

Tuesday 8/26/08 2:30-4:00 pm Week 1: Course Overview and Lecture: HIV-associated neurocognitive disorders: A persisting problem

Faculty: **Class Overview:** Avindra Nath, M.D. & Amanda Brown, Ph.D. (30 minutes)

Lecture/Journal Discussion: Ned Sacktor, M.D. 3:00 – 4:00

Composition: This lecture will cover epidemiology, clinical features, and treatment of HAND (HIV-associated neurocognitive disorders).

Tuesday 9/02/08 2:30-4:00 pm Week 2: Clinical research techniques and cultural competence

Faculty: Justin McArthur, M.B.B.S., M.P.H.

Composition: Will discuss the epidemiology with emphasis on racial and geographical differences and develop culturally appropriate and population specific measures and methods. Understand the application of ethical principles and cultural competence in the design and conduct of clinical research, especially with minority populations. Role of host genetic factors in development of HIV dementia and in treatment response.

Tuesday 9/09/08 2:30-4:00 pm Week 3: Cultural sensitivity in neuropsychological scales for HIV dementia

Faculty: Ola Selnes, Ph.D. and Valerie Wojna, M.D.

Composition: Will discuss the pros and cons of the existing scales and the need for culturally sensitive measures and how to validate the scales.

Tuesday 9/16/08 2:30-4:00 pm Week 4: Pathology of Neuro-AIDS

Faculty: Carlos Pardo, M.D. and M. Christine Zink, D.V.M., Ph.D.

Composition: Will include methods of doing autopsy, collection and handling of specimens from HIV infected patients; quantitative immunohistochemistry.

Tuesday 9/23/08 2:30-4:00 pm Week 5: Statistical Issues in Neuro-AIDS Research

Faculty: Richard Skolasky, Sc.D., M.A.

Composition: Will discuss data base management and techniques for analysis with special emphasis on issues related to Neuro-AIDS. **(Puerto Rico Univ. Anniversary Holiday – Plan to use the Blackboard to post questions and comments prior to the scheduled videoconference)**

Tuesday 9/30/08 2:30-4:00 pm Week 6: Surrogate and host genetic markers

Faculty: Norman Haughey, Ph.D. and Loyda Melendez Aponte, Ph.D.

Composition: Will also discuss the role of host genetic factors that may account for racial differences in development of HIV dementia because of their influence on cytokines, chemokines, and oxidative stress markers. Discuss use of mass spectrometry, luminex systems.

Tuesday 10/07/08 2:30-4:00 pm Week 7: Imaging techniques in Neuro-AIDS

Faculty: Martin Pomper, M.D. and Linda Chang, M.D.

Composition: PET and MRI based techniques. The course will include discussion of the use of novel PET ligands to measure neurotransmitter systems and inflammation and microglial activation. Ligands relevant to drug abusing HIV infected populations will be emphasized and how they can be exploited to study neurological complications of HIV infection.

Tuesday 10/14/08 2:30-4:00 pm Week 8: Animal models for HIV dementia and drug abuse

Faculty: Michael Weed, Joseph Mankowski

Composition: Will discuss rodent and simian models of HIV dementia and effects of drugs of abuse. Emphasis will be given to behavior and cognitive measurement techniques.

Tuesday 10/21/08 2:30-4:00 pm Week 9: Viral genetics and reservoirs

Faculty: Janice Clements, Ph.D.

Composition: This lecture will cover HIV replication and persistence in the brain. There will be a discussion of the specific cells that are infected in the brain and the potential for viral latency in the brain in HIV-infected individuals on HAART. There will be a discussion of different clades of HIV and the currently known effects in the brain and in HIV CNS pathogenesis.

Tuesday 10/28/08 2:30-4:00 pm Week 10: Pathophysiology of neurodegeneration with HIV infection

Faculty: Avindra Nath, M.D.

Composition: Will discuss the mechanisms of glial cell activation and neurodegeneration with HIV infection. Special consideration will be given to discussing the differences in HIV clades, effects of drugs of abuse and the effect of antiretroviral therapy.

Tuesday 11/04/08 No Class: Election Holiday for Univ of HI and PR

Tuesday 11/11/08 No Class: Veteran's Day Holiday for HI and PR

Tuesday 11/18/08 No Class: Society for Neuroscience Meeting Nov. 15-19

Tuesday 11/25/08 2:30-4:00 pm Week 11: Drug Development for HIV dementia

Faculty: Joseph Steiner, Ph.D.

Composition: This will include a discussion on drug development for affecting HIV reservoirs and neuroprotection starting with drug screening in vitro, developing high throughput assays, compound libraries, structure activity relationship, assessment of toxicology and conducting clinical trials. Special emphasis will be given to assessment and drug development with CNS penetration and monitoring of drug adherence.

Tuesday 12/2/08 2:30-4:00 pm Week 12: Ethics in Neuro-AIDS research in minority populations

Faculty: Richard Johnson, M.D.

Composition: This will include special topics in bioethics unique to Neuro-AIDS research. Specific examples will be used such as ethics in patient care and research design, conflicts in morality, equal access to participation, the Declaration of Helsinki, unethical trials of intervention in developing countries, and universal access to care.

Tuesday 12/9/08 2:30-4:00 pm Week 13: Career Building: Balancing Career & Family – Personal Experiences. No online lecture, videoconference only

Faculty: Valerie Wojna, M.D., Loyda Melendez Aponte, Ph.D. and Amanda Brown, Ph.D.

Tuesday 12/16/08 2:30-4:00 pm Week 14: Career Building: No online lecture, videoconference only

Faculty: **2:30-3:15** Richard Johnson, M.D.: **Finding a Mentor & Nurturing the Relationship**

Faculty: **3:15 – 4:00** Justin McArthur, M.B.B.S., M.P.H.: **Work Promotion: Presentation Skills, CV, Interviewing, Promotion**

Dates in question:

September 23: Puerto Rico University's Anniversary Holiday. Class will be held. Students not in class should post lecture and journal comments and/or questions to the Blackboard.

Dec 9: 26th Annual Meeting for Nonhuman Primate Models for AIDS; <http://nhp2008.primite.wisc.edu>
Arranged by Dr. Kraiselburd in Puerto Rico for Dec. 9-12, 2008. Dec. 9 is the evening reception only. Students/faculty traveling to it may miss class without penalty.