



Pacific Center for
Emerging Infectious Diseases
Research



UNIVERSITY
of HAWAII
MĀNOA

Department of Tropical Medicine, Medical Microbiology & Pharmacology

JOHN A BURNS SCHOOL OF MEDICINE, UNIVERSITY OF HAWAII AT MANOA

Non-Viral Gene Delivery: From Regenerative Medicine to Cancer Immunotherapy

Nucleic acids can encode various types of biologically active proteins, and they can be synthesized easily and inexpensively. This makes them an appealing class of drugs, but for successful application, they must be packaged in delivery vehicles that overcome multiple hurdles to intracellular delivery. An array of poly(beta-amino ester)s (PBAEs) was synthesized and used to form nanoparticles with DNA and siRNA, and they were found to be more effective in transfecting cells than commercial reagents, both in vitro and in vivo. Because our nanoparticles are agnostic of the nucleic acid sequence, this technology can theoretically be used to upregulate or knock down expression of any gene. This seminar will discuss the challenges of nucleic acid delivery, the techniques used in our laboratory to optimize delivery, and selected applications currently being studied. We are particularly interested in the use of DNA and siRNA nanoparticles for cancer targeting and immunotherapy.

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Tuesday, December 19, 2017 at 12:00 noon
Sullivan Conference Center
University of Hawaii Cancer Center
701 Ilalo Street, Honolulu, HI 96813
For further information, contact (808) 692-1654

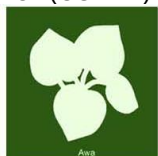
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Popolo



Kukui



Aiea



Lohia