation - Post Doctoral Fellowship, ASEM-DUO Denmark Fellowship, Outstanding Postdoctoral Fellow and Outstanding Scientist Award. At SERI, he has been involved in translational research for treating bacterial and fungal infections of the eye. His major research interests include antimicrobial nanofibres, peptides & polymers, biophysics, nature-inspired polyphenol nanocoating, electrospinning of biopolymers for advanced wound dressings and personal protective equipment, mechanism of protein aggregation and functional amyloids. He has >150 publications that have an h-index of 52 and 8000 citations.