



DC CFAR Basic Sciences Core

CORE SERVICE PROVIDERS

Virology Core Laboratory

The DC CFAR Virology Core Laboratory, based in the Infectious Diseases Laboratory at the DC Veterans Affairs Medical Center, provides discounted, high-throughput virology assays for HIV and HCV for the DC CFAR investigator community. The laboratory is certified by the College of American Pathologists (CAP) and participates in ongoing proficiency testing.

Contact: Rebecca Shinol, MD rebecca.shinol@va.gov

Virus Detection and Analysis Molecular Virology Core Laboratory

The Virus Detection and Analysis Molecular Virology Core Laboratory at The George Washington University provides services related to analysis of various steps of HIV replication in target cells and the effects of anti-HIV compounds and treatments. It can evaluate stages of reverse transcription, integration, transcription, and viral release, analyze cell-to-cell transmission, and isolate virus from primary infected cells.

Contact: Michael Bukrinsky, MD, PhD mbukrins@gwu.edu

NGS CFAR Core Laboratory

The DC CFAR NGS Core Laboratory, based in Dr. Jordan's Laboratory at The George Washington University, School of Public Health in the Science and Engineering Hall, provides NextGen Sequencing assays on the MiSeq and NextSeq NGS instruments for HIV, HCV, and human host cells for the DC CFAR investigator community.

Contact: Jeanne Jordan, PhD jajordan@gwu.edu

RCMI Proteomics Core Laboratory

The RCMI Proteomics Core Laboratory, located at Howard University Hospital, provides services associated with analysis of an entire complement of proteins related to a particular process. The laboratory runs several research projects and provides collaborative consolidation of instrumentation, technical expertise, and support personnel to enhance the impact and availability of mass spectrometry and other analytical techniques.

Contact: Sergei Nekhai, PhD snekhai@howard.edu

Molecular Modeling and Drug Discovery Core Laboratory

The Molecular Modeling and Drug Discovery lab at Howard University provides DC CFAR investigators with priority services to help translate their basic science discoveries to clinical therapies. The small molecules obtained from structure-based or cheminformatics approaches can also be used as the chemical probes to decipher the complex biomedical mechanisms. The laboratory offers extensive infrastructure and expertise in molecular modeling and modern drug discovery as well as training on the use of available hardware and software and quality control.

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Research Pathology Core Laboratory

The Research Pathology Core Laboratory at The George Washington University is available to provide histology and pathology services for DC CFAR clinical and basic science investigators. Its mission is to provide quality histological tissue preparation and processes in a timely and cost-efficient manner for research cell and tissue specimens, including frozen sections, tissue processing, embedding, sectioning, routine H&E and special stains, frozen sections and Immunohistochemistry. The lab can also provide expertise in-house to assist investigators in developing new histological approaches that can further their research productivity.

Contact: Patricia Latham, MD pslath@gwu.edu

Flow Cytometry and Cellular Immunology Core Laboratory

The Flow Cytometry and Cellular Immunology Core Laboratory at The George Washington University provides technical expertise and advice for the analysis, design, development and implementation of procedures to assess immune cell subsets and other biomarkers associated with immune system functional status. The lab is located within the Flow Cytometry Core Facility at the George Washington University.

Contact: David Leitenberg, MD, PhD dleit@gwu.edu

Multiparametric Flow Cytometry Core Laboratory

The Multiparametric Flow Cytometry Core Laboratory at The George Washington University has a BD customized Fortessa x-20 with 4 lasers, Blue-488-50mw, Red-640-100mw, Violet-405-50mw and the Yellow Green-561-50 mw, and includes a HTS system and a working station. The instrument is available for booking for those trained in its usage.

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Biacore Molecular Interaction Shared Resource

The Biacore Molecular Interaction Shared Resource (BMISR) at Georgetown University provides customized biomolecular analysis services. This technology involves the immobilization of a ligand on a sensor chip followed by delivery of an analyte by a microfluidic system. Any protein, DNA, RNA, lipid, carbohydrate, polysaccharide, cell, virus, drug or drug-like molecule (organic or inorganic) can be used as the ligand or analyte.

Contact: Aykut Uren, MD au26@georgetown.edu

Microscopy and Imaging Core Laboratory

The Microscopy and Imaging Core Laboratory provides DC CFAR investigators with priority access to instrumentation for microscopic image acquisition and data analysis, training on the use of available equipment, quality control of the acquired microscopic images and data analysis. In addition to routine confocal imaging, the core offers its extensive infrastructure and expertise in life cell microscopic imaging and analysis and infrastructure for transmission electron microscopy.

Contact: Anastas Popratiloff, MD, PhD anastas@gwu.edu

Center for Functional and Molecular Imaging

The Center for Functional and Molecular Imaging (CFMI) at Georgetown University provides access to a 3T MRI Scanner, a stand-alone high-density EEG system and two Near Infrared Spectroscopy (NIRS) systems.

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