



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

# HIV Infection of the Brain and Targeted Therapeutic Strategies

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Combined antiretroviral therapy (cART) has significantly improved the lifespan of HIV-infected patients. However, many drugs have poor penetration into viral reservoir sites, such as the brain. The inaccessibility of antiretroviral drugs within the brain enables persistent HIV propagation, resulting in HIV-associated neurological disorders (HAND). We are investigating a long-acting nanomedicine targeting HIV infection in the brain. We have developed a nanocarrier containing anti-HIV drugs, also known as “nanodrug”. These nanodrugs are delivered to the brain utilizing the transigratory property of human macrophages through the blood-brain barrier. They are being further characterized for cytotoxicity, drug-loading capacity and therapeutic efficacies in HIV-infected humanized mouse models. The present study has established an alternative treatment strategy for long-term remission of HIV in the brain and improved therapeutic outcomes.

Wednesday, October 30, 2019 at 12:00 noon  
John A. Burns School of Medicine, Kaka‘ako Campus  
Medical Education Building Auditorium (Room 315)  
For further information, contact (808) 692-1654

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