



## 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 status. 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 advanced HIV-1/HIV-2 diagnostic testing 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 an FDA approved HIV-1/2 antigen/antibody (Combo) immunoassay, HIV-1/HIV-2 antibody supplemental testing and HIV-1 RNA testing.
- An HIV clinical management testing service including FDA approved HIV-1 viral load testing, CD4/CD8 assessments and HIV-1 genotyping (Sanger and targeted Next Generation Sequencing).
- An active participant in CDC HIV surveillance projects: Molecular HIV Surveillance and the National HIV Behavioral Surveillance (NHBS).
- Authored numerous applied research and algorithm design publications and posters over the past 36 years.
- Virtually all HIV reporting is now electronic by our Labware/CTLS linkage to the statewide Health Management System (HMS) database.
- Recipient of the 2014 Prudential Productivity Award for cost-saving measures with the implementation of the new HIV Diagnostic Algorithm in 2012.

### Workload

- The Jacksonville and Miami Retrovirology Units performed HIV-1/2 diagnostic screening tests for 111,013 Florida clients/patients in 2019(a 5.2% increase over 2018) and over 2,500 HIV-1 confirmation tests.
- The Jacksonville Retrovirology Unit performed over 7,000 HIV clinical management tests (HIV-1 viral loads, CD4/CD8 enumerations and HIV-1 genotypes) in 2019.

### Challenges

- Recruiting and retaining a skilled clinically licensed workforce.
- Continued improvement of our HIV Diagnostic Algorithm with a focus on detecting HIV-1 acute infections and providing the most comprehensive testing for use in PrEP and Test & Treat applications.
- Continued refinement of our HIV-1 targeted Next Generation Sequencing (T-NGS) efforts to enhance treatment options for HIV-1 infected individuals and to identify possible transmission clusters.



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**One Test at a Time**  
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