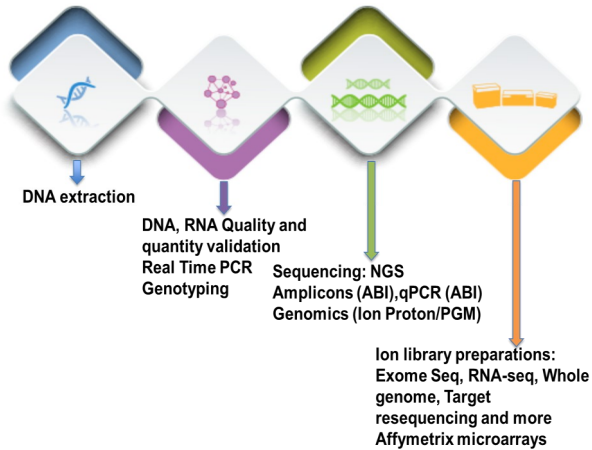


Services Available

GSC Services



Molecular Biology Core Services

- Sanger DNA sequencing

Molecular Biology Core Equipment

- Bio-Rad VersaArray Chip Reader for Two-color microarrays and Labline Hybridization Oven
- Nanodrop 8000 and 1000 Spectrometers
- ABI 3500 Genetic Analyzer
- Tissue Culture Rooms
- Several Thermal Cyclers
- Millipore MilliQ Integral 15 Water Purification System

At the GSC we have a variety of thermal cyclers, some with gradient capabilities, to optimize your PCR reactions. We also have refrigerated centrifuges that accommodate tubes of different sizes, as well as 96-well plates and gel electrophoresis systems using agarose and polyacrylamide.

Genomics Service Core EQUIPMENT

- Thermal Cyclers - BioRad T100, and others
- Affymetrix GeneChip GC 3000 7G System*
- Illumina iScan System
- Agilent Bioanalyzer
- Qiagen QIAcube
- Bio-Rad EZ Gel Documentation System
- -80°C and liquid N₂ storage
- Next Generation Sequencing - Ion Proton and Ion Torrent PGM* and Accesosry equipment *
- Nanopore MinION and MiniT data storage
- Invitrogen iBlot 2 and Licor C-Digit scanner
- QuantStudio 6 Real Time PCR
- Nanodrop spectrophotometer—for 1 or 8 samples

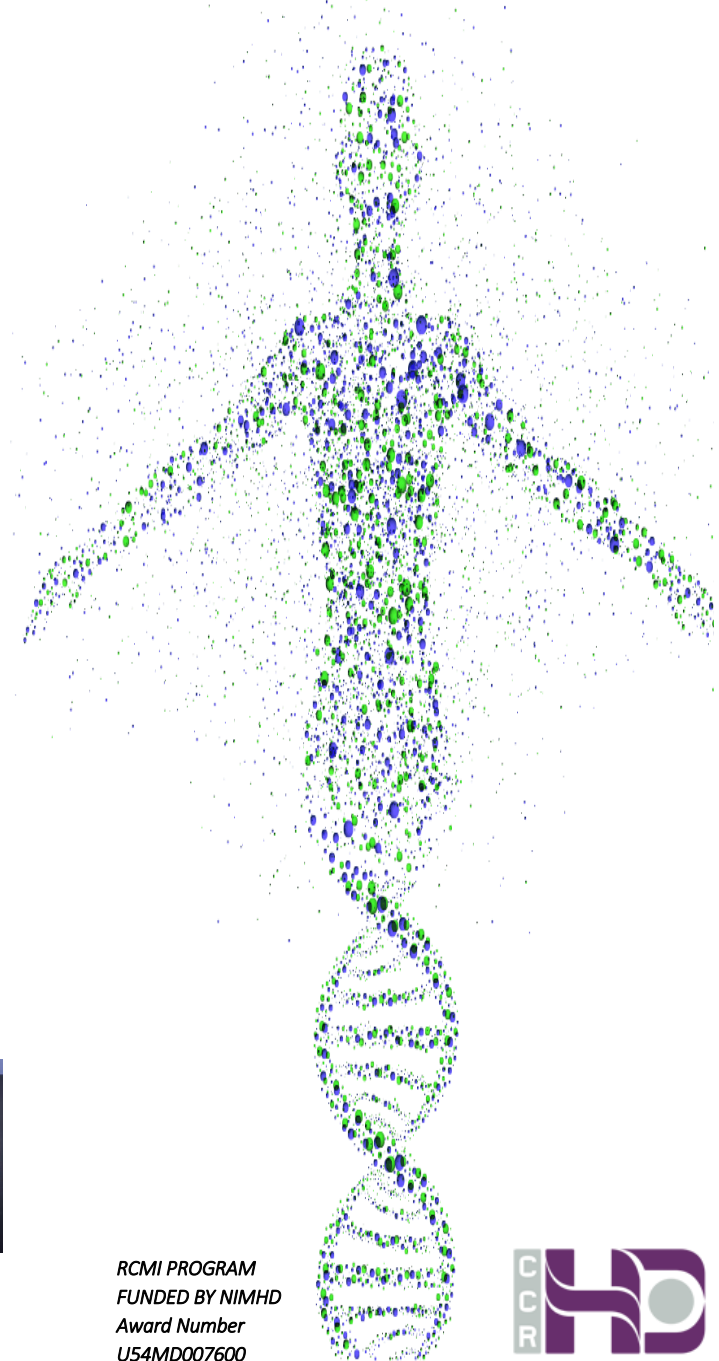
RISE Equipment located at the GSC facilities

- StepOne Plus Real Time PCR System
- EPMotion 5070 Automated Pipettor
- Licor Odyssey CLx Imager + MousePod
- Perkin Elmer Fluorimeter
- Beckman UV-Vis Spectrophotometer with Peltier thermal capabilities
- BioRad Zoe Microscope
- ForteBio BLITz Biolayer Interferometer
- Countess II FL Automated Cell Counter



Nanodrop spectrophotometer, BLITz interferometer and Beckman UV-Vis DU 730 spectrophotometer

GENOMICS SERVICE CORE



RCMI PROGRAM
FUNDED BY NIMHD
Award Number
U54MD007600



Genomics Services Core Staff

The overall goal of the RCMI Infrastructure Core is to function in a synergistic way to maximize the quality and productivity of the research projects proposed and the pilot projects funded, as well as link RCMI faculty and scholars with other researchers at the institution.

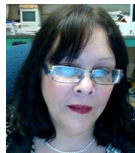
Genomics Translational Research Unit

Director:

Dr. Carmen L. Cadilla

carmen.cadilla@upr.edu

(787)754-4366



Director Molecular Biology

Core Lab:

Dr. José R. Rodríguez-Medina

Jose.rodriguez123@upr.edu

(787)758-2525 ext. 2299



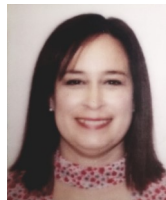
Molecular Geneticist

Jessica Y. Renta, M.S.

Jessica.renta@upr.edu

(787)758-2525

exts. 1372 or 1638



Research Associate

Lilliam Villanueva, M.S.

(787)758-2525

ext. 1633 and 2299



We are located in the Biochemistry Department, 6th floor, Guillermo Arbona Building.

Genomics Service Core



Ion PGM™ for genes (up to 400 base reads). **Ion Proton™** for genomes (up to 200 base reads). From gene panels to exomes and beyond.



Support Whole genome, exome, RNA and amplicon sequencing



The **Agilent 2100 Bioanalyzer** is a microfluidics-based platform for sizing, quantification and quality control of DNA, RNA, proteins and cells. Chips are used ifor quality control in real time PCR, DNA and RNAseq and microarray analysis.

QuantStudio™ 6 Flex Real-Time PCR System facilitates real-time PCR based applications, has six decoupled excitation and emission filter channels.



Nanopore technology- **MinION** allows long sequence reads.

The **Affymetrix GeneChip** and **Illumina iScan** scanners. The GeneChip Scanner supports genotyping and expression analysis while the iScan scanner provides an affordable high-throughput genotyping platform, used in the All of US NIH project



The **ABI 3500 Genetic Analyzer** is an 8-capillary sequencing instrument that includes the 3500 Series Data Collection Software, a Dell Workstation and monitor, which support sequencing and fragment analysis, and integrates seamlessly with downstream software for secondary analysis of genetic data.



The **QIAGEN QIAcube** uses advanced technology to process Qiagen spin columns with protocols for purification of **SMALL SAMPLES** of plasmid DNA, genomic DNA, RNA, viral nucleic acids, and proteins.

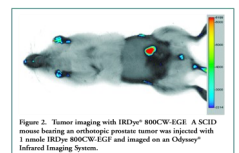


Figure 2. Tumor imaging with IRDye® 800CW-E6E. A SCID mouse bearing an orthotopic prostate tumor was injected with 1 nmole IRDye 800CW-E6E and imaged on an Odyssey® Infrared Imaging System.

The **Odyssey CLx Imaging System**

- Introduces a new standard for

Western blot analysis –direct infrared fluorescence detection. It supports many applications, including Western blot analysis, EMSA, protein arrays, In-Cell Western™ Assays, On-Cell Westerns, in vivo imaging, Coomassie gel documentation, DNA gel documentation and tissue section analysis. Infrared detection gives you the quantitative analysis and wide linear dynamic range that chemiluminescence can't.