



UAB Center for AIDS Research Virology Core



Mission

The CFAR Virology Core provides services dedicated to AIDS research and supports the *NIH National Centers for AIDS Research Mission** by providing.:

- scientific leadership
- research collaborations
- facilities and equipment
- training and education
- consultation, reagents and experimental support
- Molecular Reagents Supply Center

In conjunction with this mission, the Core provides HIV research support for the entire UAB campus as well as external CFAR collaborators. The Core thereby provides important underpinning not only to NIH funded individual grants, but also to international HIV/AIDS vaccine development efforts through consortia like CHAVI, CAVD and IAVI.

Our focus is on the specific needs of our Users in order to facilitate reaching their research goals with customized consultation, training, reagents, assays and access to well-equipped BSL2+ facilities.

We have a vast database of virologic reagents that have been developed at UAB and which can be made available to Users.

*<http://www.niaid.nih.gov/labsandresources/resources/cfar/about/pages/mission.aspx>

Personnel

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Services for HIV/AIDS Research

The CFAR Virology Core focuses on two primary activities:

- (i) to provide campus-wide access to state-of-the art laboratory infrastructure for HIV centered BSL2+ research, and
- (ii) to offer a range of customized services, including consultation, training, assay performance and reagent provision which facilitate the HIV research of our CFAR members.

The Virology Core removes barriers to engage in research requiring work with infectious HIV, especially for junior investigators or those new to the HIV field:

Work with "live" HIV requires appropriately equipped laboratory infrastructure for BSL2+ research. By providing such resources,

- Provision of access to this infrastructure starts with initial biosafety training, and training in fundamental HIV methods.
- The Virology Core monitors ongoing operation to assure biological safety compliance as mandated by NIH guidelines and UAB Biosafety regulations and coordinates continuous maintenance activities for equipment and facilities.

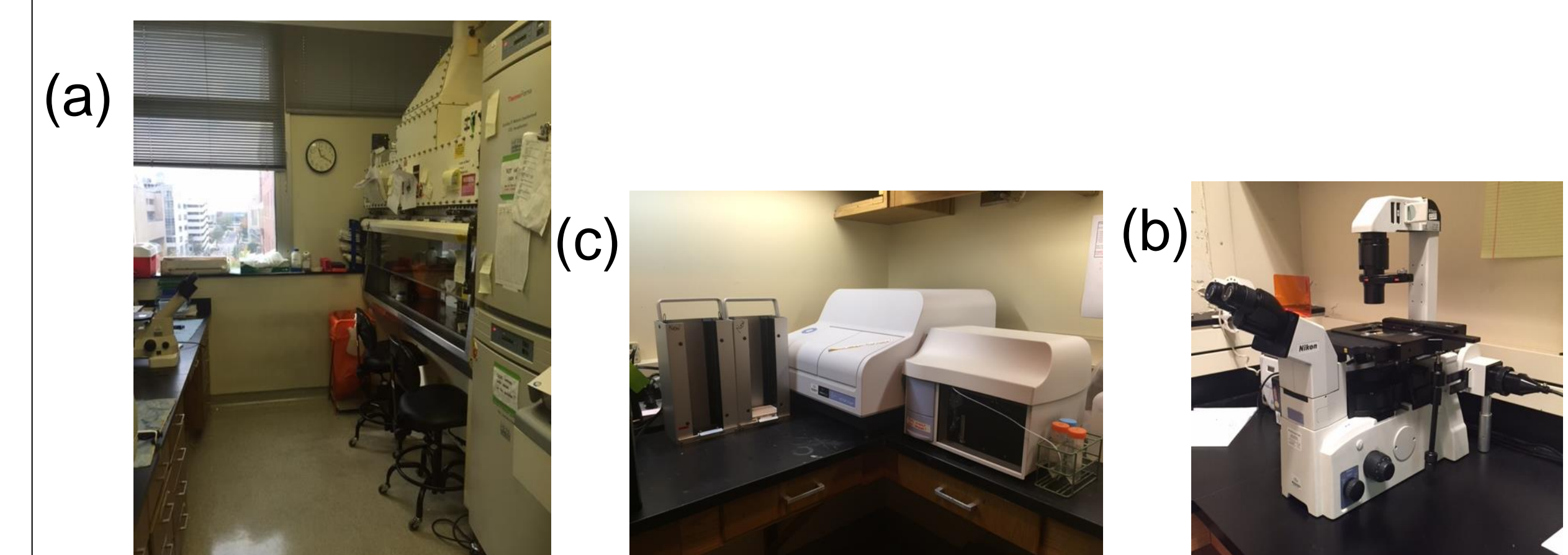
The Virology Core delivers customized services to augment the capabilities and productivity of CFAR researchers:

- The Core offers consultation for all aspects of HIV/AIDS research using infectious virus or vectors, including training for a wide range of experimental methods;
- We offer support with and execution of standardized and developmental assays;
- we provide review of experimental approaches and data, especially for junior investigators and those new to the HIV field;
- We make available a range of state-of the art virologic tools (e.g. transmitted/founder HIV strains; various reporter HIV and SIV) and serve as a central resource of research materials that have been generated by UAB CFAR researchers.

BSL2+ Biosafety Facilities

BSL2+ Laboratories (LHRB 6th floor; BBRB 5th floor)

- **Self-contained, fully equipped tissue culture suites**, each with Class II externally vented laminar flow biosafety cabinets for dedicated HIV and SIV culture work((Fig a).
- **Main suite with common shared equipment**, including
 - reverse phase and fluorescence microscopes with a range of filter cubes and camera with monochrome and color digital imaging which can be used with live HIV cell cultures (Fig. b)
 - Beckman XL-90 ultracentrifuge
 - high-speed and refrigerated table top centrifuges
 - cryostat
 - monitored -80C freezers & liquid N₂ tank storage.
 - ELISA plate washer and plate reader
 - Access to Perkin-Elmer (*Victor 3* and *Victor X light* (Fig. c) and Promega (*Glowmax*) Luminometers
 - Electronic cell counter
 - Cytospin centrifuge
 - *Celltron* non-static cell culture shaker platform



Molecular Biology Supply Center

- BBRB 346 on-site access to commercially available research reagents and supplies at discounted prices without shipping cost:
 - Life Technologies (Thermo Fisher Scientific)
 - Qiagen
 - New England Biolabs
- Non-stocked items can be ordered (includes Bio-Rad)