



## Bureau of Public Health Laboratories (BPHL) Jacksonville - Miami - Tampa

# Retrovirology

The origin of the Florida Department of Health-Bureau of Public Health Laboratories Retrovirology Units in the Jacksonville and Miami state laboratories can be traced to the development and implementation of HIV screening and confirmatory testing in the United States in early 1985. The original role of the state laboratory was to provide HIV diagnostic services with a focus on anonymous testing for those individuals who wanted to learn their HIV serostatus. Since those early days, the Bureau of Public Health Laboratories continues to be one of the highest testing volume public health laboratories in the country offering a new 4<sup>th</sup> generation HIV-1/HIV-2 diagnostic testing algorithm as well as comprehensive HIV clinical management testing services for HIV infected individuals on antiretroviral therapy. The Bureau of Public Health Laboratories collaborates with the State HIV/AIDS Program, the Association of Public Health Laboratories (APHL) and the CDC.

### *Highlights/specialties*

- A full-service HIV diagnostic laboratory offering FDA approved 4<sup>th</sup> generation HIV-1 and HIV-2 antigen/antibody immunoassays, HIV-1/HIV-2 differentiation testing and qualitative NAAT (Nucleic Acid Amplification Testing).
- A full-service HIV clinical management testing service including FDA approved HIV-1 viral load testing, CD4/CD8 assessments and HIV-1 Genotyping (antiretroviral drug resistance testing).
- An active participant in CDC HIV surveillance projects: STARHS (Serological Testing Algorithm for Recent HIV Seroconversion) and NHBS (National HIV Behavioral Surveillance).
- Recipient of the 2005 Davis Productivity Award for cost-saving measures involving HIV Genotyping for the Florida patients we serve.
- Recipient of the 2014 Prudential Productivity Award for cost-saving measures involved in the implementation of the new HIV Diagnostic Algorithm in 2012-13.
- Authored numerous posters and publications over the past 29 years based on applied research and algorithm designs.

### *Workload*

- The Jacksonville and Miami Retrovirology Units performed HIV-1/HIV-2 diagnostic screening tests for 124,262 Florida clients/patients in FY 2015-16 and over 2,400 HIV-1 confirmation tests.
- The Jacksonville Retrovirology Unit performed over 12,000 HIV clinical management tests (HIV-1 viral loads, CD4/CD8 enumerations and HIV-1 Genotypes) in 2015.

### *Challenges*

- Recruiting and retaining a skilled clinically licensed workforce.
- Implementing electronic lab reporting (ELR) and electronic lab ordering (ELO) of HIV screening tests.
- Continued refinement of the new HIV Diagnostic Algorithm with a focus on detecting HIV-1 acute infections as well as long-standing infections and HIV-2.

